Note 23. Long-Term Fiscal Projections

The SLTFP are prepared pursuant to SFFAS No. 36, *Comprehensive Long-Term Projections for the U.S. Government*, as amended. The basic financial statement, Note 23, and related unaudited required supplementary information (RSI) provide information to aid readers of the *Financial Report* in assessing whether current policies for federal spending and taxation can be sustained and the extent to which the cost of public services received by current taxpayers will be shifted to future taxpayers. This assessment requires prospective information about receipts and spending, the resulting debt, and how these amounts relate to the size of the economy. A sustainable policy is defined as one where the ratio of federal debt held by the public to GDP (the debt-to-GDP ratio) is ultimately stable or declining. The *Financial Report* does not address 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. A fundamental assumption is 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 be different than those projected. The methods and assumptions underlying the projections are subject to continuing refinement.

The projections 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 accounting underlying the long-term fiscal projections is consistent with methods used to prepare the SOSI and the generally cash-based federal budget.

The basic financial statement, Long-Term Fiscal Projections for the U.S. Government, displays the present value of 75-year projections for various categories of the federal government's receipts and non-interest spending.[9] The projections for fiscal years 2018 and 2017 are expressed in present value dollars and as a percent of the present value of GDP[10] as of September 30, 2018 and September 30, 2017, respectively. The present value of a future amount, for example $1 billion in October 2093, is the amount of money that if invested on September 30, 2018 in an account earning the government borrowing rate would have a value of $1 billion in October 2093.[11]

The present value of a receipt or spending category over 75 years is the sum of the annual present value amounts. When expressing a receipt or spending 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 spending as a percent of GDP is a useful indicator of the economy's capacity to sustain federal government programs.

Fiscal Projections

Receipt categories in the long-term fiscal projections include individual and corporate income taxes, Social Security and Medicare payroll taxes, and a residual remaining category of "other receipts." Non-interest spending categories include discretionary spending that is funded through annual appropriations, such as spending for national security; and mandatory (entitlement) spending that is generally funded 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 2018 Social Security and Medicare trustees' reports and the 2018 SOSI, while comparative information presented from last year's report is based on the 2017 Social Security and Medicare trustees' reports and the 2017 SOSI[12]. Projections for the other categories of receipts and spending are consistent with the economic and demographic assumptions in the 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 the basic statement 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

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[9] 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.

[10] 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.

[11] 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.

[12] Social Security and Medicare Trustees' Reports can be found at https://www.ssa.gov/OACT/TR/.

October 1, whereas the trustees' reports feature calendar-year projections. Using fiscal years allows the projections to start from the actual budget results from fiscal years 2018 and 2017.

Changes in Long-Term Fiscal Projections Present Value (PV) of 75-Year Projections	**Trillions of $**	**Percent of GDP**
Receipts less non-interest spending as of September 30, 2017.......	(16.2)	(1.2) %
Components of Change:		
Change due to Economic and Demographic Assumptions............	1.2	0.1
Change due to Program-Specific Actuarial Assumptions...............	(3.8)	(0.3)
Change due to Updated Budget Data.......................................	(15.4)	(1.1)
Change in Reporting Period..	(0.5)	-
Change in Model Technical Assumptions..................................	(11.5)	(0.8)
Total	(29.9)	(2.1)
Receipts less non-interest spending as of September 30, 2018.......	(46.2)	(3.3)

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

This year's estimate of the 75-year present value imbalance of receipts less non-interest spending is 3.3 percent of the 75-year present value of GDP, compared to 1.2 percent as was projected in last year's *Financial Report*.[13] The above table reports the effects of various factors on the updated projections.

- The largest factor, increasing the imbalance by 1.1 percent of the 75-year present value of GDP ($15.4 trillion), is attributable to actual budget results for fiscal year 2018 and the budgetary estimates published in the 2019 Midsession Review. This includes lower corporate and individual income tax receipts resulting from the TCJA of 2017, and higher non-defense discretionary outlays as a result of the increased discretionary spending caps in the BBA.
- The second largest factor is the effect of adjustments to the model's technical assumptions, which increases the imbalance by 0.8 percent of the 75-year present value of GDP ($11.5 trillion). As discussed below in the section on assumptions used in the projections, corporate income tax receipts are held to their proportion of the budget's share of GDP to reflect enactment of the TCJA of 2017. Discretionary spending is assumed to grow from the 2019 cap levels established in the BBA, subject to Joint Select Committee on Deficit Reduction (Joint Committee) sequestration enforcement[14].
- The third largest factor, increasing the imbalance by 0.3 percent of the 75-year present value of GDP ($3.8 trillion) is due to changes in Social Security, Medicare and Medicaid actuarial assumptions[15].
- The next largest change in the table – decreasing the imbalance by 0.1 percent of GDP ($1.2 trillion) – is attributable to changes in economic and demographic assumptions. Higher near-term wage and GDP projections increased individual income tax and social insurance receipts.

The penultimate row in the basic financial statement shows that this year's estimate of the overall 75-year present value of receipts less non-interest spending is -3.3 percent of the 75-year present value of GDP (negative $46.2 trillion, as compared to GDP of $1,406.3 trillion). This imbalance can be broken down by funding source. Spending exceeded receipts by 1.7 percent of GDP ($24.2 trillion) among programs funded by the government's general revenues, and there is an imbalance of 1.6 percent of GDP ($22.1 trillion[16]) for the combination of Social Security (OASDI) and Medicare Part A,

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[13] More information on the projections in last year's *Financial Report* can be found in Note 23 to the Financial Statements here: https://fiscal.treasury.gov/reports-statements/#

[14] For further discussion of spending assumptions, see the section "Assumptions Used and Relationship to Other Financial Statements" below.

[15] For more information on Social Security, Medicare and Medicaid actuarial estimates, refer to Note 22—Social Insurance.

[16] The 75-year present value imbalance for Social Security and Medicare Part A of $22.1 trillion is comprised of several line items from the SLTFP – Social Security outlays net of Social Security payroll taxes ($22.0 trillion) and Medicare Part A outlays net of Medicare payroll taxes ($8.8 trillion) – as well as subcomponents of these programs not presented separately in the statement. These subcomponents include Social Security and Medicare Part A administrative costs that are classified as non-defense discretionary spending ($0.7 trillion) and Social Security and Medicare Part A income other than payroll taxes: taxation of benefits (-$4.4 trillion), federal employer share (-$1.3 trillion), and other income (-$3.7 trillion).

which under current law are funded with payroll taxes and not in any material respect with general revenues.[17, 18] By comparison, the fiscal year 2017 projections showed that programs funded by the government's general revenues had an excess of receipts over spending of 0.2 percent of GDP ($3.3 trillion) while the payroll tax-funded programs had an imbalance of spending over receipts of 1.5 percent of GDP ($19.6 trillion).

Sustainability and the Fiscal Gap

As discussed further in the unaudited RSI, 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 will rise about 6 percentage points to a level of 84 percent by 2022, exceed 100 percent by 2030, and reach 530 percent in 2093. 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.

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 2019 to 2093, 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 2018.

The 75-year fiscal gap under current policy is estimated at 4.1 percent of GDP, which is 21.9 percent of the 75-year present value of projected receipts and 18.6 percent of the 75-year present value of non-interest spending. This estimate of the fiscal gap is 2.1 percentage points larger than was estimated in 2017 (2.0 percent of GDP).

The projections show that projected primary deficits average 3.2 percent of GDP over the next 75 years under current policy. If policies were put in place that would result in a zero fiscal gap, the average primary surplus over the next 75 years would be 0.8 percent of GDP, 4.1 percentage points higher than the projected present value of receipts less non-interest spending shown in the basic financial statement. In these projections, closing the fiscal gap requires running a substantially positive level of primary surplus, rather than simply eliminating the primary deficit. The primary reason is that the projections assume future interest rates will exceed the growth rate of GDP. Achieving primary balance (that is, running a primary surplus of zero) implies that the debt held by the public grows each year by the amount of interest spending, which under these assumptions would result in debt growing faster than GDP.

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, and do not consider large infrequent events such as natural disasters, military engagements, or economic crises. By definition, they do not build in future changes to policy, such as recent proposals to repeal the ACA or increase border infrastructure and security. If policy changes are enacted, perhaps in response to projections like those presented here, then actual fiscal outcomes will be different than those projected.

Even if policy does not change, actual spending 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 debt held by the public 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 shown in these projections. To help illustrate this uncertainty, projections that assume higher and lower interest rates are presented in the "Alternative Scenarios" discussion in the unaudited RSI section of this *Financial Report*.

As is true for prior long-term fiscal projections for the *Financial Report*, the assumptions for GDP, interest rates, and other economic and demographic variables underlying this year's projections are the same assumptions that underlie the most recent Social Security and Medicare trustees' report projections, adjusted for historical revisions that occur annually. The use

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[17] 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; these balances 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 trust fund 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 long-term fiscal projections 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 depleted.

[18] The fiscal imbalances reported in the long-term fiscal projections are limited to future outlays and receipts. They do not include the initial level of publicly-held debt, which was $15.8 trillion in 2018 and $14.7 trillion in 2017, 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 cash flows (primarily surpluses) for Social Security and Medicare Part A reduced federal debt at the end of 2018 by $3.1 trillion (the trust fund balances at that time); the contribution of other programs to federal debt at the end of 2018 was therefore $18.9 trillion. Because the $22.1 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 $3.1 trillion. The $3.1 trillion combined Social Security and Medicare Part A trust fund balance represents a claim on future general revenues.

of discount factors consistent with the Social Security trustees' rate allows for consistent present value calculations over 75 years between the SLTFP and the SOSI.

The following bullets summarize the key assumptions used for the categories of receipts and spending presented in the basic financial statement and the disclosures:

- **Social Security:** Projected Social Security (OASDI) spending excludes administrative expenses, which are classified as discretionary spending, and is based on the projected expenditures in the 2018 Social Security trustees' report for benefits and for the Railroad Retirement interchange. The projections of Social Security payroll taxes and Social Security spending are based on future spending and payroll taxes projected in the 2018 Social Security trustees' report, adjusted for presentational differences and converted to a fiscal year basis. More information about the assumptions for Social Security cost growth can be found in Note 22 and the unaudited RSI discussion of Social Insurance.
- **Medicare:** Projected Medicare spending also excludes administrative expenses, which are classified as other mandatory spending, and is based on projected incurred expenditures from the 2018 Medicare trustees' report. The projections here make some adjustments to the trustees' report projections. 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 spending, just as they are subtracted from gross cost to yield net cost in the financial statements.[19] 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 are based on Medicare spending in the Medicare trustees' report, adjusted for presentational differences and converted to a fiscal year basis. Medicare Part A payroll taxes are projected similarly. More information about the assumptions for Medicare cost growth can be found in Note 22 and the unaudited RSI discussion of Social Insurance. As discussed in Note 22, there is uncertainty about whether the reductions in health care cost growth projected in the Medicare trustees' report will be fully achieved. Note 22 illustrates this uncertainty by considering Medicare cost growth assumptions under varying policy assumptions.
- **Medicaid:** The Medicaid spending projections start with the projections from the *2017 Medicaid Actuarial Report* prepared by CMS's Office of the Actuary[20]. These projections are based on recent trends in Medicaid spending; the demographic, economic, and health cost growth assumptions in the 2017 Medicare Trustees' Report; and projections of the effect of the ACA on Medicaid enrollment. The projections, which end in 2026, are adjusted to accord with the actual Medicaid expenditures in fiscal year 2018. After 2026, the projections assume no further change in State Medicaid coverage under the ACA, and the numbers of old-age beneficiaries (65-plus years) and non-old-age beneficiaries (less than 65 years) are expected to grow at the same rates as the old-age and non-old-age populations, respectively. Medicaid costs per beneficiary are assumed to grow at the same rate as Medicare benefits per beneficiary, as is generally consistent with the experience since 1987. Between 1987 and 2017, the average annual growth rate of spending per beneficiary for Medicaid and Medicare were within 0.3 percentage point of each other. Projections of Medicaid spending are subject to added uncertainty related to: (1) assumed reductions in health care cost growth discussed above in the context of Medicare, (2) the projected size of the Medicaid enrolled population, which depends on a variety of factors, including future State actions regarding the ACA Medicaid expansion, and (3) certain limitations relating to the data used to generate the projected per enrollee expenditures in the 2017 Medicaid actuarial report.
- **Other Mandatory Spending:** Other mandatory spending, which includes federal employee retirement, veterans' disability benefits, and means-tested entitlements other than Medicaid, is projected in two steps. First, spending prior to the automatic spending cuts called for by the enforcement provisions of the BCA is projected and, second, the effect of the BCA enforcement is projected through its statutory expiration in 2027. With regard to pre-BCA spending: (1) 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 2019, implying that such spending will remain constant as a percent of GDP[21]; and (2) projected spending for insurance exchange subsidies starting in 2019 grows with growth in the non-elderly population and with the National Health Expenditure (NHE) projected per enrollee cost growth for other private health insurance for the NHE projection period (through 2026 for the fiscal year 2018 projections), and with growth in per enrollee health care costs as projected for the Medicare program after that period. As discussed in Note 22, there is uncertainty about whether the reductions in health care cost growth

[19] Medicare Part B and D premiums and State contributions to Part D are subtracted from the Part B and D spending displayed in the SLTFP. The total 75-year present value of these subtractions is $13.6 trillion, or 1.0 percent of GDP.

[20] Christopher J. Truffer, Christian J. Wolfe, and Kathryn E. Rennie, *2017 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, September 2017.

[21] This assumed growth rate for other mandatory programs exceeds the growth rate in the most recent OMB and CBO 10-year budget baselines.

projected in the Medicare trustees' report will be fully achieved. Projected exchange subsidy spending as a percent of GDP remains below the failsafe provision in the ACA that limits this spending to 0.504 percent of GDP.

- **Defense and Non-defense Discretionary Spending:** Prior to 2018, the projections assumed discretionary spending followed the caps established by the BCA of 2011, as later amended, and then grew with nominal GDP in the years after the caps expired. However, discretionary spending has not been limited to the caps established in the BCA. Instead, budget deals in 2013, 2015, and 2018 raised the caps in each of the years 2014 through 2019. Therefore, as a reasonable representation of current policy, the 2018 projections assume discretionary spending is grown at the same rate as nominal GDP beginning after 2019, rather than being limited to the statutory caps, subject to Joint Committee spending controls[22]. Projected OCO spending, which is not subject to the caps, is assumed to grow from the level in the most recent year at the same rate as nominal GDP. To illustrate sensitivity to different assumptions, present value calculations under alternative discretionary growth scenarios are presented in the unaudited "Alternative Scenarios" RSI section.
- **Receipts (Other than Social Security and Medicare Payroll Taxes):** Individual income taxes equal the same share of wages and salaries as in the current law baseline projection in the President's fiscal year 2019 Budget. That baseline accords with current policy as defined above, including the continuation of the individual income, estate, and gift tax provisions of the TCJA of 2017[23] and the tendency of effective tax rates to increase as growth in income per capita outpaces inflation (also known as "bracket creep"). After reaching about 20 percent of wages and salaries in 2024, individual income taxes increase gradually to 27 percent of wages and salaries in 2093 as real taxable incomes rise over time and an increasing share of total income is taxed in the higher tax brackets. Through the first 10 years of the projections, corporate tax receipts as a percent of GDP reflect the economic and budget assumptions used in developing the 2019 Midsession Review's ten-year advance budgetary estimates[24]. After this time, corporate tax receipts grow at the same rate as nominal GDP. All other receipts also reflect 2019 Midsession Review levels as a share of GDP throughout the budget window and grow with GDP outside of the budget window. Corporate tax receipts peak at 1.6 percent of GDP in 2025 before falling to 1.3 percent of GDP in 2028, where they stay for the remainder of the projection period. The ratio of all other receipts combined, excluding corporate tax receipts, to GDP is estimated to be 1.5 percent in 2019, after which it gradually declines to 1.3 percent of GDP, where it remains through the projection period. To illustrate uncertainty, present value calculations under higher and lower receipts growth scenarios are presented in the "Alternative Scenarios" section.
- **Debt and 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 accord with those in the 2018 Social Security trustees' report.[25] The average interest rate over the projection period is 5.0 percent. These rates are also used to convert future cash flows to present values as of the start of fiscal year 2019. Debt at the end of each year is projected by adding that year's deficit and other financing requirements to the debt at the end of the previous year.

The methods described above include two significant revisions from those used to produce the fiscal year 2017 projections. Corporate tax receipts are now projected separately from all other receipts to incorporate the effects of the TCJA of 2017. In prior years, corporate income tax receipts were not modeled independently, they were included in "Other Receipts[26]." To project corporate income tax receipts, the model uses their implied share of GDP over the years 2019 through 2028 from the 2019 Midsession Review to determine receipts in those years, and then grows receipts with nominal GDP thereafter. "Other Receipts" are now projected similarly; instead of using their 30-year historical average share of GDP, the receipts' implied share of GDP over the years 2019 to 2028, as presented in the 2019 Midsession Review, are used to determine receipts over this period. Afterward, receipts grow with GDP. The second significant revision is that discretionary spending no longer follows the caps established under the BCA through 2021. Instead, discretionary spending starts from the outlays implied by BBA 2018's cap level for 2019, and grows with GDP thereafter (subject to Joint Committee enforcement).

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[22] The BCA of 2011 established statutory caps on discretionary spending for fiscal years 2012 through 2021, and established a Joint Committee tasked with identifying $1.2 trillion in deficit reduction. The failure of the Joint Committee to propose, and Congress to enact, legislation sufficient to reduce the deficit triggers automatic spending reductions through adjustments to the discretionary spending limits and sequestration of mandatory spending. Mandatory sequestration has been extended in various statutes and currently extends through 2027. After 2027, the projections assume the automatic reductions continue as a constant share of projected GDP.

[23] The expiring individual income and estate and gift tax provisions of the TCJA are assumed to continue past their legal expiration on December 31, 2025 because of the recent historical pattern of such tax rates being extended; additional discussion may be found in the last section of this note.

[24] The Midsession Review is an annual report to the Congress, delivered on or before July 15th, that contains revised budget estimates resulting from changes in economic assumptions, Presidential initiatives, and enacted legislation that have occurred since transmittal of the President's Budget.

[25] As indicated in the more detailed discussion of Social Insurance in Note 22 to the financial statements.

[26] "Other receipts", which included corporate income tax receipts prior to 2018, were modeled by assuming they maintain their 30-year historical average share of GDP throughout the modeling period.

Departures of Current Policy from Current Law

The long-term fiscal projections are made on the basis of current 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) discretionary spending is assumed to not be limited by caps established by the BCA; (2) projected spending, receipts, and borrowing levels assume raising or suspending the current statutory limit on federal debt; (3) continued discretionary appropriations are assumed throughout the projection period; (4) scheduled Social Security and Medicare benefit payments are assumed to occur beyond the projected point of trust fund depletion; (5) many mandatory programs with expiration dates prior to the end of the 75-year projection period are assumed to be reauthorized; and (6) tax changes under the TCJA are assumed to continue beyond 2025. The last difference aligns with the historical pattern of such legislation being routinely extended or made permanent. As is true in the Medicare trustees' report and in the SOSI, the projections incorporate programmatic changes already scheduled in law, such as the ACA productivity adjustment for non-physician Medicare services and the expiration of certain physician bonus payments in 2025.