

# United States Government Required Supplementary Information (Unaudited) For the Years Ended September 30, 2013, and 2012

## Fiscal Projections for the U.S. Government – Fiscal Year 2013

This section of the Financial Report of the U.S. Government (FR) is prepared pursuant to Statement of Federal Financial Accounting Standard (SFFAS) 36, *Reporting Comprehensive Long-Term Fiscal Projections for the U.S. Government*. It assesses whether current policies for spending and taxation can be sustained and the extent to which the cost of federal benefits received by current taxpayers will be shifted to future taxpayers under sustainable policies. This assessment requires prospective information about receipts and spending, the resulting debt, and how these amounts relate to the economy. A sustainable policy is defined here as one where the ratio of federal debt held by the public to GDP (the debt-to-GDP ratio) is ultimately stable or declining. This section of the FR does not assess the sustainability of State and local government fiscal policy.

The projections and analysis presented here are extrapolations based on an array of assumptions described in detail below. Among these is the assumption that current Federal policy will not change. This assumption is made so as to inform the question of whether current fiscal policy is sustainable and, if it is not sustainable, the magnitude of needed reforms to make fiscal policy sustainable. The projections are therefore neither forecasts nor predictions. If policy changes are implemented, perhaps in response to projections like those presented here, then actual financial outcomes will of course be different than those projected.

The methods and assumptions underlying the projections are still evolving.

## Statement of Long Term Fiscal Projections

Table 1 on the following page reports the present value of 75-year projections for various categories of Federal Government's receipts and non-interest spending<sup>1</sup>. Estimates from last year's Financial Report are included in Table 1 for comparison. The Table 1 estimates are expressed in present value dollars and as a percentage of the present value of Gross Domestic Product (GDP)<sup>2</sup> as of September 30, 2013 and, in the case of last year's Financial Report, September 30, 2012. The present value of a future amount, for example \$1 billion in October 2088, is the amount of money that if invested on September 30, 2013 in an account earning the government borrowing rate would have a value of \$1 billion in October 2088.<sup>3</sup>

The present value of a receipt or expenditure category over 75 years is the sum of the annual present value amounts. When expressing a receipt or expenditure category over 75 years as a percent of GDP, the present value dollar amount is divided by the present value of GDP over 75 years. Measuring receipts and expenditures as a percentage of GDP is a useful indicator of the economy's capacity to sustain federal government programs. As is true for prior Financial Reports, the assumptions for GDP, interest rates, and other economic factors underlying this year's projections are the same assumptions

<sup>1</sup> For the purposes of this analysis, spending is defined in terms of outlays. In the context of Federal budgeting, spending can either refer to budget authority – the authority to commit the government to make a payment; to obligations – binding agreements that will result in payments, either immediately or in the future; or to outlays – actual payments made.

<sup>2</sup> GDP is a standard measure of the overall size of the economy and represents the total market value of all final goods and services produced domestically during a given period of time. The components of GDP are: private sector consumption and investment, government consumption and investment, and net exports (exports less imports). Equivalently, GDP is a measure of the gross income generated from domestic production over the same time period.

<sup>3</sup> Present values recognize that a dollar paid or collected in the future is worth less than a dollar today because a dollar today could be invested and earn interest. To calculate a present value, future amounts are thus reduced using an assumed interest rate, and those reduced amounts are summed.

that underlie the most recent Social Security and Medicare trustees’ report projections. The use of discount factors consistent with the Social Security trustees’ rate allows for consistent present value budget calculations over 75 years between this report and the trustees’ reports. Present value calculations under higher and lower interest rate scenarios are presented in the “Alternative Scenarios” section.

<b>Table 1: Long-Term Fiscal Projections of Federal Receipts and Spending</b>						
	75-Year Present Values <sup>1</sup>					
	Dollars in Trillions			% GDP <sup>2</sup>		
	2013	2012	Change	2013	2012	Change
<b>Receipts:</b>						
Social Security Payroll Taxes.....	46.1	42.1	3.9	4.2	4.3	-0.1
Medicare Payroll Taxes.....	15.4	14.1	1.3	1.4	1.5	0.0
Individual Income Taxes.....	113.2	97.5	15.7	10.4	10.0	0.3
Other Receipts.....	41.5	37.9	3.6	3.8	3.9	-0.1
<b>Total Receipts.....</b>	<b>216.2</b>	<b>191.6</b>	<b>24.6</b>	<b>19.8</b>	<b>19.7</b>	<b>0.1</b>
<b>Non-interest Spending:</b>						
Social Security.....	62.4	57.5	5.0	5.7	5.9	-0.2
Medicare Part A <sup>3</sup> .....	23.5	22.7	0.8	2.2	2.2	-0.1
Medicare Parts B&D <sup>4</sup> .....	24.4	22.2	2.2	2.2	2.4	-0.2
Medicaid.....	25.2	26.1	-0.9	2.3	2.7	-0.4
Defense Discretionary.....	23.1	30.4	-7.3	2.1	3.1	-1.0
Non-defense Discretionary.....	27.4	16.1	11.4	2.5	1.7	0.9
Other Mandatory.....	34.0	33.2	0.8	3.1	3.4	-0.3
<b>Total Non-interest Spending.....</b>	<b>220.2</b>	<b>208.2</b>	<b>12.0</b>	<b>20.2</b>	<b>21.4</b>	<b>-1.3</b>
<b>Non-interest Spending less Receipts.....</b>	<b>4.0</b>	<b>16.5</b>	<b>-12.6</b>	<b>0.4</b>	<b>1.7</b>	<b>-1.3</b>

<sup>1</sup> 75-year present value projections for 2013 are as of 9/30/2013 for the period FY 2014-2088; projections for 2012 are as of 9/30/2012 for the period FY 2013-2087.

<sup>2</sup> The 75-year present value of nominal GDP, which drives the calculations above is \$1091.8 trillion starting in FY 2014, and was \$971.3 trillion starting in FY 2013.

<sup>3</sup> Represents portions of Medicare supported by payroll taxes.

<sup>4</sup> Represents portions of Medicare supported by general revenues. Consistent with the President’s Budget, outlays for Parts B & D are presented net of premiums.

NOTE: Totals may not equal the sum of components due to rounding.

Receipt categories in Table 1 include individual income taxes, Social Security and Medicare payroll taxes, and the residual “other receipts.” On the spending side, the projections are broken down into: (1) discretionary spending that is funded through annual appropriations, such as spending for national security, and (2) mandatory (entitlement) spending that is generally financed with permanent or multi-year appropriations, such as spending for Social Security and Medicare. This year’s projections for Social Security and Medicare are based on the same economic and demographic assumptions that underlie the 2013 Social Security and Medicare trustees’ reports and the Statement of Social Insurance, while comparative information presented from last year’s report is based on the 2012 Social Security and Medicare trustees’ reports. Projections for the other categories of receipts and spending are consistent with the economic and demographic assumptions used from the respective trustees’ reports. The projections assume the continuance of current policy which, as is explained below, can be different than current law in cases where lawmakers have in the past periodically changed the law in a consistent way.

The projections shown in Table 1 are made over a 75-year time frame, consistent with the time frame featured in the Social Security and Medicare trustees’ reports. However, these projections are for fiscal years starting on October 1, whereas the trustees’ reports feature calendar-year projections. This difference allows the projections to start from the actual budget results from fiscal years 2013 and 2012.

This year’s estimate of the overall 75-year present value net excess of non-interest spending over receipts expressed in Table 1 is 0.4 percent of the 75-year present value of GDP (\$4.0 trillion). This imbalance can be broken down by funding source. There is a surplus of receipts over spending of 1.3 percent of GDP (\$14.5 trillion) among programs funded by the government’s general revenues, but an imbalance of 1.7 percent of GDP (\$18.5 trillion<sup>4</sup>) for the combination of Social Security (OASDI) and Medicare Part A, which under current law are funded with payroll taxes and not in any material

<sup>4</sup> The 75-year present value earmarked imbalance of \$18.5 trillion is comprised of several line items from Table 1 – Social Security outlays net of Social Security Payroll Taxes (\$16.3 trillion) and Medicare Part A outlays net of Medicare Payroll Taxes (\$8.1 trillion) – as well as subcomponents of these programs not presented separately in the table. These subcomponents include Social Security and Medicare Part A administrative costs that are classified as non-defense discretionary spending (\$0.6 trillion) and Social Security and Medicare Part A revenue other than payroll taxes: taxation of benefits (-\$2.9 trillion), Federal employer share (-\$1.1 trillion), and other income (-\$2.5 trillion).

respect with general revenues.<sup>5 6</sup> By comparison, last year’s projections showed that programs funded by the government’s general revenues had an excess of receipts over spending of 0.1 percent of GDP (\$1.3 trillion) while the payroll tax-funded programs had an imbalance of spending over receipts of 1.8 percent of GDP (\$17.9 trillion).

This year’s estimate of the 75-year present value imbalance of spending over receipts expressed as a share of the 75-year present value of GDP is 1.3 percentage points lower than was estimated in last year’s Report. Table 2 reports the sources of the change. The largest source of change, 0.5 percent of GDP (\$4.9 trillion), was due to changes in the projections for Medicare and Medicaid as reflected in their respective actuarial reports. The 2013 Medicare trustees’ report projected lower spending in most service categories and lower Medicare Advantage program costs, reflecting recent data that suggest certain provisions of the Affordable Care Act will reduce growth in these costs by more than was projected in the 2012 report. The 2012 Medicaid actuarial report reflected fewer beneficiaries and lower cost per beneficiary than the 2011 report, due to lower than projected base year expenditures, the Supreme Court decision on the Medicaid eligibility expansion, and slower projected per enrollee cost growth.

75-Year Present Values:	Trillions of \$	% of 75-Year Present Value of GDP
<b>Non-Interest Spending Less Receipts: FY 2012.....</b>	16.5	1.7
Components of Change:		
Change due to Program-Specific Actuarial Assumptions.....	-4.9	-0.5
Change due to Enacted Legislation.....	-3.2	-0.3
Change in Economic and Demographic Assumptions.....	-2.0	-0.3
Change due to Updated Budget Data.....	-1.2	-0.1
Change in Reporting Period.....	-0.9	-0.1
Change in Model Technical Assumptions.....	-0.4	-0.0
<b>Total.....</b>	<b>-12.6</b>	<b>-1.3</b>
<b>Non-Interest Spending Less Receipts: FY 2013.....</b>	4.0	0.4

NOTE: Totals may not equal the sum of components due to rounding.

The next largest change noted in Table 2 – further lowering the imbalance by 0.3 percent of GDP (\$3.2 trillion), is attributable to enactment of the American Taxpayer Relief Act (ATRA) in January 2013. ATRA permanently extended the 2001/2003 tax cuts (providing for lower marginal income tax rates and other tax cuts) for incomes up to \$400,000 for individuals and \$450,000 for couples while allowing them to expire for incomes above those thresholds.<sup>7</sup> The law also permanently indexed the Alternative Minimum Tax (AMT) to inflation. (In addition, it delayed the implementation of automatic spending cuts called for in the Budget Control Act of 2011 (BCA) for two months and extended a number of smaller tax and spending measures while allowing several other smaller tax provisions to expire.) Since the 2012 projections

<sup>5</sup> General fund transfers received by the OASDI trust fund, primarily in 2011 and 2012, to account for lost payroll taxes resulting from enactment of the temporary 2 percent reduction of the employee payroll taxes are not included in the 75-year present value of OASDI payroll taxes. Social Security and Medicare Part A expenditures can exceed payroll tax revenues in any given year to the extent that there are sufficient balances in the respective trust funds, balances that derive from past excesses of payroll tax revenues over expenditures and interest earned on those balances and represent the amount the general fund owes the respective trust fund programs. When spending does exceed payroll tax revenues, as has occurred each year since 2008 for Medicare Part A and 2010 for Social Security, the excess spending is financed first with interest due from the general fund and secondly with a drawdown of the general fund’s loan balance; in either case, the spending is ultimately supported by general revenues or borrowing. Under current law, benefits for Social Security and Medicare Part A can be paid only to the extent that there are sufficient balances in the respective trust funds. In order for the projections here to reflect the full size of these program’s commitments to pay future benefits, the projections assume that all scheduled benefits will be financed with borrowing to the extent necessary after the trust funds are exhausted.

<sup>6</sup> The fiscal imbalances reported in Table 1 are limited to future outlays and receipts. They do not include the initial level of publicly-held debt, which was \$12.0 trillion in 2013 and \$11.3 trillion in 2012, and therefore they do not by themselves answer the question of how large fiscal reforms must be to make fiscal policy sustainable, or how those reforms divide between reforms to Social Security and Medicare Part A and to other programs. Other things equal, past cashflows (primarily surpluses) for Social Security and Medicare Part A reduced federal debt at the end of 2013 by \$3.0 trillion (the trust fund balances at that time); the contribution of other programs to federal debt at the end of 2013 was therefore \$14.3 trillion. Because the \$18.5 trillion imbalance between outlays and receipts over the next 75 years for Social Security and Medicare Part A does not take account of the Social Security and Medicare Part A trust fund balances, it overstates the magnitude of reforms necessary to make Social Security and Medicare Part A solvent over 75 years by \$3.0 trillion. The \$3.0 trillion combined Social Security and Medicare Part A trust fund balance represents a claim on future general revenues.

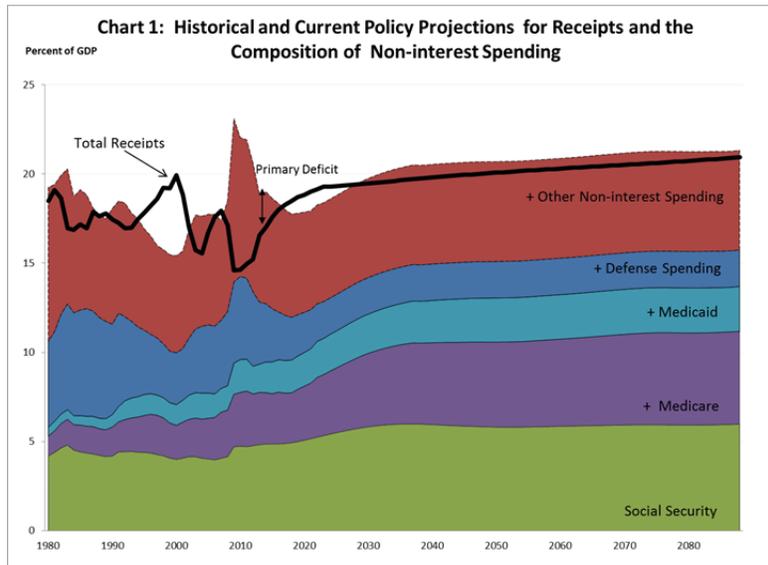
<sup>7</sup> The 2001/2003 tax rate cuts were extended for incomes up to \$400,000 for individuals and \$450,000 for couples; certain other provisions expired for individuals with incomes over \$250,000 and couples with incomes over \$300,000.

assumed extension of all the 2001/2003 tax cuts, including for those with incomes above \$400,000/\$450,000, the effect of ATRA was to raise revenue in the 2013 projections relative to the 2012 projections.

Revised economic and demographic assumptions—including the July 2013 comprehensive National Income and Product Accounts revisions to GDP—lowered the 75-year present value imbalance by 0.3 percent of GDP (\$2.0 trillion), as higher nominal GDP and wages had a larger upward effect on the receipts projection than the spending projection. Finally, the projected 75-year present value imbalance was also lowered by a combined 0.3 percent of GDP (\$2.8 trillion) due to: (1) updated actual budget results for fiscal year 2013 and other budget data used in formulating the projection (\$1.2 trillion or 0.1 percent of GDP reduction), (2) the change in the reporting period from 2013-2087 to 2014-2088 (\$0.9 trillion or 0.1 percent of GDP reduction), and (3) changes in model technical assumptions (\$0.4 trillion or 0.0 percent of GDP reduction).

## The Sustainability of Fiscal Policy

One of the important purposes of the Financial Report is to help citizens and policymakers assess whether current fiscal policy is sustainable and, if it is not, the urgency and magnitude of policy reforms necessary to make fiscal policy sustainable. A sustainable policy is one where the ratio of debt held by the public to GDP (the debt-to-GDP ratio) is ultimately stable or declining.



As discussed below, the projections in this report indicate that current policy is not sustainable. If current policy is left unchanged, the projections show the debt-to-GDP ratio falling by nearly 5 percentage points between 2014 to 2024, returning to its 2012 level of 70.1 percent of GDP by 2025, reaching 100 percent of GDP in 2039, and then steadily rising and eventually reaching 277 percent in 2088. Moreover, if the trends that underlie the 75-year projections were to continue, the debt-to-GDP ratio would continue to rise beyond the 75-year window. These conclusions are rooted in the projected trends in receipts, spending, and surpluses/deficits in the context of current law and policy, although, as described in the following pages, there is considerable uncertainty surrounding these estimates. For comparison, under the 2012 projections, the debt-to-GDP ratio increased by a little less than 2 percentage points from 2013 to 2015, fell slightly each year to reach its low point in 2019 (76.4 percent of GDP, roughly the same as its 2013 level), and was projected to equal 100 percent by 2030 and 395 percent in 2087.

### Current Policy Projections for Primary Deficits

A key determinant of growth in the debt-to-GDP ratio and hence fiscal sustainability is the primary deficit-to-GDP ratio. The primary deficit is the difference between non-interest spending and receipts, and the primary deficit-to-GDP ratio is the primary deficit expressed as a percent of GDP. As shown in Chart 1, the primary deficit-to-GDP ratio grew rapidly in 2009 due to the financial crisis and the recession and the policies pursued to combat both. The ratio stayed large from 2010 to 2012 despite shrinking in each successive year, and fell significantly in 2013. The primary deficit is projected to shrink in the next few years as spending reductions called for in the BCA take effect and the economy recovers, becoming a primary

surplus starting in 2017 that peaks at 1.1 percent of GDP in 2021. Between 2022 and 2037, however, increased spending for Social Security and health programs due to continued aging of the population is expected to cause the primary balance to steadily deteriorate and become a primary deficit in 2029 that grows to 0.8 percent of GDP in 2036. After 2037, the projected primary deficit-to-GDP ratio slowly declines to 0.4 percent of GDP in 2088 as the impact of the baby boom generation retiring dissipates.

The revenue share of GDP fell substantially in 2009 and 2010 and remained low in 2011 and 2012 because of the recession and tax reductions enacted as part of the 2009 American Recovery and Reinvestment Act (ARRA) and the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. The share rose to 17 percent in 2013 and is projected to return to near its long-run average as the economy recovers and higher tax rates called for by ATRA take effect. After the economy has fully recovered around 2020, receipts are projected to grow slightly more rapidly than GDP as increases in real incomes cause more taxpayers and a larger share of income to fall into the higher individual income tax brackets. Other possible paths for the receipts-to-GDP ratio and the implications for projected debt are analyzed in the “Alternative Scenarios” section.

On the spending side, the non-interest spending share of GDP is projected to stay at or below its current level of about 19 percent until 2029, and to then rise gradually to 20.6 percent of GDP in 2042 and 21.3 percent of GDP in 2088. The reductions in the non-interest spending share of GDP over the next two years are mostly due to the expected reductions in spending for overseas contingency operations (OCO), caps on discretionary spending and the automatic spending cuts mandated by the BCA, and the subsequent increases are principally due to faster growth in Medicare, Medicaid, and Social Security spending (see Chart 1). The retirement of the baby boom generation over the next 25 years is projected to increase the Social Security, Medicare, and Medicaid spending shares of GDP by about 1.2 percentage points, 1.6 percentage points, and 0.8 percentage points, respectively. After 2038, the Social Security spending share of GDP gradually declines and then returns to 2038 levels, while the Medicare and Medicaid spending share of GDP continues to increase, albeit at a slower rate, due to projected increases in health care costs.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (ACA) significantly affects projected spending for both Medicare and Medicaid. That legislation expands health insurance coverage, includes many measures designed to reduce health care cost growth, and significantly reduces Medicare payment rates. On net, the ACA is projected to substantially reduce federal expenditures over the next 75 years. The Medicare spending projections in Table 1 are based on the 2013 Medicare trustees’ report’s current law projections, and those projections show a substantial slowdown in Medicare cost growth. The projections assume that Medicaid cost per beneficiary grows at the same rate as Medicare cost growth per beneficiary, so the ACA is also estimated to substantially slow Medicaid cost growth. These projections are subject to much uncertainty about the ultimate effects of the ACA’s provisions to reduce health care cost growth. Even if those provisions work as intended and as assumed in this projection, Chart 1 shows that there is still a long-term gap between projected receipts and projected total non-interest spending.

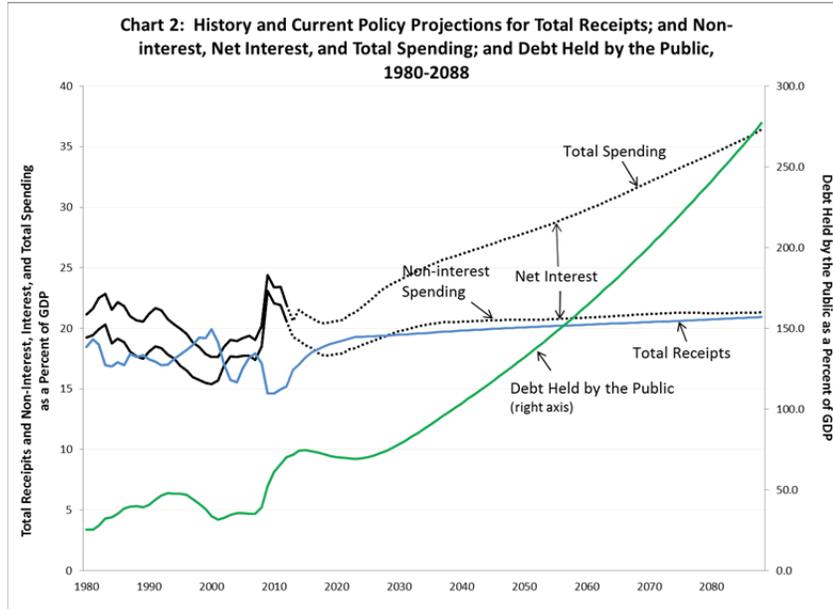
## Current Policy Projections for Debt and Interest Payments

The primary deficit projections in Chart 1, along with projections for interest rates and GDP, determine the projections for the debt-to-GDP ratio that are shown in Chart 2 (right axis). That ratio was 72 percent at the end of fiscal year 2013, and under current policy is projected to be 69 percent in 2023, 112 percent in 2043, and 277 percent in 2088. The continuous rise of the debt-to-GDP ratio after 2024 indicates that current policy is unsustainable.

The change in debt held by the public from one year to the next is approximately equal to the unified budget deficit, the difference between total spending and total receipts.<sup>8</sup> Total spending is non-interest spending plus interest spending. Chart 2 (left axis) shows that the rapid rise in total spending and the unified deficit is almost entirely due to projected interest payments on the debt. As a percent of GDP, interest spending was 1.3 percent in 2013, and under current policy is projected to reach 4.6 percent in 2033 and 15 percent in 2088.

Another way of viewing the improvement in the financial outlook in this year's report relative to last year's report documented in Table 2 is in terms of the projected debt-to-GDP ratio in 2087. This ratio is projected to reach 272 percent in this year's report, which compares with 395 percent projected in last year's report.

<sup>8</sup> Debt held by the public is also affected by certain transactions not included in the unified budget deficit, such as changes in Treasury’s cash balances and the nonbudgetary activity of Federal credit financing accounts. These transactions are assumed to hold constant at about 0.8 percent of GDP.



### The Fiscal Gap

The fiscal gap measures how much the primary surplus (receipts less non-interest spending) must increase in order for fiscal policy to achieve a target debt-to-GDP ratio in a particular future year. In these projections, the fiscal gap is estimated over a 75-year period, from 2014 to 2088, and the target debt-to-GDP ratio is equal to the ratio at the beginning of the projection period, in this case the debt-to-GDP ratio at the end of fiscal year 2013 (72 percent of GDP).

Table 3 reports that the 75-year fiscal gap under current policy is estimated at 1.7 percent of GDP, which is 8.6 percent of the 75-year present value of projected receipts and 8.4 percent of the 75-year present value of non-interest spending. This is less than the 75-year fiscal gap projected in 2012 (2.7 percent of GDP).

Eliminating the primary deficit of 0.4 percent of GDP is not sufficient to close the fiscal gap. Because interest rates are assumed to exceed the growth rate of GDP, maintaining primary balance in each year would still leave debt rising relative to GDP. As noted in Table 1, the present value of the primary deficit, or the excess of projected programmatic (non-interest) spending over receipts, is 0.4 percent of GDP, which in nominal terms is equivalent to an average primary deficit over 75 years of 0.4 percent of GDP. In order to fully close the fiscal gap of 1.7 percent of GDP, annual primary surpluses over the next 75 years must average 1.3 percent of GDP (compared to the current projection of primary deficits of 0.4 percent of GDP).

### The Cost of Delay in Closing the 75-Year Fiscal Gap

The longer policy action to close the fiscal gap is delayed, the larger the post-reform primary surpluses must be to stabilize the debt-to-GDP ratio by the end of the 75 year period. Varying the years in which reforms are initiated while holding constant the ultimate target ratio of debt to GDP helps to illustrate the cost of delaying policy changes that close the fiscal gap. The reforms considered here increase the primary surplus relative to current policy by a fixed percent of GDP starting in the reform year. Three such policies are considered, each one beginning in a different year. The analysis shows that the longer policy action is delayed, the larger the post-reform primary surplus must be to bring the debt-to-GDP ratio to 72 percent of GDP in 2088. Future generations are harmed by policy delay because delay necessitates higher primary surpluses during their lifetimes, and those higher primary surpluses must be achieved through some combination of lower government benefits and higher taxes.

As previously shown in Chart 1, under current policy, primary deficits occur in much of the projection period. Table 3 shows primary surplus changes necessary to make the debt-to-GDP ratio in 2088 equal to its level in 2013 under each of the three policies. If reform begins in 2014, then it is sufficient to raise the primary surplus share of GDP by 1.7 percentage points in every year between 2014 and 2088 in order to have a debt-to-GDP ratio in 2088 equal to the level in 2013. This raises the average 2014-2088 primary surplus-to-GDP ratio from -0.4 percent to +1.3 percent.

Table 3	
Costs of Delaying Fiscal Reform	
Period of Delay	Change in Average Primary Surplus
No Delay: Reform in 2014.....	1.7 percent of GDP between 2014 and 2088
Ten Years: Reform in 2024.....	2.1 percent of GDP between 2024 and 2088
Twenty Years: Reform in 2034..	2.6 percent of GDP between 2034 and 2088

Note: Reforms taking place in 2013, 2023, and 2033 from the 2012 Report were 2.7, 3.2, and 4.1 percent of GDP.

In contrast to a reform that begins immediately, if reform is begun in 2024 or 2034, the primary surplus must be raised by 2.1 percent and 2.6 percent of GDP, respectively, in order to reach a debt-to-GDP ratio in 2088 equal to the level of 72 percent in 2013. The difference between the primary surplus increase necessary if reform begins in 2024 and 2034 (2.1 and 2.6 percent of GDP, respectively) and the increase necessary if reform begins in 2014 (1.7 percent of GDP) is a measure of the additional burden policy delay would impose on future generations. The costs of delay are due to increases in the debt-to-GDP ratio between 2013 and the year reform is initiated, which increases the amount of interest that must be covered with primary surpluses after reform begins.

These estimates likely understate the cost of lengthy policy delays because they assume interest rates will not rise as the debt-to-GDP ratio grows. Under the current projections, the debt-to-GDP ratio rises until 2015 and then falls for the next decade, but rises to exceed its 2012 level in 2026 and then grows steadily. If a higher debt-to-GDP ratio causes the government borrowing rate to rise, thus making it more costly for the government to service its debt and simultaneously slowing private investment, then the primary surplus required to return the debt-to-GDP ratio to its 2013 level would also increase. This dynamic may accelerate with higher ratios of debt to GDP, potentially resulting in there being no feasible level of taxes and spending that would reduce the debt-to-GDP ratio to its 2013 level. The potential impact on the projections of interest rates rising as the debt-to-GDP ratio rises is explored in the “Alternative Scenarios” section.

**Assumptions Used and Relationship to Other Financial Statements**

A fundamental assumption underlying the projections is that current Federal policy (defined below) does not change. The projections are therefore neither forecasts nor predictions. If policy changes are enacted, perhaps in response to projections like those presented here, then actual fiscal outcomes will of course be different than those projected.

Even if policy does not change, actual expenditures and receipts could differ materially from those projected here. Long-range projections are inherently uncertain and are necessarily based on simplifying assumptions. For example, one key simplifying assumption is that interest rates paid on public debt remain unchanged, regardless of the amount of debt outstanding. To the contrary, it is likely that future interest rates would increase if the debt-to-GDP ratio rises as in these projections. To help illustrate this uncertainty, present value calculations under higher and lower interest rate scenarios are presented in the “Alternative Scenarios” section.

The projections in this section focus on future cashflows, and do not reflect either the accrual basis or the modified-cash basis of accounting. These cash-based projections reflect receipts or spending at the time cash is received or when a payment is made by the Government. In contrast, accrual-based projections would reflect amounts in the time period in which income is earned or when an expense or obligation is incurred. The cash basis accounting underlying this section is consistent with methods used to prepare the Statement of Social Insurance (SOSI) and the generally cash-based Federal budget.

The following bullets summarize the assumptions used for the key categories of receipts and spending presented in Table 1 and in the related analysis:

- **Social Security:** Projected Social Security (OASDI) spending is net of administrative expenses, which are classified as discretionary spending, and is based on the projected expenditures in the 2013 Social Security trustees’ report for benefits and the Railroad Retirement interchange. The projections of Social Security payroll taxes and future Social Security spending begin with actual budget data for FY 2013. The projected growth rates for future spending and payroll taxes are equal to the spending and tax growth rate projections underlying the 2013 Social Security trustees’ report. More information about the assumptions for Social Security cost growth can be found in the Required Supplementary Information for Social Insurance.
- **Medicare:** Projected Medicare spending is also net of administrative expenses and is based on projected incurred expenditures from the 2013 Medicare trustees’ report. However, some adjustments to the trustees’ report projections are made. Medicare Part B and D premiums, as well as State contributions to Part D, are subtracted from gross spending in measuring Part B and Part D outlays, just as they are subtracted from gross cost to yield net cost in the

financial statements.<sup>9</sup> Here, as in the Federal budget, premiums are treated as “negative spending” rather than receipts since they represent payment for a service rather than payments obtained through the Government’s sovereign power to tax. This is similar to the financial statement treatment of premiums as “earned” revenue as distinct from all other sources of revenue, such as taxes. The projections start with actual FY 2013 Medicare spending and assume spending growth accords with the growth rates projected in the Medicare trustees’ report. Medicare Part A payroll taxes are projected similarly. More information about the assumptions for Medicare cost growth can be found in the Required Supplementary Information for Social Insurance. As discussed in Note 24, there is uncertainty about whether the reductions in health care cost growth projected in the Medicare trustees’ report will be fully achieved. Note 24 illustrates this uncertainty by considering Medicare cost growth assumptions under varying policy assumptions.

- **Medicaid:** The Medicaid spending projections start with the projections from the *2012 Actuarial Report on the Financial Outlook for Medicaid* prepared by the Office of the Actuary, Centers for Medicare & Medicaid Services (CMS),<sup>10</sup> adjusted to accord with the latest budget data. Those projections end in 2021 and incorporate CMS’s projected effect of the ACA (as modified by the June 2012 Supreme Court ruling) on Medicaid enrollment. After 2021, the number of Medicaid beneficiaries is expected to grow at the same rate as total population, and Medicaid costs per beneficiary are assumed to grow at the same rate as Medicare benefits per beneficiary, as is consistent with the experience since 1987. Between 1987 and 2012, the average annual growth rate of outlays per beneficiary for Medicaid and Medicare were within 0.2 percentage points of each other.
- **Other Mandatory Spending:** Other mandatory spending is projected in two steps. First, spending prior to the automatic spending cuts called for by the BCA is projected and, second, the effect of the BCA is projected. With regard to pre-BCA spending: (a) Current mandatory spending components that are judged permanent under current policy are assumed to increase by the rate of growth in nominal GDP starting in 2014, implying that such spending will remain constant as a percentage of GDP<sup>11</sup>; (b) Special assumptions are made for temporary mandatory spending authorized by ARRA and other stabilization measures, including temporary expansions in unemployment insurance benefits, and the Troubled Asset Relief Program (TARP) – the 75-year present value of projected spending for this category totals \$0.1 trillion; and (c) Projected new spending for insurance exchange subsidies starting in 2014 follows the most recent Budget projections until 2023, and then grows in accordance with growth in the projected non-elderly population and growth in health care costs as projected for the Medicare program.
- **Discretionary Spending:** Through 2021, discretionary spending other than for Overseas Contingency Operations (OCO) is dictated by the spending caps and automatic spending cuts called for by the BCA. After 2021, this spending is assumed to grow at the same rate as nominal GDP, and thus plateaus in 2021 at a long-term level of 4.5 percent of GDP. The BCA is projected to reduce the present value of spending by \$0.6 trillion through 2021, and by an additional \$3.3 trillion between 2022 and 2088 because of the lower base spending in 2022. Projected OCO spending steadily declines and is fully phased out by 2023, and amounts to \$0.3 trillion in present value. To illustrate uncertainty, present value calculations under alternative discretionary growth scenarios are presented in the “Alternative Scenarios” section.
- **Receipts (Other than Social Security and Medicare):** It is assumed that individual income taxes will equal the same share of wages and salaries as in the Administration’s latest Budget current law baseline projection. That baseline accords with current policy as defined above, and incorporates the effects of the economic recovery and bracket creep. After reaching about 22 percent of wages and salaries in 2023, individual income taxes increase gradually to 28 percent of wages and salaries in 2088 as real taxable incomes rise over time and an increasing share of total income is taxed in the higher tax brackets. The ratio of all other receipts combined to GDP is projected to rise over the next several years as the economy recovers, and to then level off at 3.8 percent of GDP, the historical average between 1979 and 2012. To illustrate uncertainty, present value calculations under higher and lower receipts growth scenarios are presented in the “Alternative Scenarios” section.
- **Interest Spending:** Interest spending is determined by projected interest rates and the level of outstanding debt held by the public. The long-run interest rate assumptions for fiscal years accord with those for calendar years in the 2013

<sup>9</sup> Medicare Part B and D premiums and State contributions to Part D are subtracted from the Part B and D spending displayed in Table 1. The total 75-year present value of these subtractions is \$9.0 trillion, or 0.8 percent of GDP.

<sup>10</sup> Christopher J. Truffer, John D. Klemm, Christian J. Wolfe, Kathryn E. Rennie, and Jessica F. Shuff, *2012 Actuarial Report on the Financial Condition for Medicaid*, Office of the Actuary, Centers for Medicare and Medicaid Services, United States Department of Health and Human Services, December 2012.

<sup>11</sup> This assumed growth rate for other mandatory programs exceeds the growth rate in the most recent OMB and CBO baselines.

Social Security trustees' report<sup>12</sup>. The average interest rate over the projection period is 5.5 percent. These rates are also used to convert future cashflows to present values as of the start of fiscal year 2014.

### Departures of Current Policy from Current Law

The long-term fiscal projections are made on the basis of current Federal policy, which in some cases is different from current law. The notable differences between current policy that underlies the projections and current law are: (1) projected spending and receipts imply violation of the current statutory limit on Federal debt, (2) continued discretionary appropriations are assumed throughout the projection period, (3) scheduled Social Security and Medicare benefit payments are assumed to occur beyond the projected point of trust fund exhaustion, and (4) many mandatory programs with expiration dates prior to the end of the 75-year projection period are assumed to be reauthorized. As is true in the Medicare trustees' report and in the Statement of Social Insurance,<sup>13</sup> the projections incorporate programmatic changes already scheduled in law, such as the implementation of ACA exchange subsidies and the ACA productivity adjustment for non-physician Medicare services.

## Alternative Scenarios

The long-run outlook for the budget is extremely uncertain. This section illustrates this inherent uncertainty by presenting alternative scenarios for the growth rate of health care costs, revenues, discretionary spending, and interest rates.

Not considered here are the effects of alternative assumptions for long-run trends in birth rates, mortality, and immigration.

The population is aging rapidly and will continue to do so over the next several decades, which puts pressure on programs such as Social Security, Medicare, and Medicaid nursing care. A shift in projected fertility, mortality, or immigration rates could have important long-run effects on the projections. Higher than projected immigration, fertility, or mortality rates would improve the long-term fiscal outlook. Conversely, lower than projected immigration, fertility, or mortality rates would result in deterioration in the long-term fiscal outlook.

### Effect of Changes in Health Care Cost Growth

One of the most important assumptions underlying the projections is the projected growth of health care costs. Enactment of the ACA in 2010 reduced the projected long-run growth rates of health care costs, but these growth rates are still highly uncertain. As an illustration of the dramatic effect of variations in health care cost growth rates, Table 4 shows the effect on the size of reforms necessary to close the fiscal gap as well as the effect of delaying closure of the fiscal gap of per capita health care cost growth rates that are one percentage point higher or two percentage points higher than the growth rates in the base projection. As indicated earlier, if reform is initiated in 2014, eliminating the fiscal gap requires that the 2014-2088 primary surplus increase by an average of 1.7 percent of GDP in the base case. However, that figure increases to 4.7 percent of GDP if per capita health cost growth is assumed to be 1 percentage point higher, and 7.6 percent of GDP if per capita health cost growth is 2 percentage points higher. The cost of delaying reform is also increased if health care cost growth is higher, due to the fact that debt accumulates more rapidly during the period of inaction. For example, the lower part of Table 4 shows that delaying reform initiation from 2014 to 2024 requires that 2024-2088 primary surpluses be higher by an average of 0.3 percent of GDP in the base case, 1.0 percent of GDP if per capita health cost growth is 1 percentage point higher, and 1.6 percent of GDP if per capita health cost growth is 2 percentage points higher. The dramatic deterioration of the long-run fiscal outlook caused by higher health care cost growth shows the critical importance of managing health care cost growth, including through effective implementation of the ACA.

<sup>12</sup> As indicated in the more detailed discussion of Social Insurance in Note 24 to the financial statements.

<sup>13</sup> To prevent the reductions in Medicare physician fees that would have otherwise taken place, since 2003 Congress has repeatedly enacted statutes with temporary "physician fee relief" provisions, which increase health care expenditures. Since 2003, the majority of these statutes have also included other provisions that would reduce expenditures associated with Medicare or other types of health care ("health care cost savings provisions"). The assumption here that future reductions in Medicare payments for physicians' services will occur as scheduled under current law is comparable to an assumption that the reductions will be overridden by enactment of new temporary physician fee relief provisions but the resulting costs will be paid for through enactment of new health care cost savings provisions.

Table 4			
Impact of Alternative Health Cost Scenarios on Cost of Delaying Fiscal Reform			
Scenario	Primary Surplus Increase (% of GDP)		
	Starting in:		
	2014	2024	2034
Base Case.....	1.7	2.1	2.6
1% pt. higher per person health cost growth.....	4.7	5.6	7.1
2% pt. higher per person health cost growth.....	7.6	9.2	11.6
	Change in Primary Surplus Increase if Reform is Delayed From 2014 to:		
		2024	2034
Base Case.....		0.4	0.9
1% pt. higher per person health cost growth.....		1.0	2.4
2% pt. higher per person health cost growth.....		1.6	4.0

NOTE: Increments may not equal the subtracted difference of the components due to rounding.

### Effects of Changes in Interest Rates

A higher debt-to-GDP ratio is likely to increase the interest rate on Government debt, making it more costly for the Government to service its debt. Table 5 displays the effect of several alternative scenarios using different nominal interest rates than assumed in the base case on the size of reforms to close the fiscal gap as well as the effect of delaying closure of the fiscal gap. If reform is initiated in 2014, eliminating the fiscal gap requires that the 2014-2088 primary surplus increase by an average of 1.7 percent of GDP in the base case, 2.0 percent of GDP if the interest rate is 0.5 percentage point higher in every year, and 2.2 percent of GDP if the interest rate is 1.0 percentage point higher in every year. The cost of delaying reform is also increased if interest rates are higher, due to the fact that interest paid on debt accumulates more rapidly during the period of inaction. For example, the lower part of Table 5 shows that delaying reform initiation from 2014 to 2024 requires that 2024-2088 primary surpluses be higher by an average of 0.3 percent of GDP in the base case, 0.5 percent of GDP if the interest rate is 0.5 percentage point higher in every year, and 0.6 percent of GDP if the interest rate is 1.0 percentage point higher in every year. To show the effects of achieving primary balance and lowering long-term debt-to-GDP and interest rates, lowering nominal interest rates by one-half percentage point from the base projection starting in 2014 lowers the cost of reform over the three periods to 1.4 percent of GDP per year starting in 2014, 1.7 percent per year starting in 2024, and 2.1 percent per year starting in 2034.

Table 5			
Impact of Alternative Interest Rate Scenarios on Cost of Delaying Fiscal Reform			
Scenario	Primary Surplus Increase (% of GDP)		
	Starting in:		
	2014	2024	2034
Base Case: Average of 5.5 percent over 75 years.....	1.7	2.1	2.6
0.5 percent higher interest rate in each year.....	2.0	2.4	3.2
1.0 percent higher interest rate in each year.....	2.2	2.8	3.8
0.5 percent lower interest rate in each year.....	1.4	1.7	2.1
	Change in Primary Surplus Increase if Reform is Delayed From 2014 to:		
		2024	2034
Base Case: Average of 5.5 percent over 75 years.....		0.4	0.9
0.5 percent higher interest rate in each year.....		0.5	1.2
1.0 percent higher interest rate in each year.....		0.6	1.6
0.5 percent lower interest rate in each year.....		0.3	0.6

NOTE: Increments may not equal the subtracted difference of the components due to rounding.

### Effects of Changes in Discretionary Spending Growth

The growth of discretionary spending has a large impact on long term fiscal sustainability. The current base projection for discretionary spending assumes that after 2021, discretionary spending keeps pace with the economy and grows with GDP. An alternative assumption would be to allow discretionary spending to grow with inflation and population to effectively hold discretionary spending constant on a real per capita basis. (This assumption is still faster than the standard 10-year budget baseline, which assumes that discretionary spending grows with inflation.) Another possible long-range assumption is to allow discretionary spending to return in 2022 to levels established prior to the sequestration required by the failure of the Joint Select Committee on Deficit Reduction, and grow with GDP from that point forward. As shown in Table 6, the fiscal gap decreases significantly if discretionary spending grows with inflation and population from 1.7 percent of GDP to 0.3 percent of GDP. Conversely, if discretionary spending rises to the pre-Joint Committee sequestration levels and grows with GDP, the fiscal gap increases from 1.7 percent of GDP to 2.0 percent of GDP. The cost of delaying reform is greater when discretionary spending levels are higher. Initiating reforms in 2024 requires that the primary surplus increase by an average of 2.1 percent of GDP per year in the base case, and 2.4 percent of GDP if discretionary levels return to pre-Joint Committee sequestration levels. If delayed until 2034, the primary surplus must increase by an average of 2.6 percent of GDP in the base case, and 3.0 percent of GDP at pre-sequestration levels.

Scenario	Primary Surplus Increase (% of GDP)		
	Starting in:		
	2014	2024	2034
Base Case: Discretionary spending growth with GDP.....	1.7	2.1	2.6
Growth with inflation and population.....	0.3	0.3	0.4
Reversion in 2022 to pre-Joint Committee sequester levels and growth with GDP...	2.0	2.4	3.0
Scenario	Change in Primary Surplus Increase if Reform is Delayed From 2014 to:		
	2024	2034	
	Base Case: Discretionary spending growth with GDP.....	0.4	0.9
Growth with inflation and population.....	0.1	0.1	
Reversion in 2022 to pre-Joint Committee sequester levels and growth with GDP...	0.4	1.0	

NOTE: Increments may not equal the subtracted difference of the components due to rounding.

### Effects of Changes in Individual Income Revenue Growth

The growth rate of revenues, specifically individual income taxes, is another key determinant of long term sustainability. The base projections assume growth in individual income taxes over time to account for the slow shift of individuals into higher tax brackets due to real wage growth (“real bracket creep”). This assumption approximates the long-term historical growth in individual income taxes relative to wages and salaries and is consistent with current tax code policy without change, as future legislation would be required to prevent real bracket creep from allowing individual income taxes to rise. As an illustration of the effect of variations in individual income tax growth, Table 7 shows the effect on the size of reforms necessary to close the fiscal gap and the effect of delaying closure of the fiscal gap if long-term revenue growth as a share of wages and salaries is allowed to be even more rapid than the base case as well as if no bracket creep is assumed. If reform is initiated in 2014, eliminating the fiscal gap requires that the 2014-2088 primary surplus increase by an average of 1.7 percent of GDP in the base case, only 0.7 percent of GDP if real bracket creep is higher, but 2.7 percent of GDP if no real bracket creep is assumed. The cost of delaying reform is also affected if revenue growth assumptions change, much as was the case in the previous alternative scenarios.

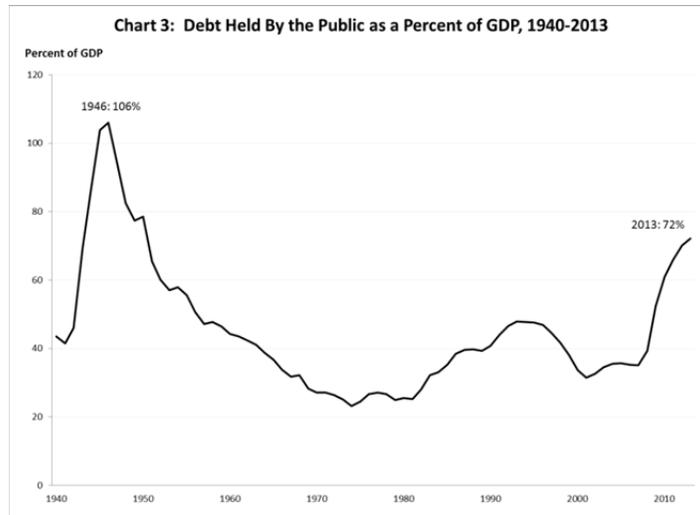
Scenario	Primary Surplus Increase (% of GDP)		
	Starting in:		
	2014	2024	2034
Base Case: Individual income tax bracket creep of 0.1% of wages and salaries per year.....	1.7	2.1	2.6
0.2% of wages and salaries per year.....	0.7	0.8	1.0
0.0% of wages and salaries per year (no bracket creep).....	2.7	3.3	4.1
Scenario	Change in Primary Surplus Increase if Reform is Delayed From 2014 to:		
	2024	2034	
	Base Case: Individual income tax bracket creep of 0.1% of wages and salaries per year.....	0.4	0.9
0.2% of wages and salaries per year.....	0.1	0.4	
0.0% of wages and salaries per year (no bracket creep).....	0.6	1.4	

NOTE: Increments may not equal the subtracted difference of the components due to rounding.

## Fiscal Projections in Context

In this report, a sustainable policy has been defined as one where the federal debt-to-GDP ratio is stable or declining. However, this definition does not indicate what a sustainable debt-to-GDP ratio might be. Any particular debt ratio is not the ultimate goal of fiscal policy. Rather, the goal of fiscal policy is to finance government services in a way that is consistent with a strong and growing economy.

Economic theory suggests that high levels of national debt may contribute to higher interest rates, leading to lower investment and a smaller capital stock with which the economy can use to grow. Whether this has been the actual experience of countries remains an open research question. It is not possible to perform randomized experiments on economies, and historical experience, while valuable, is filled with confounding events and circumstances. Some countries with high debt-to-GDP ratios have been observed to experience lower than average growth, while other countries with similarly high debt ratios continue to enjoy robust growth. Analogously, low debt-to-GDP ratios are no guarantee of strong economic growth. Moreover, the direction of causality is unclear. High debt may undermine growth; low growth may contribute to high debt.



Nevertheless, to put the current and projected debt-to-GDP ratios in context, it is instructive to examine the experiences of other countries as well as that of the United States. The United States Government's debt as a percentage of GDP is relatively large compared with central government debt of other countries, but far from the largest among the countries in the Organization for Economic Co-operation and Development (OECD). Based on historical data as reported by the OECD for all of its 34 member countries, the debt-to-GDP ratio in 2010 ranged from 3 percent of GDP to 148 percent of GDP<sup>14</sup>, with the United States the higher echelon.<sup>15</sup> However each country is different in how it finances its sovereign debt, how robustly its economy grows, how government responsibilities are shared between central and local governments, and how current policies compare with the past policies that determine the current level of debt.

The historical experience of the U.S. may also provide some perspective. As Chart 3 shows, the debt-to-GDP ratio was highest in the 1940s, following the debt buildup during World War II. In the projections in this report, the U.S. would reach the previous peak debt ratio in 2041. However, the origins of current and future Federal debt are quite different from the wartime debt of the 1940s, limiting the pertinence of past experience.

As the cross-country and historical comparisons suggest, there is a very imperfect relationship between the current level of central government debt and the sustainability of overall government policy. Past accrual of debt is certainly important, but current policies and their implications for future debt accumulation are as well.

<sup>14</sup> Central government debt was not yet reported to the OECD for the country of Japan for the year 2010, but based on its 2009 level of 184 percent of GDP, its 2010 number will exceed 148 percent reported for Greece, which is the highest level of the countries that have reported thus far.

<sup>15</sup> Central government debt, OECD National Accounts Statistics available at [http://stats.oecd.org/Index.aspx?DatasetCode=GOV\\_DEBT](http://stats.oecd.org/Index.aspx?DatasetCode=GOV_DEBT)

## Conclusion

The United States took a potentially significant step towards fiscal sustainability in 2010 by reforming its system of health insurance through enactment of the ACA. The legislated changes for Medicare, Medicaid, and other health coverage hold the prospect of lowering the long-term growth trend for health care costs and significantly reducing the long-term fiscal gap. Furthermore, enactment of the BCA in August 2011 placed limits on future discretionary spending and established a process to ensure further deficit reduction of \$1.2 trillion through fiscal year 2021, while enactment of ATRA in January 2013 increased revenues under current policy. But even with the new laws, the projections in this Financial Report indicate that if policy remains unchanged the debt-to-GDP ratio will continually increase over the next 75 years and beyond, which implies current policies are not sustainable and must ultimately change. Subject to the important caveat that policy changes are not so abrupt that they slow the economic recovery, the sooner policies are put in place to avert these trends, the smaller are the revenue increases and/or spending decreases necessary to return the Nation to a sustainable fiscal path.

## Social Insurance

The social insurance programs consisting of Social Security, Medicare, Railroad Retirement, and Black Lung were developed to provide income security and health care coverage to citizens under specific circumstances as a responsibility of the Government. Because taxpayers rely on these programs in their long-term planning, social insurance program information should indicate whether the current statutory provisions of the programs can be sustained, and more generally what effect these provisions likely have on the Government's financial condition. The resources needed to run these programs are raised through taxes and fees. Eligibility for benefits depends in part on earnings and time worked by the individuals. Social Security benefits are generally redistributed intentionally toward lower-wage workers (i.e., benefits are progressive). In addition, each social insurance program has a uniform set of eligibility events and schedules that apply to all participants.

### Social Security and Medicare

#### Social Security

The OASI Trust Fund was established on January 1, 1940, as a separate account in the Treasury. The DI Trust Fund, another separate account in the Treasury, was established on August 1, 1956. OASI pays cash retirement benefits to eligible retirees and their eligible dependents and survivors, and the much smaller DI fund pays cash benefits to eligible individuals who are unable to work because of medical conditions and certain family members of such eligible individuals. Though the events that trigger benefit payments are quite different, both trust funds have the same dedicated financing structure: primarily payroll taxes and income taxes on benefits. All financial operations of the OASI and DI Programs are handled through these respective funds. The two funds are often referred to as the combined OASDI Trust Funds. At the end of calendar year 2012, OASDI benefits were paid to approximately 57 million beneficiaries.

The primary financing source for these two funds are taxes paid by workers, their employers, and individuals with self-employment income, based on work covered by the OASDI Program. Since 1990, with the exception of calendar years 2011 and 2012, employers and employees have each paid 6.2 percent of taxable earnings and the self-employed paid 12.4 percent of taxable earnings. In 2011 and 2012, payroll tax rates paid by employees and the self-employed were each reduced by 2 percentage points and the General Fund of the Treasury reimbursed the OASDI trust fund for the resulting reduction in payroll tax revenues. Payroll taxes are levied on wages and net earnings from self-employment up to a specified maximum annual amount, referred to as maximum taxable earnings (\$113,700 in 2013), that increases each year with economy-wide average wages.

Legislation passed in 1984 subjected up to half of OASDI benefits to income tax and allocated the revenue to the OASDI Trust Funds. In 1993 legislation increased the potentially taxed portion of benefits to 85 percent and allocated the additional revenue to the Medicare's Hospital Insurance Trust Fund.

#### Medicare

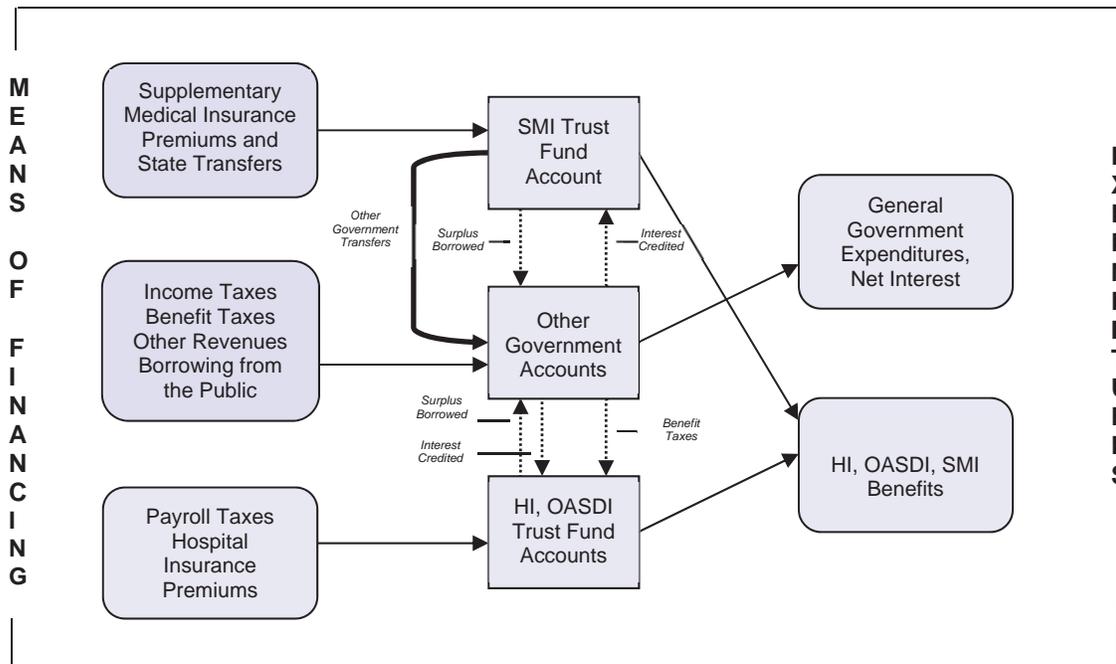
The Medicare Program, created in 1965, has two separate trust funds: the Hospital Insurance (HI) Trust Fund (otherwise known as Medicare Part A) and the Supplementary Medical Insurance (SMI) Trust Funds (which consists of the Medicare Part B and Part D<sup>1</sup> accounts). HI pays for inpatient acute hospital services and major alternatives to hospitals (skilled nursing services, for example). SMI pays for hospital outpatient services, physician services, and assorted other services and products through the Part B account and for prescription drugs through the Part D account.

Though the events that trigger benefit payments are similar, HI and SMI have different dedicated financing structures. Similar to OASDI, HI is financed primarily by payroll contributions. Currently, employers and employees each pay 1.45 percent of earnings, while self-employed workers pay 2.9 percent of their net earnings. Beginning in 2013, employees and self-employed individuals with earnings above certain thresholds pay an additional HI tax of 0.9 percent on earnings above those thresholds. Other income to the HI Trust Fund includes a small amount of premium income from voluntary enrollees, a portion of the Federal income taxes that beneficiaries pay on Social Security benefits (as explained above), and interest credited on Treasury securities held in the HI Trust Fund. As is explained in the next section, these Treasury securities and related interest have no effect on the consolidated statement of Governmentwide finances.

<sup>1</sup> Medicare legislation in 2003 created the new Part D account in the SMI Trust Fund to track the finances of a new prescription drug benefit that began in 2006. As in the case of Medicare Part B, approximately three-quarters of revenues to the Part D account will come from future transfers from the General Fund of the Treasury. Consequently, the nature of the relationship between the SMI Trust Fund and the Federal Budget described below is largely unaffected by the presence of the Part D account though the magnitude will be greater.

For SMI, transfers from the General Fund of the Treasury financed 75 percent and 74 percent of 2013 program costs for Parts B and D, respectively. Premiums paid by beneficiaries and, for Part D State transfers, financed the remainder of expenditures. With the introduction of Part D drug coverage, Medicaid is no longer the primary payer of drug benefits for beneficiaries dually eligible for Medicare and Medicaid. For those beneficiaries, States must pay the Part D account a portion of their estimated foregone drug costs for this population (referred to as State transfers). As with HI, interest received on Treasury securities held in the SMI Trust Fund is credited to the fund. These Treasury securities and related interest have no effect on the consolidated statement of Governmentwide finances. See Note 24—Social Insurance, for additional information on Medicare program financing.

**Figure 1**  
**Social Security, Medicare, and Governmentwide Finances**



**Social Security, Medicare, and Governmentwide Finances**

The current and future financial status of the separate OASDI, HI and SMI Trust Funds is the focus of the Social Security and Medicare Trustees’ Reports, a focus that may appropriately be referred to as the “trust fund perspective.” In contrast, the Government primarily uses the *unified budget* concept as the framework for budgetary analysis and presentation. It represents a comprehensive display of all Federal activities, regardless of fund type or on- and off-budget status, and has a broader focus than the trust fund perspective that may appropriately be referred to as the “budget perspective” or the “Governmentwide perspective.” Social Security and Medicare are among the largest expenditure categories of the U.S. Federal budget. Together, they now account for more than a third of all Federal spending and the percentage is projected to rise dramatically for the reasons discussed below. This section describes in detail the important relationship between the trust fund perspective and the Governmentwide perspective.

Figure 1 is a simplified depiction of the interaction of the Social Security and Medicare Trust Funds with the rest of the Federal budget.<sup>2</sup> The boxes on the left show sources of funding, those in the middle represent the trust funds and other Government accounts, which includes the General Fund into which that funding flows, and the boxes on the right show simplified expenditure categories. The figure is intended to illustrate how the various sources of program revenue flow through the budget to beneficiaries. The general approach is to group revenues and expenditures that are linked specifically to Social Security and/or Medicare separately from those for other government programs.

<sup>2</sup> The Federal unified budget encompasses all Government financing and is synonymous with a Governmentwide perspective.

Each of the trust funds has its own sources and types of revenue. With the exception of General Fund transfers to SMI, each of these revenue sources represents revenue from the public that are dedicated specifically for the respective trust fund and cannot be used for other purposes. In contrast, personal and corporate income taxes and other revenue go into the General Fund of the Treasury and are drawn down for any Government program for which Congress has approved spending.<sup>3</sup> The arrows from the boxes on the left represent the flow of the revenues into the trust funds and other Government accounts.

The heavy line between the top two boxes in the middle of Figure 1 represents intragovernmental transfers to the SMI Trust Fund from other Government accounts. The Medicare SMI Trust Fund is shown separately from the two Social Security trust funds (OASI and DI) and the Medicare HI Trust Fund to highlight the unique financing of SMI. SMI is currently only one of the programs that is funded through transfers from the General Fund of the Treasury, which is part of the other Government accounts (the SMI Part D account also receives transfers from the States). The transfers finance roughly three-fourths of SMI Program expenses. The transfers are automatic; their size depends on how much the program requires, not on how much revenue comes into the Treasury. If General Fund revenues become insufficient to cover both the mandated transfer to SMI and expenditures on other general Government programs, Treasury has to borrow to make up the difference. In the longer run, if transfers to SMI increase beyond growth in general revenues as shown below, they are projected to increase significantly in coming years—then Congress must either raise taxes, cut other Government spending, reduce SMI benefits, or borrow even more.

The dotted lines between the middle boxes of Figure 1 also represent intragovernmental transfers but those transfers arise in the form of “borrowing/lending” between the Government accounts. Interest credited to the trust funds arises when the excess of program income over expenses is loaned to the General Fund. The vertical lines labeled *Surplus Borrowed* represent these flows from the trust funds to the other Government accounts. These loans reduce the amount the General Fund has to borrow from the public to finance a deficit (or likewise increase the amount of debt paid off if there is a surplus). However, the General Fund has to credit interest on the loans from the trust fund programs, just as if it borrowed the money from the public. The credits lead to future obligations for the General Fund (which is part of the other Government accounts). These transactions are indicated in Figure 1 by the vertical arrows labeled *Interest Credited*. The credits increase trust fund income exactly as much as they increase credits (future obligations) in the General Fund. From the Governmentwide standpoint, at least in an accounting sense, these interest credits are a wash.

When the trust funds get the receipts that they loan to the General Fund, these receipts provide additional authority to spend on benefits and other program expenses. The General Fund, in turn, has taken on the obligation of paying interest on these loans every year and repaying the principal when trust fund income from other sources falls below expenditures.

How loans from the trust funds to the General Fund and later repayments of those loans affect tax income and expenditures of the General Fund is uncertain. Two extreme cases encompass the possibilities. At one extreme, each dollar the trust funds loan to the General Fund might reduce borrowing from the public by a dollar at the time the loan is extended, in which case the General Fund could repay all trust fund loans by borrowing from the public without raising the level of public debt above the level that would have occurred in the absence of the loans. At the other extreme, each dollar the trust funds loan to the General Fund might result in some combination of higher General Fund spending and lower General Fund revenues amounting to one dollar at the time the loans are extended, in which case General Fund loan repayments to the trust funds might initially be financed with borrowing from the public but must at some point be financed with a combination of higher general fund taxes and lower General Fund spending than would have occurred in the absence of the loans. In this latter extreme, trust fund loans result in additional largess (i.e., higher spending and/or lower taxes) in General Fund programs at the time the loans are extended, but ultimately that additional largess is financed with additional austerity (i.e., lower spending and/or higher taxes) in General Fund programs at later dates. The actual impact of trust fund loans to the General Fund and their repayment on General Fund programs is at one of these two extremes or somewhere in between.

Actual dollar amounts roughly corresponding to the flows presented in Figure 1 are shown in Table 1 for fiscal year 2013. In Table 1, revenues from the public (left side of Figure 1) and expenditures to the public (right side of Figure 1) are shown separately from transfers between Government accounts (middle of Figure 1). Note that the transfers (\$258.2 billion) and interest credits (\$118.1 billion) received by the trust funds appear as negative entries under “All Other” and are thus offsetting when summed for the total budget column. These two intragovernmental transfers are the key to the differences between the trust fund and budget perspectives.

From the Governmentwide perspective, only revenues received from the public (and States in the case of Medicare Part D) and expenditures made to the public are important for the final balance. Trust fund revenue from the public consists of

<sup>3</sup> Other programs also have dedicated revenues in the form of taxes and fees (and other forms of receipt) and there are a large number of dedicated trust funds in the Federal budget. Total trust fund receipts account for about 40 percent of total Government receipts with the Social Security and Medicare Trust Funds accounting for about two-thirds of trust fund receipts. For further discussion, see the report issued by the Government Accountability Office, *Federal Trust and Other Earmarked Funds*, GAO-01-199SP, January 2001. In the figure and the discussion that follows, all other programs, including these other dedicated trust fund programs, are grouped under “Other Government Accounts” to simplify the description and maintain the focus on Social Security and Medicare.

payroll taxes, benefit taxes, and premiums. For HI, the difference between total expenditures made to the public (\$266.6 billion) and revenues (\$233.6 billion) was \$33.0 billion in 2013, indicating that HI had a relatively small negative effect on the overall budget outcome *in that year*. For the SMI account, revenues from the public (premiums) were relatively small, representing about a quarter of total expenditures made to the public in 2013. The difference (\$234.3 billion) resulted in a net draw on the overall budget balance in that year. For OASDI, the difference between total expenditures made to the public (\$813.3 billion) and revenues from the public (\$714.3 billion) was \$99.0 billion in 2013, indicating that OASDI had a negative effect on the overall budget outcome in that year. Combined OASDI payroll and benefit tax revenues were increased by \$101.0 billion in fiscal year 2013.

The trust fund perspective is captured in the bottom section of each of the three trust fund columns. For HI, total expenditures exceeded total revenues by \$23.0 billion in 2013, as shown at the bottom of the first column. This cash deficit was made up by calling in past loans made to the General Fund (i.e., by redeeming Trust Fund assets). For SMI, total expenditures exceeded total revenues by \$4.6 billion. The total revenue for SMI is \$310.2 billion (\$80.5 + \$229.7), which includes \$229.7 billion transferred from other Government accounts (the General Fund). Transfers to the SMI Program from other Government accounts (the General Fund), amounting to about 72 percent of program costs, are obligated under current law and, therefore, appropriately viewed as revenue from the trust fund perspective. For OASDI, total revenues of \$850.9 billion exceeded total expenditures of \$813.3 billion by \$37.6 billion. Total revenues for OASDI included \$136.6 billion of transfers from the General Fund, principally interest credits and \$30.9 billion in credits called for by Public Laws 111-312, 112-78 and 112-96 to make up for the reduction in payroll tax revenues attributable to the temporary payroll tax rate reductions.

**Table 1**  
**Revenues and Expenditures for Medicare and Social Security**  
**Trust Funds and the Total Federal Budget**  
**for the Fiscal Year ended September 30, 2013**

(In billions of dollars)	Trust Funds					Total <sup>1</sup>
	HI	SMI	OASDI	Total	All Other	
<b>Payroll taxes and other public revenues:</b>						
Payroll and benefit taxes.....	227.2	-	714.3	941.5	-	941.5
Premiums.....	6.4	71.2	-	77.6	-	77.6
Other taxes and fees.....	-	9.3	-	9.3	1,745.6	1,754.9
Total.....	233.6	80.5	714.3	1,028.4	1,745.6	2,774.0
Total expenditures to the public <sup>2</sup> .....	266.6	314.8	813.3	1,394.7	2,059.6	3,454.3
<b>Net results—budget perspective <sup>3</sup>.....</b>	<b>(33.0)</b>	<b>(234.3)</b>	<b>(99.0)</b>	<b>(366.3)</b>	<b>(314.0)</b>	<b>(680.3)</b>
<b>Revenues from other Government accounts:</b>						
Transfers.....	0.1	227.2	30.9	258.2	(258.2)	
Interest credits.....	9.9	2.5	105.7	118.1	(118.1)	
Total.....	10.0	229.7	136.6	376.3	(376.3)	
<b>Net results—trust fund perspective perspective: <sup>3</sup>.....</b>	<b>(23.0)</b>	<b>(4.6)</b>	<b>37.6</b>	<b>10.0</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup> This column is the sum of the preceding two columns and shows data for the total Federal budget. The figure \$680.3 was the total Federal deficit in fiscal year 2013.

<sup>2</sup> The OASDI figure includes \$4.5 billion transferred to the Railroad Retirement Board for benefit payments and is therefore an expenditure to the public.

<sup>3</sup> Net results are computed as revenues less expenditures.

Notes: Amounts may not add due to rounding.  
 "N/A" indicates not applicable.

## Cashflow Projections

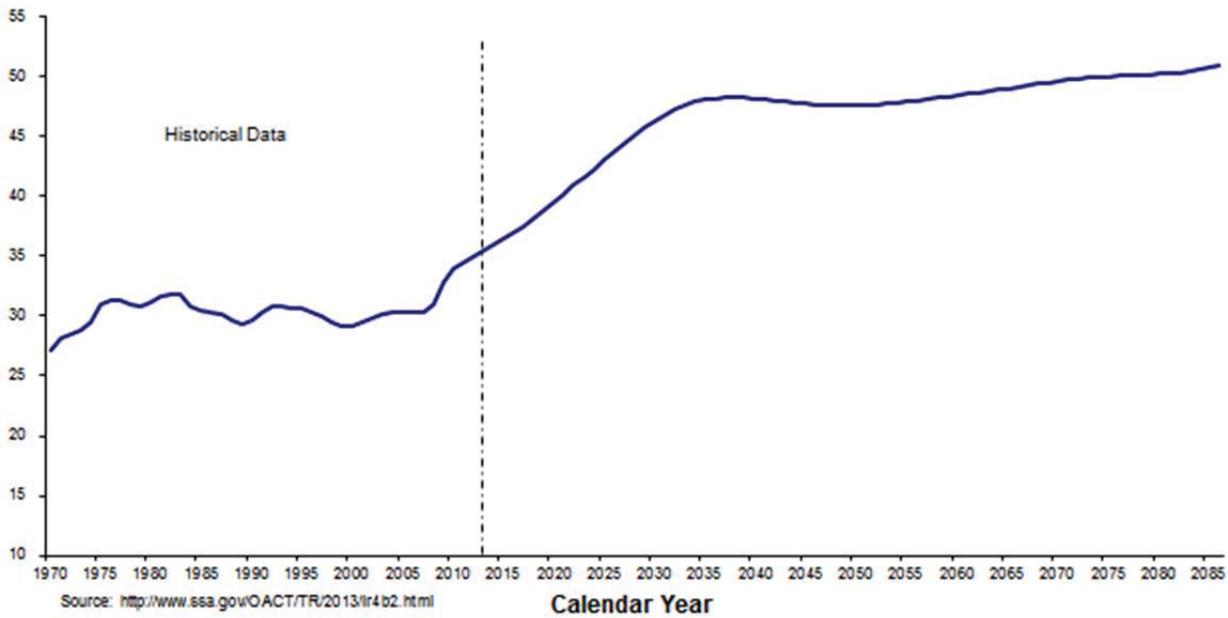
### Background

*Economic and Demographic Assumptions.* The Boards of Trustees <sup>4</sup> of the OASDI and Medicare Trust Funds provide in their annual reports to Congress short-range (10-year) and long-range (75-year) actuarial estimates of each trust fund. Because of the inherent uncertainty in estimates for 75 years into the future, the Boards use three alternative sets of economic and demographic assumptions to show a range of possibilities. The economic and demographic assumptions used for the most recent set of intermediate projections for Social Security and Medicare are shown in the "Social Security" and "Medicare" sections of Note 24—Social Insurance.

<sup>4</sup> There are six trustees: the Secretaries of the Treasury (managing trustee), Health and Human Services, and Labor; the Commissioner of the Social Security Administration; and two public trustees who are appointed by the President and confirmed by the Senate for a 4-year term. By law, the public trustees cannot both be members of the same political party.

*Beneficiary-to-Worker Ratio.* The expenditure projections for both the OASDI and Medicare Programs reflect the aging of the large baby-boom generation, born in the years 1946 to 1964, and its ultimate passing. Chart 1 shows that the number of OASDI beneficiaries per 100 covered workers is projected to grow rapidly from 35 in 2013 to 48 in 2035 as the baby boom generation enter their retirement years and receives benefits. After 2035 the baby boom’s influence will have dissipated, and it is projected that the beneficiary-worker ratio will continue to rise but at a slower pace due to increasing longevity, reaching 51 beneficiaries per 100 workers in 2087. (In rough terms, the beneficiary-to-worker ratio at any point in time reflects the birth rates experienced by the generations who are retired; the birth rates of the baby boom generations’ parents were much higher than those of the baby boomer generations and the generations to follow them.) A similar demographic pattern confronts the Medicare Program.

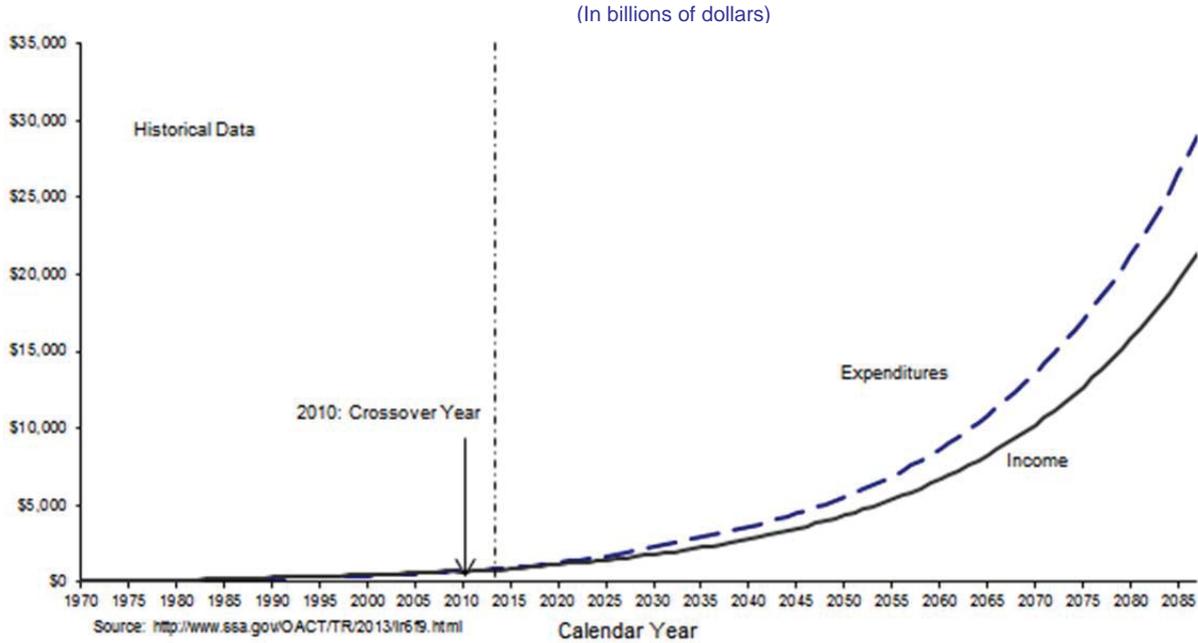
**Chart 1—OASDI Beneficiaries per 100 Covered Workers  
1970-2087**



### Social Security Projections

*Income and Expenditures.* Chart 2 shows historical values and actuarial estimates of combined OASDI annual noninterest income and expenditures for 1970-2087. The estimates are for the open-group population of all workers and beneficiaries projected to be alive in each year. The expenditure projections in Chart 2 and all subsequent charts assume all scheduled benefits are paid regardless of whether the income and assets are available to finance them.

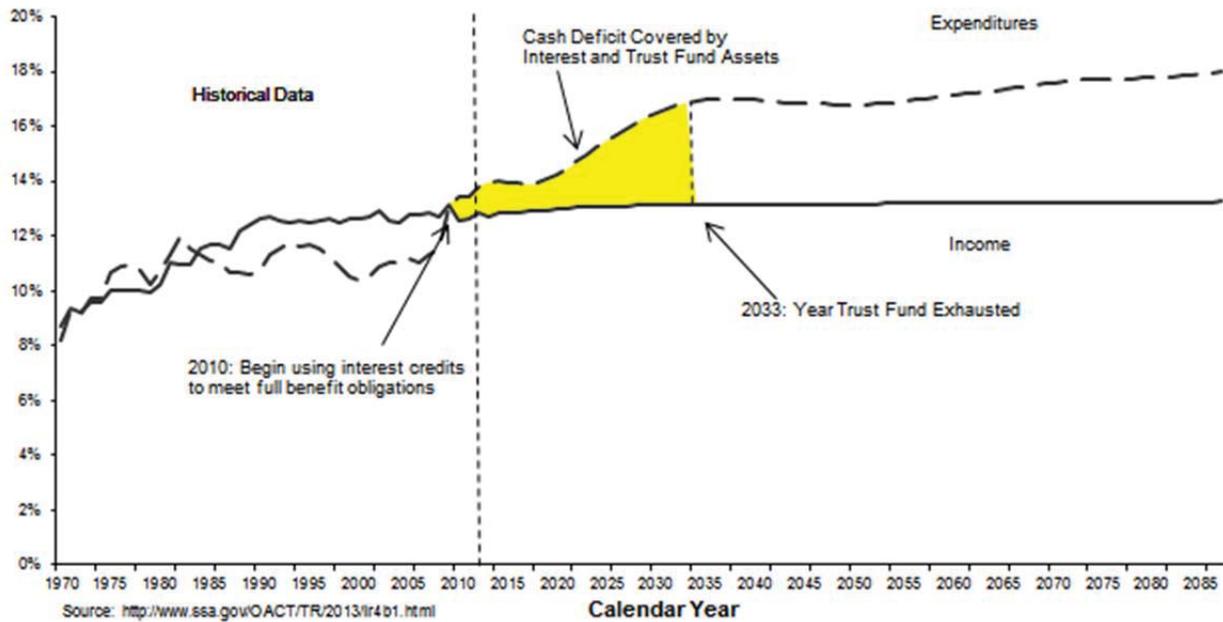
**Chart 2—OASDI Income (Excluding Interest) and Expenditures  
1970-2087**



Social Security’s surplus of noninterest income over expenditures was positive every year between 1984 and 2009, negative in 2010 through 2012, and is projected to grow ever more negative over the next 75 years. This pattern reflects the aging of the population documented in Chart 1, as well as growth of the economy and growth in the price level. As described above, surpluses that occurred prior to 2010 were “loaned” to the General Fund and accumulated, with interest, increasing reserve spending authority for the trust fund. The reserve spending authority represents an obligation for the General Fund.

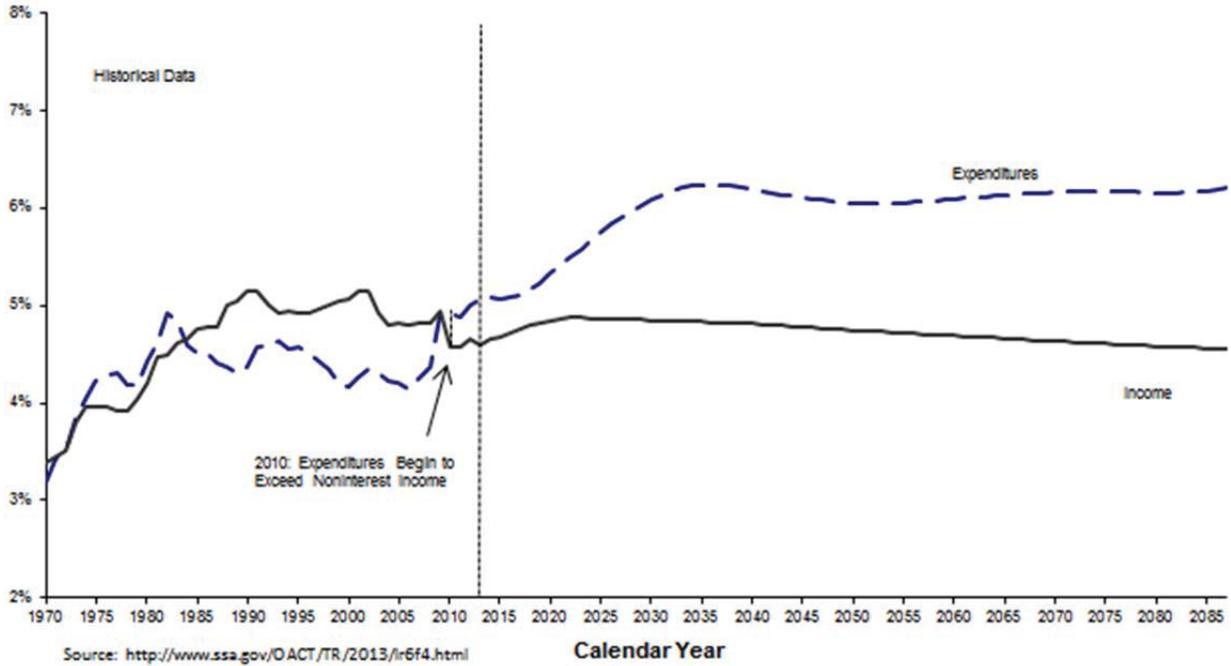
*Income and Expenditures as a Percent of Taxable Payroll.* Chart 3 shows annual noninterest income and expenditures expressed as percentages of taxable payroll, commonly referred to as the income rate and cost rate, respectively. Dividing noninterest income and expenditures by taxable payroll serves to isolate the effect of demographics on Social Security finances, and usefully gauges Social Security’s financial imbalances against the size of the Social Security tax base. The time path of the cost rate in Chart 3 closely parallels that of the beneficiary-to-worker ratio in Chart 1. Social Security began using interest credits to meet full benefit obligations in 2010, and is projected to begin drawing down trust fund asset reserves starting in 2021 and to deplete those reserves in 2033. After trust fund asset reserves are depleted, noninterest income will continue to flow into the fund and will be sufficient to finance 77 percent of scheduled benefits in 2033 and 72 percent of scheduled benefits in 2087.

**Chart 3—OASDI Income (Excluding Interest) and Expenditures as a Percent of Taxable Payroll 1970-2087**



*Income and Expenditures as a Percent of GDP.* Chart 4 shows estimated annual noninterest income and expenditures, expressed as percentages of GDP, the total value of goods and services produced in the United States. This alternative perspective shows the size of the OASDI Program in relation to the capacity of the national economy to sustain it. The gap between expenditures and income generally widens with expenditures generally growing as a share of GDP and income declining slightly relative to GDP. Social Security’s expenditures are projected to grow from 5.06 percent of GDP in 2013 to 6.20 percent in 2087. In 2087, expenditures are projected to exceed income by 1.64 percent of GDP.

**Chart 4—OASDI Income (Excluding Interest) and Expenditures as a Percent of GDP 1970-2087**



*Sensitivity Analysis.* Actual future income from OASDI payroll taxes and other sources and actual future expenditures for scheduled benefits and administrative expenses will depend upon a large number of factors: the size and composition of the population that is receiving benefits, the level of monthly benefit amounts, the size and characteristics of the work force covered under OASDI, and the level of workers' earnings. These factors will depend, in turn, upon future marriage and divorce rates, birth rates, death rates, migration rates, labor force participation and unemployment rates, disability incidence and termination rates, retirement age patterns, productivity gains, wage increases, cost-of-living increases, and many other economic and demographic factors.

This section presents estimates that illustrate the sensitivity of long-range expenditures and income for the OASDI Program to changes in *selected individual assumptions*. In this analysis, the intermediate assumption is used as the reference point, and one assumption at a time is varied. The variation used for each individual assumption reflects the levels used for that assumption in the low-cost (Alternative I) and high-cost (Alternative III) projections. For example, when analyzing sensitivity with respect to variation in real wages, income and expenditure projections using the intermediate assumptions are compared to the outcome when projections are done by changing only the real wage assumption to either low-cost or high-cost alternatives.

The low-cost alternative is characterized by assumptions that generally improve the financial status of the program (relative to the intermediate assumption) such as slower improvement in mortality (beneficiaries die younger). In contrast, assumptions under the high-cost alternative generally worsen the financial outlook. One exception occurs with the CPI assumption (see below).

Table 2 shows the effects of changing individual assumptions on the present value of estimated OASDI expenditures in excess of income (the *shortfall* of income relative to expenditures in present value terms). The assumptions are shown in parentheses. For example, the intermediate assumption for the annual rate of *reduction in age-sex-adjusted death rates* is 0.80 percent. For the low-cost alternative, a slower reduction rate (0.42 percent) is assumed as it means that beneficiaries die at a younger age relative to the intermediate assumption, resulting in lower expenditures. Under the low-cost assumption, the shortfall drops from \$12,294 billion to \$10,541 billion, a 14 percent smaller shortfall. The high-cost death rate assumption (1.21 percent) results in an increase in the shortfall, from \$12,294 billion to \$14,147 billion, a 15 percent increase in the shortfall. Clearly, alternative death rate assumptions have a substantial impact on estimated future cashflows in the OASDI Program.

A higher fertility rate means more workers relative to beneficiaries over the projection period, thereby lowering the shortfall relative to the intermediate assumption. An increase in the rate from 2.0 to 2.3 percent results in a 9 percent smaller shortfall (i.e., expenditures less income), from \$12,294 billion to \$11,161 billion.

Higher real wage growth results in faster income growth relative to expenditure growth. Table 2 shows that a real wage differential that is 0.60 percentage points greater than the intermediate assumption of 1.12 causes the shortfall to drop from \$12,294 billion to \$9,928 billion, a 19 percent decline. Decreasing the real wage differential by 0.60 percentage points results in a 13 percent increase in the shortfall from \$12,294 billion to \$13,921 billion.

The CPI change assumption operates in a somewhat counterintuitive manner, as seen in Table 2. A higher rate of change results in a lower shortfall. This arises as a consequence of holding the real wage assumption constant while varying the CPI so that wages (the income base) are affected sooner than benefits. If the rate is assumed to be 3.8 percent rather than 2.8 percent, the shortfall decreases about 5 percent, from \$12,294 billion to \$11,667 billion.

The effect of net immigration is similar to fertility in that, over the 75-year projection period, higher immigration results in proportionately more workers (taxpayers) than beneficiaries. The low-cost assumption for net immigration results in a 4 percent drop in the shortfall, from \$12,294 billion to \$11,816 billion, relative to the intermediate case; and the high-cost assumption results in a 5 percent higher shortfall.

Finally, Table 2 shows the sensitivity of the shortfall to variations in the real interest rate or, in present value terminology, the sensitivity to alternative discount rates assuming a higher discount rate results in a lower present value. The shortfall is 15 percent lower, decreasing from \$12,294 billion to \$10,487 billion, when the real interest rate is 3.4 percent rather than 2.9 percent. The shortfall is 18 percent higher, increasing to \$14,556 billion, when the real interest rate is 2.4 percent rather than 2.9 percent.

**Table 2**  
**Present Values of Estimated OASDI Expenditures in Excess of Income**  
**Under Various Assumptions, 2013-2087**

(Dollar values in billions; values of assumptions shown in parentheses)

Assumption	Financing Shortfall Range		
	Low	Intermediate	High
Average annual reduction in death rates.....	10,541 (0.42)	12,294 (0.80)	14,147 (1.21)
Total fertility rate .....	11,161 (2.3)	12,294 (2.0)	13,407 (1.7)
Real wage differential .....	9,928 (1.72)	12,294 (1.12)	13,921 (0.52)
CPI change .....	12,939 (1.8)	12,294 (2.8)	11,667 (3.8)
Net immigration.....	11,816 (1,400,000) <sup>1</sup>	12,294 (1,095,000) <sup>1</sup>	12,861 (800,000) <sup>1</sup>
Real interest rate .....	10,487 (3.4)	12,294 (2.9)	14,556 (2.4)

<sup>1</sup> Amounts represent the average annual net immigration over the 75-year projection period.

Source: 2013 OASDI Trustees Report and SSA.

**Medicare Projections**

*Medicare Legislation.* The Affordable Care Act as amended by the Health Care and Education Reconciliation Act of 2010 (the “Affordable Care Act” or ACA) significantly improves projected Medicare finances. The most important cost saving provision in the ACA is a revision in payment rate updates for Parts A and B services other than for physicians’ services. Relative to payment rates made under prior law that were generally based on the rate at which prices for inputs used to provide Medicare services increase, the ACA reduces those payment rate updates by the rate at which productive efficiency in the overall economy increases, which is projected to average 0.8 percent per year through 2029 and 1.1 percent per year thereafter. The ACA also achieves substantial cost savings by benchmarking payment rates for private health plans providing Parts A and B services (Part C or Medicare Advantage) to more closely match per beneficiary costs. Partly offsetting these changes was an increase in prescription drug coverage. In addition, the ACA increases Part A revenues by: (a) taxing high-cost employer-provided health care plans and thereby giving employers incentives to increase the share of compensation paid as taxable earnings, and (b) imposing a new 0.9 percent surtax on earnings in excess of \$200,000 (individual tax return filers) or \$250,000 (joint tax return filers) starting in 2013.

The ACA substantially reduces the Medicare cost projections. Growth in Medicare cost per beneficiary in excess of growth in per capita GDP is referred to as “excess cost growth.” In the 2009 *Financial Report*, the last Report released prior

to the passage of the ACA, excess cost growth was assumed to average 1 percentage point over the last 50 years of the 75-year projection period—that is, Medicare expenditures per beneficiary were assumed to grow, on average, about one percentage point faster than per capita GDP over the long range. That assumption for excess cost growth in Medicare was optimistic in the sense that it is smaller than in recent history; excess cost growth averaged 1.6 percentage points between 1990 and 2007.<sup>1</sup> In this year’s *Financial Report*, as in the 2011 and 2012 Reports, long-term excess cost growth is essentially zero. As a result, the long term projected Medicare spending share of GDP in this *Financial Report* is driven primarily by the same demographic trends that drive the OASDI spending share of GDP.

The 2013 Medicare Trustees’ Report warns that the “actual future costs for Medicare are likely to exceed those shown by the current-law projections” that underlie both the Trustees’ Report and this Financial Report. This concern reflects the fact that statutory adjustments to payment rates for Medicare physicians’ services mandated by a 1996 Medicare reform have been consistently overridden by new law, and also the possibility that the new productivity-based downward adjustments to Medicare payment rate updates may not be sustainable.

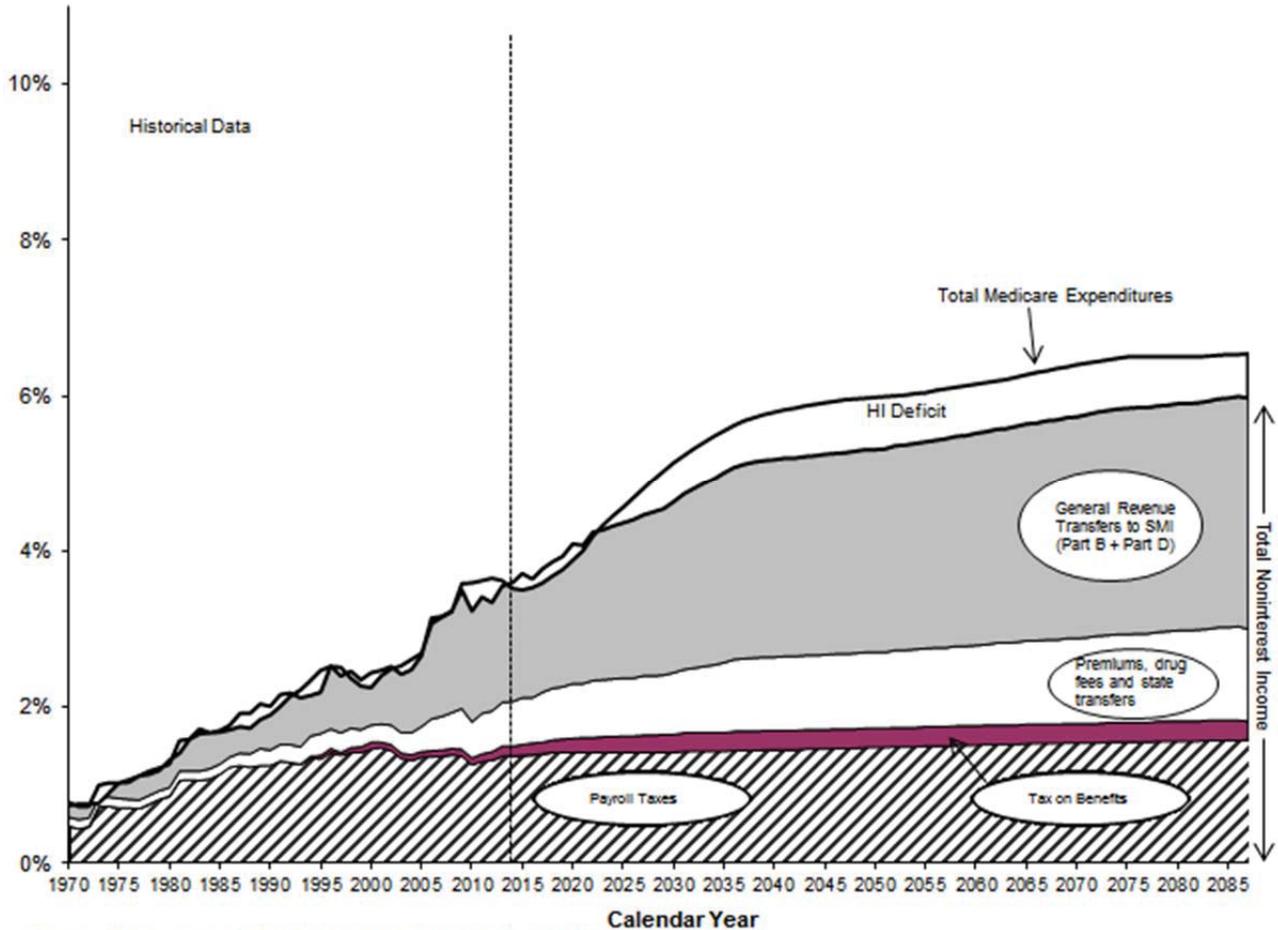
*Changes in Projection Methods.* For 2012, based on the recommendation of the 2010-2011 Medicare Technical Review Panel, the Medicare Board of Trustees adopted a pre-ACA baseline cost growth assumption of “GDP plus 1.4 percent” and used a “factors contributing to growth” model, to create specific, year-by-year declining growth rates during the last 50 years of the projection period. For 2013 the Trustees used the “factors contributing to growth” model as the basis for determining the long-range Medicare cost growth assumption and applied the “GDP plus” framework as a reasonableness check, which produced results consistent with a pre-ACA “GDP plus 1 percent” approach and a post-ACA weighted average growth rate for Medicare of 4.3 percent (which is equal to per capita GDP growth plus 0.2 percentage points).

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<sup>1</sup> Congressional Budget Office, the Long-Term Budget Outlook, June 2011.

*Total Medicare.* Chart 5 shows expenditures and current-law noninterest revenue sources for HI and SMI combined as a percentage of GDP. The total expenditure line shows Medicare costs rising to 6.54 percent of GDP by 2087. Revenues from taxes and premiums (including State transfers under Part D) are expected to increase from 1.96 percent of GDP in 2013 to 3.0 percent of GDP in 2087. Payroll tax income increases gradually as a percent of GDP because the new tax on earnings in excess of \$250,000 for joint tax return filers and \$200,000 for individual tax return filers applies to an increasing share of earnings because the \$250,000 and \$200,000 thresholds are not indexed for price changes. Premiums combined for Parts B and D of SMI are approximately fixed as a share of Parts B and D costs, so they also increase as a percent of GDP. General revenue contributions for SMI, as determined by current law, are projected to rise as a percent of GDP from 1.49 percent to 2.97 percent over the same period. Thus, revenues from taxes and premiums (including State transfers) will fall substantially as a share of total noninterest Medicare income (from 57 percent in 2013 to 50 percent in 2087) while general revenues will rise (from 43 percent to 50 percent). The gap between total noninterest Medicare income (including general revenue contributions) and expenditures begins around 2009 and then steadily continues to widen after 2022, reaching 0.57 percent of GDP by 2087.

**Chart 5—Total Medicare (HI and SMI) Expenditures and Noninterest Income as a Percent of GDP 1970-2087**

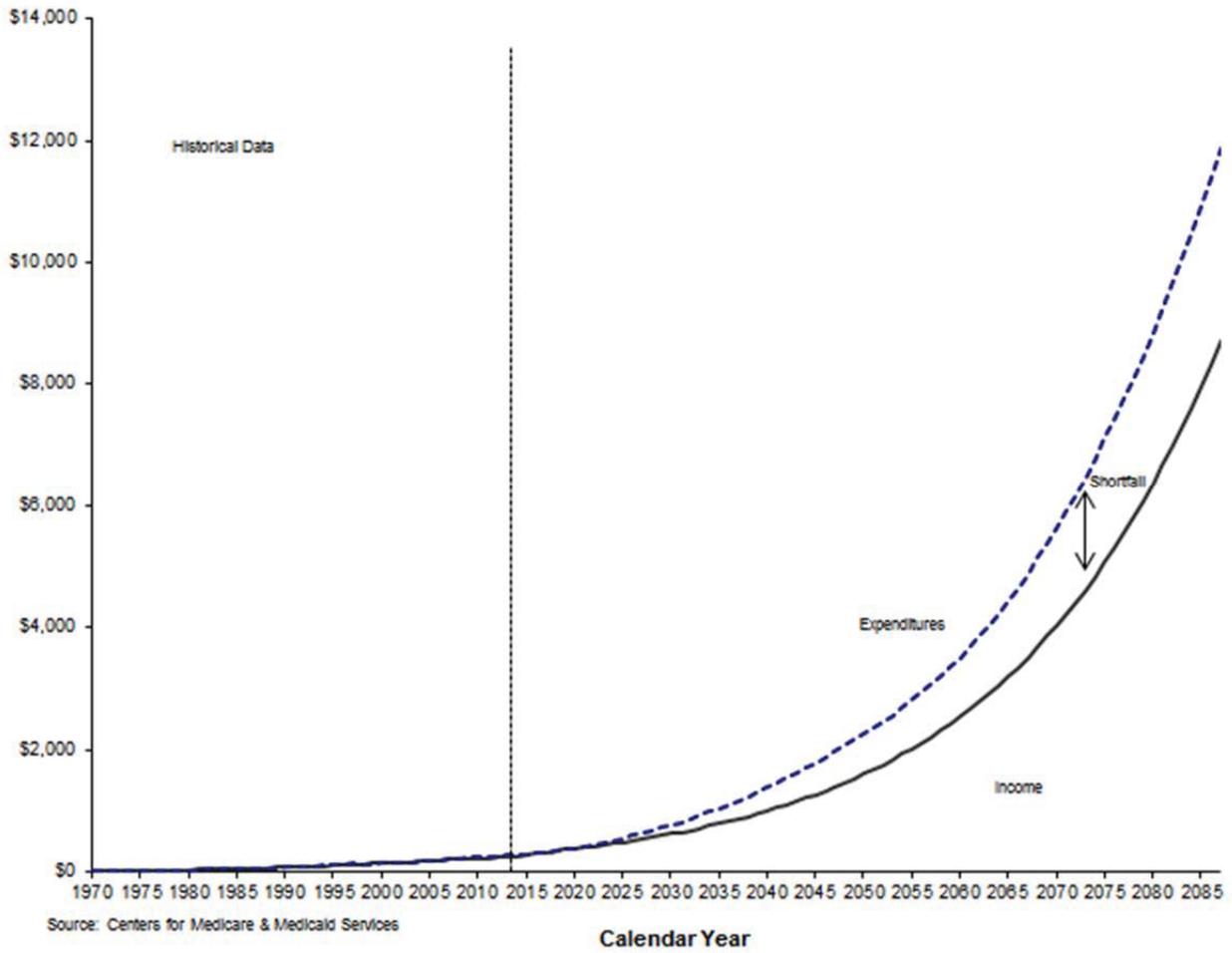


Source: [http://www.ssa.gov/OACT/TRSUM/images/LD\\_ChartC.html](http://www.ssa.gov/OACT/TRSUM/images/LD_ChartC.html)

*Medicare, Part A (Hospital Insurance)— Income and Expenditures.* Chart 6 shows historical and actuarial estimates of HI annual income (excluding interest) and expenditures for 1970-2087 in nominal dollars. The estimates are for the open-group population.

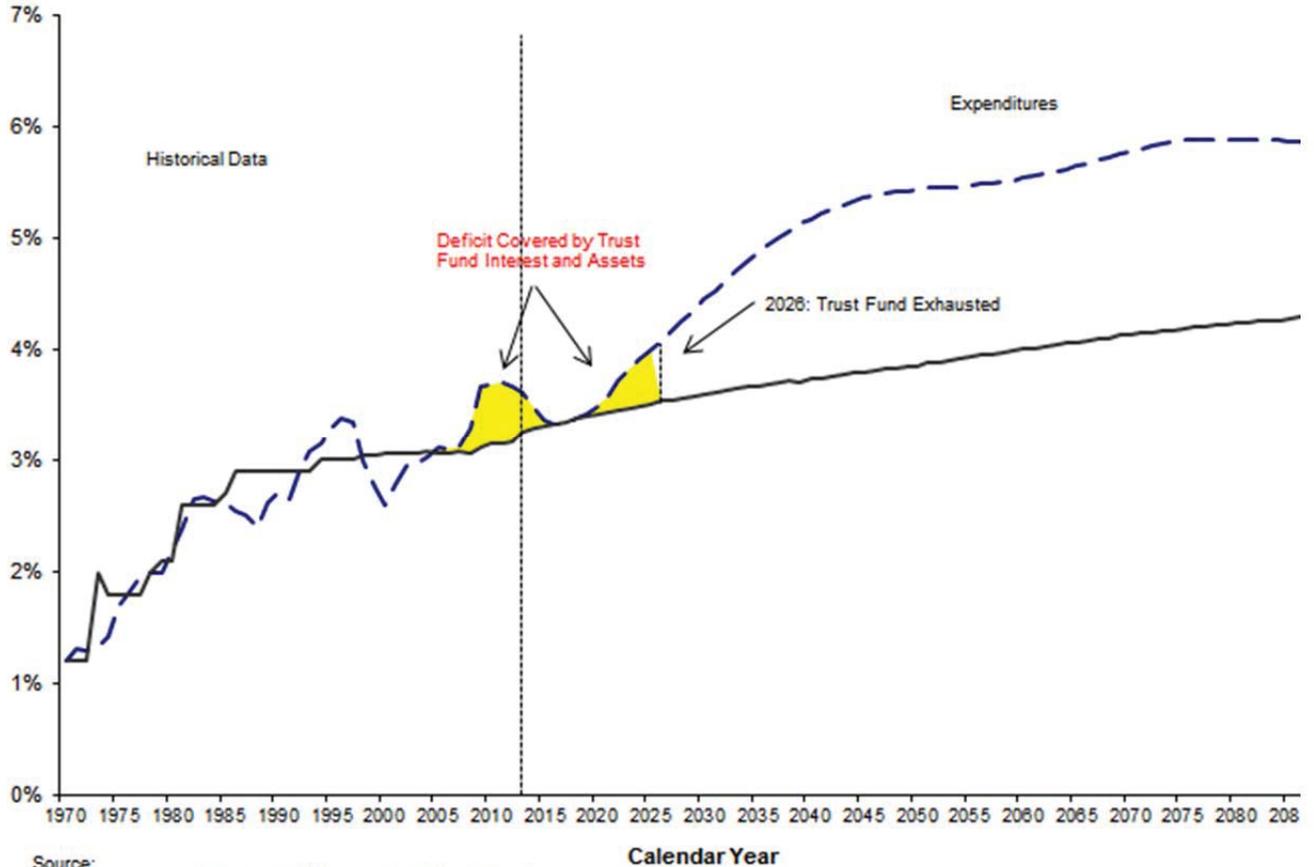
**Chart 6—Medicare Part A Income (Excluding Interest) and Expenditures  
1970-2087**

(In billions of dollars)



*Medicare, Part A Income and Expenditures as a Percent of Taxable Payroll.* Chart 7 illustrates income (excluding interest) and expenditures as a percentage of taxable payroll over the next 75 years. The chart shows that beginning in 2005, the expenditure rate exceeds the income rate, and cash deficits continue thereafter. The projected initial decline in expenditures is due to the expected economic recovery, the savings provisions of the Affordable Care Act, and the 2-percent reduction in all Medicare expenditures for 2013-2022, as required by the Budget Control Act of 2011 and amended by the American Taxpayer Relief Act of 2012. Subsequent to 2022, the expenditure rate increases significantly due to retirements of those in the baby boom generation and continuing health services cost growth. The effect of these factors will be largely offset in 2045 and later under current law by the accumulating effect of the reduction in provider price updates, which will reduce the annual cost growth by an estimated 1.1 percent per year. Trust fund interest earnings and assets provide enough resources to pay full benefit payments until 2026 with general revenues used to finance interest and loan repayments to make up the difference between cash income and expenditures during that period. Pressures on the Federal budget will thus emerge well before 2026. Present tax rates would be sufficient to pay 87 percent of scheduled benefits after trust fund exhaustion in 2026 and 73 percent of scheduled benefits in 2087.

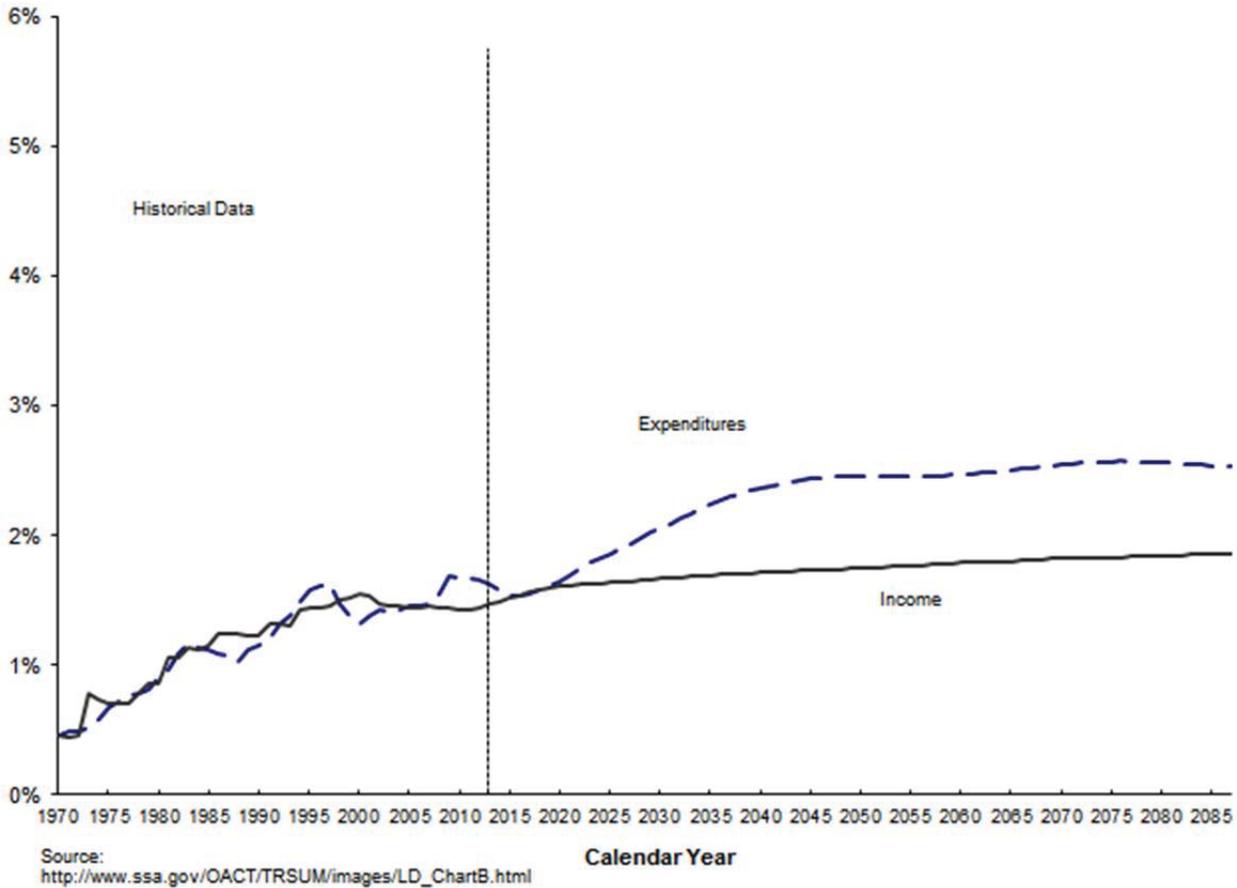
**Chart 7—Medicare Part A Income (Excluding Interest) and Expenditures as a Percent of Taxable Payroll 1970-2087**



Source: [http://www.ssa.gov/OACT/TRSUM/images/LD\\_ChartB.html](http://www.ssa.gov/OACT/TRSUM/images/LD_ChartB.html)

*Medicare, Part A Income and Expenditures as a Percent of GDP.* Chart 8 shows estimated annual noninterest income and expenditures, expressed as percentages of GDP, the total value of goods and services produced in the United States. This alternative perspective shows the size of the HI Program in relation to the capacity of the national economy to sustain it. Medicare Part A's expenditures are projected to grow steadily from 1.63 percent of GDP in 2013, to 2.45 percent in 2046 and then remain fairly level throughout the rest of the 75-year period, as the accumulated effects of the price update reductions are realized. The gap between expenditure and income shares of GDP widens to 0.72 percent in 2046, remains fairly stable through 2080 and then commences a slight decline, reaching 0.68 percent of GDP in 2087.

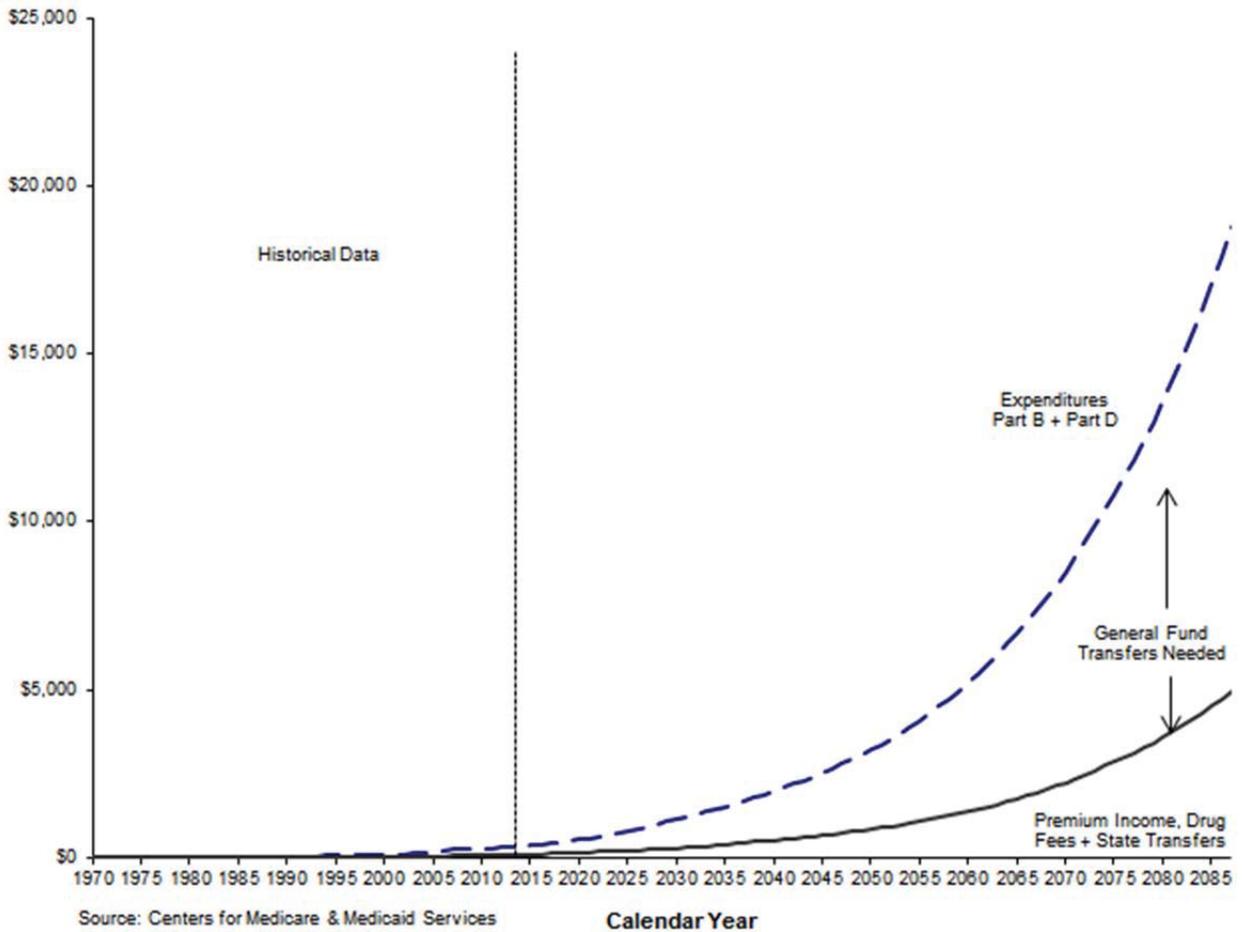
**Chart 8—Medicare Part A Income (Excluding Interest) and Expenditures as a Percent of GDP 1970-2087**



*Medicare, Parts B and D (Supplementary Medical Insurance).* Chart 9 shows historical and actuarial estimates of Medicare Part B and Part D premiums (and Part D State transfers) and expenditures for each of the next 75 years, in dollars. The gap between premiums, drug fees and State transfer revenues and program expenditures, a gap that will need to be filled with transfers from general revenues, grows throughout the projection period.

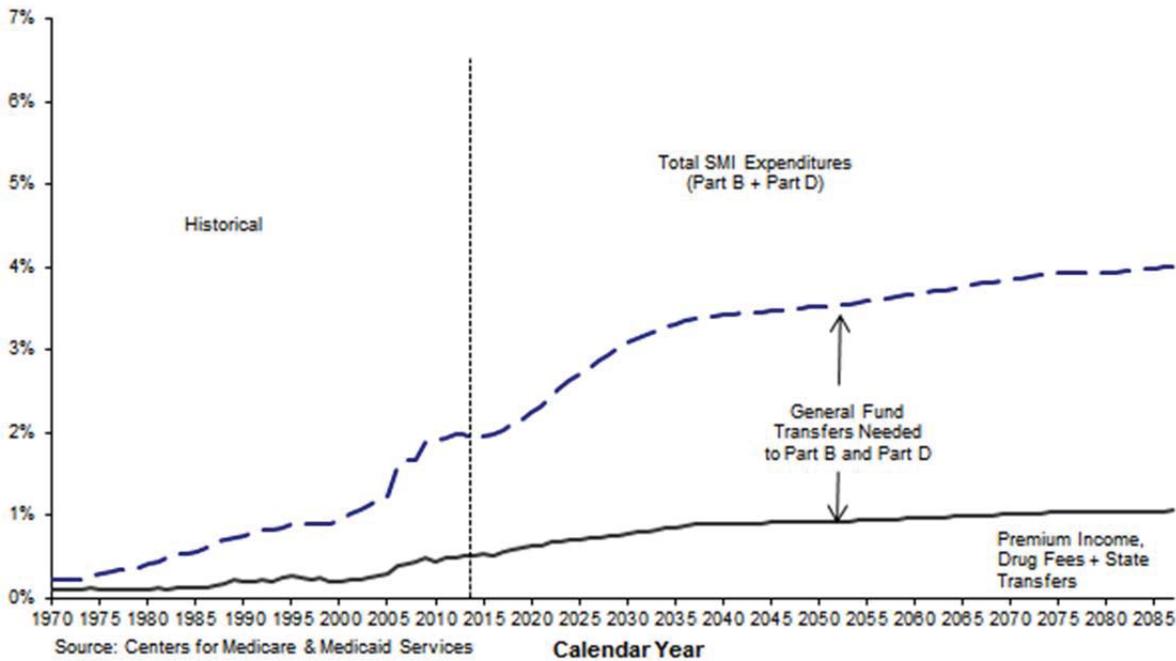
**Chart 9—Medicare Part B and Part D Premium and State Transfer Income and Expenditures  
1970-2087**

(In billions of dollars)



*Medicare Part B and Part D Premium and State Transfer Income and Expenditures as a Percent of GDP.* Chart 10 shows expenditures for the Supplementary Medical Insurance Program over the next 75 years expressed as a percentage of GDP, providing a perspective on the size of the SMI Program in relation to the capacity of the national economy to sustain it. SMI expenditures as a share of GDP are expected to grow rapidly from 1.99 percent in 2013 to 3.31 percent in 2035, and then grow more slowly reaching 4.01 in 2087. This growth pattern reflects growth in Medicare spending per beneficiary that is positive for the first half of the projection period (through 2035) as the baby boom generation move into their advanced years and then slows to a modest pace consistent with increasing longevity. As a share of GDP premium and State transfer income grows from about 0.52 percent in 2013 to 1.06 percent of GDP in 2087. The portion of SMI expenditures financed by General Fund transfers to SMI is projected to be about 74 percent throughout the projections period.

**Chart 10—Medicare Part B and Part D Premium and State Transfer Income and Expenditures as a Percent of GDP 1970-2087**



*Medicare Sensitivity Analysis.* This section illustrates the sensitivity of long-range cost and income estimates for the Medicare Program to changes in *selected individual assumptions*. As with the OASDI analysis, the intermediate assumption is used as the reference point, and one assumption at a time is varied. The variation used for each individual assumption reflects the levels used for that assumption in the low-cost and high-cost projections (see description of sensitivity analysis for OASDI).

Table 3 shows the effects of changing various assumptions on the present value of estimated HI expenditures in excess of income (the *shortfall* of income relative to expenditures in present value terms). The assumptions are shown in parentheses. Clearly, net HI expenditures are extremely sensitive to alternative assumptions about the growth in health care cost. For the low-cost alternative, the slower growth in health costs causes the shortfall to drop from \$4,772 billion to a surplus of \$1,242 billion, a 126 percent change. The high-cost assumption results in a tripling of the shortfall, from \$4,772 billion to \$14,352 billion.

The low and high real wage growth rate scenarios result in about a -21 and +11 percent, respectively, change in the shortfall relative to the intermediate case. Wages are a key cost factor in the provision of health care. Higher wages also result in greater payroll tax income. CPI inflation, fertility and net immigration changes have very little effect on net HI expenditures. (When CPI inflation is varied, the real interest rate is held constant, which implies that the nominal interest rate

changes one for one with the assumed rate of CPI inflation.) Higher immigration decreases the net shortfall modestly as the 75-year projection period captures a higher share of additional immigrants tax payments than it does of their benefits.

Table 3 also shows that the present value of net HI expenditures is 17 percent lower if the real interest rate is 3.4 percent rather than 2.9 percent and 22 percent higher if the real interest rate is 2.4 percent rather than 2.9 percent.

**Table 3**  
**Present Values of Estimated Medicare Part A Expenditures in Excess of Income Under Various Assumptions, 2013-2087**

(Dollar values in billions; values of assumptions shown in parentheses)

Assumption <sup>1</sup>	Financing Shortfall Range		
	Low	Intermediate	High
Average annual growth in health costs <sup>2</sup> .....	(1,242) (3.3)	4,772 (4.3)	14,352 (5.3)
Total fertility rate <sup>3</sup> .....	4,378 (2.3)	4,772 (2.0)	5,159 (1.7)
Real wage differential .....	3,753 (1.7)	4,772 (1.1)	5,310 (0.5)
CPI change .....	4,976 (1.8)	4,772 (2.8)	4,548 (3.8)
Net immigration .....	4,731 (1,400,000) <sup>4</sup>	4,772 (1,095,000) <sup>4</sup>	4,848 (800,000) <sup>4</sup>
Real interest rate .....	3,954 (3.4)	4,772 (2.9)	5,800 (2.4)

<sup>1</sup> The sensitivity of the projected HI net cashflow to variations in future mortality rates also is of interest. At this time, however, relatively little is known about the relationship between improvements in life expectancy and the associated changes in health status and per beneficiary health expenditures. As a result, it is not possible at present to prepare meaningful estimates of the Part A, mortality sensitivity.

<sup>2</sup> Annual growth rate is the aggregate cost of providing covered health care services to beneficiaries. The low-cost and high-cost alternatives assume that costs increase 1 percent slower or faster, respectively, than the intermediate assumption, relative to growth in taxable payroll.

<sup>3</sup> The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year and if she were to survive the entire childbearing period.

<sup>4</sup> Amount represents the average annual net immigration over the 75-year projection period.

Source: Center for Medicare & Medicaid Services.

Table 4 shows the effects of various assumptions about the growth in health care costs on the present value of estimated SMI (Medicare Parts B and D) expenditures in excess of income. As with HI, net SMI expenditures are very sensitive to changes in the health care cost growth assumption. For the low-cost alternative, the slower assumed growth in health costs reduces the Governmentwide resources needed for Part B from \$15,659 billion to \$11,359 billion and in Part D from \$6,871 billion to \$4,852 billion, about a 27 percent and 29 percent difference for Part B and Part D, respectively. The high-cost assumption increases Governmentwide resources needed to \$22,348 billion for Part B and to \$10,069 billion for Part D, about a 43 percent and a 47 percent difference for Part B and Part D, respectively.

**Table 4**  
**Present Values of Estimated Medicare Parts B and D Future Expenditures Less Premium Income and State Transfers Under Three Health Care Cost Growth Assumptions, 2013-2087**

(In billions of dollars)

Medicare Program <sup>1</sup>	Governmentwide Resources Needed		
	Low (3.3)	Intermediate (4.3)	High (5.3)
Part B.....	11,359	15,659	22,348
Part D.....	4,852	6,871	10,069

<sup>1</sup> Annual growth rate is the aggregate cost of providing covered health care services to beneficiaries. The low and high scenarios assume that costs increase one percent slower or faster, respectively, than the intermediate assumption.

Source: Centers for Medicare & Medicaid Services.

## Sustainability of Social Security and Medicare

### 75-Year Horizon

According to the 2013 Medicare Trustees Report, the HI Trust Fund is projected to remain solvent until 2026 and, according to the 2013 Social Security Trustees Report, the OASDI Trust Funds are projected to remain solvent until 2033. In each case, some general revenues must be used to satisfy the authorization of full benefit payments until the year of trust fund depletion. This occurs when the trust fund interest income and balances accumulated during prior years are needed to pay benefits, which leads to a transfer from general revenues to the trust funds. Moreover, under current law, General Fund transfers to the SMI Trust Fund will occur into the indefinite future and will continue to grow with the growth in health care expenditures.

The potential magnitude of future financial obligations under these three social insurance programs is, therefore, important from a unified budget perspective as well as for understanding generally the growing resource demands of the programs on the economy. A common way to present future cashflows is in terms of their *present value*. This approach recognizes that a dollar paid or collected next year is worth less than a dollar today because a dollar today could be saved and earn a year's worth of interest.

Table 5 shows the magnitudes of the primary expenditures and sources of financing for the three trust funds computed on an open-group basis for the next 75 years and expressed in present values. The data are consistent with the Statements of Social Insurance included in the principal financial statements. For HI, revenues from the public are projected to fall short of total expenditures by \$4,772 billion in present value terms which is the additional amount needed in order to pay scheduled benefits over the next 75 years.<sup>1</sup> From the trust fund perspective, the amount needed is \$4,552 billion in present value after subtracting the value of the existing trust fund balances (an asset to the trust fund account but an intragovernmental transfer to the overall budget). For SMI, revenues from the public for Part B and D combined are estimated to be \$22,530 billion less

<sup>1</sup> Interest income is not a factor in this table as dollar amounts are in present value terms.

than total expenditures for the two accounts, an amount that, from a budget perspective, will be needed to keep the SMI program solvent for the next 75 years. From the trust fund perspective, however, the present values of total revenues and total expenditures for the SMI Program are roughly equal due to the annual adjustment of revenue from other Government accounts to meet program costs.<sup>2</sup> For OASDI, projected revenues from the public fall short of total expenditures by \$12,294 billion in present value dollars, and, from the trust fund perspective, by \$9,562 billion.

From the Governmentwide perspective, the present value of the total resources needed for the Social Security and Medicare Programs over and above current-law funding sources (payroll taxes, benefit taxes, and premium payments from the public) is \$39,596 billion. From the trust fund perspective, which counts the trust funds (\$3,019 billion in present value) and the general revenue transfers to the SMI Program (\$22,530 billion in present value) as dedicated funding sources, additional resources needed to fund the programs are \$14,047 billion in present value.

**Table 5**  
**Present Values of Costs Less Revenues of 75-Year Open Group Obligations**  
**HI, SMI, and OASDI**

(In billions of dollars, as of January 1, 2013)

	HI	SMI		OASDI	Total
		Part B	Part D		
<b>Revenues from the public:</b>					
Taxes.....	16,192	-	-	48,918	65,110
Premiums, State transfers.....	-	5,718	2,340	-	8,058
Total.....	16,192	5,718	2,340	48,918	73,168
<b>Total costs to the public.....</b>	<b>20,964</b>	<b>21,377</b>	<b>9,211</b>	<b>61,212</b>	<b>112,764</b>
<b>Net results - budget perspective* .....</b>	<b>4,772</b>	<b>15,659</b>	<b>6,871</b>	<b>12,294</b>	<b>39,596</b>
Revenues from other Government accounts .	-	15,659	6,871	-	22,530
Trust fund balances as of 1/1/2013.....	220	66	1	2,732	3,019
<b>Net results - trust fund perspective* .....</b>	<b>4,552</b>	<b>(66)</b>	<b>(1)</b>	<b>9,562</b>	<b>14,047</b>

\*Net results are computed as costs less revenues and trust fund balances. Negative values are indicative of surpluses.

Note: Details may not add to totals due to rounding.

Source: 2013 OASDI and Medicare Trustees' Report

**Infinite Horizon**

The 75-year horizon represented in Table 5 is consistent with the primary focus of the Social Security and Medicare Trustees' Reports. For the OASDI Program, for example, an additional \$12.3 trillion in present value will be needed above currently scheduled taxes to pay for scheduled benefits (\$9.6 trillion from the trust fund perspective). Yet, a 75-year projection can be a misleading indicator of all future financial flows. For example, when calculating unfunded obligations, a 75-year horizon includes revenue from some future workers but only a fraction of their future benefits. In order to provide a more complete estimate of the long-run unfunded obligations of the programs, estimates can be extended to the infinite horizon. The open-group infinite horizon net obligation is the present value of all expected future program outlays less the present value of all expected future program tax and premium revenues. Such a measure is provided in Table 6 for the three trust funds represented in Table 5.

From the budget or Governmentwide perspective, the values in line 1 plus the values in line 4 of Table 6 represent the value of resources needed to finance each of the programs into the infinite future. The sums are shown in the last line of the table (also equivalent to adding the values in the second and fifth lines). The total resources needed for all the programs sums

<sup>2</sup> The SMI Trust Fund has \$67 billion of existing assets.

to \$69.0 trillion in present value terms. This need can be satisfied only through increased borrowing, higher taxes, reduced program spending, or some combination.

The second line shows the value of the trust fund at the beginning of 2013. For the HI and OASDI Programs this represents, from the trust fund perspective, the extent to which the programs are funded. From that perspective, when the trust fund is subtracted, an additional \$23.1 trillion is needed to sustain the OASDI program into the infinite future, while an additional \$3.5 trillion is needed to sustain the HI program. However, looking just at present values ignores timing differences in the underlying projected cashflows; the HI Trust Fund is projected to remain solvent only until 2026. As described above, from the trust fund perspective, the SMI Program is fully funded, from a Governmentwide basis, the substantial gap that exists between premiums and State transfer revenue and program expenditures in the SMI Program (\$25.0 trillion and \$14.4 trillion for Parts B and D, respectively) represents future general revenue obligations of the Federal budget.

In comparison to the analogous 75-year number in Table 5, extending the calculations beyond 2087, captures the full lifetime benefits, and taxes and premiums of all current and future participants. The shorter horizon understates the total financial needs by capturing relatively more of the revenues from current and future workers and not capturing all of the benefits that are scheduled to be paid to them.

**Table 6**  
**Present Values of Costs Less Tax, Premium and State Transfer Revenue**  
**through the Infinite Horizon, HI, SMI, OASDI**

(In trillions of dollars, as of January 1, 2013)

	HI	SMI		OASDI	Total
		Part B	Part D		
Present value of future costs less future taxes, premiums, and State transfers for current participants .....	9.6	13.1	4.9	26.4	54.0
Less current trust fund balance.....	0.2	0.1	-	2.7	3.0
Equals net obligations for past and current participants.....	9.4	13.0	4.9	23.7	51.0
Plus net obligations for future participants .....	(5.9)	12.0	9.5	(0.6)	15.0
Equals net obligations through the infinite future for all participants .....	<u>3.5</u>	<u>25.0</u>	<u>14.4</u>	<u>23.1</u>	<u>66.0</u>
Present values of future costs less the present values of future income over the infinite horizon .....	<u>3.7</u>	<u>25.1</u>	<u>14.4</u>	<u>25.8</u>	<u>69.0</u>

Details may not add to totals due to rounding.

Source: 2013 OASDI and Medicare Trustees' Reports.

## Railroad Retirement, Black Lung, and Unemployment Insurance

### Railroad Retirement

The Railroad Retirement Board (RRB) was created in the 1930s to establish a retirement benefit program for the Nation's railroad workers. As the Social Security Program legislated in 1935 would not give railroad workers credit for service performed prior to 1937, legislation was enacted in 1934, 1935, and 1937 (collectively the Railroad Retirement Acts of the 1930s) to establish a railroad retirement program separate from the Social Security Program.

Railroad retirement pays full retirement annuities at age 60 to railroad workers with 30 years of service. The program pays disability annuities based on total or occupational disability. It also pays annuities to spouses, divorced spouses, widow(er)s, remarried widow(er)s, surviving divorced spouses, children, and parents of deceased railroad workers. Medicare covers qualified railroad retirement beneficiaries in the same way as it does Social Security beneficiaries.

Payroll taxes paid by railroad employers and their employees provide a primary source of income for the Railroad Retirement and Survivors' Benefit Program. By law, railroad retirement taxes are coordinated with Social Security taxes. Employees and employers pay tier I taxes at the same rate as Social Security taxes. Tier II taxes finance railroad retirement benefit payments that are higher than Social Security levels.

Other sources of program income include: the RRB-SSA-CMS Financial Interchanges with the Social Security and Medicare trust funds, earnings on investments, Federal income taxes on railroad retirement benefits, and appropriations (provided after 1974 as part of a phase out of certain vested dual benefits). See Note 24—Social Insurance, for additional information on railroad retirement program financing.

The RRSIA liberalized benefits for 30-year service employees and their spouses, eliminated a cap on monthly benefits for retirement and disability benefits, lowered minimum service requirements from 10 to 5 years, and provided for increased benefits for widow(er)s. Per the RRSIA, amounts in the Railroad Retirement Account and the SSEB Account that are not needed to pay current benefits and administrative expenses may be transferred to the NRRIT or used to offset transfers from the NRRIT to the Railroad Retirement Account. The NRRIT's sole purpose is to manage and invest railroad retirement assets. NRRIT's Board of Trustees is empowered to invest trust assets in nongovernmental assets, such as equities and debt, as well as in Government securities. Prior to RRSIA, all investments were limited to Government securities.

Since its inception, NRRIT has received \$21.3 billion from RRB (including \$19.2 billion in fiscal year 2003, pursuant to RRSIA) and returned \$15.2 billion. During fiscal year 2013, the NRRIT made net transfers of \$1.6 billion to the RRB to pay retirement benefits. Administrative expenses of the trust are paid out of trust assets. The balance as of September 30, 2013, and 2012, of non-Federal securities and investments of the NRRIT are disclosed in Note 8—Debt and Equity Securities.

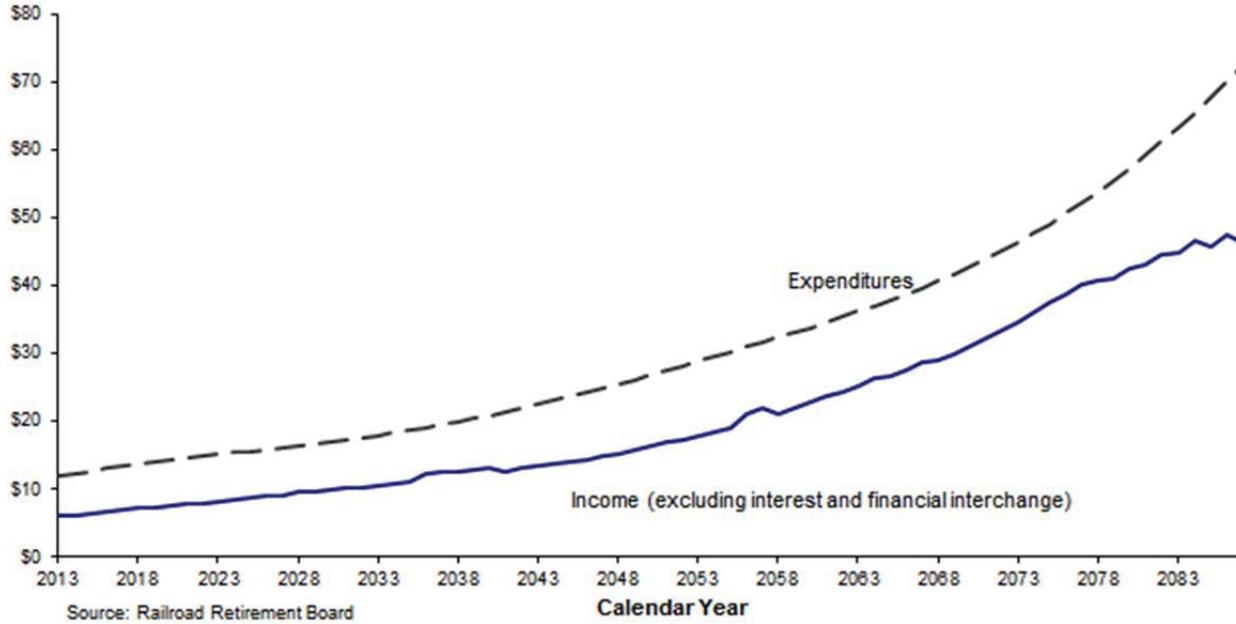
### Cashflow Projections

*Economic and Demographic Assumptions.* The economic and demographic assumptions used for the most recent set of projections are shown in the "Railroad Retirement" section of Note 24—Social Insurance.

*Income and Expenditures.* Chart 11 shows, in dollars, estimated railroad retirement income (excluding interest and financial interchange income) and expenditures for the period 2013-2087 based on the intermediate set of assumptions used in the RRB's actuarial evaluation of the program. The estimates are for the open-group population, which includes all persons projected to participate in the Railroad Retirement Program as railroad workers or beneficiaries during the period. Thus, the estimates include payments from, and on behalf of, those who are projected to be employed by the railroads during the period as well as those already employed at the beginning of the period. They also include expenditures made to, and on behalf of, such workers during that period.

**Chart 11—Estimated Railroad Retirement Income  
(Excluding Interest and Financial Interchange Income) and Expenditures  
2013-2087**

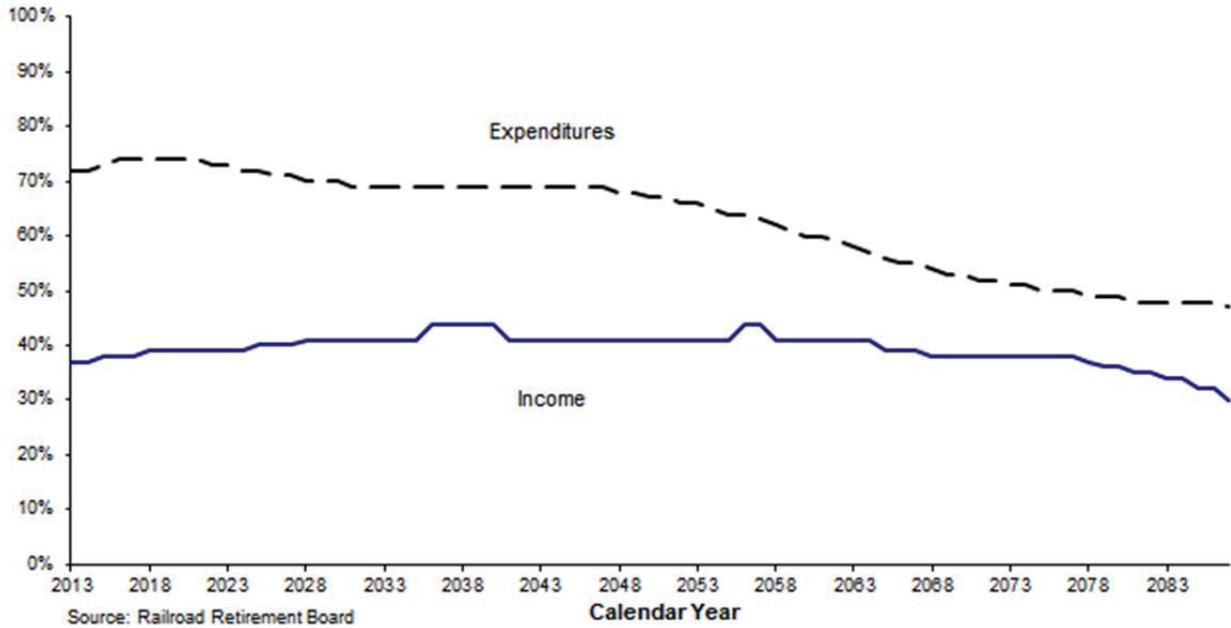
(In billions of dollars)



As Chart 11 shows, expenditures are expected to exceed tax income for the entire projection period. The imbalance generally grows at a moderate amount until about 2078 when it begins to grow more rapidly.

*Income and Expenditures as a Percent of Taxable Payroll.* Chart 12 shows estimated expenditures and income as a percent of tier II taxable payroll. Expenditures as a percentage of payroll increase from 2013 through 2016 primarily due to the anticipated retirement of a large percentage of the current workforce combined with the projected decline in railroad employment.

**Chart 12—Estimated Railroad Retirement Income  
(Excluding Interest and Financial Interchange Income) and Expenditures  
as a Percent of Tier II Taxable Payroll  
2013-2087**



*Sensitivity Analysis.* Actual future income from railroad payroll taxes and other sources and actual future expenditures for scheduled benefits and administrative expenses will depend upon a large number of factors as mentioned above. Two crucial assumptions are employment growth and the interest rate. The interest rate assumption reflects the expected rate of return on NRRIT investments. Table 7 shows the sensitivity of the shortfall in the Railroad Retirement Program to variations in these two assumptions. The low-cost employment scenario has a 6.6 percent smaller shortfall of income to expenditures, and the high-cost scenario has a 6.1 percent higher shortfall. A higher discount rate reduces future values relative to a lower rate. As seen in the table, the shortfall is 26.7 percent lower if the interest rate is 10.0 percent rather than 7.0 percent and 65.0 percent higher when the interest rate is 4.0 percent rather than 7.0 percent.

**Table 7**  
**Present Values of Railroad Retirement Expenditures in Excess of Income**  
**Under Various Employment and Interest Rate Assumptions, 2013-2087**

(Dollar values in billions; values of assumptions shown in parentheses)

Assumption	Low	Middle	High
Employment <sup>1</sup> .....	100.3 (-0.5%)	107.4 (-2.0%)	114.0 (-3.5%)
Interest rate.....	78.7 (10.0%)	107.4 (7.0%)	177.2 (4.0%)

<sup>1</sup> The low and middle employment scenarios have passenger service employment remaining at 45,000 workers per year and the remaining employment base declining at 0.5 percent and 2.0 percent, respectively, for 25 years, at a reducing rate over the next 25 years, and remaining level thereafter. The high-cost scenario has passenger service employment declining by 500 workers per year until a level of 35,000 is reached with the remaining employment base declining by 3.5 percent per year for 25 years, at a reducing rate over the next 25 years, and remaining level thereafter.

Source: Railroad Retirement Board

**Sustainability of Railroad Retirement**

Table 8 shows the magnitudes of the primary expenditures and sources of financing for the Railroad Retirement Program computed on an open-group basis for the next 75 years and expressed in present values as of January 1, 2013. The data are consistent with the Statements of Social Insurance.

From a Governmentwide perspective, revenues are expected to fall short of expenditures by approximately \$107.4 billion, which represents the present value of resources needed to sustain the Railroad Retirement Program. From a trust fund perspective, when the trust fund balance and the financial interchange and transfers are included, the combined balance of the NRRIT, the Railroad Retirement Account, and the SSEB Account show a slight surplus.

**Table 8**  
**Present Values of 75-Year Projections of Revenues and Expenditures for the Railroad Retirement Program<sup>1,2</sup>**

(In billions of present-value dollars as of January 1, 2013)

<b>Estimated future income (excluding interest) received from or on behalf of:<sup>3</sup></b>	
Current participants who have attained retirement age .....	6.9
Current participants not yet having attained retirement age .....	60.1
Those expected to become participants .....	78.8
All participants .....	<u>145.8</u>
<b>Estimated future expenditures:<sup>4</sup></b>	
Current participants who have attained retirement age .....	122.6
Current participants not yet having attained retirement age .....	96.2
Those expected to become participants .....	34.3
All participants .....	<u>253.1</u>
<b>Net obligations from budget perspective (expenditures less income)</b>	
	107.4
Railroad retirement program assets (mostly investments stated at market) <sup>5</sup>	25.5
Financial interchange from Social Security Trust	<u>83.5</u>
<b>Net obligations from trust fund perspective</b>	<u><u>(1.6)</u></u>

<sup>1</sup> Represents combined values for the Railroad Retirement Account, SSEB Account, and NRRIT, based on middle employment assumption.

<sup>2</sup> The data used reflect the provisions of RRSIA of 2001.

<sup>3</sup> Future income (excluding interest) includes tier I taxes, tier II taxes, and income taxes on benefits.

<sup>4</sup> Future expenditures include benefits and administrative expenditures.

<sup>5</sup> The value of the fund reflects the 7.0 percent interest rate assumption. The RRB uses the relatively high rate due to investments in private securities.

Note: Detail may not add to totals due to rounding. Employee and beneficiary status as are determined as of 1/1/2012, whereas present values are as of 1/1/2013.

Source: Railroad Retirement Board

## Black Lung

The Federal Coal Mine Health and Safety Act of 1969 created the Black Lung Disability Benefit Program to provide compensation, medical, and survivor benefits for eligible coal miners who are totally disabled due to pneumoconiosis (black lung disease) arising out of their coal mine employment and to eligible survivors of coal miners who died due to pneumoconiosis. DOL operates the Black Lung Disability Benefit Program. The beneficiary population is a nearly closed universe in which attrition by death exceeds new entrants by a ratio of more than ten to one.

Excise taxes on coal mine operators, based on the sale of coal, are the primary source of financing black lung disability payments and related administrative costs. The *Black Lung Benefits Revenue Act* provided for repayable advances to the BLDTF from the General Fund of the Treasury, in the event that BLDTF resources were not adequate to meet program obligations. Prior to legislation enacted in 2008 that allowed for the restructuring of BLDTF debt, the trust fund had accumulated large liabilities from significant and growing shortfalls of excise taxes relative to benefit payments and interest expenses.

The *Energy Improvement and Extension Act of 2008* (Public Law 110-343), enacted on October 3, 2008, contained several provisions that significantly improved the BLDTF's financial position, including:

- Continuation of a previously-enacted increase in coal excise tax rates for an additional 5 years, through December 2018;
- Provision for the restructuring of BLDTF debt by refinancing the outstanding repayable advances with proceeds from issuing new debt instruments with lower interest rates; and
- Establishment of a one-time appropriation that significantly reduced the outstanding debt of the BLDTF.

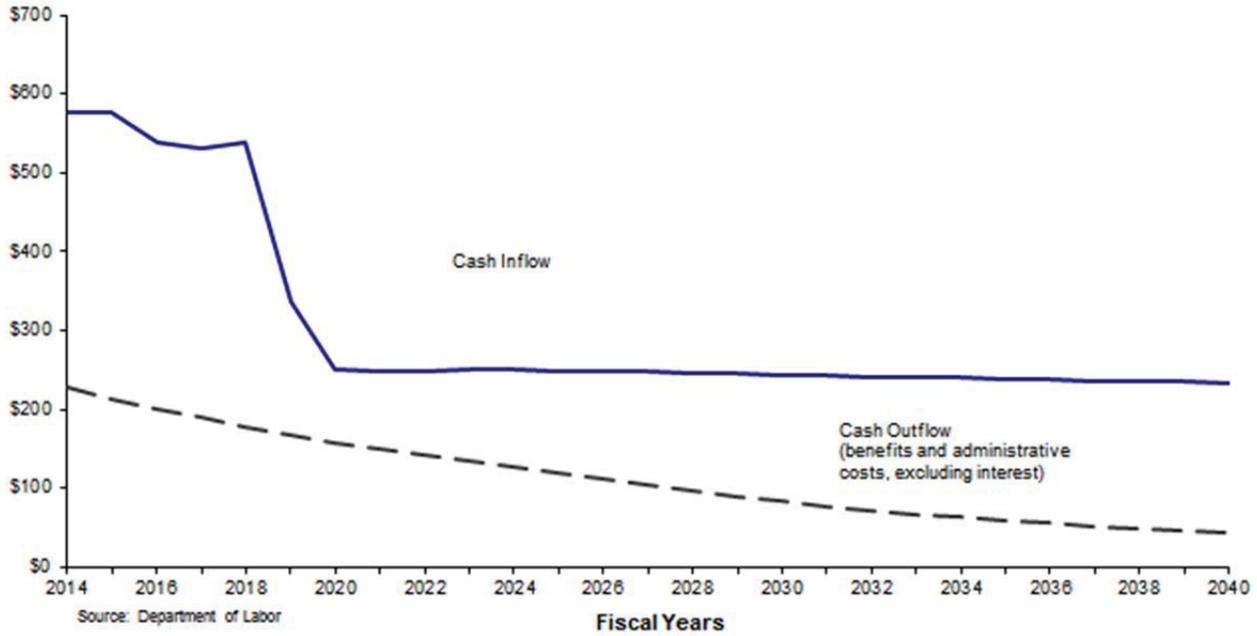
This Act also allowed that any debt issued by the BLDTF subsequent to the refinancing may be used to make benefit payments, other authorized expenditures, or to repay debt and interest from the initial refinancing. All debt issued by the BLDTF was effected as borrowing from the Treasury's Bureau of the Fiscal Service.

On September 30, 2013, total liabilities of the BLDTF exceeded assets by \$5.9 billion. Prior to the enactment of Public Law 110-343, this shortfall was funded by repayable advances to the BLDTF, which are repayable with interest. Pursuant to Public Law 110-343, any shortfall will be financed with debt instruments similar in form to zero-coupon bonds.

From the budget or consolidated financial perspective, Chart 13 shows projected black lung expenditures (excluding interest) and excise tax collections for the period 2014-2040 in constant dollars. The significant assumptions used in the most recent set of projections are coal excise tax revenue estimates, the tax rate structure, the number of beneficiaries, life expectancy, Federal civilian pay raises, medical cost inflation, the interest rate on new debt issued by the BLDTF, and the CPI-U for goods and services. The projected decrease in cash inflows in the year 2019 and, thereafter, is the result of a scheduled reduction in the tax rate on the sale of coal. This rate reduction is projected to result in a 37.6 percent decrease in the amount of excise taxes collected between the years 2018 and 2019.

**Chart 13—Estimated Black Lung Income and Expenditures (Excluding Interest)  
In Constant (or Inflation-Adjusted) Dollars  
2014-2040**

(In millions of dollars)



**Table 9**  
**Present Values of 27-Year Projections of Expenditures and Revenues**  
**for the Black Lung Disability Benefit Program**

(In billions of present value dollars as of September 30, 2013)

Projected future expenditures .....	2.9
Projected future tax income .....	7.5
Net obligations from budget perspective (expenditures less income) .....	(4.6)
Accumulated balance due General Fund .....	5.9
Net obligations from trust fund perspective .....	1.3

Note: Detail may not add to totals due to rounding.

Source: Department of Labor

Table 9 shows present values of 27-year projections of expenditures and revenues for the Black Lung Disability Benefit Program computed as of September 30, 2013. Cashflows were discounted using rates that ranged from 2.79 percent to 2.95 percent. From a Governmentwide (budget) perspective, the present value of expenditures is expected to be less than the present value of income by \$4.6 billion (a surplus). From a trust fund perspective, a large balance (\$5.9 billion) is owed to the General Fund. From that perspective, when that accumulated balance is combined with the cashflow surplus, the program has a shortfall of \$1.3 billion in present value dollars. This compares to a shortfall of \$1.7 billion reported in last year’s *Financial Report*.

### Unemployment Insurance

The Unemployment Insurance Program was created in 1935 to provide temporary partial wage replacement to workers who lost their jobs. The program is administered through a unique system of Federal and State partnerships established in Federal law but administered through conforming state laws by state agencies. The program includes the 50 states and Puerto Rico, U.S. Virgin Islands, and the District of Columbia. DOL interprets and enforces Federal law requirements and provides broad policy guidance and program direction, while program details such as benefit eligibility, duration, and amount of benefits are established through individual state unemployment insurance statutes and administered through State unemployment insurance agencies.

The program is financed through the collection of Federal and state unemployment taxes that are credited to the UTF and reported as Federal tax revenue. The fund was established to account for the receipt, investment, and disbursement of unemployment taxes. Federal unemployment taxes are used to pay for Federal and state administration of the Unemployment Insurance Program, veterans’ employment services, state employment services, and the Federal share of extended unemployment insurance benefits. Federal unemployment taxes also are used to maintain a loan account within the UTF, from which insolvent state accounts may borrow funds to pay unemployment insurance benefits.

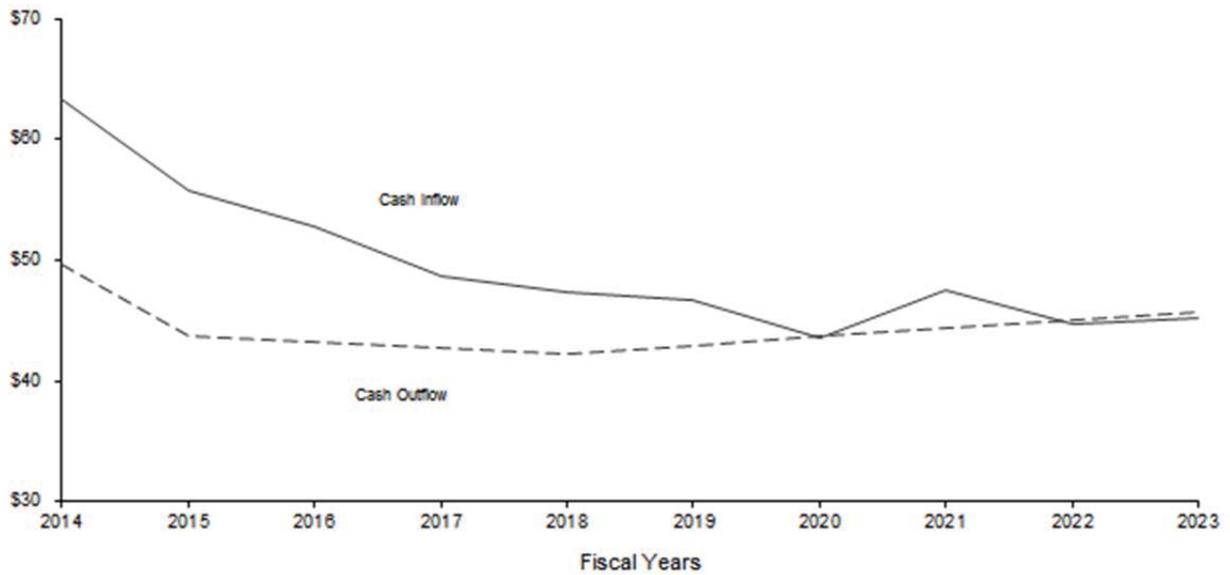
Chart 14 shows the projected cash contributions and expenditures over the next 10 years under expected economic conditions (described below) in constant dollars. The significant assumptions used in the projections include total unemployment rates, civilian labor force levels, percent of unemployed receiving benefits, total wages, distribution of benefit payments by State, State tax rate structures, State taxable wage bases, and interest rates on UTF investments. These projections, excluding interest earnings, indicate a positive net cashflow in fiscal year 2014 through fiscal year 2022.

The *Federal/State Extended Unemployment Compensation Act of 1970* provides for the extension of the duration of unemployment insurance benefits during periods of high unemployment to individuals who have exhausted their regular unemployment benefits. When the insured unemployment level within a state, or in some cases total unemployment, reaches certain specified levels, the state must extend benefit duration by 50 percent, up to a combined maximum of 39 weeks; certain states voluntarily extended the benefit duration up to a combined maximum of 46 weeks. These extended benefits are financed one-half by State unemployment taxes and one-half by Federal unemployment taxes. However, the ARRA of 2009 began temporary 100 percent Federal funding of extended benefits. Subsequent legislation, most recently P.L. 112-240, the *American Taxpayer Relief Act of 2012*, authorized continuing 100 percent Federal funding of extended unemployment benefits to December 31, 2013.

During prolonged periods of high unemployment, Congress may authorize the payment of emergency unemployment benefits to supplement extended Unemployment Insurance (UI) benefit payments. Emergency benefits began in July 2008, authorized under the *Supplemental Appropriations Act, 2008*. This emergency program was temporarily extended and additionally funded by the ARRA of 2009 and has been subsequently modified several times, most recently by P.L. 112-240, the *American Taxpayer Relief Act of 2012*, which extended the emergency unemployment insurance program to January 1, 2014.

**Chart 14—Estimated Unemployment Trust Fund Cashflow  
Using Expected Economic Conditions  
In Constant (or Inflation-Adjusted) Dollars  
2014-2023**

(In billions of dollars)



Source: Department of Labor

Table 10 shows 10-year projections of revenues and expenditures for the Unemployment Insurance Program in constant dollars. Three sets of numbers are presented in order to show the effects of varying economic conditions as reflected in different assumptions about the unemployment rate. For expected economic conditions, the estimates are based on an unemployment rate of 7.10 percent during fiscal year 2014, decreasing steadily to 5.40 percent in fiscal year 2018 and thereafter. Under Scenario One which utilizes a lower than expected unemployment rate of 6.91 in fiscal year 2014, net cash inflows peak in fiscal year 2014 and continue to be positive through 2023. Under Scenario Two, which utilizes a higher than expected unemployment rate of 9.11 in fiscal year 2014, net cash outflows, including interest earnings and expenses, are projected to be negative in fiscal years 2014 through 2015. Net cash inflows are reestablished in fiscal year 2016 and peak in fiscal year 2018 with a drop in the unemployment rate to 7.05 percent and then lower rates for fiscal years 2019 through 2023.

Each scenario uses an open group that includes current and future participants of the Unemployment Insurance Program. Table 10 shows the impact on the UTF projections of varying projected unemployment rates. For example, in Scenario Two, while tax income is projected to increase as higher layoffs result in higher employer taxes, benefit outlays increase even more. From the Governmentwide (budget) perspective, under expected conditions, the present value of income exceeds the present value of expenditures by \$52.6 billion. From the same perspective, under Scenario Two, the present value of income exceeds the present value of expenditures by \$26.0 billion. From a trust fund perspective, which takes into account the (\$0.1) billion trust fund balance, the program has a surplus of \$52.5 billion under expected conditions. As explained below, the negative trust fund balance reflects loans extended by the General Fund to the states.

**Table 10**  
**10-Year Projections of Expenditures and Revenues for**  
**Unemployment Insurance in Constant (or Inflation-Adjusted) Dollars**  
**Under Three Alternative Scenarios for Economic Conditions**

(In billions of present value dollars as of September 30, 2013)

	Economic Conditions		
	Expected	Scenario One	Scenario Two
Projected future expenditures .....	443.3	436.9	550.9
Projected future cash income .....	495.9	489.4	576.9
Net obligations from budget perspective (expenditures less income) .....	(52.6)	(52.5)	(26.0)
Trust fund assets .....	(0.1)	(0.1)	(0.1)
Net obligations from trust fund perspective <sup>1</sup> .....	(52.5)	(52.4)	(25.9)

<sup>1</sup> Net obligations from the trust fund perspective equals net obligations from the budget perspective minus trust fund assets. The negative values in this line are indicative of surpluses.

Note: Data may not add to totals due to rounding.

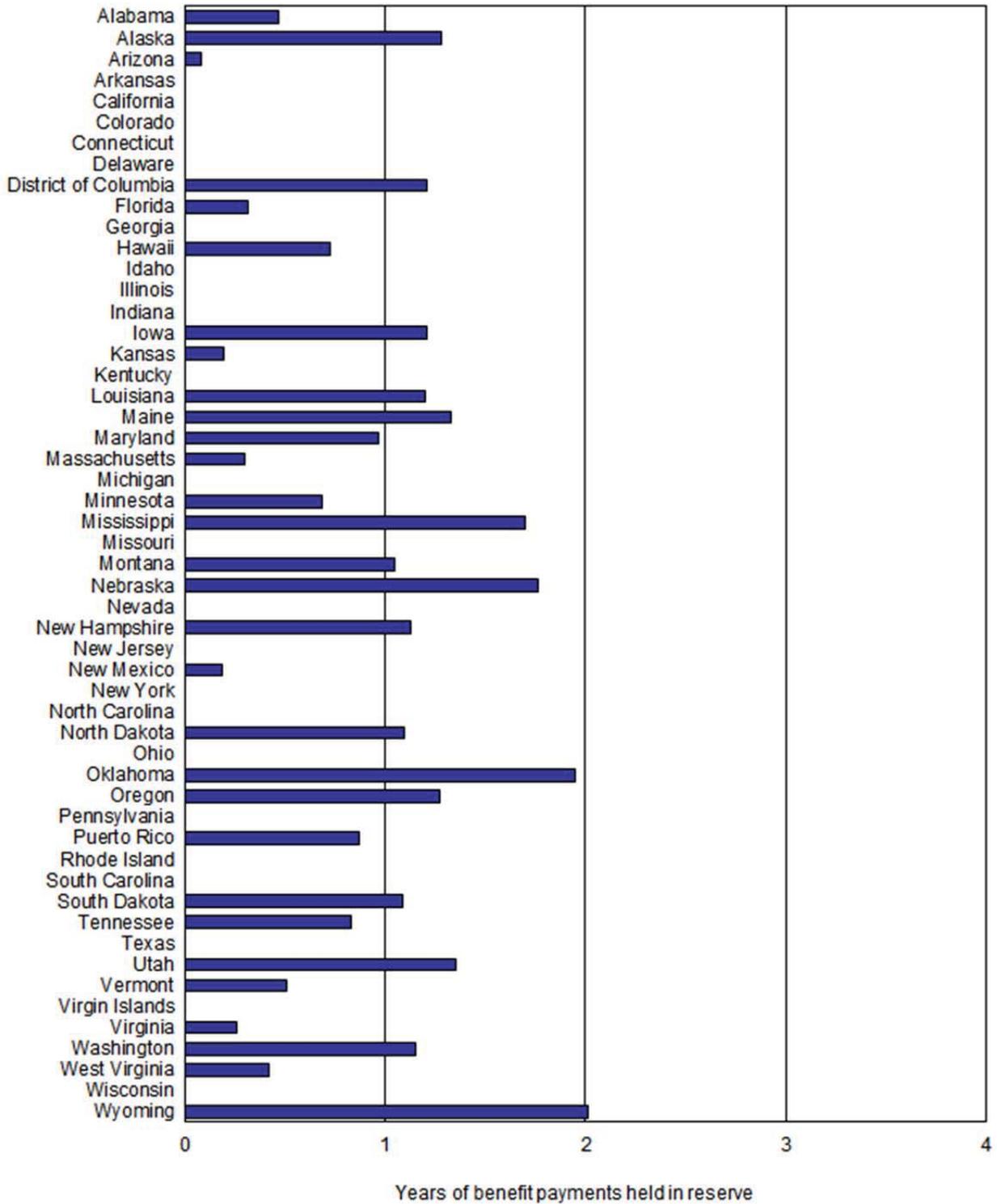
Source: Department of Labor.

### Unemployment Trust Fund Solvency

Each state’s accumulated UTF net assets or reserve balance should provide a defined level of benefit payments over a defined period. To be minimally solvent, a state’s reserve balance should provide for one year’s projected benefit payment needs based on the highest levels of benefit payments experienced by the state over the last 20 years. A ratio of 1.0 or greater indicates a state is minimally solvent. States below this level are vulnerable to exhausting their funds in a recession. States exhausting their reserve balance borrow funds from the Federal Unemployment Account to make benefit payments.

Chart 15 presents the state by state results of this analysis as of September 30, 2013. As the chart illustrates, 37 state funds plus the funds of Puerto Rico and the U.S. Virgin Islands were below the minimal solvency ratio of 1.0 at September 30, 2013.

Chart 15—Unemployment Trust Fund Solvency as of September 30, 2013



## Deferred Maintenance and Repairs

Deferred maintenance and repairs are the estimated cost to bring Government-owned property, plant, and equipment to an acceptable condition, resulting from not performing maintenance on a timely basis. Deferred maintenance and repairs exclude the cost of expanding the capacity of assets or upgrading them to serve needs different from those originally intended. The consequences of not performing regular maintenance and repairs could include increased safety hazards, poor service to the public, higher costs in the future, and inefficient operations. Estimated deferred maintenance and repairs costs are not accrued in the Statements of Net Cost or recognized as a liability on the Balance Sheets.

The amounts disclosed for deferred maintenance and repairs are allowed to be measured using one of the following three methods:

- Condition assessment surveys are periodic inspections of the Government-owned property to determine the current condition and estimated cost to bring the property to an acceptable condition.
- Life-cycle cost forecast is an acquisition or procurement technique that considers operation, maintenance, and other costs in addition to the acquisition cost of assets.
- Management analysis method is founded on inflation-adjusted reductions in maintenance funding since the base year.

The amounts disclosed in the table below have all been measured using the condition assessment survey method. The standards for acceptable operating condition and the changes in these standards and changes in asset condition vary widely between the Federal entities.

Some deferred maintenance and repairs have been deemed critical. Such amounts and conditions are defined by the individual agencies with responsibility for the safekeeping of these assets. The critical maintenance amount is not included in the low or high estimates amounts and is reported separately. Low and high estimates are based on the materiality of the estimated cost of returning the asset to the acceptable condition versus the total value of the corresponding asset.

	<b>Deferred Maintenance and Repairs Cost Range</b>					
	<b>Low Estimate</b>		<b>High Estimate</b>		<b>Critical Maintenance</b>	
	<b>2013</b>	<b>2012</b>	<b>2013</b>	<b>2012</b>	<b>2013</b>	<b>2012</b>
(In billions of dollars)						
<b>Asset category:</b>						
Buildings, structures and facilities .....	29.5	31.5	32.3	34.5	99.5	106.3
Furniture, fixtures, and equipment ....	0.1	0.1	0.1	0.1	2.3	1.3
Other general property, plant, and equipment.....	5.9	5.3	6.0	5.3	0.9	0.7
Heritage assets .....	0.8	0.9	0.8	0.8	3.6	1.7
Stewardship land.....	5.6	5.8	8.1	8.4	-	-
<b>Total deferred maintenance .....</b>	<b>41.9</b>	<b>43.6</b>	<b>47.3</b>	<b>49.1</b>	<b>106.3</b>	<b>110.0</b>

Please refer to the individual financial statements of DOI, DOD, USDA, DOE, HHS, and VA for detailed significant information on deferred maintenance and repairs, including the standards used for acceptable operating condition and changes in asset condition.

## Other Claims for Refunds

Management has estimated amounts that may be paid out as other claims for tax refunds. This estimate represents an amount (principal and interest) that may be paid for claims pending judicial review by the Federal courts or, internally, by appeals. The total estimated payout (including principal and interest) for claims pending judicial review by the Federal courts is \$0.8 billion and \$6.1 billion for fiscal years 2013 and 2012, respectively. For those under appeal, the estimated payout is \$3.5 billion and \$5.3 billion for fiscal years 2013 and 2012, respectively. There are also unasserted claims for refunds of certain excise taxes. Although these refund claims have been deemed to be probable, they do not meet the criteria in SFFAS No. 5 for reporting the amounts in the balance sheets or for disclosure in the Notes to the Financial Statements. However, they meet the criteria in SFFAS No. 7 for inclusion as Required Supplementary Information. To the extent judgments against the Government for these claims prompt other similarly situated taxpayers to file similar refund claims, these amounts could become significantly greater.

## Tax Assessments

The Government is authorized and required to make inquiries, determinations, and assessments of all taxes that have not been duly paid. Unpaid assessments result from taxpayers filing returns without sufficient payment, as well as enforcement programs such as examination, under-reporter, substitute for return and combined annual wage reporting. Assessments with little or no future collection potential are called write-offs. Although compliance assessments and write-offs are not considered receivables under Federal accounting standards, they represent legally enforceable claims of the Government. There is, however, a significant difference in the collection potential between compliance assessments and receivables.

Compliance assessments and pre-assessment work in process are \$87.3 billion and \$89.6 billion for fiscal years 2013 and 2012, respectively. The amount of allowance for uncollectible amounts pertaining to compliance assessments cannot be reasonably estimated, and thus the net realizable value of the value of the pre-assessment work-in-process cannot be determined. The amount of assessments that agencies have statutory authority to collect at the end of the period but that have been written off and excluded from accounts receivable are \$130.3 billion and \$125.1 billion for fiscal years 2013 and 2012, respectively.

## Risk Assumed

Risk assumed information is important for all Federal insurance and guarantee programs, except social insurance, life insurance, and loan guarantee programs. Risk assumed is generally measured by the present value of unpaid losses net of associated premiums, based on the risk inherent in the insurance or guarantee coverage in force. In addition to the liability for unpaid insurance claims included in Note 16—Insurance and Guarantee Program Liabilities, for events that have already occurred, the Government also is required to report as supplementary information risk assumed amounts and the periodic changes in those amounts.

The assessments of losses based on the risk assumed are based on actuarial or financial methods that include information and assumptions applicable to the economic, legal, and policy environment in force at the time the assessments are made. Management has estimated the loss amounts based on the risk assumed as well as the periodic changes.

Please refer to the individual financial statements of the PBGC, USDA, and DHS for further detailed information, including information as to the indicators of the range of uncertainty around expected estimates and the indicators of the sensitivity of the estimates to changes in major assumptions. We note that this table does not include all federal insurance and guarantee programs.

<b>Risk Assumed Information as of September 30, 2013, and 2012</b>		
(In billions of dollars)	<b>2013</b>	<b>2012</b>
<b>Present value of unpaid losses, net of associated premiums:</b>		
Pension Benefit Guaranty Corporation .....	328.8	321.7
Department of Agriculture .....	4.5	18.3
Department of Homeland Security .....	0.6	0.6
All other .....	0.5	3.7
Total.....	<u>334.4</u>	<u>344.3</u>
<b>Period changes in risk assumed amounts:</b>		
Pension Benefit Guaranty Corporation .....	7.1	71.5
National Credit Union Administration .....	(3.2)	(4.0)
Department of Agriculture .....	(13.8)	9.5
Total.....	<u>(9.9)</u>	<u>77.0</u>

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## Federal Oil and Gas Resources

DOI plays an integral part in the implementation of the President's *Blueprint for a Clean and Secure Energy Future*, designed to build a safe, secure energy future by using cleaner, alternative fuels to power our homes and economies, producing more oil and gas at home, and improving energy efficiency. The DOI is responsible for managing the nation's oil and natural gas resources and the mineral revenues on federal lands, both onshore and on the Outer Continental Shelf. This management process can be broken down into six essential analysis components: pre-leasing, post-leasing and preproduction, production and post-production, revenue collection, fund disbursement, and compliance.

### Schedule of Estimated Federal Oil and Gas Petroleum Royalties Assets Present Values as of September 30, 2013

(In billions of dollars)	Offshore	Onshore	Total
Oil and Lease Condensate.....	36.4	15.0	51.4
Natural Gas, Wet After Lease Separation .....	4.6	25.8	30.4
Total.....	41.0	40.8	81.8

The above table presents the estimated present value of future federal royalty receipts on estimated proved reserves<sup>1</sup> as of September 30, 2013. The federal government's estimated petroleum royalties have as their basis the DOE's Energy Information Administration (EIA) estimates of proved reserves. The EIA provides such estimates directly for federal offshore areas and are adjusted to extract the federal subset of onshore proved reserves. The federal proved reserves were then further adjusted to correspond with the effective date of the actual production for calendar year 2011, the most recently published EAI proved reserves report and then are projected, separately for oil and natural gas, over time to simulate a schedule of when the reserves would be produced. Future royalties are then calculated from these production streams by applying future price estimates by the OMB, and effective royalty rates, adjusted for transportation allowances and other allowable deductions. The valuation method used for gas captures royalties from three products – dry gas, wet gas and natural gas liquids which collectively are reported as natural gas, wet after lease separation. The present value of these royalties are then determined by discounting the revenue stream back to the effective date at a public discount rate assumed to be equal to the OMB's estimates of future 30-Year Treasury Bill rates. The 30-year rate was chosen because this maturity life most closely approximates the productive lives of the proved reserves estimates.

<sup>1</sup> Per the EIA, lease condensate is a mixture consisting primarily of pentanes and heavier hydrocarbons which is recovered as a liquid from natural gas in lease separation facilities. This category excludes natural gas plant liquids, such as butane and propane, which are recovered at downstream natural gas processing plants or facilities. Also per the EIA, natural gas, wet after lease separation, is the volume of natural gas remaining after removal of lease condensate in lease and/or field separation facilities, if any, and after exclusion of nonhydrocarbon gases where they occur in sufficient quantity to render the gas unmarketable. Natural gas liquids may be recovered from volume of natural gas, wet after lease separation, at natural gas processing plants (see [http://www.eia.gov/dnav/ng/TblDefs/ng\\_deep\\_tbldef2.asp](http://www.eia.gov/dnav/ng/TblDefs/ng_deep_tbldef2.asp)).

**Estimated Federal Oil and Gas Petroleum Royalties (Proved Reserves)  
As of September 30, 2013**

Petroleum Category	Quantity (in Millions)	Average Purchase Price (\$)	Average Royalty Rate (%)
Oil and Lease Condensate (Bbl):			
Offshore.....	4,412.1	105.89	13.82
Onshore.....	<u>1,984.4</u>	89.92	12.11
Total .....	<u>6,396.5</u>		
Natural Gas, Wet After Lease Separation (Mcf):			
Offshore.....	8,443.3	4.12	13.66
Onshore.....	<u>57,563.5</u>	3.94	10.40
Total .....	<u>66,006.8</u>		

Bbl = barrels

Mcf = 1,000 cubic feet

The table above provides the estimated quantity, and a weighted average purchase price, and a weighted average royalty rate by category of estimated federal petroleum royalties at the end of fiscal year 2013<sup>2</sup>. The estimated quantities, average purchase prices and royalty rates vary by region; the above table reflects an overall weighted average purchase price and royalty rate, and is not presented on a regional basis, but is instead calculated based on regional averages. The prices and royalty rates are based upon historical (or estimated) averages, excluding prior-period adjustments, if any, and are affected by such factors as accounting adjustments and transportation allowances, resulting in effective average prices and royalty rates. Prices are valued at the lease rather than at the market center, and differ from those used to compute the asset estimated present values, which are forecasted and discounted based upon OMB economic assumptions. For further details on federal oil and gas resources, refer to the financial statements of DOI.

<sup>2</sup> Gulf of Mexico proved reserves are royalty bearing volumes. In the Gulf of Mexico, an additional 964.8 million bbl of proved oil reserves and 1,798.2 million Mcf of proved gas reserves are not reflected in these totals as they are estimated to be producible royalty free under various royalty relief provisions. The net present value of the royalty value of the royalty free proved reserves volumes in the Gulf of Mexico is estimated to be \$8.8 billion.