



**SOCIAL SECURITY**  
Office of the Chief Actuary

September 9, 2016

The Honorable Linda Sánchez  
United States House of Representatives  
Washington, D.C. 20515

Dear Representative Sánchez:

I am writing in response to your request for estimates of the financial effects on Social Security of H.R. 5952, the *Strengthening Social Security Act of 2016*, which you introduced yesterday. The estimates provided here reflect the intermediate assumptions of the 2016 Trustees Report. This Bill (hereafter referred to as the proposal) includes five provisions with direct effects on the Social Security Trust Funds. We have enjoyed working closely with Meghan McConnell of your staff 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 five 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. In addition, tables 1b and 1b.n provide estimates of the federal budget implications of the five provisions. Assuming enactment of the proposal, we estimate the funding for the combined OASI and DI Trust Funds would be sufficient to extend the projected year of reserve depletion from 2034 to 2048, under the intermediate assumptions of the 2016 Trustees Report.

Because the OASI and DI Trust Funds are separate legal entities, estimates for the combined trust funds are consistent with an intent to reallocate the total payroll tax rate as needed to equalize the years of reserve depletion and the actuarial status of the two separate trust funds.

The proposal includes five basic provisions with direct effects on the OASDI program. The following list identifies each provision with the corresponding section number in the Bill:

*Sections 2-3. Eliminate the OASDI taxable maximum amount starting in 2017. Apply total payroll tax on all earnings above the current-law taxable maximum of 2.48 percent for 2017, 4.96 for 2018, ..., reaching 12.4 percent for 2021 and later. Credit the additional earnings taxed for benefit purposes using a secondary, separate PIA calculation.*

*Section 3. Increase the 90 percent PIA formula factor to 91 percent for beneficiaries newly eligible in 2021, 92 percent for those newly eligible in 2022, ..., reaching 95 percent for those newly eligible in 2025 and later.*

*Section 3. Increase the first PIA bend point above the level it would be in current law by 1 percent for beneficiaries newly eligible in 2021, 2 percent for those newly eligible in 2022, ..., reaching 15 percent higher for those newly eligible in 2035 and later.*

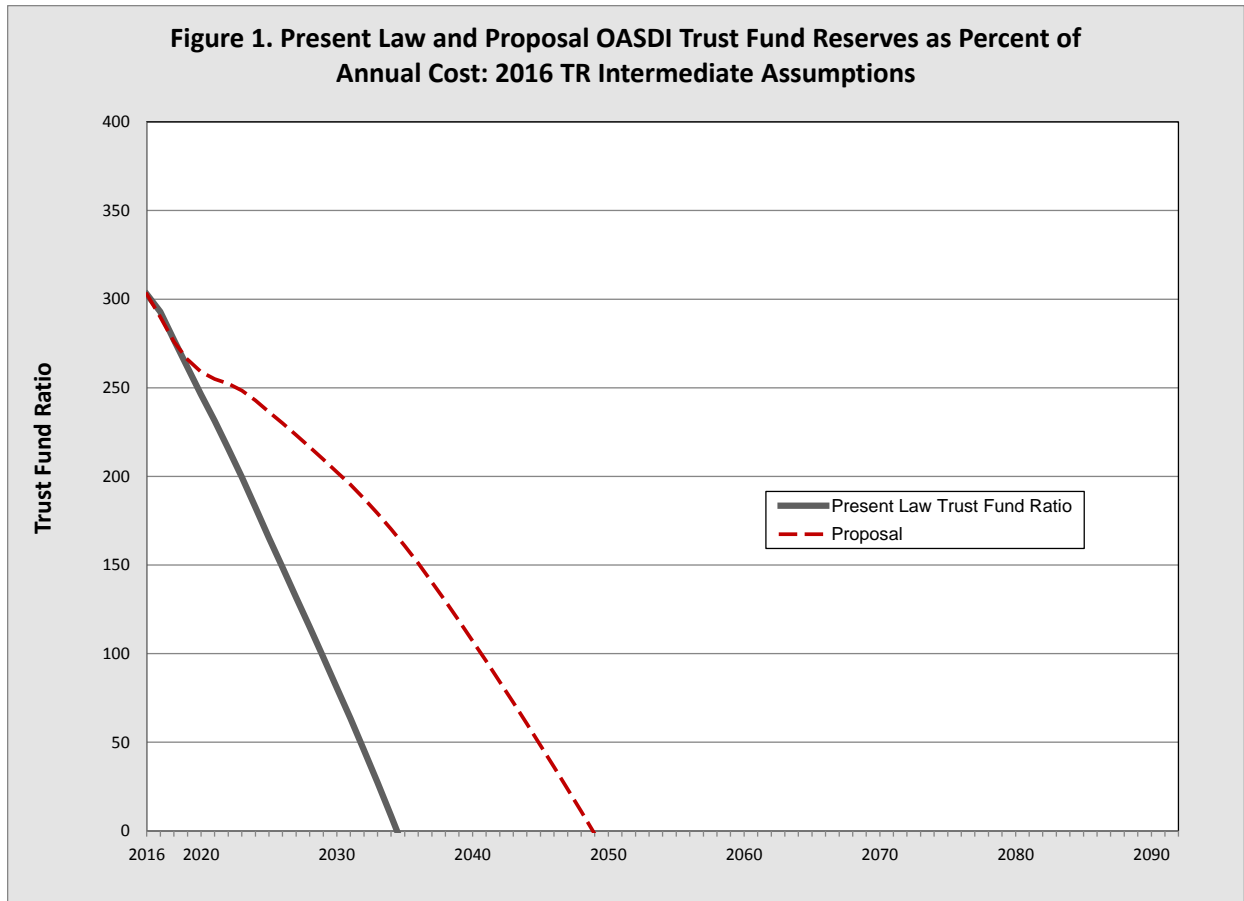
*Section 5. Starting with the December 2016 COLA, use the Consumer Price Index for the Elderly (CPI-E). We estimate this new computation will increase the annual COLA by about 0.2 percentage point, on average.*

*Section 6. Establish an alternative benefit for a surviving spouse. For surviving spouses on the rolls at the beginning of 2017 and those becoming eligible after 2017, the alternative benefit would equal 75 percent of the sum of the survivor's own worker benefit and the deceased worker's PIA, including any actuarial reductions or delayed retirement credits (DRCs). This alternative benefit would be limited to the PIA of a hypothetical worker who earns the average wage each year.*

The balance of this letter provides a summary of the effects of the five provisions on the actuarial status of the OASDI program, our understanding of the specifications and intent of each of the five 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 detailed description of these five provisions.

### **Summary of Effects of the Proposal on OASDI Actuarial Status**

Figure 1 illustrates the estimated trust fund ratio under present law and assuming enactment of the proposal. The trust fund ratio is defined as the combined Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Fund reserves expressed as a percent of annual program cost. Assuming enactment of the proposal, we estimate the year of depletion of the combined OASI and DI Trust Fund reserves would be extended from 2034 under current law to 2048 under the intermediate assumptions of the 2016 Trustees Report.

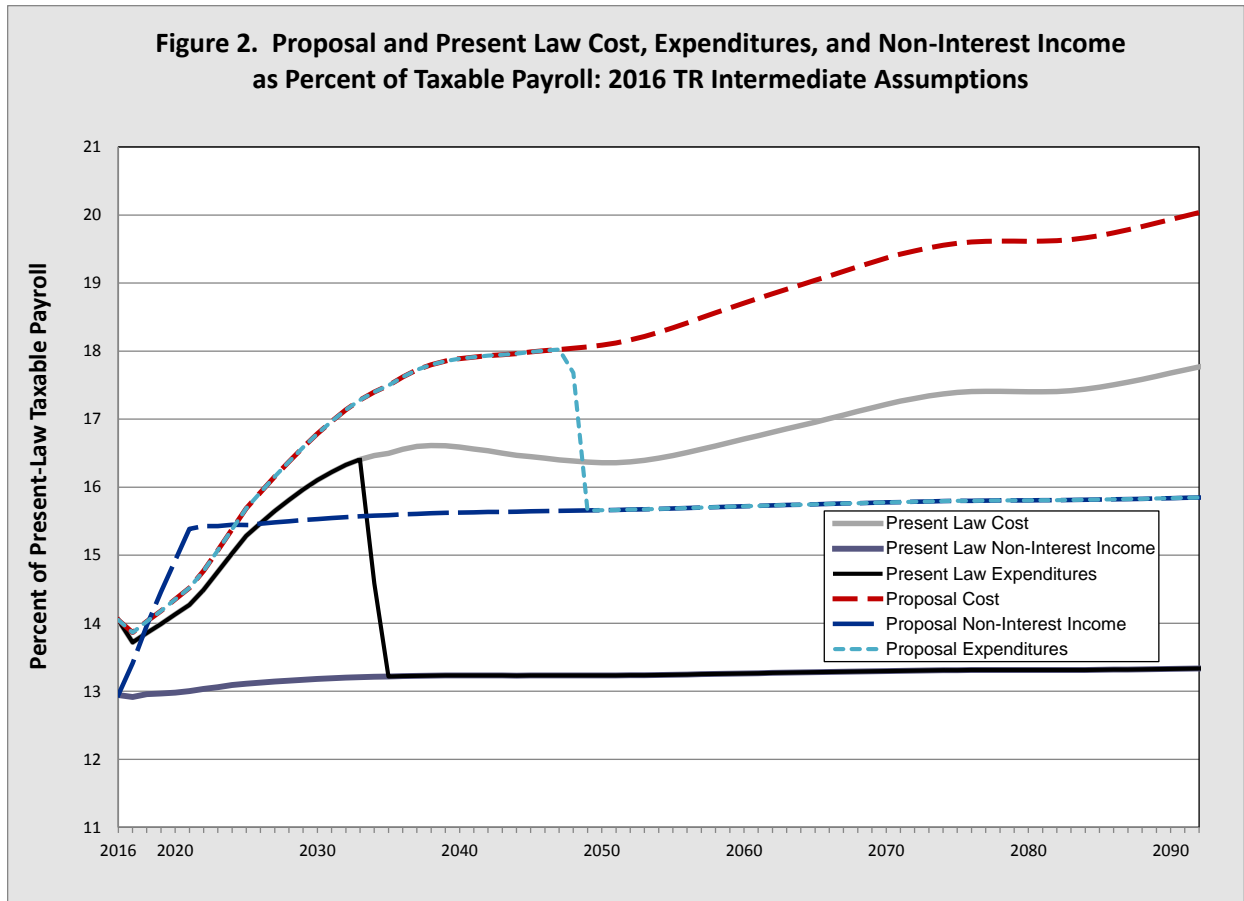


Note: *Trust Fund Ratio* for a given year is the ratio of reserves in the combined OASI and DI Trust Funds at the beginning of the year to the cost of the program for the year.

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 2090. Under the proposal, 86 percent of scheduled benefits are projected to be payable in 2048 after depletion of the combined trust fund reserves, with this percentage declining to 78 percent for 2090.

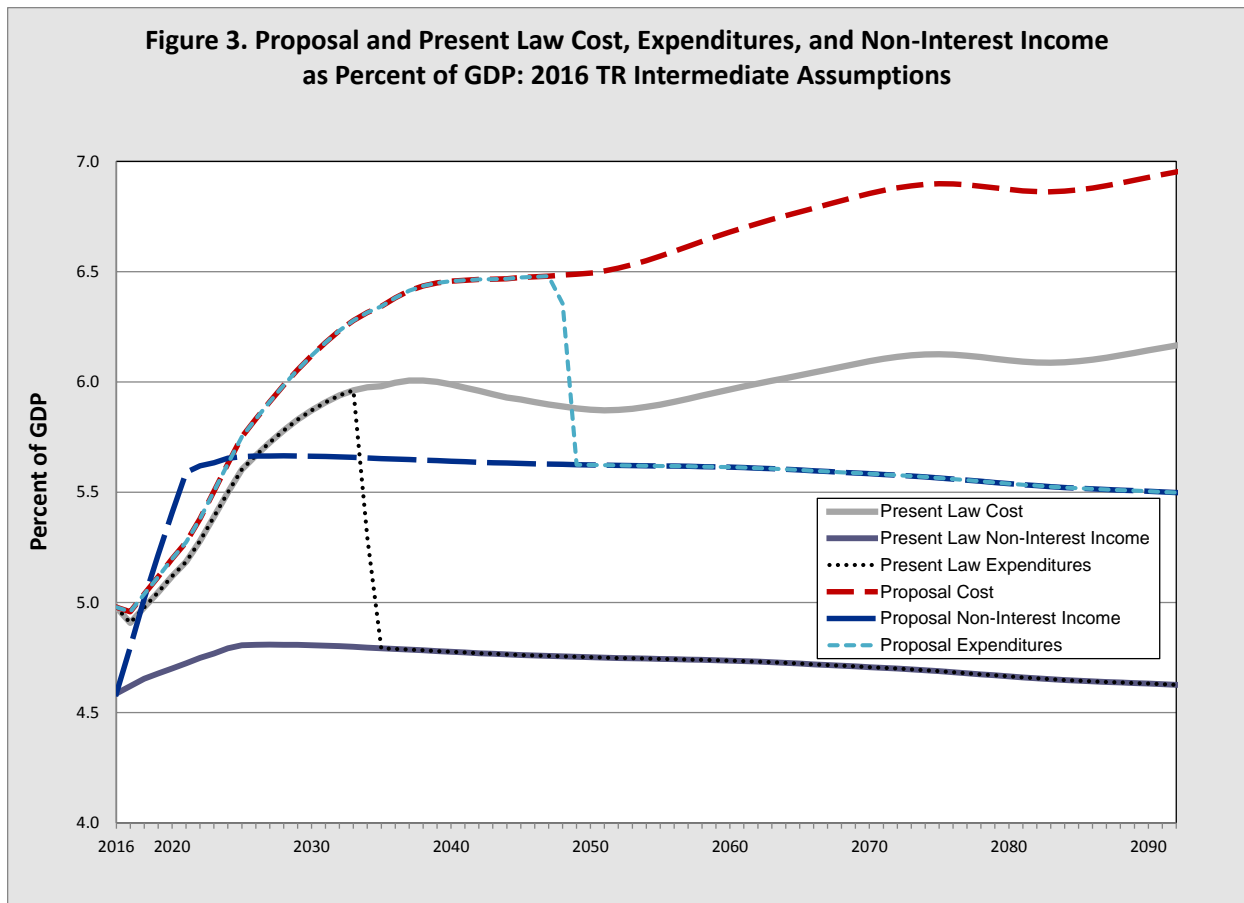
Enactment of the five provisions of this proposal would reduce the long-range OASDI actuarial deficit of 2.66 percent of taxable payroll under current law to 1.77 percent of payroll for the long-range period.

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 full scheduled benefits through 2047, the year prior to trust fund reserve depletion.



OASDI program annual cost under the proposal becomes progressively higher than under current law, starting in 2017. This difference increases rapidly early in the projection period, and then increases gradually, reaching about 2.3 percent of current-law payroll for 2090. Beginning in 2017, non-interest income under the proposal is projected to be higher than under current law, with the difference growing rapidly from 0.5 percent of current-law payroll for 2017 to 2.4 percent of current-law payroll for 2021, and then generally increasing gradually to 2.5 percent of current-law payroll for 2090. The proposal improves the annual balance (non-interest income minus program cost) starting in 2017. The improvement in the annual balance increases to 2.1 percent of payroll for 2021, then declines slowly to 0.3 percent of payroll for 2090. The annual deficit improves from 1.1 percent of payroll for 2016 to 0.1 percent of payroll for 2018, and then the annual balance turns positive from 2019 through 2024. The annual balance becomes negative again in 2025, and then this deficit generally increases through the end of the long-range period, ultimately reaching 4.1 percent of payroll for 2090. Under current law, the projected annual deficit for 2090 is 4.3 percent of payroll.

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**

*Sections 2-3. Eliminate the OASDI taxable maximum amount starting in 2017.*

This provision would apply total payroll tax on all earnings above the current-law taxable maximum of 2.48 percent for 2017, 4.96 for 2018, ..., reaching 12.4 percent for 2021 and later. Additional earnings taxed would be credited for benefit purposes by: (a) calculating a second average indexed monthly earnings (“AIME+”) reflecting only earnings taxed above the current-law taxable maximum, (b) applying a 5 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.

We estimate that enactment of this provision alone would reduce the long-range OASDI actuarial deficit by 2.13 percent of taxable payroll and would reduce the annual deficit for the 75<sup>th</sup> projection year (2090) by 2.15 percent of payroll.

*Section 3. Increase the 90 percent PIA formula factor to 91 percent for beneficiaries newly eligible in 2021, 92 percent for those newly eligible in 2022, ..., reaching 95 percent for those newly eligible in 2025 and later.*

We estimate that enactment of this provision alone would increase the long-range OASDI actuarial deficit by 0.28 percent of taxable payroll and would increase the annual deficit for the 75<sup>th</sup> projection year (2090) by 0.44 percent of payroll.

*Section 3. Increase the first PIA bend point above the level it would be in current law by 1 percent for beneficiaries newly eligible in 2021, 2 percent for those newly eligible in 2022, ..., reaching 15 percent higher for those newly eligible in 2035 and later.*

We estimate that enactment of this provision alone would increase the long-range OASDI actuarial deficit by 0.39 percent of taxable payroll and would increase the annual deficit for the 75<sup>th</sup> projection year (2090) by 0.71 percent of payroll.

*Section 5. Starting with the December 2016 COLA, use the Consumer Price Index for the Elderly (CPI-E).*

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 assume this change to the CPI-E would increase the COLA by an average of 0.2 percentage point per year. This provision would apply to all OASDI benefits.

We estimate that enactment of this provision alone would increase the long-range OASDI actuarial deficit by 0.39 percent of taxable payroll and would increase the annual deficit for the 75<sup>th</sup> projection year (2090) by 0.52 percent of payroll.

*Section 6. Establish an alternative benefit for a surviving spouse.*

For surviving spouses on the rolls at the beginning of 2017 and those becoming eligible after 2017, the alternative benefit would equal 75 percent of the sum of the survivor's own worker benefit and the deceased worker's PIA, including any actuarial reductions or delayed retirement credits (DRCs). If the deceased worker dies before becoming entitled, the age 62 actuarial reduction would be used if the worker dies before age 62, or the applicable actuarial reduction or DRC for entitlement at the age of death if the worker dies after age 62. The alternative benefit would be limited to the PIA of a hypothetical earner who earns the SSA average wage index (AWI) every year, and who becomes eligible for retired-worker benefits in the same year in which the deceased worker became eligible for worker benefits or died (if before age 62). The alternative benefit would be paid only if it is more than the current-law benefit.

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 75<sup>th</sup> projection year (2090) by 0.12 percent of payroll.

## **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 for each of the five provisions of the proposal separately and on a combined basis. The table also includes estimates of the effect of each provision on the annual balance (the difference between income rate and the cost rate, expressed as a percent of current-law taxable payroll) for the 75<sup>th</sup> projection year, 2090. 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 five provisions that affect benefit levels for beneficiaries retiring at age 65 in future years at five 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 \$118,500 for 2016). As a result, the provision to increase the taxable maximum does not affect the benefit levels illustrated in these tables. **Table B3** provides additional important information on characteristics of retired workers represented by these illustrations.

Table B1 compares the initial scheduled benefit levels, assuming retirement at age 65 under the provisions of the proposal, to both scheduled and payable current-law benefit levels. Benefit amounts scheduled under the proposal are higher than those scheduled in current law, because the three provisions included in the table increase benefits for all workers. The final two columns of this table show the level of scheduled benefits under the proposal as a percentage of current-law scheduled and 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 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 85, 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 and low 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.

### **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 year of reserve depletion for the combined OASDI Trust Funds would be extended by 14 years, from 2034 under current law to 2048. 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.

The actuarial balance for the OASDI program over the 75-year projection period is improved by 0.89 percent of taxable payroll, from an actuarial deficit of 2.66 percent of payroll under current law to an actuarial deficit of 1.77 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 theoretical combined OASI and DI Trust Funds, assuming enactment of the five Social Security provisions of the proposal. These trust fund reserve amounts are expressed in present value dollars discounted to January 1, 2016. The table indicates that the provisions include no new specified transfers of general revenue to the trust funds. 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 4, 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 five Social Security provisions of the proposal. **Table 1b.n** provides the estimated nominal dollar effect of enactment of the proposal on annual budget balances for years 2016 through 2026. 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 expect the net effect of the proposal on unified budget cash flow (column 3) to be positive in years 2017 and later, with increased revenue from eliminating the taxable maximum more than offsetting benefit increases.

Column 4 of Table 1b indicates that the effect of implementing the proposal is a reduction of the federal debt held by the public, reaching about \$4.1 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 2016 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 2016 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 five 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).

#### 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, 2016.

For the 75-year (long-range) period as a whole, the current-law unfunded obligation of \$11.4 trillion would be reduced to \$7.2 trillion in present value assuming enactment of the proposal. This change of \$4.1 trillion results from:

- A \$10.6 trillion net increase in revenue (column 2), primarily from additional payroll tax revenue, *minus*
- A \$6.4 trillion net increase in cost (column 3), primarily from establishing an alternative benefit for surviving spouses, calculating the COLA using the CPI-E rather than the CPI-W, and increasing future benefits through changes in the PIA formula.

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

Sincerely,

A handwritten signature in black ink that reads "Stephen C. Goss". The signature is written in a cursive style with a large, stylized 'S' and 'G'.

Stephen C. Goss, ASA, MAAA  
Chief Actuary

Enclosures