



SOCIAL SECURITY
Office of the Chief Actuary

January 30, 2019

The Honorable John Larson
Subcommittee on Social Security
Committee on Ways and Means
United States House of Representatives
Washington, D.C. 20515

The Honorable Richard Blumenthal
United States Senate
Washington, D.C. 20510

The Honorable Chris Van Hollen
United States Senate
Washington, D.C. 20510

Dear Chairman Larson, Senator Blumenthal, and Senator Van Hollen:

I am writing in response to your request for estimates of the financial effects on Social Security of the *Social Security 2100 Act*, which you introduced today. The estimates provided here reflect the intermediate assumptions of the 2018 Trustees Report. This Bill (hereafter referred to as the proposal) includes eight provisions with direct effects on the Social Security Trust Funds. We have enjoyed working closely with Kathryn Olson, Scott Stephanou, Brian Steele, and Alyssa Penna of your staffs in developing this proposal to meet your goals. The estimates and analysis provided here reflect the combined effort of many in the Office of the Chief Actuary, but most particularly Karen Glenn, Christopher Chaplain, Daniel Nickerson, Kyle Burkhalter, Michael Clingman, Anna Kirjusina, Katie Sutton, and Tiffany Bosley.

The enclosed tables provide estimates of the effects of the eight provisions on the cost, income, and combined trust fund reserves for the Old Age, Survivors, and Disability Insurance (OASDI) program, as well as estimated effects on retired worker benefit levels for selected hypothetical workers and effects on payroll tax levels. In addition, tables 1b and 1b.n provide estimates of the federal budget implications of these eight provisions with direct effects on the OASDI program.

Assuming enactment of the proposal, we estimate that the combined Social Security Trust Fund would be fully solvent (able to pay all scheduled benefits in full on a timely basis) throughout the 75-year projection period, under the intermediate assumptions of the 2018 Trustees Report. (Note that section 204 of this proposal would combine the currently separate operations and reserves of the OASI and DI Trust Funds into a single Social Security Trust Fund.) In addition,

under this proposal the OASDI program would meet the further conditions for sustainable solvency, because projected combined trust fund reserves would be growing as a percentage of the annual cost of the program at the end of the long-range period.

The proposal includes eight provisions with direct effects on the OASDI program. The following list briefly identifies each provision of the proposal:

Section 101. Increase the first PIA formula factor from 90 percent to 93 percent for all benefits payable for months of entitlement January 2020 and later, including benefits for those becoming newly eligible both before and after January 2020.

Section 102. Use the Consumer Price Index for the Elderly (CPI-E) increase rather than the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) increase to calculate the cost-of-living adjustment (COLA), effective for December 2019 and later COLAs. We assume this change would increase the COLA by an average of 0.2 percentage point per year.

Section 103. Increase the special minimum PIA, beginning for workers who become newly eligible for retirement or disability benefits or die in 2020 or later. For workers becoming newly eligible or dying in 2020, the minimum PIA for 2020 for workers with 30 or more years of coverage (YOCs) is 125 percent of the annual poverty guideline for a single individual published by the Department of Health and Human Services for 2019, divided by 12. For workers becoming newly eligible or dying after 2020, the minimum PIA for their initial year of eligibility is increased by the growth in the national average wage index (AWI). For all affected workers, the minimum PIA is increased after their year of initial eligibility by the COLA.

Section 104. Replace the current-law thresholds for federal income taxation of OASDI benefits with a single set of thresholds at \$50,000 for single filers and \$100,000 for joint filers for taxation of up to 85 percent of OASDI benefits, effective for tax year 2020. These thresholds would be fixed and not indexed to price inflation or average wage increase. The amount of revenue from taxation of OASDI benefits that would be allocated to the HI Trust Fund will be at the same level as if the current-law computation (in the absence of this provision) were applied. The net amount of revenue from taxing OASDI benefits, after the allocation to HI, would be allocated to the combined Social Security Trust Fund.

Section 201 and Section 202. Apply the combined OASDI payroll tax rate on covered earnings above \$400,000 paid in 2020 and later. Tax all covered earnings once the current-law taxable maximum exceeds \$400,000. Credit the additional earnings that are taxed for benefit purposes by: (a) calculating a second average indexed monthly earnings (“AIME+”) reflecting only additional earnings taxed above the current-law taxable maximum, (b) applying a 2-percent factor on this newly computed “AIME+” to develop a second component of the PIA, and (c) adding this second component to the current-law PIA.

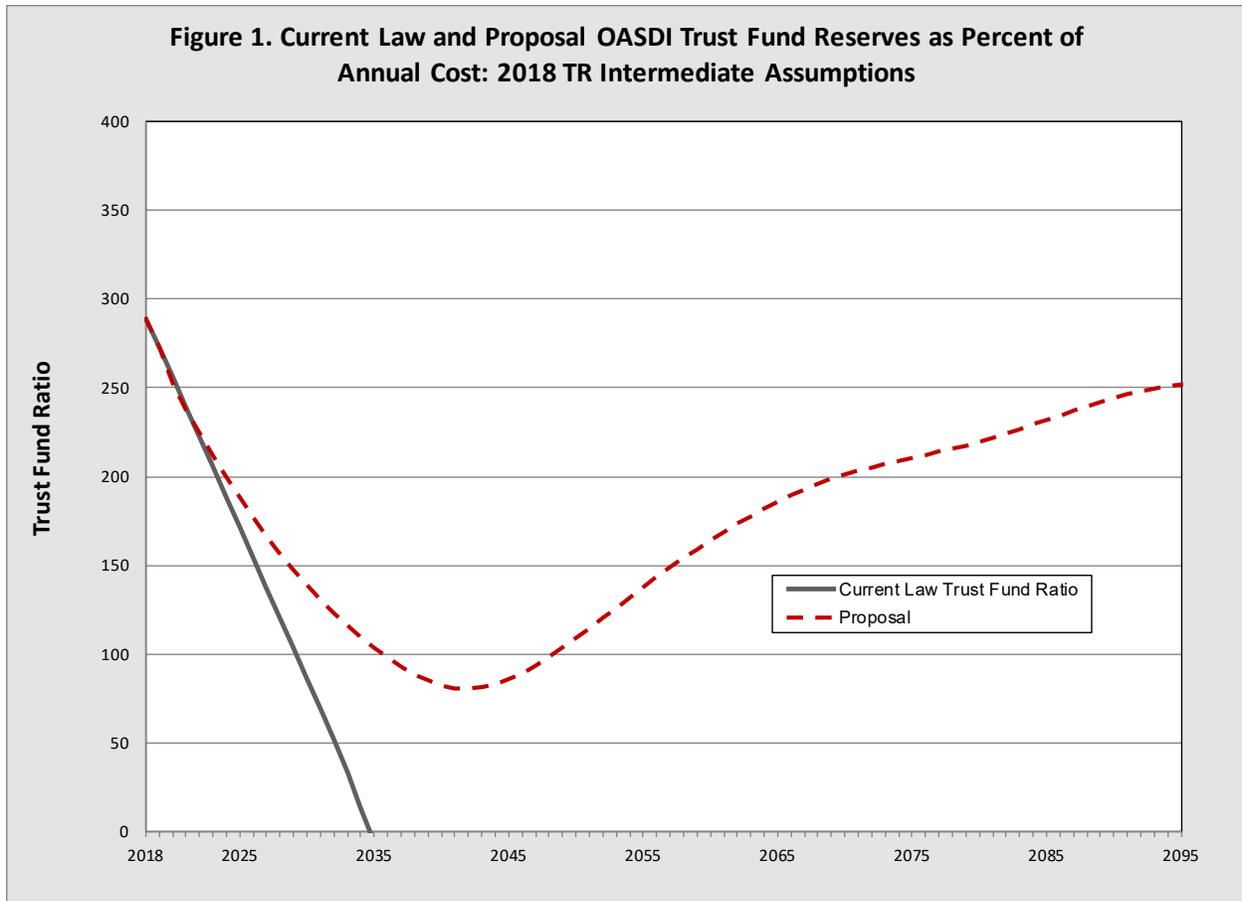
Section 203. Increase the combined OASDI payroll tax rate to 14.8 percent, fully effective for 2043 and later. The combined rate is increased by 0.1 percentage point each year starting in 2020, reaching the ultimate 14.8 percent rate for 2043 and later.

Section 204. Beginning in 2020, establish a new Social Security Trust Fund by combining the reserves of the separate OASI and DI Trust Funds and managing all future financial operations of the program on a combined basis.

The balance of this letter provides a summary of the effects of the eight provisions on the actuarial status of the OASDI program, our understanding of the specifications and intent of each of the eight provisions, and descriptions of our detailed financial estimates for trust fund operations, benefit levels, and implications for the federal budget. See the “Specification for Provisions of the Proposal” section of this letter for a more detailed description of these eight provisions.

Summary of Effects of the Proposal on OASDI Actuarial Status

Figure 1 illustrates the projected OASDI Trust Fund ratio through 2092 under current law and assuming enactment of the proposal. The trust fund ratio is defined as the combined Social Security Trust Fund reserves expressed as a percent of annual program cost. Assuming enactment of the proposal, the combined Social Security Trust Fund would be fully solvent throughout the 75-year projection period, under the intermediate assumptions of the 2018 Trustees Report. In addition, because the projected trust fund ratio is increasing at the end of the period, the proposal meets the conditions for sustainable solvency.

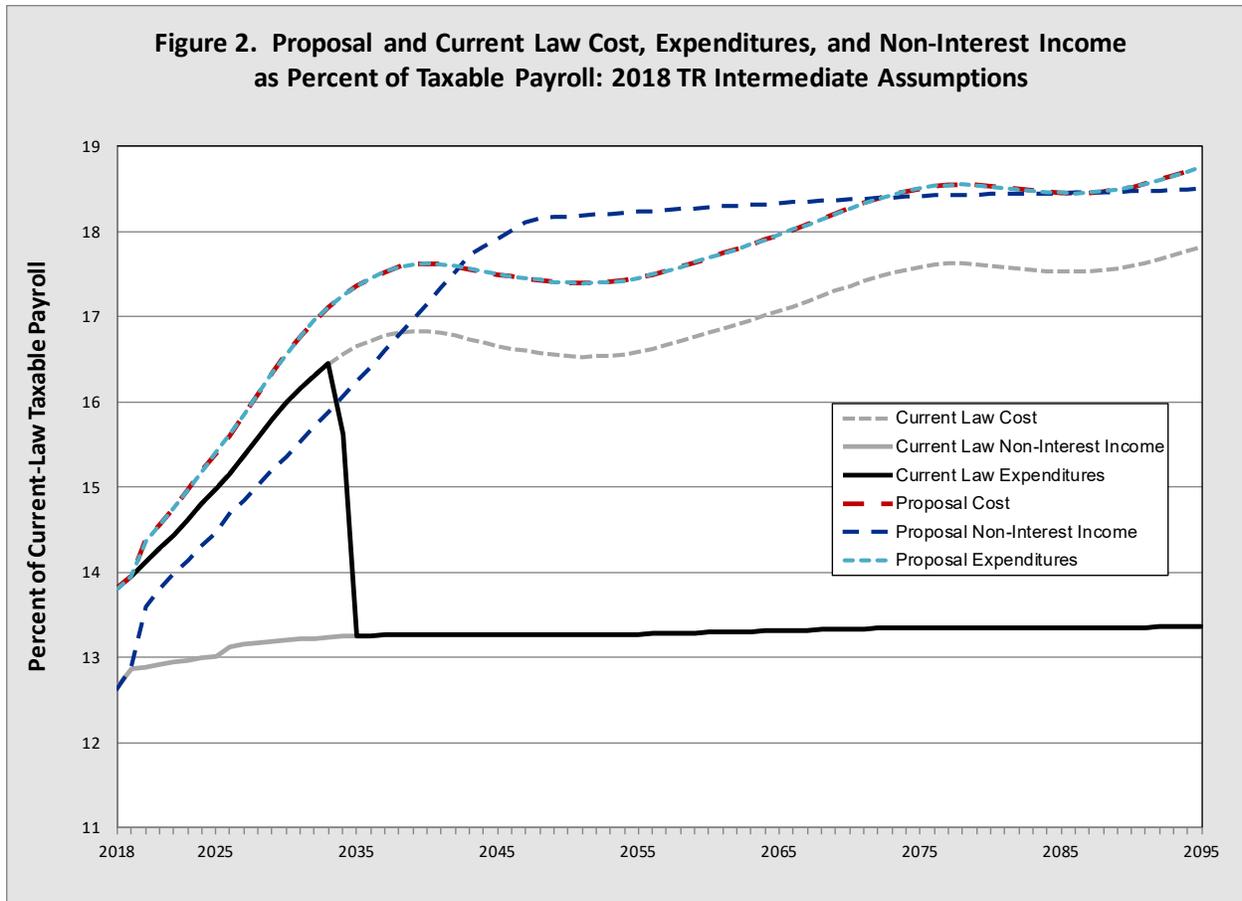


Note: *Trust Fund Ratio* for a given year is the ratio of reserves in the combined Social Security Trust Fund at the beginning of the year to the cost of the program for the year.

Under current law, 79 percent of scheduled benefits are projected to be payable on a timely basis in 2034 after depletion of the combined trust fund reserves, with the percentage payable declining to 74 percent for 2092. Under the proposal, the OASDI program would be solvent throughout the 75-year projection period, and would have the ability to pay 100 percent of scheduled benefits on a timely basis for the foreseeable future.

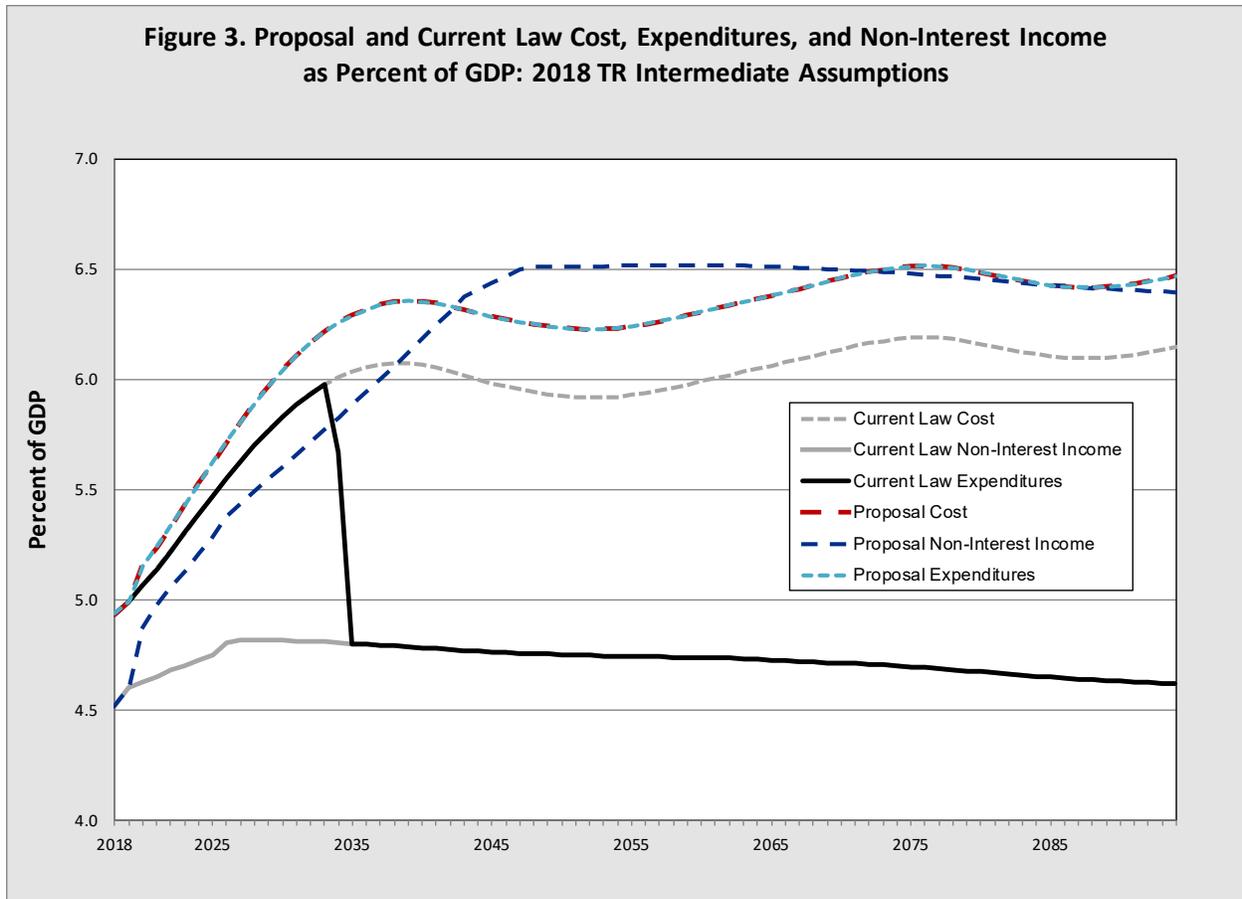
Enactment of the eight provisions of this proposal would change the long-range OASDI actuarial deficit from 2.84 percent of taxable payroll under current law to a positive actuarial balance of 0.25 percent of payroll under the proposal.

Figure 2 illustrates annual projected levels of cost, expenditures, and non-interest income as a percent of the current-law taxable payroll. The projected level of cost reflects the full cost of scheduled benefits under both current law and the proposal. Under the proposal, projected expenditures equal the full cost of scheduled benefits throughout the long-range period.



OASDI program annual cost under the proposal is higher than under current law, starting in 2020. This difference between proposal and current-law cost increases from 0.2 percent of current-law payroll for 2020 to 0.8 percent of current-law payroll for 2040, and thereafter increases more gradually, reaching 0.9 percent of current-law payroll for 2092. Beginning in 2020, non-interest income under the proposal is projected to be higher than under current law. This difference between proposal and current-law income increases from 0.7 percent of current-law payroll for 2020 to 4.9 percent of current-law payroll for 2050, and thereafter increases more gradually, reaching 5.1 percent of current-law payroll for 2092. For 2020 and later, the proposal improves the annual balance (non-interest income minus program cost).

It is also useful to consider the projected cost, expenditures, and income for the OASDI program expressed as a percentage of Gross Domestic Product (GDP). Figure 3 illustrates these levels under both current law and the proposal.



Specification for Provisions of the Proposal

Section 101. *Increase the first PIA factor to 93 percent for all beneficiaries beginning in 2020.*

This provision increases the first factor in the PIA formula from 90 to 93 percent for all benefits payable for months of eligibility January 2020 and later, including benefits for those becoming newly eligible both before and after January 2020.

We estimate that enactment of this provision alone would *increase* the long-range OASDI actuarial deficit by 0.24 percent of taxable payroll and would *increase* the annual deficit for the 75th projection year (2092) by 0.26 percent of payroll.

Section 102. *Use the CPI-E increase rather than the CPI-W increase to calculate the COLA, effective for December 2019 and later COLAs.*

Under current law, the annual cost-of-living adjustment (COLA) applied to Social Security benefits is calculated using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). We estimate that using the Consumer Price Index for the Elderly (CPI-E) increase rather than the CPI-W increase in each year beginning with the December 2019 COLA would increase the effective COLA by 0.2 percentage points per year on average.

We estimate that enactment of this provision alone would *increase* the long-range OASDI actuarial deficit by 0.40 percent of taxable payroll and would *increase* the annual deficit for the 75th projection year (2092) by 0.54 percent of payroll.

Section 103. Increase the special minimum PIA for workers who become newly eligible for retirement or disability benefits or die in 2020 or later.

Under this provision, the minimum initial PIA for workers becoming newly eligible or dying in 2020 with 30 or more years of coverage (YOCs) would be 125 percent of the annual poverty guideline for a single individual published by the Department of Health and Human Services for 2019, divided by 12. For those with less than 30 YOCs, the minimum PIA per YOC in excess of 10 YOCs is the minimum PIA for workers with 30 or more YOCs, divided by 20. Any year in which a worker earns 4 quarters of coverage is determined to be a YOC. For workers becoming newly eligible or dying after 2020, the initial PIA per YOC in excess of 10 YOCs is indexed by growth in the national average wage index (AWI) to determine the minimum PIA applicable for the year of initial eligibility. After the year of initial eligibility, the minimum benefit is increased by the COLA for each cohort. The 30 and 10 YOC levels apply for all workers, including those who die or become disabled under age 62.

We estimate that enactment of this provision alone would *increase* the long-range OASDI actuarial deficit by 0.12 percent of taxable payroll and would *increase* the annual deficit for the 75th projection year (2092) by 0.17 percent of payroll.

Section 104. Replace the current-law thresholds for federal income taxation of OASDI benefits with a single set of thresholds at \$50,000 for single filers and \$100,000 for joint filers, for taxation of up to 85 percent of OASDI benefits, effective for tax years 2020 and later.

Under current law, single tax filers with combined “income” (approximately equal to adjusted gross income plus non-taxable interest income and one-half of their Social Security benefit) greater than \$25,000 may have to pay income tax on up to 50 percent of their Social Security benefits. If combined “income” exceeds \$34,000, up to 85 percent of benefits may be taxable. The income tax revenue for taxing up to 50 percent of Social Security benefits is credited to the OASI and DI Trust Funds. The additional income tax revenue derived from taxing benefits in excess of 50 percent, up to 85 percent, is credited to the Hospital Insurance (HI) Trust Fund. The process is similar for joint tax filers, with \$32,000 and \$44,000 thresholds applying for possible taxation of up to 50 percent or 85 percent of the Social Security benefits, respectively. All threshold levels are fixed amounts and not indexed to price inflation or average wage increase.

Under the proposal, both sets of the current-law thresholds would be replaced with a single set of thresholds, \$50,000 and \$100,000 for single and joint filers, respectively, for taxing up to 85 percent of OASDI benefits, beginning for tax year 2020. These new thresholds would be unchanged for tax years after 2020. The amount of revenue from taxation of OASDI benefits that would be allocated to the HI Trust Fund would be at the same level as if the current-law computation (in the absence of this provision) were applied. The net amount of revenue from

taxing OASDI benefits, after the allocation to HI, would be allocated to the combined Social Security Trust Fund.

We estimate that enactment of this provision alone would *increase* the long-range OASDI actuarial deficit by 0.16 percent of taxable payroll and would *increase* the annual deficit for the 75th projection year (2092) by 0.01 percent of payroll.

Section 201 and Section 202. Apply OASDI payroll tax rate on covered earnings above \$400,000 paid in 2020 and later. Reflect additional earnings subject to tax in computing the PIA.

These provisions apply the OASDI payroll tax rate to covered earnings above \$400,000 paid in 2020 and later. The \$400,000 level is a fixed amount after 2020 and not indexed to price inflation or average wage increase. All covered earnings would be taxed once the current-law taxable maximum exceeds \$400,000, which is projected to occur in 2048. Any covered earnings above the higher of \$400,000 or the current-law taxable maximum in a given year would be counted as “excess wages” and would be credited for benefit purposes by:

- a. Calculating a second average indexed monthly earnings (“AIME+”) reflecting only additional earnings taxed under this provision,
- b. Applying a 2-percent PIA factor to this newly computed “AIME+” to develop a second component of the PIA, and
- c. Adding this second PIA component to the current-law PIA.

We estimate that enactment of these two provisions alone would reduce the long-range OASDI actuarial deficit by 1.90 percent of taxable payroll and would reduce the annual deficit for the 75th projection year (2092) by 2.35 percent of payroll.

Section 203. Increase the OASDI payroll tax rate to 14.8 percent, fully effective for 2043 and later.

The increase in the OASDI payroll tax rate is phased in by increasing the payroll tax rate by 0.05 percentage point for employers and 0.05 percentage point for employees (0.10 percentage point total), every year from 2020 through 2043. For years 2043 and later, the OASDI payroll tax rate is 7.4 percent for employers and 7.4 percent for employees (14.8 percent total), up from 6.2 percent each (12.4 percent total) under current law.

We estimate that enactment of this provision alone would reduce the long-range OASDI actuarial deficit by 1.81 percent of taxable payroll and would reduce the annual deficit for the 75th projection year (2092) by 2.38 percent of payroll.

Section 204. Combine the separate OASI and DI Trust Funds effective in 2020.

Beginning in 2020, establish a new Social Security Trust Fund by combining the reserves of the separate OASI and DI Trust Funds and managing all future financial operations of the program on a combined basis. This provision alone would not change scheduled benefits or income in the law.

Enactment of this provision alone would have a negligible effect (between -0.005 and 0.005 percent of taxable payroll) on the long-range OASDI annual balance and on the annual deficit for the 75th projection year (2092).

Detailed Financial Results for the Provisions of the Proposal

Summary Results by Provision

Table A provides estimates of the effects on the OASDI long-range actuarial balance of the eight provisions of the proposal separately and on a combined basis. The table also includes estimates of the effect of the provisions on the annual balance (the difference between income rate and the cost rate, expressed as a percent of current-law taxable payroll) for the 75th projection year, 2092. Interaction among individual provisions is reflected only in the total estimates for the combined provisions.

Benefit Illustrations

Tables B1 and B2 provide illustrative examples of the projected change in benefit levels under the provisions of the proposal for beneficiaries retiring and starting benefit receipt at age 65 in future years at six selected earnings levels, with selected numbers of years of work. The “Maximum-AIME Steady Earner” is assumed to have earnings at ages 22 through 64 that equal the current-law taxable maximum level (equivalent to \$128,400 for 2018) and the “Twice Maximum-AIME Steady Earner” is assumed to have earnings at ages 22 through 64 that equal twice the current-law taxable maximum level (equivalent to \$256,800 for 2018). As a result, the provision to tax and credit earnings above the current-law taxable maximum affects only the “Twice Maximum-AIME Steady Earner” benefit level. **Table B3** provides additional important information on characteristics of retired workers represented by these illustrations for the year 2007.

The first several columns of Table B1 compare the initial scheduled benefit levels, assuming retirement at age 65 under the provisions of the proposal, to scheduled current-law benefit levels. All scheduled benefit amounts under the proposal are higher than those scheduled in current law, with the largest increases for the very-low and low hypothetical earners with at least 30 years of earnings (due largely to the minimum benefit provision). The final three columns of this table show the level of scheduled benefits under the proposal as a percentage of current-law scheduled benefits, the level of scheduled benefits under the proposal as a percentage of current-law payable benefits, and the level of payable benefits under the proposal as a percentage of current-law payable benefits, respectively.

Table B2 compares the change in scheduled benefit levels at ages 65, 75, 85, and 95 under the proposal to scheduled benefits under current law, assuming retirement and start of benefit receipt at age 65. Table B2 shows that projected scheduled benefits under the provisions of the proposal increase in relation to current-law scheduled benefits between ages 65 and 95, because of the change in computing the COLA.

The hypothetical workers represented in these tables reflect average career-earnings patterns of workers who started receiving retirement benefits under the Social Security program in recent years. The tables subdivide workers with very-low, low, and medium career-average earnings levels by their numbers of years of non-zero earnings.

Table B3 provides information helpful in interpreting the benefit illustrations in Tables B1 and B2. Percentages in Table B3 are based on tabulations from a 10-percent sample of newly-entitled retired workers in 2007. Table B3 displays the percentages of these newly-entitled retired workers in 2007 that are closest to each of the illustrative examples and are:

- 1) “Dually Entitled”, meaning they received a higher spouse or widow(er) benefit based on the career earnings of their husband or wife,
- 2) “WEP” (Windfall Elimination Provision), meaning that they received a reduced benefit due to having a pension based on earnings that were not covered under the OASDI program (primarily certain government workers), and they had less than 30 years of substantial earnings that were taxable under the OASDI program,
- 3) “Foreign Born”, meaning that they entered the Social Security coverage area after birth (and generally after entering working ages), and
- 4) “All Others”, meaning they had none of the three characteristics listed above.

The extent to which retired-worker beneficiaries represented by each of the illustrative examples have any of the characteristics listed above (dually entitled, WEP, foreign born) is important because such individuals are less dependent on the OASDI benefit that relates to their own career-average earnings level. It should be noted that the distributions shown in Table B3 for retirees in 2007 will be changing somewhat for beneficiaries becoming entitled as retired-worker beneficiaries in the future.

Payroll Tax Effects

Table T compares the scheduled payroll tax levels under the provisions of the proposal to scheduled current-law payroll tax levels. Under the proposal, the currently scheduled payroll tax rate of 12.4 percent would be gradually increased to 14.8 percent for 2043 and later. At that point, the amount of payroll tax paid by workers earning at the level of the current-law taxable maximum amount or below would be increased by 19.4 percent. Because the payroll tax would additionally apply to annual earnings in excess of \$400,000 starting in 2020, payroll tax liability would increase by more than 19.4 percent for some workers earning over the higher of \$400,000 and the current-law taxable maximum amount even before 2043. For example, Table T shows that the worker with earnings at twice the current-law taxable maximum in 2030 would have payroll tax liability increased by 17.7 percent. By 2050, workers with earnings at twice the current-law taxable maximum would have payroll tax liability increased by 138.7 percent.

Detailed Tables Containing Annual and Summary Projections

Enclosed with this letter are **tables 1, 1a, 1b, 1b.n, 1c, and 1d**, which provide annual and summary projections for the proposal.

Trust Fund Operations

Table 1 provides projections of the financial operations of the OASDI program under the proposal and shows that the combined Social Security Trust Fund would be fully solvent throughout the 75-year projection period. The OASDI program would also be solvent for the foreseeable future (sustainably solvent), because the trust fund ratio is projected to rise by the end of the period, 2093.

The table shows the annual cost and income rates, annual balances, and trust fund ratios (reserves as percent of annual program cost) for OASDI, as well as the change from current law in these cost rates, income rates, and annual balances. Included at the bottom of this table are summarized rates for the 75-year (long-range) period.

For 2020 and later, the proposal improves the annual balance (non-interest income minus program cost). The improvement in the annual balance increases from 0.5 percent of current-law payroll for 2020 to 4.1 percent for 2050, and thereafter increases slightly to 4.2 percent for 2092. Under the proposal, the annual deficit declines from 1.2 percent of current-law payroll for 2018 to 0.7 percent for 2021, generally increases to 1.2 percent for 2032, and then declines until the annual balance turns positive for 2043. The annual balance increases to 0.8 percent for 2052 and then declines steadily through 2073, at which point the annual balance becomes negative, ultimately reaching an annual deficit of 0.1 percent of current-law payroll for 2092. Under current law, the projected annual deficit for 2092 is 4.3 percent of payroll.

The actuarial balance for the OASDI program over the 75-year projection period is improved by 3.10 percent of taxable payroll, from an actuarial deficit of 2.84 percent of payroll under current law to a positive actuarial balance of 0.25 percent of taxable payroll under the proposal.

Program Transfers and Trust Fund Reserves

Column 4 of **Table 1a** provides a projection of the level of reserves for the combined Social Security Trust Fund, assuming enactment of the eight Social Security provisions of the proposal. These trust fund reserve amounts are expressed in present value dollars discounted to January 1, 2018. The table indicates that the provisions include no new specified transfers of general revenue to the combined Social Security Trust Fund. For purpose of comparison, the OASDI Trust Fund reserves, expressed in present value dollars, are also shown for the current-law Social Security program both without and with the added proposal general fund transfers (zero in this case) in columns 6 and 7.

Note that negative values in columns 6 and 7 represent the “unfunded obligation” for the program through the year. The unfunded obligation is the present value of the shortfall of revenue needed to pay full scheduled benefits on a timely basis from the date of trust fund reserve depletion through the end of the indicated year. Gross Domestic Product (GDP), expressed in present value dollars, is shown in column 5 for comparison with other values in the table.

Effect of the Social Security Provisions on the Federal Budget

Table 1b shows the projected effect, in present value discounted dollars, on the federal budget (unified-budget and on-budget) annual cash flows and balances, assuming enactment of the eight Social Security provisions of the proposal. We note that section 105 of the Bill provides for “holding SSI, Medicaid, and CHIP beneficiaries harmless” from potential implications of the other sections in the Bill. Our analysis provided in these tables does not reflect the effects on these programs under the on-budget operations of the federal government. Table **1b.n** provides the estimated nominal dollar effect of enactment of the proposal on annual budget balances for years 2018 through 2028. All values in these tables represent the amount of *change* from the level projected under current law. In addition, changes reflect the *budget scoring convention* that presumes benefits, not payable under the law after depletion of trust fund reserves, would still be paid using revenue provided from the General Fund of the Treasury. The reader should be cautioned that this presumption of payment of benefits beyond the resources of the trust funds is prohibited under current law and is also inconsistent with all past experience under the Social Security program.

Column 1 of Table 1b shows the added proposal general fund transfers (zero for this proposal). Column 2 shows the net changes in OASDI cash flow from all provisions of the proposal.

We project the net effect of the proposal on unified budget cash flow (column 3) to be positive in years 2020 and later, primarily due to the payroll tax rate increase in provision 6 and the payroll tax newly applied to earnings above \$400,000 in provision 5.

Column 4 of Table 1b indicates that the effect of implementing the proposal is a reduction of the theoretical federal debt held by the public, reaching about \$15.3 trillion in present value at the end of the 75-year projection period. Column 5 provides the projected effect of the proposal on the annual unified budget balances, including both the cash flow effect in column 3 and the additional interest on the accumulated debt in column 4. Columns 6 and 7 indicate that the provisions of this proposal would have no expected direct effects on the on-budget cash flow, or on the total federal debt, in the future.

It is important to note that we base these estimates on the intermediate assumptions of the 2018 Trustees Report, so these estimates are not consistent with estimates made by the Office of Management and Budget or the Congressional Budget Office based on their assumptions. In particular, all present values are discounted using trust fund yield assumptions under the intermediate assumptions of the 2018 Trustees Report.

Annual Trust Fund Operations as a Percent of GDP

Table 1c provides annual cost, annual expenditures (amount that would be payable), and annual tax income for the OASDI program expressed as a percentage of GDP for both current law and assuming enactment of the eight Social Security provisions of the proposal. Showing the annual trust fund cash flows as a percent of GDP provides an additional perspective on these trust fund operations in relation to the total value of goods and services produced in the United States. The relationship between income and cost is similar when expressed as a percent of GDP to that when expressed as a percent of taxable payroll (Table 1). Under this proposal, expenditures are

estimated to equal total cost for all projection years because proposal income is estimated to be sufficient to pay full scheduled benefits throughout the period.

Effects on Trust Fund Reserves and Unfunded Obligations

Table 1d provides estimates of the changes in trust fund reserves and unfunded obligations on an annual basis. Values in this table are expressed in present value dollars discounted to January 1, 2018.

For the 75-year (long-range) period as a whole, the current-law unfunded obligation of \$13.2 trillion is replaced by a positive trust fund reserve of \$2.1 trillion in present value assuming enactment of the proposal. This change of \$15.3 trillion results from:

- A \$18.9 trillion net increase in revenue (column 2), primarily from additional payroll tax, *minus*
- A \$3.7 trillion net increase in cost (column 3), primarily from the special minimum PIA provision, the change in computing the COLA, increases in current and future benefits from replacing the 90 percent factor in the PIA formula with 93 percent, and additional benefits from earnings taxed above the current-law taxable maximum.

We hope these estimates are helpful. Please let me know if we may provide further assistance.

Sincerely,



Stephen C. Goss, ASA, MAAA
Chief Actuary

Enclosures