United States Government Notes to the Financial Statements for the Fiscal Years Ended September 30, 2019, and 2018

Note 1. Summary of Significant Accounting Policies

A. Reporting Entity

The government includes the executive branch, the legislative branch, and the judicial branch. This *Financial Report* includes the financial status and activities related to the operations of the government. SFFAS No. 47, *Reporting Entity* provides criteria for identifying organizations that are included in the *Financial Report* as "consolidation entities" and "disclosure entities." Consolidation entities are consolidated into the government's financial statements. For disclosure entities, information is disclosed in the notes to the financial statements concerning (a) the nature of the federal government's relationship with the disclosure entities, (b) the nature and magnitude of relevant activity with the disclosure entities during the period and balances at the end of the period, and (c) a description of financial and non-financial risks, potential benefits and, if possible, the amount of the federal government's exposure to gains and losses from the past or future operations of the disclosure entity or entities.

Disclosure entities have a greater degree of autonomy than consolidation entities. Disclosure entities may maintain a separate legal identity, have a governance structure that vests most decision-making authorities in a governing body to insulate the organization from political influence, and/or have relative financial independence. These entities may include, but are not limited to, quasi-governmental and/or financially independent entities and organizations owned and/or controlled by the federal government as a result of (a) regulatory actions (such as organizations in receivership or conservatorship) or (b) other federal government intervention actions if the relationship with such entities is not expected to be permanent.

SFFAS No. 47 also provides guidance for identifying related parties and in determining what information to provide about related party relationships of such significance that it would be misleading to exclude such information (see Appendix A—Reporting Entity, for a more detailed discussion).

Based on the criteria in GAAP for federal entities, the assets, liabilities, and results of operations of Fannie Mae and Freddie Mac are not consolidated into the government's consolidated financial statements. However, the values of the investments in such entities, changes in value, and related activity with these entities are included in the government's consolidated financial statements. Although federal investments in Fannie Mae and Freddie Mac are significant, these entities do not meet the GAAP criteria for consolidation entities.

Under SFFAS No. 47 criteria, Fannie Mae and Freddie Mac were owned or controlled by the federal government as a result of (a) regulatory actions (such as organizations in receivership or conservatorship) or (b) other federal government intervention actions. Under the regulatory or other intervention actions, the relationship with the federal government is not expected to be permanent. These entities are classified as disclosure entities based on their characteristics as a whole (see Note 25—Disclosure Entities and Related Parties for additional information on these disclosure entities).

Also, under GAAP criteria, the FR System is not consolidated into the government's consolidated financial statements (see Note 25—Disclosure Entities and Related Parties for further information concerning the FR System).

For further information regarding Reporting Entity, see Appendix A—Reporting Entity.

B. Basis of Accounting and Revenue Recognition

Consolidated Financial Statements

The consolidated financial statements of the government were prepared using GAAP, primarily based on FASAB's SFFAS. Intragovernmental transactions are eliminated in consolidation, except as described in the Other Information–Unmatched Transactions and Balances. See Note 1.R—Unmatched Transactions and Balances for detailed information. The consolidated financial statements include accrual-based financial statements and sustainability financial statements, which are discussed in more detail below, and the related notes to the consolidated financial statements. Collectively, the accrual-based financial statements, the sustainability financial statements, and the notes represent basic information that is deemed essential for the financial statements and notes to be presented in conformity with GAAP.

Accounting standards allow certain presentations and disclosures to be modified, if needed, to prevent the disclosure of classified information. Accordingly, modifications may have been made to certain presentations and disclosures.

Accrual-Based Financial Statements

The accrual-based financial statements were prepared under the following principles:

- Expenses are generally recognized when incurred.
- Non-exchange revenue, including taxes, duties, fines, and penalties, are recognized when collected and adjusted for the change in net measurable and legally collectible amounts receivable (modified cash basis). Related refunds and other offsets, including those that are measurable and legally payable, are netted against non-exchange revenue.
- Exchange (earned) revenue is recognized when the government provides goods and services to the public for a price. Exchange revenue includes user charges such as admission to federal parks and premiums for certain federal insurance.

The basis of accounting used for budgetary purposes, which is primarily on a cash basis (budget deficit) and follows budgetary concepts and policies, differs from the basis of accounting used for the financial statements which follow GAAP. See the Reconciliations of Net Operating Cost and Budget Deficit in the Financial Statements section.

Sustainability Financial Statements

The sustainability financial statements were prepared based on the projected present value of the estimated future revenue and estimated future expenditures, primarily on a cash basis, for a 75 year period.[1] They include the SLTFP, covering all federal government programs, and the SOSI and the SCSIA, covering social insurance programs (Social Security, Medicare, Railroad Retirement, and Black Lung programs). These estimates are based on economic as well as demographic assumptions presented in Notes 22—Social Insurance and 23—Long-Term Fiscal Projections. The sustainability financial statements are not forecasts or predictions. The sustainability financial statements are designed to illustrate the relationship between receipts and expenditures, if current policy is continued. For this purpose, the projections assume, among other things, that scheduled social insurance benefit payments would continue after related trust funds are projected to be depleted, contrary to current law, and that debt could continue to rise indefinitely without severe economic consequences.

By accounting convention, General Fund transfers to Medicare Parts B and D reported in the SOSI are eliminated when preparing the governmentwide consolidated financial statement. The SOSI shows the projected General Fund transfer(s) as eliminations that, under current law, would be used to finance the remainder of the expenditures in excess of revenues for Medicare Parts B and D that is reported in the SOSI. The SLTFP include all revenues (including general revenues) of the federal government.

New Standards Issued in Prior and Current Years and Implemented in Current Year

Beginning in fiscal year 2019, the government implemented the requirements of new standards for: P3s, Insurance Programs, BAR, Amending Inter-Entity Cost Provisions, and Omnibus Amendments. The new standards implemented are:

- SFFAS No. 49, *Public-Private Partnerships: Disclosure Requirements*. P3s are defined as "risk sharing" arrangements or transactions lasting more than five years between public and private sector entities. SFFAS No. 49 requires for P3s that meet its criteria to disclose a general description of P3 arrangements or transactions, the consolidated amounts the government received and paid during the reporting period(s) and consolidated amounts the government estimated to be received and paid in aggregate over the expected life of the P3s, and a reference to

[1] With the exception of the Black Lung program, which has a rolling 25-year projection period that begins on the September 30 valuation date each year.

applicable component entity reports for additional information in the *Financial Report*. SFFAS No. 49 became effective in fiscal year 2019.

- SFFAS No. 51, *Insurance Programs*. SFFAS No. 51 establishes accounting and financial reporting standards for insurance programs. It identifies three categories: 1) exchange transaction insurance programs other than life insurance, 2) non-exchange transaction insurance programs and 3) life insurance programs. For each category, SFFAS No. 51 provides specific accounting and reporting requirements. SFFAS No. 51 requires certain disclosures including, a broad description of insurance programs and related liabilities, in the *Financial Report*. SFFAS No. 51 became effective in fiscal year 2019.
- SFFAS No. 53, *Budget and Accrual Reconciliation; Amending SFFAS No. 7, and 24 and Rescinding SFFAS No. 22*. SFFAS No. 53 amends component entity requirements for a reconciliation between budgetary and financial accounting information established by SFFAS No. 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting*. To increase informational value and usefulness, and to support the governmentwide financial statement reconciling net operating cost to the budget deficit, this Statement provides for the BAR to replace the Statement of Financing. The BAR explains the relationship between the entity’s net outlays on a budgetary basis and the net cost of operations during the reporting period. The BAR starts with net cost of operations and is adjusted by components of net cost that are not part of net outlays, components of net outlays that are not part of net cost, and other temporary timing differences, which reflect some special adjustments. SFFAS No. 53 became effective in fiscal year 2019.
- SFFAS No. 55, *Amending Inter-Entity Cost Provisions*. SFFAS No. 55 revises SFFAS No. 4, *Managerial Cost Accounting Standards and Concepts* (including Interpretation 6, *Accounting for Imputed Intra-departmental Costs: An Interpretation of SFFAS No. 4*). SFFAS No. 4 required component reporting entities to recognize the full costs of services received from other federal reporting entities even if there was no requirement to reimburse the providing entity for the full cost of such services. This Statement revises SFFAS No. 4 to provide for the continued recognition of significant inter-entity costs by business-type activities and rescinds the following: a) SFFAS No. 30, *Inter-Entity Cost Implementation: Amending SFFAS No. 4, Managerial Cost Accounting Standards and Concepts* and b) Interpretation 6, *Accounting for Imputed Intra-departmental Costs: An Interpretation of SFFAS No. 4*. Recognition of imputed inter-entity costs by activities that are not business-type activities is not required with the exception of imputed inter-entity costs for personnel benefits and the Treasury Judgment Fund settlements or as otherwise directed by the OMB. Notwithstanding the absence of a requirement, non-business-type activities may elect to recognize imputed cost and corresponding imputed financing for other types of inter-entity costs. Component reporting entities should disclose that only certain inter-entity costs are recognized for goods and services that are received from other federal entities at no cost or at a cost less than the full costs. SFFAS No. 55 does not have a significant impact on the U.S. government’s consolidated financial statements. SFFAS No. 55 became effective in fiscal year 2019.
- SFFAS No. 57, *Omnibus Amendments 2019*. SFFAS No. 57 revises paragraph 26 of SFFAS No. 6, *Accounting for Property, Plant and Equipment* to remove the reference of “material amounts” from the last bulleted item. Materiality applies to all of the bulleted items in SFFAS No. 6, paragraph 26. This portion of SFFAS No. 57 was effective upon issuance in fiscal year 2019, but it does not have a significant impact on the U.S. government’s consolidated financial statements.

In fiscal year 2016, the government began implementing the requirements of new standards related to the reporting for Inventories and Related Property and PP&E. The standards being implemented are:

- FASAB issued SFFAS No. 48, *Opening Balances for Inventory, Operating Materials and Supplies, and Stockpile Materials.* SFFAS No. 48 permits a reporting entity to apply an alternative valuation method in establishing opening balances and applies when a reporting entity is presenting financial statements or one or more line items addressed by this statement. This standard can be applied for the first time or after a period during which existing systems could not provide the information necessary for producing GAAP-based financial statements without use of the alternative valuation methods. This is intended to provide an alternative method to adoption of GAAP when historical records and systems do not provide a basis for valuation of opening balances in accordance with SFFAS No. 3, *Accounting for Inventory and Related Property.* This application is available to each reporting entity only once per line item addressed in this statement. Reporting entities that meet either condition and elect to apply this statement should follow the guidance in SFFAS No. 21, *Reporting Corrections of Errors and Changes in Accounting Principles.* SFFAS No. 48 was effective beginning in fiscal year 2017. Early implementation was permitted. DOD did partially implement in 2016 and select component entities have continued to implement in 2017, 2018, and 2019. DOD has not declared full implementation yet.

- FASAB issued SFFAS No. 50, *Establishing Opening Balances for General Property, Plant and Equipment.* SFFAS No. 50 permits a reporting entity to apply an alternative valuation method in establishing opening balances and applies when a reporting entity is presenting financial statements or one or more line items addressed by this statement. This standard can be applied for the first time or after a period during which existing systems could not provide the information necessary for producing GAAP-based financial statements without use of the alternative valuation methods. This is intended to provide an alternative method to adoption of GAAP when historical records and systems do not provide a basis for valuation of opening balance in accordance with SFFAS No. 6, *Accounting for Property, Plant, and Equipment*. This application is available to each reporting entity only once per line item addressed in this statement. Reporting entities meeting the conditions and electing to apply this statement should follow the guidance in SFFAS No. 21, *Reporting Corrections of Errors and Changes in Accounting Principles.* SFFAS No. 50 was effective beginning in fiscal year 2017. Early implementation was permitted. DOD did partially implement in 2016 and select component entities have continued to implement in 2017, 2018, and 2019. DOD has not declared full implementation yet.

New Standards Issued and Not Yet Implemented

FASAB issued the following new standards that are applicable to the *Financial Report*, but are not yet implemented at the governmentwide level for fiscal year 2019:

- In April 2018, FASAB issued SFFAS No. 54, *Leases: An Amendment of SFFAS No. 5, Accounting for Liabilities of the Federal Government, and* SFFAS No. 6, *Accounting for Property, Plant, and Equipment*. SFFAS No. 54 revises the financial reporting standards for federal lease accounting. It provides a comprehensive set of lease accounting standards to recognize federal lease activities in the reporting entity's financial statements and includes appropriate disclosures. This Statement requires that federal lessees (for other than intragovernmental leases) recognize a lease liability and a leased asset at the commencement of the lease term, unless it meets any of the scope exclusions or the definition/criteria of short-term leases, or contracts or agreements that transfer ownership, or intragovernmental leases. A federal lessor would recognize a lease receivable and deferred revenue, unless it meets any of the scope exclusions or the definition/criteria or short-term leases, contracts or agreements that transfer ownership, or intragovernmental leases. SFFAS No. 54 is effective in fiscal year 2021 and early implementation is not permitted.
- In September 2019, FASAB issued SFFAS No. 57, *Omnibus Amendments 2019*. SFFAS No. 57 eliminates the RSSI category by rescinding SFFAS No. 8, *Supplementary Stewardship Reporting* in its entirety. The elimination of the RSSI category is effective in fiscal year 2020. Early adoption is not permitted.

C. Accounts and Taxes Receivable

Accounts receivable represent claims to cash or other assets from entities outside the government that arise from the sale of goods or services, duties, fines, certain license fees, recoveries, or other provisions of the law. Accounts receivable are reported net of an allowance for uncollectible amounts. An allowance is established when it is more likely than not the receivables will not be totally collected. The allowance method varies among the entities in the government and is usually based on past collection experience and is reestimated periodically as needed. Methods include statistical sampling of receivables, specific identification and intensive analysis of each case, aging methodologies, and percentage of total receivables based on historical collection.

Taxes receivable consist primarily of uncollected tax assessments, penalties, and interest when taxpayers have agreed or a court has determined the assessments are owed. Taxes receivable do not include unpaid assessments when taxpayers or a court have not agreed that the amounts are owed (compliance assessments) or the government does not expect further collections due to factors such as the taxpayer's death, bankruptcy, or insolvency (write-offs). Taxes receivable are reported net of an allowance for the estimated portion deemed to be uncollectible. The allowance for uncollectible amounts represents the difference between gross taxes receivable and the amounts estimated to be collectible.

D. Loans Receivable and Loan Guarantee Liabilities

Direct loans obligated and loan guarantees committed after fiscal year 1991 are reported based on the present value of the net cash flows estimated over the life of the loan or guarantee. The difference between the outstanding principal of the direct loans and the present value of their net cash inflows is recognized as a subsidy cost allowance. The present value of estimated net cash flows of the loan guarantees is recognized as a liability for loan guarantees.

The subsidy expense for direct or guaranteed loans disbursed during a fiscal year is the present value of estimated net cash flows for those loans or guarantees. For the fiscal year during which new direct or guaranteed loans are disbursed, the components of the subsidy expense of those new direct loans and loan guarantees are recognized separately among interest subsidy costs, default costs, fees and other collections, and other subsidy costs. Credit programs reestimate the subsidy cost allowance for outstanding direct loans and the liability for outstanding loan guarantees, by taking into account all factors that may have affected the estimated cash flows. Any adjustment resulting from the reestimates is recognized as a subsidy expense (or a reduction in subsidy expense).

Direct loans obligated and loan guarantees committed before fiscal year 1992 are valued under two different methodologies within the government: the allowance-for-loss method and the present-value method. Under the allowance-for-loss method, the outstanding principal of direct loans is reduced by an allowance for uncollectible amounts; the liability for loan guarantees is the amount the entity estimates would more likely than not require future cash outflow to pay default claims. Under the present-value method, the outstanding principal of direct loans is reduced by an allowance equal to the difference between the outstanding principal and the present value of the expected net cash flows. The liability for loan guarantees is the present value of expected net cash outflows due to the loan guarantees.

E. Inventories and Related Property

Inventory is tangible personal property that is (1) held for sale, principally to federal entities, (2) in the process of production for sale, or (3) to be consumed in the production of goods for sale or in the provision of services for a fee. OM&S is tangible personal property to be consumed in normal operations and stockpile materials are strategic and critical materials being held due to statutory requirements for use in national defense, conservation, or national emergencies.

SFFAS No. 3, *Accounting for Inventory and Related Property*, requires that inventories, OM&S, and stockpile materials to be valued using either historical cost or a method that reasonably approximates historical cost. Historical cost methods include first-in-first-out, weighted average, and moving average. Any other valuation method may be used if the results reasonably approximate one of the historical cost methods. FASAB issued additional guidance SFFAS No. 48, *Opening Balances for Inventory, Operating Materials and Supplies, and Stockpile Materials*, which permits a reporting entity to apply an alternative valuation method in establishing opening balances for inventory, OM&S, and stockpile materials and is intended to provide an alternative valuation method when historical records and systems do not provide a basis for valuation of opening balances in accordance with SFFAS No. 3.

As the largest contributor of inventories and related property, DOD values substantially all of its inventory available and purchased for resale using the moving average cost method as of September 30, 2019. OM&S are valued using various methods including moving average cost, standard price, historical cost, replacement price, and direct method. DOD uses both the consumption method (expensed when issued to an end user for consumption in normal operations) and the purchase method (expensed when purchased) of accounting for OM&S. Stockpile Materials are accounted for using actual cost or the lower of cost or market method. DOD continues to implement SFFAS No. 48, permitting alternative methods in establishing opening balances.

F. Property, Plant, and Equipment

PP&E consists of tangible assets that have an estimated useful life of two or more years, are not intended for sale in the ordinary course of business and are intended to be used or available for use by the entity. These tangible assets may include land, land rights, assets acquired through capital leases, buildings and structures, furniture and fixtures, equipment, and vehicles.

SFFAS No. 6, *Accounting for Property, Plant, and Equipment* requires general PP&E to be recorded at cost. Cost shall include all costs incurred to bring the PP&E to a form and location suitable for its intended use. PP&E used in government operations are carried at acquisition cost, with the exception of some DOD equipment. FASAB issued additional guidance, SFFAS No. 50, *Establishing Opening Balances for General Property, Plant, and Equipment*, which states that a reporting entity may choose one of three alternative methods for establishing an opening balance for PP&E. The alternative methods include: using deemed cost to establish opening balances of general PP&E, selecting between deemed cost and prospective capitalization of internal use software, and allowing an exclusion of land and land rights from opening balances with disclosure of acreage information and expensing of future acquisitions.

By excluding land and land rights from the opening balance of general PP&E future land and land right acquisitions should be expensed. An entity electing to exclude land and land rights from its general PP&E opening balances must disclose, with a reference on the balance sheet to the related disclosure, the number of acres held at the beginning of each reporting period, the number of acres added during the period, the number of acres disposed of during the period, and the number of acres held at the end of each reporting period. DOD generally records PP&E at the estimated historical cost. However, when applicable DOD will continue to adopt SFFAS No. 50.

Costs to acquire PP&E, extend the useful life of existing PP&E, or enlarge or improve its capacity, that exceed federal entities' capitalization thresholds should be capitalized and depreciated or amortized. Depreciation and amortization expense should be recognized on all capitalized PP&E, except land and land rights of unlimited duration. In the case of constructed PP&E, the PP&E shall be recorded as construction work in process until it is placed in service, at which time the balance is transferred to PP&E.

For financial reporting purposes, heritage assets (excluding multi-use heritage assets) and stewardship land are not recorded as part of PP&E. Since heritage assets are intended to be preserved as national treasures, it is anticipated that they will be maintained in reasonable repair and that there will be no diminution in their usefulness over time. Many assets are clearly heritage assets. For example, the National Park Service manages the Washington Monument, the Lincoln Memorial and the Mall. Heritage assets that are predominantly used in general government operations are considered multi-use heritage assets and are included in PP&E. Stewardship land is also consistent with the treatment of heritage assets in that much of the government's land is held for the general welfare of the nation and is intended to be preserved and protected. Stewardship land is land owned by the government but not acquired for or in connection with general PP&E. Because most federal land is not directly related to general PP&E, it is deemed to be stewardship land and accordingly, it is not reported on the Balance Sheet. Examples of stewardship land include national parks and forests. For more details on stewardship assets, see Note 24—Stewardship Land and Heritage Assets.

G. Debt and Equity Securities

Most debt and equity securities are held by component entities that apply FASB standards and are not converted to FASAB standards in consolidation. Certain other securities held by component entities that apply FASB standards are classified as held-to-maturity, available-for-sale, and trading. Held-to-maturity debt and equity securities are reported at cost, net of unamortized premiums and discounts. Available-for-sale debt and equity securities are reported at fair value. Trading debt and equity securities are reported at fair value. The investment categories are classified by security type; Non-U.S. government, mortgage/asset backed, commercial, corporate and other bonds, unit trust and common stocks. Entities that apply FASB standards are reported by fair value measurement hierarchy levels 1, 2, 3, and "other" category.

H. Investments in Government-Sponsored Enterprises

The senior preferred stock and associated warrants for the purchase of common stock in the GSEs (Fannie Mae and Freddie Mac) are presented at their fair value. SPSPAs, which Treasury entered into with each GSE when they were placed under conservatorship, can result in payments to the GSEs when, at the end of any quarter, the FHFA, acting as the conservator, determines that the liabilities of either GSE exceed its respective assets. Such payments result in an increase to the investment in the GSEs' senior preferred stock, with a corresponding decrease to cash held by Treasury. In addition, the investments in the GSEs will increase, based on the quarterly earnings of the GSEs, up to the adjusted capital reserve amounts set for each GSE.

The valuation to estimate the investment's fair value incorporates forecasts, projections, and cash flow analyses. Changes in valuation, including impairments, are deemed usual and recurring and thus are recorded as exchange transactions on the Statement of Net Cost and investments in GSEs on the Balance Sheet. The government also records dividends related to these investments as exchange transactions and accrues when declared.

The potential liabilities to the GSEs, if any, are assessed annually and recorded at the gross estimated amount. For more detailed information on investments in GSEs, refer to Note 8—Investments in Government-Sponsored Enterprises.

I. Federal Debt

U.S. Treasury securities are debt instruments issued to raise money needed to operate the federal government and pay off maturing obligations. Treasury issues these debt instruments to the public in the form of marketable bills, notes, bonds, TIPS and FRNs, and in the form of non-marketable securities including Government Account Series securities, U.S. Savings

Securities, and State and Local Government Series securities. The amount of the debt, or principal, is also called the security's face value or par value. To accurately reflect the federal debt, Treasury records principal transactions with the public at par value at the time of the transaction. Certain Treasury securities are issued at a discount or premium. These discounts and premiums are amortized over the term of the security using an interest method for all long-term securities and the straight line method for short-term securities. In addition, the principal for TIPS is adjusted daily over the life of the security based on the CPI-U; and FRNs pay interest quarterly based on the interest rate at the time of payment. Accrued interest on Treasury securities held by the public is recorded as an expense when incurred, instead of when paid.

J. Federal Employee and Veteran Benefits Payable

Generally, federal employee and veteran benefits payable are recorded during the time employee services are rendered. The related liabilities for defined benefit pension plans, veterans' compensation, burial, education and training benefits, post-retirement health benefits, and post-retirement life insurance benefits, are recorded at estimated present value of future benefits, less any estimated present value of future normal cost contributions. Normal cost is the portion of the actuarial present value of projected benefits allocated as an expense for employee services rendered in the current year. Actuarial gains and losses (as well as prior service cost, if any) are recognized immediately in the year they occur without amortization.

VA also provides certain veterans and/or their dependents with pension benefits, based on annual eligibility reviews, if the veteran died or was disabled for nonservice-related causes. The pension program for veterans is not accounted for as a "federal employee pension plan" under SFFAS No. 5, *Accounting for Liabilities of the Federal Government*, due to differences between its eligibility conditions and those of federal employee pensions. Therefore, a future liability for pension benefits is not recorded. These benefits are recognized as expenses when benefits are paid rather than when employee services are rendered.

The actuarial liability for FECA benefits is recorded at estimated present value of future benefits for injuries and deaths that have already been incurred.

Gains and losses from changes in long-term assumptions used to estimate federal employee pensions, ORB, and OPEB liabilities are reflected separately on the Statement of Net Cost and the components of the expense related to federal employee pension, ORB, and OPEB liabilities are disclosed in Note 12—Federal Employee and Veteran Benefits Payable as prescribed by SFFAS No. 33, *Pensions, Other Retirement Benefits, and Other Postemployment Benefits: Reporting the Gains and Losses from Changes in Assumptions and Selecting Discount Rates and Valuation Dates*. In addition, SFFAS No. 33 also provides a standard for selecting the discount rate assumption for present value estimates of federal employee pension, ORB, and OPEB liabilities.

K. Environmental and Disposal Liabilities

Environmental and disposal liabilities are recorded at the estimated current cost of the cleanup plan, including the level of restoration to be performed, the current legal or regulatory requirements, and the current technology. Cleanup costs are the costs of removing, containing or disposing of hazardous waste. Hazardous waste is a solid, liquid, or gaseous waste that, because of its quantity or concentration, presents a potential hazard to human health or the environment. Cleanup costs include, but are not limited to, decontamination, decommissioning, site restoration, site monitoring, closure, and post-closure costs. Where technology does not exist to clean up radioactive or hazardous waste, only the estimable portion of the liability (typically monitoring and safe containment) is recorded.

L. Insurance and Guarantee Program Liabilities

Insurance programs are authorized by law to financially compensate a designated population of beneficiaries by accepting all or part of the risk for losses incurred as a result of an adverse event. Certain consolidation entities with significant insurance and guarantee programs (i.e., PBGC and FDIC) apply FASB standards, and are not converted to FASAB standards in the consolidated financial statements of the U.S. government. The two most significant FASB-based insurance and guarantee programs are provided by PBGC and FDIC.

PBGC recognizes a single-employer program liability for probable plan terminations, which represents PBGC's best estimate of the losses, net of plan assets, and the present value of expected recoveries (from sponsors and members of their controlled group) for plans that are likely to terminate in the future. PBGC recognizes a multi-employer program liability for future financial assistance to insolvent plans and to plans deemed probable to becoming insolvent.

FDIC records a liability for FDIC-insured institutions that are likely to fail when the liability is probable and reasonably estimable, absent some favorable event such as obtaining additional capital or merging. The FDIC liability is derived by applying expected failure rates and loss rates to the institutions based on supervisory ratings, balance sheet characteristics, and projected capital levels.

PBGC's exposure to losses from plan terminations and FDIC's exposure to losses from insured institutions that are classified as reasonably possible are disclosed in Note 18—Contingencies.

All other insurance and guarantee programs are accounted for in the consolidated financial statements in accordance with FASAB standards. For fiscal year 2019, insurance programs are accounted for pursuant to SFFAS No. 51, *Insurance Programs.*

Programs that administer direct loans and loan guarantees, qualify as social insurance, authorized to engage in disaster relief activities, provide grants, provide benefits or assistance based on an individual’s or a household income and/or assets, assume the risk of loss arising from federal government operations, that pay claims through an administrative or judicial role for individuals or organizations who claim they have been harmed by a federal entity, that indemnify contractors, agreement partners, and other third parties for loss or damage incurred while or caused by work performed for a federal entity, or workers’ or occupational illness compensation programs that compensate current or former employees (or survivors) and certain third parties for injuries and occupational diseases obtained while working for a federal entity are excluded from insurance programs.

SFFAS No. 51 establishes three categories: 1) exchange transaction insurance programs other than life insurance, 2) non-exchange transaction insurance programs and 3) life insurance programs. For each category, SFFAS No. 51 provides specific accounting and reporting requirements. The implementation of SFFAS No. 51 did not have a significant effect on the beginning net position.

For exchange transaction insurance programs other than life insurance, revenues are recognized when earned over the insurance arrangement period and liabilities are recognized for unearned premiums, unpaid insurance claims, and for losses on remaining coverage. Losses on remaining coverage represent estimated amounts to be paid to settle claims for the period after year-end through the end of insurance coverage in excess of the summation of unearned premiums and premiums due after the end of the reporting period.

For non-exchange transaction insurance programs, revenue is recognized the same as other non-exchange transaction revenue, no unearned premium liability is recorded and a liability is only recognized for unpaid insurance claims.

For life insurance programs, revenue is recognized when due and liabilities are recognized for unpaid insurance claims and future policy benefits. The liability for future policy benefits represents the expected present value of future claims to be paid to, or on behalf of, existing policyholders, less the expected present value of future net premiums to be collected from those policyholders. Life insurance programs are disclosed in Note 12—Federal Employee and Veteran Benefits Payable.

In fiscal year 2018, for insurance and guarantee programs accounted for pursuant to FASAB standards, a liability is recognized for unpaid claims resulting from insured events that have occurred as of the reporting date, including contingencies meeting the recognition criteria. Life insurance programs recognize a liability for future policy benefits (a liability to current policyholders that relates to insured events, such as death or disability) in addition to the liability for unpaid claims incurred.

M. Deferred Maintenance and Repairs

DM&R are maintenance and repairs that were not performed when they should have been or scheduled maintenance and repairs that were delayed or postponed. Maintenance is the act of keeping fixed assets in acceptable condition, including preventative maintenance, normal repairs, and other activities needed to preserve the assets, so they continue to provide acceptable service and achieve their expected life. Maintenance and repairs exclude activities aimed at expanding the capacity of assets or otherwise upgrading them to serve needs different from those originally intended. DM&R are not expensed in the Statements of Net Cost or accrued as liabilities on the Balance Sheet. However, DM&R information is disclosed in the unaudited RSI section of this report. Please see unaudited RSI—Deferred Maintenance and Repairs for additional information including measurement methods.

N. Contingencies

Liabilities for contingencies are recognized on the Balance Sheet when both:

- A past transaction or event has occurred, and
- A future outflow or other sacrifice of resources is probable and measurable.

The estimated contingent liability may be a specific amount or a range of amounts. If some amount within the range is a better estimate than any other amount within the range, then that amount is recognized. If no amount within the range is a better estimate than any other amount, then the minimum amount in the range is recognized and the range and a description of the nature of the contingency is disclosed.

Contingent liabilities that do not meet the above criteria for recognition, but for which there is at least a reasonable possibility that a loss may be incurred, are disclosed in Note 18—Contingencies.

O. Commitments

In the normal course of business, the government has a number of unfulfilled commitments that may require the use of its financial resources. Note 19—Commitments describes the components of the government's actual commitments that are disclosed due to their nature and/or their amount. They include long-term leases, undelivered orders, and other commitments.

P. Social Insurance

A liability for social insurance programs (Social Security, Medicare, Railroad Retirement, Black Lung, and Unemployment) is recognized for any unpaid amounts currently due and payable to beneficiaries or service providers as of the reporting date. No liability is recognized for future benefit payments not yet due. For further information, see Note 22—Social Insurance and the unaudited RSI—Social Insurance section.

Q. Funds from Dedicated Collections

Generally, funds from dedicated collections are financed by specifically identified revenues, provided to the government by non-federal sources, often supplemented by other financing sources that remain available over time. These specifically identified revenues and other financing sources are required by statute to be used for designated activities, benefits, or purposes, and must be accounted for separately from the government's general revenues. The three required criteria for a fund from dedicated collections are:

- A statute committing the government to use specifically identified revenues and/or other financing sources that are originally provided to the government by a non-federal source only for designated activities, benefits, or purposes;
- Explicit authority for the fund to retain revenues and/or other financing sources not used in the current period for future use to finance the designated activities, benefits, or purposes; and
- A requirement to account for and report on the receipt, use, and retention of the revenues and/or other financing sources that distinguishes the fund from the government's general revenues.

For more details on funds from dedicated collections, see Note 20—Funds from Dedicated Collections.

R. Unmatched Transactions and Balances

The reconciliation of the change in net position requires that the difference between ending and beginning net position equals the difference between revenue and cost, plus or minus prior-period adjustments.

The unmatched transactions and balances are needed to bring the change in net position into balance. The primary factors affecting this out of balance situation are:

- Unmatched intragovernmental transactions and balances between federal entities; and
- Errors and restatements in federal entities reporting.

As intragovernmental transactions and balances reduce to immaterial amounts, the corresponding individual lines in the Unmatched Transactions and Balances table are adjusted to remove the differences for the fiscal year. Please refer to the table of Unmatched Transactions and Balances in Other Information (Unaudited) for examples of the individual lines. Materiality for these adjustments is considered in the absolute value, when at or below $0.1 billion.

Refer to the Other Information (unaudited)—Unmatched Transactions and Balances for detailed information.

S. Adjustments to Beginning Net Position

Adjustments to beginning net position in fiscal year 2019 had a consolidated change of $13.0 billion. This $13.0 billion increase was recognized under Funds other than those from Dedicated Collections ($5.7 billion and $7.3 billion).

Adjustments to beginning net position in fiscal year 2018 had a consolidated change of $0.1 billion. This $0.1 billion net increase includes a decrease of $22.5 billion under Funds other than those from Dedicated Collections ($2.5 billion, $11.0 billion and $9.0 billion) and an increase of $22.6 billion under Funds from Dedicated Collections ($2.6 billion, $11.0 billion and $9.0 billion).

DOD reported adjustments to beginning net position impacting the financial statements. DOD reported an increase of $5.7 billion and a decrease of $2.5 billion in fiscal year 2019 and 2018, respectively, to beginning net position due to continuing implementation of SFFAS No. 48, *Opening Balances for Inventory, Operating Materials and Supplies, and Stockpile Materials* and SFFAS No. 50, *Establishing Opening Balances for General Property, Plant, and Equipment*.

DOD followed SFFAS No. 21, *Reporting Corrections of Errors and Changes in Accounting Principles*, and corrected an error in its financial statements for assets and net position. During fiscal year 2019, DOD reported adjustments to beginning net position of $7.3 billion.

SFFAS No. 47, *Reporting Entity*, was implemented in fiscal year 2018. The standard requires that consolidation entities be consolidated in their entirety. Prior to fiscal year 2018, only the federal portion of Smithsonian Institution was consolidated. For fiscal year 2018, all activities (federal and non-federal portions) of Smithsonian Institution were consolidated, resulting in a $2.6 billion adjustment to the fiscal year 2018 beginning net position.

In fiscal year 2018 the adjustments to beginning net position for Smithsonian Institution of $2.6 billion related to dedicated collection funds. Note 20—Funds from Dedicated Collections had an adjustment to beginning net position for fiscal year 2018 of $11.0 billion related to DOD. Additional amounts totaling $9.0 billion were restated to improve the consistency of entities combined presentation and intradepartmental eliminations. Both adjustments were only between Funds from dedicated collections and Funds other than those from dedicated collections with no effect on the consolidated total. Refer to Note 20—Funds from Dedicated Collections for additional information.

T. Reclassifications

Certain fiscal year 2018 amounts were reclassified to conform to the fiscal year 2019 presentation. The reclassified data is addressed in Note 5—Inventories and Related Property, Net. Refer to the individual note for more information.

U. Restatements

In fiscal year 2019, the presentation methodology for Statement of Operations and Changes in Net Position and Note 20—Funds from Dedicated Collections was changed to provide consistency among all entities. For comparative purposes, fiscal year 2018 was also restated. This restatement was primarily related to an increase in the total amount of federal assets and federal liabilities reported for Funds from Dedicated Collections. Refer to Note 1.S—Adjustments to Beginning Net Position and Note 20—Funds from Dedicated Collections for more information.

In fiscal year 2019, DOD brought offline adjustments from published component AFRs into its reporting system for 2018. This correction resulted in the restatement of Balance Sheet lines Other liabilities ($0.1 billion decrease), Funds from Dedicated Collections net position ($11.0 billion increase), and Funds other than those from Dedicated Collections ($11.0 billion decrease). The Net position, beginning of period on the Statement of Operations and Changes in Net Position was restated by $0.1 billion. The Other Liabilities ($0.1 billion decrease) is also reflected in Note 16—Other Liabilities and the Reconciliation of Net Operating Cost and Budget Deficit. Refer to the individual notes for more information.

Also, in fiscal year 2019 errors were noted in the presentation of Note 19—Commitments for operating leases and other commitments that required correction of balances reported in fiscal year 2018. The corrections resulted in the restatement of prior year amounts for DOT's other commitments ($6.4 billion increase) and VA's operating leases ($3.9 billion increase). Refer to Note 19—Commitments for more information.

In addition, in fiscal year 2019 Smithsonian Institution had a 2018 restatement between the Balance Sheet lines Note 9—Other Assets and Note 7—Debt and Equity Securities of $1.9 billion. The $1.9 billion is also reflected on the Debt and equity securities and Other assets lines on the Reconciliations of Net Operating Cost and Budget Deficit. Also, Note 4—Loans Receivable and Loan Guarantee Liabilities, Net 2018 subsidy expense/(income), principal amounts of loans under guarantee, and principal amounts guaranteed by the U.S. have been restated to provide consistency among credit reform entities. In addition, Note 18—Contingencies restated the 2018 estimated range of loss for reasonably possible contingencies for DOE. Refer to the notes for more information.

V. Fiduciary Activities

Fiduciary activities are the collection or receipt, as well as the management, protection, accounting, investment and disposition by the government of cash or other assets in which non-federal individuals or entities have an ownership interest that the government must uphold. Fiduciary cash and other fiduciary assets are not assets of the government and are not recognized on the Balance Sheet. See Note 21—Fiduciary Activities, for further information.

W. Use of Estimates

The government has made certain estimates and assumptions relating to the reporting of assets, liabilities, revenues, expenses, and the disclosure of contingent liabilities to prepare these financial statements. There are a large number of factors that affect these assumptions and estimates, which are inherently subject to substantial uncertainty arising from the likelihood of future changes in general economic, regulatory, and market conditions. As such, actual results will differ from these estimates and such differences may be material.

Significant transactions subject to estimates are included in the balance of loans and credit program receivables, federal employee and veteran benefits payable, credit reform subsidy costs, investments in GSEs, and other non-federal securities and related impairment, tax receivables, loan guarantees, depreciation, imputed costs, other actuarial liabilities, cost and earned revenue allocations, as well as contingencies and any related recognized liabilities.

The government recognizes the sensitivity of credit reform modeling to slight changes in some model assumptions and uses regular review of model factors, statistical modeling, and annual reestimates to reflect the most accurate cost of the credit programs to the U.S. government. *Federal Credit Reform Act of 1990* loan receivables and loan guarantees are disclosed in Note 4—Loans Receivable and Loan Guarantee Liabilities, Net.

The forecasted future cash flows used to determine credit reform amounts are sensitive to slight changes in model assumptions, such as general economic conditions, specific stock price volatility of the entities in which the government has an equity interest, estimates of expected default, and prepayment rates. Therefore, forecasts of future financial results have inherent uncertainty.

The annual valuation performed as of September 30 on the senior preferred stock and warrants comprising the Investments in GSEs line item on the Balance Sheets incorporates various forecasts, projections, and cash flow analyses to develop an estimate of the asset's fair value. The value of the senior preferred stock is estimated by first estimating the fair value of the total equity of each GSE (which, in addition to the senior preferred stock, is comprised of other equity instruments including common stock, common stock warrants, and junior preferred stock). The fair value of the total equity is based on a discounted cash flow valuation methodology, whereby the primary input is the present value of the projected quarterly cash flows to equity holders. The fair value of the GSEs' other equity instruments are then deducted from its total equity, with the remainder representing the fair value of the senior preferred stock. The primary input into the warrants valuation is the market value of the shares of common stock of the GSEs which, along with the junior preferred stock, are traded on the OTC Bulletin Board. Treasury evaluates the need for adjusting the OTC market-based valuation of the warrants for the effects, if any, of significant events occurring after the close of the market but before the end of the measurement date. Treasury records any changes in valuation, including impairment, on the Statement of Net Cost and the Balance Sheet. Since the valuation is an annual process, Treasury deems changes in valuation of the senior preferred stock and warrants as usual and recurring.

Treasury performs annual calculations, as of September 30, to assess the need for recording an estimated liability in accordance with SFFAS No. 5, *Accounting for Liabilities of The Federal Government*, related to the government's funding commitment to the GSEs under the SPSPAs. Liability recognition is predicated on the probable future occurrence of an excess of liabilities and minimum capital reserve amounts, as defined, over the assets of either GSE at the end of any reporting quarter. The occurrence of future GSE deficits, which ultimately determines the liability to the GSEs, is most sensitive to future changes in the housing price index and, to a lesser extent, future changes in guarantee fees received by the GSEs on single family mortgages and interest rates. For more detailed information on investments in GSEs and the amended SPSPAs, see Note 8—Investments in Government-Sponsored Enterprises.

The government offers its employees' pension and other post-employment retirement benefits, as well as life and health insurance. OPM administers the largest civilian plan and DOD and VA administer the military plans. The benefits payable are generally recorded during the time employee services are rendered. The related liabilities for defined benefit pension plans, veterans' compensation and burial benefits, post-retirement health benefits, life insurance benefits, education benefits, and FECA benefits are recorded at estimated present value of future benefits, less any estimated present value of future normal cost contributions. See Note 12—Federal Employee and Veteran Benefits Payable for additional information.

X. Credit Risk

Credit risk is the potential, no matter how remote, for financial loss from a failure of a borrower or counterparty to perform in accordance with underlying contractual obligations. The government takes on credit risk when it makes direct loans or guarantees to non-federal entities, provides credits to foreign entities, or becomes exposed to institutions that engage in financial transactions with foreign countries.

The government also takes on credit risk related to committed, but undisbursed direct loans, funding commitments to GSEs, and other activities. Many of these programs were developed to provide credit where borrowers are not able to get access to credit with reasonable terms and conditions. These programs expose the government to potential costs and losses. The extent of the risk assumed is described in more detail in the notes to the financial statements, and where applicable, is factored into credit reform models and reflected in fair value measurements.

Y. Treaties and Other International Agreements

For financial reporting purposes, treaties and other international agreements may be understood as falling into three broad categories:

- No present or contingent obligation to provide goods, services, or financial support,
- Present obligation to provide goods, services, or financial support, or
- Contingent obligation to provide goods, services, or financial support.

The proper financial reporting of treaties and other international agreements depends on the probable future outflow or other sacrifice of resources as a result of entering into the agreement.

In many cases, treaties and other international agreements establish frameworks that govern cooperative activities with other countries but leave to the discretion of the parties whether to engage in any such activities. In other cases, the agreements may contemplate specific cooperative activities, but create no present or contingent obligations to engage in them. Cooperative activities relevant to these treaties and other international agreements fall under the first category, which does not result in the U.S. government incurring any financial liability. Since these treaties and other international agreements have no financial impact, they are not reported or disclosed in this *Financial Report*.

Some treaties and other international agreements fall under the second category, and involve a present obligation, and therefore result in liability recognition. Such present obligation may relate to the U.S. government providing financial and in-kind support, including assessed contributions, voluntary contributions, grants, and other assistance to international organizations in which it participates as a member. Examples of such agreements include those that establish international organizations under which the U.S. government undertakes obligations to pay assessed dues to the organization; grant agreements under which the U.S. government provides foreign assistance funds to other countries; and claims settlement agreements under which the U.S. government agrees to pay specific sums of money to settle claims. For further information related to treaties and other international agreements that fall under the second category, refer to Note 19—Commitments.

The last category encompasses those treaties or other international agreements which result in contingencies that may require recognition or disclosure in the financial statements. Such contingencies may stem from commitments in a treaty or other international agreement to provide goods, services, or financial support when a future event occurs, or from litigation, claims, or assessments forged by other parties to the agreement.

Z. Public-Private Partnerships

Federal P3s are risk-sharing arrangements or transactions with expected lives greater than five years between public and private sector entities. Such arrangements or transactions provide a service or an asset for government and/or general public use where in addition to the sharing of resources, each party shares in the risks and rewards of said arrangements or transactions. The P3s that are deemed material to the consolidated financial statements and have met the criteria of SFFAS No. 49, *Public Private Partnerships*, are disclosed. For more details on P3s, see Note 26—Public Private Partnerships.

Note 2. Cash and Other Monetary Assets

Cash and Other Monetary Assets as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Unrestricted cash:		
Cash held by Treasury for governmentwide operations	376.1	378.5
Other	4.5	4.9
Restricted	44.7	31.6
Total cash	425.3	415.0
International monetary assets	73.3	66.7
Gold and silver	11.1	11.1
Foreign currency	14.9	14.7
Total cash and other monetary assets	524.6	507.5

Unrestricted cash includes cash held by Treasury for governmentwide operations (Operating Cash) and all other unrestricted cash held by the federal entities. Operating Cash represents balances from tax collections, federal debt receipts, and other various receipts net of cash outflows for federal debt repayments and other payments. Treasury checks outstanding are netted against Operating Cash until they are cleared by the FR System. Other unrestricted cash not included in Treasury's Operating Cash balance includes balances representing cash, cash equivalents, and other funds held by entities, such as undeposited collections, deposits in transit, demand deposits, amounts held in trust, and imprest funds. Operating Cash held by the Treasury decreased by $2.4 billion (a decrease of approximately 1 percent) in fiscal year 2019 due to Treasury's investment and borrowing decisions to manage the balance and timing of the government's cash position.

Restrictions on cash are due to the imposition on cash deposits by law, regulation, or agreement. Restricted cash is primarily composed of cash held by the SAA, which executes Foreign Military Sales. The SAA included $37.1 billion and $26.3 billion as of September 30, 2019, and 2018, respectively.

International monetary assets include the U.S. reserve position in the IMF and U.S. holdings of SDRs. The U.S. reserve position in the IMF had a U.S. dollar equivalent of $23.0 billion and $15.4 billion as of September 30, 2019, and 2018, respectively. Only a portion of the U.S. financial subscription to the IMF is made in the form of reserve assets; the remainder is provided in the form of a letter of credit. The balance available under the letter of credit totaled $89.7 billion and $100.0 billion as of September 30, 2019, and 2018 respectively. The total amount of SDR holdings of the U.S. was the equivalent of $50.1 billion and $51.0 billion as of September 30, 2019, and 2018, respectively. For more information regarding the U.S. participation in the IMF and SDRs, see Treasury's AFR and Note 25—Disclosure Entities and Related Parties.

Gold is valued at the statutory price of $42.2222 per fine troy ounce. The number of fine troy ounces of gold was 261,498,927 as of September 30, 2019, and 2018. The market value of gold on the London Fixing was $1,485 and $1,187 per fine troy ounce as of September 30, 2019, and 2018, respectively. In addition, silver is valued at the statutory price of $1.2929 per fine troy ounce. The number of fine troy ounces of silver was 16,000,000 as of September 30, 2019, and 2018. The market value of silver on the London Fixing was $17.26 and $14.31 per fine troy ounce as of September 30, 2019, and 2018, respectively. Gold totaling $11.0 billion as of September 30, 2019, and 2018, was pledged as collateral for gold certificates issued and authorized to the FRBs by the Secretary of the Treasury. Gold certificates were valued at $11.0 billion as of September 30, 2019, and 2018. Treasury may redeem the gold certificates at any time. Please refer to the financial statements of Treasury for detailed information regarding gold reserves and Treasury's liability for gold. Foreign currency is translated into U.S. dollars at the exchange rate at fiscal year-end. The foreign currency is maintained by Treasury's Exchange Stabilization Fund and various U.S. federal entities as well as foreign banks.

Note 3. Accounts and Taxes Receivable, Net

Accounts and Taxes Receivable as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Accounts receivable:		
Gross accounts receivable	117.7	112.4
Allowance for uncollectible amounts	(31.8)	(30.5)
Accounts receivable, net	85.9	81.9
Taxes receivable:		
Gross taxes receivable	381.5	226.7
Allowance for uncollectible amounts	(229.4)	(163.7)
Taxes receivable, net	152.1	63.0
Total accounts and taxes receivable, net	238.0	144.9

Gross accounts receivable includes related interest receivable of $3.3 billion and $3.6 billion as of September 30, 2019, and 2018, respectively.

Treasury comprises approximately 61.3 percent of the government's reported accounts and taxes receivable, net, as of September 30, 2019. Treasury experienced a year-to-year increase of $85.9 billion due to taxes receivable. This is a consequence of the TCJA of 2017, which imposed a one-time tax on previously unrepatriated foreign earnings at a reduced rate that taxpayers may elect to pay over an eight-year installment schedule. The following list of entities comprise 98.2 percent of the government's accounts and taxes receivable, net, of $238.0 billion as of September 30, 2019. Please refer to the following entities financial statements for details on gross accounts and taxes receivable and the related allowance for uncollectible amounts:

- Treasury
- HHS
- SSA
- DHS
- DOI
- VA
- DOD
- PBGC
- USDA
- DOE
- TVA
- OPM
- DOL
- USPS
- FDIC
- FCC

Accounts and Taxes receivable, net include amounts related to criminal restitution owed to the government. In fiscal year 2019, accounts and taxes receivable, net included $7.7 billion of gross receivable related to criminal restitution orders monitored by responsible entities, of which $1.4 billion is determined to be collectible. Of this gross receivable amount, Treasury and HHS collectively account for $5.3 billion of which $0.5 billion is determined to be collectible as of September 30, 2019. In fiscal year 2018, this balance included $7.9 billion of gross receivables related to criminal restitution orders, of which $0.7 billion is determined to be collectible. Of this gross receivable amount, Treasury and HHS collectively account for $5.7 billion of which $0.5 billion is determined to be collectible as of September 30, 2018.

Note 4. Loans Receivable and Loan Guarantee Liabilities, Net

Loans Receivable as of September 30, 2019

(In billions of dollars)	Loans Receivable, gross	Interest Receivable	Foreclosed Property	Allowance for Subsidy	Net Loans Receivable	Subsidy Expense (Income) for the Fiscal Year
Federal Direct Student Loans - Education	1,164.9	83.3	-	(124.4)	1,123.8	61.5
Federal Family Education Loans - Education	90.2	22.3	-	(35.7)	76.8	5.8
Electric Loans - USDA	49.2	0.1	-	(2.3)	47.0	(0.3)
Rural Housing Services - USDA	23.6	1.1	0.1	(2.8)	22.0	0.3
Export-Import Bank Loans	16.4	0.1	-	(1.6)	14.9	-
Federal Housing Administration Loans - HUD	37.4	14.1	1.3	(16.7)	36.1	(0.1)
All other programs	116.3	2.0	1.1	(14.2)	105.2	(0.2)
Total loans receivable	1,498.0	123.0	2.5	(197.7)	1,425.8	67.0

Loans Receivable as of September 30, 2018 (Restated)

(In billions of dollars)	Loans Receivable, gross	Interest Receivable	Foreclosed Property	Allowance for Subsidy	Net Loans Receivable	Subsidy Expense (Income) for the Fiscal Year
Federal Direct Student Loans - Education	1,083.7	72.0	-	(40.7)	1,115.0	4.4
Federal Family Education Loans - Education	95.1	21.1	-	(23.3)	92.9	2.4
Electric Loans - USDA	49.3	0.3	-	(2.2)	47.4	(0.1)
Rural Housing Services - USDA	24.4	0.2	0.1	(2.1)	22.6	0.1
Export-Import Bank Loans	18.2	0.2	-	(0.8)	17.6	0.4
Federal Housing Administration Loans - HUD	30.6	9.3	1.3	(15.1)	26.1	(0.2)
All other programs	108.9	1.7	1.1	(14.2)	97.5	1.2
Total loans receivable	1,410.2	104.8	2.5	(98.4)	1,419.1	8.2

Loan Guarantee Liabilities as of September 30, 2019, and 2018

(In billions of dollars)	Principal Amount of Loans Under Guarantee 2019	Principal Amount of Loans Under Guarantee Restated 2018	Principal Amount Guaranteed by the U.S. 2019	Principal Amount Guaranteed by the U.S. Restated 2018	Loan Guarantee Liabilities 2019	Loan Guarantee Liabilities 2018	Subsidy Expense (Income) for the Fiscal Year 2019	Subsidy Expense (Income) for the Fiscal Year Restated 2018
Federal Housing Administration Loans - HUD	1,524.6	1,470.8	1,366.2	1,326.8	2.5	19.1	(24.7)	(8.9)
Veterans Housing Benefit Programs - VA	712.3	663.7	179.7	167.9	7.5	8.7	(2.1)	(2.8)
Rural Housing Services - USDA	124.1	123.0	111.6	110.6	(0.2)	(0.2)	(0.1)	(0.2)
Small Business Loans - SBA	129.7	128.8	105.8	105.6	2.0	2.7	(1.0)	(1.1)
Federal Family Education Loans - Education	141.6	157.1	141.6	153.8	5.2	2.6	6.9	(1.2)
Foreign Aid Loan Programs - USAID	15.6	18.5	15.3	18.2	2.8	3.7	(1.0)	-
All other guaranteed loan programs	77.1	83.9	72.6	79.6	1.9	1.6	(0.2)	(0.4)
Total loan guarantee liabilities	2,725.0	2,645.8	1,992.8	1,962.5	21.7	38.2	(22.2)	(14.6)

The government has two types of loan programs: direct loans and loan guarantees. One major type of loan is direct loans such as the Education Federal Direct Student Loans. The second type is loan guarantee programs, such as the HUD's FHA Loans program.

Direct loans and loan guarantee programs are used to promote the nation's welfare by making financing available to segments of the population not served adequately by non-federal institutions, or otherwise providing for certain activities or investments. For those unable to afford credit at the market rate, federal credit programs provide subsidies in the form of direct loans offered at an interest rate lower than the market rate. For those to whom non-federal financial institutions are reluctant to grant credit because of the high risk involved, federal credit programs guarantee the payment of these non-federal loans and absorb the cost of defaults.

The amount of the long-term cost of post-1991 direct loans and loan guarantees outstanding equals the subsidy cost allowance for direct loans and the liability for loan guarantees (including defaulted guaranteed loans) as of September 30. The amount of the long-term cost of pre-1992 direct loans and loan guarantees equals the allowance for subsidy amounts (or present value allowance) for direct loans and the liability for loan guarantees. The long-term cost is based on all direct loans and guaranteed loans disbursed in this fiscal year and previous years that are outstanding as of September 30. It includes the subsidy cost of these loans and guarantees estimated as of the time of loan disbursement and subsequent adjustments such as modifications, reestimates, amortizations, and write-offs.

The 2018 subsidy expense/(income), principal amount of loans under guarantee, and principal amount guaranteed by the U.S. have been restated to provide consistency among credit reform entities. The restated 2018 loans guarantee liabilities subsidy expense/(income) increased by $0.3 billion while the 2018 loans receivable subsidy expense/(income) decreased by $0.1 billion. The liabilities for principal amount of loans under guarantee increased by $2.6 billion and the principal amount of loans guaranteed by the U.S. increased by $2.2 billion.

Net loans receivable includes related interest and foreclosed property. Foreclosed property is property that is transferred from borrowers to a federal credit program, through foreclosure or other means, in partial or full settlement of post-1991 direct loans or as a compensation for losses that the government sustained under post-1991 loan guarantees. Please refer to the financial statements of the USDA, VA, and HUD for significant detailed information regarding foreclosed property.

The total subsidy expense/(income) is the cost of direct loans and loan guarantees recognized during the fiscal year. It consists of the subsidy expense/(income) incurred for direct and guaranteed loans disbursed during the fiscal year, for modifications made during the fiscal year of loans and guarantees outstanding, and for upward or downward reestimates as of the end of the fiscal year of the cost of loans and guarantees outstanding. This expense/(income) is included in the Statements of Net Cost.

Loan Programs

The majority of the loan programs are provided by Education, HUD, USDA, SBA, USAID, VA, and EXIM Bank. For significant detailed information regarding the direct and guaranteed loan programs listed in the tables above, please refer to the financial statements of the entities.

Education has two major loan programs, authorized by Title IV of the *Higher Education Act of 1965*. The first program is the William D. Ford Federal Direct Loan Program (referred to as the Direct Loan Program), which was established in fiscal year 1994. The Direct Loan Program offered four types of educational loans: Stafford, Unsubsidized Stafford, PLUS for parents and/or graduate or professional students, and consolidation loans. With this program, the government makes loans directly to students and parents through participating institutions of higher education. Direct loans are originated and serviced through contracts with private vendors. Education disbursed approximately $130.7 billion in Direct Loans to eligible borrowers in fiscal year 2019 and approximately $134.1 billion in fiscal year 2018. The second program is the FFEL Program. This program was established in fiscal year 1965 and is a guaranteed loan program. Like the Direct Loan Program, it offered four types of loans: Stafford, Unsubsidized Stafford, PLUS for parents and/or graduate or professional students, and consolidation loans. The *SAFRA*, which was enacted as part of the *Health Care Education and Reconciliation Act of 2010* (P.L. 111-152), eliminated the authority to guarantee new FFEL after June 30, 2010. During fiscal year 2019, Education net loans receivable decreased by $7.3 billion, largely the result of net upward loan subsidy reestimates of $58.7 billion that exceeded an increase in gross loan receivables. The reestimate includes changes in estimation methods and comparative cost increases for Education's Income-Driven Repayment plans as well as enhancements in estimation methodology with respect to deferment and forbearance actions.

HUD's Office of Housing plays a vital role for the nation's homebuyers, homeowners, renters, and communities through its nationally administered programs. It includes FHA, the largest mortgage insurer in the world. FHA provides over $1.3 trillion in mortgage insurance on mortgages for single family homes, multifamily properties, and healthcare facilities.

USDA's Rural Development offers both direct and guaranteed loans with unique missions to bring prosperity and opportunity to rural areas. The Rural Housing programs provide affordable, safe, and sanitary housing and essential community facilities to rural communities. Rural Utility programs help improve the quality of life in rural areas through a variety of loan programs for electric energy, telecommunications, and water and environmental projects.

USAID currently operates the following loan and/or loan guarantee programs: Direct Loan Program, Urban and Environmental Program, Micro and Small Enterprise Development Program, Israel Loan Guarantee Program, Development Credit Authority Program, Loan Guarantees to Middle East Northern Africa Program, and the Ukraine Loan Guarantee Program. These programs provide loans to developing countries to help with housing and economic transition.

The SBA provides guarantees that help small businesses obtain bank loans and licensed companies to make investments in qualifying small businesses. The SBA also makes loans to microloan intermediaries and provides a direct loan program that assists homeowners, renters and businesses recover from disasters.

VA operates the following direct loan and loan guarantee programs: Vendee Loans, Acquired Loans, Native American Direct Loans, Housing Guaranteed Loans, Insurance Loans, and Loan Sale Guarantees. The Home Loans program provides loan guarantees and direct loans to veterans, service members, qualifying dependents, and limited non-veterans to purchase homes and retain homeownership with favorable market terms. During fiscal year 2019, the face value of outstanding principal on loans guaranteed by the VA increased by $48.6 billion. This increase was primarily due to $155.4 billion in new loans guaranteed by the VA, partially offset by $106.7 billion in guaranteed loan terminations.

The EXIM Bank aids in financing and promoting U.S. exports. Loans and guarantees extended under the medium-term loan program typically have repayment terms of one to seven years, while loans and guarantees extended under the long-term program usually have repayment terms in excess of seven years. Generally, both the medium-term and the long-term loan and guarantee programs cover up to 85 percent of the U.S. contract value of shipped goods.

Note 5. Inventories and Related Property, Net

Inventories and Related Property, Net as of September 30, 2019, and 2018

(In billions of dollars)	2019	Reclassified 2018
Inventory purchased for resale	68.9	68.0
Inventory and operating material and supplies held for repair	73.3	71.1
Inventory—excess, obsolete, and unserviceable	0.8	0.8
Operating materials and supplies held for use	130.8	124.7
Operating materials and supplies held in reserve for future use	27.0	18.2
Operating materials and supplies-excess, obsolete, and unserviceable	3.1	2.9
Stockpile materials held in reserve for future use	50.6	51.9
Stockpile materials held for sale	7.7	4.6
Other related property	3.3	4.2
Allowance for loss	(9.8)	(8.9)
Total inventories and related property, net	355.7	337.5

Inventory is tangible personal property that is either held for sale, in the process of production for sale, or to be consumed in the production of goods for sale or in the provision of services for a fee.

Inventory shall be categorized as one of the following:

- Held for sale or use – includes items for sale or transfer to either entities outside the federal government, or other federal entities.
- Held for repair – items that require servicing to make them suitable for sale or use.
- Excess – stock that exceeds the demand expected in the normal course of operations because the amount on hand is more than can be sold in the foreseeable future and that does not meet management's criteria to be held in reserve for future sale or use.
- Obsolete – Items that are no longer needed due to changes in technology, laws, customs, or operations.
- Unserviceable – damaged items that are more economical to dispose of than to repair.

OM&S consists of tangible personal property to be consumed in normal operations and shall be categorized as one of the following:

- Held for sale or use – includes items for sale or transfer to either entities outside the federal government, or other federal entities.
- Held in reserve for future sale or use – items maintained because they are not readily available in the market or because there is more than a remote chance that they will eventually be needed.
- Held for repair – items that require servicing to make them suitable for sale or use.
- Excess – stock that exceeds the demand expected in the normal course of operations because the amount on hand is more than can be sold in the foreseeable future and that does not meet management's criteria to be held in reserve for future sale or use.
- Obsolete – Items that are no longer needed due to changes in technology, laws, customs, or operations.
- Unserviceable – damaged items that are more economical to dispose of than to repair.

Stockpile materials are strategic and critical materials held due to statutory requirements for use in national defense, conservation or national emergencies. They are not held with the intent of selling in the ordinary course of business. When stockpile materials are authorized to be sold, those materials shall be disclosed as stockpile materials held for sale.

Other related property consists of the following:

- Forfeited property consists of monetary instruments, intangible property, real property, and tangible personal property acquired through forfeiture proceedings; property acquired by the government to satisfy a tax liability; and unclaimed and abandoned merchandise. Please refer to the financial statements of DOJ and Treasury for detailed information regarding forfeited property.
- Goods acquired under price support and stabilization programs are referred to as commodities. Commodities are items of commerce or trade having an exchange value. Please refer to the financial statements of USDA for detailed information regarding commodities.
- Seized property includes monetary instruments, real property and tangible personal property of others in the actual or constructive possession of the custodial entity. For more information on seized property, refer to the financial statements of DOJ and Treasury.
- Foreclosed property consists of any asset received in satisfaction of a loan receivable or as a result of payment of a claim under a guaranteed or insured loan (excluding commodities acquired under price support programs). For more information on foreclosed property, see Note 4—Loans Receivable and Guarantee Liabilities. Also refer to the financial statements of USDA, VA, and HUD for detailed information regarding foreclosed property.

DOD comprises approximately 82 percent of the government's inventories and related property, net, as of September 30, 2019. DOD continues to implement SFFAS No. 48, *Opening Balances for Inventory, Operating Materials and Supplies, and Stockpile Materials*, which permits alternative methods in establishing opening balances for inventories and related property. The 2018 amounts have been reclassified for DOD to move $4.4 billion from other related property to operating materials and supplies held in reserve for future use. This reclassification was identified at the governmentwide level and provides a more transparent view of the significant line items for Inventories and Related Property.

The following entities comprise over 98 percent of the government's reported inventories and related property, net of $355.7 billion as of September 30, 2019. Refer to each entities' financial statements for details.

- DOD
- DOE
- HHS

Note 6. Property, Plant, and Equipment, Net

Property, Plant, and Equipment as of September 30, 2019, and 2018

(In billions of dollars)	2019 Cost	2019 Accumulated Depreciation/ Amortization	2019 Net	2018 Cost	2018 Accumulated Depreciation/ Amortization	2018 Net
Buildings, structures, and facilities	775.8	469.7	306.1	728.4	431.1	297.3
Furniture, fixtures, and equipment	1,387.5	809.5	578.0	1,363.9	782.7	581.2
Construction in progress	171.6	N/A	171.6	159.5	N/A	159.5
Internal Use Software	51.5	32.1	19.4	49.4	30.8	18.6
Land	21.7	N/A	21.7	21.5	N/A	21.5
Other property, plant, and equipment	31.7	21.6	10.1	38.0	25.6	12.4
Total property, plant, and equipment	2,439.8	1,332.9	1,106.9	2,360.7	1,270.2	1,090.5

Note: "N/A" indicates not applicable.

DOD comprises approximately 69.4 percent of the government's reported PP&E, as of September 30, 2019. DOD continues to implement SFFAS No. 50, *Establishing Opening Balances for General Property, Plant, and Equipment* which permits alternative methods in establishing opening balances for general PP&E and has elected to exclude land and land rights. The total acreage excluded was 20,926,485 as of September 30, 2019 and September 30, 2018.

The following entities comprise over 90 percent of the government's reported PP&E net of $1,106.9 billion as of September 30, 2019. Please refer to the entities' financial statements for details.

- DOD
- DOE
- GSA
- DOC
- DOI
- USPS
- DHS
- VA
- TVA
- State

Certain PP&E are multi-use heritage assets, see Note 24—Stewardship Land and Heritage Assets for additional information on multi-use heritage assets.

Note 7. Debt and Equity Securities

Debt and Equity Securities as of September 30, 2019 and 2018

(In billions of dollars)	2019 Cost	2019 Adjustment	2019 Book Value	Restated 2018 Cost	Restated 2018 Adjustment	Restated 2018 Book Value
Held-To Maturity						
Debt securities:						
Mortgage/asset backed	0.1	-	0.1	0.2	-	0.2
Equity Securities:						
All other equity securities	3.6	-	3.6	3.5	-	3.5
Total Held-To-Maturity (Net Investment)	3.7	-	3.7	3.7	-	3.7
Available-for-Sale:						
Debt Securities:	2.4	0.1	2.5	3.5	0.2	3.7
Total Available-for-Sale (Fair Value)	2.4	0.1	2.5	3.5	0.2	3.7
Trading Securities:						
Debt Securities:						
Non-U.S. government	13.0	0.4	13.4	12.9	(0.2)	12.7
Commercial	0.3	-	0.3	0.2	-	0.2
Mortgage/asset backed	5.1	0.2	5.3	3.8	(0.1)	3.7
Corporate and other bonds	16.5	1.5	18.0	15.9	(0.2)	15.7
All other debt securities	6.2	4.8	11.0	2.5	(1.0)	1.5
Equity Securities:						
Unit Trust	13.6	7.8	21.4	16.3	9.5	25.8
Common Stocks	2.3	0.1	2.4	2.0	0.3	2.3
All other equity securities	15.3	0.2	15.5	16.2	0.9	17.1
Total Trading Securities (Fair Value)	72.3	15.0	87.3	69.8	9.2	79.0

	Total 2019	Total 2018
Total debt and equity securities categorized as held-to-maturity, available-for-sale or trading	93.5	86.4
Total NRRIT debt and equity securities (Fair Value)	24.8	25.8
Total debt and equity securities	118.3	112.2

Note: PBGC, NRRIT and TVA primarily invest in trading securities. Treasury invests in held-to-maturity, available-for-sale and and trading securities.

Certain significant consolidated entities apply financial accounting and reporting standards issued by FASB and such entities, as permitted by SFFAS No. 47, *Reporting Entity* are consolidated into the U.S. government's consolidated financial statements without conversion to financial and reporting standards issued by the FASAB. PBGC, NRRIT, TVA, and Smithsonian Institution debt and equity securities are recorded at fair value and have been categorized based upon a fair value hierarchy, in accordance with FASB ASC Section 820, Fair Value Measurement.

Fair Value Measurement

Fair value is a market-based measurement. For some assets, observable market transactions or market information might be available. For other assets, observable market transactions and market information might not be available. However, the objective of a fair value measurement in both cases is the same to estimate the price at which an orderly transaction to sell the asset between market participants at the measurement date under current market conditions.

When a price for an identical asset is not observable, a reporting entity measures fair value using another valuation technique that maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. Because fair value is a market-based measurement, it is measured using the assumptions that market participants would use when pricing the asset, including assumptions about risk. As a result, a reporting entity's intention to hold an asset is not relevant when measuring fair value.

The measurement of fair value of an asset is categorized with different levels of fair value hierarchy as follows:

- Level 1—Unadjusted quoted prices in active markets for identical assets that the reporting entity can access at the measurement date.
- Level 2—Inputs other than quoted prices included with Level 1 that are observable for the asset, either directly or indirectly.
- Level 3—Unobservable inputs for the asset.
- Other —The category contains certain investments that are measured at fair value using NAV per share useful method and have not been categorized in the fair value hierarchy. Investments in "other" represent certain commingled funds, partnerships, real estate and real estate investment trusts.

Debt and Equity Securities as of September 30, 2019

(In billions of dollars)	Level 1	Level 2	Level 3	Other	Total
Fair Value:					
Pension Benefit Guaranty Corporation	3.7	39.7	-	27.0	70.4
National Railroad Retirement Investment Trust	13.6	4.7	-	6.5	24.8
Tennessee Valley Authority	2.8	3.1	-	4.7	10.6
Smithsonian Institution	0.4	-		1.5	1.9
Total Fair Value Measurements	20.5	47.5	-	39.7	107.7
All other*:					
Total all other			-	10.6	10.6
Total debt and equity securities	20.5	47.5	-	50.3	118.3

*Levels not applicable due to entities in this category being FASAB reporters.

PBGC's "other" investments measured at NAV consists of real estate, private equity and pooled funds. PBGC's investments are primarily categorized in the hierarchy of Level 2. PBGC's Level 2 investments consist of securities lending collateral, fixed maturity, commercial paper, asset backed, pooled funds, corporate bonds and domestic equity securities.

NRRIT on behalf of the RRB, manages and invests railroad retirement assets that are to be used to pay retirement benefits to the nation's railroad workers under the RRP. As an investment company, NRRIT is subject to different accounting standards that do not require the classifications presented in the Debt and equity securities table. NRRIT's investments consists of certain U.S. Equity, Non-U.S. Equity and Global Fixed Income securities. Please refer to NRRIT's financial statements for more detailed information concerning these investments.

TVA's investments consist of amounts held in the Nuclear Decommissioning Trust, Asset Retirement Trust, Supplemental Executive Retirement Plan, and Deferred Compensation Plan. These investments are primarily U.S. and international equities, real estate investment trusts, fixed income investments, high-yield fixed income investments, commodities, currencies, derivative instruments, and other investments. TVA's qualified benefit pension plan is funded with qualified plan assets. These investments include global public equities, private equities, fixed income securities, public real assets, and private real assets.

Please refer to PBGC, NRRIT, TVA and Smithsonian Institution's financial statements for more detailed information on Fair Value Measurement.

In fiscal year 2019, a misstatement related to Smithsonian Institution resulted in an increase of $1.9 billion to the Trading securities-All other equity securities line and a decrease to Note 9—Other assets for fiscal year 2018.

Note 8. Investments in Government-Sponsored Enterprises

Congress established Fannie Mae and Freddie Mac as GSEs to support mortgage lending. A key function of the GSEs is to purchase mortgages, package those mortgages into securities, which are subsequently sold to investors, and guarantee the timely payment of principal and interest on these securities.

Leading up to the financial crisis, increasingly difficult conditions in the housing market challenged the soundness and profitability of the GSEs, thereby threatening to undermine the entire housing market. In response Congress passed the *Housing and Economic Recovery Act of 2008* (P.L.110-289) in July 2008. This act created FHFA, with enhanced regulatory authority over the GSEs, and provided the Secretary of the Treasury with certain authorities intended to ensure the financial stability of the GSEs, if necessary. In September 2008, FHFA placed the GSEs under conservatorship and Treasury invested in the GSEs by entering into a SPSPA with each GSE. These actions were taken to preserve the GSEs' assets, ensure a sound and solvent financial condition, and mitigate systemic risks that contributed to market instability.

The purpose of such actions is to maintain the solvency of the GSEs so they can continue to fulfill their vital roles in the home mortgage market while the Administration and Congress determine what structural changes should be made to the housing finance system. Draws under the SPSPAs result in an increased investment in the GSEs as further discussed below. Under SFFAS No. 47, *Reporting Entity* criteria Fannie Mae and Freddie Mac were owned or controlled by the federal government only as a result of (a) regulatory actions (such as organizations in receivership or conservatorship) or (b) other federal government intervention actions. Under the regulatory or other intervention actions, the relationship with the federal government was and is not expected to be permanent. These entities are classified as disclosure entities based on their characteristics as a whole. Accordingly, these entities are not consolidated into the U.S. government's consolidated financial statements; however, the value of the investments in these entities, changes in value, and related activity with these entities are included in the U.S. government's consolidated financial statements.

Senior Preferred Stock Purchase Agreements

Under the SPSPAs, Treasury initially received from each GSE: 1) 1,000,000 shares of non-voting variable liquidation preference senior preferred stock with a liquidation preference value of $1,000 per share and 2) a non-transferable warrant for the purchase, at a nominal cost, of 79.9 percent of common stock on a fully-diluted basis. The warrants expire on September 7, 2028. Under the amended SPSPAs, the quarterly dividend payment changed from a 10.0 percent per annum fixed rate dividend on the total liquidation preference (as discussed below) to an amount equivalent to the GSE's positive net worth above a capital reserve amount. The capital reserve amount, which was initially set at $3.0 billion for calendar year 2013, declined by $600 million at the beginning of each calendar year thereafter, and was scheduled to reach zero by calendar year 2018. On December 21, 2017, Treasury and the FHFA modified the SPSPAs between Treasury and the GSEs to increase the capital reserve amount for each GSE back to $3 billion, effective with the December 2017 dividend payment. In exchange for the increase in the capital reserve, Treasury's liquidation preference in each GSE increased by $3 billion on December 31, 2017. On September 27, 2019, Treasury and the FHFA agreed to increase the capital reserve amounts of Fannie Mae and Freddie Mac to $25 billion and $20 billion, representing an increase of $22 billion and $17 billion, respectively, over the prior reserve amount of $3 billion each. In exchange, Treasury's liquidation preference in each GSE will gradually increase up to the adjusted capital reserve amounts based on the quarterly earnings of each GSE. For the fiscal year ended September 30, 2019, Treasury's liquidation preference in Fannie Mae and Freddie Mac increased by $3.4 billion and $1.8 billion, respectively. The GSEs will not pay a quarterly dividend if their positive net worth is below the required capital reserve threshold. Cash dividends of $3.9 billion and $3.6 billion were received during fiscal years ended September 30, 2019, and 2018, respectively.

The SPSPAs, which have no expiration date, require that Treasury will disburse funds to the GSEs if at the end of any quarter, the FHFA determines that the liabilities of either GSE exceed its assets. Draws from Treasury under the SPSPAs are designed to ensure that the GSEs maintain positive net worth, with a fixed maximum amount available to each GSE under this agreement established as of December 31, 2012 (refer to the "Contingent Liability to GSEs" section below and Note 18—Contingencies). Draws against the funding commitment of the SPSPAs do not result in the issuance of additional shares of senior preferred stock; instead, it increases the liquidation preference of the initial 1,000,000 shares by the amount of the draw. The combined cumulative liquidation preference totaled $204 billion and $199 billion as of September 30, 2019 and 2018, respectively. There were no payments to the GSEs for the fiscal year ended September 30, 2019. Actual payments of $4.0 billion were made to the GSEs for the fiscal year ended September 30, 2018.

Senior Preferred Stock and Warrants for Common Stock

In determining the fair value of the senior preferred stock and warrants for common stock, Treasury relied on the GSEs' public filings and press releases concerning their financial statements, as well as non-public, long-term financial forecasts, monthly summaries, quarterly credit supplements, independent research regarding preferred stock trading, independent research regarding the GSEs' common stock trading on the OTC Bulletin Board, discussions with each of the GSEs and FHFA, and other information pertinent to the valuations. Because the instruments are not publicly traded, there is no comparable trading information available. The fair valuations rely on significant unobservable inputs that reflect assumptions about the expectations that market participants would use in pricing.

The fair value of the senior preferred stock considers the amount of forecasted cash flows to equity. The fair valuations assume that a hypothetical buyer would acquire the discounted dividend stream as of the transaction date. The fair value of the senior preferred stock decreased as of September 30, 2019 when compared to September 30, 2018, mainly driven by the increase in the market value of the GSEs' other equity securities that comprise the GSEs' total equity value. The effect of the market value increase was partially offset by a lower discount rate, driven by a lower risk-free rate and reduced volatility among comparable companies.

Factors impacting the fair value of the warrants include the nominal exercise price and the large number of potential exercise shares, the market trading of the common stock that underlies the warrants as of September 30, the principal market, and the market participants. Other factors impacting the fair value include, among other things, the holding period risk related directly to the assumption of the amount of time that it will take to sell the exercised shares without depressing the market. The fair value of the warrants increased at the end of fiscal year 2019, when compared to 2018, primarily due to increases in the market price of the underlying common stock of each GSE.

Estimation Factors

Treasury's forecasts concerning the GSEs may differ from actual experience. Estimated senior preferred values and future draw amounts will depend on numerous factors that are difficult to predict including, but not limited to, changes in government policy with respect to the GSEs, the business cycle, inflation, home prices, unemployment rates, interest rates, changes in housing preferences, home financing alternatives, availability of debt financing, market rates of guarantee fees, outcomes of loan refinancings and modifications, new housing programs, and other applicable factors.

Contingent Liability to GSEs

As part of the annual process undertaken by Treasury, a series of long-term financial forecasts are prepared to assess, as of September 30, the likelihood and magnitude of future draws to be required by the GSEs under the SPSPAs within the forecast time horizon. Treasury used 25-year financial forecasts prepared through years 2044 and 2043 in assessing if a contingent liability was required as of September 30, 2019 and 2018, respectively. If future payments under the SPSPAs are deemed to be probable within the forecast horizon, and Treasury can reasonably estimate such payment, Treasury will accrue a contingent liability to the GSEs to reflect the forecasted equity deficits of the GSEs. This accrued contingent liability will be undiscounted and will not take into account any of the offsetting dividends that could be received, as the dividends, if any, would be owed directly to the General Fund. Treasury will adjust such recorded accruals in subsequent years as new information develops or circumstances change. If future payments are reasonably possible, they are disclosed but not recorded as an accrued contingent liability.

Based on the annual forecasts as of September 30, 2019 and 2018, Treasury estimated there was no probable future funding draws. As of September 30, 2019, it is reasonably possible that market volatility or non-recurring events—for instance, changes to accounting policies that impact credit loss provisions—could potentially cause the GSEs to generate quarterly losses and, therefore, result in future funding draws against the funding commitment. Due to challenges quantifying future market volatility or the timing, magnitude, and likelihood of non-recurring events, the total amount of this reasonably possible future funding liability could not be estimated as of September 30, 2019. There were no payments to the GSEs for fiscal year ended September 30, 2019. At September 30, 2019 and 2018, the maximum remaining funding commitment to the GSEs for the remaining life of the SPSPAs was $254.1 billion. Subsequent funding draws will reduce the remaining commitments. Refer to Note 19—Commitments for a full description of other commitments and risks.

In assessing the need for an estimated contingent liability, Treasury relied on the GSEs' public filings and press releases concerning their financial statements, monthly summaries, and quarterly credit supplements, as well as non-public, long-term financial forecasts, the FHFA House Price Index, discussions with each of the GSEs and FHFA, and other information pertinent to the liability estimates. The forecasts prepared in assessing the need for an estimated contingent liability as of September 30, 2019 include three potential wind-down scenarios, with varying assumptions regarding the timing as to when the GSEs would cease new business activities, including purchasing mortgage loans and issuing new guaranteed MBS. The forecasts as of September 30, 2019, also assumed the maintenance of the GSEs' retained mortgage portfolios (and corresponding net interest income) below the $250 billion maximum permitted under the SPSPAs. The maximum balance of each GSE's retained mortgage portfolio was initially set at $650 billion as of December 31, 2012, and the amended SPSPAs required that the GSEs reduce this maximum balance to $250 billion by December 31, 2018, which was accomplished by both GSEs.

Regulatory Environment

To date, Congress has not passed legislation nor has FHFA taken actions to end the conservatorships to address the future of the GSEs. The GSEs continue to operate under the direction of their conservator, the FHFA. On March 27, 2019, the President issued a Memorandum that directed the Secretary of the Treasury to develop a plan for administrative and legislative reforms to achieve the following housing finance reform goals: (1) ending the conservatorships of the GSEs upon completion of specified reforms; (2) facilitating competition in the housing finance market; (3) establishing regulation of the GSEs that safeguards their safety and soundness and minimizes the risks they pose to the financial stability of the U.S.; and (4) providing that the federal government is properly compensated for any explicit or implicit support it provides to the GSEs or the secondary housing finance market. On September 5, 2019, Treasury released their Housing Reform Plan, which included recommended legislative and administrative reforms to achieve each of these goals.

The *Temporary Payroll Tax Cut Continuation Act of 2011* (P.L. 112-78) was funded by an increase of ten basis points in the GSEs' guarantee fees (referred to as "the incremental fees") which began in April 2012 and is effective through September 30, 2021. The incremental fees are remitted to Treasury and not retained by the GSEs and, thus, do not affect the profitability of the GSEs. For fiscal years 2019 and 2018, the GSEs remitted to Treasury the incremental fees totaling $3.9 billion and $3.6 billion, respectively.

As of September 30, 2019, and 2018, GSEs investments consisted of the following:

Investments in GSEs as of September 30, 2019

(In billions of dollars)	Gross Investments	Cumulative Valuation Gain/(Loss)	Fair Value
Fannie Mae senior preferred stock	127.0	(78.3)	48.7
Freddie Mac senior preferred stock	77.3	(38.5)	38.8
Fannie Mae warrants common stock	3.1	12.9	16.0
Freddie Mac warrants common stock	2.3	6.3	8.6
Total investments in GSEs	209.7	(97.6)	112.1

Investments in GSEs as of September 30, 2018

(In billions of dollars)	Gross Investments	Cumulative Valuation Gain/(Loss)	Fair Value
Fannie Mae senior preferred stock	123.7	(64.5)	59.2
Freddie Mac senior preferred stock	75.4	(31.2)	44.2
Fannie Mae warrants common stock	3.1	3.2	6.3
Freddie Mac warrants common stock	2.3	1.2	3.5
Total investments in GSEs	204.5	(91.3)	113.2

Note 9. Other Assets

Other Assets as of September 30, 2019, and 2018

(In billions of dollars)	2019	Restated 2018
Advances and prepayments	68.0	70.0
Regulatory assets	18.8	17.3
Investments in Multilateral Development Banks	7.8	7.7
FDIC receivable from resolution activity, net	2.8	3.0
Other	13.2	13.8
Total other assets	110.6	111.8

Advances and prepayments are assets that represent funds disbursed in contemplation of the future performance of services, receipt of goods, the incurrence of expenditures, or the receipt of other assets. These include advances to contractors and grantees, travel advances, and prepayments for items such as rents, taxes, insurance, royalties, commissions, and supplies.

With regard to regulatory assets, the DOE's PMAs and TVA record certain amounts as assets in accordance with FASB ASC Topic 980, *Regulated Operations*. The provisions of FASB ASC Topic 980 require that regulated enterprises reflect rate actions of the regulator in their financial statements, when appropriate. These rate actions can provide reasonable assurance of the existence of an asset, reduce or eliminate the value of an asset, or impose a liability on a regulated enterprise. In order to defer incurred costs under FASB ASC Topic 980, a regulated entity must have the statutory authority to establish rates that recover all costs, and those rates must be charged to and collected from customers. If the PMAs' or TVA's rates should become market-based, FASB ASC Topic 980 would no longer be applicable, and all of the deferred costs under that standard would be expensed.

On behalf of the U.S., Treasury invests in certain MDBs, through subscriptions to capital, which allows the MDBs to issue loans at market-based rates to middle-income developing countries. These paid-in capital investments are non-marketable equity investments valued at cost.

The FDIC has the responsibility for resolving failed institutions in an orderly and efficient manner. The resolution process involves valuing a failing institution, marketing it, soliciting and accepting bids for the sale of the institution, determining which bid is least costly to the insurance fund, and working with the acquiring institution through the closing process. FDIC records receivables for resolutions that include payments by the DIF to cover obligations to insured depositors, advances to receiverships and conservatorships for working capital, and administrative expenses paid on behalf of receiverships and conservatorships.

Other items included in "other" are contract financing payments and estimated future payments to contractors, purchased power generating capacity, deferred nuclear generating units, derivative assets, the balance of assets held by the experience rated carriers participating in the Health Benefits and Life Insurance Program (pending disposition on behalf of OPM), and the cost contribution to buildout the Nationwide Public Safety Broadband.

In fiscal year 2019, a misstatement related to Smithsonian Institution resulted in a decrease of $1.9 billion to the Other assets line and an increase to Note 7—Debt and Equity Securities for fiscal year 2018.

Note 10. Accounts Payable

Accounts Payable as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Department of Defense	39.7	29.2
Department of Veterans Affairs	12.2	13.5
Department of Justice	4.2	5.1
Department of Energy	4.2	3.7
General Services Administration	3.8	3.1
Department of Education	3.8	3.8
Department of State	3.7	3.6
Department of the Treasury	3.6	3.8
Department of Homeland Security	2.4	2.5
U.S. Agency for International Development	2.3	2.4
Security Assistance Accounts	2.3	1.0
Department of Agriculture	2.2	1.9
Department of Commerce	2.2	2.0
U.S. Postal Service	1.8	1.8
All other	9.6	9.3
Total accounts payable	98.0	86.7

Accounts payable includes amounts due for goods and property ordered and received, services rendered by other than federal employees, cancelled appropriations for which the U.S. government has contractual commitments for payment, and non-debt related interest payable.

Note 11. Federal Debt Securities Held by the Public and Accrued Interest

Federal Debt Securities Held by the Public and Accrued Interest as of September 30, 2019, and 2018

(In billions of dollars)	Balance September 30, 2018	Net Change During Fiscal Year 2019	Balance September 30, 2019	Average Interest Rate 2019	Average Interest Rate 2018
Treasury securities (public):					
Marketable securities:					
Treasury bills	2,239.5	136.9	2,376.4	2.1%	2.1%
Treasury notes	9,150.3	605.7	9,756.0	2.2%	2.0%
Treasury bonds	2,115.0	196.5	2,311.5	3.9%	4.1%
Treasury inflation-protected securities (TIPS)	1,376.2	78.5	1,454.7	0.8%	0.8%
Treasury floating rate notes (FRN)	369.1	55.0	424.1	2.0%	2.2%
Total marketable Treasury securities	15,250.1	1,072.6	16,322.7		
Nonmarketable securities	511.1	(24.7)	486.4	2.2%	2.8%
Net unamortized premiums/(discounts)	(44.8)	2.1	(42.7)		
Total Treasury securities, net (public)	15,716.4	1,050.0	16,766.4		
Agency securities:					
Tennessee Valley Authority	22.4	(1.4)	21.0		
All other agencies	0.1	-	0.1		
Total agency securities, net of unamortized premiums and discounts	22.5	(1.4)	21.1		
Accrued interest payable	73.8	(0.3)	73.5		
Total federal debt securities held by the public and accrued interest	15,812.7	1,048.3	16,861.0		

Types of marketable securities:
Bills–Short-term obligations issued with a term of 1 year or less.
Notes–Medium-term obligations issued with a term of 2-10 years.
Bonds–Long-term obligations of more than 10 years.
TIPS–Term of more than 5 years.
FRN–Term of 2 years.

Federal debt securities held by the public outside the government are held by individuals, corporations, state or local governments, FRBs, foreign governments, and other non-federal entities. The above table details government borrowing primarily to finance operations and shows marketable and nonmarketable securities at face value less net unamortized premiums and discounts including accrued interest.

Securities that represent federal debt held by the public are issued primarily by the Treasury and include:

- Interest-bearing marketable securities (bills, notes, bonds, inflation-protected, and FRN).
- Interest-bearing nonmarketable securities (Government Account Series held by fiduciary and certain deposit funds, foreign series, state and local government series, domestic series, and savings bonds).
- Non-interest-bearing marketable and nonmarketable securities (matured and other).

Gross federal debt (with some adjustments) is subject to a statutory ceiling (i.e., the debt limit). Prior to 1917, Congress approved each debt issuance. In 1917, to facilitate planning in World War I, Congress and the President first enacted a statutory dollar ceiling for federal borrowing. With the *Public Debt Act of 1941* (P.L. 77-7), Congress and the President set an overall limit of $65 billion on Treasury debt obligations that could be outstanding at any one time; since then, Congress and the President have enacted a number of debt limit increases.

During fiscal years 2019 and 2018, Treasury faced two delays in raising the statutory debt limit that required it to depart from its normal debt management procedures and to invoke legal authorities to avoid exceeding the statutory debt limit. During these periods, extraordinary actions taken by Treasury have resulted in federal debt securities not being issued to certain federal government accounts with the securities being restored including lost interest to the affected federal government accounts subsequent to the end of the delay period. The first delay occurred from December 9, 2017 through February 8, 2018. On Friday, February 9, 2018, the *BBA of 2018* (P.L. 115-123) was enacted suspending the statutory debt limit through March 1, 2019. The second delay in raising the statutory debt limit occurred from March 2, 2019 through August 1, 2019. On Friday, August 2, 2019, the *BBA of 2019* (P.L. 116-37) was enacted suspending the statutory debt limit through July 31, 2021.

As of September 30, 2019, and 2018, debt subject to the statutory debt limit was $22,686.6 billion and $21,474.8 billion, respectively. The debt subject to the limit includes Treasury securities held by the public and government guaranteed debt of federal agencies (shown in the table above) and intragovernmental debt holdings (shown in the following table).

Intragovernmental Debt Holdings: Federal Debt Securities
Held as Investments by Government Accounts as of September 30, 2019, and 2018

(In billions of dollars)	Balance 2018	Net Change During Fiscal 2019	Balance 2019
Social Security Administration, Federal Old-Age and Survivors Insurance Trust Fund	2,801.3	3.1	2,804.4
Office of Personnel Management, Civil Service Retirement and Disability Fund	923.0	16.7	939.7
Department of Defense, Military Retirement Fund	743.4	84.0	827.4
Department of Defense, Medicare-Eligible Retiree Health Care Fund	240.2	14.0	254.2
Department of Health and Human Services, Federal Hospital Insurance Trust Fund	202.8	(4.2)	198.6
Department of Health and Human Services, Federal Supplementary Medical Insurance Trust Fund	98.2	6.5	104.7
Federal Deposit Insurance Corporation, Deposit Insurance Fund	96.4	7.6	104.0
Social Security Administration, Federal Disability Insurance Trust Fund	93.4	3.1	96.5
Department of Labor, Unemployment Trust Fund	72.6	11.8	84.4
Department of Energy, Nuclear Waste Disposal Fund	53.4	0.6	54.0
Department of Housing and Urban Development, FHA, Mutual Mortgage Insurance Capital Reserve Account	27.0	23.6	50.6
Office of Personnel Management, Employees Life Insurance Fund	46.6	1.6	48.2
Office of Personnel Management, Postal Service Retiree Health Benefits Fund	47.1	(2.5)	44.6
Pension Benefit Guaranty Corporation	31.7	5.0	36.7
Department of Transportation, Highway Trust Fund	41.2	(13.0)	28.2
Office of Personnel Management, Employees Health Benefits Fund	27.4	0.4	27.8
Department of the Treasury, Exchange Stabilization Fund	22.3	0.3	22.6
Department of State, Foreign Service Retirement and Disability Fund	19.2	0.1	19.3
Department of Housing and Urban Development, Guarantees of Mortgage-Backed Securities Capital Reserve Account	16.2	(0.5)	15.7
National Credit Union Share Insurance Fund	14.9	0.4	15.3
Department of Transportation, Airport and Airway Trust Fund	14.2	0.8	15.0
Pension Benefit Guaranty Corporation Deposit Fund	13.6	0.0	13.6
U.S. Postal Service, Postal Service Fund	10.5	(1.2)	9.3
All other programs and funds	98.4	(3.0)	95.4
Subtotal	5,755.0	155.2	5,910.2
Total net unamortized premiums/(discounts) for intragovernmental	69.9	3.2	73.1
Total intragovernmental debt holdings, net	5,824.9	158.4	5,983.3

Intragovernmental debt holdings represent the portion of the gross federal debt held as investments by government entities such as trust funds, revolving funds, and special funds.

Government entities that held investments in Treasury securities include trust funds that have funds from dedicated collections. For more information on funds from dedicated collections, see Note 20—Funds from Dedicated Collections. These intragovernmental debt holdings are eliminated in the consolidation of these financial statements.

Note 12. Federal Employee and Veteran Benefits Payable

Federal Employee and Veteran Benefits Payable as of September 30, 2019, and 2018

(In billions of dollars)	Civilian 2019	Civilian 2018	Military 2019	Military 2018	Total 2019	Total 2018
Pension and accrued benefits	2,094.1	2,048.9	1,759.2	1,621.3	3,853.3	3,670.2
Veterans compensation and burial benefits	N/A	N/A	3,129.8	2,956.3	3,129.8	2,956.3
Post-retirement health and accrued benefits	415.1	403.3	830.2	787.0	1,245.3	1,190.3
Veterans education and training benefits	N/A	N/A	105.9	65.7	105.9	65.7
Life insurance and accrued benefits	54.6	54.9	5.7	6.3	60.3	61.2
FECA benefits	29.6	27.3	8.2	8.3	37.8	35.6
Liability for other benefits	1.4	1.2	6.5	1.8	7.9	3.0
Total federal employee and veteran benefits payable	2,594.8	2,535.6	5,845.5	5,446.7	8,440.3	7,982.3

Note: "N/A" indicates not applicable.

Change in Pension and Accrued Benefits

(In billions of dollars)	Civilian 2019	Civilian 2018	Military 2019	Military 2018	Total 2019	Total 2018
Actuarial accrued pension liability, beginning of fiscal year	2,048.9	2,013.8	1,621.3	1,568.0	3,670.2	3,581.8
Pension expense:						
Prior (and past) service costs from plan amendments or new plans	-	-	-	8.9	-	8.9
Normal costs	44.0	42.3	32.3	34.2	76.3	76.5
Interest on liability	66.3	68.7	56.1	57.5	122.4	126.2
Actuarial (gains)/losses (from experience)	15.0	(2.0)	1.1	9.6	16.1	7.6
Actuarial (gains)/losses (from assumption changes)	12.5	15.8	108.9	2.1	121.4	17.9
Other	0.2	0.1	-	-	0.2	0.1
Total pension expense	138.0	124.9	198.4	112.3	336.4	237.2
Less benefits paid	(92.8)	(89.8)	(60.5)	(59.0)	(153.3)	(148.8)
Actuarial accrued pension liability, end of fiscal year	2,094.1	2,048.9	1,759.2	1,621.3	3,853.3	3,670.2

Change in Post-Retirement Health and Accrued Benefits

(In billions of dollars)	Civilian 2019	Civilian 2018	Military 2019	Military 2018	Total 2019	Total 2018
Actuarial accrued post-retirement health benefits liability, beginning of fiscal year	403.3	375.7	787.0	781.6	1,190.3	1,157.3
Post-Retirement health benefits expense:						
Prior (and past) service costs from plan amendments or new plans	-	-	-	(20.9)	-	(20.9)
Normal costs	16.3	15.8	21.5	20.5	37.8	36.3
Interest on liability	14.3	14.1	28.6	30.0	42.9	44.1
Actuarial (gains)/losses (from experience)	6.4	0.7	(15.3)	(17.2)	(8.9)	(16.5)
Actuarial (gains)/losses (from assumption changes)	(9.0)	12.9	30.1	14.7	21.1	27.6
Total post-retirement health benefits expense	28.0	43.5	64.9	27.1	92.9	70.6
Less claims paid	(16.2)	(15.9)	(21.7)	(21.7)	(37.9)	(37.6)
Actuarial accrued post-retirement health benefits liability, end of fiscal year	415.1	403.3	830.2	787.0	1,245.3	1,190.3

The government offers its employees retirement and other benefits, as well as health and life insurance. The liabilities for these benefits, which include both actuarial amounts and amounts due and payable to beneficiaries and health care carriers, apply to current and former civilian and military employees. Large fluctuations in actuarial amounts can result from changes in estimates to future outflows for benefits based on complex assumptions and cost models.

OPM administers the largest civilian plan. DOD and VA administer the largest military plans. Other significant pension plans with more than $10 billion in actuarial accrued liability include those of the Coast Guard (DHS), Foreign Service (State), TVA, and HHS's Public Health Service Commissioned Corps Retirement System. Please refer to the financial statements of the entities listed for further details regarding their pension plans and other benefits.

Change in Civilian Life Insurance and Accrued Benefits

(In billions of dollars)	2019	2018
Actuarial accrued life insurance benefits liability, beginning of fiscal year	54.9	53.1
Life insurance benefits expense:		
New entrant expense	0.5	0.6
Interest on liability	1.8	1.9
Actuarial (gains)/losses (from experience)	(0.4)	(0.6)
Actuarial (gains)/losses (from assumption changes)	(1.6)	0.5
Total life insurance benefits expense	0.3	2.4
Less costs paid	(0.6)	(0.6)
Actuarial accrued life insurance benefits liability, end of fiscal year	54.6	54.9

Significant Long-Term Economic Assumptions Used in Determining Pension Liability and the Related Expense

	Civilian				Military	
	2019		2018		2019	2018
	FERS	CSRS	FERS	CSRS		
Rate of interest	3.50%	2.90%	3.60%	3.00%	3.40%	3.50%
Rate of inflation	1.60%	1.60%	1.60%	1.60%	1.80%	1.50%
Projected salary increases	1.10%	1.10%	1.30%	1.30%	1.80%	2.00%
Cost of living adjustment	1.30%	1.60%	1.40%	1.60%	1.80%	1.50%

Significant Long-Term Economic Assumptions Used in Determining Post-Retirement Health Benefits and the Related Expense

	Civilian		Military	
	2019	2018	2019	2018
Rate of interest	3.50%	3.60%	3.50%	3.60%
Single equivalent medical trend rate	4.40%	4.50%	4.25%	4.16%
Ultimate medical trend rate	3.10%	3.20%	4.05%	4.00%

Significant Long-Term Economic Assumptions Used in Determining Life Insurance Benefits and the Related Expense

	Civilian	
	2019	2018
Rate of interest	3.30%	3.40%
Rate of increase in salary	1.10%	1.30%

The actuarial accrued liability represents an estimate of the present value of the cost of benefits that have accrued, determined based on future economic and demographic assumptions. Actuarial accrued liabilities can vary widely from year to year, due to actuarial gains and losses that result from changes to the assumptions and from experience that has differed from prior assumptions.

In accordance with SFFAS No. 33, *Pension, Other Retirement Benefits, and Other Postemployment Benefits: Reporting the Gains and Losses from Changes in Assumptions and Selecting Discount Rates and Valuation Dates*, entities are required to separately present gains and losses from changes in long-term assumptions used to estimate liabilities associated with pensions, ORB, and OPEB on the Statement of Net Cost. SFFAS No. 33 also provides a standard for selecting the discount rate assumption for present value estimates of federal employee pension, ORB, and OPEB liabilities. The SFFAS No. 33 standard for selecting the discount rate assumption requires it be based on a historical average of interest rates on marketable Treasury securities consistent with the cash flows being discounted. Additionally, SFFAS No. 33 provides a standard for selecting the valuation date for estimates of federal employee pension, ORB, and OPEB liabilities that establishes a consistent method for such measurements.

To provide a sustainable, justifiable data resource for the affected entities, Treasury developed a new model and methodology for developing these interest rates in fiscal year 2014. The model is based on the methodology used to produce the HQM Yield Curve pursuant to the *Pension Protection Act of 2006*.[2] As of July 2014, Treasury began releasing interest rate yield curve data using this new Treasury's TNC yield curve, which is derived from Treasury notes and bonds. The TNC yield curve provides information on Treasury nominal coupon issues and the methodology extrapolates yields beyond 30 years through 100 years maturity. The TNC yield curve is used to produce a Treasury spot yield curve (a zero coupon curve), which provides the basis for discounting future cash flows.

Civilian Employees

Pensions

OPM administers the largest civilian pension plan, which covers substantially all full-time, permanent civilian federal employees. This plan includes two components of defined benefits, the CSRS and the FERS. The basic benefit components of the CSRS and the FERS are financed and operated through the CSRDF, a trust fund. CSRDF monies are generated primarily from employees' contributions, federal entity contributions, payments from the General Fund, and interest on investments in Treasury securities. As of September 30, 2019, USPS has accrued, but not paid OPM, $8.2 billion in CSRS and FERS retirement benefit expenses since 2014.

The FRTIB administers the TSP. The TSP investment options include two fixed income funds (the G and F Funds), three stock funds (the C, S, and I Funds) and five lifecycle funds (L 2050, L 2040, L 2030, L 2020, and L Income). The L Funds diversify participant accounts among the G, F, C, S, and I Funds, using professionally determined investment mixes (allocations) that are tailored to different time horizons. Treasury securities held in the G Fund are included in federal debt securities held by the public and accrued interest on the Balance Sheet. The G Fund held $243.4 billion and $245.5 billion in nonmarketable Treasury securities as of September 30, 2019, and 2018, respectively.

The actuarial liability for civilian pension and accrued benefits payable increased $45.2 billion. This increase is partly attributable to changes in actuarial assumptions. The assumption loss results primarily from decreases to the assumed rates of interest, which was partly offset by a modest gain from changes to the assumed rates of salary increases and FERS annuitant COLA.

Post-Retirement Health Benefits

The post-retirement civilian health benefit liability is an estimate of the government's future cost of providing post-retirement health benefits to current employees and retirees. Although active and retired employees pay insurance premiums under the Federal Employee Health Benefits Program, these premiums cover only a portion of the costs. The OPM actuary applies economic and demographic assumptions to historical cost information to estimate the liability.

As of September 30, 2019, the USPS has accrued but not paid to the Postal Service Retiree Health Benefits Fund $47.2 billion in payments required under the *Postal Accountability and Enhancement Act of 2006* (P.L. 109-435, Title VIII). As of September 30, 2019, USPS has indicated payment of the total $47.2 billion due will remain open. The cost for each year's payment, including defaulted payments, along with all other benefit program costs, are included in USPS' net cost for that year in the consolidated Statements of Net Cost. The liability is not included on the governmentwide balance sheet due to the USPS liability being eliminated with the OPM receivable.

The post-retirement civilian health benefit liability increased $11.8 billion. This increase is due to the accruing cost of benefits and interest on the existing liability, slightly offset by an actuarial gain primarily attributable to updated cost curve, retirement plan choice assumptions and population changes.

Life Insurance Benefits

One of the other significant employee benefits is the FEGLI Program. Employee and annuitant contributions and interest on investments fund a portion of this liability. The actuarial life insurance liability is the expected present value of future benefits to pay to, or on behalf of, existing FEGLI participants, less the expected present value of future contributions to be collected from those participants. The OPM actuary uses salary increase and interest rate yield curve assumptions that are generally consistent with the pension liability.

As of September 30, 2019, the total amount of FEGLI insurance in-force is estimated at $711.5 billion ($608.5 billion for employees and $103.0 billion for annuitants).

[2] Treasury's HQM resource is available at: https://www.treasury.gov/resource-center/economic-policy/corp-bond-yield/Pages/Corp-Yield-Bond-Curve-Papers.aspx.

Workers' Compensation Benefits

DOL determines both civilian and military entities' liabilities for future workers' compensation benefits for civilian federal employees, as mandated by the FECA, for death, disability, medical, and miscellaneous costs for approved compensation cases, and a component for incurred, but not reported, claims. The FECA liability is determined annually using historical benefit payment patterns related to injury years to predict the future payments.

The actuarial methodology provides for the effects of inflation and adjusts historical payments to constant dollars by applying wage inflation factors (COLA) and medical inflation factors (CPIM) to the calculation of projected benefits.

DOL selects the COLA factors, CPIM factors, and discount rate by averaging the COLA rates, CPIM rates, and interest rates for the current and prior four years. Using averaging renders estimates that reflect historical trends over five years instead of conditions that exist in one year.

The COLAs and CPIMs used in the projections for fiscal year 2019 are listed below in the table.

Fiscal Year	COLA	CPIM
2020	1.47%	2.86%
2021	1.85%	3.05%
2022	2.12%	3.09%
2023	2.17%	3.47%
2024+	2.21%	3.88%

DOL selected the interest rate assumptions whereby projected annual payments were discounted to present value based on interest rate assumptions on the TNC Yield Curve to reflect the average duration of income payments and medical payments. The average durations for income payments and medical payments were 14.8 years and 9.3 years, respectively. Based on averaging the TNC Yield Curves for the current and prior four years, the interest rate assumptions for income payments and medical payments were 2.61% and 2.35%, respectively.

For the COLAs, CPIMs, average durations, and interest rate assumptions used in the projections for fiscal year 2018, refer to the fiscal year 2018 *Financial Report.*

Military Employees (Including Veterans)

Pensions

The Military Retirement System consists of a funded, noncontributory, defined benefit plan for military personnel (Services of Army, Navy, Air Force, and the Marine Corps) with an entry date prior to January 1, 2018 and the BRS, generally for military personnel with an entry date on or after January 1, 2018. The defined benefit plan includes non-disability retired pay, disability retired pay, survivor annuity programs, and Combat-Related Special Compensation. The Service Secretaries may approve immediate non-disability retired pay at any age with credit of at least 20 years of active duty service. Reserve retirees must be at least 60 years old and have at least 20 qualifying years of service before retired pay commences; however, in some cases, the age can be less than 60 if the reservist performs certain types of active service. P.L. 110-181 provides for a 90-day reduction in the reserve retirement age from age 60 for every 3 months of certain active duty service served within a fiscal year for service after January 28, 2008 (not below age 50). There is no vesting of defined benefits before non-disabled retirement. There are distinct non-disability benefit formulas related to four populations within the Military Retirement System: Final Pay, High-3, Career Status Bonus/Redux, and the BRS enacted in the *National Defense Authorization Act for Fiscal Year 2016*, effective January 1, 2018. The BRS is a new retirement benefit merging aspects of both a defined benefit annuity with a defined contribution account, through the TSP. The date an individual enters the military generally determines which retirement system they would fall under and if they have the option to select, via a one-time irrevocable election, their retirement system. Military personnel with a start date on or after January 1, 2018 are automatically enrolled in BRS. Although all members serving as of December 31, 2017 were grandfathered under the prior retirement system, Active Duty, National Guard and Reserve personnel meeting established criteria may have opted into BRS during calendar year 2018. Under the BRS, retiring members are given the option to receive a portion of their retired pay annuity in the form of a lump sum distribution. For more information on these benefits, see DOD's Office of Military Compensation website https://militarypay.defense.gov.

The DOD Military Retirement Fund was established by P.L. 98-94 (currently Chapter 74 of Title 10, U.S.C.) and accumulates funds to finance, on an accrual basis, the liabilities of DOD military retirement and survivor benefit programs. This Fund receives income from three sources: monthly normal cost payments from the Services to pay for DOD's portion of the current year's service cost; annual payments from the Treasury to amortize the unfunded liability and pay for the increase in the normal cost attributable to Concurrent Receipt (certain beneficiaries with combat-related injuries who are receiving payments from VA) per P.L. 108-136; and investment income.

The $137.9 billion increase in the Military Retirement Pension liability is primarily attributable to actuarial losses from assumptions changes, specifically, an increase in the assumed rate of future COLAs and decrease in the assumed rate of future interest.

Post-Retirement Health Benefits

Military retirees who are not yet eligible for Medicare (and their non-Medicare eligible dependents) are eligible for post-retirement medical coverage provided by DOD. Depending on the benefit plan selected, retirees and their eligible dependents may receive care from MTFs on a space-available basis or from civilian providers. This TRICARE coverage is available as Select (a preferred provider organization – a health plan that contracts with medical providers to create a network of participating providers; member cost-shares are typically higher for services received out-of-network) and PRIME (a health maintenance organization- a health plan that limits services to a specific network of medical personnel and facilities and usually by requiring referral by a primary-care physician for specialty care; coverage is also available for non-referred and out-of-network care, subject to higher cost-sharing). These postretirement medical benefits are paid by the Defense Health Agency on a pay-as-you-go basis.

Since fiscal year 2002, DOD has provided medical coverage to Medicare-eligible retirees (and their eligible Medicare-eligible dependents). This coverage, called TFL, is a Medicare Supplement plan which includes inpatient, outpatient and pharmacy coverage. Enrollment in Medicare Part B is required to maintain eligibility in TFL. Retirees with TFL coverage can obtain care from MTFs on a space-available basis or from civilian providers.

10 U.S.C., Chapter 56 created the DOD MERHCF, which became operative on October 1, 2002. The purpose of this fund is to account for and accumulate funds for the health benefit costs of Medicare-eligible military retirees, and their dependents and survivors who are Medicare eligible. The Fund receives revenues from three sources: interest earnings on MERHCF assets, Uniformed Services normal cost contributions, and Treasury contributions. The DOD Medicare-Eligible Retiree Health Care Board of Actuaries (the MERHCF Board) approves the methods and assumptions used in actuarial valuations of the MERHCF for the purpose of calculating the per capita normal cost rates (to fund the annual accrued benefits) and determining the unfunded liability amortization payment (the U.S. Treasury contribution). The Secretary of Defense directs the Secretary of Treasury to make DOD's normal cost payments. The MERHCF pays for medical costs incurred by Medicare-eligible beneficiaries at MTFs and civilian providers (including payments to U.S. Family Health Plans for grandfathered beneficiaries), plus the costs associated with claims administration.

DOD's actuaries calculate the actuarial liabilities annually using assumptions and experience (e.g., mortality and retirement rates, health care costs, medical trend rates, and the discount rate). Actuarial liabilities are calculated for all DOD retiree medical benefits, including both the benefits funded through the MERHCF as well as the benefits for pre-Medicare retirees who are paid on a pay-as-you-go basis. Military post-retirement health and accrued benefits payable increased $43.2 billion. This increase is due primarily to changes in actuarial assumptions and normal and interest costs, offset by changes due to benefit outlays and favorable recent claims experience. The change in actuarial assumptions totaling $30.1 billion is attributable to a $14.7 billion loss resulting from an increase in average medical trends and a $15.4 billion loss due to other assumption changes.

In addition to the health care benefits the federal government provides for civilian and military retirees and their dependents, the VA also provides medical care to veterans on an "as available" basis, subject to the limits of the annual appropriations. In accordance with 38 CFR 17.36(c), VA's Secretary makes an annual enrollment decision that defines the veterans, by priority, who will be treated for that fiscal year subject to change based on funds appropriated, estimated collections, usage, the severity index of enrolled veterans, and changes in cost. While VA expects to continue to provide medical care to veterans in future years, an estimate of such future benefits cannot be reasonably made. Accordingly, medical care expenses are recognized in the period the medical care services are provided and included on the Statement of Net Cost. For the fiscal years 2015 through 2019, the average medical care cost per year was $68.5 billion.

Veterans Compensation and Burial Benefits

The government compensates disabled veterans and their survivors. Veterans' compensation is payable as a disability benefit or a survivor's benefit. Entitlement to compensation depends on the veteran's disabilities incurred in or aggravated during active military service, death while on duty, or death resulting from service-connected disabilities after active duty.

Eligible veterans who die or are disabled during active military service-related causes, as well as their dependents, and dependents of service members who died during active military service, receive compensation benefits. In addition, service members who die during active military service and veterans who separated under other than dishonorable conditions are provided with a burial flag, headstone/marker, and grave liner for burial in a VA national cemetery or are provided a burial flag, headstone/marker and a plot allowance for burial in a private cemetery. These benefits are provided under 38 U.S.C., Part 2, Chapter 23 in recognition of a veteran's military service and are recorded as a liability in the period the requirements are met.

The liability for veterans' compensation and burial benefits payable is based on an actuarial estimate of future compensation and burial payments. It increased by $173.5 billion in fiscal year 2019. The $173.5 billion increase is primarily attributable to experience losses and assumption changes. The major impact of experience losses was an increase in veterans who first became eligible for benefits during fiscal year 2019. The major impact of losses from assumption changes was due to a decrease in the discount rate.

Several significant actuarial assumptions were used in the valuation of compensation and burial benefits to calculate the present value of the liability. A liability was recognized for the projected benefit payments to: 1) those beneficiaries, including veterans and survivors, currently receiving benefit payments; 2) current veterans who are expected in the future to become beneficiaries of the compensation program; and 3) a proportional share of those in active military service as of the valuation date who are expected to be future veterans and to become beneficiaries of the compensation program. Future benefit payments to survivors of those veterans in classes 1, 2, and 3 above are also incorporated into the projection. Additionally, on June 25, 2019, the President signed into law the *Blue Water Navy Vietnam Veterans Act of 2019* (P.L. 116-23) which extends the presumption of herbicide exposure, such as Agent Orange, to veterans who served in the offshore of the Republic of Vietnam between January 9, 1962 and May 7, 1975. The estimated cost of P.L. 116-23 was included as part of the prior service costs in the fiscal year 2019 liability estimate. The projected liability does not include any administrative costs.

The veterans' compensation and burial benefits liability is developed on an actuarial basis. It is impacted by interest on the liability balance, experience gains or losses, changes in actuarial assumptions, prior service costs, and amounts paid for costs included in the liability balance.

Change in Veterans Compensation and Burial Benefits

	Compensation		Burial		Total	
(In billions of dollars)	2019	2018	2019	2018	2019	2018
Actuarial accrued liability, beginning of fiscal year	2,949.1	2,805.1	7.2	4.9	2,956.3	2,810.0
Current year expense:						
Interest on the liability balance	103.8	102.7	0.3	0.2	104.1	102.9
Prior (and past) service costs from program amendments or new programs during the period	20.7	14.3	-	-	20.7	14.3
Actuarial (gains)/losses (from experience)	121.2	45.5	(0.1)	(0.1)	121.1	45.4
Actuarial (gains)/losses (from assumption changes)	20.9	66.8	-	2.4	20.9	69.2
Total current year expense	266.6	229.3	0.2	2.5	266.8	231.8
Less benefits paid	(93.0)	(85.3)	(0.3)	(0.2)	(93.3)	(85.5)
Actuarial accrued liability, end of fiscal year	3,122.7	2,949.1	7.1	7.2	3,129.8	2,956.3

Significant Economic Assumptions Used in Determining Veterans Compensation and Burial Benefits as of September 30, 2019, and 2018

	2019	2018
Rate of interest	3.42%	3.52%
Rate of inflation	2.23%	2.28%

Veterans Education and Training Benefits

For eligible Veterans and their dependents, the VA provides four education/retraining type programs:

- Post 9/11 GI Bill
- Montgomery GI Bill-Active Duty
- VR&E
- Survivors' & Dependents' Educational Assistance

Based on the actuarial estimates of future payments, the total liability for the four education and training programs increased by $40.2 billion in fiscal year 2019. The $40.2 billion increase is primarily attributable to experience losses and assumption changes. The addition of new projections for inclusion of future new enrollees in its actuarial models significantly increased the current year expenses and is included in the actuarial losses from assumption changes.

Prior to fiscal year 2019, the education actuarial modeling estimates were based only on enrollees who had already started to use their benefits and did not include assumptions for potential future new enrollees as an input to calculate the estimated liability. However, based on experience, it was probable that new enrollees would enroll in these programs in future years and that the associated liability needed to be recognized. However, during the fiscal year 2018, there was no reliable and credible experience data about new enrollees that could be used to develop an accurate estimate. As a result, a $12.0 billion adjustment was made outside of the model to account for the potential new enrollees in the next year. That adjustment was based on the number of new enrollees who began to use their Post-9/11 GI Bill benefits in fiscal year 2018.

In fiscal year 2019, VA conducted an in-depth experience study to refine the impact of the potential new enrollee assumption to be used in the estimates. As a result of the in-depth study, VA's September 30, 2019 education and training liability now includes an estimate of $48.3 billion for potential new enrollees who are eligible for Post-9/11 GI Bill and VR&E benefits.

For details regarding actuarial assumptions and the four education and training type programs, please refer to VA's financial statements.

Change in Veterans Education and Training Benefits

(In billions of dollars)	2019	2018
Actuarial accrued liability, beginning of fiscal year	65.7	50.7
Current year expense:		
Interest on liability	1.5	1.3
Actuarial (gains)/losses (from experience)	12.7	14.6
Actuarial (gains)/losses (from assumption changes)	37.1	10.0
Total current year expense	51.3	25.9
Less benefits paid	(11.1)	(10.9)
Actuarial accrued liability, end of fiscal year	105.9	65.7

Life Insurance Benefits

The largest veterans' life insurance programs consist of the following:

- NSLI covers policyholders who served during World War II.
- VSLI was established in 1951 to meet the insurance needs of veterans who served during the Korean Conflict and through the period ending January 1, 1957.
- S-DVI program was established in 1951 to meet the insurance needs of veterans who received a service-connected disability rating.

The components of veteran life insurance liability for future policy benefits are presented below:

Veterans Life Insurance Liability as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Insurance death benefits:		
NSLI	1.8	2.3
VSLI	1.0	1.1
S-DVI	0.8	0.7
Other	0.3	0.3
Total death benefits	3.9	4.4
Disability income & waiver	0.8	0.8
Insurance dividends payable	0.8	0.9
Unpaid policy claims	0.2	0.2
Total veterans life insurance liability	5.7	6.3

Death benefit liabilities consist of reserves for permanent plan and term policies as well as policy benefits for Veterans Mortgage Life Insurance. Disability income and waiver liabilities consist of reserves to fund the monthly payments to disabled insureds under the Total Disability Income Provision and the policy premiums waived for qualifying disabled veterans. Insurance dividends payable consists of dividends left on deposit with VA and dividends payable to policyholders. Unpaid policy claims consists of insurance claims that are pending at the end of the reporting period, an estimate of claims that have been incurred but not yet reported, and disbursements in transit.

The VA supervises SGLI and Veterans Group Life Insurance programs that provide life insurance coverage to members of the uniformed armed services, reservists, and post-Vietnam Veterans as well as their families. VA has entered into a group policy with the Prudential Insurance Company of America to administer and provide the insurance payments under these programs. All SGLI insureds are automatically covered under the Traumatic Injury Protection program, which provides for insurance payments to veterans who suffer a serious traumatic injury in service.

The amount of insurance in-force is the total face amount of life insurance coverage provided by each administered and supervised program at the end of the fiscal year. It includes any paid-up additional coverage provided under these policies. The supervised programs' policies and face values are not reflected in VA's liabilities because the risk of loss on these programs is assumed by Prudential and its reinsurers through the terms and conditions of the group policy. As a result, the information provided for the supervised programs is for informational purposes only and is unaudited. The face value for supervised programs as of September 30, 2019, and 2018, was $1,167.3 billion and $1,207.8 billion, respectively. The face value for administered programs as of September 30, 2019, and 2018, was $6.6 billion and $7.3 billion, respectively. The face value of the insurance provided by Prudential and its reinsurers represents 99 percent of the total insurance in-force for both fiscal years 2019 and 2018.

Pension Benefits

The VA also provides certain veterans and/or their dependents with pension benefits, based on annual eligibility reviews. The pension program for veterans is not accounted for as a "federal employee pension plan" under SFFAS No. 5, *Accounting for Liabilities of the Federal Government* due to differences between its eligibility conditions and those of federal employee pensions. Therefore, a future liability for pension benefits is not recorded. VA pension liabilities are recognized when due and payable. The projected amounts of future payments for pension benefits (presented for informational purposes only) as of September 30, 2019, and 2018, was $100.2 billion and $104.8 billion, respectively.

Liability for Other Benefits

Liability for other benefits includes several programs. The largest program is VA's Community Care Program, with an estimated liability of $4.7 billion.

Note 13. Environmental and Disposal Liabilities

Environmental and Disposal Liabilities as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Department of Energy	505.3	494.0
Department of Defense	76.1	70.4
All other entities	14.0	12.9
Total environmental and disposal liabilities	595.4	577.3

During World War II and the Cold War, DOE (or predecessor entities) developed a massive industrial complex to research, produce, and test nuclear weapons. This included nuclear reactors, chemical-processing buildings, metal machining plants, laboratories, and maintenance facilities.

At all sites where these activities took place, some environmental contamination occurred. This contamination was caused by the production, storage, and use of radioactive materials and hazardous chemicals, which resulted in contamination of soil, surface water, and groundwater. The environmental legacy of nuclear weapons production also includes thousands of contaminated buildings and large volumes of waste and special nuclear materials requiring treatment, stabilization, and disposal.

Estimated cleanup costs at sites for which there are no current feasible remediation approaches are excluded from the estimates, although applicable stewardship and monitoring costs for these sites are included. DOE has not been required through regulation to establish remediation activities for these sites.

Estimating DOE’s environmental cleanup liability requires making assumptions about future activities and is inherently uncertain. The future course of DOE’s environmental cleanup and disposal will depend on a number of fundamental technical and policy choices, many of which have not been made. Some sites and facilities could be restored to a condition suitable for any desirable use or could be restored to a point where they pose no near-term health risks to the surrounding communities. Achieving the former condition of the sites and facilities would have a higher cost but these costs may be warranted in some cases or may be legally required. The environmental and disposal liability estimates include contingency estimates intended to account for the uncertainties associated with the technical cleanup scope of the program. Congressional appropriations at lower than anticipated levels, or lack of congressional approval, unplanned delays in project completions, unforeseen technical issues, among other things, could cause increases in life-cycle costs.

DOE’s environmental and disposal liabilities also include the estimated cleanup and post-closure responsibilities, including surveillance and monitoring activities, soil and groundwater remediation, and disposition of excess material for sites. DOE is responsible for the post-closure activities at many of the closure sites as well as other sites. The costs for these post-closure activities are estimated for a period of 75 years after the balance sheet date, i.e., through 2094 in fiscal year 2019 and through 2093 in fiscal year 2018. While some post-cleanup monitoring and other long-term stewardship activities post-2094 are included in the liability, there are others DOE expects to continue beyond 2094 for which the costs cannot reasonably be estimated.

A portion of DOE’s environmental and disposal liabilities at various field sites includes anticipated costs for facilities managed by DOE’s ongoing program operations, which will ultimately require stabilization, deactivation, and decommissioning. The estimate is largely based upon a cost-estimating model. Site specific estimates are used in lieu of the cost-estimating model, when available. Cost estimates for ongoing program facilities are updated each year. For facilities newly contaminated since fiscal year 1997, cleanup costs allocated to future periods and not included in environmental and disposal liabilities amounted to $0.9 billion for both fiscal years 2019 and 2018.

The predominant change in DOE's environmental liabilities estimates in fiscal year 2019 resulted from inflation adjustments to reflect constant dollars for the current year; improved and updated estimates for the same scope of work, including changes resulting from deferral or acceleration of work; revisions in technical approach or scope, including additional contamination; updated estimates of projected waste volumes; legal and regulatory changes; and cleanup activities performed. In fiscal year 2019, the Mixed Oxide project was terminated. DOE transitioned to using the dilute and dispose approach for plutonium disposition which, in turn, lowered the related costs.

Please refer to the financial statements of DOE for detailed information regarding DOE's environmental and disposal liabilities, including cleanup costs.

DOD must restore active installations, installations affected by base realignment and closure, and other areas formerly used as DOD sites. DOD also bears responsibility for disposal of chemical weapons and environmental costs associated with the disposal of weapons systems (primarily nuclear powered aircraft carriers and submarines).

DOD follows the *Superfund Amendments and Reauthorization Act*, CERCLA, RCRA and other applicable federal or state laws to clean up contamination. The CERCLA and RCRA require DOD to clean up contamination in coordination with regulatory entities, current owners of property damaged by DOD, and third parties that have a partial responsibility for the environmental restoration. Failure to comply with agreements and legal mandates puts the DOD at risk of incurring fines and penalties.

DOD uses engineering estimates and independently validated models to estimate environmental costs. The engineering estimates are based upon extensive data obtained during the remedial investigation/feasibility phase of the environmental project.

For general PP&E placed into service after September 30, 1997, DOD expenses associated environmental costs systematically over the life of the asset using two methods: physical capacity for operating landfills and life expectancy in years for all other assets. DOD expenses the full cost to clean up contamination for stewardship PP&E at the time the asset is placed into service. DOD has expensed the costs for cleanup associated with general PP&E placed into service before October 1, 1997, except for costs intended to be recovered through user charges; for those costs, DOD has expensed cleanup costs associated with that portion of the asset life that has passed since it was placed into service. DOD systematically recognizes the remaining cost over the remaining life of the asset. The unrecognized portion of the estimated total cleanup costs associated with disposal of general PP&E was $4.3 billion and $4.8 billion as of September 30, 2019 and 2018, respectively.

DOD is unable to estimate and report a liability for environmental restoration and corrective action for buried chemical munitions and agents, because the extent of the buried chemical munitions and agents is unknown at this time. DOD is also unable to provide a complete estimate for the Formerly Utilized Sites Remedial Action Program. DOD has ongoing studies and will update its estimate as additional liabilities are identified. DOD has the potential to incur costs for restoration initiatives in conjunction with returning overseas DOD facilities to host nations. However, DOD is unable to provide a reasonable estimate at this time because the extent of required restoration is unknown.

Please refer to the financial statements of DOD for further information regarding DOD's environmental and disposal liabilities, including cleanup costs.

Note 14. Benefits Due and Payable

Benefits Due and Payable as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Federal Old-Age and Survivors Insurance	79.8	75.1
Grants to States for Medicaid	37.1	35.6
Federal Supplementary Medical Insurance (Medicare Parts B and D)	37.1	30.7
Federal Hospital Insurance (Medicare Part A)	34.4	31.5
Federal Disability Insurance	22.4	24.6
All other benefits programs	12.8	13.6
Total benefits due and payable	223.6	211.1

Benefits due and payable are amounts owed to program recipients or medical service providers as of September 30 that have not been paid. Most of the benefits due and payable relate to programs administered by HHS and SSA. For a description of the programs, see Note 22—Social Insurance and the unaudited RSI—Social Insurance section.

Note 15. Insurance and Guarantee Program Liabilities

Insurance and Guarantee Program Liabilities as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Insurance and Guarantee Program Liabilities:		
Defined Benefit Pension Plans - Pension Benefit Guaranty Corporation	181.1	158.0
Federal Crop Insurance - Department of Agriculture	8.9	10.3
National Flood Insurance Programs - Department of Homeland Security	3.4	1.7
Ginnie Mae's Mortgage-Backed Securities - Department of Housing and Urban Development	1.0	-
Other insurance and guarantee programs	0.1	0.2
Total insurance and guarantee program liabilities	194.5	170.2

The federal government incurs liabilities related to various insurance and guarantee programs as detailed in the table above. Note 18—Contingencies includes a discussion of contingencies and other risks related to significant insurance and guarantee programs. Insurance information, and related liability, concerning federal employee and veteran benefits is included in Note 12—Federal Employee and Veteran Benefits Payable. Social insurance and loan guarantees are not considered insurance under SFFAS No. 51, *Insurance Programs*. Loan guarantees are disclosed in Note 4—Loans Receivable and Loan Guarantee Liabilities, Net, and social insurance information is included primarily in the sustainability financial statements and in Note 22—Social Insurance.

Insurance and guarantee program liabilities are recognized for known losses and contingent losses to the extent that the underlying contingency is deemed probable and a loss amount is reasonably measurable. Please see Note 18—Contingencies for discussion on the meaning of "probable" depending on the accounting framework used by each significant consolidation entity. As discussed in Note 1.L—Insurance and Guarantee Program Liabilities, certain significant consolidation entities (i.e., PBGC and FDIC) apply FASB standards, and such entities, as permitted by SFFAS No. 47, *Reporting Entity*, are consolidated into the U.S. government's consolidated financial statements without conversion to FASAB standards. PBGC administers the largest insurance and guarantee program liability, the Defined Benefit Pension Plans, and applies FASB standards.

As of September 30, 2019, and 2018, $181.1 billion and $158.0 billion, respectively, pertain to pension plans in PBGC's single-employer and multi-employer programs. PBGC insures pension benefits for participants in covered defined benefit pension plans. The total increase of $23.1 billion in PBGC's liability for insured pension plans includes increases of $11.2 billion and $11.9 billion for single-employer and multi-employer plans, respectively. For both single-employer and multi-employer programs, the increases were primarily driven by changes in actuarial assumptions related to changes in interest factors. As of September 30, 2019, and 2018, PBGC had total liabilities of $187.4 billion and $163.7 billion, and its total liabilities exceeded its total assets by $56.5 billion and $51.4 billion, respectively. Refer to PBGC's financial statements for more information and to Note 18—Contingencies for additional information regarding insurance contingencies and exposure. PBGC is currently assessing the effect of the legislation enacted subsequent to September 30, 2019 on its liabilities and contingency disclosures. Please see Note 27—Subsequent Events for additional information.

As of September 30, 2019, and 2018, $8.9 billion and $10.3 billion, respectively, pertain to USDA's Federal Crop Insurance Program. The Federal Crop Insurance Program is administered by the Federal Crop Insurance Corporation, who provides insurance to reduce agricultural producers' economic losses due to natural disasters.

As of September 30, 2019, and 2018, $3.4 billion and $1.7 billion, respectively, pertain to the DHS NFIP. The NFIP insurance liability represents an estimate based on the loss and loss adjustment expense factors inherent to the NFIP Insurance Underwriting Operations, including trends in claim severity and frequency. The estimate is driven primarily by flooding activity in the U.S. and can vary significantly year over year depending on the timing and severity of flooding activity.

As of September 30, 2019, $1.0 billion pertains to the HUD Ginnie Mae's MBS program. Ginnie Mae's MBS program is an exchange transaction insurance program other than life insurance under SFFAS No. 51. Ginnie Mae's MBS program guarantees the timely payment of principal and interest on securities backed by pools of mortgage loans insured by FHA, Public and Indian Housing, and Rural Housing Service, or guaranteed by the VA.

Note 16. Other Liabilities

Other Liabilities as of September 30, 2019, and 2018 (In billions of dollars)	2019	Restated 2018
Liability for advances and prepayments	111.3	99.3
Other liabilities without related budgetary obligations	64.0	54.7
Other deferred revenue	63.7	62.2
Contingent liabilities	50.9	51.8
Allocation of special drawing rights	48.1	49.3
Other liabilities with related budgetary obligations	40.0	38.5
Actuarial liabilities for Treasury-managed benefits program	35.1	32.4
Unfunded leave	21.3	20.5
Accrued funded payroll and leave	20.3	18.8
Liability for non-fiduciary deposit funds and undeposited collections	14.0	12.2
Other miscellaneous liabilities	41.6	39.2
Total other liabilities	510.3	478.9

Other liabilities are the amounts owed to the public for goods and services provided but not paid for. Other liabilities are liabilities not reported elsewhere in the balance sheet and are presented on a comparative basis by major category.

- Liability for advances and prepayments are the amounts of payments received in advance of performance of activities for which revenue has not been earned.
- Other liabilities without related budgetary obligations represent those unfunded liabilities for which Congressional action is needed before budgetary resources can be provided.
- Other deferred revenue are the amounts of revenue or income received but not yet earned not otherwise classified as advances or prepayments.
- Contingent liabilities are amounts that are recognized as a result of a past event where a future outflow or sacrifice of resource is probable and measurable.
- Allocation of SDRs are the amounts of corresponding liability representing the value of the reserve assets allocated by the IMF to meet global needs to supplement existing reserve assets. SDRs derive their quality as reserve assets from the undertakings of the members to accept them in exchange for “freely useable” currencies (the U.S. dollar, European euro, Japanese Yen, and British pound sterling).
- Other liabilities with related budgetary obligations are amounts of liabilities for which there is a related budgetary obligation.
- Actuarial liabilities for Treasury-managed benefit programs are the amounts recorded by Treasury for actuarial liabilities of future benefit payments to be paid from programs such as the D.C. Federal Pension Fund and the D.C. Judicial Retirement Fund.
- Unfunded leave are the amounts recorded by an employer federal entity for unpaid leave earned that an employee is entitled to upon separation and that will be funded by future years’ budgetary resources.
- Accrued funded payroll and leave are the estimated amounts of liabilities for salaries, wages and funded annual leave and sick leave that have been earned but are unpaid.
- Liability for non-fiduciary deposit funds and undeposited collections are the amounts of offsetting undeposited collections and collections deposited in non-fiduciary deposit funds awaiting disposition.
- Other miscellaneous liabilities are the liabilities not otherwise classified above. Many entities reported relatively small amounts.

This new presentation for fiscal years 2018 and 2019 provides a more transparent view of the significant line items for Other Liabilities.

The entities below are listed in order of significance and comprise 95.2 percent of the government's reported Other Liabilities of $510.3 billion as of September 30, 2019. Please refer to the entities' financial statements for additional details.

- DOE
- SAA
- Treasury
- HHS
- DOD
- DOL
- DOJ
- USDA
- DOT
- DHS
- USPS
- PBGC
- VA
- TVA
- EPA
- DOI
- State
- FCC
- Education

Certain amounts related to DOD have been restated which resulted in a $0.1 billion decrease of Other Liabilities. The corrections were a result of an identified overstatement during fiscal year 2018 for the Liability for advances and prepayments.

Note 17. Collections and Refunds of Federal Revenue

Collections of Federal Tax Revenue for the Year Ended September 30, 2019

(In billions of dollars)	Federal Tax Revenue Collections	Tax Year to Which Collections Relate			
		2019	2018	2017	Prior Years
Individual income tax and tax withholdings	3,176.4	2,023.0	1,087.9	37.3	28.2
Corporate income taxes	277.1	181.6	85.3	4.1	6.1
Excise taxes	105.0	69.6	35.0	0.1	0.3
Unemployment taxes	39.6	33.0	6.5	-	0.1
Customs duties	74.8	74.8	-	-	-
Estate and gift taxes	17.6	0.8	13.7	1.5	1.6
Railroad retirement taxes	6.2	4.8	1.4	-	-
Fines, penalties, interest, and other revenue	7.4	7.4	-	-	-
Subtotal	3,704.1	2,395.0	1,229.8	43.0	36.3
Less: amounts collected for non-federal entities	(0.5)				
Total	3,703.6				

Treasury is the government's principal revenue-collecting entity. Collections of individual income and tax withholdings include FICA/SECA and individual income taxes. These taxes are characterized as non-exchange revenue.

Excise taxes, also characterized as non-exchange revenue, consist of taxes collected for various items, such as airline tickets, gasoline products, distilled spirits and imported liquor, tobacco, firearms, and others.

Tax and other revenues reported reflect the effects of tax expenditures, which are special exclusions, exemptions, deductions, tax credits, preferential tax rates, and tax deferrals that allow individuals and businesses to reduce taxes they may otherwise owe. The *Congressional Budget Act of 1974* (P.L. 93-344 or Budget Act) requires that a list of tax expenditures be included in the annual Budget. Tax expenditures may be viewed as alternatives to other policy instruments, such as spending or regulatory programs. For example, the government supports college attendance through both spending programs and tax expenditures. The government uses Pell Grants to help low- and moderate-income students afford college and allows certain funds used to meet college expenses to grow tax free in special college savings accounts.

Tax expenditures include deductions and exclusions, which reduce the amount of income subject to tax. Examples are the deduction for mortgage interest on personal residences and the exclusion of interest on state and local bonds. Tax expenditures also include tax credits, which reduce tax liability dollar for dollar for the amount of credit. For example, the child tax credit reduces liability by $2,000 per child for taxpayers eligible to use it fully. Other credits are targeted at business activity, such as credits for producing electricity from renewable energy or the research and experimentation credit, which encourages businesses in the U.S. to increase investment in research activities. In addition, tax expenditures include some provisions that allow taxpayers to defer tax liability. Examples include provisions that allow immediate expensing or accelerated depreciation of certain capital investments, and others that allow taxpayers to defer their tax liability, such as the deferral of recognition of income on contributions to and income accrued within qualified retirement plans.

The Total Revenues reported in the Statement of Operations and Changes in Net Position and the related information reported in this note, do not include explicit line items for tax expenditures, but the total revenue amounts and budget results reflect the effect of these expenditures. Tax expenditures are discussed in this note, the unaudited MD&A, and in the unaudited Other Information section of the *Financial Report*.

Federal Tax Refunds Disbursed for the Year Ended September 30, 2019

(In billions of dollars)	Refunds Disbursed	Tax Year to Which Refunds Relate 2019	2018	2017	Prior Years
Individual income tax and tax withholdings	397.8	58.1	301.0	30.1	8.6
Corporate income taxes	51.3	3.9	14.8	10.7	21.9
Other taxes, fines, and penalties	6.1	2.2	2.1	0.8	1.0
Total	455.2	64.2	317.9	41.6	31.5

Reconciliation of Revenue to Tax Collections for the Year Ended September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Consolidated revenue per the Statement of Operations and Changes in Net Position	3,621.0	3,384.3
Tax refunds	455.2	466.1
Individual and other tax credits	(154.3)	(134.0)
Federal Insurance Contributions Act - Tax	15.8	22.7
Federal Reserve earnings	(52.8)	(70.8)
Change in taxes receivable as it relates to Section 965(h)	(85.9)	-
Nontax-related fines and penalties reported by entities	(80.0)	(79.8)
Nontax-related earned revenue	(15.4)	(13.8)
Collections of federal tax revenue	3,703.6	3,574.7

Consolidated revenue in the Statement of Operations and Changes in Net Position is presented on a modified cash basis, net of tax refunds, and includes other non-tax related revenue. There was a presentation change for 2018 and 2019 that replaced lines Earned income tax and child tax credit imputed revenue and Other tax credits and accrual adjustments with Individual and other tax credits. Individual and other tax credits amounts are included in gross cost in the Statements of Net Cost. Refer to Note 3—Accounts and Taxes Receivable, Net for further explanation of line Changes in taxes receivable as it relates to Section 965(h). The FICA – Tax paid by federal entities is included in the Individual income and tax withholdings line in the Collections of federal tax revenue; however, it is not reported on the Statement of Operations and Changes in Net Position as these collections are intragovernmental revenue and eliminated in consolidation. The table above reconciles total revenue to federal tax collections.

Collections of Federal Revenue for the Year Ended September 30, 2018

(In billions of dollars)	Federal Tax Revenue Collections	Tax Year to Which Collections Relate 2018	2017	2016	Prior Years
Individual income tax and tax withholdings	3,089.8	1,932.6	1,096.7	33.5	27.0
Corporate income taxes	262.7	150.3	99.7	1.7	11.0
Excise taxes	98.5	73.3	24.9	0.1	0.2
Unemployment taxes	43.4	34.1	9.1	0.1	0.1
Customs duties	43.4	43.4	-	-	-
Estate and gift taxes	23.9	0.1	20.9	1.1	1.8
Railroad retirement taxes	6.3	4.9	1.4	-	-
Fines, penalties, interest and other revenue	7.2	7.1	0.1	-	-
Subtotal	3,575.2	2,245.8	1,252.8	36.5	40.1
Less: amounts collected for non-federal entities	(0.5)				
Total	3,574.7				

Federal Tax Refunds Disbursed for the Year Ended September 30, 2018

(In billions of dollars)	Refunds Disbursed	Tax Year to Which Refunds Relate 2018	2017	2016	Prior Years
Individual income tax and tax withholdings	401.4	54.4	307.9	29.8	9.3
Corporate income taxes	60.1	4.8	25.9	9.2	20.2
Other taxes, fines, and penalties	4.6	1.6	1.3	0.7	1.0
Total	466.1	60.8	335.1	39.7	30.5

Note 18. Contingencies

Loss contingencies are existing conditions, situations, or sets of circumstances involving uncertainty as to possible loss to an entity. The uncertainty will ultimately be resolved when one or more future events occur or fail to occur. The government is subject to loss contingencies related to:

- Legal and environmental and disposal;
- Insurance and guarantees; and
- Other Contingencies.

The government is involved in various litigation, including administrative proceedings, legal actions, and tort claims, which may ultimately result in settlements or decisions adverse to the government. In addition, the government is subject to loss contingencies for a variety of environmental cleanup costs for the storage and disposal of hazardous material as well as the operations and closures of facilities at which environmental contamination may be present. Refer to the Legal Contingencies and Environmental and Disposal Contingencies section of this note for further details.

The government provides insurance and guarantees via a variety of programs. At the time an insurance policy or guarantee is issued, a contingency arises. The contingency is the risk of loss assumed by the insurer, that is, the risk of loss from events that may occur during the term of the policy. For more information, refer to the Insurance and Guarantees sections of this note.

Other contingencies include those related to the government's establishment of construction budgets without receiving appropriations from Congress for such projects, appeals of Medicaid audit and program disallowances by the states, and potential draws by GSEs. The government is also a party to treaties and other international agreements. These treaties and other international agreements address various issues including, but not limited to, trade, commerce, security, and law enforcement that may involve financial obligations or give rise to possible exposure to losses. For a more detailed discussion of the government's other loss contingencies, refer to the Other Contingencies section of this note.

Financial Treatment of Loss Contingencies

The reporting of loss contingencies depends on the likelihood that a future event or events will confirm the loss or impairment of an asset or the incurrence of a liability and the likelihood of loss can range from probable to remote. SFFAS No. 5, *Accounting for Liabilities of the Federal Government*, identifies the probability classifications used to assess the range for the likelihood of loss as probable, reasonably possible, and remote. Loss contingencies where a past event or exchange transaction has occurred, and where a future outflow or other sacrifice of resources is assessed as probable and measurable, are accrued in the financial statements. Loss contingencies that are assessed to be at least reasonably possible are disclosed in this note, and loss contingencies that are assessed as remote are neither reported in the financial statements, nor disclosed in the notes. The following table provides criteria for how federal entities are to account for loss contingencies, based on the likelihood of the loss and measurability.[3]

[3] In addition, a third condition must be met to be a loss contingency: a past event or an exchange transaction must occur.

Likelihood of future outflow or other sacrifice of resources	Loss amount can be reasonably measured	Loss range can be reasonably measured	Loss amount or range cannot be reasonably measured
Probable Future confirming event(s) are more likely to occur than not.[4]	Accrue the liability. Report on Balance Sheet and Statement of Net Cost.	Accrue liability of best estimate or minimum amount in loss range if there is no best estimate and disclose nature of contingency and range of estimated liability.	Disclose nature of contingency and include a statement that an estimate cannot be made.
Reasonably possible Possibility of future confirming event(s) occurring is more than remote and less than likely.	Disclose nature of contingency and estimated amount.	Disclose nature of contingency and estimated loss range.	Disclose nature of contingency and include a statement that an estimate cannot be made.
Remote Possibility of future event(s) occurring is slight.	No action is required.	No action is required.	No action is required.

Loss contingencies arise in the normal course of operations and their ultimate disposition is unknown. Based on information currently available, however, it is management's opinion that the expected outcome of these matters, individually or in the aggregate, will not have a material adverse effect on the financial statements, except for the litigation and insurance described in the following sections, which could have a material adverse effect on the financial statements.

Certain significant consolidation entities apply financial accounting and reporting standards issued by FASB, and such entities, as permitted by SFFAS No. 47, *Reporting Entity*, are consolidated into the U.S. government's consolidated financial statements without conversion to financial and reporting standards issued by FASAB.[5] Generally, under FASAB standards, a contingency is considered "probable" if the future event or events are more likely than not to occur. Under FASB standards, a contingency is considered "probable" if the future event or events are likely to occur. "Likely to occur" is considered to be more certain than "more likely than not to occur." Under both accounting frameworks, a contingency is considered "reasonably possible" if occurrence of the future event or events is more likely than remote, but less likely than "probable" ("probable" as defined within each corresponding accounting framework).

[4] For pending or threatened litigation and unasserted claims, the future confirming event or events are considered "probable" if such events are likely to occur.

[5] Significant consolidation entities that apply FASB standards without conversion to FASAB standards are FDIC, PBGC, FCSIC, TVA, Smithsonian Institution, NRRIT, and USPS.

Legal Contingencies and Environmental and Disposal Contingencies

Legal Contingencies and Environmental and Disposal Contingencies as of September 30, 2019, and 2018 Restated

(In billions of dollars)	2019 Accrued Liabilities [1]	2019 Estimated Range of Loss for Certain Cases [2] Lower End	2019 Estimated Range of Loss for Certain Cases [2] Upper End	2018 Accrued Liabilities [1]	2018 Estimated Range of Loss for Certain Cases [2] Restated Lower End	2018 Estimated Range of Loss for Certain Cases [2] Restated Upper End
Probable	38.4	37.4	39.1	41.2	40.0	43.8
Reasonably possible	N/A	6.7	29.2	N/A	8.1	29.1

[1] Accrued liabilities are recorded and presented in other liabilities on the Balance Sheet.

[2] Does not reflect the total range of loss; many cases assessed as reasonably possible of an unfavorable outcome did not include estimated losses that could be determined.

Notes: "N/A" indicates not applicable.

Management and legal counsel have determined that it is “probable” that some legal actions, litigation, tort claims, and environmental and disposal contingencies will result in a loss to the government and the loss amounts are reasonably measurable. The estimated liabilities for “probable” cases against the government are $38.4 billion and $41.2 billion as of September 30, 2019, and 2018, respectively, and are included in “Other Liabilities” on the Balance Sheet. For example, the U.S. Supreme Court 2012 decision in *Salazar v. Ramah Navajo Chapter*, and subsequent cases related to contract support costs have resulted in increased claims against the Indian Health Service, which is a component within HHS. As a result of this decision, many tribes have filed claims. Some claims have been paid and others have been asserted but not yet settled. It is expected that some tribes will file additional claims for prior years. The estimated amount recorded for contract support costs is $5.2 billion in fiscal year 2019 and $4.8 billion in fiscal year 2018.

There are also administrative claims and legal actions pending where adverse decisions are considered by management and legal counsel as “reasonably possible” with an estimate of potential loss or a range of potential loss. The estimated potential losses reported for such claims and actions range from $6.7 billion to $29.2 billion as of September 30, 2019, and from $8.1 billion to $29.1 billion as of September 30, 2018. Amounts reported for 2018 have been restated to correct DOE’s estimated range of loss for reasonably possible contingencies. The restatement increased the lower end range of loss by $0.5 billion and the upper end range of loss increased by $2.0 billion. For example, as of September 30, 2019, EPA has received claims under the *Federal Tort Claims Act* in regards to the Gold King Mine, from individuals and businesses situated on or near affected waterways alleging lost wages, loss of business income, agricultural and livestock losses, property damage, diminished property value, and personal injury. The amounts estimated related to the Gold King Mine are $2.0 billion but they are only reasonably possible, and the final outcomes are not probable.

In accordance with the NWPA, DOE entered into more than 68 standard contracts with utilities in which, in return for payment of fees into the Nuclear Waste Fund, DOE agreed to begin disposal of SNF by January 31, 1998. Because DOE has no facility available to receive SNF under the NWPA, it has been unable to begin disposal of the utilities’ SNF as required by the contracts. Therefore, DOE is subject to significant SNF litigation claiming damages for partial breach of contract as a result of this delay. Based on settlement estimates, the total liability estimates as of September 30, 2019 is $36.5 billion. After deducting the cumulative amount paid of $8.0 billion as of September 30, 2019 under settlements, and as a result of final judgments, the remaining liability is estimated to be approximately $28.5 billion, compared to approximately $28.1 billion as of September 30, 2018.

A number of class action and/or multiple plaintiff tort suits have been filed against current and former DOE contractors in which the plaintiffs seek damages for alleged exposures to radioactive and/or toxic substances as a result of the historic operations of DOE’s nuclear facilities. Collectively, damages in excess of $1.1 billion are currently being sought in these cases.

Numerous litigation cases are pending where the outcome is uncertain or it is reasonably possible that a loss has been incurred and where estimates cannot be made. There are other litigation cases where the plaintiffs have not made claims for specific dollar amounts, but the settlement may be significant. The ultimate resolution of these legal actions for which the potential loss could not be determined may materially affect the U.S. government's financial position or operating results.

A number of plaintiffs filed claims in the U.S. Court of Federal Claims requesting that Treasury redeem matured savings bonds not possessed by the applicable states, but which have registered owners with last known addresses in those states. Treasury informed the applicable states it would not redeem these savings bonds since those states are not registered owners of the bonds. On August 20, 2015, the U.S. Court of Federal Claims partially dismissed one claim and denied the U.S. government's motion to dismiss with respect to other claims. On August 8, 2017, the court ruled in favor of two states, and the U.S. government appealed. On August 13, 2019, the Court of Appeals for the Federal Circuit reversed the August 8, 2017 ruling, and the two states filed a petition for a rehearing on September 27, 2019. That petition was denied on December 11, 2019 and the plaintiffs intended to seek further review by the U.S. Supreme Court. At this time, the government is unable to determine the likelihood of an unfavorable outcome or make an estimate of potential loss.

A number of cases were filed in the U.S. Court of Federal Claims and U.S. District Courts in which the plaintiffs allege, among other things, that the U.S. government took their property, breached contractual rights of preferred and common stockholders, and breached fiduciary duties when the third amendments to the SPSPAs between Treasury and each GSE were executed in August 2012. One case also alleges that the U.S. government took plaintiffs' property and contractual rights when the GSEs were placed into conservatorship and entered into the SPSPAs with Treasury in September 2008. In the U.S. Court of Federal Claims, the plaintiffs seek just compensation and other damages from the U.S. government. In the U.S. District Courts, the plaintiffs seek to set aside the third amendments to the SPSPAs as well as damages, and in some cases a declaration that the FHFA's structure violates the separation of powers. Cases in the U.S. District Court for the District of Delaware and the U.S. District Court for the Northern District of Iowa have been dismissed by those District Courts, and the Third and Eighth Circuit Courts of Appeals affirmed the dismissals. A case in the U.S. District Court for the Southern District of Texas was dismissed by that District Court; and the Fifth Circuit Court of Appeals affirmed dismissal of all claims against Treasury but allowed one claim against the FHFA to proceed. The plaintiffs have sought review in the Supreme Court of their claim that the FHFA's structure violates the separation of powers, and the Solicitor General is considering whether to seek further review in the Supreme Court of the claim the court of appeals allowed to proceed. A case in the U.S. District Court for the District of Minnesota was dismissed by that District Court, and an appeal is pending. Cases in the Western District of Michigan and Eastern District of Pennsylvania remain in litigation, and motions to dismiss are pending. Treasury is unable to determine the likelihood of an unfavorable outcome or an estimate of potential loss in these cases at this time.

In prior years environmental and disposal contingencies were presented separately in this note.

Insurance and Guarantees

As discussed in Note 1 L—Insurance and Guarantee Program Liabilities, certain consolidation entities with significant insurance and guarantee programs apply FASB standards, while other insurance programs are accounted for in the consolidated financial statements pursuant to FASAB standards. See Note 15—Insurance and Guarantee Program Liabilities for insurance and guarantee liabilities and Note 12—Federal Employee and Veteran Benefits Payable for insurance related to federal employee and veteran benefits.

Entities Accounted for under FASB

PBGC, FCSIC, and FDIC are consolidation entities with significant insurance or guarantee programs that apply FASB standards, which provide that an entity shall disclose information about certain loss contingencies even though the possibility of loss may be remote.

PBGC insures pension benefits for participants in covered defined benefit pension plans. Under current law, PBGC's liabilities may be paid only from PBGC's assets. Accordingly, PBGC's liabilities are not backed by the full faith of the U.S. government. In fiscal year 2019, PBGC's single-employer and multi-employer pension insurance programs had $128.1 billion and $2.9 billion in total assets, respectively.

PBGC operates two separate pension insurance programs: a single-employer program and a multi-employer program. The single-employer program covered about 24.7 million people (excluding those in plans that PBGC has trusteed) in fiscal year 2019, down from about 26.2 million people in fiscal year 2018, and the maximum guaranteed annual benefit for participants who are in a plan that terminated in fiscal year 2019 and commence benefits at age 65 is $67,295. The maximum guaranteed benefit for single-employer plan participants varies with a number of factors such as the date of the sponsoring employer's bankruptcy and the age at which the participant commences benefits. The number of covered ongoing plans at the end of fiscal year 2019 was about 24,000.

The multi-employer program covers about 10.8 million participants in about 1,400 insured plans and the maximum annual benefit is $12,870 to a participant who worked for 30 years in jobs covered by the plan. The maximum benefit for multi-employer plan participants varies with covered service and would be lower if the participant worked less than 30 years and higher if the participant worked more than 30 years. PBGC projects a high likelihood that the multi-employer program will become insolvent by the end of 2025, at which point its financial assistance to multi-employer plans will be limited to the premiums collected by the program. Please refer to Note 27—Subsequent Events and PBGC financial statements for further details.

FCSIC insures the timely payment of principal and interest on Systemwide Debt Securities. Systemwide Debt Securities are the general unsecured joint and several obligations of the Farm Credit Banks. Systemwide Debt Securities are not obligations of and are not guaranteed by the U.S. government. Outstanding Systemwide Debt Securities totaled $282.9 billion as of September 30, 2019. The insurance provided by FCSIC is also not an obligation of and is not guaranteed by the U.S. government. Under current law, if FCSIC does not have sufficient funds to pay unpaid principal and interest on insured Systemwide Debt Securities, the Farm Credit System banks will be required to make payments under joint and several liability. As of September 30, 2019, FCSIC reported an Insurance Fund balance of $5.1 billion.

FDIC insures bank and savings association deposits, which exposes FDIC to various risks. FDIC has estimated total insured deposits of $7,736.9 billion as of September 30, 2019, and $7,376.6 billion as of September 30, 2018, for the DIF.

The government has guarantee contingencies that are reasonably possible in the amount of $165.6 billion as of September 30, 2019, and $185.4 billion as of September 30, 2018.

PBGC reported $165.5 billion and $184.8 billion as of September 30, 2019, and 2018, respectively, for the estimated aggregate unfunded vested benefits exposure to the PBGC for private-sector single-employer and multi-employer defined benefit pension plans that are classified as a reasonably possible exposure to loss. The decrease comprised primarily from the single-employer program contingencies is primarily due to the increase in the interest factors used for valuing liabilities and the decline in the number of companies with lower than investment grade bond rating and/or credit scores.

FDIC reported $0.1 billion and $0.3 billion as of September 30, 2019, and 2018, respectively, for identified additional risk in the financial services industry that could result in additional loss to the DIF should potentially vulnerable insured institutions ultimately fail. Actual losses, if any, will largely depend on future economic and market conditions.

Entities Accounted for under FASAB

The total amount of coverage provided by an insurer as of the end of the reporting period is referred to as insurance in-force. Insurance in-force represents the total amount of unexpired insurance arrangements for the corresponding program as of a given date. Insurance in-force is presented to provide the reader with a better understanding of the unexpired insurance arrangements that are not considered a liability. It is extremely unlikely that losses equal to the maximum risk exposure would be incurred. The table below shows the estimate of insurance in-force as of September 30, 2019 for consolidation entities with significant insurance programs that apply FASAB standards in accordance with SFFAS No. 51, *Insurance Programs*.

Insurance In-force as of September 30, 2019

(In billions of dollars)	2019
Insurance In-force:	
Ginnie Mae - Department of Housing and Urban Development	2,092.8
National Flood Insurance Program - Department of Homeland Security	1,330.0
National Credit Union Share Insurance Fund - National Credit Union Administration	1,200.0
Federal Crop Insurance - Department of Agriculture	109.0

Ginnie Mae insures MBS and commitments, which exposes Ginnie Mae to various risks. The Ginnie Mae MBS are backed by pools of mortgage loans guaranteed by FHA, Public and Indian Housing, Rural Housing Service, and VA. Accordingly, Ginnie Mae's credit risk related to outstanding MBS is greatly mitigated by guarantees discussed in Note 4–Loans Receivable and Loan Guarantee Liabilities, Net.

NFIP, administered by DHS, is considered an exchange transaction insurance program and pays claims to policy holders who experience flood damage due to flooding within the NFIP rules and regulations. NFIP is authorized to secure reinsurance coverage from private reinsurance and capital markets to maintain the financial ability of the program to pay claims from major flooding events.

FEMA, a component of DHS, is authorized to borrow from Treasury up to $30.4 billion to fund the payment of flood insurance claims and claims-related expenses of the NFIP. This authority is used only as needed to pay existing obligations for claims and expenses. Insurance premiums collected are used to pay insurance claims and to repay borrowings. As of September 30, 2019, and 2018, FEMA had drawn from Treasury $20.5 billion, leaving $9.9 billion available to be borrowed. Premiums collected by FEMA for the NFIP based on subsidized rates are not sufficient to cover the debt repayments. Given the current premium rate structure, FEMA will not be able to generate sufficient resources from premiums to repay its debt.

NCUSIF, managed by NCUA, insures member shares (deposits) in all federal credit unions and in qualifying state-chartered credit unions requesting insurance. NCUSIF insures the balance of each members' accounts, dollar-for-dollar, up to at least the standard maximum share insurance amount of $250,000.

The Federal Crop Insurance Program, administered by USDA's FCIC, is considered an exchange transaction insurance program. The crop insurance policies insure against unexpected declines in yield and/or price due to natural causes. In crop year 2019 there were approximately 1.1 million crop insurance policies in force. The insurance policies are structured as a contract between Approved Insurance Provider and agricultural producers, with the FCIC providing reinsurance to Approved Insurance Providers. Crop insurance policies automatically renew each year, unless producers cancel them by a published annual deadline.

The FCIC may request the Secretary of Agriculture to provide borrowing authority funds of the Commodity Credit Corporation if at any time the amounts in the insurance fund are insufficient to allow FCIC to carry out its duties. Even though the authority exists, FCIC did not request Commodity Credit Corporation funds in the reporting period. USDA has permanent indefinite appropriations available to fund certain costs of the crop insurance program; such as premium subsidy, delivery expenses, losses in excess of premiums, and research costs. FCIC has no outstanding borrowing as of September 30, 2019.

For further information, please refer to HUD, DHS, NCUA and USDA, financial statements.

The *Terrorism Risk Insurance Act* of 2002, as amended, created TRIP, which requires participating insurers to make insurance available for losses resulting from acts of terrorism and provides a federal government backstop for the insurers' resulting financial exposure. This statue was enacted following the terrorist attacks on September 11, 2001, to address disruptions in the market for terrorism risk insurance, to help ensure the continued availability and affordability of commercial property and casualty insurance for terrorism risk, and to allow for the private markets to stabilize and build insurance capacity to absorb any future losses for terrorism events. Most recently, the *Terrorism Risk Insurance Program Reauthorization Act* of 2019 authorized TRIP until December 31, 2027. The claims process under TRIP commences once the Secretary of the Treasury (in consultation with the Secretary of the DHS and the U.S. Attorney General) certifies an event as an "act of terrorism." In the event of certification of an "act of terrorism" insurers may be eligible to receive reimbursement from the U.S. government for associated insured losses assuming an aggregate insured loss threshold ("program trigger") has been reached once a particular insurer has satisfied its designated deductible amount. For calendar years 2019 and 2018, the program trigger amount was $180.0 million and $160.0 million, respectively. This amount will increase by $20.0 million annually through calendar year 2027. Insured losses above insurer deductibles will be shared between insurance companies and the U.S. government. TRIP includes both mandatory and discretionary authority for Treasury to recoup federal payments made under TRIP through policyholder surcharges under certain circumstances, and contains provisions designed to manage litigation arising from or relating to a certified act of terrorism. There were no claims under TRIP as of September 30, 2019 or 2018.

Other Contingencies

DOT and HHS, and Treasury reported the following other contingencies:

The FHWA has a reasonably possible contingency due to their authority to approve projects using advance construction under 23 U.S.C. 115(a) and 23 CFR 630.701-630.709. FHWA does not guarantee the ultimate funding to the states for these "advance construction" projects and, accordingly, does not obligate any funds for these projects. When funding becomes available to FHWA, the states can then apply for reimbursement of costs that they have incurred on such projects, at which time FHWA can accept or reject such requests. As of September 30, 2019, and 2018, FHWA has pre-authorized $66.8 billion and $60.8 billion, respectively, under these arrangements. Congress has not provided appropriations for these projects and no liability is accrued in the DOT consolidated financial statements. Therefore, these are considered reasonably possible.

Contingent liabilities have been accrued as a result of Medicaid audit and program disallowances that are currently being appealed by the states. The Medicaid amounts are $9.9 billion and $6.3 billion for fiscal years ending September 30, 2019, and 2018, respectively. The states could return the funds through payments to HHS, or HHS could recoup the funds by reducing future grant awards to the states. Conversely, if the appeals are decided in favor of the states, HHS will be required to pay these amounts. In addition, certain amounts for payment have been deferred under the Medicaid program when there is reasonable doubt as to the legitimacy of expenditures claimed by a state. There are also outstanding reviews of the state expenditures in which a final determination has not been made.

Treasury has a contingency for future draws by the GSE's. There were no probable future draws accrued at September 30, 2019 and 2018 and the total amount of reasonable possible future draws is not estimable as of September 30, 2019 and 2018. See Note 8—Investments in Government-Sponsored Enterprises for further information.

When a contingency originates from the U.S. government's involvement in a treaty or other international agreement, the responsible reporting entity must establish a contingent liability, and include a required note disclosure to its financial statements, or both in accordance with guidance in SFFAS No. 5. Also see Note 19—Commitments for information concerning commitments related to treaties and other international agreements.

Note 19. Commitments

Long-Term Operating Leases as of September 30, 2019, and 2018

(In billions of dollars)	2019	Restated 2018
General Services Administration	22.0	21.6
U.S. Postal Service	4.6	3.5
Department of Veterans Affairs	4.2	3.9
Department of State	1.4	1.4
Department of Health and Human Services	1.1	0.8
Other operating leases	3.7	4.8
Total long-term operating leases	37.0	36.0

The government has entered into contractual commitments that require future use of financial resources. It has significant amounts of long-term lease obligations.

Certain amounts related to VA have been restated for fiscal year 2018 which resulted in a $3.9 billion increase of Total long-term operating leases. The corrections were a result of an identified understatement during fiscal year 2018 for VA's operating leases.

Undelivered Orders and Other Commitments as of September 30, 2019, and 2018

(In billions of dollars)	2019	Restated 2018
Undelivered Orders:		
Department of Defense	381.7	319.8
Security Assistance Accounts	184.0	168.4
Department of Health and Human Services	131.5	122.7
Department of Education	121.6	132.7
Department of Transportation	110.6	110.5
Department of Agriculture	58.1	58.3
Department of Housing and Urban Development	52.0	48.9
Department of Homeland Security	43.9	42.3
Department of Energy	31.5	27.0
Department of State	24.0	24.0
U.S. Agency for International Development	18.2	17.4
All other entities	141.4	126.6
Total undelivered orders	1,298.5	1,198.6
Other Commitments:		
GSE Senior Preferred Stock Purchase Agreements	254.1	254.1
U.S. Participation in the International Monetary Fund	151.4	154.9
Callable Capital Subscriptions for Multilateral Development Banks	121.7	121.1
All other commitments	25.8	28.8
Total other commitments	553.0	558.9

Undelivered Orders and Other Commitments

Undelivered Orders

Undelivered orders represent the value of goods and services ordered that have not yet been received. As of September 30, 2019, and 2018, the total reported undelivered orders were $1,298.5 billion and $1,198.6 billion, respectively. As of September 30, 2019, and 2018, DOD reported undelivered orders of $381.7 billion and $319.8 billion, respectively. The $61.9 billion increase primarily resulted from enhanced methods used in the classification of federal and non-federal undelivered orders.

GSE Senior Preferred Stock Purchase Agreements

At September 30, 2019 and 2018, the maximum remaining potential commitment to the GSEs for the remaining life of the SPSPAs was $254.1 billion, which was established on December 31, 2012. Refer to Note 8—Investments in Government-Sponsored Enterprises for a full description of the SPSPAs related commitments and contingent liability, if any, as well as additional information.

U.S. Participation in the International Monetary Fund

The government participates in the IMF through a quota subscription and certain borrowing arrangements that supplement IMF resources. As of September 30, 2019, and 2018, the financial commitment, including funded portion, under the U.S. quota and borrowing arrangements was $151.4 billion and $154.9 billion, respectively. Refer to Note 2—Cash and Other Monetary Assets and Note 25—Disclosure Entities and Related Parties for more information regarding the U.S. participation in the IMF.

Callable Capital Subscriptions for Multilateral Development Banks

The government has callable subscriptions in certain MDBs, which are international financial institutions that finance economic and social development projects in developing countries. Callable capital in the MDBs serves as a supplemental pool of resources that may be redeemed and converted into ordinary paid in shares, if the MDB cannot otherwise meet certain obligations through its other available resources. MDBs are able to use callable capital as backing to obtain favorable financing terms when borrowing from international capital markets. To date, there has never been a call on this capital at any MDBs and none is anticipated. As of September 30, 2019, and 2018, the capital commitment to MDBs was $121.7 billion and $121.1 billion, respectively.

All Other Commitments

Certain amounts related to DOT have been restated which resulted in a prior year increase of $6.4 billion. The corrections were a result from DOT reevaluating the disclosure requirements for commitments specifically related to its grant programs.

Other Risks

U.S. Contributions to International Organizations

The U.S. government enters into agreements to pay future contributions to international organizations in which it participates as a member. These contributions may include financial and in-kind support, including assessed contributions, voluntary contributions, grants, and other assistance to international organizations. Following are examples of international organizations and their underlying missions that are supported by U.S. contributions:

- Office of the United Nations High Commissioner for Refugees, which was established to safeguard the rights and well-being of refugees;
- International Committee of the Red Cross, which provides humanitarian protection and assistance for victims of armed conflict and other situations of violence;
- International Organization for Migration, which supports migration programs and the U.S. Refugee Assistance Program;
- North Atlantic Treaty Organization, which promotes conflict prevention and peaceful resolution of disputes;
- United Nations, which enables the world’s nations to work together toward freedom, democracy, peace, and human rights;

- World Food Program, which provides emergency nutrition programming;
- Global Environment Facility, which is a multilateral trust fund that provides grants for global environmental projects;
- Green Climate Fund, which was established to support the efforts of developing countries to respond to the challenge of climate change;
- United Nations Children’s Fund, which promotes humanitarian and developmental assistance to children and mothers in developing countries; and
- World Health Organization, which provides international health activities within the United Nations system and aids in health systems; including activities that address non-communicable and communicable diseases; environmental health; and natural and man-made emergencies.

Note 20. Funds from Dedicated Collections

Funds from Dedicated Collections as of September 30, 2019, and 2018

	2019			Restated 2018		
(In billions of dollars)	SSA's Funds from Dedicated Collections (Combined)	All Other Funds from Dedicated Collections (Combined)	Total Funds from Dedicated Collections (Combined)	SSA's Funds from Dedicated Collections (Combined)	All Other Funds from Dedicated Collections (Combined)	Total Funds from Dedicated Collections (Combined)
Assets:						
Cash and other monetary assets	-	66.1	66.1	-	66.7	66.7
Accounts and taxes receivables, net	7.6	38.7	46.3	7.7	38.4	46.1
Loans receivable, net	-	3.1	3.1	-	3.5	3.5
Inventories and related property, net	-	1.2	1.2	-	2.6	2.6
Property, plant and equipment, net	-	35.4	35.4	-	33.7	33.7
Debt and equity securities	-	33.6	33.6	-	35.0	35.0
Other assets	-	20.1	20.1	-	19.7	19.7
Federal assets	3,023.3	978.0	4,001.3	3,015.6	922.0	3,937.6
Total assets	3,030.9	1,176.2	4,207.1	3,023.3	1,121.6	4,144.9
Liabilities and net position:						
Accounts payable	-	7.2	7.2	-	7.9	7.9
Federal employee and veteran benefits payable	-	7.0	7.0	-	7.7	7.7
Environmental and disposal liabilities	-	26.1	26.1	-	26.7	26.7
Benefits due and payable	102.5	73.6	176.1	100.4	64.2	164.6
Insurance and guarantee program liabilities	-	4.4	4.4	-	1.7	1.7
Other liabilities	-	147.6	147.6	-	148.8	148.8
Federal liabilities	109.6	212.0	321.6	107.3	199.5	306.8
Total liabilities	212.1	477.9	690.0	207.7	456.5	664.2

Funds from Dedicated Collections as of September 30,2019, and 2018, continued[1]

(In billions of dollars)	2019			Restated 2018		
	SSA's Funds from Dedicated Collections (Combined)	All Other Funds from Dedicated Collections (Combined)	Total Funds from Dedicated Collections (Combined)	SSA's Funds from Dedicated Collections (Combined)	All Other Funds from Dedicated Collections (Combined)	Total Funds from Dedicated Collections (Combined)
Net position:						
Total net position	2,818.8	698.3	3,517.1	2,815.6	665.1	3,480.7
Total liabilities and net position	3,030.9	1,176.2	4,207.1	3,023.3	1,121.6	4,144.9
Change in net position:						
Net position, beginning of period	2,815.6	665.1	3,480.7	2,812.8	606.7	3,419.5
Adjustments to beginning net position	-	-	-	-	22.6	22.6
Beginning net position, adjusted	2,815.6	665.1	3,480.7	2,812.8	629.3	3,442.1
Individual income taxes	932.4	286.2	1,218.6	873.2	264.8	1,138.0
Other taxes and miscellaneous earned revenue	0.1	146.4	146.5	0.1	150.9	151.0
Other changes in fund balance (e.g., appropriations, transfers)	24.7	381.3	406.0	24.5	345.3	369.8
Federal non-exchange revenue	81.7	13.8	95.5	83.5	15.0	98.5
Total financing sources	1,038.9	827.7	1,866.6	981.3	776.0	1,757.3
Program gross costs and non-program expenses	1,035.9	959.2	1,995.1	978.6	893.7	1,872.3
Less: program revenue	0.2	164.7	164.9	0.1	153.5	153.6
Net cost	1,035.7	794.5	1,830.2	978.5	740.2	1,718.7
Ending net position	2,818.8	698.3	3,517.1	2,815.6	665.1	3,480.7

[1]By law, certain expenses (costs), revenues, and other financing sources related to the administration of the above funds are not charged to the funds and are therefore financed and/or credited to other sources.

Generally, funds from dedicated collections are financed by specifically identified revenues, often supplemented by other financing sources, provided to the government by non-federal sources, which remain available over time. These specifically identified revenues and other financing sources are required by statute to be used for designated activities, benefits, or purposes and must be accounted for separately from the government's general revenues. Funds from dedicated collections generally include trust funds, public enterprise revolving funds (not including credit reform financing funds), and special funds. Funds from dedicated collections specifically exclude any fund established to account for pensions, ORB, OPEB, or other benefits provided for federal employees (civilian and military). In the federal budget, the term "trust fund" means only that the law requires a particular fund to be accounted for separately, used only for a specified purpose, and designated as a trust fund. A change in law may change the future receipts and the terms under which the fund's resources are spent. In the private sector, trust fund refers to funds of one party held and managed by a second party (the trustee) in a fiduciary capacity. The activity of funds from dedicated collections differs from fiduciary activities primarily in that assets within funds from dedicated collections are government-owned. For further information related to fiduciary activities, see Note 21—Fiduciary Activities.

Public enterprise revolving funds include expenditure accounts authorized by law to be credited with offsetting collections, mostly from the public, that are generated by and dedicated to finance a continuing cycle of business-type operations. Some of the financing for these funds may be from appropriations.

Special funds are federal funds dedicated by law for a specific purpose. Special funds include the special fund receipt account and the special fund expenditure account.

Total assets represent the unexpended balance from all sources of receipts and amounts due to the funds from dedicated collections, regardless of source, including related governmental transactions. These are transactions between two different entities within the government or intradepartmental (for example, monies received by one entity of the government from another entity of the government).

The federal assets are comprised of fund balances with Treasury, investments in Treasury securities—including unamortized amounts, and other assets that include the related accrued interest receivable on federal investments. These amounts were excluded in preparing the principal financial statements. The non-federal assets include activity with individuals and organizations outside of the government.

Most of the assets within funds from dedicated collections are invested in intragovernmental debt holdings. The government does not set aside assets to pay future benefits or other expenditures associated with funds from dedicated collections. The cash receipts collected from the public for funds from dedicated collections are deposited in the General Fund, which uses the cash for general government purposes. Treasury securities are issued to federal entities as evidence of its receipts. Treasury securities are an asset to the federal entities and a liability to Treasury and, therefore, they do not represent an asset or a liability in the *Financial Report*. These securities require redemption if a fund's disbursements exceeds its receipts. Redeeming these securities will increase the government's financing needs and require more borrowing from the public (or less repayment of debt) or will result in higher taxes than otherwise would have been needed, or less spending on other programs than otherwise would have occurred, or some combination thereof. See Note 11—Federal Debt Securities Held by the Public and Accrued Interest for further information related to the investments in federal debt securities.

Funds from Dedicated Collections as of September 30, 2019[1]

(In billions of dollars)	Federal Old-Age and Survivors Insurance Trust Fund (Combined)	Federal Hospital Insurance Trust Fund (Medicare Part A) (Combined)	Federal Disability Insurance Trust Fund (Combined)	Federal Supplementary Medical Insurance Trust Fund (Medicare (Parts B and D) (Combined)
Total assets	2,905.8	236.9	125.1	141.3
Total liabilities	165.6	78.3	46.5	72.3
Total net position	2,740.2	158.6	78.6	69.0
Gross cost	893.2	321.0	142.7	346.8
Program revenues	-	4.1	-	102.6
Net cost	893.2	316.8	142.7	244.2
Total financing sources	3,633.4	475.4	221.3	313.2
Changes in net position	2,740.2	158.6	78.6	69.0

[1]By law, certain expenses (costs), revenues, and other financing sources related to the administration of the above funds are not charged to the funds and are therefore financed and/or credited to other sources.

Funds from Dedicated Collections as of September 30, 2018 (Restated)[1]

(In billions of dollars)	Federal Old-Age and Survivors Insurance Trust Fund (Combined)	Federal Hospital Insurance Trust Fund (Medicare Part A) (Combined)	Federal Disability Insurance Trust Fund (Combined)	Federal Supplementary Medical Insurance Trust Fund (Medicare (Parts B and D) (Combined)
Total assets	2,899.1	238.2	124.2	132.2
Total liabilities	156.4	71.7	51.3	66.4
Total net position	2,742.7	166.5	72.9	65.8
Gross cost	837.4	303.4	141.2	318.0
Program revenues	-	4.0	-	96.2
Net cost	837.4	299.4	141.2	221.8
Total financing sources	3,580.1	465.9	214.1	287.6
Changes in net position	2,742.7	166.5	72.9	65.8

[1]By law, certain expenses (costs), revenues, and other financing sources related to the administration of the above funds are not charged to the funds and are therefore financed and/or credited to other sources.

Depicted in the tables above is a breakout of OASI, HI, DI and Federal SMI Trust Funds. There funds are major funds from dedicated collections chosen based on their significant financial activity and importance to taxpayers.

Depicted below is a description of the major funds from dedicated collections shown in the above tables, which also identifies the government entities that administer each particular fund. For detailed information regarding funds from dedicated collections, please refer to the financial statements of the corresponding administering entities. For information on the benefits due and payable liability associated with certain funds from dedicated collections, see Note 14—Benefits Due and Payable.

Federal Old-Age and Survivors Insurance Trust Fund

The OASI Trust Fund, administered by SSA, provides retirement and survivors benefits to qualified workers and their families.

Payroll and self-employment taxes primarily fund the OASI Trust Fund. Interest earnings on Treasury securities, federal entities' payments for the Social Security benefits earned by military and federal civilian employees, and Treasury payments for a portion of income taxes collected on Social Security benefits provide the fund with additional income. The law establishing the OASI Trust Fund and authorizing the depositing of amounts to the credit of the fund is set forth in 42 U.S.C. § 401.

Federal Hospital Insurance Trust Fund (Medicare Part A)

The HI Trust Fund, administered by HHS, finances the HI (Medicare Part A). This program funds the cost of inpatient hospital and related care for individuals age 65 or older who meet certain insured status requirements and individuals younger than age 65 with certain disabilities.

The HI Trust Fund is financed primarily by payroll taxes, including those paid by federal entities. It also receives income from interest earnings on Treasury securities, a portion of income taxes collected on Social Security benefits, premiums paid by, or on behalf of, aged uninsured beneficiaries, and receipts from fraud and abuse control activities. Section 1817 of the *Social Security Act* established the Medicare Hospital Trust Fund.

Federal Disability Insurance Trust Fund

The DI Trust Fund, administered by SSA, provides assistance and protection against the loss of earnings due to a wage earner's disability in form of monetary payments.

Like the OASI Trust Fund, payroll taxes primarily fund the DI Trust Fund. The fund also receives income from interest earnings on Treasury securities, federal entities' payments for the Social Security benefits earned by military and federal civilian employees, and Treasury payments for a portion of income taxes collected on Social Security benefits. The law establishing the DI Trust Fund and authorizing the depositing of amounts to the credit of the fund is set forth in 42 U.S.C. § 401.

Federal Supplementary Medical Insurance Trust Fund (Medicare Parts B and D)

The Federal SMI Trust Fund, administered by HHS, finances the SMI Program (Medicare Part B) and the Medicare Prescription Drug Benefit Program (Medicare Part D). These programs provide SMI for enrolled eligible participants to cover physician and outpatient services not covered by Medicare Part A and to obtain qualified prescription drug coverage, respectively. Medicare Part B financing is not based on payroll taxes; it is primarily based on monthly premiums, income from the General Fund, and interest earnings on Treasury securities. The Medicare SMI Trust Fund was established by Section 1841 of the *Social Security Act*.

Medicare Part D was created by the *Medicare Modernization Act of 2003* (P.L.108-173). Medicare Part D financing is similar to Part B; it is primarily based on monthly premiums and income from the General Fund, not on payroll taxes. The fund also receives transfers from states.

All Other Funds from Dedicated Collections

The government is responsible for the management of numerous funds from dedicated collections that serve a wide variety of purposes. The funds from dedicated collections presented on an individual basis in the above tables represent the majority of the government's net position attributable to funds from dedicated collections. All other activity attributable to funds from dedicated collections is aggregated in accordance with SFFAS No. 27, *Identifying and Reporting Funds from Dedicated Collections*, as amended by SFFAS No. 43, *Funds from Dedicated Collections: Amending Statement of Federal Financial Accounting Standards 27, Identifying and Reporting Earmarked Funds*. The majority entities with funds from dedicated collections within the "all other" aggregate, include the following:

- HHS
- DOT
- DOL
- DOI
- Treasury
- DHS
- RRB
- DOE
- HUD
- DOJ
- DOD

In accordance with SFFAS No. 43, any funds established to account for pension, other retirement, or other post-employment benefits to civilian or military personnel are excluded from the reporting requirements related to funds from dedicated collections.

The 2018 adjustments to beginning net position is $22.6 billion of which $20.0 billion was restated in fiscal year 2019. Certain amounts were restated to improve the consistency of entities combined presentation and to adequately represent intradepartmental eliminations of $9.0 billion. Certain amounts related to DOD have been restated which resulted in an adjustment to beginning net position for fiscal year 2018 of $11.0 billion. In fiscal year 2019, DOD brought offline adjustments from published component AFRs into its reporting system. This correction resulted in an adjustment between funds from dedicated collections and funds other than those from dedicated collections, with no effect on the consolidated total.

In fiscal year 2019, the presentation methodology for Note 20—Funds from Dedicated Collections was changed to provide consistency among all entities. For comparative purposes, fiscal year 2018 was also restated. This restatement was primarily related to an increase in the total amount of federal assets and federal liabilities reported for Funds from Dedicated Collections. The majority of these increases came from SSA, DOT, EPA, and DOE due to intragovernmental transfers receivable and loans receivable.

Note 21. Fiduciary Activities

Fiduciary activities are the collection or receipt, and the management, protection, accounting, investment and disposition by the government of cash or other assets in which non-federal individuals or entities have an ownership interest that the government must uphold. Fiduciary cash and other assets are not assets of the government and are not recognized on the consolidated Balance Sheet. Examples of the government's fiduciary activities include the TSP, which is administered by the FRTIB, and the Indian Tribal and individual Indian Trust Funds, which are administered by the DOI.

Schedule of Fiduciary Net Assets as of September 30, 2019, and 2018

(In billions of dollars)	2019	2018
Thrift Savings Plan	611.5	589.0
Department of the Interior	5.7	5.4
All other	6.5	5.2
Total fiduciary net assets	623.7	599.6

In accordance with the requirements of SFFAS No. 31, *Accounting for Fiduciary Activities,* fiduciary investments in Treasury securities and fund balance with Treasury held by fiduciary funds are to be recognized on the Balance Sheet as debt held by the public and a liability for fiduciary fund balance with Treasury, respectively.

As of September 30, 2019, total fiduciary investments in Treasury securities and in non-Treasury securities are $249.6 billion and $362.7 billion, respectively. As of September 30, 2018, total fiduciary investments in Treasury securities and in non-Treasury securities were $250.3 billion and $363.0 billion, respectively. Refer to Note 11—Federal Debt Securities Held by the Public and Accrued Interest for more information on the Treasury securities.

As of September 30, 2019, and 2018, the total fiduciary fund balance with Treasury is $1.5 billion and $1.8 billion, respectively. A liability for this fiduciary fund balance with Treasury is reflected as other miscellaneous liabilities in Note 16—Other Liabilities.

As of September 30, 2019, and 2018, collectively, the fiduciary investments in Treasury securities and fiduciary fund balance with Treasury held by all government entities represent $7.8 billion and $6.6 billion, respectively, of unrestricted cash included within cash held by Treasury for governmentwide operations shown in Note 2—Cash and Other Monetary Assets.

Thrift Savings Plan

The TSF maintains and holds in trust the assets of the TSP. The TSP is administered by an independent government entity, the FRTIB, which is charged with operating the TSP prudently and solely in the interest of the participants and their beneficiaries.

The TSP is a retirement savings and investment plan for federal employees and members of the uniformed services. It was authorized by the U.S. Congress in the *Federal Employees' Retirement System Act of 1986*. The Plan provides federal employees and members of the uniformed services with a savings and tax benefit similar to what many private sector employers offer their employees under 401(k) plans. The Plan was primarily designed to be a key part of the retirement package (along with a basic annuity benefit and Social Security) for employees who are covered by FERS.

As of September 30, 2019, and 2018, the TSP held $611.5 billion and $589.0 billion, respectively, in net assets, which included $243.4 billion and $245.5 billion, respectively, of Treasury securities. The TSF combines the net assets of the TSP and the FRTIB in its financial statements. Only the TSP net assets of the TSF financial statements are disclosed in this note. The most recent audited financial statements for the TSF are as of December 31, 2018, and 2017. For further information about FRTIB and the TSP, please refer to the FRTIB website at https://www.frtib.gov.

Department of Interior–Indian Trust Funds

As stated above, DOI has responsibility for the assets held in trust on behalf of American Indian Tribes and individuals. DOI maintains accounts for Tribal and Other Trust Funds (including the Alaska Native Escrow Fund) and IIM Trust Funds in accordance with the *American Indian Trust Fund Management Reform Act of 1994*. The fiduciary balances that have accumulated in these funds have resulted from land use agreements, royalties on natural resource depletion, other proceeds derived directly from trust resources, judgment awards, settlements of claims, and investment income. These funds are maintained by the Office of the Special Trustee for American Indians and ONRR, both components of Departmental Offices and Indian Affairs for the benefit of individual Native Americans as well as for designated Indian tribes. DOI maintains separate financial statements for these trust funds, which are prepared using a cash or modified cash basis of accounting, a comprehensive basis of accounting other than GAAP. The independent auditors' reports on the Tribal and Other Trust Funds were qualified as it was not practical to extend audit procedures sufficiently to satisfy themselves as to the fairness of the trust fund balances. The IIM Trust Funds received an unmodified opinion from the auditors. As of September 30, 2019, and 2018, the DOI held $5.7 billion and $5.4 billion, respectively, in net assets. For further information related to these assets, please refer to the DOI website at https://www.doi.gov.

All Other Entities with Fiduciary Activities

The government is responsible for the management of other fiduciary net assets on behalf of various non-federal entities. The component entities presented individually in the table on the previous page represent the vast majority of the government's fiduciary net assets. All other component entities with fiduciary net assets are aggregated in accordance with SFFAS No. 31. As of September 30, 2019, and 2018, including TSP and DOI, there are a total of 20 and 19 federal entities, respectively, with fiduciary activities at a grand total of 66 and 65 fiduciary funds, respectively. SBA and LOC are the significant entities relating to the fiduciary activities of the remaining component entities within the "all other" aggregate balance. As of September 30, 2019, "all other" fiduciary net assets were $6.5 billion, compared to $5.2 billion as of September 30, 2018.

Note 22. Social Insurance

SOSI presents the projected actuarial present value of the estimated future revenue and estimated future expenditures of the Social Security, Medicare, Railroad Retirement, and Black Lung social insurance programs which are administered by the SSA, HHS, RRB, and DOL, respectively. These estimates are based on the intermediate economic and demographic assumptions presented later in this note as set forth in the relevant Social Security and Medicare Trustees' Reports and in the AFRs of SSA, HHS, and DOL, as well as in the relevant entity PAR for RRB. Due to a change in the presentation of the consolidated SOSI and this note from billions of dollars to trillions of dollars beginning in fiscal year 2016, some amounts in the narrative will not be traceable to the corresponding AFRs. The SOSI projections, with one exception related to Medicare Part A and OASDI, are based on current law. The one exception is that they assume that scheduled social insurance benefit payments would continue after related trust funds are projected to be depleted, contrary to current law. By law, once trust fund asset reserves are depleted, expenditures cannot be made except to the extent covered by ongoing tax receipts and other trust fund income, but the BLDTF has the ability to borrow and use the borrowed funds to pay benefits and other expenditures. The estimates in the consolidated SOSI of the open group measures are for persons who are participants or eventually will participate in the programs as contributors (workers) or beneficiaries (retired workers, survivors, dependents, and disabled) during the 75-year projection period. To enhance comparability of the BLDTF social insurance information and continue to illustrate the fund's long-term condition and sustainability, in fiscal year 2017 DOL revised its projection period from a fixed terminus of September 30, 2040 to a rolling 25-year projection period that begins on the September 30 valuation date each year. Contributions consist of: payroll, income, and excise taxes, premiums from, and state transfers on behalf of, participants in Medicare, and miscellaneous reimbursements from the General Fund. The SOSI also includes projected general revenues that, under current law, would be used to finance the remainder of the expenditures in excess of revenues for Medicare Parts B and D that is reported in the SOSI. Expenditures include benefit payments scheduled under current law and administrative expenses. Current Social Security and Medicare law provides for full benefit payments only to the extent that there are sufficient balances in the trust funds. Expenditures reflect full benefit payments even after the point at which trust fund asset reserves are projected to be depleted. For more information regarding the estimates to prepare the SOSI, see Note 27—Subsequent Events.

Actuarial present values of estimated future income (excluding interest) and estimated future expenditures for the Social Security and Medicare social insurance programs are presented for three different groups of participants: (1) current participants who have not yet attained eligibility age; (2) current participants who have attained eligibility age; and (3) new entrants, who are expected to become participants in the future. Current participants in the Social Security and Medicare programs are the "closed group" of taxpayers and/or beneficiaries who are at least age 15 years at the start of the projection period. Since the projection period for the Social Security, Medicare, and Railroad Retirement social insurance programs consists of 75 years, the period covers virtually all of the current participants' working and retirement years, a period that could be greater than 75 years in a relatively small number of instances. Future participants for Social Security and Medicare include births during the projection period and individuals below age 15 as of January 1 of the valuation year. Railroad Retirement's future participants are the projected new entrants as of October 1 of the valuation year. For fiscal year 2015 and years prior, future participants for Railroad Retirement were the projected new entrants as of January 1 of the valuation year.[6]

The present values of estimated future expenditures in excess of estimated future revenue are calculated by subtracting the actuarial present values of future scheduled contributions as well as dedicated tax income by and on behalf of current and future participants from the actuarial present value of the future scheduled benefit payments to them or on their behalf. To determine a program's funding shortfall over any given period of time, the starting trust fund balance is subtracted from the present value of expenditures in excess of revenues over the period.

The trust fund balances as of the valuation date for the respective programs, including interest earned, are shown in the table below.[7] Substantially all of the OASDI, HI, and SMI Trust Fund balances consist of investments in special nonmarketable Treasury securities that are backed by the full faith and credit of the U.S. government. For more information, see Note 20—Funds from Dedicated Collections.

[6] Beginning with the fiscal year 2016 reporting period, the valuation date for the RRP was changed from calendar year to fiscal year.

[7] Trust fund balances for the Railroad Retirement and Black Lung programs are not included, as these balances are less than $50 billion.

Social Insurance Programs Trust Fund Balances [1]

(In trillions of dollars)	2019	2018	2017	2016	2015
Social Security	2.9	2.9	2.8	2.8	2.8
Medicare	0.3	0.3	0.3	0.3	0.3

[1] As of the valuation date of the respective programs.

Social Security

The OASI Trust Fund, established on January 1, 1940, and the DI Trust Fund, established on August 1, 1956, collectively referred to as OASDI or "Social Security," provides cash benefits for eligible U.S. citizens and residents. Eligibility and benefit amounts are determined under the laws applicable for the period. Current law provides that the amount of the monthly benefit payments for workers and their eligible dependents or survivors is based on the workers' lifetime earnings histories.

The primary financing of the OASDI Trust Funds are taxes paid by workers, their employers, and individuals with self-employment income, based on work covered by the OASDI Program. Refer to the unaudited RSI—Social Insurance section for additional information on Social Security program financing.

The portion of each trust fund not required to pay benefits and administrative costs is invested, on a daily basis, in interest-bearing obligations of the U.S. government. The *Social Security Act* authorizes the issuance by the Treasury of special nonmarketable, intragovernmental debt obligations for purchase exclusively by the trust funds. Although the special issues cannot be bought or sold in the open market, they are redeemable at any time at face value and thus bear no risk of fluctuation in principal value due to changes in market yield rates. Interest on the bonds is credited to the trust funds and becomes an asset to the funds and a liability to the General Fund. These Treasury securities and related interest are eliminated in consolidation at the governmentwide level.

Medicare

The Medicare Program, created in 1965, has two separate trust funds: the HI (Medicare Part A) and SMI (Medicare Parts B and D) Trust Funds. HI helps pay for inpatient hospital stays, home health care following a hospital stay, and skilled nursing facility and hospice care. SMI helps pay for hospital outpatient services, physician services, and assorted other services and products through Part B and for prescription drugs through Part D. 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. Other income to the HI Trust Fund includes a small amount of premium income from voluntary enrollees, receipts from fraud and abuse control activities, a portion of the federal income taxes that beneficiaries pay on Social Security benefits and interest credited on Treasury securities held in the HI Trust Fund. These Treasury securities and related interest are eliminated in the consolidation at the governmentwide level.

For SMI, transfers from the General Fund represent the largest source of income for both Parts B and D. Generally, beneficiaries finance the remainder of Parts B and D costs via monthly premiums to these programs. With the introduction of Part D drug coverage, Medicaid is no longer the primary payer of drug costs for full-benefit dually eligible beneficiaries of Medicare and Medicaid. For those beneficiaries, states are subject to a contribution requirement and must pay a portion of their estimated foregone drug costs into the Part D account (referred to as state transfers). The estimated foregone drug costs is the estimated difference between the drug costs that used to be fully covered by Medicaid for full-benefit dually eligible beneficiaries (i.e., for Medicare and Medicaid) prior to the introduction of Part D, and the drug cost that is now covered for such dually eligible beneficiaries by Medicare Part D. Fees related to brand-name prescription drugs, required by the PPACA, are included as income for Part B of SMI. As with HI, interest received on Treasury securities held in the SMI Trust Fund is credited to the fund and these Treasury securities as well as related interest are eliminated in consolidation at the governmentwide level. By accounting convention, the transfers of general revenues are eliminated in the consolidation of the SOSI at the governmentwide level and as such, the General Fund transfers that are used to finance Medicare Parts B and D are also shown as eliminations in these calculations. For the fiscal years 2019 and 2018 SOSI, the amounts eliminated totaled

$36.8 trillion and $33.0 trillion, respectively. Refer to unaudited RSI—Social Insurance section for additional information on Medicare program financing.

The financial projections for the Medicare program reflect substantial, but very uncertain, cost savings deriving from specific provisions of the PPACA and the MACRA that lowered increases in Medicare payment rates to most categories of health care providers.

The PPACA became law in fiscal year 2010 and provided funding for the establishment by CMS of a Center for Medicare and Medicaid Innovation to test innovative payment and service delivery models to reduce program expenditures while preserving or enhancing the quality of care furnished to individuals. It also allowed for the establishment of a CCIIO. One of the main programs under CCIIO is *Exchanges*. A brief description of these programs is presented below. There are two additional programs – *Transitional Reinsurance* and *Risk Corridors* – that are no longer in operation.

Health Insurance Exchanges. Grants have been provided to the states to establish Health Insurance Exchanges. The initial grants were made by HHS to the states "not later than one year after the date of enactment." Thus, HHS made the initial grants by March 23, 2011. Subsequent grants were issued by CMS through December 31, 2014, after which time no further grants could be made. All Exchanges were launched on October 1, 2013.

Risk Adjustment Program. The Risk Adjustment Program is a permanent program. It applies to non-grandfathered individuals and small group plans inside and outside the Exchanges. It provides payments to health insurance issuers that disproportionately attract higher-risk populations (such as individuals with chronic conditions) and transfers funds from plans with relatively lower risk enrollees to plans with relatively higher risk enrollees to protect against adverse selection. States that operate a state-based exchange are eligible to establish a risk adjustment program. States operating a risk adjustment program may have an entity other than the Exchanges perform this function. CMS operates a risk adjustment program for each state that does not operate its own.

It is important to note that the Medicare projections depend in part on the long-range feasibility of the various cost-saving measures in the PPACA. Physician payment update amounts are specified for all years in the future, and these amounts do not vary based on underlying economic conditions, nor are they expected to keep pace with the average rate of physician cost increases. These rate updates could be an issue in years when levels of inflation are high and would be problematic when the cumulative gap between the price updates and physician costs becomes large. Payment rate updates for most non-physician categories of Medicare providers are reduced by the growth in economy-wide private nonfarm business multifactor productivity although these health providers have historically achieved lower levels of productivity growth. If the health sector cannot transition to more efficient models of care delivery and if the provider reimbursement rates paid by commercial insurers continue to be based on the same negotiated process used to date, then the availability, particularly with respect to physician services, and quality of health care received by Medicare beneficiaries would, under current law, fall over time compared to that received by those with private health insurance.

A transformation of health care in the U.S., affecting both the means of delivery and the method of paying for care, is also a possibility. Private health insurance and Medicare are taking important steps in this direction by initiating programs of research into innovative payment and service delivery models, such as accountable care organizations, patient-centered medical homes, improvement in care coordination for individuals with multiple chronic health conditions, better coordination of post-acute care, payment bundling, pay for performance, and assistance for individuals in making informed health choices. Such changes have the potential to reduce health care costs as well as cost growth rates and could, as a result, help lower health care spending to levels compatible with the lower price updates payable under current law.

The ability of new delivery and payment methods to lower cost growth rates is uncertain at this time. Preliminary indications are that some of these delivery reforms have had modest levels of success in lowering costs, but at this time it is too early to tell if these reductions in spending will continue, or if they will grow to the magnitude needed to align with the statutory Medicare price updates. For those providers affected by the productivity adjustments and the specified updates to physician payments, sustaining the price reductions will be challenging, as the best available evidence indicates that most providers cannot improve their productivity to this degree for a prolonged period given the labor-intensive nature of these services and that physician costs will grow at a faster rate than the specified updates. As a result, actual Medicare expenditures are highly uncertain for reasons apart from the inherent difficulty in projecting health care cost growth over time.

The specified rate updates could be an issue in years when levels of inflation are high and would be problematic when the cumulative gap between the price updates and physician costs becomes large. The gap will continue to widen throughout the projection, and it is estimated that physician payment rates under current law will be lower than they would have been under the SGR formula by 2048. Absent a change in the delivery system or level of update by subsequent legislation, access to Medicare-participating physicians may become a significant issue in the long term under current law. Overriding the price updates in current law, as lawmakers repeatedly did in the case of physician payment rates, would lead to substantially higher costs for Medicare in the long range than those projected in this report.

To help illustrate and quantify the potential magnitude of the cost understatement, the Trustees asked the Office of the Actuary at CMS to prepare an illustrative Medicare Trust Fund projection under a hypothetical alternative. This scenario illustrates the impact that would occur if the payment updates that are affected by the productivity adjustments transition from current law to the payment updates assumed for private health plans over the period 2028 to 2042. It also reflects physician payment updates that transition from current law to the increase in the Medicare Economic Index over the same period. Finally, the scenario assumes the continuation of the 5 percent bonuses for physicians in advanced APMs and of the $500-million payments for physicians in the merit-based incentive payment system, which are set to expire in 2025. This alternative was developed for illustrative purposes only; the calculations have not been audited; no endorsement of the policies underlying the illustrative alternative by the Trustees, CMS, or the Office of the Actuary should be inferred; and the examples do not attempt to portray likely or recommended future outcomes. Thus, the illustrations are useful only as general indicators of the substantial impacts that could result from future legislation affecting the productivity adjustments and physician updates under Medicare and of the broad range of uncertainty associated with such impacts. The table on the following page contains a comparison of the Medicare 75-year present values of estimated future income and estimated future expenditures under current law with those under the illustrative alternative scenario.

Medicare Present Values (in trillions) (Unaudited)

	2019 Consolidated SOSI Current Law	Illustrative Alternative Scenario [1, 2]
Income:		
Part A	24.4	24.4
Part B [3]	10.9	12.7
Part D [4]	3.2	3.2
Total income	38.5	40.3
Expenditures:		
Part A	29.8	34.9
Part B	39.7	46.3
Part D	11.2	11.2
Total expenditures	80.7	92.4
Income less expenditures:		
Part A	(5.4)	(10.5)
Part B	(28.8)	(33.6)
Part D	(8.0)	(8.0)
Excess of expenditures over income	(42.2)	(52.1)

[1]These amounts are not presented in the 2019 Trustees' Report.

[2]At the request of the Trustees, the Office of the Actuary at CMS has prepared an illustrative set of Medicare Trust Fund projections that differ from current law. No endorsement of the illustrative alternative to current law by the Trustees, CMS, or the Office of the Actuary should be inferred.

[3]Excludes $28.8 trillion and $33.6 trillion of General Revenue Contributions from the 2019 Consolidated SOSI Current Law projection and the Illustrative Alternative Scenario's projection, respectively; i.e., to reflect Part B income on a consolidated governmentwide basis.

[4]Excludes $8.0 trillion of General Revenue Contributions from both the 2019 Consolidated SOSI Current Law projection and the Illustrative Alternative projection; i.e., to reflect Part D income on a consolidated governmentwide basis.

The difference between the current-law and illustrative alternative projections is substantial for Parts A and B. All Part A fee-for-service providers and roughly half of Part B fee-for-service providers are affected by the productivity adjustments, so the current-law projections reflect an estimated 1 percent reduction in annual cost growth each year for these providers. If the payment updates that are affected by the productivity adjustments were to gradually transition from current law to the payment updates assumed for private health plans, the physician updates transitioned to the Medicare Economic Index, and the 5 percent bonuses paid to physicians in advanced APMs did not expire, as illustrated under the alternative scenario, the estimated present values of Part A and Part B expenditures would each be higher than the current-law projections by roughly 17 percent. As indicated above, the present value of Part A income is basically unaffected under the alternative scenario.

The Part D values are the same under each projection because the services are not affected by the productivity adjustments or the physician updates. The extent to which actual future Part A and Part B costs exceed the projected amounts due to changes to the productivity adjustments and physician updates depends on what specific changes might be legislated and whether Congress would pass further provisions to help offset such costs. As noted, these examples reflect only hypothetical changes to provider payment rates.

Social Security and Medicare–Demographic and Economic Assumptions

The Boards of Trustees[8] 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. Significant uncertainty surrounds the estimates, especially for a period as long as 75 years. To illustrate the range of uncertainty, the Trustees use three alternative scenarios (low-cost, intermediate, and high-cost) that use specific assumptions. These assumptions include fertility rates, rates of change in mortality, LPR and other-than-LPR immigration levels, emigration levels, changes in real GDP, changes in the CPI, changes in average real wages, unemployment rates, trust fund real yield rates, and disability incidence and recovery rates. The assumptions used for the most recent set of projections shown in the Social Security and Medicare demographic and economic assumption tables are generally referred to as the "intermediate assumptions," and reflect the Trustees' reasonable estimate of expected future experience. For further information on Social Security and Medicare demographic and economic assumptions, refer to SSA's and HHS's AFRs.

[8] The boards are composed of six members. Four members serve by virtue of their positions in the federal government: the Secretary of the Treasury, who is the Managing Trustee; the Secretary of Labor; the Secretary of HHS; and the Commissioner of Social Security. The President appoints and the Senate confirms the other two members to serve as public representatives. These two positions are currently vacant.

Social Security – Demographic and Economic Assumptions

Demographic Assumptions

Year	Total [1] Fertility Rate	Age-Sex[2] Adjusted Death Rate (per 100,000)	Net Annual[3] Immigration (persons per year)	Period Life[4] Expectancy at Birth: Male	Period Life[4] Expectancy at Birth: Female
2019	1.75	785.9	1,409,000	76.6	81.3
2020	1.76	779.9	1,413,000	76.7	81.4
2030	2.00	716.5	1,329,000	77.9	82.4
2040	2.00	657.7	1,280,000	79.0	83.3
2050	2.00	606.0	1,251,000	80.1	84.2
2060	2.00	560.6	1,236,000	81.1	85.0
2070	2.00	520.6	1,227,000	82.0	85.7
2080	2.00	485.1	1,221,000	82.8	86.4
2090	2.00	453.5	1,218,000	83.6	87.1

Economic Assumptions

Year	Real[5] Wage Differ-ential (percent change)	Average[6] Annual Wage in Covered Employment (percent change)	CPI[7] (percent change)	Real [8] GDP (percent change)	Total [9] Employ-ment (percent change)	Average[10] Annual Interest Rate (percent)
2019	2.19	4.02	1.83	2.8	1.0	3.3
2020	2.08	4.71	2.63	2.4	0.6	3.5
2030	1.29	3.89	2.60	2.0	0.4	5.1
2040	1.20	3.80	2.60	2.0	0.4	5.1
2050	1.25	3.85	2.60	2.1	0.5	5.1
2060	1.25	3.85	2.60	2.0	0.4	5.1
2070	1.19	3.79	2.60	2.0	0.4	5.1
2080	1.16	3.76	2.60	2.1	0.5	5.1
2090	1.16	3.76	2.60	2.0	0.4	5.1

[1]The total fertility rate for any year is the average number of children that would be born to a woman in her lifetime if she were to experience, at each age of her life, the birth rate observed in, or assumed for, the selected year, and if she were to survive the entire childbearing period.

[2]The age-sex-adjusted death rate is based on the enumerated total population as of April 1, 2010, if that population were to experience the death rates by age and sex observed in, or assumed for, the selected year. It is a summary measure and not a basic assumption; it summarizes the basic assumptions from which it is derived.

[3]Net annual immigration is the number of persons who enter during the year (both as LPRs and otherwise) minus the number of persons who leave during the year. It is a summary measure and not a basic assumption; it summarizes the effects of the basic assumptions from which it is derived.

[4]The period life expectancy at birth for a given year is the average number of years expected prior to death for a person born on January 1 in that year, using the mortality rates for that year over the course of his or her remaining life. It is a summary measure and not a basic assumption; it summarizes the effects of the basic assumptions from which it is derived.

[5]The real-wage differential is the annual percentage change in the average annual wage in covered employment less the annual percentage change in the CPI for CPI-W. Values are rounded after all computations.

[6]The average annual wage in covered employment is the total amount of wages and salaries for all employment covered by the OASDI program in a year, divided by the number of employees with any such earnings during the year. It is a summary measure and not a basic assumption; it summarizes the basic assumptions from which it is derived.

[7]The CPI is the CPI-W.

[8]The real GDP is the value of total output of goods and services in 2012 dollars. It is a summary measure and not a basic assumption; it summarizes the effects of the basic assumptions from which it is derived.

[9]Total employment is total U.S. military and civilian employment. It is a summary measure and not a basic assumption; it summarizes the basic assumptions from which it is derived.

[10]The average annual interest rate is the average of the nominal interest rates, compounded semiannually, for special public-debt obligations issuable to the OASI and DI Trust Funds in each of the 12 months of the year. It is a summary measure and not a basic assumption; it summarizes the basic assumptions from which it is derived.

Medicare – Demographic and Economic Assumptions

	Demographic Assumptions		
Year	Total [1] Fertility Rate	Age-Sex Adjusted[2] Death Rate (per 100,000)	Net Annual[3] Immigration (persons per year)
2019	1.75	785.9	1,409,000
2020	1.76	779.9	1,413,000
2030	2.00	716.5	1,329,000
2040	2.00	657.7	1,280,000
2050	2.00	606.0	1,251,000
2060	2.00	560.6	1,236,000
2070	2.00	520.6	1,227,000
2080	2.00	485.1	1,221,000
2090	2.00	453.5	1,218,000

	Economic Assumptions							
					Per Beneficiary Cost[8] (percent change)			
						SMI		
Year	Real[4] Wage Differ-ential (percent change)	Average[5] Annual Wage In Covered Employment (percent) change)	CPI[6] (percent change)	Real[7] GDP (percent change)	HI	Part B	Part D	Real[9] Interest Rate (percent)
2019	2.19	4.02	1.83	2.8	3.5	5.5	(1.5)	1.0
2020	2.08	4.71	2.63	2.4	3.8	5.0	3.5	0.7
2030	1.29	3.89	2.60	2.0	4.2	5.6	4.9	2.5
2040	1.20	3.80	2.60	2.0	4.5	4.4	4.7	2.5
2050	1.25	3.85	2.60	2.1	4.0	4.0	4.7	2.5
2060	1.25	3.85	2.60	2.0	3.7	3.8	4.5	2.5
2070	1.19	3.79	2.60	2.0	3.8	3.7	4.4	2.5
2080	1.16	3.76	2.60	2.1	3.9	3.8	4.5	2.5
2090	1.16	3.76	2.60	2.0	3.5	3.6	4.3	2.5

[1]Average number of children per woman.

[2]The age-sex-adjusted death rate per 100,000 that would occur in the enumerated population as of April 1, 2010, if that population were to experience the death rates by age and sex observed in, or assumed for, the selected year.

[3]Includes legal immigration, net of emigration, as well as other, non-legal, immigration.

[4]Difference between percentage increases in wages and the CPI.

[5]Average annual wage in covered employment.

[6]CPI represents a measure of the average change in prices over time in a fixed group of goods and services.

[7]Total dollar value of all goods and services produced in the U.S., adjusted to remove the impact of assumed inflation growth.

[8]These increases reflect the overall impact of more detailed assumptions that are made for each of the different types of service provided by the Medicare program (for example, hospital care, physician services, and pharmaceutical costs). These assumptions include changes in the payment rates, utilization, and intensity of each type of service.

[9]Average rate of interest earned on new trust fund securities, above and beyond rate of inflation.

Railroad Retirement

The Railroad Retirement and Survivor Benefit program 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 and divorced spouses of retired workers and to widow(er)s, surviving divorced spouses, remarried widow(er)s, children, and parents of deceased railroad workers. Medicare covers qualified railroad retirement beneficiaries in the same way as it does Social Security beneficiaries.

The RRB and the SSA share jurisdiction over the payment of retirement and survivor benefits. The RRB has jurisdiction over the payment of retirement benefits if the employee has at least 10 years of railroad service, or five years if performed after 1995. For survivor benefits, RRB requires that the employee’s last regular employment before retirement or death be in the railroad industry. If a railroad employee or his or her survivors do not qualify for railroad retirement benefits, the RRB transfers the employee’s railroad retirement credits to SSA, where they are treated as social security credits.

Payroll taxes paid by railroad employers and their employees are a primary source of funding for the Railroad Retirement and Survivor 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 and Tier II taxes to finance railroad retirement benefit payments that are higher than Social Security levels.

Revenues in excess of benefit payments are invested to provide additional trust fund income. Legislation enacted in 2001 allowed for Railroad Retirement Account funds transferred to the NRRIT to be invested in non-governmental assets, as well as in governmental securities. Funds transferred from the SSEB Account to the NRRIT are allowed to be invested only in governmental securities. Under the financial interchange provisions, the RRP’s SSEB Account and the trust funds interchange amounts on an annual basis so that each trust fund is in the same position it would have been had railroad retirement always been covered under Social Security.

Since its inception, NRRIT has received $21.3 billion from RRB (including $19.2 billion in fiscal year 2003, pursuant to the *Railroad Retirement and Survivors’ Improvement Act of 2001*) and returned $24.7 billion. During fiscal year 2019, the NRRIT made net transfers of $1.8 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, 2019, and 2018, of non-federal securities and investments of the NRRIT are disclosed in Note 7—Debt and Equity Securities.

Another major source of income to the Railroad Retirement and Survivor Benefit program consists of financial transactions with the Social Security and Medicare Trust Funds. The RRB, SSA, and CMS are parties to a financing arrangement, the “financial interchange”, which is intended to put the OASDI and Medicare HI Trust Funds in the same positions they would have been had railroad employment been covered under the Social Security and FICA*s*.

Other sources of program income include revenue resulting from federal income taxes on railroad retirement benefits, and appropriations provided after 1974 as part of a phase out of certain vested dual benefits. From a governmentwide perspective, these future financial interchanges and transactions are intragovernmental transfers and are eliminated in consolidation.

The estimated future revenues and expenditures reflected in the SOSI are based on various economic, employment, and other actuarial assumptions, and assume that the RRP will continue as presently constructed. The calculations assume that all future transfers required by current law under the financial interchange will be made. For further details on actuarial assumptions related to the RRP and how these assumptions affect amounts presented on the SOSI and SCSIA, consult the Technical Supplement to the *27th Actuarial Valuation of the Assets and Liabilities Under the Railroad Retirement Acts as of December 31, 2016* and RRB’s financial statements.

Black Lung–Disability Benefit Program

The BLDBP provides for 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 the BLDTF provides benefit payments when no RMO can be assigned the liability or when the liability is adjudicated to the BLDTF, which may occur as a result of, among other things, bankruptcy of the RMO. DOL operates the BLDBP.

Black lung disability benefit payments are funded by excise taxes from coal mine operators based on the domestic sale of coal, as are the fund’s administrative costs. These taxes are collected by the IRS and transferred to the BLDTF, which was established under the authority of the *Black Lung Benefits Revenue Act* and administered by the Treasury.

P.L. 110-343, *Division B-Energy Improvement and Extension Act of 2008*, enacted on October 3, 2008, among other things, restructured the BLDTF debt by refinancing the outstanding high interest rate repayable advances with low interest rate discounted debt instruments similar in form to zero-coupon bonds, plus a one-time appropriation. This Act also allowed that any subsequent debt issued by the BLDTF may be used to make benefit payments, other authorized expenditures, or to repay debt and interest from the initial refinancing.

The significant assumptions used in the projections for the SOSI are the coal excise tax revenue estimates, the tax rate structure, number of beneficiaries, life expectancy, federal civilian pay raises, medical cost inflation, and interest rates used to discount future cash flows. These assumptions affect the amounts reported on the SOSI and the SCSIA. The program's valuation date is September 30 for each year of information presented in the SOSI and the SCSIA. Refer to DOL's financial statements for further details on significant assumptions related to the BLDBP, and how these assumptions affect amounts presented on the SOSI and SCSIA.

Statement of Changes in Social Insurance Amounts

The SCSIA reconciles the change (between the current valuation and the prior valuation) in the present value of estimated future revenue less estimated future expenditures for current and future participants (the open group measure) over the next 75 years (except Black Lung which has a rolling 25-year projection period through September 30, 2044). The reconciliation identifies several components of the changes that are significant and provides reasons for the changes. The following disclosures relate to the SCSIA including the reasons for the components of the changes in the open group measure during the reporting period from the end of the previous reporting period for the government's social insurance programs. For more information regarding the estimates used to prepare the SCSIA, see Note 27—Subsequent Events.

Social Security

The SCSIA shows two reconciliations for Social Security: (1) changes from the period beginning on January 1, 2018, to the period beginning on January 1, 2019, and (2) changes from the period beginning on January 1, 2017, to the period beginning on January 1, 2018. All estimates relating to the Social Security Program in the SCSIA represent values that are incremental to the prior change. As an example, the present values shown for economic data, assumptions, and methods represent the additional effect of these new data, assumptions, and methods after considering the effects from demography and the change in the valuation period. In general, an increase in the present value of net cash flows represents a positive change (improving financing), while a decrease in the present value of net cash flows represents a negative change (worsening financing).

Assumptions Used for the Components of the Changes for the Social Security Program

The present values included in the SCSIA are for the current and prior years and are based on various economic as well as demographic assumptions used for the intermediate assumptions in the Social Security Trustees' Reports for these years. The Social Security – Demographic and Economic Assumptions table summarizes these assumptions for the current year.

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

Present values as of January 1, 2018 are calculated using interest rates from the intermediate assumptions of the 2018 Trustees' Report. All other present values in this part of the SCSIA are calculated as a present value as of January 1, 2019. Estimates of the present value of changes in social insurance amounts due to changing the valuation period and changing demographic data, assumptions, and methods are presented using the interest rates under the intermediate assumptions of the 2018 Trustees' Report. Because interest rates are an economic estimate and all estimates in the table are incremental to the prior change, all other present values in this part of the SCSIA are calculated using the interest rates under the intermediate assumptions of the 2019 Trustees' Report.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

Present values as of January 1, 2017 are calculated using interest rates from the intermediate assumptions of the 2017 Trustees' Report. All other present values in this part of the SCSIA are calculated as a present value as of January 1, 2018. Estimates of the present value of changes in social insurance amounts due to changing the valuation period and changing demographic data, assumptions, and methods are presented using the interest rates under the intermediate assumptions of the 2017 Trustees' Report. Because interest rates are an economic estimate and all estimates in the table are incremental to the prior change, all other present values in this part of the SCSIA are calculated using the interest rates under the intermediate assumptions of the 2018 Trustees' Report.

Changes in Valuation Period

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The effect on the 75-year present values of changing the valuation period from the prior valuation period (2018–2092) to the current valuation period (2019–2093) is measured by using the assumptions for the prior valuation and extending them to cover the current valuation. Changing the valuation period removes a small negative net cash flow for 2018, replaces it with a much larger negative net cash flow for 2093, and measures the present values as of January 1, 2019, one year later.

Thus, the present value of estimated future net cash flows (excluding the combined OASI and DI Trust Fund asset reserves at the start of the period) decreased (became more negative) when the 75-year valuation period changed from 2018–2092 to 2019–2093. In addition, the effect on the level of asset reserves in the combined OASI and DI Trust Funds of changing the valuation period is measured by assuming all values projected in the prior valuation for the year 2018 are realized. The change in valuation period decreased the starting level of asset reserves in the combined OASI and DI Trust Funds. As a result, the present value of the estimated future net cash flows decreased by $0.5 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The effect on the 75-year present values of changing the valuation period from the prior valuation period (2017-2091) to the current valuation period (2018-2092) is measured by using the assumptions for the prior valuation and extending them to cover the current valuation. Changing the valuation period removes a small negative net cash flow for 2017, replaces it with a much larger negative net cash flow for 2092, and measures the present values as of January 1, 2018, one year later. Thus, the present value of estimated future net cash flows (excluding the combined OASI and DI Trust Fund asset reserves at the start of the period) decreased (became more negative) when the 75-year valuation period changed from 2017-2091 to 2018-2092. In addition, the effect on the level of asset reserves in the combined OASI and DI Trust Funds of changing the valuation period is measured by assuming all values projected in the prior valuation for the year 2017 are realized. The change in valuation period increased the starting level of asset reserves in the combined OASI and DI Trust Funds. As a result, the present value of the estimated future net cash flows decreased by $0.6 trillion.

Changes in Demographic Data, Assumptions, and Methods

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The ultimate demographic assumptions for the current valuation (beginning on January 1, 2019) are the same as those for the prior valuation. However, the starting demographic values and the way these values transition to the ultimate assumptions were changed.

- The numbers of new LPRs for calendar years 2018 and 2019 were assumed to be slightly lower than projected in the prior valuation period, due to recent lower annual refugee ceilings set by the Administration.
- The current valuation incorporated a gradual rise in 2017 and 2018 of other-than-LPR immigrants, reaching the ultimate assumed level in 2019. In contrast, the prior valuation incorporated a surge in the number of other-than-LPR immigrants for years 2016 through 2021.
- Final birth rate data for 2017 indicated slightly lower birth rates than were assumed in the prior valuation.
- Incorporating 2016 mortality data obtained from the NCHS for ages under 65 and 2016 and preliminary 2017 mortality data from Medicare experience for ages 65 and older resulted in higher death rates for all future years than were projected in the prior valuation.

Inclusion of the lower numbers of LPRs in the short-term, eliminating the surge in other-than-LPRs, and lower birth rates decreased the present value of estimated future net cash flows, while the inclusion of the recent mortality data increased the present value of estimated future net cash flows.

There were two notable changes in demographic methodology:

- Improved the method for projecting fertility rates by better incorporating detailed provisional birth rate data available from NCHS.
- Incorporated more comprehensive Medicare mortality data from CMS.

Inclusion of the fertility change decreased the present value of estimated future cash flows, while the mortality change increased the present value of estimated future net cash flows. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to increase by $0.4 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The ultimate demographic assumptions for the current valuation (beginning on January 1, 2018), with the exception of a small decrease of 10,000 LPR immigrants per annum in the future, are the same as those for the prior valuation. However, the starting demographic values and the way these values transition to the ultimate assumptions were changed.

- Final birth rate data for 2016 indicated slightly lower birth rates than were assumed in the prior valuation.
- Recent fertility data suggests that the short-term increase in the total fertility rate used in the prior valuation to account for an assumed deferral in childbearing (resulting from the recent economic downturn) was no longer warranted. The observed persistent drop in the total fertility rate in recent years is now assumed to be a loss of potential births rather than just a deferral for this period.

- Incorporating 2015 mortality data obtained from NCHS for ages under 65 and preliminary 2015 mortality data from Medicare experience for ages 65 and older resulted in higher death rates for all future years than were projected in the prior valuation.
- More recent LPR and other-than-LPR immigration data and historical population data were included.

Inclusion of the recent birth rate data, eliminating the short-term increase in fertility, and immigration data decreased the present value of estimated future net cash flows, while the inclusion of the recent mortality data and historical population data increased the present value of estimated future net cash flows.

There was one notable change in demographic methodology:

- Improved the method for projecting mortality rates by marital status by utilizing recent data from NCHS and the American Community Survey.

Inclusion of this new method increased the present value of estimated future net cash flows. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to increase by $0.1 trillion.

Changes in Economic Data, Assumptions, and Methods

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

For the current valuation (beginning on January 1, 2019), there were four changes to the ultimate economic assumptions.

- The ultimate annual rate of change in total-economy labor productivity was lowered from 1.68 percent in the prior valuation to 1.63 percent in the current valuation, reflecting an expected slower rate of productivity growth in the long term.
- The difference between the ultimate growth rates for the CPI-W and the GDP implicit price deflator (the "price differential"), was decreased from 0.40 percentage point in the prior valuation to 0.35 percentage points in the current valuation.
- The ultimate average real-wage differential was increased from 1.20 percentage points in the prior valuation to 1.21 percentage points in the current valuation.
- The ultimate real interest rate was lowered by 0.20 percentage point, from 2.70 percent in the prior valuation to 2.50 percent in the current valuation.

The lower ultimate annual rate of change in total-economy labor productivity and the lower ultimate real interest rate decreased the present value of estimated future net cash flows, while the smaller price differential and the higher ultimate average real-wage differential increased the present value of estimated future net cash flows.

In addition to these changes in ultimate assumptions, the starting economic values and the way these values transition to the ultimate assumptions were changed. The most notable change was to include the July 2018 revisions in historical GDP estimated by the BEA of the DOC. This and other smaller changes in starting values and near-term growth assumptions combined to increase the present value of estimated future net cash flows.

There was one notable change in economic methodology:

- Incorporated more recent projections of disability prevalence in the labor force participation model.

Inclusion of this new method increased the present value of estimated future net cash flows. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to decrease by $1.0 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The ultimate economic assumptions for the current valuation (beginning on January 1, 2018), are the same as those for the prior valuation. However, the starting economic values and the way these values transition to the ultimate assumptions were changed.

- The estimated level of potential GDP was reduced by about 1 percent in 2017 and throughout the projection period, primarily due to the slow growth in labor productivity for 2010 through 2017 and low unemployment rates in 2017. This lower estimated level of potential GDP means that cumulative growth in actual GDP is 1 percent less over the remainder of the projected recovery than was assumed in the prior valuation.
- Near-term interest rates were decreased, reflecting a more gradual path for the rise to the ultimate real interest rate than was assumed in the prior valuation.
- New data from the BEA indicated lower-than-expected ratios of labor compensation to GDP for 2016 and 2017, while new data from the IRS indicated lower-than-expected ratios of taxable payroll to GDP for 2016 and 2017. This new data led to assumed extended recoveries in these ratios to the unchanged ultimate ratios.

The changes in near-term interest rates and GDP decreased the present value of estimated future net cash flows. The new data from BEA and IRS and the resulting extended recovery in the ratios of labor compensation to GDP and taxable payroll to GDP increased the present value of estimated future net cash flows.

There was one notable change in economic methodology:

- Improved the method for projecting educational attainment among women in age groups 45-49 and 50-54 in the labor force participation model.

Inclusion of this new method increased the present value of estimated future net cash flows. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to decrease by $0.5 trillion.

Changes in Law or Policy

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The monetary effect of the changes in law or policy on the present value of estimated future net cash flows of the OASDI program was not significant at the consolidated level. Please refer to SSA's financial statements for further information related to the impact of the changes in law or policy on the present value of estimated future net cash flows of the OASDI program.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The monetary effect of the changes in law or policy on the present value of estimated future net cash flows of the OASDI program was not significant at the consolidated level. Please refer to SSA's financial statements for further information related to the impact of the changes in law or policy on the present value of estimated future net cash flows of the OASDI program.

Changes in Methodology and Programmatic Data

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

Several methodological improvements and updates of program-specific data are included in the current valuation (beginning on January 1, 2019). The most significant are identified below.

- The ultimate disability incidence rate was lowered from 5.4 per thousand exposed in the prior valuation to 5.2 in the current valuation. In addition, recent levels of disability applications and awards are lower than expected in the prior valuation, and estimated disability incidence rates in the current valuation are assumed to increase more gradually toward the assumed ultimate level than in the prior valuation.
- As in the prior valuation, the current valuation uses a 10-percent sample of newly-entitled worker beneficiaries in 2015 to project average benefit levels of retired-worker and disabled-worker beneficiaries. For the current valuation, the model's projection of earnings for workers becoming newly entitled in future years was improved to better reflect the "dispersion" in taxable earnings levels observed from 1970 to 2010. Over this historical period, increases in taxable earnings were higher for workers with taxable earnings above the median than for workers with taxable earnings below the median.
- The current valuation includes an improvement in the method for calculating future benefit levels for those who are awarded benefits more than two years after their date of initial benefit entitlement. This improvement mainly affects DI benefit levels.
- The current valuation updated two sets of benefit adjustment factors based on new programmatic data: the post-entitlement adjustment factors and the WEP factors.

Lowering the ultimate disability incidence rate and inclusion of recent disability data, reflecting earnings dispersion, and the change to benefit levels for those awarded more than two years after entitlement increased the present value of estimated future net cash flows. Updating the post-entitlement and WEP data decreased the present value of estimated cash flows. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to increase by $0.5 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

Several methodological improvements and updates of program-specific data are included in the current valuation (beginning on January 1, 2018). The most significant are identified below.

- The prior valuation assumed 99 percent of fully insured women (excluding those who are receiving a disability or widow benefit) were in receipt of a retired-worker benefit at age 70. The current valuation increases this percentage to 99.5 which is equivalent to the assumption for men.
- For the current valuation, a 10 percent sample of newly-entitled worker beneficiaries in 2015 was used to project average benefit levels of retired-worker and disabled-worker beneficiaries. This sample was updated from the 2013 sample used for the prior valuation. In addition, the method used to estimate earnings histories for retired-worker beneficiaries becoming newly entitled in each year after 2017 has been expanded to better match targeted average taxable earnings levels for each of nine birth cohorts (those becoming entitled at ages 62 through 70 in a year).

- Recent data and estimates provided by the OTA at the Treasury were incorporated, which indicate higher ultimate levels of revenue from taxation of OASDI benefits than assumed in the prior valuation. These higher levels are primarily due to changes OTA made in their modeling, resulting in a larger share of benefits being subject to income tax.
- The current valuation incorporates both a better data source for determining the total number of months of retroactive benefits for newly awarded disabled-worker beneficiaries and a new adjustment factor which better aligns projected months of disabled-worker retroactive benefit entitlement with observed historical experience.

Increasing the percentage of fully insured women who are in receipt of a retired-worker benefit at age 70 decreased the present value of estimated cash flows. Updating the sample year for average benefit level calculations, increasing the ultimate taxation of benefits ratios, and the changes to estimates of retroactive benefit payments increased the present value of estimated future net cash flows. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to increase by $0.2 trillion.

Medicare

The SCSIA shows two reconciliations for Medicare: (1) changes from the period beginning on January 1, 2018, to the period beginning on January 1, 2019, and (2) changes from the period beginning on January 1, 2017, to the period beginning on January 1, 2018. All estimates relating to the Medicare program in the SCSIA represent values that are incremental to the prior change. As an example, the present values shown for demographic data, assumptions, and methods represent the additional effect that these assumptions have, once the effects from the change in the valuation period and projection base have been considered. In general, an increase in the present value of net cash flows represents a positive change, while a decrease in the present value of net cash flows represents a negative change.

Assumptions Used for the Components of the Changes for the Medicare Program

The present values included in the SCSIA are for the current and prior years and are based on various economic and demographic assumptions used for the intermediate assumptions in the Medicare Trustees' Reports for these years. The Medicare – Demographic and Economic Assumptions table summarizes these assumptions for the current year**.**

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

Present values as of January 1, 2018 are calculated using interest rates from the intermediate assumptions of the 2018 Trustees' Report. All other present values in this part of the SCSIA are calculated as a present value as of January 1, 2019. Estimates of the present value of changes in social insurance amounts due to changing the valuation period, projection base, demographic assumptions, and law are presented using the interest rates under the intermediate assumptions of the 2018 Trustees' Report. Since interest rates are an economic estimate and all estimates in the table are incremental to the prior change, the estimates of the present values of changes in economic and health care assumptions are calculated using the interest rates under the intermediate assumptions of the 2019 Trustees' Report.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

Present values as of January 1, 2017 are calculated using interest rates from the intermediate assumptions of the 2017 Trustees' Report. All other present values in this part of the SCSIA are calculated as a present value as of January 1, 2018. Estimates of the present value of changes in social insurance amounts due to changing the valuation period, projection base, demographic assumptions, and law are presented using the interest rates under the intermediate assumptions of the 2017 Medicare Trustees' Report. Since interest rates are an economic estimate and all estimates in the table are incremental to the prior change, the estimates of the present values of changes in economic and health care assumptions are calculated using the interest rates under the intermediate assumptions of the 2018 Trustees' Report.

Changes in Valuation Period

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The effect on the 75-year present values of changing the valuation period from the prior valuation period (2018-2092) to the current valuation period (2019-2093) is measured by using the assumptions for the prior valuation period and extending them, in the absence of any other changes, to cover the current valuation period. Changing the valuation period removes a small negative net cash flow for 2018, replaces it with a much larger negative net cash flow for 2093, and measures the present values as of January 1, 2019, one year later. Thus, the present value of estimated future net cash flow (including or excluding the combined Medicare Trust Fund assets at the start of the period) decreased (made more negative) when the 75-year valuation period changed from the prior valuation period (2018-2092) to the current valuation period (2019-2093). In addition, the effect on the level of assets in the combined Medicare Trust Funds of changing the valuation period is measured by assuming all values projected in the prior valuation for the year 2018 are realized. The change in valuation period resulted in a slight increase in the starting level of assets in the combined Medicare Trust Funds. As a result, the present value of the estimated future net cash flows decreased by $1.4 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The effect on the 75-year present values of changing the valuation period from the prior valuation period (2017-2091) to the current valuation period (2018-2092) is measured by using the assumptions for the prior valuation period and extending them, in the absence of any other changes, to cover the current valuation period. Changing the valuation period removes a small negative net cash flow for 2017, replaces it with a much larger negative net cash flow for 2092, and measures the present values as of January 1, 2018, one year later. Thus, the present value of estimated future net cash flow (including or excluding the combined Medicare Trust Fund assets at the start of the period) decreased (became more negative) when the 75-year valuation period changed from 2017-2091 to 2018-2092. In addition, the effect on the level of assets in the combined Medicare Trust Funds of changing the valuation period is measured by assuming all values projected in the prior valuation for the year 2017 are realized. The change in valuation period resulted in a very slight increase in the starting level of assets in the combined Medicare Trust Funds. As a result, the present value of the estimated future net cash flows decreased by $1.4 trillion.

Changes in the Demographic Data, Assumptions, and Methods

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The demographic assumptions used in the Medicare projections are the same as those used for the OASDI and are prepared by the Office of the Chief Actuary at the SSA.

The ultimate demographic assumptions for the current valuation (beginning on January 1, 2019) are the same as those for the prior valuation. However, the starting demographic values and the way these values transition to the ultimate assumptions were changed. The numbers of new LPRs for calendar years 2018 and 2019 were assumed to be slightly lower than projected in the prior valuation period, due to recent lower annual refugee ceilings set by the Administration.

- The current valuation incorporated a gradual rise in 2017 and 2018 of other-than-LPR immigrants, reaching the ultimate assumed level in 2019. In contrast, the prior valuation incorporated a surge in the number of other-than-LPR immigrants for years 2016 through 2021.
- Final birth rate data for 2017 indicated slightly lower birth rates than were assumed in the prior valuation.
- Incorporating 2016 mortality data obtained from the NCHS for ages under 65 and 2016 and preliminary 2017 mortality data from Medicare experience for ages 65 and older resulted in higher death rates for all future years than were projected in the prior valuation.

There were two notable changes in demographic methodology:

- Improved the method for projecting fertility rates by better incorporating detailed provisional birth rate data available from NCHS.
- Incorporated more comprehensive Medicare mortality data from CMS.

These changes lowered overall Medicare enrollment for the current valuation period and resulted in a slight increase in the estimated future net cash flow. The present value of estimated income and expenditures are lower for Parts A, Part B, and Part D. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to increase by $0.4 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The demographic assumptions used in the Medicare projections are the same as those used for OASDI and are prepared by the Office of the Chief Actuary at SSA.

The ultimate demographic assumptions for the current valuation (beginning on January 1, 2018), with the exception of a small decrease of 10,000 LPR immigrants per annum in the future, are the same as those for the prior valuation. However, the starting demographic values and the way these values transition to the ultimate assumptions were changed.

- Final birth rate data for 2016 indicated slightly lower birth rates than were assumed in the prior valuation.
- Recent fertility data suggests that the short-term increase in the total fertility rate used in the prior valuation to account for an assumed deferral in childbearing (resulting from the recent economic downturn) was no longer warranted. The observed persistent drop in the total fertility rate in recent years is now assumed to be a loss of potential births rather than just a deferral for this period.
- Incorporating 2015 mortality data obtained from the NCHS at ages under 65 and preliminary 2015 mortality data from Medicare experience at ages 65 and older resulted in higher death rates for all future years than were projected in the prior valuation.
- More recent LPR and other-than-LPR immigration data and historical population data were included.

There was one notable change in demographic methodology:

- Improved the method for projecting mortality rates by marital status by utilizing recent data from NCHS and the American Community Survey.

These changes lowered overall Medicare enrollment for the current valuation period and resulted in an increase in the estimated future net cash flow. The present value of estimated income and expenditures are both lower for Part A and Part B but higher for Part D. Overall, changes to these assumptions caused the present value of the estimated future net cash flows to increase by $0.6 trillion.

Changes in Economic and Other Health Care Assumptions

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The economic assumptions used in the Medicare projections are the same as those used for OASDI and are prepared by the Office of the Chief Actuary at SSA.

For the current valuation (beginning on January 1, 2019), there were four changes to the ultimate economic assumptions.

- The ultimate annual rate of change in total-economy labor productivity was lowered from 1.70 percent in the prior valuation to 1.60 percent in the current valuation, reflecting an expected slower rate of productivity growth in the long term.
- The difference between the ultimate growth rates for the CPI-W and the GDP implicit price deflator (the "price differential"), was decreased from 0.40 percentage point in the prior valuation to 0.35 percentage point in the current valuation.
- The ultimate average real-wage differential was increased from 1.20 percentage points in the prior valuation to 1.21 percentage points in the current valuation.
- The ultimate real interest rate was lowered by 0.20 percentage point, from 2.70 percent in the prior valuation to 2.50 percent in the current valuation.

In addition to these changes in ultimate assumptions, the starting economic values and the way these values transition to the ultimate assumptions were changed. The most notable change was to include the July 2018 revisions in historical GDP estimated by BEA of DOC. This and other smaller changes in starting values and near-term growth assumptions combined to increase the present value of estimated future net cash flows.

There was one notable change in economic methodology:

- Incorporated more recent projections of disability prevalence in the labor force participation model.

The health care assumptions are specific to the Medicare projections. The following health care assumptions were changed in the current valuation:

- Lower assumed growth in economy-wide productivity, which results in higher payment updates for certain providers.
- Faster projected spending growth for physician-administered drugs under Part B.
- Higher projected drug manufacturer rebates and slower overall drug price increases assumed in the short-range period.

The net impact of these changes resulted in a decrease in the estimated future net cash flow for total Medicare. For Part A and Part B, these changes increased the present value of estimated future income and expenditures. For Part D, these changes resulted in a decrease in the present value of estimated expenditures (and also income). Overall, the net impact of these changes caused the present value of estimated future net cash flows to decrease by $3.0 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

The economic assumptions used in the Medicare projections are the same as those used for the OASDI and are prepared by the Office of the Chief Actuary at SSA.

The ultimate economic assumptions for the current valuation (beginning on January 1, 2018) are the same as those for the prior valuation. However, the starting economic values and the way these values transition to the ultimate assumptions were changed.

- The estimated level of potential GDP was reduced by about 1 percent in 2017 and throughout the projection period, primarily due to the slow growth in labor productivity for 2010 through 2017 and low unemployment rates in 2017. This lower estimated level of potential GDP means that cumulative growth in actual GDP is 1 percent less over the remainder of the projected recovery than was assumed in the prior valuation.
- Near-term interest rates were decreased, reflecting a more gradual path for the rise to the ultimate real interest rate than was assumed in the prior valuation.
- New data from the BEA indicated lower-than-expected ratios of labor compensation to GDP for 2016 and 2017, while new data from the IRS indicated lower-than-expected ratios of taxable payroll to GDP for 2016 and 2017.
- This new data led to assumed extended recoveries in these ratios to the unchanged ultimate ratios.

There was one notable change in economic methodology:

- Improved the method for projecting educational attainment among women in age groups 45-49 and 50-54 in the labor force participation model.

The health care assumptions are specific to the Medicare projections. The following health care assumptions were changed in the current valuation.

- Utilization rate assumptions for inpatient hospital services were decreased.
- Utilization rate and case mix for skilled nursing facilities services were decreased. Payment rates to private health plans are higher than projected in last year's report primarily due to higher risk scores and increased coding by plans.
- Higher projected drug manufacturer rebates.

The net impact of these changes resulted in a decrease in the estimated future net cash flow for total Medicare. For Part A, these changes resulted in an overall decrease in the estimated future net cash flow. For Part B, these changes increased the present value of estimated future expenditures (and also income). For Part D, these changes decreased the present value of estimated expenditures (and also income). Overall, the net impact of these changes caused the present value of estimated future net cash flows to decrease by $1.5 trillion.

Changes in Law

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

The provisions enacted as part of Medicare legislation since the prior valuation date had no measurable impact on program expenditures. For more information on the legislation please see section V.A of the 2019 Medicare Trustees' Report.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

Most of the provisions enacted as part of Medicare legislation since the prior valuation date had little or no impact on the program. The following provisions did have a financial impact on the present value of the 75-year estimated future income, expenditures, and net cash flow.

- The *Disaster Tax Relief and Airport and Airway Extension Act of 2017* (P.L. 115-63, enacted on September 29, 2017) included one provision that affects the HI and SMI Part B programs.
- *An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018* (P.L. 115-97, enacted on December 22, 2017, and also referred to as the TCJA of 2017) included three provisions that affect the HI program.
- *An Act Making Further Continuing Appropriations for the Fiscal Year Ending September 30, 2018*, and for Other Purposes (P.L. 115-120, enacted on January 22, 2018) included one provision that affects the HI and SMI programs.
- The *BBA of 2018* (P.L. 115-123, enacted on February 9, 2018) included provisions that affect the HI and SMI programs.

Overall, these provisions resulted in a decrease in the estimated future net cash flow for total Medicare. For Part A, these changes resulted in an increase to the present value of estimated future expenditures and a slight decrease to the present value of estimated future income, with an overall net decrease in the estimated future net cash flow. For Part B and Part D, these changes increased the present value of estimated future expenditures (and also income). Overall, these changes to these assumptions caused the present value of the estimated future net cash flows to decrease by $1.0 trillion.

Change in Projection Base

From the period beginning on January 1, 2018 to the period beginning on January 1, 2019

Actual income and expenditures in 2018 were different than what was anticipated when the 2018 Trustees' Report projections were prepared. Part A income in 2018 was lower and expenditures were higher than anticipated based on actual experience. For both Part B and Part D, total income and expenditures were higher than estimated based on actual experience. The net impact of the Part A, B, and D projection base changes is a decrease in the estimated future net cash flow. Actual experience of the Medicare Trust Funds between January 1, 2018 and January 1, 2019 is incorporated in the current valuation and is more than projected in the prior valuation. Overall, the net impact of the Part A, B, and D projection base changes is a decrease in the estimated future net cash flows by $0.5 trillion.

From the period beginning on January 1, 2017 to the period beginning on January 1, 2018

Actual income and expenditures in 2017 were different than what was anticipated when the 2017 Medicare Trustees' Report projections were prepared. Part A payroll tax income in 2017 was lower attributable to lowered wages and expenditures were higher than anticipated based on actual experience. Part B total income and expenditures were higher than estimated based on actual experience. For Part D, actual income and expenditures were both lower than prior estimates. The net impact of the Part A, B, and D projection base changes is a decrease in the estimated future net cash flow. Actual experience of the Medicare Trust Funds between January 1, 2017 and January 1, 2018 is incorporated in the current valuation and is less than projected in the prior valuation. Overall, the net impact of the Part A, B, and D projection base changes is a decrease in the estimated future net cash flows by $0.9 trillion.

Other

The present values included in the SCSIA for the RRP are for the current and prior valuation and are based on various employment, demographic, and economic assumptions that reflect the RRB's reasonable estimate of expected future financial and actuarial status of the trust funds. For a more detailed description of the primary reasons for the changes in the 2019 and 2018 SCSIA, refer to RRB's financial statements.

The significant assumptions used in the projections of the Black Lung social insurance program, referenced earlier in this note, affect the amounts reported on the SCSIA, which presents the net change in the open group measure of the BLDTF for the years ended September 30, 2019 and 2018, and provide information about the change. For a more detailed description of the primary reasons for the changes in the 2019 and 2018 SCSIA, refer to DOL's financial statements.

Note 23. Long-Term Fiscal Projections

The SLTFP is prepared pursuant to SFFAS No. 36, *Comprehensive Long-Term Projections for the U.S. Government*. The financial statement, Note 23, and unaudited 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 SLTFP 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 2019 and 2018 are expressed in present value dollars and as a percent of the present value of GDP[10] as of September 30, 2019 and September 30, 2018, respectively. The present value of a future amount, for example $1 billion in October 2094, is the amount of money that if invested on September 30, 2019 in an account earning the government borrowing rate would have a value of $1 billion in October 2094.[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 corporation 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 2019 Social Security and Medicare Trustees' Reports and the 2019 SOSI, while comparative information presented from last year's report is based on the 2018 Social Security and Medicare Trustees' Reports and the 2018 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, builds off current law, but can be different than current law in cases where lawmakers have in the past periodically changed the law in a consistent way. The specific assumptions that depart from current law and are used for the current policy basis of these projections are explained below.

The projections shown in the SLTFP 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,

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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/.

whereas the Trustees' Reports feature calendar-year projections. Using fiscal years allows the projections to start from the actual budget results from fiscal years 2019 and 2018.

Changes in Long-Term Fiscal Projections Present Value (PV) of 75-Year Projections	**Trillions of $**	**Percent of 75-Year PV of GDP**
Receipts less non-interest spending as of September 30, 2018.......	(46.2)	(3.3) %
Components of Change:		
Change in Reporting Period	(1.0)	-
Change due to Economic and Demographic Assumptions	(1.6)	0.1
Change due to Program-Specific Actuarial Assumptions	(1.1)	(0.1)
Change due to Updated Budget Data	0.9	0.1
Change in Model Technical Assumptions	-	-
Total	(2.9)	0.1
Receipts less non-interest spending as of September 30, 2019.......	(49.0)	(3.2)

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 3.2 percent of the current 75-year present value of GDP, compared to 3.3 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, affecting the projections was the update of economic and demographic assumptions. While the present value of receipts less non-interest spending deteriorated by an additional $1.6 trillion and appears to worsen the fiscal position, as a percent of the 75-year present value of GDP ($1,531.8 trillion, compared to last year's $1,406.3 trillion), the imbalance shrunk by 0.1 percentage point. In moving from the 75-year window's present value of GDP in 2018 to that of these 2019 projections, the increase in GDP exceeded the increase in the imbalance of receipts less non-interest spending and thus improved the fiscal position as a percent of GDP. Larger GDP is attributable both to strong growth assumptions in the projection window and lower projected interest rates that raise the present value of future-year GDP values.
- The second largest factor is the effect of new Social Security and Medicare program-specific actuarial assumptions, which increase this imbalance by about 0.1 percent of the 75-year present value of GDP ($1.1 trillion).[14]
- The third largest change in the table, the change in reporting period – the effect of shifting calculations from 2019 through 2093 to 2020 through 2094 – increases the imbalance of the 75-year present value of receipts less non-interest spending by about $1.0 trillion.
- The last factor – with an overall effect of decreasing the imbalance by about 0.1 percent of GDP ($0.9 trillion) - is attributable to actual budget results for fiscal year 2019 and the budgetary estimates published in the 2020 President's Budget. These were primarily driven by higher individual income tax receipts arising from higher wages and salaries.

The net effect of the changes in the table above, equal to the penultimate row in the SLTFP, shows that this year's estimate of the overall 75-year present value of receipts less non-interest spending is negative -3.2 percent of the 75-year present value of GDP (negative $49 trillion, as compared to a GDP of $1,531.8 trillion). This imbalance can be broken down by funding source. Spending exceeded receipts by 1.7 percent of GDP (about $25.5 trillion) among programs funded by the

[13] The fiscal imbalances reported in the long-term fiscal projections do not include the initial level of publicly held debt, which was $16.8 trillion in 2019 and $15.8 trillion in 2018, and, therefore, they do not by themselves answer the question of how large fiscal reforms must be to make fiscal policy sustainable. See "Sustainability and the Fiscal Gap" and footnote 10 for additional discussion. 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 more information on Social Security and Medicare actuarial estimates, refer to Note 22, "Social Insurance."

government's general revenues, and there is an imbalance of 1.5 percent of GDP (about $23.5 trillion)[15] 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 respect with general revenues.[16, 17] By comparison, the fiscal year 2018 projections showed that programs funded by the government's general revenues had an excess of spending over receipts of 1.7 percent of GDP ($24.2 trillion) while the payroll tax-funded programs had an imbalance of spending over receipts of 1.6 percent of GDP ($22.1 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 5 percentage points to a level of 84 percent by 2022, exceed 100 percent by 2030, and reach 474 percent in 2094. 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 2020 to 2094, 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 2019 or about 79 percent. The target year is the last year of the 75-year period (2094).

The 75-year fiscal gap under current policy is estimated at 3.8 percent of GDP, which is 20.3 percent of the 75-year present value of projected receipts and 17.4 percent of the 75-year present value of non-interest spending. This estimate of the fiscal gap is 0.2 percentage points smaller than was estimated in 2018 (4.1 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 slightly over 0.6 percent of GDP, 3.8 percentage points higher than the projected present value of receipts less non-interest spending shown in the SLTFP. 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. 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

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[15] The 75-year present value imbalance for Social Security and Medicare Part A of $23.5 trillion is comprised of several line items from the SLTFP – Social Security outlays net of Social Security payroll taxes ($23.0 trillion) and Medicare Part A outlays net of Medicare payroll taxes ($10.1 trillion) – as well as subcomponents of these programs not presented separately in the statement. These subcomponents include Social Security, Medicare Part A, and Medicare Part B administrative costs that are classified as non-defense discretionary spending ($0.9 trillion) and Social Security and Medicare Part A income other than payroll taxes: taxation of benefits (-$4.8 trillion), federal employer share (-$1.3 trillion), and other income (-$4.4 trillion).

[16] 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.

[17] 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, $16.8 trillion in 2019 and $15.8 trillion in 2018, 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 2019 by $3.1 trillion (the trust fund balances at that time); the contribution of other programs to federal debt at the end of 2019 was therefore $19.9 trillion. Similarly, the $23.5 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 $3.1 trillion. The $3.1 trillion combined Social Security and Medicare Part A trust fund balance represents a claim on future general revenues.

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. These assumptions differ from those in the President's Budget because they extend for 75 years, rather than 25 years. Additionally, they assume extension of current policy whereas the economic assumptions in the President's Budget assume full implementation of policies reflected in the Budget.[18] The use 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 SLTFP 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 spending in the 2019 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 2019 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 spending from the 2019 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 assumed 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 PPACA on Medicaid enrollment. The projections in the Medicaid Actuarial Report, which end in 2026, are adjusted to accord with the actual Medicaid spending in fiscal year 2019. After 2026, the projections assume no further change in State Medicaid coverage under the PPACA, and the numbers of aged beneficiaries (65-plus years) and non-aged beneficiaries (less than 65 years) are expected to grow at the same rates as the aged and non-aged 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 PPACA Medicaid expansion, and (3) certain limitations relating to the data used to generate the projected per enrollee spending 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

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[18] See the fiscal year 2020 President's Budget, Analytical Perspectives Volume, Chapter 3 "Long-Term Budget Outlook"

[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 $15.5 trillion, or 1.0 percent of GDP.

[20] Christopher J. Truffer, Christian J. Wolfe, and Kathryn E. Rennie, *2017 Actuarial Report on the Financial Outlook for Medicaid*, Office of the Actuary, Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services, September 2018. An updated Medicaid actuarial report for 2018 had not been published in time to be included in this year's sustainability estimates.

effect of the BCA enforcement is projected through 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 2020, implying that such spending will remain constant as a percent of GDP;[21] and (2) projected spending for insurance exchange subsidies starting in 2020 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 2027 for the fiscal year 2019 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 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 PPACA that limits the federal share of spending to 0.504 percent of GDP.

- **Defense and Non-defense Discretionary Spending:** These projections assume that discretionary spending (1) stays within statutory caps that apply through 2021 under the 2019 BBA (or is approximately 6.5% of GDP), (2) falls to a 6.1 percent share of GDP in 2022 and grows to a 6.2 percent share in 2029, where it remains thereafter.[22] Projected overseas contingency operations spending, which is not subject to the caps, is assumed to grow from the actual 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 Budget for fiscal year 2020. That baseline accords with current policy as defined above, including the continuation of the individual income, estate, and gift tax provisions of the TCJA[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 22 percent of wages and salaries in 2033, individual income taxes increase gradually to 28 percent of wages and salaries in 2094 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, corporation tax receipts as a percent of GDP reflect the economic and budget assumptions used in developing the 2020 President's Budget ten-year advance baseline budgetary estimates. After this time, corporation tax receipts grow at the same rate as nominal GDP. All other receipts also reflect 2020 President's Budget levels as a share of GDP throughout the budget window and grow with GDP outside of the budget window. Corporation tax receipts peak at 1.5 percent of GDP in 2025 before falling to 1.2 percent of GDP in 2029, where they stay for the remainder of the projection period. The ratio of all other receipts combined, excluding corporation tax receipts, to GDP is estimated to settle at 1.4 percent in 2021, where it generally remains through the projection period. Also, please see Note 27—Subsequent Events. 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 2019 Social Security Trustees' Report.[24] The average interest rate over this year's projection period is 4.9 percent, down from the 2018 *Financial Report's* 5.0 percent. These rates are also used to convert future cash flows to present values as of the start of fiscal year 2020. 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.

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[21] This assumed growth rate for other mandatory programs exceeds the growth rate in the most recent OMB and CBO 10-year budget baselines.
[22] The 2018 projections assumed that spending in fiscal year 2019 would be consistent with BBA of 2018 spending caps and thereafter grow with GDP subject to Joint Select Committee on Deficit Reduction Controls. See the fiscal year 2018 *Financial Report*.
[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] As indicated in the more detailed discussion of Social Insurance in Note 22 to the financial statements.

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 assumed to be different from current law. The notable differences between current policy that underlies the projections and current law are: (1) projected spending, receipts, and borrowing levels assume raising or suspending 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 depletion; (4) many mandatory programs with expiration dates prior to the end of the 75-year projection period are assumed to be reauthorized; and (5) 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 PPACA productivity adjustment for non-physician Medicare services and the expiration of certain physician bonus payments in 2025.

Note 24. Stewardship Land and Heritage Assets

Stewardship PP&E consists of items whose physical properties resemble those of general PP&E traditionally capitalized in financial statements. However, stewardship PP&E differs from general PP&E in that their values may be indeterminable or may have little meaning (for example, museum collections, monuments, assets acquired in the formation of the nation) or that allocating the cost of such assets to accounting periods that benefit from the ownership of such assets is meaningless. Stewardship PP&E includes stewardship land (land not acquired for or in connection with general PP&E) and heritage assets (for example, federal monuments and memorials and historically or culturally significant property). The majority of stewardship land was acquired by the government during the first century of the nation's existence.

Investments in stewardship land are reported on a non-financial basis. For example, measurement may be based on physical units, such as acres of land. National forests, parks, and historic sites are examples of stewardship land.

Additional detailed information concerning stewardship land, such as entity stewardship policies, physical units by major categories, and the condition of stewardship land, can be obtained from the financial statements of DOC, DOD, DOI, AOC, and USDA.

Heritage assets are government-owned assets that have one or more of the following characteristics:

- Historical or natural significance;
- Cultural, educational, or artistic importance; or
- Significant architectural characteristics.

Like stewardship land, heritage assets are also reported on a non-financial basis. Some stewardship land assets are also included in non-collectible heritage assets, and may be reported by the total units, such as the total number of National Parks reported by DOI. The public entrusts the government with these assets and holds it accountable for their preservation. Examples of heritage assets include the Declaration of Independence, the U.S. Constitution, and the Bill of Rights preserved by the National Archives. Also included are national monuments/structures such as the Washington Monument, the Lincoln Memorial and the LOC. Many other sites such as battlefields, historic structures, and national historic landmarks are placed in this category, as well.

Heritage assets are classified into two categories: collection and non-collection. Collection type heritage assets include objects gathered and maintained for exhibition, for example, museum collections, art collections, and library collections. Non-collection type heritage assets include parks, memorials, monuments, and buildings. In some cases, heritage assets may serve two purposes: a heritage function and general government operations. In those cases, the heritage asset should be considered a multi-use heritage asset if the predominant use of the asset is in general government operations (e.g., the main Treasury building used as an office building). The cost of acquisition, improvement, reconstruction, or renovation of multi-use heritage assets should be capitalized as general PP&E and depreciated over its estimated useful life.

This discussion of the government's heritage assets is not exhaustive. Rather, it highlights significant heritage assets reported by federal entities. Please refer to the individual financial statements of the DOI, DOC, VA, DOT, State, DOD, USDA, as well as websites for the LOC (https://loc.gov), the Smithsonian Institution (https://si.edu), and the Architect of the Capitol (https://aoc.gov) for additional information on multi-use heritage assets, entity stewardship policies, and physical units by major categories.

Note 25. Disclosure Entities and Related Parties

SFFAS No. 47, *Reporting Entity* provides criteria for identifying organizations that are consolidation entities, disclosure entities and related parties, and how such organizations are reported within the *Financial Report*. For consolidation entities, the assets, liabilities, results of operations, and related activity are consolidated into the government's financial statements. For disclosure entities and related parties, balances and transactions with such entities are included in the financial statements and certain information about their relationship with the federal government is disclosed in the notes to the consolidated financial statements. Disclosure entities and related parties are important to the *Financial Report* but are not consolidated into the government's financial statements.

Disclosure Entities

Disclosure entities are organizations similar to consolidation entities in that they are either (a) in the budget, (b) majority owned by the government, (c) controlled by the government, or (d) would be misleading to exclude. Disclosure entities have a greater degree of autonomy with the government than consolidation entities. In addition, organizations may be owned or controlled by the government as a result of (a) regulatory actions (such as organizations in receivership or conservatorship) or (b) other government intervention actions. Under such regulatory or other intervention actions, if the relationship with the government is not expected to be permanent, such entities generally would be classified as disclosure entities based on their characteristics taken as a whole.

Based on the criteria in GAAP for federal entities, the disclosure entities in the *Financial Report* are FR System, Fannie Mae, Freddie Mac, and National Railroad Passenger Corporation (more commonly referred to as Amtrak). In addition, there are additional disclosure entities reported by component reporting entities that do not meet the qualitative or quantitative criteria in SFFAS No. 47 to be reported in the *Financial Report*.

Federal Reserve System

Congress, under the Federal Reserve Act, created the FR System. The FR System includes the Board, the FRBs, and FOMC. Collectively, the FR System serves as the nation's central bank and is responsible for formulating and conducting monetary policy, issuing and distributing currency (Federal Reserve Notes), supervising and regulating financial institutions, providing nationwide payment systems (including large-dollar transfers of funds, Automated Clearing House operations, and check collections), providing certain financial services to federal entities and fiscal principals, and serving as the U.S. government's bank. Monetary policy includes actions undertaken by the FR System that influence the availability and cost of money and credit as a means of helping to promote national economic goals. The FR System also conducts operations in foreign markets in order to counter disorderly conditions in exchange markets or to meet other needs specified by the FOMC to carry out its central bank responsibilities. The FR System is considered an independent central bank, and the executive branch of the government does not ratify its decisions.

The 12 FRBs are chartered under the Federal Reserve Act, which requires each member bank to own the capital stock of its FRB. Each FRB has a board of directors that exercises supervision and control of each FRB, with three members appointed by the Board, and six board members elected by their member banks. The FRBs participate in formulating and conducting monetary policy, distributing currency and coin, and serving as the government's fiscal agent, as well as the fiscal agent for other fiscal principals. Fiscal principals, generally speaking, relate to banks, credit unions, and savings and loan institutions. Additionally, the FRBs provide short-term loans to depository institutions and loans to participants in programs or facilities with broad-based eligibility in unusual and crucial circumstances when approved by the Board and the Secretary of the Treasury.

The government interacts with FRBs in a variety of ways, including the following:

- The FRBs serve as the government's fiscal agent and depositary, executing banking and other financial transactions on the government's behalf. The government reimburses the FRBs for these services, the cost of which is included on the Statements of Net Cost;
- The FRBs hold Treasury and other federal securities in the FRBs' SOMA for the purpose of conducting monetary policy (see Note 11—Federal Debt Securities Held by the Public and Accrued Interest);
- The FRBs hold gold certificates issued by the government in which the certificates are collateralized by gold (see Note 2—Cash and Other Monetary Assets);
- The FRBs hold SDR certificates issued by the government which are collateralized by SDRs (see Note 2—Cash and Other Monetary Assets); and,
- The FRBs are required by Board policy to transfer their excess earnings to the government, which are included in Other Taxes and Receipts on the Statements of Operations and Changes in Net Position.

- **Federal Reserve System Structure**

The Board is an independent organization governed by seven members who are appointed by the President and confirmed by the Senate. The full term of a Board member is 14 years, and the appointments are staggered so that one term expires on January 31 of each even-numbered year. The Board has a number of supervisory and regulatory responsibilities for institutions including, among others, state-chartered banks that are members of the FR System, bank holding companies, and savings and loan holding companies. In addition, the Board has general supervisory responsibilities for the 12 FRBs, and issues currency (Federal Reserve Notes) to the FRBs for distribution.

The FOMC is comprised of the seven Board members and five of the 12 FRB presidents, and is charged with formulating and conducting monetary policy primarily through open market operations (the purchase and sale of certain securities in the open market), the principal tool of national monetary policy. These operations affect the amount of reserve balances available to depository institutions, thereby influencing overall monetary and credit conditions.

- **Federal Reserve Monetary Policy Action**

During fiscal year 2019, the Federal Reserve FOMC gradually lowered its target range for the federal funds rate and gradually reduced its securities in the SOMA. The Federal Reserve initially raised its target range in December 2018 and thereafter lowered its target range for the federal funds rate from 2.0 – 2.25 percent in September 2018, to 1.5 – 1.75 percent in September 2019. The Federal Reserve reduced its U.S. Treasury and federal entity and government-sponsored enterprise MBS in the SOMA on its balance sheet from approximately $4.1 trillion as of September 30, 2018, to approximately $4.0 trillion as of September 30, 2019. FOMC announced plans to conclude the reduction of its aggregate securities holdings at the end of September 2019. In addition, FOMC also implemented the use of repurchase agreement operations to maintain reserves at or above the level that prevailed in early September.

- **Federal Reserve System Assets, Liabilities, Revenues, Expenses, Gains, and Losses**

The FRBs hold Treasury and other securities in the SOMA for the purpose of conducting monetary policy. As of September 30, 2019, Treasury securities held by the FRBs totaled $1,638.0 billion, which excludes $475.0 billion in Treasury Securities used in overnight reverse repurchase transactions. As of September 30, 2018, Treasury securities held by the FRBs totaled $1,782.5 billion, which excludes $531.8 billion in Treasury securities used in overnight reverse repurchase transactions. Such securities are included in federal debt securities held by the public and accrued interest (see Note 11—Federal Debt Securities Held by the Public and Accrued Interest). For fiscal years ended September 30, 2019, and 2018, Treasury incurred interest cost relating to the FRB's U.S. Treasury holdings amounting to $59.0 billion and $64.1 billion, respectively, which is included in interest on Treasury securities held by the public on the Statement of Net Cost. Unrestricted Cash held on deposit at the FRBs as of September 30, 2019, and 2018, was $376.1 billion and $378.5 billion, respectively, and are included in cash and other monetary assets. In addition, restricted cash as of September 30, 2019, and 2018, was $44.7 billion and $31.6 billion, respectively; a significant portion is held on deposit at the FRBs (see Note 2—Cash and Other Monetary Assets). The government issued SDR certificates to the Federal Reserve, valued at $5.2 billion as of September 30, 2019 and 2018, which were reported under Other Liabilities on the government's balance sheet (see Note 16—Other Liabilities).

Treasury securities are generally subject to the same market condition as other financial instruments. In the open market, the FRBs purchase and sell Treasury securities as a mechanism for controlling the money supply.

Financial and other information concerning the FR System, including financial statements for the Board and the FRBs, may be obtained at https://federalreserve.gov.

- **FRB Residual Earnings Transferred to the Government**

FRBs generate income from interest earned on securities, reimbursable services provided to federal entities, and the provision of priced services to depository institutions, as specified by the *Monetary Control Act of 1980*. Although the FRBs generate earnings from carrying out open market operations (via the earnings on securities held in the SOMA account), their execution of these operations is for the purpose of accomplishing monetary policy rather than generating earnings. Each FRB is required by Board policy to transfer to the government its residual (or excess) earnings, after providing for the cost of operations, payment of dividends, and surplus funds not to exceed an FRB's allocated portion of an aggregate of $7.5 billion for all FRBs. These residual earnings may vary due to, among other things, changes in the SOMA balance levels that may occur in conducting monetary policy. If an FRB's earnings for the year are not sufficient to provide for the cost of operations, payment of dividends, or allocated portion of $7.5 billion aggregate surplus funds limitation, an FRB will suspend its payments to the government until such earnings become sufficient. These funds are part of restricted cash at the Federal Reserve (see Note 2—Cash and Other Monetary Assets). The FRB residual earnings of $52.8 billion and $70.8 billion for fiscal years ended September 30, 2019, and 2018, respectively, are reported as other taxes and receipts on the Statements of Operations and Changes in Net Position. Accounts and taxes receivables, net, includes a receivable for FRB's residual earnings which represents the earnings due to the General Fund as of September 30, but not collected by the General Fund until after the end of the month. As of September 30, 2019, and 2018, accounts receivable on FRB's residual earnings are $0.6 billion and $0.4 billion, respectively (see Note 3—Accounts and Taxes Receivables, Net).

Fannie Mae and Freddie Mac

In 2008, during the financial crisis, the government placed Fannie Mae and Freddie Mac under conservatorship to help ensure their financial stability. These entities meet the criteria in SFFAS No. 47, for disclosure entities as both (a) "receiverships and conservatorships," and, (b) as entities wherein "federal government intervention actions resulted in control or ownership" with intervention actions not expected to be permanent. Accordingly, these entities are not consolidated into the government's consolidated financial statements. However, the values of the investments in such entities, changes in value, and related activity with these entities are included in the government's consolidated financial statements (see Note 8—Investments in Government-Sponsored Enterprises for additional information).

Amtrak

Amtrak was incorporated in 1971 pursuant to the *Rail Passenger Service Act of 1970* and is authorized to operate a nationwide system of passenger rail transportation. Amtrak is a private, for-profit corporation under 49 U.S.C. § 24301 and District of Columbia law. It is not a department, entity, or instrumentality of the federal government. Amtrak's classification as a disclosure entity is attributable to being (a) listed in the budget, (b) financed mostly by sources other than taxes, and (c) governed by an independent Board of Directors, which is comprised of 10 directors. The Secretary of Transportation (Secretary), who is a director by statute, and eight of the other Amtrak directors, are appointed by the President with the advice and consent of the U.S. Senate. The 10th board member, appointed by the board, is the President and Chief Executive Officer of Amtrak. Amtrak does not take actions on behalf of the government but benefits the national economy by providing a transportation option in 46 states and the District of Columbia.

The government (through the DOT) owns 100 percent of Amtrak's preferred stock (109,396,994 shares of $100 par value). Each share of preferred stock is convertible into ten shares of common stock. The common stockholders have voting rights for "amendments to Amtrak's Articles of Incorporation proposed by the Board of Directors and for certain other extraordinary events." Although Section 4.02(g) of the Amtrak Articles of Incorporation allow for the conversion of preferred stock to common stock, current government administrative policy is to not convert its holdings without Congressional authorization. Section 4.02(g) of the Amtrak Articles of Incorporation does not limit the timing of conversion or require any preapprovals. Conversion is effective the business day following receipt of written notice of the holder's election to convert. The government does not recognize the Amtrak preferred stock in its financial statements because, under the corporation's current financial structure, the preferred shares do not have a liquidation preference over the common shares, the preferred shares do not have any voting rights, and dividends are neither declared nor in arrears.

In addition to the purchase/ownership of the Amtrak preferred stock, the government has provided funding to Amtrak, since 1972, primarily through grants and loans. Amtrak receives grants from the government that cover a portion of the corporation's annual operating expenses and capital investments. Funding provided to Amtrak through grant agreements are included in the government's annual budget and the DOT financial statements. For the fiscal year ended September 30, 2019, the net cost amount was $2.4 billion, and total budgetary outlays were $1.9 billion. For the fiscal year ended September 30, 2018, the net cost amount was $960.0 million, and total budgetary outlays were $2.0 billion.

The government has possession of two long-term notes with Amtrak. The first note is for $4.0 billion and matures in 2975 and, the second note is for $1.1 billion and matures in 2082 with renewable 99-year terms. Interest is not accruing on these notes as long as the current financial structure of Amtrak remains unchanged. If the financial structure of Amtrak changes, both principal and accrued interest are due and payable. The government does not recognize the long-term notes in its financial statements since the notes, with maturity dates of 2975 and 2082, are considered fully uncollectible due to the lengthy terms, Amtrak's history of operating losses, and ability to generate funds for repayment. Amtrak's ability to continue to operate in its current form is dependent upon the continued receipt of subsidies from the government.

Financial and other information concerning Amtrak including financial statements may be obtained at https://www.amtrak.com/reports-documents.

Related Parties

Related parties exist if the existing relationship, or one party to the existing relationship, has the ability to exercise significant influence over the party's policy decisions. Related parties do not meet the principles for inclusion, but are reported in the *Financial Report* if they maintain relationships of such significance that it would be misleading to exclude.

Based on the criteria in SFFAS No. 47, the related parties reported in the *Financial Report* are FHLBanks, IMF, Multilateral Banks, and PEFCO. In addition, there are additional related parties reported by component reporting entities that do not meet the criteria to be reported in the *Financial Report*.

Federal Home Loan Banks

The government is empowered with supervisory and regulatory oversight of the 11 FHLBanks. The government is responsible for ensuring that each regulated entity operates in a safe and sound manner, including maintenance of adequate capital and internal control, and carries out its housing and community development finance missions. Each FHLBank operates as a separate federally chartered corporation with its own board of directors, management, and employees. The FHLBanks are GSEs that were organized under the *Federal Home Loan Bank Act of 1932*, to serve the public by enhancing the availability of credit for residential mortgages and targeted community development. They are financial cooperatives that provide a readily available, competitively-priced source of funds to their member institutions. The FHLBanks do not have any special purpose entities or any other type of off-balance sheet conduits. The FHLBanks are not government entities and do not receive financial support from taxpayers. The government does not guarantee, directly or indirectly, the debt securities or other obligations of FHLBanks.

By law, in the event of certain adverse circumstances, Treasury is authorized to purchase up to $4.0 billion of obligations of the FHLBanks. This authority may be exercised only if alternative means cannot be effectively employed to permit the FHLBanks to continue to supply reasonable amounts of funds to the mortgage market, and the ability to supply such funds is substantially impaired because of monetary stringency and a high level of interest rates. Any funds borrowed from the U.S. Treasury shall be repaid by the FHLBanks at the earliest practicable date. Treasury has not used such authority. Also, in accordance with the *Government Corporations Control Act*, Treasury prescribes certain terms concerning the FHLBanks issuance of obligations to the public. Financial and other information concerning FHLBanks including financial statements may be obtained at http://www.fhlbanks.com/.

International Monetary Fund and Multilateral Development Banks

The IMF's primary purpose is to ensure the stability of the international monetary system—the system of exchange rates and international payments that enables countries to transact with each other. Member countries provide resources for IMF loans through their subscription quotas (quotas). The IMF also has two pools of resources that can be used in the event of a crisis that requires lending beyond the level available from quota resources: (i) the NAB and (ii) bilateral borrowing arrangements. Participation in the IMF works like an exchange of monetary assets.

Quotas are the principal component of the IMF's financial resources and are denominated in SDRs. The size of each member's quota is based broadly on its relative position in the world economy. The U.S. holds the largest quota of any IMF member. Since 2016, U.S. quota in the IMF has been about SDRs 83 billion. The equivalent dollar value of the quota total U.S. as of September 30, 2019 and 2018, was approximately $113.0 billion and approximately $115.6 billion, respectively. The government has funded a portion of U.S. quota to the IMF for lending, represented by U.S. reserve position at the IMF, while the remainder of the U.S. quota is represented by a letter of credit on which the IMF can draw as needed for lending. The U.S. reserve position was approximately $23.0 billion as of September 30, 2019, and approximately $15.4 billion as of September 30, 2018, with the remaining undrawn letter of credit representing the balance (see Note 2—Cash and Other Monetary Assets and Note 19—Commitments). The government's quota serves as the key determinant for its 16.5 percent share of voting rights in various IMF decisions. Since certain key IMF decisions require approval by at least 85 percent of the voting power, the government (represented by the Secretary of the Treasury) holds a substantial voice in the IMF and exercises significant influence over IMF policies, including veto power over major IMF decisions.

Some IMF members also supplement the IMF's resources through the NAB and bilateral borrowing agreements. Through the NAB, the U.S. and other participating members make additional resources available to the IMF if required to cope with or forestall an impairment of the international monetary system. The government's participation in the NAB as of September 30, 2019 and 2018, was SDR 28.2 billion, which is equivalent to $38.4 billion and $39.3 billion, respectively. When the government transfers funds to the IMF under the NAB, it receives a liquid and interest-bearing claim on the IMF. As of September 30, 2019, and 2018, loans outstanding to the IMF from the government under the NAB stood at $2.5 billion and $4.5 billion, respectively. These loans were reported under Loans Receivable on the Balance Sheet. The NAB is not currently activated, and the U.S. has veto power over its activation, as well as over most changes to its terms or size. The government does not have a bilateral borrowing agreement with the IMF, though it exercises indirect control over their activation, since NAB activation is a prerequisite for the IMF to draw on its bilateral borrowing arrangements.

As of September 30, 2019, and 2018, the government's total undrawn financial commitment to the IMF was $125.9 billion and $135.0 billion, respectively, which is composed of the quota related letter of credit and the undrawn portion of the NAB (see Note 19—Commitments).

Under the IMF Articles of Agreement, the IMF may allocate SDRs to member countries in proportion to their IMF quotas. SDR allocations are an international reserve asset created by the IMF to supplement its member countries' official reserves. The SDR allocation creates an asset and a liability on the Balance Sheet but does not increase the IMF's available lending resources. The SDR asset as of September 30, 2019 and 2018, amounted to $50.1 billion and $51.0 billion, respectively, and includes the SDR allocation as well as purchased SDRs (see Note 2—Cash and Other Monetary Assets). The SDR liability as of September 30, 2019 and 2018, amounted to $48.1 billion and $49.3 billion, respectively (see Note 16—Other Liabilities).

Historically, IMF has never experienced a default by a borrowing country. The government, which is not directly exposed to borrowers from the IMF, has never experienced a loss of value on its IMF quota or an instance of non-repayment, and it is not likely that the government will experience future losses as a result of its additional commitments.

Additionally, the government invests in and provides funding to the MDBs to support poverty reduction and promote sustainable economic growth in developing countries. The MDBs provide financial and technical support by means of strengthening institutions, providing assistance that addresses the root causes of instability in fragile and conflict-affected countries, responding to global crisis, and fostering economic growth and entrepreneurship. The government's participation in the MDBs is in the form of financial contributions used to ensure the effectiveness and impact of the MDBs' global development agenda. The U.S. has voting power in each of the MDBs to which it contributes, ranging from approximately 6 percent to 50 percent (see Note 9—Other Assets and Note 19—Commitments for additional information).

Private Export Funding Corporation

The financial statements reflect the results of agreements with PEFCO. PEFCO, which is owned by a consortium of private-sector banks, industrial companies, and financial services institutions, makes and purchases from private sector lenders, medium-term and long-term fixed-rate, and variable-rate loans guaranteed by EXIM Bank to foreign borrowers to purchase U.S. made equipment "export loans."

EXIM Bank's credit and guarantee agreement with PEFCO provides that EXIM Bank will guarantee the due and punctual payment of interest on PEFCO's secured debt obligations which EXIM Bank has approved. It grants to EXIM Bank a broad measure of supervision over PEFCO's major financial management decisions, including the right to have representatives be present in all meetings of PEFCO's board of directors, advisory board, and exporters' council, and to review PEFCO's financials and other records. However, EXIM Bank does not have voting rights and does not influence normal operations. This agreement extends through December 31, 2020.

In addition, PEFCO has an agreement with EXIM Bank which provides that EXIM Bank will generally provide PEFCO with an unconditional guarantee covering the due and punctual payment of principal and interest on export loans PEFCO makes and purchases. PEFCO's guarantees on the export loans plus the guarantees on the secured debt obligations aggregating to $4,060.5 million at September 30, 2019 and $5,196.6 million at September 30, 2018, are included by EXIM Bank in the total for guarantee, insurance and undisbursed loans. The allowance related to these transactions is included in the Guaranteed Loan Liability on the Balance Sheets.

EXIM Bank received fees totaling $44.7 million in fiscal year 2019 and $40.8 million in fiscal year 2018 for the agreements, which are included in Earned Revenue on the Statements of Net Cost.

Note 26. Public-Private Partnerships

The government enters into various collaborative relationships with private sector entities in which the goals, structures, governance, roles and responsibilities are mutually determined to produce a risk-sharing arrangement. These relationships are referred to as P3s, in accordance with SFFAS No. 49, *Public-Private Partnerships: Disclosure Requirements*. While many of the government's relationships are classified as and may be referred to as a P3, only those meeting the disclosure requirements outlined in SFFAS No. 49 are disclosed.

The National Energy Conservation Policy Act, as amended, authorizes federal entities to enter into ESPC contracts for the purpose of achieving energy savings and other related benefits. In consultations with the entity, the contractor designs and constructs a project that meets the entity's needs and arranges the necessary funding. The contractor guarantees that the improvements will generate energy cost savings sufficient to pay for the project over the term of the contract. The cost of the ESPC project must be covered by the energy, water and related cost savings generated at the project site. DOE and GSA have entered into contracts with the private sector that meet the criteria for P3. These contracts allow federal entities to produce energy savings and facility improvements with no up-front capital costs or special appropriations from Congress. Future aggregate payments to be made by DOE and GSA are $1.4 billion and $1.6 billion, respectively, over the course of the agreements. After an ESPC contract ends, all additional cost savings accrue to the entities. The entities are responsible for contract administration over the term of the contracts and by statute, P3s cannot exceed 25 years.

In addition to the energy contracts, the DOC has entered into P3 contracts on other matters. Congress has tasked DOC's FirstNet with the responsibility to ensure the deployment and operation of a nationwide interoperable broadband network to meet the communication needs of public safety. This network must be designed to be reliable, functional, safe, and secure, and to provide optimal levels of operational capability at all times. This network will help produce lower costs, consumer-driven economies of scale, and rapid evolution of advanced communication capabilities. The Nationwide Public Safety Broadband Network will be built out, deployed, operated, and maintained under a 25-year contract awarded by FirstNet to AT&T in March 2017. The service will cover all 50 U.S. states, five territories, and the District of Columbia, including rural communities and tribal nations. Under the terms of the contract, future receipts for DOC are $17.6 billion based on annual payments AT&T is required to make. Additionally, DOC is required to make payments to AT&T for success-based payment milestones under fixed firm price buildout task orders. The total paid in fiscal year 2019 was $1.5 billion. No estimates can be made at this time as to any further payments to AT&T that might occur under the contract.

Only entities material to the *Financial Report* are included, for more information please refer to the individual financial statements of DOC, DOE and GSA for further details on P3 activity.

Note 27. Subsequent Events

Patient Protection and Affordable Care Act Excise Tax

The SOSI, SCSIA and SLTFP do not reflect legislation enacted subsequent to September 30, and the end of the fiscal year. In December 2019, the *Further Consolidated Appropriations Act, 2020* repealed the PPACA excise tax on certain applicable employer-sponsored healthcare coverage. The effect of this legislation on the SOSI, SCSIA, and SLTFP is not currently reasonably estimable, but may be material, and will be incorporated into the estimates for the fiscal year 2020 SOSI, SCSIA, and SLTFP.

PBGC Multi-Employer Program

In December 2019, the enactment of the *Bipartisan American Miners Act of 2019* provided additional funding for future annual Treasury transfers to the 1974 United Mine Workers of America Pension Plan (covered by PBGC's multi-employer program). PBGC is currently assessing the effect of the legislation on its liabilities and contingency disclosures (including the estimated insolvency date for the multi-employer program), but the effect is not currently reasonably estimable.

Please refer to Note 15—Insurance and Guarantee Program Liabilities and Note 18—Contingencies for more information.