United States Government
Supplemental Information (Unaudited)
For the Years Ended September 30, 2011 and 2010

Fiscal Projections for the U.S. Government – FY 2011

This section is prepared pursuant to Statement of Federal Financial Accounting Standard (SFFAS) 36, *Reporting Comprehensive Long-Term Fiscal Projections for the U.S. Government*. It is intended to help readers of the Financial Report of the U.S. Government (FR) assess whether future budgetary resources will be sufficient to sustain public services and to meet future obligations as they come due, assuming that the Federal Government's current policies for spending and taxation are continued. Such an assessment requires prospective information about receipts and spending, the resulting debt, and how these amounts relate to the economy. The assessment is also referred to as reporting on "fiscal sustainability."

The information in this section is important not only for its financial, but also its social and political, implications. Financial reports should provide information that can help readers assess the likelihood that the Government will be able to continue providing the equivalent level of public services and to assess whether financial burdens without related benefits will be shifted to future taxpayers. Fiscal sustainability reporting should assist the reader in understanding these financial, social, and political implications.

The projections and analysis presented here are mathematical extensions and extrapolations based on an array of assumptions as described below, including the assumption that current Federal policy does not change. These projections cannot be interpreted as forecasts or predictions of the future, in part because they encompass hypothetical future trends or events that are improbable. This is the second year in which this information is included with the other Supplemental Information, and the methods and assumptions used in producing this section are still under development.

Statement of Long Term Fiscal Projections

Table 1, on the following page, presents projections of the Federal Government's receipts and non-interest spending.[1] Receipt categories include individual income taxes, Social Security and Medicare payroll taxes, and all other receipts. On the spending side, the projections include both discretionary programs, such as defense spending, which are funded through annual appropriations, and mandatory (entitlement) programs, such as Social Security and Medicare, which generally provide benefits under permanent or multi-year appropriations. The Federal budget provides the framework used for the projections in Table 1, which differs in some respects from the presentation of the projections in the trustees' reports for Social Security and Medicare (as explained below). The key assumptions used in the long-term fiscal projections are summarized in the next section. This year's projections for Social Security and Medicare are based on the same economic and demographic assumptions as are used for the 2011 trustees' reports and the Statement of Social Insurance, while comparative information presented from last year's report is based on the 2010 trustees' reports. Projections for the other categories are consistent with the assumptions used for the trustees' reports. In order to produce a more realistic projection of the fiscal outlook under current policy, the projections assume several likely departures from current law, noted below.

[1] 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 spend an amount – or to outlays, which reflect actual payments made.

The projections in Table 1 are expressed in present value dollars as of October 1, 2011, and as a percentage of the present value of Gross Domestic Product (GDP).[2] The present value of a future amount, for example, $1 billion in March 2021, is the amount of money that if invested on October 1, 2011 in an account earning the government borrowing rate would have a value of $1 billion in March 2021.[3] The present value of a receipt or expenditure category over 75 years is the sum of the annual present value amounts. GDP measures the total value of all final goods and services produced in the U.S. in a year and is a standard measure of the overall size of the economy. 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 Government programs. The interest rates used to compute present values are the rates that underlie the projections in the 2011 Social Security and Medicare trustees' reports, with comparative present values presented from last year's report consistent with the 2010 trustees' report. The use of discount factors consistent with the Social Security actuaries 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.

Table 1: Long-Term Fiscal Projections of Federal Receipts and Spending

	75-Year Present Values[1]					
	Dollars in Trillions			% GDP[2]		
Receipts:	2011	2010	Change	2011	2010	Change
Social Security Payroll Taxes	39.1	37.8	1.3	4.4	4.4	0.0
Medicare Payroll Taxes	13.0	12.4	0.6	1.5	1.4	0.0
Individual Income Taxes	93.5	90.6	2.9	10.5	10.5	0.0
Other Receipts	34.7	34.4	0.3	3.9	4.0	-0.1
Total Receipts	**180.2**	**175.2**	**5.0**	**20.3**	**20.2**	**0.0**
Non-interest Spending:						
Defense Discretionary	28.7	31.0	-2.3	3.2	3.6	-0.4
Nondefense Discretionary	15.4	30.7	-15.4	1.7	3.6	-1.8
Social Security	51.8	49.1	2.6	5.8	5.7	0.1
Medicare Part A[3]	17.6	17.3	0.4	2.0	2.0	0.0
Medicare Parts B&D[4]	21.1	20.4	0.7	2.4	2.4	0.0
Medicaid	24.0	24.2	-0.3	2.7	2.8	-0.1
Other Mandatory	28.1	18.8	9.3	3.2	2.2	1.0
Total Non-interest Spending	**186.7**	**191.6**	**-4.9**	**21.0**	**22.1**	**-1.2**
Non-interest Spending less Receipts	6.4	16.3	-9.9	0.7	1.9	-1.2

1/ 75-year present value projections for 2011 are as of 9/30/2011 for the period FY 2012-2086; projections for 2010 are as of 9/30/2010 for the period FY 2011-2085.

2/ The 75-year present value of nominal GDP, which drives the calculations above is $889.8 trillion starting in FY 2012, and was $865.6 trillion starting in FY 2011.

3/ Represents portions of Medicare supported by payroll taxes.

4/ Represents portions of Medicare supported by general revenues. Consistent with the President's Budget, Parts B & D are presented net of premiums.

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. As discussed later, one notable difference between the analysis in the Long-Term Fiscal Projections and the trustees' reports is that these projections are based on fiscal years starting on October 1, 2011, whereas the trustees' reports feature projections made on a calendar-year basis. This difference allows the projections to start from the actual results from fiscal year 2011. This Report also considers the period of time beyond the 75-year window, noting most importantly that the assumptions become more uncertain the further in time the projections are extended. This report compares projections of fiscal sustainability between 2011 and 2010, with significant changes between the two years evident in Table 1 and characterized and explained in Table 2 in the "Current Policy Projections for Primary Deficits" section.

Just as the financial statements give information about the financial position of the Federal government, but not State or local governments, the analysis and discussion of long-term fiscal projections for the U.S. Government does not address the fiscal sustainability of State and local governments.

[2] GDP is 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.

[3] 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.

Assumptions Used and Relationship to Other Financial Statements

A fundamental assumption underlying the projections in Table 1 is that current Federal policy – as 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. This is because the long-range projections are inherently uncertain and because simplifying assumptions are made. One key simplifying assumption, for example, is that interest rates paid on public debt remain unchanged, regardless of the amount of debt outstanding. It is likely that if the debt rises as shown in these projections, future interest rates will increase. 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 Table 1 focus on future cash flows, 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 is consistent with methods used to prepare the Statement of Social Insurance (SOSI) and the generally cash-based Federal budget.

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

- **Social Security:** Social Security (OASDI) spending in the fiscal projections is based on the projected expenditures in the Social Security trustees' report for benefits,[4] plus the Railroad Retirement interchange, but excluding administrative expenses. The projections of Social Security payroll taxes and future Social Security spending begin with actual budget data for FY 2011. The projected growth rates for future spending and payroll taxes are derived from the spending and tax growth rate projections underlying the latest trustees' report.

- **Medicare:** Current law Medicare spending is based on incurred expenditures from the 2011 Medicare trustees' report, which reflects the changes in Medicare that are projected to result from passage of the - Affordable Care Act (ACA) in 2010. However, some adjustments are required to convert these amounts to Medicare spending as measured in these projections and in the budget. Medicare Part B and D premiums,[5] as well as State contributions to Part D, are subtracted from gross spending in measuring Part B and Part D outlays in the projections and the budget just as they are subtracted from gross cost to yield net cost in the financial statements.[5] The budget treats the premiums as "negative spending" rather than receipts, since they represent payment for a service. This is similar to the financial statement treatment of premiums as "earned" revenue as distinct from all other sources of revenue, which are unearned. In the budget, Government receipts are defined as payments obtained through the Government's sovereign power to tax, similar to (unearned) revenue in the financial statements. With these adjustments, Medicare spending net of administrative costs corresponds to Medicare spending in the budget. The 2011 long-term fiscal projection uses historical budget data from FY 2011 for Medicare spending and Part A payroll tax revenues, with both growing at growth rates presented in the trustees' report. Also, as discussed in Note 26, there is uncertainty about whether the projected reductions in health care cost growth will be fully achieved. Note 26 includes an alternative projection to illustrate the uncertainty of projected Medicare costs.

- **Medicaid:** The model for the Medicaid program starts with the projections from the *2010 Actuarial Report on the Financial Outlook for Medicaid* prepared by the Office of the Actuary, Centers for Medicare and Medicaid Services (CMS).[6] As projections in that report only extend until 2019, the model assumes that Medicaid benefits in 2020 and later years grow at the same rate per beneficiary as Medicare benefits grow.

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[4] As indicated in the more detailed discussion of Social Insurance in Note 26 to the financial statements.

[5] 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 $8.1 trillion, or 0.9 percent of GDP.

[6] Christopher J. Truffer, John D. Klemm, Christian J. Wolfe, and Kathryn E. Rennie *2010 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.

Supporting this assumption is a historical trend where the average annual growth in Medicaid outlays per beneficiary from 1987 to 2011 has been within 0.2 percent growth per year of the average annual growth in Medicare outlays per beneficiary over the same period. The model accounts for the effects of the ACA to reflect higher future enrollment, as calculated by CMS, and reflects other adjustments to align the base projections with the latest budget data. The Medicaid projections reflect the temporary increase in Medicaid spending due to the American Recovery and Reinvestment Act of 2009 (ARRA) and the phase-out of that spending.

- **Other Mandatory Spending:** Other mandatory spending components are assumed to increase by the rate of growth in nominal GDP, implying that such spending will remain constant as a percentage of GDP in the long run. Adjustments are made for temporary spending that is not expected to persist in the long run: the mandatory spending authorized by ARRA and other stabilization measures including temporary expansions in unemployment insurance benefits, the implementation of the Troubled Asset Relief Program (TARP), the purchase of government sponsored enterprise (GSE) preferred stock, and higher net spending for the Federal Deposit Insurance Corporation (FDIC). The 75-year present value of these temporary measures totals $0.1 trillion.

- **Discretionary Spending:** In these projections, aside from the expected reductions in Overseas Contingency Operations (OCO) spending, discretionary spending is capped at the levels enacted in the Budget Control Act of 2011 (BCA) through FY 2021, after which it resumes growth at the same rate as nominal GDP, and thus plateaus at a long-term level of 3.1 percent of GDP by 2023 once the OCO adjustment has been fully phased out. Adjustments are made for the discretionary components of temporary spending authorized by ARRA. The 75-year present value of OCO and the discretionary measures in ARRA total $0.6 trillion, or 0.1 percent of present value GDP.

- **Receipts (Other than Social Security and Medicare):** Instead of attempting a projection of the entire income distribution, the fiscal projections link individual income taxes to wages and salaries, and all other receipts to GDP. Individual income taxes are projected to return to their historical ratio to wages and salaries of about 17 percent over the next several years, and from that point on to increase gradually to almost 28% in 2086 to reflect the progressive nature of the Federal income tax, which implies that as real wages rise over time, the average taxpayer will move into higher tax brackets. The levels of individual income taxes are also adjusted over the next several years for the phase-out of the temporary tax cuts enacted by ARRA. Computing individual income taxes as a ratio of wages and salaries allows the projections to reflect changes in the ratio of taxable income to total GDP. All other receipts also rise over the next several years back to their historical ratio to GDP of around 4 percent from 1979 through 2010.

- **Further Budget Control Act (BCA) Deficit Reduction:** The BCA created the Joint Select Committee on Deficit Reduction with a goal to reduce the deficit by at least $1.5 trillion. Because the Joint Committee failed to reach agreement on a deficit reduction proposal, under current law automatic procedures specified in the BCA will result in $1.2 trillion in reductions in discretionary and mandatory spending through 2021. The projections assume that such automatic reductions occur or that the reductions are replaced with an equivalent set of cuts, with the effects estimated through 2021 using the procedures set forth in the BCA and the resulting lower levels of spending grown with nominal GDP thereafter.

- **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 convert those in the 2011 Social Security Trustees Report[7] to a fiscal year basis. The average interest rate over the projection period is 5.6 percent. These rates are then used to convert future cash flows to present values as of the start of fiscal year 2012.

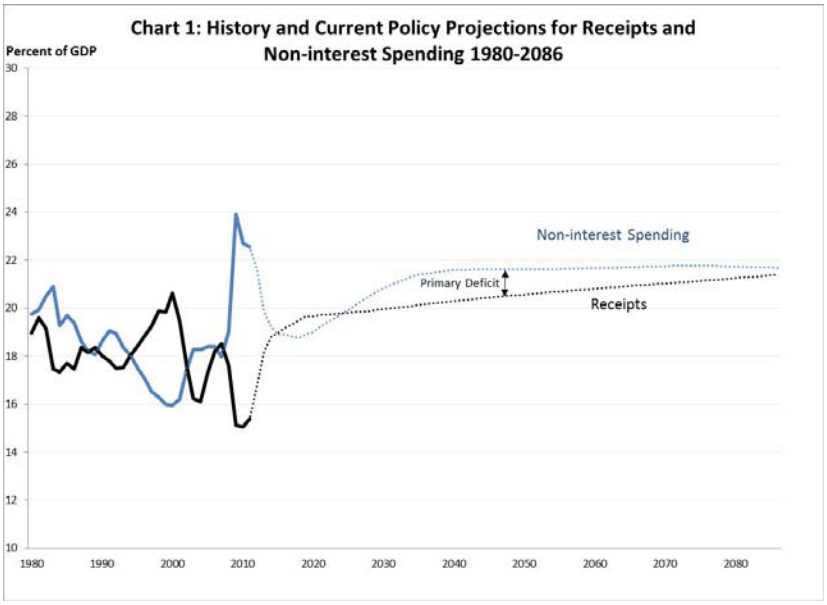
[7] As indicated in the more detailed discussion of Social Insurance in Note 26 to the financial statements.

Departures from Current Law and Policy

As noted earlier, the long-term fiscal projections are made on the basis of current Federal policy, even where current Federal policy would not be continued under provisions of current law. For example, the projections presented in Table 1 and throughout this analysis are made without regard to the statutory limit on outstanding Federal debt. The projection also assumes several other departures from current law: continued discretionary appropriations throughout the projection period, the continued payment of Social Security and Medicare benefits beyond the projected point of trust fund exhaustion, extension of some of the 2001/2003 tax cuts, indexing of the alternative minimum tax (AMT), and the reauthorization of many mandatory programs with expiration dates prior to the end of the 75-year projection period. The projections assume reductions in Medicare physician fees will occur as scheduled under current law, just as they are reflected in the Medicare trustees' report and in the Statement of Social Insurance.[8]

The Sustainability of Fiscal Policy

An important purpose 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 it sustainable. A sustainable policy is one where the ratio of debt held by the public to GDP (debt to GDP) is stable over time. The discussion below focuses on balancing revenues and expenditures over time, and does not consider fairness or efficiency implications of the reforms necessary to achieve sustainability.



It is shown below that, under current policy, the ratio of debt to GDP is projected to rise only 1.2 percent from 2013 to 2022, before resuming faster growth over the remainder of the 75-year window, eventually exceeding 280 percent by 2086. The continuing rise in this ratio by the end of the 75-year horizon means that current policy is unsustainable. If these projections were extended beyond 2086, deficits excluding interest would persist as the population continues to age and if the other assumptions made for the 75-year horizon continue to hold. Persistence of the primary deficit beyond the 75-year horizon implies that the ratio of debt to GDP would continue to grow beyond the 75-year horizon.

Current Policy Projections for Primary Deficits

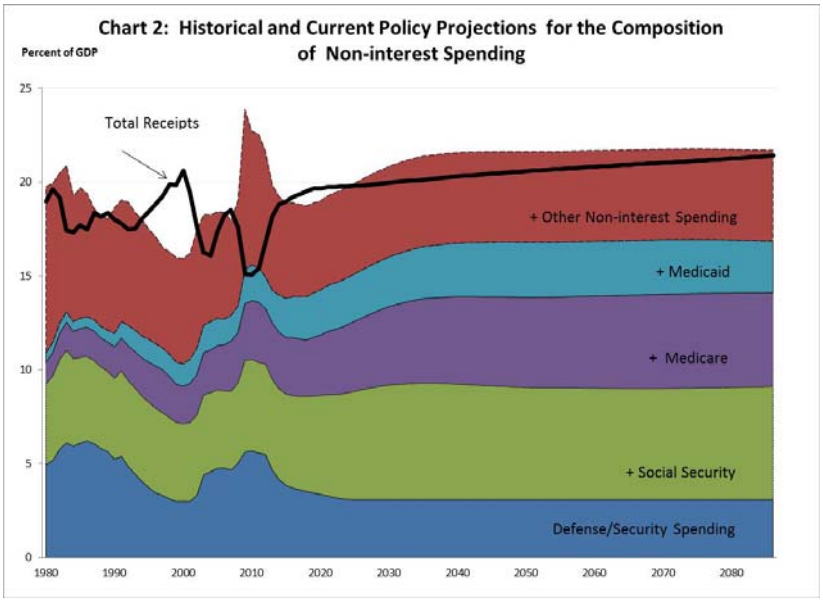
A key determinant of growth in the debt-to-GDP ratio and hence fiscal sustainability is the primary deficit-to-GDP ratio. The primary deficit is the difference between non-interest spending and receipts, and the primary deficit-to-GDP ratio is the primary deficit expressed as a percent of GDP. As shown in Chart 1, the primary deficit-to-GDP

[8] Congress has acted repeatedly to prevent the reductions in Medicare physician fees from taking place, but recent actions have also included spending reductions to offset the cost of physician fee relief. The assumption here that future reductions will occur as scheduled under current law is comparable to an assumption that the reductions will be overridden but the resulting costs will be paid for with reductions in other areas.

ratio grew rapidly in 2009 and stayed large in 2010 and 2011 due to the financial crisis and the recession and the policies pursued to combat both. The primary deficit ratio is projected to fall rapidly between 2012 and 2019 (turning to surplus in 2015) as spending reductions called for in the BCA take effect and the economy recovers. Between 2019 and 2035, 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. A primary deficit is expected to reappear in 2025 that reaches 1.3 percent of GDP in 2035. After 2035, the projected primary deficit-to-GDP ratio slowly declines as the impact of the baby boom generation retiring dissipates. Between 2035 and 2086, the projected primary deficit averages 0.9 percent of GDP.

The revenue share of GDP fell substantially in 2009 and 2010 and increased only modestly in 2011 because of the recession and tax reductions enacted as part of the 2009 ARRA and the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. The share is projected to return to near its long-run average as the economy recovers and the temporary tax cuts expire. After the economy is fully recovered, 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.[9] This projection assumes that Congress and the President will continue to enact legislation that prevents the share of income subject to the Alternative Minimum Tax from rising.

On the spending side, the non-interest spending share of GDP is projected to fall from its current level of 22.6 percent to about 20 percent in 2013, and stay at or below that level until 2026, and to then rise gradually and plateau at about 22 percent beginning in about 2040. The reduction in the non-interest spending share of GDP over the next two years is mostly due to the caps on discretionary spending and the automatic spending cuts mandated by the BCA, and the subsequent increase is principally due to growth in Medicare, Medicaid, and Social Security spending (see Chart 2). 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 1.4 percentage points, 1.3 percentage points, and 1.0 percentage points, respectively. After 2035, the Social Security spending share of GDP is relatively steady, 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.



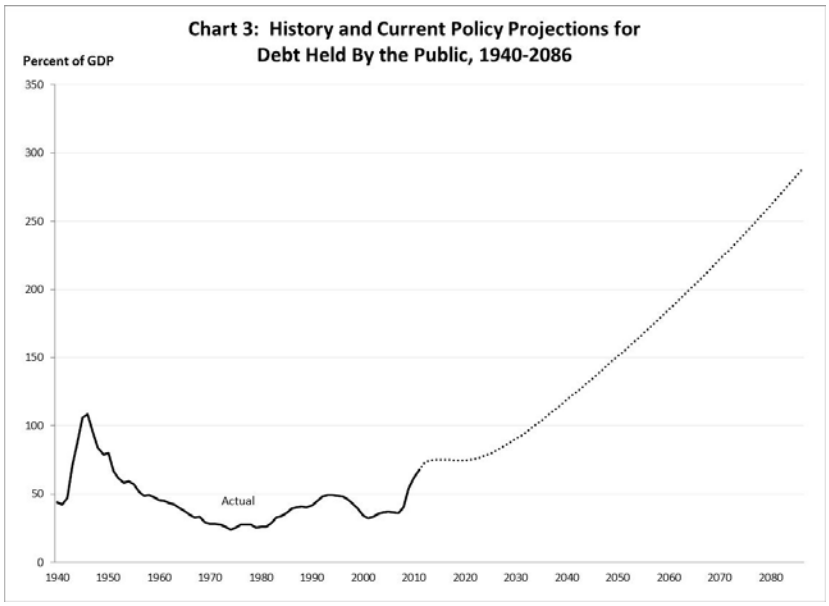
Both Medicare and Medicaid projections continue to be significantly affected by the enactment of the ACA in 2010. The reform expands health insurance coverage, but the long-term budgetary effect will depend on the effectiveness of provisions designed to reduce health care cost growth. The 2011 Medicare trustees' report reflects the ACA and thus projects reductions in future Medicare cost growth as called for by the new law. If the trustees' report projections hold true, there will be a substantial slowdown in future Medicare spending and following the projections methodology outlined above there will also be a slowdown in future Medicaid spending growth. However, even with this reduced growth in Medicare and Medicaid spending, there is still a persistent gap between projected receipts and projected total Federal non-interest spending.

[9] Projected revenues also account for increases (as a share of GDP) in employer-sponsored health insurance costs, which are tax exempt.

The overall 75-year present value net excess of non-interest spending over receipts expressed in Table 1 of $6.4 trillion (0.7 percent of the 75-year present value of GDP) for the 2011 projections can be expressed in terms of funding sources. In these projections there is an excess of receipts over spending of $6.0 trillion or 0.7 percent of GDP among programs funded by the government's general revenues but an imbalance of $12.4 trillion or 1.4 percent of GDP among Social Security (OASDI) and Medicare Part A, which are funded by payroll taxes and which are not funded in any material respects by the government's general revenues. By comparison, the 2010 projections showed that programs funded by the government's general revenues had an imbalance of $5.3 trillion or 0.6 percent of GDP while the payroll tax funded programs had an imbalance of $11.0 trillion or 1.3 percent of GDP.[10] While the imbalance for payroll tax funded programs has actually risen modestly since 2010, programs funded by general revenues are no longer in imbalance in 2011 and show a large present value surplus more than offsetting the increase in the dedicated imbalance. This speaks further to the gains brought about through the BCA in 2011.

Table 2: Components of Change (PV Dollars in Trillions)	
Non-Interest Spending Less Receipts: FY 2010	16.3
Components of Change:	
Change due to Enacted Legislation.....	-11.0
Change in Economic Assumptions.....	2.4
Change in Reporting Period.....	1.0
Change in Technical Assumptions.....	-2.3
Total	-9.9
Non-Interest Spending Less Receipts: FY 2011	6.4

As shown in Table 1 and discussed above, the 2011 projection of the 75-year present value imbalance of spending over receipts of $6.4 trillion is a sizable drop from the 2010 projection, which measured the 75-year imbalance as $16.3 trillion. Table 2 breaks down the sources of the change in this key projection from 2010 to 2011 and clearly illustrates the projected effects of newly enacted legislation as the main driver of the change since last year. The changes due to enacted legislation shown on Table 2 reflect the effect on the long-term fiscal imbalance of the incorporation of the passage of key pieces of legislation since 2010 including the 2011 full year continuing resolution, as well as the BCA. The enactment of discretionary caps in the BCA improved the long run fiscal imbalance in the 2011 projections by $7.0 trillion and the additional deficit reduction from the automatic spending reductions improved the fiscal imbalance by $4.1 trillion. Technical adjustments and changes to modeling assumptions improved the fiscal picture by $2.3 trillion since 2010. The main source of these changes are actual budget numbers being lower than projected in 2010, as well as refinements to the fiscal projections model. Also reflected are revised economic assumptions, as well as the effect of changing the projection period from 2011-2085 to 2012-2086, which collectively somewhat reduce the overall decreases brought about since 2010 from legislation.



[10] If payroll and self-employment taxes and related assets in the OASDI Trust Funds or Medicare Part A become insufficient to cover related benefits, as indicated by projections, additional funding for each of these two programs would be necessary or scheduled benefits would need to be reduced. If the government's general revenues are insufficient to cover both mandated transfers to Medicare Parts B and D and spending for other general government programs funded by the government's general revenues, either Medicare Parts B and D revenues (premiums and state transfers), or the government's general revenues would need to be increased, spending for Medicare Parts B and D and/or other general government spending would need to be reduced, and/or additional amounts would need to be borrowed from the public.

Another way of viewing the improvement in the financial outlook in this year's Report relative to last year's Report is in terms of the projected level of publicly-held debt in 2085. The ratio of publicly-held debt to GDP in 2085 is projected to reach 283 percent in this year's Report, which compares with 352 percent projected in last year's Report.

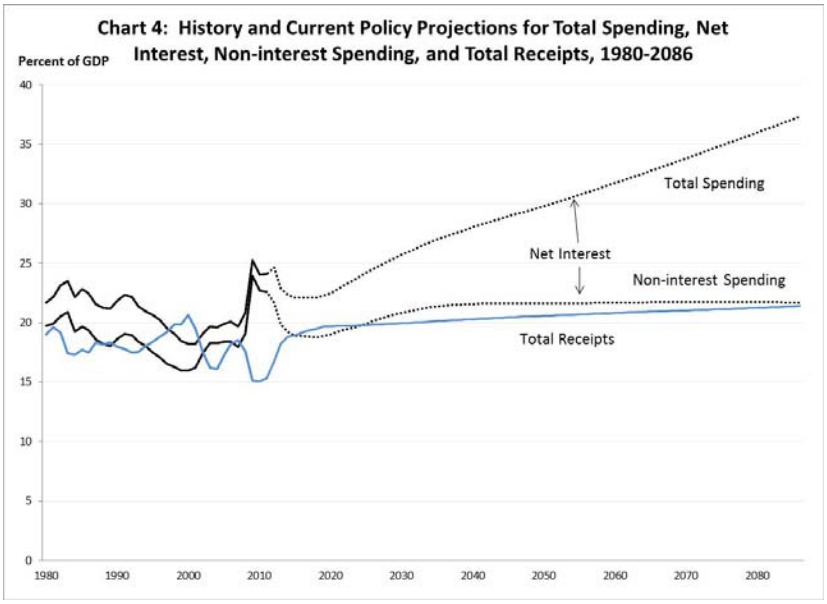
Current Policy Projections for Debt and Interest Payments

The primary deficit projections in Chart 1, along with projections for interest rates and GDP, determine the projections for the ratio of debt held by the public to GDP that are shown in Chart 3. That ratio was 68 percent at the end of fiscal year 2011, and under current policy, it is projected to exceed 76 percent in 2022, 125 percent in 2042, and 287 percent in 2086. The continuous rise of the debt-to-GDP ratio illustrates 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.[11] Total spending consists of non-interest spending plus interest spending. Chart 4 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 1.5 percent in 2011, and under current policies it is projected to reach 5 percent by 2031 and nearly 16 percent by 2086.

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 2012 to 2086, and the target debt-to-GDP ratio is equal to the ratio at beginning of the projection period, in this case the end of fiscal year 2011 debt-to-GDP ratio of 68 percent of GDP.



The 75-year fiscal gap under current policy is estimated at 1.8 percent of GDP, as reflected in Table 3, which represents about 9% of the 75-year present value of projected receipts and of non-interest spending. As noted in Table 1, the difference between projected programmatic (non-interest) spending and receipts is 0.7 percent of GDP (reflecting the deficit condition of excess spending over receipts). However, eliminating this primary deficit of 0.7 percent of GDP is not sufficient to stabilize the debt-to-GDP ratio. Because interest rates are assumed to exceed the growth rate of GDP, reaching primary balance will still leave debt rising relative to GDP. The average primary surplus needed to return the debt-to-GDP ratio of 68 percent to its initial level and fully close the fiscal gap is 1.1 percent of GDP per year.

[11] 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 0.6 percent of present value GDP.

The Cost of Closing the 75-Year Fiscal Gap

The longer policy action to close the fiscal gap is delayed, the larger the post-reform primary surplus must be to stabilize the debt-to-GDP ratio by the end of the 75 year period. Varying the years in which reforms are introduced 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 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 stabilize the debt-to-GDP ratio in 2086. Future generations are harmed by policy delay because higher primary surpluses imply lower spending and/or higher taxes than would be needed with earlier deficit reduction.

As previously shown in Chart 1, under current policy, primary deficits occur in virtually every year of the projection period. Table 3 shows primary surplus changes necessary to make the debt-to-GDP ratio in 2086 equal to its level in 2011 under each of the three policies. If reform begins in 2012, then it is sufficient to raise the primary surplus share of GDP by 1.8 percentage points in every year between 2012 and 2086 in order to have a debt-to-GDP ratio in 2086 equal to the level in 2011. This raises the average 2011-2086 primary surplus-to-GDP ratio from -0.7 percent to 1.1 percent.

Table 3
Costs of Delaying Fiscal Consolidation

Period of Delay	Change in Average Primary Surplus
No Delay: Reform in 2012	1.8 percent of GDP between 2012 and 2086
Ten Years: Reform in 2022	2.2 percent of GDP between 2022 and 2086
Thirty Years: Reform in 2032	2.8 percent of GDP between 2032 and 2086

Note: Reforms taking place in 2011, 2021, and 2031 from the 2010 Report were 2.4, 2.9, and 3.7 percent of GDP.

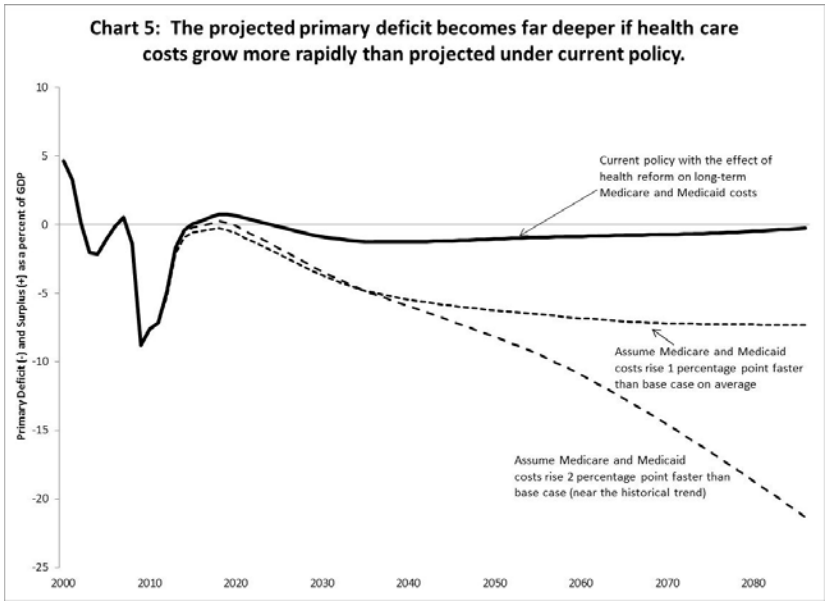
In contrast to a reform that begins immediately, if reform is begun in 2022 or 2032, the primary surplus must be raised by 2.2 percent and 2.8 percent of GDP, respectively, in order to reach a debt-to-GDP ratio in 2086 equal to the level in 2011. The difference between the primary surplus increasing in 2022 and 2032 (2.2 and 2.8 percent of GDP, respectively) rather than in 2012 (1.8 percent of GDP) is a measure of the additional burden policy delay would impose on future generations. The costs of delay are due to the debt-to-GDP ratio rising during the interim period, which increases the future amount of interest that must be covered with the primary surplus. Delaying reform increases the cost of reaching the target debt-to-GDP ratio even if the target year is extended beyond 2086, since the starting debt-to-GDP ratio will be higher.

These estimates likely understate the cost of delay because they do not assume interest rates will rise as the debt-to-GDP ratio grows. If a higher debt-to-GDP ratio increases the interest rate, making it more costly for the government to service its debt and simultaneously slowing private investment, the primary surplus required to return the debt-to-GDP ratio to its 2011 level will also increase. This dynamic may accelerate with higher ratios of debt to GDP, potentially leading to the point where there may be no feasible level of taxes and spending that would reduce the debt-to-GDP ratio to its 2011 level. The potential impact of changes in interest rates is among the variables explored in the following section.

Alternative Scenarios

The long-run outlook for the budget is extremely uncertain and therefore it makes sense to consider possible alternative projections to indicate the range of uncertainty. There are many dimensions to the projections for which reasonable variations could be considered. Some of the key issues concern long-run economic and demographic assumptions. The long-run fiscal gap is partly the result of demographic patterns that have emerged over the last 50 years with lower birth rates and reduced mortality. 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 expected fertility, mortality, or immigration rates could have important long-run effects on the projections. Increases in immigration or fertility rates, or reduction in the mortality rate would improve the long-term fiscal projections. Conversely, decreases in immigration or fertility rates, or improvements in the mortality rate would result in deterioration in the long-term fiscal projections. The remainder of this section will focus on two important variables that can also impact fiscal projections: the growth rate of heath care costs and interest rates.

Effect of Changes in Health Care Cost Growth



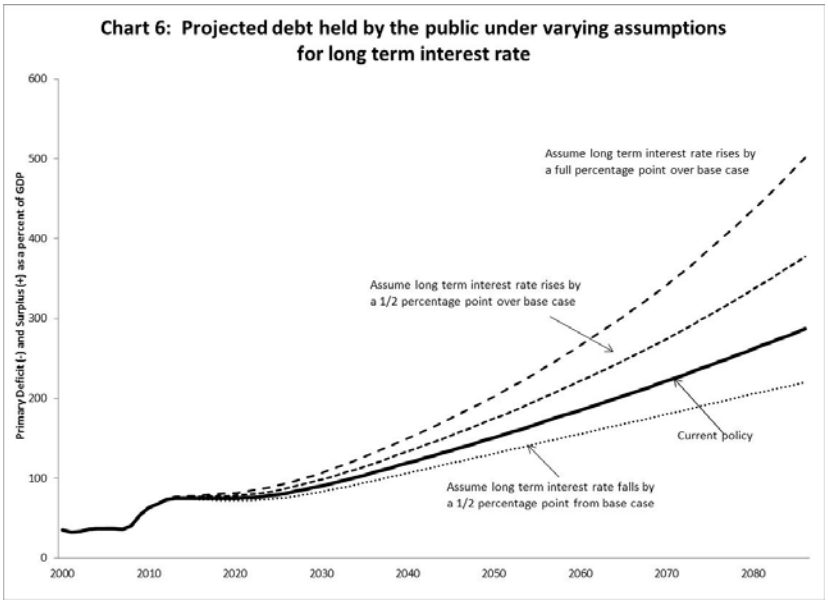
One of the most important assumptions underlying the projections is the projected growth of health care costs. Enactment of the ACA in 2010 reduced the projected long-run growth rates of health care costs, but these growth rates are still highly uncertain. As an illustration of the dramatic effect of variations in health care growth rates, Chart 5 and Table 4 show the effect on future primary deficits as well as the present value imbalance of growth rates that are one percent higher or two percent higher than the growth rates in the base projection. Relative to the base assumption of 0 percent average excess health cost growth, the one percent higher health care cost growth scenario raises the 75-year present value of non-interest spending less receipts to 4.8 percent of GDP, compared to 0.7 percent of GDP assumed in the base projection. The two percent higher health cost growth scenario raises the 75-year present value of non-interest spending less receipts even further, to 7.5 percent of GDP. The dramatic deterioration on 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.

Table 4

Impact of Alternative Health Cost Scenarios on 75-year PV imbalance

Scenario	75-Year Present Value Fiscal Imbalance: Dollars in Trillions	% GDP
Base Case: 0% Average Excess Health Cost Growth	6.4	0.7
1% Average Excess Health Cost Growth	42.7	4.8
2% Average Excess Health Cost Growth	66.5	7.5

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. If a constant ratio of debt-to-GDP is not achieved and the ratio continues to rise continuously, long-term interest rates would be expected to rise further, worsening the debt ratio in the process. Chart 6 and Table 5 display several alternative scenarios where differing interest rate assumptions are used from the base case found in the Social Security trustees' report. In the scenario where the interest rate rises a constant one-half percentage point above the base projection starting in 2012, the debt-to-GDP ratio in 2086 rises from 287 percent to 378 percent. As shown in Table 5, the present value imbalance falls from $6.4 trillion to $5.5 trillion. Adding a full percentage point to the base projection starting in 2012 raises the 2086 debt-to-GDP ratio to 502 percent, but drops the 75-year fiscal imbalance to $4.7 trillion. To show the effects of achieving balance and lowering long-term debt-to-GDP and interest rates, lowering interest rates

by one-half percentage point from the base projection starting in 2012 in turn lowers the 2086 debt ratio to 220 percent; however lowering the interest rate raises the 75-year present value imbalance to $7.6 trillion. It is clear that there is risk to continuing down a path of rising debt-to-GDP ratios, with a compounding impact that could lead to even worse consequences if no policy actions are taken.

Table 5

Impact of Alternative Interest Rate Scenarios on 75-year PV imbalance

Scenario	75-Year Present Value Fiscal Imbalance: Dollars in Trillions	% GDP
Base Case: Average of 5.6 percent over 75 years	6.4	0.7
0.5 percent higher interest rate in each year	5.5	0.7
1.0 percent higher interest rate in each year	4.7	0.7
0.5 percent lower interest rate in each year	7.6	0.7

Other key economic assumptions in this report include the future growth rate of real GDP, which itself depends on assumptions such as future growth in the labor force and labor productivity. Historically, U.S. labor productivity has increased at a rate of about 2 percent or more per year, but there have been periods when productivity grew less rapidly and other periods in which it grew faster. Productivity growth has averaged 2.5 percent per year over the last 15 years, which is above its long-run trend. In these projections, the rate of productivity growth is assumed to be somewhat below its long-run trend, which is a conservative assumption. It is unlikely that higher productivity growth will be sufficient to resolve the long-run budget problem. Faster growth will lead to higher wages, which will lead to more tax revenue in the near term, but these gains will be partly offset by higher payments for Social Security and other benefit programs in the long term, because benefits are tied to wages. Inflation is not a major factor in these calculations. Changes in the trend rate of inflation have offsetting effects on future revenues and future spending, so the budget effect is more nearly neutral in the long run.

Fiscal Projections in Context

All of the major countries of the world have outstanding government debt. The United States Government's debt as a percentage of GDP is relatively large compared with 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, the 31 OECD countries ranged in debt ratios in 2009 from 6 percent of GDP to 126 percent of GDP, with the United States in the higher echelon.[12] However, each country is different in how it finances its sovereign debt, how robustly its economies grow, and how fair and stable taxation and benefits are across generations and income levels, so the comparison of current debt levels across nations and what they mean for fiscal projections across nations is not well defined. Past accrual of debt is certainly important, but future action encompassed in fiscal projections is a more prudent gauge for comparison.

Several countries have begun to produce long-range fiscal projections in the last two decades. However, comparisons are difficult because the coverage of the reports and the time horizon projected vary across countries. The horizon for most of these reports is less than 75 years, and the projections are not always updated annually. Some of the countries that have produced long-range projections have shown sustainable policies in the long run, although the recent financial crisis will have worsened the near-term budget outlook in almost every country. Early developers of such fiscal projections include Australia, New Zealand, Canada, the United Kingdom, Denmark, Sweden, Norway, and the Netherlands.[13]

[12] Central Government Debt, OECD National Accounts Statistics (database) available at http://www.oecd-ilibrary.org/finance-and-investment/total-central-government-debt-2010_20758294-2010-table1

[13] The Organization for Economic Cooperation and Development (OECD) released a policy brief in October 2009 (available at http://www.oecd.org/dataoecd/40/26/43836144.pdf) describing the efforts of different member countries to produce long-term fiscal projections.

Conclusion

The United States took a potentially significant step towards fiscal sustainability in 2010 by reforming its system of health insurance. The legislated changes for Medicare, Medicaid, and other health coverage hold the prospect of lowering the long-term growth trend for future health care costs and significantly reducing the long-term fiscal gap. Furthermore, enactment of the Budget Control Act in August 2011 placed limits on future discretionary spending and established a process to assure further deficit reduction of $1.2 trillion over 10 years. But even with the new laws, the projections in this Report indicate that if policy remains unchanged then the debt-to-GDP ratio will continually increase over the next 75 years and beyond, which means 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 reach a target debt-to-GDP ratio in 2086 and return the Nation to a sustainable fiscal path.

The projections presented in this Report assume current policies remain unchanged 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 it sustainable. The projections are therefore neither forecasts nor predictions. If policy changes are enacted, perhaps in response to projections like those presented here, then actual financial outcomes will of course be different than those projected. While this these projections of expenditures and receipts under current policies are highly uncertain, there is little question that current policies cannot be sustained indefinitely.