Note 25. Social Insurance

SOSI presents the projected actuarial PV 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. Social Security and Medicare projections are based on current law and the Social Security and Medicare trustees intermediate set of assumptions, except that the projections assume full Social Security and Medicare Part A benefits are paid after fund depletion contrary to current law.

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. 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). By accounting convention, the General Fund transfers are eliminated in the consolidation of the SOSI at the government-wide level. These General Fund transfers that are used to finance Medicare Parts B and D are also shown as eliminations on these calculations. For the FYs 2022 and 2021, the amounts eliminated totaled \$47.5 trillion and \$43.2 trillion, respectively.

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 Part A law provides for full benefit payments only to the extent that there are sufficient balances in the trust funds. Social insurance programs utilize "trust funds" to account for dedicated collections held for later use to accomplish the program's purpose. Expenditures reflect full benefit payments even after the point at which trust fund asset reserves are projected to be depleted. Refer to the unaudited RSI–Social Insurance section and SSA's, HHS's, RRB's, and DOL's financial statements for additional information on Social Security, Medicare, Railroad Retirement, and Black Lung program financing.

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. The closed group comprises only current participants which are those who have attained age 15 at the start of the projection period. Actuarial PV 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 aged at least 15 years at the start of the projection period. Future participants for Social Security and Medicare include those born 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.

The trust fund balances as of the valuation date for the respective programs, including interest earned, are shown in the table below.²⁷ The PV of estimated future expenditures in excess of estimated future revenue are calculated by subtracting the actuarial PV of future scheduled contributions as well as dedicated tax income by and on behalf of current and future participants from the actuarial PV 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 PV of expenditures in excess of revenues over the period. 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 Treasury of special nonmarketable, intra-governmental 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 government-wide level. For additional information, see Note 22—Funds from Dedicated Collections.

²⁷ Trust fund balances for the Railroad Retirement and Black Lung programs are not included, as these balances are less than \$50.0 billion.

| Social Insurance Programs Trust Fund Balances¹ | | | | | | | | | |
|--|------|------|------|------|------|--|--|--|--|
| (In trillions of dollars) | 2022 | 2021 | 2020 | 2019 | 2018 | | | | |
| Social Security | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | | | | |
| Medicare | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | | | | |
| As of the valuation date of the respective programs. | | | | | | | | | |

Medicare - Illustrative Alternative Scenario

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. Certain features of current law may result in some challenges for the Medicare program including physician payments, payment rate updates for most non-physician categories, and productivity adjustments. Payment rate updates for most non-physician categories of Medicare providers are reduced by the growth in economy-wide private nonfarm business total factor productivity although these health providers have historically achieved lower levels of productivity growth. Should payment rates prove to be inadequate for any service, beneficiaries' access to and the quality of Medicare benefits would deteriorate over time, or future legislation would need to be enacted that would likely increase program costs beyond those projected under current law. Please refer to the unaudited RSI—Social Insurance and HHS financial statements for additional information.

To help illustrate and quantify the potential magnitude of the cost understatement, the Trustees asked the Office of the Actuary at CMS to prepare the following illustrative Medicare Trust Fund projections under a hypothetical alternative. This scenario illustrates the impact that would occur 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 transition to the Medicare Economic Index, and the 5.0 percent bonuses paid to qualified physicians in advance APM did not expire. 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. This alternative was developed for illustrative purposes only and the calculations have not been audited.

Medicare Present Values (Unaudited)

| (In trillions of dollars) | 2022 Consolidated SOSI Current Law | Illustrative Alternative Scenario 1, 2 | | |
|------------------------------------|--|--|--|--|
| (III tillions of dollars) | Current Law | Scenario | | |
| Income: | | | | |
| Part A | . 30.2 | 30.2 | | |
| Part B ³ | . 17.1 | 19.3 | | |
| Part D⁴ | . 3.7 | 3.7 | | |
| Total income | . 51.0 | 53.2 | | |
| Expenditures: Part A Part B | | 41.6 63.7 | | |
| Part D | . 11.7 | 11.7 | | |
| Total expenditures | . 103.5 | 117.0 | | |
| Income less expenditures: | | | | |
| Part A | . (5.0) | (11.4) | | |
| Part B | . (39.5) | (44.4) | | |
| Part D | . (8.0) | (8.0) | | |
| Excess of expenditures over income | (52.5) | (63.8) | | |

¹ These amounts are not presented in the current fiscal year Trustees Report.

² A set of illustrative alternative Medicare projections has been prepared under a hypothetical modification to current law. No endorsement of the illustrative alternative by the Trustees, CMS, or the Office of the Actuary should be inferred.

³ Excludes \$39.5 trillion and \$44.4 trillion of general revenue contributions from the 2022 Consolidated SOSI Current Law projection and the Illustrative Alternative Scenario's projection, respectively; i.e., to reflect Part B income on a consolidated government-wide basis.

⁴ Excludes \$8.0 trillion of general revenue contributions from both the 2022 Consolidated SOSI Current Law projection and the Illustrative Alternative projection; i.e., to reflect Part D income on a consolidated government-wide basis.

Demographic and Economic Assumptions

Social Security and Medicare - Demographic and Economic Assumptions and Summary Measures

| | Demographic Assumptions | | | | | | | | |
|---|-------------------------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 2022 | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 | 2090 | 2100 ¹³ |
| Total Fertility Rate ¹ | 1.7 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Age-Sex Adjusted Death Rate ² | 824.8 | 738.4 | 679.8 | 627.2 | 580.6 | 539.3 | 502.6 | 469.9 | 440.6 |
| Net Annual Immigration ³ | 1,440 | 1,341 | 1,288 | 1,256 | 1,240 | 1,228 | 1,221 | 1,217 | 1,215 |
| Period Life Expectancy at Birth - Male ⁴ | 75.7 | 77.1 | 78.2 | 79.2 | 80.2 | 81.2 | 82.0 | 82.9 | 83.7 |
| Period Life Expectancy at Birth - | | | | | | | | | |
| Female⁴ | 80.9 | 82.1 | 83.0 | 83.9 | 84.7 | 85.4 | 86.2 | 86.8 | 87.5 |
| | | | | | | | | | |

| _ | Economic Assumptions (percent change) | | | | | | | | |
|---|---------------------------------------|------|------|------|------|------|------|------|--------------------|
| | 2022 | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 | 2090 | 2100 ¹³ |
| Real Wage Differential ⁵ | 2.0 | 1.3 | 1.2 | 1.1 | 1.2 | 1.2 | 1.1 | 1.1 | 1.2 |
| Wages ⁶ | 6.5 | 3.7 | 3.6 | 3.5 | 3.6 | 3.6 | 3.5 | 3.5 | 3.6 |
| CPI ⁷ | 4.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Real GDP ⁸ | 3.9 | 2.0 | 1.9 | 2.0 | 2.0 | 1.9 | 2.0 | 2.1 | 2.0 |
| Total Employment ⁹ | 3.1 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.5 | 0.4 |
| Avg. Annual Interest Rate (percent) ¹⁰ | 1.8 | 4.6 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |
| Real Interest Rate (percent) ¹¹ | (3.0) | 2.1 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | - |
| Per Beneficiary Cost - HI ¹² | 6.7 14 | 3.7 | 4.2 | 3.4 | 3.4 | 3.4 | 3.5 | 3.5 | - |
| Per Beneficiary Cost - SMI Part B12 | 6.8 14 | 5.3 | 4.7 | 3.8 | 3.8 | 3.6 | 3.7 | 3.7 | - |
| Per Beneficiary Cost - SMI Part D12 | $(0.2)^{15}$ | 4.3 | 4.2 | 4.3 | 4.2 | 4.0 | 4.1 | 4.2 | - |

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 per thousand of persons.

⁴ Summary measure of 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. (Social Security)

⁵ Difference between percentage increases in wages and the CPI.

⁶ Average annual wage in covered employment.

⁷ CPI represents a measure of the average change in prices over time in a fixed group of goods and services.

⁸ Total dollar value of all goods and services produced in the U.S., adjusted to remove the impact of assumed inflation growth.

⁹ Summary measure of total U.S. military and civilian employment. (Social Security)

¹⁰ The average of the nominal interest rates, compounded semi-annually, for special public-debt obligations issuable monthly.

¹¹ Average rate of interest earned on new trust fund securities, above and beyond rate of inflation. (Medicare)

¹² These changes to per beneficiary cost over the 75-year period reflect the overall impact of more detailed assumptions that are made for each of the different services provided by the Medicare program. These assumptions include changes in the payment rates, utilization, and intensity of each type of services. (Medicare)

¹³ The valuation period used for the 2022 Statement of Social Insurance extends to 2096. (Social Security) Medicare did not report assumptions for 2100.

¹⁴ Reflects the assumed return of healthcare services that were reduced or deferred in 2020 due to the COVID-19 pandemic.

¹⁵ Part D cost growth is projected to be negative in 2022 mainly due to slower growth in overall drug prices and higher assumed direct and indirect remuneration.

The Boards of Trustees²⁸ of the Social Security 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 above in the Social Security and Medicare demographic and economic assumption table are generally referred to as the "intermediate assumptions," and reflect the Trustees reasonable estimate of expected future experience. For additional information on Social Security and Medicare demographic and economic assumptions, refer to SSA's and HHS's financial statements.

The RRB's estimated future revenues and expenditures reflected in the SOSI are based on various economic, employment, and other actuarial assumptions, and assume that the program will continue as presently constructed. For further details on actuarial assumptions related to the program and how these assumptions affect amounts presented on the SOSI and SCSIA, consult the Technical Supplement to the 28th Actuarial Valuation of the Assets and Liabilities Under the Railroad Retirement Acts as of December 31, 2019, the 2022 Annual Report of the Railroad Retirement System required by Section 502 of the Railroad Retirement Solvency Act of 1983 (P.L. 98-76), and RRB's financial statements.

The BLDBP significant assumptions used in the projections are the coal excise tax revenue estimates, the tax rate structure, the number of beneficiaries, life expectancy, federal civilian pay raises, medical cost inflation, and the interest rates used to discount future cash flows.

Statement of Changes in Social Insurance Amounts

The SCSIA reconciles the change (between the current valuation and the prior valuation) in the PV 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, 2047). 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.

All estimates relating to the Social Security and Medicare Programs in the SCSIA represent values that are incremental to the prior change. In general, an increase in the PV of net cash flows represents a positive change (improving financing), while a decrease in the PV of net cash flows represents a negative change (worsening financing). For additional information regarding the estimates used to prepare the SCSIA, see SSA's, HHS'S, RRB's, and DOL's financial statements.

Assumptions Used for the Components of the Changes

The PV 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 and Medicare Trustees Report for these years. The Social Security and Medicare – Demographic and Economic Assumptions table summarizes these assumptions for the current year. This year's SOSI projections for Social Security and Medicare, which are as of January 1, 2022, are based on the same demographic and economic assumptions that underlie the 2022 Social Security and Medicare Trustees Report. The 2022 SOSI projections are not adjusted for the more current near-term economic information (e.g., higher inflation and lower real growth).

PV as of January 1, 2021 and January 1, 2020 are calculated using interest rates from the intermediate assumption of the 2021 and 2020 Trustees Reports, respectively. All other PV in this part of the SCSIA are calculated as a PV as of January 1, 2022 and January 1, 2021 respectively.

For the period beginning on January 1, 2021 to the period beginning on January 1, 2022 (current year) and period beginning on January 1, 2020 to the period beginning on January 1, 2021 (prior year) estimates of the PV of Social Security and Medicare changes in social insurance amounts due to changing the valuation period, projection base, demographic data and assumptions, methods, and law are presented using the interest rates under the intermediate assumption of the 2021 and 2020 Trustees Report respectively. Since interest rates are an economic estimate and all estimates in the table are incremental to the prior change, the estimates of the PV of changes in economic and health care assumptions and all other PV in this part

²⁸ 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.

of the SCSIA are calculated using the interest rates under the intermediate assumptions of the 2022 and 2021 Trustees Reports, respectively.

Changes in Valuation Period

From the period beginning on January 1, 2021 to the period beginning on January 1, 2022

The effect on the 75-year PV of changing the valuation period from the prior valuation period (2021-2095) to the current valuation period (2022-2096) 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 estimated net cash flow for 2021, replaces it with a much larger negative estimated net cash flow for 2096, and measures the PV as of January 1, 2022, one year later. As a result, the PV of the estimated future net cash flows decreased by \$0.7 trillion and \$1.0 trillion for Social Security and Medicare, respectively.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

The effect on the 75-year PV of changing the valuation period from the prior valuation period (2020-2094) to the current valuation period (2021-2095) is measured by using assumptions for the prior valuation and extending them to cover the current valuation. Changing the valuation period removes small negative estimated net cash flow for 2020, replaces it with a much larger negative net cash flow for 2095, and measures the PV as of January 1, 2021, one year later. As a result, the PV of estimated future net cash flows decreased by \$0.7 trillion and decreased by \$1.5 trillion for Social Security and Medicare, respectively.

Changes in Demographic Data, Assumptions, and Methods

From the period beginning on January 1, 2021 to the period beginning on January 1, 2022

For the current valuation (beginning on January 1, 2022), the ultimate demographic assumptions 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 calendar year 2020 indicated slightly lower birth rates than were assumed in the prior valuation.
- Near-term lawful permanent resident immigration data were updated since the prior valuation; near-term lawful
 permanent resident immigration assumptions were also updated to better reflect the expected effects of the recovery
 from the pandemic.
- Historical population data and other-than-lawful permanent resident immigration data were updated since the prior valuation.

There was one notable change in demographic methodology. An improvement was made to put more emphasis on recent mortality data by increasing the weights for the most recent years in the regressions used to calculate the starting rates of improvement and starting death rates. This change decreased the PV of the estimated future net cash flows.

Overall, changes in demographic data, assumptions, and methods caused the PV of the estimated future net cash flows to decrease by \$0.3 trillion and \$0.5 trillion for Social Security and Medicare, respectively.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

For the current valuation (beginning on January 1, 2021), there were two changes to the ultimate demographic assumptions and an associated change in methodology.

- The ultimate total fertility rate was increased in conjunction with switching from a period-based model to a cohort-based model for birth-rates.
- An additional cause of death category was added, by separating dementia out from the all-other-causes category, and ultimate mortality improvement rates were updated for cardiovascular disease.

In addition to this ultimate demographic assumption change, the starting demographic values and the way those values transition to the ultimate assumptions were changed.

- Birth rate data through the third quarter of 2020 indicated somewhat lower birth rates.
- Death rates increased significantly for 2020 and 2021 to account for elevated deaths during the COVID-19 pandemic.

The PVs of estimated income and expenditures are lower for Part A, Part B, and Part D. Overall, changes to these assumptions caused the PV of the estimated future net cash flows to increase by \$0.2 trillion and \$1.3 trillion for Social Security and Medicare, respectively.

Changes in Economic Data, Assumptions, and Methods (Social Security Only)

From the period beginning on January 1, 2021 to the period beginning on January 1, 2022

For the current valuation (beginning on January 1, 2022), the ultimate economic assumptions 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 most significant are identified below.

- Near-term real interest rates are assumed to be slightly higher on average than those for the prior valuation.
- Economic starting values and near-term growth assumptions were updated to reflect the stronger-than-expected recovery from the pandemic-induced recession.
- The level of potential GDP for years 2021 and later is assumed to be about 1.1 percent higher than the level in the prior valuation, reflecting the strong recovery and the expectation of a permanent level shift in total economy labor productivity.

The changes to near-term real interest rates and the resulting effects on PV calculations decreased the PV of the estimated future net cash flows, while changes to starting values and near-term economic growth assumptions and the level shift in the assumptions for potential GDP increased the PV of the estimated future net cash flows.

There were no additional notable changes in economic methodology. Overall, changes to economic data, assumptions, and methods caused the PV of the estimated future net cash flows to decrease by \$0.2 trillion for Social Security.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

For the current valuation (beginning on January 1, 2021), there were two changes to the ultimate economic assumptions compared to prior valuation (beginning on January 1, 2020).

- The ultimate average real wage differential increased. Additionally, the real wage differential assumptions for the first 10 years of the projection period were also increased.
- The ultimate age-sex-adjusted unemployment rate was reduced.

The higher real wage differential and the combined changes to the unemployment assumption and the labor force methodology both increased the PV of estimated future net cash flows.

In addition to these changes in ultimate economic assumptions, the starting economic values and the way these values transition to the ultimate assumptions were changed.

- Near-term interest rates were adjusted downward significantly. Real interest rates are now assumed to be negative for calendar years 2021 through 2024, with a gradual rise to the ultimate real interest rate.
- The level of potential GDP is assumed to be roughly 1.0 percent lower than the level beginning with the second quarter 2020.

The changes to near-term interest rate and the starting values and near-term economic growth assumptions decrease the PV of the estimated future net cash flows.

There were no additional notable changes in economic methodology. Overall, changes to economic data, assumptions, and methods decreased the PV of the estimated future net cash flows by \$1.2 trillion for Social Security.

Changes in Law or Policy

From the period beginning on January 1, 2021 to the period beginning on January 1, 2022

The monetary effect of the changes in law or policy on the PV of estimated future net cash flows of the OASDI and Medicare programs was not significant at the consolidated level. Please refer to SSA's and HHS's financial statements for additional information related to the impact of the changes in law or policy on the PV of estimated future net cash flows of the OASDI and Medicare programs.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

For Social Security, between prior valuation and the current valuation one change in policy is expected to have significant effect on the long-range cost.

• The Deferred Action for Childhood Arrivals policy extends indefinitely the ability of those qualifying to remain in the country and work lawfully. A memorandum was issued on January 20, 2021.

Most of the provisions enacted as part of Medicare legislation since the prior valuation date have little or no impact on the program. The following provisions did have financial impact.

- The CARES Act (P.L. 116-136, enacted on March 27, 2020) included provisions that affect the HI and SMI programs.
- The Continuing Appropriations Act, 2021, and Other Extensions Act, (P.L. 116-159, enacted on October 1, 2020) included provisions that affect the HI and SMI programs.

- The CAA, 2021 (P.L. 116-260, enacted on December 27, 2020) included provisions that affect the HI and SMI Programs.
- An Act to Prevent Across-the-Board Direct Spending Cuts and for Other Purposes (P.L. 117-7, enacted on April 14, 2021) included provisions that affect the HI and SMI Programs.

Overall, the changes to these laws, regulations, and policies caused the PV of the estimated future net cash flows to decrease by \$0.1 trillion for Social Security and Medicare.

Changes in Methodology and Programmatic Data (Social Security Only)

From the period beginning on January 1, 2021 to the period beginning on January 1, 2022

Several methodological improvements and updates of program-specific data are included in the current valuation (beginning on January 1, 2022). The most significant are identified below.

- The ultimate disability incidence rate was lowered from 5.0 per thousand exposed in the prior valuation to 4.8 in the current valuation.
- The current valuation is updated using a 10.0 percent sample of all newly entitled worker beneficiaries in 2018 to project average benefit levels of retired-worker and disabled-worker beneficiaries.
- Recent data and estimates provided by the Office of Tax Analysis at Treasury indicate higher near-term and ultimate levels of revenue from taxation of OASDI benefits than projected in the prior valuation.
- Updates were made to the post-entitlement benefit adjustment factors. These factors are used to account for changes in benefit levels, primarily due to differential mortality by benefit level and earnings after benefit entitlement.

Overall, changes to programmatic data and methods caused the PV of the estimated future net cash flows to increase by \$0.6 trillion for Social Security.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

Several methodological improvements and updates of program-specific data are included in the current valuation (beginning on January 1, 2021) compared to the prior valuation (beginning on January 1, 2020). The most significant are identified below.

- The current valuation is updated using a 10.0 percent sample of all newly entitled worker beneficiaries in 2017 to project average benefit levels of retired-workers and disabled-workers beneficiaries.
- Recent data and estimates indicated lower near-term and ultimate levels of revenue from taxation of Social Security benefits than projected.
- The methodology for projecting retroactive benefits for retired workers was improved to better capture the different rules for workers who become newly entitled prior to normal retirement age versus those who become entitled at or after normal retirement age.

Overall, changes to these assumptions and methods caused the PV of the estimated future net cash flows to decrease by \$1.2 trillion for Social Security.

Changes in Economic and Health Care Assumptions (Medicare Only)

From the period beginning on January 1, 2021 to the period beginning on January 1, 2022

The economic assumptions used in the Medicare projections are the same as those for the Social Security programs shown above while the health care assumptions are specific to the Medicare projections. The following health care assumptions were changed in the current valuation.

- High projected spending growth for outpatient hospital services and for physician-administered drugs.
- Slower price growth and higher direct and indirect remuneration.

Overall, these changes decreased the PV of estimated future net cash flow by \$5.3 trillion for Medicare.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

The economic assumptions used in the Medicare projections are the same as those used for the Social Security program shown above while the health care assumptions are specific to the Medicare projections. The following health care assumptions were changed in the current valuation.

- Slightly faster projected spending growth for outpatient services and for physician-administered drugs.
- Higher direct and indirect remuneration and shifts to Medicare Advantage offset higher gross drug prices.

Overall, these changes decreased the PV of the estimated future net cash flows by \$3.8 trillion for Medicare.

Change in Projection Base (Medicare Only)

From the period beginning on January 1, 2021 to period beginning on January 1, 2022

Actual income and expenditures in 2021 were different from what was anticipated when the 2021 Trustees Report projections were prepared. For Part A and Part B income and expenditures in 2021 were lower than estimated based on experience. Part D income and expenditures were higher than estimated based on actual experience. Actual experience of the Medicare Trust Funds between January 1, 2021 and January 1, 2022 is incorporated in the current valuation and is more than projected in the prior valuation. Overall, the net impact of Part A, B, and D projection base change is an increase in the estimated future net cash flows by \$2.5 trillion for Medicare.

From the period beginning on January 1, 2020 to the period beginning on January 1, 2021

Actual income and expenditures in 2020 were different than what was anticipated when the 2020 Trustees Report projections were prepared. For Part A and Part B income and expenditures in 2020 were lower than anticipated based on actual experience, mainly due to the impact of the COVID-19 pandemic. Part D was largely unaffected by the pandemic and total income and expenditures were only slightly higher than the estimated based on actual experience. Actual experience of the Medicare Trust Funds between January 1, 2020 and January 1, 2021 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 change is an increase in the estimated future net cash flows by \$1.6 trillion for Medicare.