

# How Much Does the Federal Government Owe?

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*The U.S. government faces severe fiscal challenges due to trillion dollar annual budget deficits and mounting public debt. But the liabilities are much larger than the public debt, due to commitments the government has made to federal employees, to veterans and to seniors. In addition, it has made explicit and implicit commitments to current workers and retirees through the Social Security and Medicare programs.*

## Executive Summary

The growing government debts of countries across the globe continue to dominate headlines. Greece, for example, has been on the verge of defaulting on bonds held by foreign governments and the public. Its public debt is one-and-one-half times as large as its annual gross domestic product (GDP). In comparison, the United States' publicly held debt is expected to exceed 70 percent of GDP this year.

However, the public debt is only one part of the federal government's total liabilities — defined in official reports as “obligations of the government resulting from prior actions that will require financial resources.” For example, in addition to the public debt, federal civilian and military employees have accrued significant pension and other retirement benefits based on their employment in previous years. These obligations are already on the books and will be paid out in the future.

In 2011, the federal government owed \$10.2 trillion in public debt, accrued federal employee pension and other retirement benefits of \$5.8 trillion and other federal liabilities of \$1.5 trillion, for a total of \$17.5 trillion. These liabilities are reported each year on the federal government's balance sheet.

However, Social Security and Medicare benefits payable to current retirees are not included as liabilities on federal balance sheets, though these two programs currently account for over one-third of federal spending. Including these accrued obligations would provide a more comprehensive picture of the liabilities of the United States. The accrued Social Security and Medicare benefits payable to current retirees are \$12.8 trillion. The public debt plus benefits payable to federal workers and the accrued Social Security and Medicare benefits payable to retirees total \$30.3 trillion. These accrued Social Security and Medicare benefits payable to current retirees are only modestly affected by major reforms, partly because the changes are phased in over a period of years. These accrued benefits, like the accrued retirement benefits of federal workers, represent liabilities that arise from prior actions and are likely to be paid. Distinguishing between liabilities that arise from



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## How Much Does the Federal Government Owe?

past actions and the obligations that are expected to arise in coming years allows us to identify the share of the long run fiscal imbalance that is already on the government's books. This fiscal imbalance is equal to the current debt held by the public plus the unfunded obligations of all federal government programs, or the amount by which future expenditures exceed projected revenues.

In 2011, a conservative estimate of these amounts totaled \$84 trillion. More than one-third of this amount — \$30.3 trillion — is due to public debt holders, federal employees or current retirees through their Social Security and Medicare benefits. The remaining two-thirds

can be affected by policy changes, and much of this remainder is for Social Security and Medicare benefits.

We could try to meet these obligations by raising taxes. But how much of the economy can the government claim in taxes each year without adversely affecting GDP growth? The funding shortfall is 5.7 percent of the present value of all future GDP. This implies that in the long run the federal government will need to increase taxes from its previous 50-year average of 18 percent of GDP to 24 percent of GDP or a tax increase of 30 percent. The growth of the economy will slow as a result, making it more difficult to meet the federal government's unfunded obligations.

### About the Authors

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**Andrew J. Rettenmaier** is the Executive Associate Director at the Private Enterprise Research Center at Texas A&M University. His primary research areas are labor economics and public policy economics with an emphasis on Medicare and Social Security. Dr. Rettenmaier and the Center's director, Thomas R. Saving, presented their Medicare reform proposal to U.S. Senate Subcommittees and to the National Bipartisan Commission on the Future of Medicare. Their proposal has also been featured in the *Wall Street Journal*, *New England Journal of Medicine*, *Houston Chronicle* and *Dallas Morning News*.

Dr. Rettenmaier is the coprincipal investigator on several research grants and also serves as the editor of the Center's two newsletters, PERCspectives on Policy and PERCspectives. He is coauthor of a book on Medicare, *The Economics of Medicare Reform* (Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 2000) and an editor of *Medicare Reform: Issues and Answers* (University of Chicago Press, 1999). He is also coauthor of *Diagnosis and Treatment of Medicare* (Washington, D.C.: American Enterprise Institute Press, 2007). Dr. Rettenmaier is a senior fellow with the National Center for Policy Analysis.

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Dr. Saving has authored many articles and two influential books on monetary theory. He has been President of the Western Economics Association and President of the Southern Economics Association. After receiving his Ph.D. in Economics in 1960 from the University of Chicago, Dr. Saving served on the faculty of the University of Washington and Michigan State University. He moved to Texas A&M University in 1968, and served as chairman of the Department of Economics at Texas A&M from 1985-1991. Dr. Saving is a senior fellow with the National Center for Policy Analysis.

*“Liabilities are obligations of the government resulting from prior actions that will require financial resources.”<sup>1</sup>*

## Introduction

The U.S. government faces severe fiscal challenges due to trillion dollar annual budget deficits and mounting public debt. But the liabilities are much larger than the public debt, due to commitments the government has made to federal employees, to veterans and to seniors. In addition, it has made explicit and implicit commitments to current workers and retirees through the Social Security and Medicare programs. Some of these commitments, those made to current retirees, are difficult or impossible to change politically. The programs’ obligations that are more likely to change can be identified by distinguishing between benefits that have been earned (or accrued) and benefits not yet earned. Earned benefits are due to past actions, whereas unaccrued benefits relate to future actions. The distinction is important to make because it can tell us how deep a financial hole we are in based on prior actions and how much changes made today would affect the future finances of the government.

The debate leading up to the passage of the Budget Control Act of 2011, the recommendations of two fiscal commissions and the ongoing European debt crisis have raised awareness of the severe fiscal challenges ahead at home and abroad. In the United States the focus is both on the magnitude of current federal public debt and the future projected deficits.

Several comprehensive measures developed in recent years account for the fiscal condition of the federal government decades into the future — including generational accounting, the fiscal gap and the fiscal imbalance. [See the Glossary for definitions of terms.] These measures include the so-called “unfunded obligations” of Medicare and Social Security. Unfunded obligations are the present value of future program expenditures less program revenues. Thus, a program’s unfunded obligations measure future funding shortfalls.<sup>2</sup> The total unfunded obligation of all federal government programs plus the debt held by the public is a measure of the total fiscal imbalance for the federal government.<sup>3</sup>

*“Unfunded federal obligations total \$84 trillion.”*

The Medicare and Social Security Trustees Reports include estimates of the unfunded obligations of elderly entitlement programs over the next 75 years and the infinite horizon (or indefinite future). These estimates can be broken down into the shortfalls associated with current participants and the shortfalls associated with future participants.

The unfunded obligation measures all rely on assumptions about the future path of major categories of federal spending including defense, health care and Social Security. They also include

assumptions about primary revenue sources, such as payroll taxes, and personal and corporate income taxes. Ultimately, the present value of future deficits is based on assumptions about the growth rates of these expenditure and revenue categories. Projections of future expenditures and revenues use the law as currently written as their baseline — but the law may change for some categories of spending and taxes.

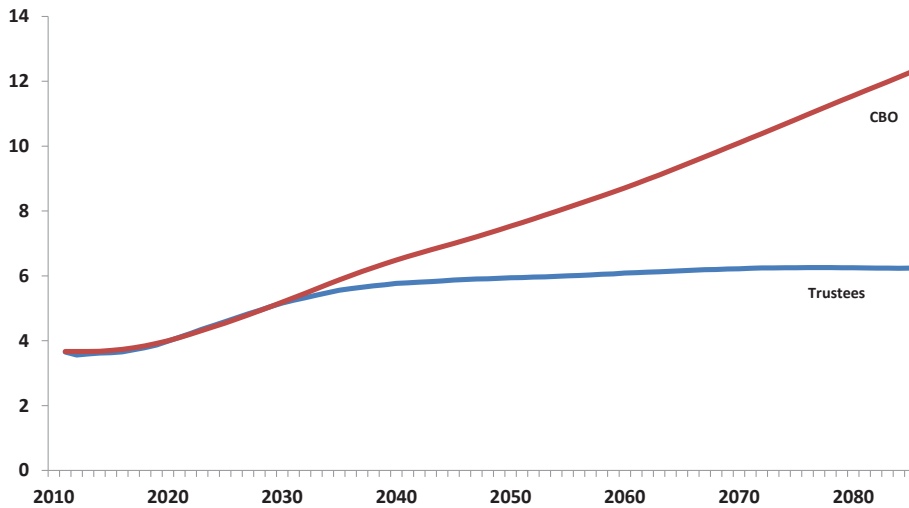
## Long-Range Social Security and Medicare Forecasts

Both the Congressional Budget Office (CBO) and the Trustees of Social Security and Medicare make long-range projections of Medicare and Social Security expenditures. Social Security benefits can be predicted accurately for current and near-term retirees because benefits are based on workers’ past earnings and earnings estimates for future retirees. Long-range forecasts, however, depend on numerous assumptions about wage growth, price level changes, unemployment, immigration, longevity improvements and fertility. Despite the various assumptions they independently make, the agencies’ estimates of Social Security spending in 2050 are quite similar at 5.9 percent and 5.98 percent of gross domestic product (GDP), respectively.

The CBO and the Trustees projections for Medicare, however, differ significantly. Health care spending forecasts are inherently complicated, and the size of retirees’ Medicare benefits is independent of their past earnings. Further, the Patient Protection and Affordable

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**Figure I**  
**Medicare Spending as a Percent of GDP**  
**2011 Trustees Report and 2011 CBO Long-Term Budget Outlook**



Sources: 2011 Medicare Trustees Report and 2011 Congressional Budget Office – Long-Term Budget Outlook.

Care Act (ACA) required significant changes to both groups' forecasts.

In projecting future Medicare expenditures, the CBO has historically assumed higher growth rates in per capita health care spending than have the Trustees. In interpreting the ACA provisions, the Trustees have assumed that under the new "current law," long-run future spending will be significantly lower than previously projected, whereas the CBO does not assume long-range spending will be restrained to the same degree. Thus, the CBO's and the Trustees' projections are similar over the next 10 years, but thereafter the CBO allows spending to return to pre-reform growth rates.

Figure I shows these differing assumptions and interpretations of current law produce quite different Medicare long-run spending estimates. For example:

- The Trustees estimate Medicare spending will rise from its current level of 3.65 percent of GDP to 5.94 percent of GDP by 2050.
- The CBO estimates Medicare spending will rise 25 percent higher, to 7.5 percent of GDP.
- By midcentury, after taking into account tax and premium revenues, Medicare will require almost one-in-three dollars of federal income tax revenues (30 percent) based on the Trustees forecasts, and based on the CBO estimates Medicare will require over 40 percent of income taxes (at their historical share of GDP).

However, components of the fiscal imbalance provide a good idea of how much of the shortfall is due to past actions and how much is due to future actions. This is an important distinction because future spending arising from past

commitments is more difficult to reduce by policy change than future spending that isn't based on past commitments. This study is based on a variant of the fiscal imbalance measure that breaks down unfunded federal obligations between the portions due to past commitments and the portions subject to future policy.

Specifically, the infinite horizon fiscal imbalance used here is the sum of:

- Obligations due to past actions — the current debt held by the public plus accrued pension and health care obligations, including accrued federal employees' pension and health care liabilities and net Social Security and Medicare benefits payable to current retirees, plus a few other smaller liability categories;
- Plus the present value of the remaining deficits (or surplus), which are largely contingent on future policy. [See the Appendix for the definitions of each component.]

### **Assets and Liabilities on the Government's Balance Sheet**

A full accounting of the federal government's financial condition must count assets as well as liabilities. As of 2011, the value of the government's assets was \$2.7 trillion and the value of its liabilities was \$17.5 trillion, according to the *Financial Report of the United States Government*. Specifically:

- The assets include property, plant and equipment equal to \$853 billion; loans receivable and investments equal to \$985

billion; and cash and monetary assets, inventories and other assets of \$869 billion.

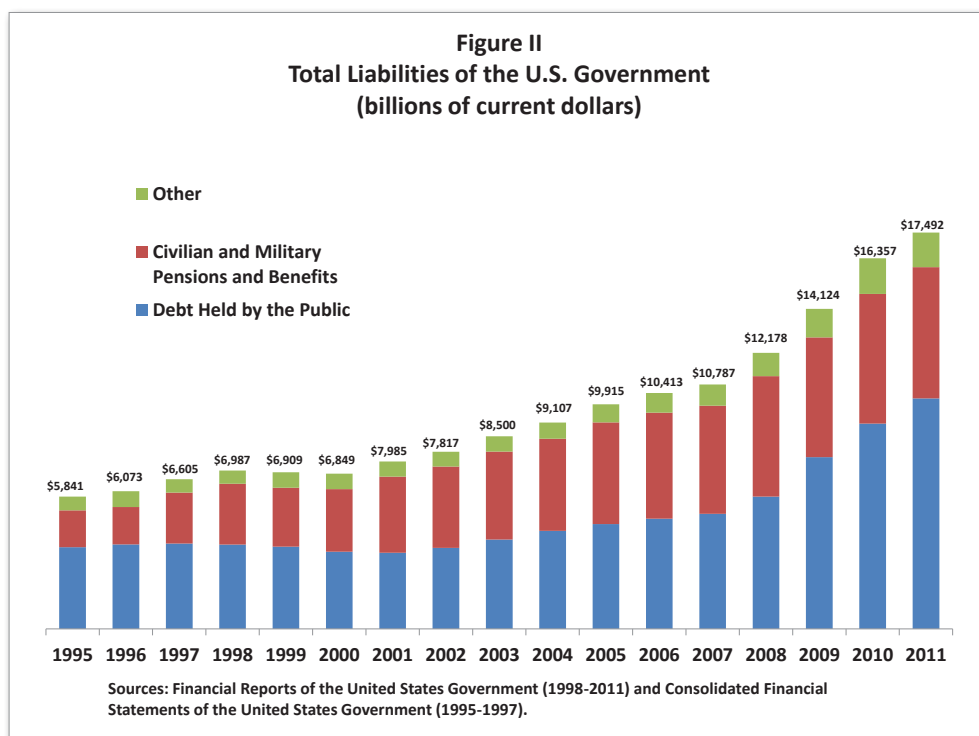
- The liabilities include government debt held by the public equal to \$10.2 trillion; civilian and Military Pensions and Benefits payable of \$5.8 trillion; and other liabilities equal to \$1.5 trillion.<sup>4</sup>

Figure II shows the liabilities of the U.S. federal government. Absent from these liabilities are intergovernmental debts — primarily the Social Security and Medicare Trust Funds and the securities held in the federal employees’ pension accounts. The reason is that though the securities in these trust funds are assets of the particular programs, they are also liabilities to the Treasury, and thus cancel out each other in the consolidated financial statements of the federal government. As the figure indicates:

- Total liabilities grew significantly from \$10.8 trillion to \$17.5 trillion between 2007 and 2011, or 62 percent, with the debt held by the public accounting for 75 percent of the growth.
- In 2011, 58 percent of the liabilities on the federal government’s balance sheet were debts held by the public, 33 percent was associated with accrued civilian and military pensions and benefits and the remaining 9 percent was other liabilities.<sup>5</sup>

## Liabilities for Civilian and Military Pension and Other Retirement Benefits

The most common retirement plan for private sector employees



are defined contribution retirement plans, but defined benefit pension plans dominate the public sector. At the federal level virtually all full-time employees are covered by a defined benefit pension plan. Almost 90 percent of full-time state and local government workers are covered by defined benefit pension plans. But only a quarter of private sector employees are in defined benefit plans.

Figure II shows that liabilities for federal pensions and other post-employment benefits (OPEB) rose from \$5.3 trillion in 2008 to \$5.8 trillion in 2011.<sup>6</sup> The nonpension liabilities are primarily related to health care and disability benefits.

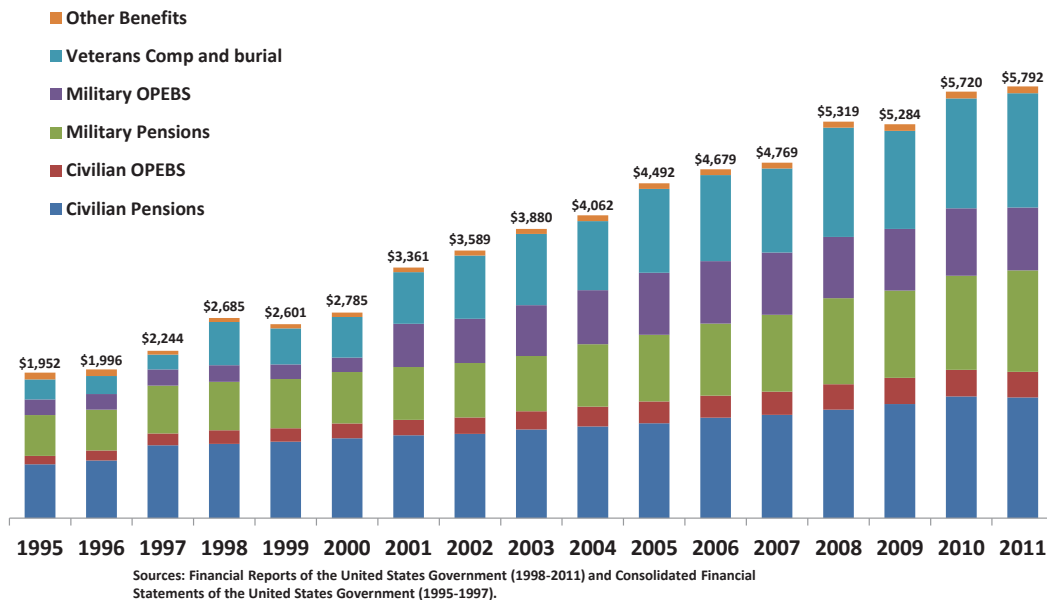
Federal employees’ accrued retirement benefits are comparable in size to those estimated for state and local government employees. Courtney Collins and Andrew J. Rettenmaier previously recalculated state and local pension plans’

liabilities and collected liability estimates for other post-employment benefit (OPEB) liabilities (primarily health care).<sup>7</sup> The recalculation of pension liabilities was necessary because the Government Accounting Standard Board (GASB) allows state and local pension plans to discount their accrued pension liabilities to the present using a discount rate equal to the rate of return expected on pension assets, rather than a lower risk-adjusted rate of return represented by the government borrowing rate. In 2008, the state and local governments reported pension liabilities totaling about \$3.1 trillion. However:

- When the state and local pension liabilities were re-estimated using the government borrowing rate, they rose to between \$4.1 trillion and \$5.2 trillion.<sup>8</sup>
- The total OPEBs across all plans amounted to another \$500 billion.<sup>9</sup>

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**Figure III**  
**Accrued Civilian and Military Pension and Benefit Liabilities**  
**(billions of current dollars)**



- In 2008, using the government borrowing rate, total state and local pension and OPEB liabilities were in the range of \$4.6 trillion to \$5.7 trillion.<sup>10</sup>

Thus, in 2008, liabilities associated with federal employees' accrued retirement benefits were comparable in size to liabilities associated with state and local government employees' retirement benefits.

Figure III shows the composition of accrued pension and OPEB liabilities for federal civilian and military employees:<sup>11</sup>

- The three largest benefit categories in 2011 were civilian pensions of \$1.6 trillion, veterans' compensation and burial benefits of \$1.5 trillion, and military pensions of \$1.4 trillion.<sup>12</sup>
- The combined accrued post-employment civilian and

military health benefits added another \$1.2 trillion liability.<sup>13</sup>

Accrued benefits payable to military personnel have grown as a share of the total federal pension and benefit liabilities as a result of military operations over the past 15 years:

- In 1995, benefits associated with military personnel accounted for 57 percent of the total, but in 2011 they accounted for 65 percent.
- Since 1995, total federal pension and benefit liabilities have grown from about 27 percent to 38 percent of GDP.

### Accrued Social Security and Medicare Benefits

Including civilian and military pensions as liabilities on the federal

government's balance sheet, on par with the debt held by the public, is not questioned, but the inclusion of accrued Social Security and Medicare benefits has been much debated. There are particular issues that arise in accounting for these obligations.<sup>14</sup>

Several measures are used to account for the financial status of Social Security and Medicare. Together, they provide a comprehensive accounting of a program's future scheduled benefits and dedicated tax revenues under current law. A convenient way to summarize the relationship between these accounting mea-

asures is to begin with the perpetuity unfunded obligation. The same basic accounting holds for both Social Security and Medicare, though there are several features that make Medicare's accounting more difficult.<sup>15</sup> [See the Appendix for further explanation of the accounting.]

The components of the accounting for Social Security and Medicare for 2011 are presented in Table I.

The sum of the first two lines in the column for Social Security is the total accrued benefits payable to current participants based on past participation of \$24.2 trillion in 2011; about one-third is payable to current participants who have reached the eligibility age for Social Security (age 62).

The second column in Table I shows the unfunded obligations

of Medicare. There is no official estimate of accrued benefits owed to Medicare’s current participants comparable to the estimate for Social Security.<sup>16</sup> Table I only reports the accrued Medicare benefits for current participants who have reached 65 years of age — the age of eligibility for Medicare — net of tax and premium.<sup>17</sup> The accrued Medicare benefits equal about 63 percent of the accrued Social Security benefits for individuals age 62 and above.

- Together, accrued Social Security and Medicare benefits payable to retirees were \$12,848 billion in 2011 or 26 percent more than official debt held by the public.
- The combined infinite horizon unfunded obligations for the two programs totals \$59.1 trillion.
- Thus, accrued Social Security and Medicare benefits payable to retirees were over one-fifth of the programs’ combined unfunded obligations.

Whether accrued Social Security and Medicare benefits payable to current retirees are comparable to the debt held by the public or the federal employees’ accrued pensions and benefit liabilities is debatable, but they do represent “obligations of the government resulting from prior actions that will require financial resources,” as stated in the *2011 Financial Report of the U.S. Government*.<sup>18</sup>

The first row in Table I is from the “Statement of Social Insurance” (SOSI) in the *2011 Financial Report of the United States Government*.<sup>19</sup> The statement provides a detailed accounting of Social Security and Medicare benefits and taxes over a

**Table I**

**Unfunded Obligations of Social Security and Medicare (2011)**  
(billions of dollars)

	<u>Social Security</u>	<u>Medicare</u>	<u>Total</u>
Net benefits accrued by current retirees	\$ 7,892	\$ 4,956	\$12,848
Net benefits accrued by current workers	\$16,317	*	
Net benefits not-yet accrued by current workers	-\$2,800	*	
Net benefits accrued & not-yet accrued by current workers	\$13,517	\$19,744	\$33,261
Net benefits of future workers	-\$900	\$13,900	\$13,000
Total infinite horizon unfunded obligations	\$20,509	\$38,600	\$59,109

\* There are no "official" estimates of the components of net Medicare benefits for current workers.

Sources: 2011 Social Security and Medicare Trustees Reports, 2011 Financial Report of the United States Government and Actuarial Note, No. 2011.1, Social Security Administration.

75-year horizon for three groups: current participants who have reached the age of eligibility, current participants who have not reached the eligibility age, and future participants.<sup>20</sup>

### **Effects of Policy Changes on Retirees and Near-Retirees**

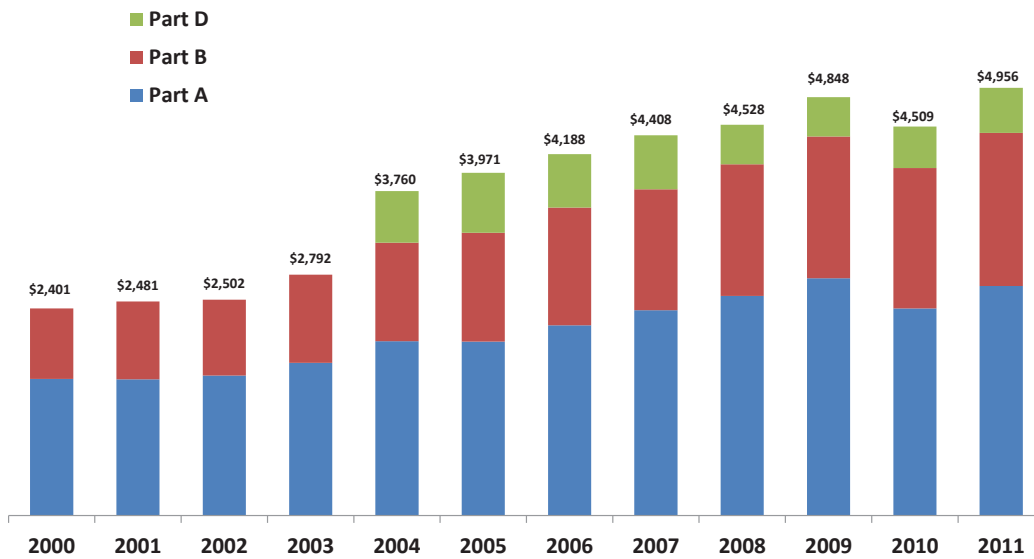
Accrued Social Security and Medicare benefits payable to current retirees are liabilities quite similar conceptually to federal employees’ accrued pensions and benefits in that they derive from prior actions. Demarcating as liabilities only the accrued Social Security and Medicare benefits payable to current beneficiaries who have reached the age of eligibility is arbitrary and

results in a conservative estimate of total accrued liabilities. However, the benefits expected by current beneficiaries are the least likely to be changed by reform. The fact that the payment of future benefits and the magnitude of future taxes can be affected by congressional action has been the rationale for not including Social Insurance programs’ benefit obligations as liabilities. While this is true, the accrued benefits of retirees and near-term retirees deserve further consideration, as the examples below suggest.

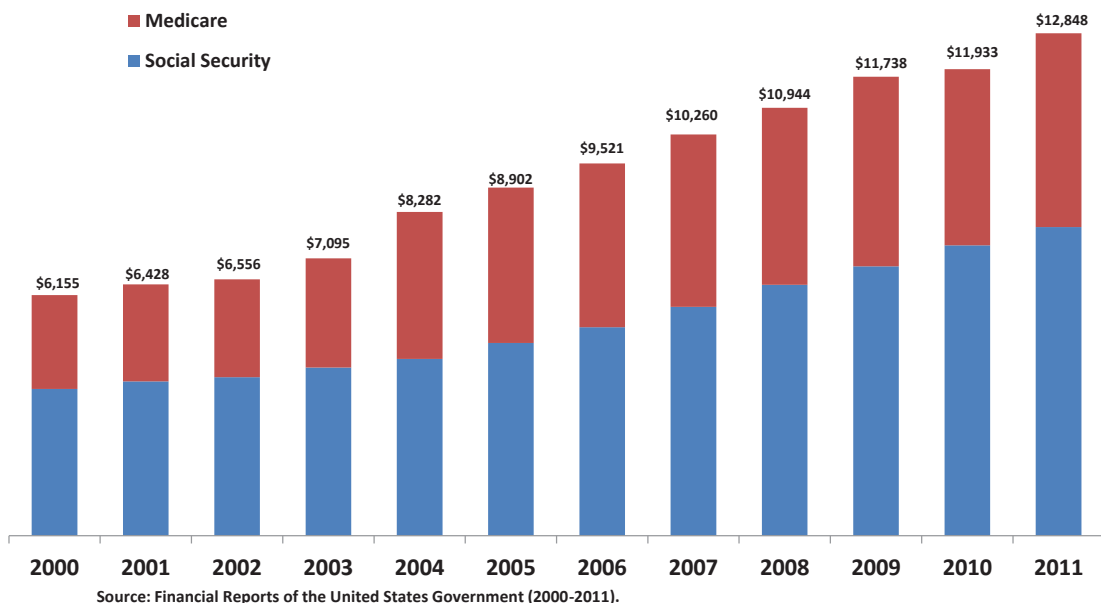
**Example: How the Social Security Benefits Tax Affects Retirees.** Reforms in 1983 introduced taxes on Social Security benefits. These taxes clearly reduced net benefits payable to then-current retirees. However, current

## How Much Does the Federal Government Owe?

**Figure IV**  
**Net Medicare Benefits Payable to Participants Who Have Attained Eligibility Age**  
 (billions of current dollars)



**Figure V**  
**Social Security and Medicare Benefits Payable to Participants Who Have Attained Eligibility Age**  
 (billions of current dollars)



revenues to the Old Age, Survivors and Disability Insurance, and Hospital Insurance funds (OASDI+HI) from the taxation of benefits are only equal to 5.4 percent of current Social Security benefit payments.<sup>21</sup>

**Example: How Changing the Social Security Formula for Cost of Living Adjustments Would Affect Retirees.** Most current Social Security reform proposals do not change benefits for current retirees and many do not change benefits for individuals above 55 years of age. The notable exception is changing the formula used for benefit cost of living adjustments (COLAs). The Bowles-Simpson National Commission on Fiscal Responsibility suggested moving from the current COLA based on the Consumer Price Index-W (CPI-W) to a chained version of the CPI. The Office of the Actuary estimates that this change would reduce retirees' initial benefits by less than 1 percent and long run benefits by 3.4 percent.<sup>22</sup>

Thus, both of these examples suggest



that past and current reforms have modest effects on Social Security benefits payable to current retirees. The 1983 reform largely remedied Social Security's 75-year financial condition at the time of the reform by raising the retirement age in the future and raising taxes and the taxable maximum, but like most of the current reforms under consideration, it mainly impacted future beneficiaries and future accruals.

**Effect of the Affordable Care Act on Retirees' Accrued Medicare Benefits.** Given the volatile nature of health care spending, Medicare may be a different story. Figure IV shows that even a dramatic reform such as the ACA has only modest effects on accrued benefits expected by Medicare beneficiaries who have reached the age of 65.<sup>23</sup> The estimates for 2009 are based on pre-ACA projections while the 2010 estimates are based on post-ACA projections. The Trustees' long-run projections in these two years were dramatically different.

- Consider that the unfunded obligations for Hospital Insurance (Part A) over the next 75 years dropped 81 percent from \$13.8 trillion in the 2009 report to only \$2.7 trillion in the 2010 report.
- Over the infinite horizon the unfunded obligation for Part A was \$36.7 trillion based on the 2009 report, but was essentially eliminated based on the 2010 post-ACA report.
- Overall the infinite horizon unfunded obligations across all parts of the program dropped from \$89 trillion to \$37 trillion, or by 59 percent, between the 2009 and 2010 Reports.<sup>24</sup>

The significant long-run reduction in projected Medicare spending due to the Affordable Care Act only reduce the accrued benefits of beneficiaries 65 years old and above by 7 percent, based on comparing the 2009 and 2010 estimates made before and after the ACA was enacted.<sup>25</sup> This minor reduction in accrued benefits, viewed in light of the dramatic long-range reductions, suggests that benefits payable to retired Medicare beneficiaries, like those payable to retired Social Security beneficiaries, merit inclusion as liabilities of the federal government.

*“The federal government already has about \$30 trillion in commitments made in the past.”*

The modest reductions for retirement-aged beneficiaries are due in part to the time it will take to fully implement the ACA reforms, should they actually be implemented. Further, most observers believe that much of the cost constraints as scored in the 2010 and 2011 Medicare Trustees Reports will not be realized.<sup>26</sup> Thus, most of the accrued benefits payable to Medicare participants who have reached to age of eligibility are likely to be realized.<sup>27</sup>

Past Social Security and Medicare reforms had a dramatic impact on the long-range projected finances of the programs, but their impact on current accrued benefits payable to retirement age beneficiaries is limited. Because reforms have little effect on accrued benefits based

on prior participation, we propose adding them to the debt held by the public and the accrued benefits of federal employees as liabilities of the federal government.

Figure V presents Social Security and Medicare benefits payable to participants who have reached the eligibility age for the respective programs. From 2000 to 2011 these combined accrued benefits rose from \$6.2 trillion to \$12.8 trillion. They increased from 63 percent to 84 percent of current GDP over this period.

Figure VI combines Figures II and V. Figure VI shows:

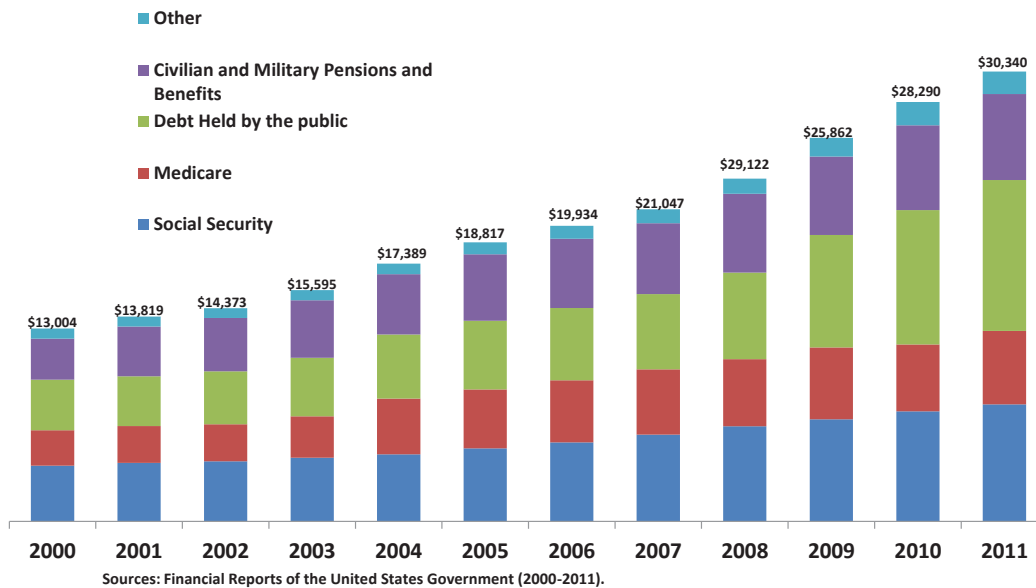
- In 2011, accrued Medicare and Social Security benefits for retirement age beneficiaries, accrued military and civilian retirement benefits, the debt held by the public, and other liabilities totaled \$30.3 trillion.
- In 2011, accrued Social Security and Medicare benefits for the retirement aged participants accounted for 42 percent of the total, federal employee benefits accounted for 20 percent, and the debt held by the public accounted for 33 percent.
- These combined liabilities rose from 132 percent of GDP in 2000 to 199 percent of GDP in 2011.<sup>28</sup>

Because these liabilities will be paid over a period of time, they are presented as a percentage of the present value of estimated GDP for the next 75 years in Figure VII:

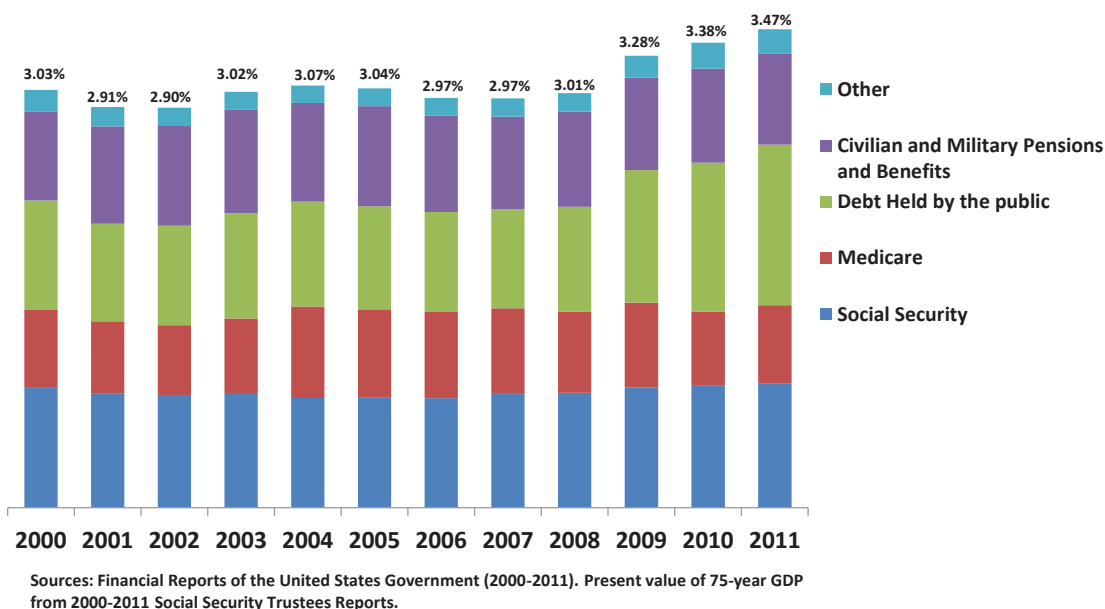
- From 2000 to 2011, the combined liabilities averaged about 3.1 percent of the 75-year GDP.
- With the growth in the debt held by the public, the liabilities stood at 3.5 percent of the 75-year forward GDP in 2011.<sup>29</sup>

## How Much Does the Federal Government Owe?

**Figure VI**  
**Federal Liabilities Including Social Security and Medicare Benefits Payable to Participants Who Have Attained Eligibility Age**  
**(billions of current dollars)**



**Figure VII**  
**Federal Liabilities as Percentages of the Present Value of 75-year GDP**



Over the past 50 years total federal revenues have averaged 18 percent of GDP. This means the debts inherited from prior actions are equal to almost one-fifth of the historical federal tax level. So, going forward, one-in-five dollars of federal revenues is already committed. As mentioned, the estimates for accrued Medicare and Social Security benefits are limited to those expected by current retirees, but if we included near-term retirees the liabilities would be higher, and even higher if all accrued benefits were included. Also, given that much of current retirees' accrued Social Security and Medicare benefits will be paid over the next 25 years, a shorter horizon for the calculation of the present value of GDP may be more appropriate for these liabilities. The appropriate horizon for the calculation of the present value of GDP used to denominate the debt held by the public is an open issue.

## Accrued Liabilities and the Fiscal Imbalance

Thus far this study has focused on liabilities based on prior actions that result in ongoing and future expenses. However, assessing the fiscal position of the federal government at a point in time must also take into account future expenditures based on future actions as well as future revenues. Accrued liabilities can be incorporated in the fiscal imbalance measures by identifying their contributions to future expenditures and revenues.

**Calculation of the Fiscal Imbalance.** Define the infinite horizon fiscal imbalance as:

$$FI^\infty = D + \left( \sum_{t=0}^{\infty} \frac{E_t}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{T_t}{(1+r)^t} \right),$$

with  $D$  equal to the debt held by the public in the evaluation year and  $E_t$  and  $T_t$  equal to expenses and taxes in year  $t$ .  $E_t$  includes the Social Security and Medicare benefits payable in each year as detailed previously, pension and benefit payments to federal employees (based on both past and future accruals) and all other government expenditures, including those based on prior commitments. Likewise,  $T_t$  includes all federal tax revenues in each future year including the benefit taxes and premium payments associated with past accruals. The infinite horizon fiscal imbalance can be rewritten with some simplifying notation as (see the Appendix):

$$FI^\infty = D + PV\tilde{N}B_{ss}^r + PV\tilde{N}B_{care}^r + PV\tilde{B}_{fe} + PV\tilde{E}_{oth} + PVNB_{ss}^{nr} + PVNB_{care}^{nr} + PVNE_{rog}$$

The first five terms are the liabilities presented in Figures VI and VII.  $PV\tilde{N}B_{ss}^r$  and  $PV\tilde{N}B_{care}^r$  are the present values of accrued net Social Security and Medicare benefits for retired current participants, respectively.  $PV\tilde{B}_{fe}$  represents the present value of federal employee accrued retirement benefits and  $PV\tilde{E}_{oth}$  represents the present value of the other accrued federal expenditures included on the balance sheet.

The first two of the remaining three terms,  $PVNB_{ss}^{nr}$  and  $PVNB_{care}^{nr}$  identify the present values of net Social Security and Medicare benefits, respectively, for non-retirees. They thus include the net accrued benefits for current participants, the yet-to-accrue net benefits for current participants, and the net benefits for future participants. As discussed previously in relation to Table I, the accrued benefits of not-yet-retired current participants are significant, and could be accounted for separately, but applying the more restrictive liability designation based on age of eligibility they are included with all net benefits of the nonretired populations. The last term,  $PVNE_{rog}$  captures the present value of the rest of the federal government's remaining expenditures net of remaining taxes.

**Components of the Fiscal Imbalance.** Table II presents the components of the infinite horizon fiscal imbalance as described above. The dollar values in 2011 for the first five rows correspond to the liabilities presented in Figure VI. The next two rows show the remainder of the infinite horizon unfunded obligations for Medicare and Social Security not attributable to current retirees. The last row reflects the infinite horizon fiscal imbalance for the rest of the federal government. It is estimated from the CBO's 2011 Long-Term Budget Outlook.<sup>30</sup> The estimates suggest that the rest of government adds another \$7.0 trillion to the fiscal imbalance for a total fiscal imbalance of \$83.6 trillion.

Note that had the estimates been made in 2009, the total fiscal imbalance would have been up to \$50 trillion higher because long-run Medicare spending projections before the ACA were dramatically higher than projections made after the ACA.<sup>31</sup>

The components are grouped in the bottom panel of the table by "liabilities," net expected benefits for nonretired Social Security and Medicare current and future participants, and for the rest of government. The liabilities account for 36 percent of the estimated fiscal imbalance, the remaining Social Security and Medicare net benefits account for 55 percent and the rest of government accounts for 8 percent.

The other two columns denominate the components of the fiscal imbalance by the present value of the infinite horizon GDP and by the long-run alternative estimate of federal revenues of 18.4 percent of GDP. Overall, the fiscal imbalance is equal to 5.7 percent of the present value of all future GDP which translates into about 31 percent of the long run federal revenue estimate. Thus federal revenues would have to rise immediately and permanently to 24.1 percent of GDP to cov-

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**Table II**  
**Components of the Infinite Horizon Fiscal Imbalance in 2011**  
**Illustrative Estimates**

	2011 Dollars Billions	Percent of Infinite Horizon GDP	Percent of Forecast Federal Revenues	Percent of Fiscal Imbalance
<b><u>Liabilities</u></b>				
Debt	\$10,174	0.70%	3.79%	12.17%
Social Security current retirees, accrued	\$7,892	0.54%	2.94%	9.44%
Medicare current retirees, accrued	\$4,956	0.34%	1.84%	5.93%
Federal employees, accrued	\$5,792	0.40%	2.16%	6.93%
Other accrued	<u>\$1,526</u>	<u>0.10%</u>	<u>0.57%</u>	<u>1.83%</u>
Total liabilities	\$30,341	2.08%	11.29%	36.30%
<b><u>Remaining Obligations</u></b>				
Social Security non-retirees	\$12,617	0.86%	4.70%	15.09%
Medicare non-retirees	\$33,644	2.30%	12.52%	40.25%
Rest of government	<u>\$6,990</u>	<u>0.48%</u>	<u>2.60%</u>	<u>8.36%</u>
Total	\$53,251	3.64%	19.82%	63.70%
Total	<u>\$83,592</u>	<u>5.72%</u>	<u>31.11%</u>	<u>100.00%</u>
<b>Summary</b>				
Debt+ Accrued Social Security, Medicare, federal employee, and other accrued	\$30,341	2.08%	11.29%	36.30%
Remaining Social Security and Medicare	\$46,261	3.17%	17.22%	55.34%
Rest of government	<u>\$6,990</u>	<u>0.48%</u>	<u>2.60%</u>	<u>8.36%</u>
Total	<u>\$83,592</u>	<u>5.72%</u>	<u>31.11%</u>	<u>100.00%</u>

Sources: 2011 Social Security and Medicare Trustees Reports, 2011 Financial Report of the United States Government, Rest of government net expenditures adapted from 2011 CBO Long-Term Budget Outlook. The forecast federal revenues are equal to 18.4 percent of GDP based on the alternative forecast from the 2011 CBO Long-Term Budget Outlook.

er the fiscal imbalance. The liabilities already on the federal government's books will require an amount equal to 11.3 percent of estimated long-run federal revenues.

## Conclusion

The mounting sovereign debts at home and abroad continue to affect financial markets around the world. The U.S. debt held by the public is expected to exceed 70 percent of GDP this year. However, other commitments associated with federal employees' accrued pension and benefits are also reported as liabilities in the financial statements of the federal government. In 2011 these liabilities combined with the debt held by the public and other liabilities totaled \$17.5 trillion or 117 percent of GDP.

Other obligations of the federal government including accrued Social Security and Medicare benefits, which are conceptually similar to accrued federal pension and benefit liabilities, should also be considered federal liabilities. Including a conservative estimate of these commitments — accrued benefits payable to current participants who have reached the age of eligibility — raises total federal liabilities in 2011 to \$30.3 trillion or almost 200 percent of GDP.

Current participants in Social Security and Medicare younger than the retirement age also have accrued significant benefits that meet the conceptual definition of a liability, even though these accrued benefits can be affected by future policy changes. Importantly, accrued benefits payable to individuals close to retirement are less likely than the benefits accrued by younger workers to be significantly reduced through reforms. Thus, given that the bulk

of the baby boomer generation is on the cusp of retirement, their accrued benefits are substantial.

This study also showed how liability measures based on prior actions are related to forward-looking fiscal measures. The infinite horizon fiscal imbalance in any year is equal to the current debt plus the present value of all future deficits or surpluses. The future expenditures arise from prior and future commitments. Thus the fiscal imbalance is composed of net liabilities based on commitments arising from prior actions and net future obligations or surpluses based on future, and importantly, dynamic, expenditure and taxing policy. The study estimates that liabilities based on prior actions account for about 36 percent of the fiscal imbalance. The remainder can be affected by policy changes, and much of this remainder is associated with Social Security and Medicare.

It is often noted that the primary asset of the federal government is its sovereign power to tax. The question, though, is how much of the economy the government can claim in taxes each year without adversely affecting GDP growth. Illustrative estimates indicate a fiscal imbalance of 5.7 percent of the present value of all future GDP, implying that the federal government in the long run will claim about 24 percent of GDP, significantly higher than the previous 50-year average of 18 percent.<sup>32</sup> These estimates are probably on the low end, and consequently projected long run federal spending could be significantly higher. State and local government spending currently accounts for 11 percent of GDP; thus government is likely to require more than 35 percent of GDP. Any future

growth in government spending as a percentage of GDP is expected to lower the country's growth potential.

All projections suggest that federal spending will grow as a share of the economy in future years. Here, this study suggests that it is valuable to quantify how much of the future spending is based on liabilities that are already on the government's books — that is, identifying how much is due to prior actions. The federal government already recognizes the debt held by the public and the accrued pension and other retirement benefits payable to federal employees as liabilities. These liabilities are reported on the federal government's balance sheet in the annual *Financial Report of the U.S. Government*.

This study argues that federal government liabilities should also include some portion of accrued Social Security and Medicare benefits — those payable to current retirees — because they are conceptually similar to federal employees' accrued benefits and are based on prior actions. The Medicare and Social Security estimates are available in the federal government's Financial Report in the Statement of Social Insurance, but are not reported on its balance sheet. These accrued Social Security and Medicare benefits payable to current retirees are currently larger than the debt held by the public. The study illustrated the Social Security and Medicare benefits payable to current retirees are largely unaffected even after a dramatic policy change. Their inclusion as a liability gives policy makers additional information in assessing the federal government's long run fiscal position.

## How Much Does the Federal Government Owe?

### Appendix

The perpetuity unfunded obligation can be written as:

$$UO^\infty = \sum_{t=0}^{\infty} \frac{B_t}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{R_t}{(1+r)^t}.$$

where  $UO^\infty$  is the perpetuity or infinite horizon unfunded obligation at the valuation year, 0,  $B_t$  are total benefits in year  $t$ ,  $R_t$  are total dedicated revenues in year  $t$ , and  $r$  is the discount rate. The Social Security trust fund is not included as an offsetting asset because we are viewing the unfunded obligation from the consolidated federal budget perspective.

Benefits in each year can be decomposed as follows

$$B_t = \tilde{B}_t^{rcp} + \tilde{B}_t^{wcp} + \bar{B}_t^{wcp} + \bar{B}_t^{fp}.$$

$\tilde{B}_t^{rcp}$  are accrued benefits in year  $t$  payable to retired current participants who, in the case of Social Security, are age 62 and above in the evaluation year,  $t = 0$ . Thus, if 2010 is the evaluation year,  $\tilde{B}_t^{rcp}$  represents the benefits payable in year  $t$  to individuals born in 1948 and earlier based on accruals up to 2010.  $\tilde{B}_t^{wcp}$  and  $\bar{B}_t^{wcp}$  represent benefits in year  $t$  payable to working age current participants who are 15 to 61 years of age in the evaluation year,  $t = 0$  (individuals born in years 1949 to 1995).  $\tilde{B}_t^{wcp}$  represents the current participants' accrued benefits as of the evaluation year and  $\bar{B}_t^{wcp}$  are the current participants' yet-to-be-earned benefits based on continued future participation in Social Security beyond the valuation year. Finally,  $\bar{B}_t^{fp}$  are benefits in year  $t$  payable to future participants who are born in 1996 and later.

Revenues in year  $t$  can be decomposed similarly as

$$R_t = \tilde{R}_t^{rcp} + \tilde{R}_t^{wcp} + \bar{R}_t^{wcp} + \bar{R}_t^{fp}.$$

$\tilde{R}_t^{rcp}$  and  $\tilde{R}_t^{wcp}$  are the benefit taxes payable on accrued benefits in year  $t$  that will be paid by retired current participants and by working age current participants, respectively.  $\bar{R}_t^{wcp}$  and  $\bar{R}_t^{fp}$  are payroll tax revenues and benefit taxes on yet to be earned benefits that will be paid by working age current participants and by future participants.

Putting the benefits and tax revenues together the infinite horizon unfunded obligation can be written as:

$$UO^\infty = \left( \sum_{t=0}^{\infty} \frac{\tilde{B}_t^{rcp}}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{\tilde{R}_t^{rcp}}{(1+r)^t} \right) + \left( \sum_{t=0}^{\infty} \frac{\tilde{B}_t^{wcp}}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{\tilde{R}_t^{wcp}}{(1+r)^t} \right) + \left( \sum_{t=0}^{\infty} \frac{\bar{B}_t^{wcp}}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{\bar{R}_t^{wcp}}{(1+r)^t} \right) + \left( \sum_{t=0}^{\infty} \frac{\bar{B}_t^{fp}}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{\bar{R}_t^{fp}}{(1+r)^t} \right)$$

Each difference in the parentheses in the equation represents the component parts of the infinite horizon unfunded obligation. The unfunded obligation is equal to the present value of net accrued benefits for retired current participants plus the present value of net accrued benefits for working age current participants plus the present value of net yet-to-be-earned benefits for working age current participants plus the present value of net yet-to-be-earned benefits for future participants.

Alternatively, the infinite horizon unfunded obligation can be written as:

$$UO^\infty = PVN\tilde{B}^{rcp} + PVN\tilde{B}^{wcp} + PVN\bar{B}^{wcp} + PVN\bar{B}^{fp} \quad (A.1)$$

The first two terms together, the present values of net accrued benefits for current retirees and current workers, is referred to as the maximum transition costs in the annual Actuarial Note. The third term, the present value of yet-to-be-earned benefits

net of payroll taxes together with the first two terms identify the closed-group unfunded obligation. The close-group unfunded obligation is thus the difference between scheduled benefits and current law benefit, and payroll taxes associated with current participants in the program defined as individuals age 15 and above as of the evaluation year. The estimate spans 100 years and is “closed” to future participants. The last term indicates that the infinite horizon unfunded obligation is equal to the sum of the closed-group unfunded obligation and the present value of net benefits for future beneficiaries. The relationship between Social Security’s and Medicare’s infinite horizon unfunded obligations and the infinite horizon fiscal imbalance measure,  $FI^\infty$ , is outlined below. The study also decomposes the fiscal imbalance between the portions that are consistent with the definition of liabilities and the portions that are contingent on future policy.

Recall from equation (A.1) that the infinite horizon unfunded obligation for Social Security or Medicare can be written as

$$UO^\infty = PVN\tilde{B}^{rcp} + PVN\tilde{B}^{wcp} + PVN\bar{B}^{wcp} + PVN\bar{B}^{fp}$$

This can be rewritten as:

$$UO^\infty = PVN\tilde{B}^r + PVNB^{nr}$$

with some simplifying notation to distinguish between the accrued net benefits of current retirees  $PVN\tilde{B}^r$  and the net benefits for non-retirees  $PVNB^{nr}$ . Then the benefits and revenues for retirees and non-retirees can be written as:

$$UO^\infty = \left( \sum_{t=0}^{\infty} \frac{\tilde{B}_t^r}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{\tilde{R}_t^r}{(1+r)^t} \right) + \left( \sum_{t=0}^{\infty} \frac{B_t^{nr}}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{R_t^{nr}}{(1+r)^t} \right).$$

Now define the infinite horizon fiscal imbalance as:

$$FI^\infty = D + \left( \sum_{t=0}^{\infty} \frac{E_t}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{T_t}{(1+r)^t} \right)$$

with  $D$  equal to the debt held by the public in the evaluation year and  $E_t$  and  $T_t$  equal to expenses and taxes in year  $t$ .  $E_t$  can be decomposed as follows:

$$E_t = \tilde{B}_t^{ss,r} + \tilde{B}_t^{med,r} + \tilde{B}_t^{fe} + \tilde{E}_t^{oth} + B_t^{ss,nr} + B_t^{med,nr} + E_t^{rog}.$$

Expenditures includes accrued Social Security and Medicare benefits payable in each year to retirees, accrued pension and benefit payments to federal employees, accrued other federal expenditures, Social Security and Medicare benefits payable in each year to non-retirees (as of the evaluation year), and all other government expenditures.

Likewise,  $T_t$  includes all federal tax revenues in each future year identified as:

$$T_t = \tilde{R}_t^{ss,r} + \tilde{R}_t^{med,r} + R_t^{ss,nr} + R_t^{med,nr} + T_t^{rog}$$

and include the benefit taxes and premium payments associated Social Security and Medicare accruals to retirees, the payroll taxes and premiums from non-retirees, and rest of government taxes.

The taxes expenditures and revenues together produce the fiscal imbalance:

$$FI^\infty = D + \left( \sum_{t=0}^{\infty} \frac{\tilde{B}_t^{ss,rcp} + \tilde{B}_t^{med,rcp} + \tilde{B}_t^{fe} + B_t^{ss,nr} + B_t^{med,nr} + E_t^{rog}}{(1+r)^t} - \sum_{t=0}^{\infty} \frac{\tilde{R}_t^{ss,rcp} + \tilde{R}_t^{med,rcp} + R_t^{ss,nr} + R_t^{med,nr} + T_t^{rog}}{(1+r)^t} \right)$$

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that simplifies to:

$$FI^\infty = D + PVN\tilde{B}_{ss}^r + PVN\tilde{B}_{care}^r + PV\tilde{B}_{fe} + PV\tilde{E}_{oth} + PVNB_{ss}^{nr} + PVNB_{care}^{nr} + PVNE_{rog}^\infty$$

as presented previously in the text.

### Glossary of Terms Related to Long-Term Federal Accounting

**Discount Rate** — The interest rate used to express the value today of a dollar received in the future. Discount rates are usually lower for government than for individuals.

**Fiscal Gap** — The increase in federal revenues or decrease in expenditures such that the present value of surpluses (not counting interest costs), calculated over the infinite horizon, are equal to the current federal debt. The term is also used to refer to the increase in the surpluses over a limited time horizon necessary to maintain the ratio of federal debt to GDP at its current level.<sup>33</sup>

**Fiscal Imbalance** — A forward-looking measure that equals the current level of debt held by the public (representing past deficit spending) plus the present discounted value of expected future federal non-interest expenditures less the present discounted value of expected future federal taxes and other revenues. As used here the fiscal imbalance is calculated over the infinite horizon and is thus a special case of the fiscal gap. It represents the amount by which taxes and/or expenditures must be changed to produce a balance of zero.<sup>34</sup>

**Generational Accounting** — Measures the burden of the federal government on specific generations. For any given generation, it measures the present value of remaining lifetime net tax payments.<sup>35</sup>

**Present Value** — The value today of a future stream of income or expenditures, discounted to the present.

**Unfunded Obligations** — The present value of a program's (Social Security or Medicare) future spending minus projected future taxes and other revenues. The unfunded obligation can be calculated over different time horizons (75 years or infinite horizon) and for different groups of participants (current or future participants).



## Endnotes

1. *2011 Financial Report of the United States Government*, page 38.
2. The present study considers the federal government as a whole, and consequently, trust fund assets of a particular program are not included as an offsetting asset to the unfunded obligation.
3. This fiscal imbalance measure is a special case of the more general fiscal gap measures and is consistent with generational accounting. See Jagadeesh Gokhale and Kent Smetters, *Fiscal and Generational Imbalances* (AEI Press, Washington, DC.: 2003), for detailed discussion of the fiscal imbalance and its relation to generational imbalances. See also Alan J. Auerbach, Jagadeesh Gokhale and Laurence J. Kotlikoff, "Generational Accounts: A Meaningful Way to Evaluate Fiscal Policy," *Journal of Economic Perspectives*, Vol. 8, No. 1, Winter 1994, pages 73-94.
4. The three major other liabilities in 2011 were environmental and disposal liabilities, \$324 billion, liabilities to government-sponsored enterprises, \$316 billion, and \$427 billion in "other liabilities." See *Financial Report of the U.S. Government*, Department of the Treasury, 2011.
5. See *Analytical Perspectives Budget of the United States Government*, Fiscal Year 2012, Office of Management and Budget, Table 31-2, for other estimates of the total liabilities and assets for the years 1960-2010.
6. *Financial Report of the U.S. Government*, Department of the Treasury, Years 1998-2011 and Consolidated Financial Statements of the United States Government (1995-1997).
7. See Courtney Collins and Andrew J. Rettenmaier, "Unfunded Liabilities of State and Local Government Employee Retirement Benefit Plans," National Center for Policy Analysis, Policy Report No. 329, July 2010, for an accounting of the pension and other post-employment accrued liabilities expected by state and local government employees.
8. These results concurred with earlier estimates by others. See Robert Novy-Marx and Joshua D. Rauh, "Public Pension Promises: How Big Are They and What Are They Worth?" *Journal of Finance*, August 2011, and Andrew G. Biggs, "An Options Pricing Method for Calculating the Market Price of Public Sector Pension Liabilities," *Public Budgeting and Finance Journal*, September 21, 2011.
9. Courtney Collins and Andrew J. Rettenmaier, "Unfunded Liabilities of State and Local Government Employee Retirement Benefit Plans," National Center for Policy Analysis, Policy Report No. 329, July 2010.
10. Offsetting these liabilities were pension assets of \$2.6 trillion in 2008 resulting in unfunded obligations of between \$2.0 and \$3.1 trillion.
11. The nominal discount rates used in the *2011 Financial Report* to calculate the present value of accrued civilian and military pension benefits ranged from 4.6 to 4.9 percent and the rate used for health care benefits was 4.9 percent. These discount rates are actually lower than the long run nominal discount rate used by the Social Security and Medicare trustees due to lower inflation and real interest rate assumptions.
12. Veterans' compensation includes disability benefits and survivors' benefits.
13. *Consolidated Financial Statements of the United States Government*, Department of the Treasury, Years 1995-1997. *Financial Report of the U.S. Government*, Department of the Treasury, Years 1998-2011.
14. See Liqun Liu, Andrew J. Rettenmaier and Thomas R. Saving, "How Large is the Federal Government's Debt?" National Center for Policy Analysis, Policy Report No. 263, October 2003. See the Appendix for an adapted version of the appendix from the 2003 paper. The Financial Report of the United States Government decomposes Social Insurance expenditures and benefits over the 75-year horizon by age group. *Financial Report of the U.S. Government*, Department of the Treasury, Years 1998-2011.
15. The conventional measures are presented in the annual Social Security and Medicare Trustees Reports and an accrued benefit liability measure for Social Security is available in an annual Actuarial Note published by the Social Security Administration's Office of the Actuary. See Jason Schultz and Daniel Nickerson, "Unfunded Obligation and Transition Cost for the OASDI Program," Actuarial Note, Number 2011.1, Social Security Administration, Office of the Chief Actuary, September 2011.
16. See Andrew J. Rettenmaier and Thomas R. Saving, "Thinking About Tomorrow," National Center for Policy Analysis, Policy Report No. 317, December 2008, available at <http://www.ncpa.org/pub/st317/> for discussion of two alternative ways to calculate accrued Medicare benefits. The first estimate is essentially equal to the combined Part A, Part B and Part D benefits payable to the entire closed group (with the exception of the youngest of the closed group) because workers and their spouses are vested in Medicare after 10 years of work in covered employment. The second estimate employs a method similar to the one used to calculate accrued Social Security benefits. This method makes benefits proportional to years in the labor force.

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17. See 2011 Social Security and Medicare Trustees Reports, *2011 Financial Report of the United States Government*, Actuarial Note, No. 2011.1, Social Security Administration.
18. *Financial Report of the U.S. Government*, Department of the Treasury, 2011, page 38.
19. Statement of Social Insurance (SOSI) in *2011 Financial Report of the United States Government*, Department of the Treasury, 2010, Note 26, pages 46-49.
20. The Federal Accounting Standards Advisory Board's (FASAB) Statement of Federal Financial Accounting Standards 37, "Social Insurance: Additional Requirements for Management's Discussion and Analysis and Basic Financial Statements," summarizes the various views on reporting on social insurance programs' current and future obligations. The development of the SOSI is chronicled on Federal Accounting Standards Advisory Board's website at <http://www.fasab.gov/projects/archived-projects/social-insurance/>. See the Statement of Federal Accounting Standards 37, April 5, 2010 for further information on the development of the SOSI. See also the Statement of Federal Accounting Standards 36, September 28, 2009, for related discussion.
21. *2010 Social Security Trustees Report*.
22. See Table B1. Letter to Erskine Bowles and Alan Simpson from Stephen C. Goss, Chief Actuary, December 1, 2010. Available at: [http://www.ssa.gov/OACT/solvency/FiscalCommission\\_20101201.pdf](http://www.ssa.gov/OACT/solvency/FiscalCommission_20101201.pdf). The actuarial gap between the income and cost rates was -1.92 percent of taxable payroll. This provision closes 0.50 percentage points of this gap. Taken as a percent of the 75-year summarized cost rate of 14.76 percent of taxable payroll, this provision reduces benefits by 3.4 percent. A few proposals that increase benefit taxes would affect current retirees.
23. *Financial Report of the U.S. Government*, Department of the Treasury, Years 2000-2011.
24. 2009 and 2010 Medicare Trustees Reports.
25. *Financial Report of the U.S. Government*, Department of the Treasury, Years 2000-2011.
26. For example page 2 of the *2011 Medicare Trustees Report*, states, "In view of the factors described above, it is important to note that the actual future costs for Medicare are likely to exceed those shown by the current-law projections in this report."
27. The reduction in Medicare spending on younger retirees, due to the ACA, over their lifetimes will be larger than for older retirees.
28. *Financial Report of the U.S. Government*, Department of the Treasury, Years 2000-2011.
29. *Financial Report of the U.S. Government*, Department of the Treasury, Years 2000-2011. Present value of 75-year GDP from 2000-2011 Social Security Trustees Report.
30. The expenditures used in the calculation of the rest of government fiscal imbalance are the 2011 baseline expenditures less the CBO's estimates of Social Security and Medicare spending as a percent of GDP, given that we account for these programs using the Trustees forecasts. Similarly the dedicated Social Security and Medicare payroll tax revenues and Medicare premium revenues are excluded for the CBO revenue series. However, the CBO's alternative revenue series as a percent of GDP in the 2010 Long-Term Budget Outlook was used rather than the baseline revenue series. The baseline assumptions resulted in federal revenues rising to 30.6 percent of GDP by 2085 while the alternative assumptions held federal revenues fixed at 18.4 beginning in 2021. This is 0.4 percentage points of GDP higher than the previous 50-year average. The baseline benefit taxes for Social Security and Medicare were adjusted to take into account the lower income taxes associated with the alternative forecast. Also the accrued federal employee benefits and the other accrued benefits were accounted for in the rest of government net expenditure estimate.
31. Also note that had the Fiscal Imbalance been calculated using the CBO's Alternative Fiscal Scenario from the 2011 Long-Term Budget Outlook the estimates would have been significantly higher. For example Laurence J. Kotlikoff, "America's True Debt — The Fiscal Gap," National Center for Policy Analysis, Issue Brief No. 101, September 2011, estimates a fiscal gap of \$211 trillion based on the 2011 Long-Term Budget Outlook.
32. Estimates of the fiscal imbalance are based on the 2011 Medicare and Social Security Trustees Reports combined with portions of the CBO's 2011 baseline and alternative non-Medicare and Social Security projections. Over the next 75 years non-interest expenditures average 25 percent of GDP based on the 2011 CBO baseline estimates and average 26.7 percent based on the CBO's alternative estimates. The estimates would be higher over the infinite horizon, as used in the study's illustrative estimates.
33. *Analytical Perspectives*, Fiscal Year 2012, Budget of the United States, Office of Management and Budget, page 56.
34. Jagadeesh Gokhale and Kent Smetters, *Fiscal and Generational Imbalances* (AEI Press, Washington, D.C.: 2003).
35. Alan J. Auerbach, Jagadeesh Gokhale and Laurence J. Kotlikoff, "Generational Accounts: A Meaningful Way to Evaluate Fiscal Policy," *Journal of Economic Perspectives*, Vol. 8, No. 1, Winter 1994, pages 73-94.

*The NCPA is a nonprofit, nonpartisan organization established in 1983. Its aim is to examine public policies in areas that have a significant impact on the lives of all Americans — retirement, health care, education, taxes, the economy, the environment — and to propose innovative, market-driven solutions. The NCPA seeks to unleash the power of ideas for positive change by identifying, encouraging and aggressively marketing the best scholarly research.*

### Health Care Policy.

The NCPA is probably best known for developing the concept of Health Savings Accounts (HSAs), previously known as Medical Savings Accounts (MSAs). NCPA President John C. Goodman is widely acknowledged (*Wall Street Journal*, WebMD and the *National Journal*) as the “Father of HSAs.” NCPA research, public education and briefings for members of Congress and the White House staff helped lead Congress to approve a pilot MSA program for small businesses and the self-employed in 1996 and to vote in 1997 to allow Medicare beneficiaries to have MSAs. In 2003, as part of Medicare reform, Congress and the President made HSAs available to all nonseniors, potentially revolutionizing the entire health care industry. HSAs now are potentially available to 250 million nonelderly Americans.

The NCPA outlined the concept of using federal tax credits to encourage private health insurance and helped formulate bipartisan proposals in both the Senate and the House. The NCPA and BlueCross BlueShield of Texas developed a plan to use money that federal, state and local governments now spend on indigent health care to help the poor purchase health insurance. The SPN Medicaid Exchange, an initiative of the NCPA for the State Policy Network, is identifying and sharing the best ideas for health care reform with researchers and policymakers in every state.

**NCPA President  
John C. Goodman is called  
the “Father of HSAs” by  
*The Wall Street Journal*, WebMD  
and the *National Journal*.**

### Taxes & Economic Growth.

The NCPA helped shape the pro-growth approach to tax policy during the 1990s. A package of tax cuts designed by the NCPA and the U.S. Chamber of Commerce in 1991 became the core of the Contract with America in 1994. Three of the five proposals (capital gains tax cut, Roth IRA and eliminating the Social Security earnings penalty) became law. A fourth proposal — rolling back the tax on Social Security benefits — passed the House of Representatives in summer 2002. The NCPA’s proposal for an across-the-board tax cut became the centerpiece of President Bush’s tax cut proposals.

NCPA research demonstrates the benefits of shifting the tax burden on work and productive investment to consumption. An NCPA study by Boston University economist Laurence Kotlikoff analyzed three versions of a consumption tax: a flat tax, a value-added tax and a national sales tax. Based on this work, Dr. Goodman wrote a full-page editorial for *Forbes* (“A Kinder, Gentler Flat Tax”) advocating a version of the flat tax that is both progressive and fair.

A major NCPA study, “Wealth, Inheritance and the Estate Tax,” completely undermines the claim by proponents of the estate tax that it prevents the concentration of wealth in the hands of financial dynasties. Actually, the contribution of inheritances to the distribution of wealth in the United States is surprisingly small. Senate Majority Leader Bill Frist (R-TN) and Senator Jon Kyl (R-AZ) distributed a letter to their colleagues about the study. In his letter, Sen. Frist said, “I hope this report will offer you a fresh perspective on the merits of this issue. Now is the time for us to do something about the death tax.”

### Retirement Reform.

With a grant from the NCPA, economists at Texas A&M University developed a model to evaluate the future of Social Security and Medicare, working under the direction of Thomas R. Saving, who for years was one of two private-sector trustees of Social Security and Medicare.

The NCPA study, “Ten Steps to Baby Boomer Retirement,” shows that as 77 million baby boomers begin to retire, the nation’s institutions are totally unprepared. Promises made under Social Security, Medicare and Medicaid are inadequately funded. State and local institutions are not doing better — millions of government workers are discovering that their pensions are under-funded and local governments are retrenching on post-retirement health care promises.

### Pension Reform.

Pension reforms signed into law include ideas to improve 401(k)s developed and proposed by the NCPA and the Brookings Institution. Among the NCPA/Brookings 401(k) reforms are automatic enrollment of employees into companies’ 401(k) plans, automatic contribution rate increases so that workers’ contributions grow with their wages, and better default investment options for workers who do not make an investment choice.

The NCPA's online Social Security calculator allows visitors to discover their expected taxes and benefits and how much they would have accumulated had their taxes been invested privately.

### Environment & Energy.

The NCPA's E-Team is one of the largest collections of energy and environmental policy experts and scientists who believe that sound science, economic prosperity and protecting the environment are compatible. The team seeks to correct misinformation and promote sensible solutions to energy and environment problems. A pathbreaking 2001 NCPA study showed that the costs of the Kyoto agreement to reduce carbon emissions in developed countries would far exceed any benefits.

### Educating the next generation.

The NCPA's Debate Central is the most comprehensive online site for free information for 400,000 U.S. high school debaters. In 2006, the site drew more than one million hits per month. Debate Central received the prestigious Templeton Freedom Prize for Student Outreach.

### Promoting Ideas.

NCPA studies, ideas and experts are quoted frequently in news stories nationwide. Columns written by NCPA scholars appear regularly in national publications such as the *Wall Street Journal*, the *Washington Times*, *USA Today* and many other major-market daily newspapers, as well as on radio talk shows, on television public affairs programs, and in public policy newsletters. According to media figures from *BurrellesLuce*, more than 900,000 people daily read or hear about NCPA ideas and activities somewhere in the United States.

## What Others Say About the NCPA



*"The NCPA generates more analysis per dollar than any think tank in the country. It does an amazingly good job of going out and finding the right things and talking about them in intelligent ways."*

**Newt Gingrich**, former Speaker of the U.S. House of Representatives



*"We know what works. It's what the NCPA talks about: limited government, economic freedom; things like Health Savings Accounts. These things work, allowing people choices. We've seen how this created America."*

**John Stossel**, former co-anchor ABC-TV's *20/20*



*"I don't know of any organization in America that produces better ideas with less money than the NCPA."*

**Phil Gramm**, former U.S. Senator



*"Thank you . . . for advocating such radical causes as balanced budgets, limited government and tax reform, and to be able to try and bring power back to the people."*

**Tommy Thompson**, former Secretary of Health and Human Services