



**PRIVATE ENTERPRISE
RESEARCH CENTER**
TEXAS A&M UNIVERSITY

POLICY STUDY

A photograph of the U.S. Capitol building in Washington, D.C., featuring a large portico with white columns and a central statue on a pedestal. An American flag flies on a tall pole in the background against a blue sky with scattered clouds.

FEDERAL LIABILITIES: 2021 UPDATE

Dennis W. Jansen, Liqun Liu, and Andrew J. Rettenmaier
PERC Policy Study 2104
June 2021

SUMMARY

The 2020 Financial Report of the United States Government (FRUSG) identifies total federal liabilities of \$32.7 trillion as of September 30, 2020. The debt held by the public, \$21.1 trillion, comprised 62% of these liabilities. Federal employees' accrued benefits make up another 31%, and various other categories round out the remainder.

Absent from the official liabilities is a measure of current retirees' expected Social Security and Medicare benefits even though these elderly entitlement benefits are conceptually equivalent to federal employees' accrued benefits. The Social Security and Medicare benefits payable to retirees do appear in the FRSUG's Statements of Social Insurance, but not as liabilities. We strongly urge adding these portions of the elderly entitlement programs' obligations – net benefits payable to current retirees – to the official liabilities of the federal government.

Social Security and Medicare benefits payable to current retirees produce additional liabilities of \$27.2 trillion, an amount that exceeds the debt held by the public and that is 83% of the size of the official liability measure. Together, the official liabilities plus current retirees' accrued Social Security and Medicare benefits total \$59.9 trillion, or 286% of GDP.

The liability measure presented here – based on past actions – combined with the forward-looking fiscal gap and unfunded obligation measures provide policymakers with a comprehensive set of metrics that allows them to distinguish between federal government commitments that have already been made and those that are contingent on continuing programs in their current forms.



Founded in 1977 through the generosity of former students, corporations and foundations, the Private Enterprise Research Center pursues a dual mission of supporting academic research at Texas A&M University and developing market-oriented solutions to public policy problems.

Read the latest publications at perc.tamu.edu

CONTACT US

Private Enterprise Research Center
Texas A&M University
4231 TAMU
College Station, TX 77843-4231
(979) 845-7559
perc@tamu.edu

Cover Photograph

Highsmith, Carol M, photographer. *Alexander Hamilton statue in front of the Treasury Building in Washington, D.C.* United States Washington D.C, None. [Between 1980 and 2006] Photograph. <https://www.loc.gov/item/2011631526/>.

FEDERAL LIABILITIES: 2021 UPDATE

TOWARD A COMPREHENSIVE MEASURE OF FEDERAL LIABILITIES

This is our sixth report highlighting federal liabilities in which we add Social Security and Medicare benefits payable to current retirees to the *official* federal liabilities, in order to arrive at a more comprehensive and more appropriate measure of the government's indebtedness.¹

Our rationale for including the Social Security and Medicare benefits payable to current retirees as federal liabilities is based on the following observations. First, Social Security and Medicare benefits payable to current retirees meet the definition of liabilities as articulated in the Financial Report of the United States Government (FRUSG): "Liabilities are obligations of the Government resulting from prior actions that will require financial resources."² Second, accrued entitlement benefits are conceptually equivalent to the federal employees' accrued benefits that are reported as federal liabilities. Third, limiting the Social Security and Medicare benefits to those payable to current retirees, as we do here, provides a conservative estimate of the total entitlement debt.³ Excluding the entitlement benefits payable to current retirees substantially underestimates the liability position of the federal government.

This exercise is different from other ways of accounting for the federal government's obligations due to Social Security and Medicare because it focuses only on the accrued benefits expected by current retirees. These benefits are extremely likely to be paid in full and are liabilities tied to past actions. Furthermore, this subset of accrued benefits is largely protected from legislative reforms.

Here we distinguish between the federal government's commitments arising from *past* actions in contrast to commitments that may arise from *future* actions. Importantly, it complements the established ways of reporting on the financial status of the Social Security and Medicare programs. The programs' unfunded obligation measures combine already-accrued benefits with yet-to-be-accrued benefits net of expected future revenues and assuming the continuation of the programs into the future.

Accounting for liabilities arising from the federal government's past actions gives policy-makers additional understanding of the government's current indebtedness before they consider future

¹ See *Federal Liabilities: Past Actions with Future Consequences*, PERC Study, May 2014, *Federal Liabilities: 2015 Update*, PERC Study, July 2015 available at <http://perc.tamu.edu/publication?id=33>, *Federal Liabilities: 2016 Update*, PERC Study No. 1605, August 2016 available at <http://perc.tamu.edu/publication?id=43>, *Federal Liabilities: 2017 Update*, PERC Study No. 1702, August 2017 available at <http://perc.tamu.edu/publication?id=83>, and *Federal Liabilities: 2019 Update*, PERC Study No. 1901, May 2019 available at <https://perc.tamu.edu/publication?id=144>.
² *Financial Report of the United States Government, Fiscal Year 2020*, Department of the Treasury, March 25, 2021, page 56.

³ Current workers' accrued benefits could also be included as liabilities, but because they are more susceptible to legislative reforms, we limit the amounts for Medicare and Social Security to benefits payable to current retirees.

government spending either through continuation or expansion of current programs or through new programs. This report offers a conservative estimate of the liabilities that are essentially already on the government's books.

The liabilities of the federal government reported in the FRUSG primarily include commitments to bond holders or to current federal military or civilian employees. Adding the accrued Medicare and Social Security benefits payable to retirees to the FRUSG liabilities provides a more complete and, we would argue, more appropriate picture of the federal government's indebtedness. These liabilities are all largely unaffected by policy changes and forecasting assumptions, and collectively provide an important starting point in accounting for how much the federal government owes today, based on what it has done in the past.

While retirees do not have ownership rights to their Social Security and Medicare benefits, the payment of these benefits in full is expected. Few of the reform proposals receiving serious consideration significantly reduce current retirees' benefits. Changing the cost of living adjustment for Social Security would have modest effects on retirees' accrued benefits. Higher Medicare premiums for high income retirees definitely reduce their net benefits, but the effect on the overall amount of retirees' accrued benefits is limited. Given these considerations, retirees' accrued benefits deserve additional attention and to be treated essentially the same as the government's other liabilities.

The 2020 FRUSG identified liabilities totaling \$32.7 trillion as of September 30, 2020. Adding the \$27.2 trillion in Social Security and Medicare benefits payable to current retirees produces a total of \$59.9 trillion in federal liabilities. The Social Security and Medicare benefits payable to current retirees are 29% larger than the debt held by the public and are 45% of the total liabilities that include them. The proposed total federal liabilities, inclusive of the Social Security and Medicare benefits payable to current retirees, are equal to 286% of GDP, which is 2.8 times the publicly held debt's share of GDP at 101%.

THE LIABILITIES OF THE U.S. GOVERNMENT

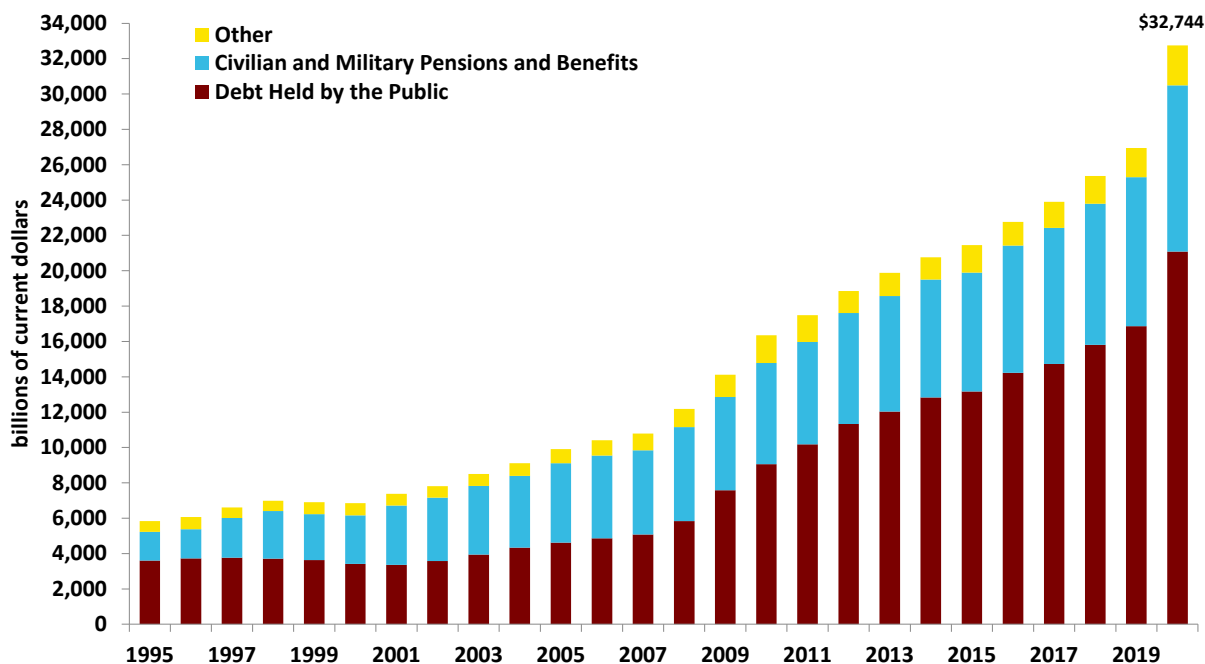
Each year the FRUSG identifies the government's assets and liabilities on the federal government's balance sheet. As of September 30, 2020, the federal government's assets totaled about \$6.0 trillion and were comprised of financial assets (loans receivable, inventories, and cash) and nonfinancial property assets. Additionally, the government owns stewardship assets that are not reported on its balance sheet and has the authority to tax and set monetary policy.

The liabilities reported in the FRUSG include the debt held by the public, the federal civilian and military employees' accrued pension benefits, other retirement and disability benefits, as well as other liabilities. Figure 1 presents the liabilities of the U.S. government from 1995 to 2020. As of September 30, 2020:

- the debt held by the public was \$21.1 trillion,
- federal employee and veteran pensions and benefits totaled \$9.4 trillion,

- the other liabilities were about \$2.3 trillion,
- added together, this produces total liabilities of \$32.7 trillion.⁴

Figure 1. Liabilities of the U.S. Government from the Financial Reports of the United States Government



Sources: Financial Reports of the United States Government (1998-2020) and Consolidated Financial Statements of the United States Government (1995-1997).

Figure 1 also illustrates the rapid growth in the federal liabilities in the years following the “Great Recession” and the discrete, substantial 22% increase between 2019 and 2020. Debt held by the public increased \$4.2 trillion between 2019 and 2020, or 25%. This increase was due to the legislation enacted in response to the COVID-19 pandemic. The debt held by the public in 2007, prior to the Great Recession, comprised 47% of the total liabilities reported in the FRUSG, but its share has since grown. As of September 30, 2020, the debt held by the public accounted for 64% of the official federal liabilities. Trust fund assets, like those held in the Social Security and Medicare Trust Funds, are assets to the agencies, but are also liabilities of the Treasury and thus cancel each other in the consolidated financial statements.

ACCRUED CIVILIAN AND MILITARY PENSION AND BENEFIT LIABILITIES

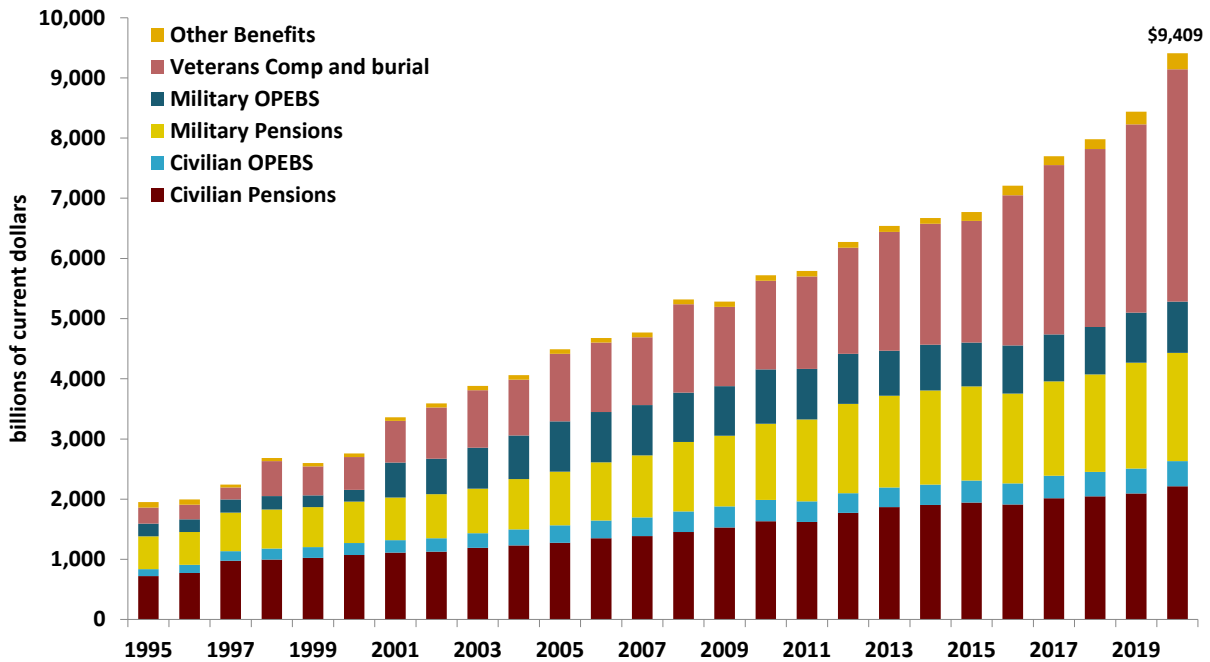
In addition to publicly held debt, the federal government’s other major class of liabilities are the accrued retirement benefits of military and civilian employees. The benefits come in the form of pensions, other post-employment benefits (OPEBs) – mainly health care benefits, and veteran

⁴The other liabilities include environmental and disposal liabilities, benefits due and payable, insurance and loan guarantees, and additional other liabilities. See *Financial Report of the United States Government, Fiscal Year 2020*, Department of the Treasury, 2020, page 65.

compensation. Figure 2 depicts the evolution of these accrued benefits from 1995 to 2020. The \$9,409 billion in accrued benefits as of September 2020 are comprised of:

- civilian pensions equal to \$2,214 billion (24% of the total),
- military pensions of \$1,799 billion (19% of the total),
- veterans’ compensation and burial benefits of \$3,863 billion (41% of the total), and
- civilian and military OPEBs and other benefits of \$1,533 billion (16% of the total).

Figure 2. Accrued Civilian and Military Pension and Benefit Liabilities



Sources: Financial Reports of the United States Government (1998-2020) and Consolidated Financial Statements of the United States Government (1995-1997).

The veterans’ compensation category includes disability and survivors’ benefits. Since 1995, this category has grown from 14% of the total accrued benefits to its present share of 41%. Between 2019 and 2020, these accrued benefits grew 23% due to assumption changes related to disability transition rates as well as a lower discount rate.⁵ Altogether, these accrued benefits grew from 26% of contemporaneous annual GDP in 1995 to 45% of GDP in 2020.

Federal employees’ accrued benefits are partially backed by intergovernmental securities, like those held in the Social Security and Medicare Trust Funds. The annual financial report of the Office of Personnel Management (OPM) makes clear that the assets held by the federal employee pension plan are concurrently liabilities of the Treasury and that the resources to pay benefits

⁵ For a discussion of assumption changes affecting the 2020 estimate of veterans’ compensation and burial benefits see *Financial Report of the United States Government, Fiscal Year 2020*, Department of the Treasury, March 25, 2021, Note 13, pp. 110-111.

are not set aside by the federal government.⁶

“All of OPM’s investments are in U.S. Treasury and FFB [Federal Financing Bank] securities held by trust funds – the Retirement, Health Insurance, and Life Insurance Programs. The Federal Government does not set aside assets to pay future benefits or other expenditures associated with the trust funds.”

OPM Fiscal Year 2020 Agency Financial Report, p. 65.

Why are the Treasury Securities Held by the Federal Reserve Included in the Debt Held by the Public?

As of September 30, 2020, the Federal Reserve held almost \$4.7 trillion in Treasury Securities that are included in the category “debt held by the public.” However, in preparing the FRUSG, these holdings do not reduce the debt held by the public because the Federal Reserve is considered to be independent of the Federal government. So, in consolidating the financial statements across all federal entities the Federal Reserve’s holdings are treated separately as noted in the following excerpt from the 2016 FRUSG.

“SFFAC [Statement of Federal Financial Accounting Concepts] 2 specifically excludes the Federal Reserve System – the Board of Governors of the Federal Reserve System and the Federal Reserve Banks. . . . However, in the United States, the organization and functions pertaining to monetary policy are traditionally separated from and independent of the other central government organizations and function in order to achieve more effective monetary and fiscal policies and economic results. Therefore, the Federal Reserve System is not considered part of the government wide reporting entity.”ⁱ

However, even though the Federal Reserve is treated as independent in the federal government’s accounting, it is not fiscally independent. Net proceeds from Federal Reserve System operations accrue to the U.S. Treasury. Thus, it is instructive to consider how its assets and liabilities affect the official federal liabilities measure. In addition to its \$4.7 trillion in Treasury Securities, the Federal Reserve held \$2.1 trillion in federal agency and government sponsored enterprise mortgage-backed securities. These are the two main components of the Federal Reserve’s total assets of \$7.1 trillion on September 30, 2020. Because interest received by the Federal Reserve on these assets is transferred to the Treasury, their total value is an offset to the total liabilities of the federal government – an amount up to the \$7.1 trillion in assets.ⁱⁱ At the same time, on the liability side of balance sheet, the Federal Reserve currently has a significant level of bank reserves on which it is paying interest. The Federal Reserve’s liabilities, apart from currency, totaled \$5.1 trillion in September 2020. Thus, net Federal Reserve assets are \$2.0 trillion. Excluding these net assets would reduce the official federal liabilities of \$32.7 trillion by this \$2.0 trillion, or by 6.1%.

ⁱ *Financial Report of the United States Government, Fiscal Year 2016*, Department of the Treasury, 2016, p. 230.

ⁱⁱ *Federal Reserve Banks Combined Quarterly Financial Report*, September 30, 2020.

⁶ Note 3 from the *OPM Fiscal Year 2020 Agency Financial Report*, p. 65 continues: “The cash receipts collected from the public for the trust funds are deposited in the U.S. Treasury, which uses the cash for general Government purposes. Treasury securities are issued to the OPM as evidence of its receipts. Treasury securities are an asset to OPM and a liability to the U.S. Treasury. Because OPM and the U.S. Treasury are both parts of the Government, these assets and liabilities offset each other from the standpoint of the Government as a whole. They are eliminated in consolidation for Government-wide financial statements of the United States.”

UNFUNDED OBLIGATIONS AND CURRENT RETIREES' EXPECTED SOCIAL SECURITY AND MEDICARE BENEFITS

The relation between the accrued benefits of current retirees and workers, and the future-oriented unfunded obligation measures for Medicare and Social Security, is laid out in *A Primer on Measures of Government Financing Shortfalls and Liabilities*.⁷ The Medicare and Social Security Trustees Reports provide annual estimates of the programs' respective unfunded obligations and some of those components are incorporated into Table 1. It also illustrates how the benefits payable to current retirees are related to the comprehensive accounting of a program's future scheduled benefits and dedicated tax revenues under current law.⁸

The benefits payable to current retirees net of their tax and premium payments in support of the programs are given in the first row of the table. Net accrued Social Security benefits payable to participants who have attained the eligibility age of 62 totaled \$16.55 trillion as of 2020.⁹ Net Medicare benefits payable to participants who have attained the eligibility age of 65 totaled \$10.65 trillion as of 2020, and together the net Social Security and Medicare benefits payable to current retirees were \$27.20 trillion.

The next row presents the net benefits for current workers who have not reached the programs' respective eligibility ages. These totaled \$60.31 trillion in 2020. This amount is comprised of \$25.25 trillion in net Social Security benefits and \$35.05 trillion in net Medicare benefits. The combination of the first two rows produces the 100-year closed-group unfunded obligation. These amounts indicate by how much current participants' (workers and retirees) expected future benefits exceed their future dedicated tax and premium payments beginning in 2020 (at current rates).

Note that these shortfalls do not include general revenue transfers for Medicare Parts B and D,

⁷ For a discussion of the relationship between forward-looking measures of program specific, and government-wide, funding shortfalls and retrospective liabilities and accrued benefits see *A Primer on Measures of Government Financing Shortfalls and Liabilities*, PERC Study, August 2016, <http://perc.tamu.edu/publication?id=42>.

⁸ The infinite horizon open group, 75-year open group, and the 100-year closed group measures are presented in the annual Social Security and Medicare Trustees Reports. The accrued benefit liability for all current Social Security participants is available in an annual Actuarial Note published by the Social Security Administration's Office of the Actuary. In 2020, the accrued benefits of all current participants totaled \$43.4 trillion (inclusive of the \$2.9 trillion in Trust Fund bonds). Thus, the benefits of current retirees account for more than one-third of the total accruals. See Daniel Nickerson and Kyle Burkhalter, "Unfunded Obligation and Transition Cost for the OASDI Program," Actuarial Note, Number 2020.1, Social Security Administration, Office of the Chief Actuary, April 2020.

⁹ Row one in Table 1 presents the *net* Social Security and Medicare benefits payable to current retirees. Thus, premium payments for Part B and D are netted out of the Medicare benefits as are remaining dedicated Social Security and HI payroll taxes and income taxes on Social Security benefits. Federal income taxes in support of Medicare Parts B and D are not subtracted from the expected benefits. However, the *FY 2020 Agency Financial Report, Department of Health and Human Services* does identify the income taxes payable from retirees as offsetting revenue.

even though these transfers are considered dedicated revenues in the Trustees Reports. The net benefits and shortfalls as presented here for Medicare are thus from the total budget perspective, and these shortfalls can be thought of as the revenues required by the programs that are in addition to dedicate payroll taxes, premiums, and state transfers.

The net benefits for future workers are shown on the fourth row. The net Social Security benefits for future workers indicates that these workers will pay \$14.10 trillion less in payroll taxes than they will receive in benefits at the current tax rate which is significantly lower than the tax rate necessary to fund future Social Security expenditures.

The fifth row indicates the magnitude of the net shortfall over the infinite horizon at current tax rates. Alternatively, these are the amounts by which Social Security and Medicare are underfunded relative to their dedicated revenue sources of payroll taxes, taxes on Social Security benefits, Medicare premium payments, and state transfers. Altogether, the two programs will require \$153.80 trillion in additional revenues to pay scheduled benefits.¹⁰

Table 1. Social Security and Medicare Funding Shortfalls			
2020 Trillions of Dollars			
	Social Security	Medicare	Total
1. Net benefits accrued by current retirees	\$16.55	\$10.65	\$27.20
2. Net benefits of current workers	\$25.25	\$35.05	\$60.31
3. 100 year closed group	\$41.80	\$45.70	\$87.50
4. Net benefits of future workers	\$14.10	\$52.20	\$66.30
5. Total infinite horizon additional funding requirements	\$55.90	\$97.90	\$153.80
6. Trust Fund	\$2.80	\$0.30	\$3.11
7. Total infinite horizon additional funding requirements less Trust Funds	\$53.10	\$97.60	\$150.69

Sources: *Financial Report of the United States Government, Fiscal Year 2020* and the 2020 Social Security and Medicare Trustees Reports. Net benefits are expected future expenditures less dedicated payroll taxes, taxes on Social Security benefits, premiums, and state transfers. General revenue transfers are not included as revenues.

For the present analysis, it is important to point out that about 18% of the shortfall, not funded from dedicated revenues, is payable to current retirees and that their scheduled benefits are

¹⁰The Supplementary Medical Insurance portions of Medicare (Parts B and D) are funded by premium payments from participants, state transfers, and from general revenues. Officially, these parts of the program do not have unfunded obligations because the general revenues are assumed to cover the difference between premium revenues (about 25% of expenditures) and expenditures.

likely to be paid. We argue that these expected benefits be treated as liabilities in the same way that the federal employees' pensions and OPEBs are treated as liabilities. Most proposed reforms have minimal effects on reducing the liabilities associated with paying expected Social Security and Medicare benefits to retirees. Once retirees begin receiving benefits, they are annuitants in an operational sense and these payments are essentially liabilities of the federal government.

In contrast, the forecast benefits of young current workers and future workers can be substantially affected by reforms, particularly those benefits related to continued participation (those that are not already accrued) for younger current workers and future participants. The accrued Social Security and Medicare benefits payable to older workers – those 55 and over – could arguably be considered liabilities as well, given that many of the leading reform proposals hold this age group harmless. That is why we say that including only the accrued benefits of current retirees is a conservative estimate of the total Social Security and Medicare accrued liabilities.

HOW ARE RETIREES' SOCIAL SECURITY AND MEDICARE BENEFITS AFFECTED BY REFORMS?

Though the benefits payable to retirees are consistent with the definition of a liability, one of the rationales for not including Social Security and Medicare on the federal balance sheet is that the government can unilaterally change the programs.

This section illustrates that the passage of the Affordable Care Act (ACA) significantly reduced estimates of Medicare's long-run unfunded obligation measures between the 2009 and 2010 forecasts but had more muted effects on benefits payable to retirees. And while the ACA's expense constraining provisions have produced significantly lower spending forecasts, actually achieving the lower spending is uncertain. The Medicare Modernization Act (MMA) on the other hand, with its addition of prescription drug coverage, increased Medicare benefits payable to retirees between the 2003 and 2004 forecasts. It is true that the government can unilaterally change the programs, and that these changes can have significant effects on the long run forecasts, but here we illustrate how the effects of such changes are distributed differently across generations.

Medicare

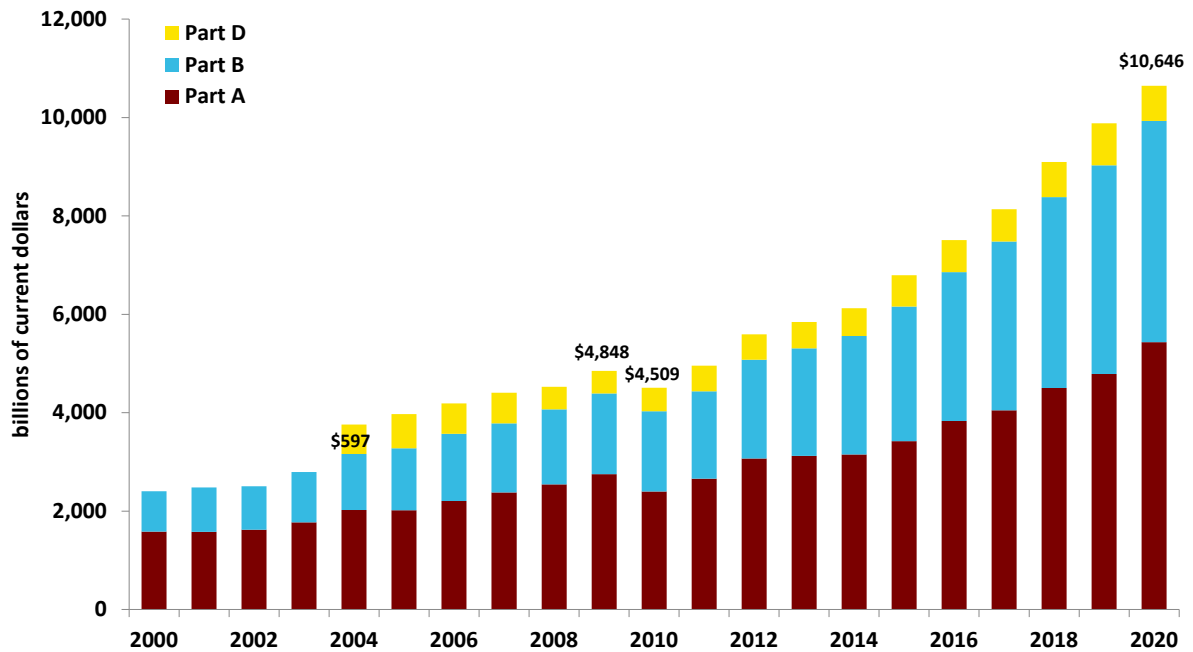
Two recent Medicare reforms illustrate the effect of policy changes on Medicare benefits payable to retirees. Figure 3 presents net Medicare benefits payable to participants who are 65 and older for the years 2000-2020. The figure begins with 2000 because that is the year in which the Statements of Social Insurance was introduced in the FRUSG. Medicare Parts A, B, and D are each identified. Consider the first policy change: the passage of the MMA in 2003. The Act added prescription drug benefits, or Part D, to the insurance package. As seen in the figure between the 2003 and 2004 forecasts, retirees were endowed with new benefits, net of premiums, equal to \$597 billion.

This unilateral Congressional act to expand benefits resulted in new Medicare wealth of about \$17,000 on average for the almost 35 million Medicare enrollees 65 years of age and above in that

year. Reporting these new benefits as liabilities would have complemented the measures based on the long run forecasts and would have identified the size of the new liability. The passage of the MMA resulted in additional liabilities of the federal government payable to current retirees, and though the estimates of their size have varied, the variability in the estimates is less affected by changing assumptions than are the long-run estimates.

The other major policy change reflected in the figure is the effect of the ACA’s passage in March of 2010. Scoring its provisions resulted in a dramatic reduction in the 75-year and the perpetuity unfunded obligations, but as seen by comparing the current retirees’ benefits for the years 2009 and 2010 from the figure, it had a modest effect on these liabilities. Between the two years, the current retirees’ expected benefits declined by \$339 billion, from \$4,848 to \$4,509 billion or by only 7%.

Figure 3. Accrued Net Medicare Benefits Payable to Participants Who Have Attained Eligibility Age



Source: The Statement of Social Insurance, Financial Reports of the United States Government (2000-2020). See page 13 for the discussion of the Government Accountability Office’s opinion of the estimates beyond 2009.

This relatively modest reduction in benefits payable to current retirees stands in stark contrast to the substantial decline in the long-run unfunded obligation measures between the 2009 and 2010 Trustees Reports. The decline in the unfunded obligation estimates result from provisions in the ACA intended to limit per capita spending growth. The main provision is the productivity adjustment that primarily affects Medicare’s Part A spending projections and some of Part B spending. The provision requires that payment updates to most providers are adjusted downwards by the increase in total factor productivity.

As a consequence of this provision, the estimated 75-year unfunded obligation for Part A dropped from \$13.4 to \$2.4 trillion between the 2009 and 2010 Medicare Trustees Report and the infinite horizon unfunded obligation for Part A of \$36.4 trillion in 2009 actually became a surplus of \$0.6 trillion in the 2010 Report! Retirees' accrued Part A benefits in 2010 were 13% smaller than the 2009 estimate. The point here is that the accrued Part A benefits of current retirees, while affected by the ACA's provisions, were much less sensitive than were the unfunded obligation measures. Furthermore, the realization of these cost controlling provisions is uncertain.

Debts, Liabilities, Obligations, Gaps and Imbalances

Focusing on liabilities associated with past actions differs from the forward-looking measures of the federal government's future obligations associated with both past and future actions. The forward-looking measures include the Social Security and Medicare programs' unfunded obligations and broader government-wide measures like the fiscal gap and the fiscal imbalance. These forward-looking measures provide for a complete understanding of the resources necessary to cover the government's future commitments assuming the continuation of current policies. The narrower focus here takes a retrospective view in defining a federal liability. The connection between the forward-looking measures and the retrospective view taken in the present report is discussed in *A Primer on Measures of Government Financing Shortfalls and Liabilities*.ⁱ

The forward-looking measures of an elderly entitlement program's unfunded obligation begins with the difference between the present values of future expenditures less future revenues for a particular time horizon – 75 years or the infinite horizon. The current value for the Trust Fund partially offsets this amount, producing the unfunded obligation. The calculation of the unfunded obligation is subject to the assumptions made about future economic conditions, demographic changes, and in the case of Medicare the all-important rate of per capita health care spending growth and its relationship to per capita income growth.

Two additional forward-looking measures that take into account the entire federal government are the fiscal gap and the fiscal imbalance. The 75-year fiscal gap is regularly estimated by the Congressional Budget Office (CBO) and by the Office of Management and Budget (OMB). The fiscal gap is often defined as the degree by which the primary surplus (the surplus not including interest payments) must increase relative to current-law tax and spending policies, expressed as a percentage of GDP, so that the ratio of the debt to GDP at the end of the projection period is the same as the current ratio. Thus, with this definition, the debt held by the public is not repaid, it is only required to remain at its current share of GDP.

The fiscal imbalance measure as discussed in Gokhale and Smetters (2003) does include the repayment of the debt and is calculated over the infinite horizon.ⁱⁱ Like the unfunded obligation measures for Medicare and Social Security, the fiscal gap and the fiscal imbalance are sensitive to long-run economic and demographic assumptions and to interpretations and applications of current law tax and spending policies. In contrast, the accrued benefits of current retirees are much less sensitive to the long-run assumptions.

As an example of how sensitive the fiscal gap is to legislative change, consider the effects of the passage of the Affordable Care Act (ACA) on the on the fiscal gap. The OMB's fiscal gap measures are presented in *Analytical Perspectives*, a document that accompanies the annual publication of the *Budget of the U.S. Government*. The pre-ACA estimate of the 75-year fiscal gap was 8.0% of GDP in the Fiscal Year 2011 *Analytical Perspectives* (p. 52), but one year later, the new estimate of the fiscal gap, that included the optimistic forecast of future Medicare spending, fell to only 1.8% of GDP in the Fiscal Year 2012 *Analytical Perspectives* (p. 56).

ⁱ *A Primer on Measures of Government Financing Shortfalls and Liabilities*, August 2016, <http://perc.tamu.edu/publication?id=42>.

ⁱⁱ Gokhale, Jagadeesh and Kent Smetters, *Fiscal and Generational Imbalances*, 2003, American Enterprise Institute Press, Washington, DC.

The ACA's productivity adjustment had less of an effect on the present value of the general revenue contributions necessary to fund Medicare Part B in addition to premiums from retirees, but the reductions were substantial nonetheless; the present value of the general revenues required to fund Part B over the 75-year horizon dropped 25%, from \$17.2 trillion to \$12.9 trillion with the 2009 and 2010 Reports, and over the infinite horizon they fell 43% from \$37.0 trillion to \$21.1 trillion. However, retirees' accrued Part B benefits in 2010 were just 1% smaller than the 2009 estimate.

The passage of the ACA produced significant difficulties for Medicare and Social Security Trustees who are charged with forecasting future Medicare expenditures. From 2010 to the present, the Medicare Trustees have had to wrestle with how to present forecasts that take into account the current law as well as expectations that generally run counter to the spending constraints in the law. The current law forecasts in the 2010 to 2014 Reports incorporated the ACA's productivity adjustment, which primarily affects Part A, as well as the now rescinded Sustainable Growth Rate (SGR) for physician payments. In each of those years, the actuaries at the Centers for Medicare and Medicaid Services (CMS) produced alternative forecasts.

The alternative forecasts indicated that the program's expenditures could significantly exceed the forecasts made under the assumption that the current law was realized. The history of legislative overrides of the SGR suggests the same fate for the productivity adjustment. This assessment is again made in the 2020 Report.¹¹

The 2015 to the 2020 Medicare Trustees Reports' current law forecasts incorporate the effects of the Medicare Access and CHIP Reauthorization Act (MACRA) that was passed in April 2015. The MACRA repealed the SGR and in its place the new legislation specifies physician payment updates. The 2020 Trustees Report notes, however, that by 2048 physician payments under the MACRA will actually be lower than those projected under the SGR.¹²

Beginning with the 2010 Trustees Report, the new provisions in the ACA, namely the productivity adjustment and the Independent Payment Advisory Board (IPAB), combined with the SRG (2010-2014 Reports) and now the MACRA (2015 to 2020 Reports) have resulted in current law Medicare spending forecasts substantially below the pre-ACA forecast and the annual alternative forecasts. As stated in the discussion of the alternative projections from the 2020 Report:

*"The ability of new delivery and payment methods to lower cost growth rates is uncertain at this time. Preliminary indications are that some of these delivery reforms have had modest levels of success in lowering costs. It is too early to tell if these reductions in spending will continue or if they will grow to the magnitude needed to align with the statutory Medicare price updates. Given these uncertainties, it will be important for policy makers to monitor the adequacy of Medicare payment rates over time to ensure beneficiary access to high-quality care."*¹³

¹¹2020 Medicare Trustees Report, p. 183-84.

¹²2020 Medicare Trustees Report, p. 184.

¹³2020 Medicare Trustees Report, p. 185.

Since the passage of the ACA, the Government Accountability Office (GAO) has been prevented from expressing an opinion on the Statements of Social Insurance (SOSI) in the FRUSG. The SOSI is derived from the Social Security Administration's and the Department of Health and Human Services' Agency Financial Reports and provides the estimates of accrued Medicare and Social Security benefits for retirees reported here. The reason the GAO has been prevented from expressing an opinion on the SOSI are the Medicare forecasts. The statement of the Comptroller General of the United States included in the 2020 FRUSG notes:

“Significant uncertainties (discussed in Note 23 to the consolidated financial statements), primarily related to the achievement of projected reductions in Medicare cost growth, prevented us from expressing an opinion on the sustainability financial statements,^a which consist of the 2020 and 2019 Statements of Long-Term Fiscal Projections;^b the 2020, 2019, 2018, 2017, and 2016 Statements of Social Insurance;^c and the 2020 and 2019 Statement of Changes in Social Insurance Amounts. About \$45.7 trillion, or 70 percent, of the reported total present value of future expenditures in excess of future revenue presented in the 2020 Statement of Social Insurance relates to Medicare program reported in the Department of Health and Human Services' (HHS) 2020 Statements of Social Insurance, which received a disclaimer of opinion. A material weakness in internal control also prevented us from expressing an opinion on the 2020 and 2019 Statements of Long-Term Fiscal Projections.”¹⁴ (See footnote 14 for the embedded footnotes.)

The auditor's report accompanying the 2020 HHS Agency Financial Report “disclaimed” the post-ACA Medicare statements of social insurance. The auditor noted many of the same concerns voiced by the trustees in each of the post-ACA Trustees Reports.

“Absent a change in the health care delivery system or level of updated by subsequent legislation, beneficiaries' access to Medicare-participating providers and quality care may become significant issues in the long term under current law. Overriding the price updates in current law, as lawmakers repeatedly did in the case of physician payment rates, would lead to substantially higher costs for Medicare in the long range than those projected in this report. As a result of these limitations, we were

¹⁴*Financial Report of the United States. Government, Fiscal Year 2020, pages 43-44. The quote includes the following footnotes: “^aThe sustainability financial statements are based on projections of future receipts and spending, while the accrual-based consolidated financial statements are based on historical information, including the federal government's assets, liabilities, revenues, and net costs.*

^bThe 2020 and 2019 Statements of Long-Term Fiscal Projections present, for all the activities of the federal government the present value of projected receipts and noninterest spending under current policy without change, the relationship of these amounts to projected gross domestic product (GDP), and changes in the present value of projected receipts and non-interest spending for the prior year. These statements also present the fiscal gap, which is the combination of non-interest spending reductions and receipt increases necessary to hold debt held by the public as a share of GDP as the end of the projection period to its value at the beginning of the period. The valuation date of the Statements of Long-Term Fiscal Projections is September 30.”

^cStatements of Social Insurance are presented for the current year and each of the 4 preceding years in accordance with U.S. generally accepted accounting principles. For the Statements of Social Insurance, the valuation date is January 1 for the Social Security and Medicare programs, October 1 for the Railroad Retirement program, and September 30 for the Black Lung program.”

unable to obtain sufficient audit evidence for the amounts presented in the statements of social insurance as of January 1, 2020, 2019, 2018, 2017, and 2016, and the related statements of changes in social insurance amounts for the periods ended January 1, 2020 and 2019.”¹⁵

Whether or not the ACA’s and the MACRA’s provisions are realized in the long run, the forecast net spending on behalf of current retirees, as we have seen, was reduced between the 2009 and 2010 Financial Statements. In regard to Medicare, reporting the liabilities payable to retirees in each year gives policy makers and the public a better idea of how legislative changes added to the liabilities, with the passage of the MMA, or reduced the liabilities, in the case of the ACA. The SOSI has received a disclaimer of opinion since 2010, and thus, the expected Medicare benefits payable to current retirees (based on the current law forecasts) are conservative in comparison to the other liabilities and compared to the higher amount had the alternative forecast been used each year. To illustrate how the current law forecasts may underestimate the growth in accrued Medicare benefits, note that the present value of Medicare’s anticipated real lifetime spending per beneficiary has grown less rapidly than retirees’ expected Social Security benefits since 2009. As a consequence of the lower post-ACA current law forecasts, the estimated average accrued Medicare benefit per retiree has grown between 2009 and 2020 at an annual rate of 4.3%, versus a higher 5.7% annual rate for Social Security.

Social Security

Since 1996, the Social Security Administration’s Office of the Chief Actuary has produced estimates of the accrued benefits for participants who are 22 and above in a given year.¹⁶ These accrued benefits are referred to as the Maximum Transition Cost. The accrued Social Security benefits are comparable to the accrued benefits in a private pension plan in that they are based on past earnings and participation.¹⁷ Figure 4 presents the total accrued benefits for the years 2000-2020, for which both total accrued benefits and the accrued benefits of participants who have reached the age of eligibility are available. As of 2020, the accrued Social Security benefits totaled \$43.4 trillion. Of that amount, \$16.5 trillion or 38% were payable to participants 62 years of age and above with the remaining \$26.8 trillion or 62% accrued by the current participants 61 and younger. The share of total accrued benefits payable to the participants who have reached the age of eligibility has grown in recent years as the result of the aging of the Baby Boom generation. A comparable calculation of accrued Medicare benefits payable to all current participants is not published by the Centers for Medicare and Medicaid Services.¹⁸

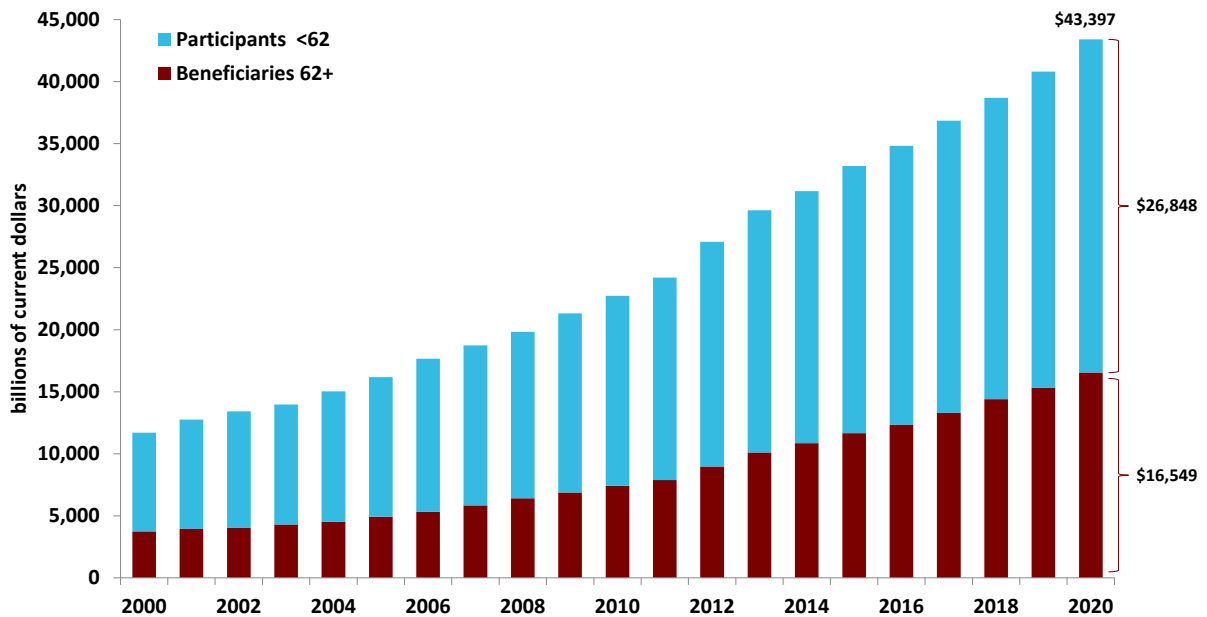
¹⁵Ernst and Young conducted the independent audit of the *FY 2020 Agency Financial Report, Department of Health and Human Services*. This excerpt is from the section of their report that gives the basis for the disclaimer of an opinion on the statements of social insurance. See *FY 2020 Agency Financial Report, Department of Health and Human Services* pages 71-72 for the entire basis for disclaimer of opinion and disclaimer of opinion.

¹⁶Daniel Nickerson and Kyle Burkhalter, 2020, “Unfunded Obligation and Transition Costs for the OASDI Program,” Social Security Administration, Office of the Chief Actuary, Actuarial Note, Number 2020.1, June 2020.

¹⁷See Nickerson and Burkhalter (2020), p. 3, for a full description of how accrued benefits are estimated for workers who are below the eligibility age of 62. Each year a benefit amount (specifically a disability benefit) is calculated for these workers based on past earnings. The benefits are indexed to age 62 and then adjusted in proportion to completed years of work divided by potential total years of work.

¹⁸Workers who have at least 10 years of work in Social Security covered employment are fully vested in Medicare. Conceptually, all these workers have accrued retirement Medicare benefits beginning at age 65. These

Figure 4. Composition of Accrued Social Security Benefits by Age Group



Sources: Financial Reports of the United States Government (2000-2020) and Social Security Administration, Actuarial Note, Number 2020.1.

Most Social Security reforms that have been discussed in recent years leave current retirees unaffected. For example, increasing the retirement age, increasing payroll taxes, raising the taxable maximum and instituting means testing for incoming groups of retirees have no effect on the accrued Social Security benefits of current retirees that are presented in Figure 4.

Cost of living adjustment reforms would affect current retiree benefits, among those reforms currently receiving attention. However, the effect on the accrued benefits of current retirees would be minor. For example, some recent proposals prefer replacing the current CPI-W (consumer price index for wage and salary workers) with the chained version of the CPI as the index used to make cost of living adjustments to Social Security benefits.¹⁹ Over the next 30 years, the present value of benefit payouts is reduced by less than 3% if the cost of living adjustments are based on the chained CPI rather than the CPI-W. Thus, the expected benefits payable to current

benefits to current participants net of premiums and state transfers were approximately \$56 trillion in 2020. However, the methodology used to estimate accrued Social Security benefits could also be used to estimate accrued Medicare benefits for current workers. In 2020, the ratio of accrued Social Security benefits payable to current workers less than the eligibility age was 44% of the total expected benefits of this group in retirement if the program continues in its current form. Using the 2020 percentage based on Social Security benefits as a guide, estimated total accrued Medicare benefits (net of premium payments) for the participants 64 and younger would be \$20.1 trillion in 2020 and the total including the \$10.6 trillion accrued by current retirees comes to \$30.7 trillion. So, adding the total accrued Social Security benefits of current workers and retirees of \$43.4 trillion to this approximation of accrued Medicare benefits for workers and retirees produces \$74.2 trillion in accrued benefits.

¹⁹See the Social Security Administration’s Office of the Actuary web page for the scoring of variants of all of the provisions that are components of current reform proposals. The estimates in the text are based on provision A3: <http://www.ssa.gov/OACT/solvency/provisions/cola.html>.

retirees would be modestly reduced if this reform were implemented. Other recent reform proposals would replace the CPI-W with the CPI-E (CPI for the elderly). This would increase Social Security benefits for current retirees and would slightly increase their accrued benefits.

Are *Accrued* Social Security and Medicare Benefits Liabilities of the Federal Government?

The inclusion of accrued federal civilian and military personnel retirement benefits in the liabilities of the federal government raises the question: If these retirement pensions and liabilities are included as liabilities, why are accrued Social Security and Medicare benefits excluded from the liabilities?

The answer is not simple. For several years, the question of why Social Security and Medicare benefits were not included as liabilities on the federal government's balance sheet was addressed in the "Stewardship" chapter of *Analytical Perspectives*.ⁱ

The short answer to the question, given in the 2010 *Analytical Perspectives*, is that while Social Security and Medicare are "obligations" of the federal government, they are not liabilities "in a legal or accounting sense."

Analytical Perspectives goes on to note that "the Government has unilaterally decreased as well as increased these benefits in the past, and future reforms could alter them again," and "There is no **bright line** dividing Medicare, Medicaid, and Social Security from other programs that promise benefits to people, and all the Government programs that do so should be accounted for similarly." "Finally, under Generally Accepted Accounting Principles (GAAP) Social Security is not considered to be a liability, so not accounting for it as such in this chapter is consistent with accounting standards."ⁱⁱ

These responses to the question of including Medicare and Social Security as federal liabilities do not make the distinction between liabilities arising from past actions and future obligations that presuppose the continuation of current policy. The **bright line** we propose to draw is between the Social Security and Medicare benefits that are already accrued based on past actions versus those that arise from continued participation. And the line drawn here is even more restrictive in that it limits the liabilities to the accrued benefits already being paid to current retirees rather than also including the accrued benefits expected by current participants who are below the eligibility age. Accrued benefits of current workers are based on prior actions, but may be affected by future reforms, and in the case of Medicare are more difficult to define than are the accrued Social Security benefits of current workers.

Accounting for Social Security and Medicare presents an ongoing public policy puzzle. The benefits expected by retirees are not considered liabilities of the federal government or the assets (wealth) of the retirees. However, retirees have made their retirement plans as if these benefits are wealth. Also, almost all reform proposals ensure that current retirees are held harmless. Recognizing the expected benefits of retirees as liabilities of the federal government and as the retirees' assets (wealth) will inform policy discussions.

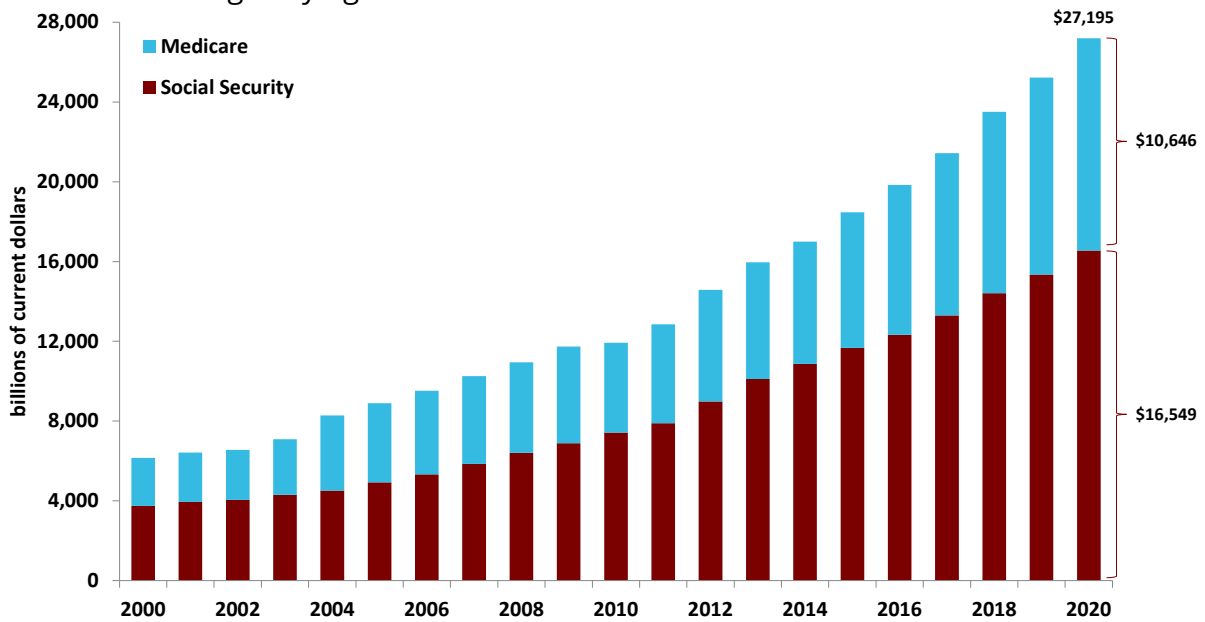
ⁱ See Fiscal Years 1998-2010, *Analytical Perspectives, Budget of the U.S. Government*. These versions of *Analytical Perspectives* include a "Stewardship" chapter in which the question of whether Social Security and Medicare should be included as government liabilities is addressed.

ⁱⁱ All quotes are from *Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2010*, p.186.

SOCIAL SECURITY AND MEDICARE

As noted, the accrued Social Security and Medicare benefits for all current participants are larger than the accrued benefits payable to retirees used here. These benefits payable to retirees are therefore conservative estimates of the programs’ total potential “liabilities.” As we have seen, the delayed or deferred effects of reforms to either Medicare or Social Security mean that current retirees’ benefits are only marginally affected. Figure 5 presents the accrued Medicare and Social Security benefits payable to current retirees. As of 2020 these benefits totaled \$27.2 trillion.

Figure 5. Accrued Social Security and Medicare Benefits Payable to Participants Who Have Attained Eligibility Age



Source: The Statement of Social Insurance, Financial Reports of the United States Government (2000-2020). See page 13 for the discussion of the Government Accountability Office’s opinion of the Medicare estimates beyond 2009.

Figure 5 indicates that the total of the Medicare and Social Security benefits payable to retirees has risen steadily in nominal dollars. They have also risen steadily as a share of GDP. In 2000 they were equal to 60% of GDP, by 2010 they were 80%, and as of 2020 they were 130% of GDP.

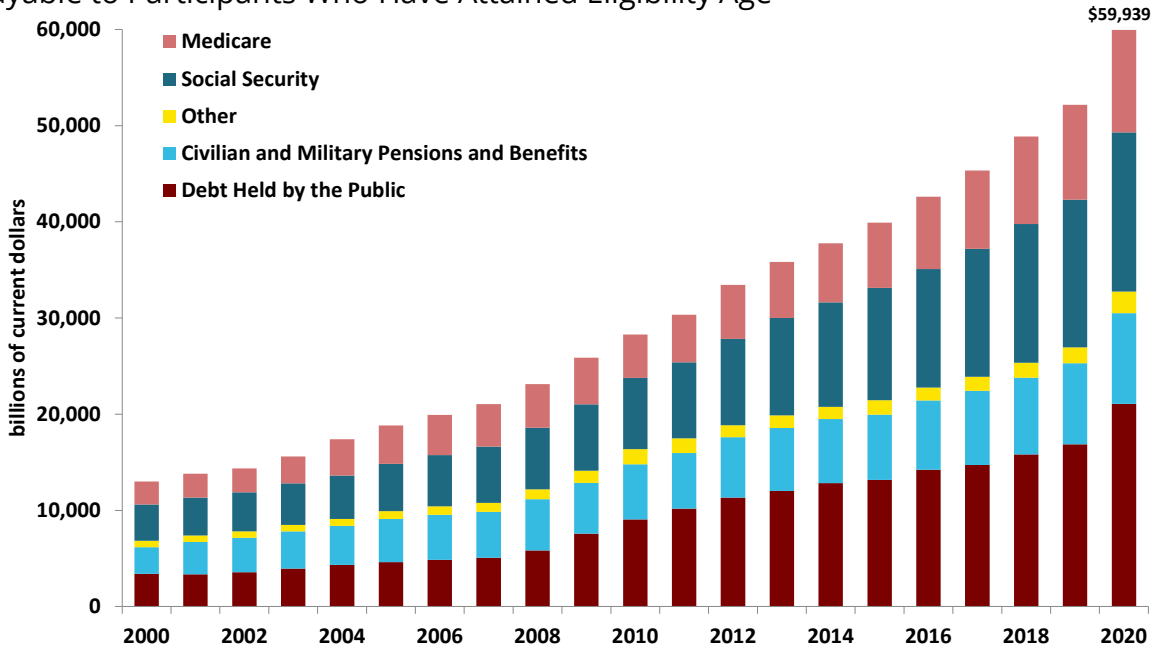
ADDING RETIREES’ EXPECTED SOCIAL SECURITY AND MEDICARE BENEFITS TO FEDERAL LIABILITIES

Figures 6 and 7 depict the composition and size of the “official” federal liabilities combined with retirees’ expected Social Security and Medicare benefits in nominal dollars and as a share of GDP.

As seen in Figure 6, the total of the official liabilities and retirees’ expected Social Security and Medicare benefits were almost \$60 trillion in 2020. The \$27.2 trillion in retirees’ expected Social Security and Medicare benefits comprised 45% of the total, were equal to 83% of the official

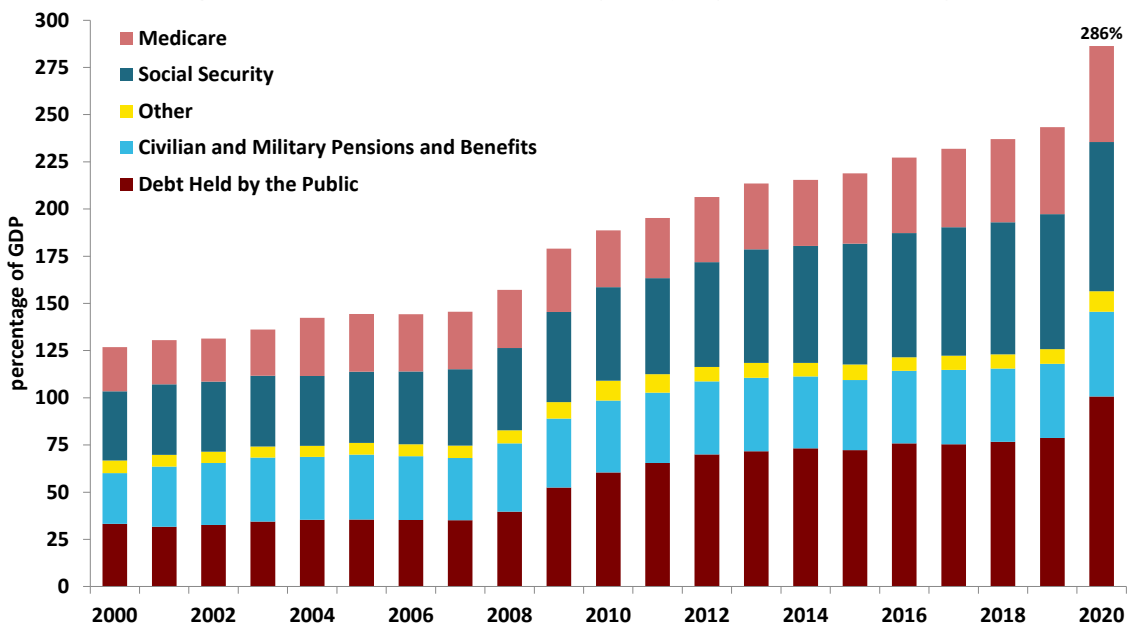
liabilities reported in the FRUSG, and were 29% higher than the debt held by the public. Altogether, these liabilities more than doubled their size over the last decade.

Figure 6. Federal Liabilities Including Accrued Social Security and Medicare Benefits Payable to Participants Who Have Attained Eligibility Age



Sources: Financial Reports of the United States Government (2000-2020). See page 13 for discussion of the Government Accountability Office’s opinion of the Medicare estimates beyond 2009.

Figure 7. Federal Liabilities Including Accrued Social Security and Medicare Benefits Payable to Participants Who Have Attained Eligibility Age as a Percentage of GDP



Sources: Financial Reports of the United States Government (2000-2020). GDP from the Bureau of Economic Analysis.

Denominating the combined liabilities by contemporaneous annual GDP is depicted in Figure 7. By 2020, the total liabilities were equal to 286% of GDP. The figure indicates that the liabilities' share of GDP was fairly static from 2000 to 2007. Prior to the Great Recession the combined liabilities were 146% of GDP. By 2019, the combined liabilities reached 243% of GDP. Between 2019 and 2020, the increase in the debt held by the public accounted for 51% of the growth in the share of GDP and the accrued Social Security and Medicare benefits of retirees accounted for 28%.

The debt held by the public tells one part of the federal liability story. Accrued retirement benefits payable to federal employees add to the story. And including Social Security and Medicare benefits payable to retirees is a further step towards completing the story. Together they give policy makers and the public a comprehensive understanding of the federal government's outstanding commitments based on prior actions.

CONCLUSION

With the federal debt held by the public topping 100% of GDP in 2020, many are concerned about the future path of fiscal policy. The debt held by the public is but one type of federal liability. The federal government is also already committed to paying federal employees' accrued pensions and other post-employment benefits – primarily health care benefits. Adding these federal employee retirement liabilities and other federal liabilities to the debt held by the public produced the \$32.7 trillion liability on the federal government's balance sheet as of September 30, 2020.

But these liabilities are just a part of the total implicit liability position of the federal government. We argue for adding the Social Security and Medicare benefits expected to be paid to current retirees to the official federal liabilities, to provide a more comprehensive and more informative measure of the government's indebtedness based on past actions. Adding them to the "official" liabilities produces a total actual liability measure of \$59.9 trillion or 286% of GDP.

The liability measure we propose is distinctly retrospective in its treatment of Social Security and Medicare commitments. The accrued benefits expected by current retirees provide a conservative estimate of commitments that meet the definition of a liability: they are obligations of the government resulting from prior actions that will require financial resources. These benefits are also much less affected by changes in forecasting assumptions than are the long-run unfunded obligation measures. Together, they exceed the debt held by the public and are 83% the size of the official federal liabilities reported in the FRUSG. Finally, they are relevant to policy makers and the public. These are the benefits on which retirees rely, and retirees are politically motivated to assure that their benefits are not reduced.

The accounting treatment of retirees' expected Social Security and Medicare benefits also informs other public policy questions. Recent studies of wealth inequality do not include accrued

Social Security and Medicare as assets.²⁰ Excluding these benefits from wealth estimates has been justified given that workers and retirees do not have a legally enforceable property right to the receipt of their benefits. However, excluding them leaves the impression that middle- and lower-income workers' retirement resources are less than they actually are.²¹

If accrued Social Security and Medicare benefits are included as part of the federal government's liabilities, they should also be counted in the wealth measures as retirees' assets. In the case of Social Security, the amount payable to retirees account for 38% of the total accrued benefits for all participants. And as discussed, the accrued benefits of current workers who are below the retirement age, though potentially affected by future reforms, are arguably an indicator of workers' implicit wealth in the two programs. They also are comparable to federal employee's pensions and other post-employment benefits that are already included as federal liabilities.

While the net Social Security and Medicare benefits payable to retirees appear in the FRUSG's Statements of Social Insurance, these portions of the elderly entitlement programs' obligations deserve added attention. Reporting them as liabilities or "proximate liabilities" complements the forward-looking unfunded obligation measures available in the programs' annual reports. Moreover, reporting all accrued Social Security and Medicare benefits, for current retirees and current workers, would give the public and policy makers an additional set of metrics by which they can evaluate proposed changes to these programs.

²⁰Saez and Zucman (2016) for example, do not include accrued Social Security and Medicare benefits in their study of wealth inequality. See "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data," *Quarterly Journal of Economics*, May 2016, pp. 519-578.

²¹For a discussion of how Social Security's accrued benefits affect the wealth distribution, see Andrew J. Rettenmaier, "Social Security Wealth and Federal Liabilities," Private Enterprise Research Center Working Paper, No. 2011. In this paper Rettenmaier finds that the share of total wealth held by the top 10% of households falls from 75% when total wealth does not include accrued Social Security wealth to 64% when total wealth includes these accrued benefits.