SOCIAL SECURITY
Office of the Chief Actuary

March 18, 2013

The Honorable Tom Harkin
United States Senate
Washington, D.C. 20510

Dear Senator Harkin:

I am writing in response to your request for estimates of the financial effects on Social Security of the "Strengthening Social Security Act of 2013", which was introduced on March 14, 2013. This Bill includes three provisions with direct effects on Social Security benefits and tax revenues. Enactment of these three provisions would increase benefits and extend solvency for the Social Security program. We have enjoyed working closely with Zachary Schechter-Steinberg of your staff in developing this proposal to meet your goals.

The enclosed tables provide estimates of the effects of the three provisions on the cost, income, and trust fund reserves for the Old Age, Survivors, and Disability Insurance (OASDI) program, as well as the estimated effects on retired worker benefit levels for selected hypothetical workers. In addition, tables 1b and 1b.n reflect the Federal budget implications of the three provisions and tables B1, B2, and B3 provide illustrations of the effects on benefit levels. We estimate that enactment of these provisions would extend full solvency of the OASDI program for an additional 16 years, with the projected depletion of combined OASI and DI Trust Fund reserves moving from 2033 under current law to 2049 under the proposal. We base all estimates on the intermediate assumptions of the 2012 Trustees Report.

The estimates and analysis provided here reflect the combined effort of many in the Office of the Chief Actuary, but most particularly Alice Wade, Christopher Chaplain, Daniel Nickerson, Kyle Burkhalter, Katie Sutton, and Jason Schultz.

The Bill includes the following three provisions with direct effects on the OASDI program:

1) *Eliminate the taxable maximum, fully effective 2018.* Phase in the elimination over 5 years by taxing all earnings above the current law taxable maximum at a rate of 2.48 percent in 2014, 4.96 percent in 2015, …, and 12.40 percent in 2018 and later. Credit the additional earnings for benefit purposes by: (a) calculating a second average indexed monthly earnings ("AIME+") reflecting only earnings for each year that are above the current law taxable maximum[1], (b) applying a 5-percent factor on this newly computed "AIME+" to compute a second primary insurance amount, (c) adding this second primary insurance amount to the current-law primary insurance amount.

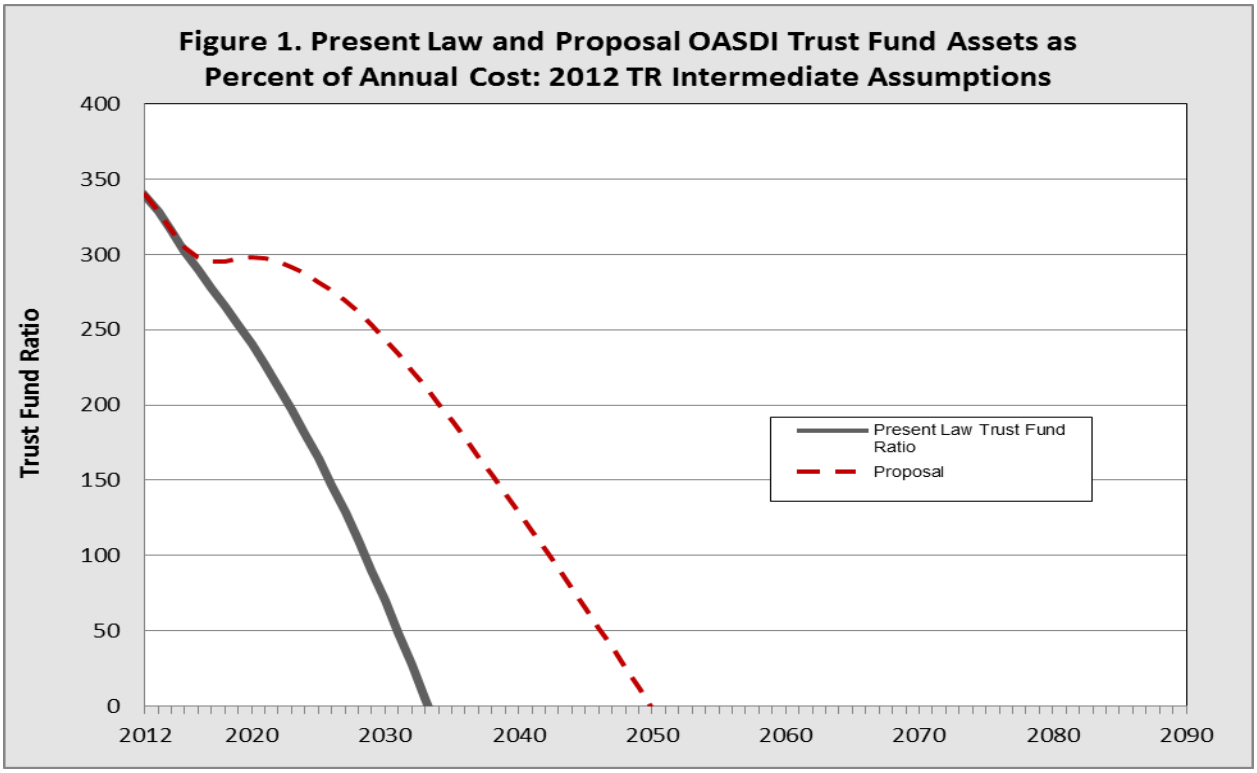
[1] For years 2014 through 2017, only a portion of the earnings above the current law taxable maximum is included in determining AIME+. The portion equals the ratio of the payroll tax rate applied during the year to the full payroll tax rate of 12.4 percent.

2) *Increase the first PIA bend point 15 percent above the current law level for newly eligible beneficiaries, fully effective 2033*. Phase in by increasing the first bend point 1 percent above the current level for newly eligible beneficiaries in 2019, 2 percent for newly eligible beneficiaries in 2020, …, and 15 percent for newly eligible beneficiaries in 2033 and later.
3) *Compute the cost-of-living adjustment (COLA) using the Consumer Price Index for the Elderly (CPI-E), effective December 2014.* We estimate this new computation will increase the annual COLA by about 0.2 percentage point, on average.

The balance of this letter provides a summary of the effects of the three provisions on the actuarial status of the OASDI program, our understanding of the specifications and intent of each provision, and descriptions of our detailed financial estimates for trust fund operations, benefit levels, and implications for the federal budget.

Summary of Effects of the Proposal on OASDI Actuarial Status

Figure 1 below illustrates the expected change in 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 three provisions of this Bill. Assuming enactment, the OASDI program would be expected to be solvent for an additional 16 years, under the intermediate assumptions of the 2012 Trustees Report.



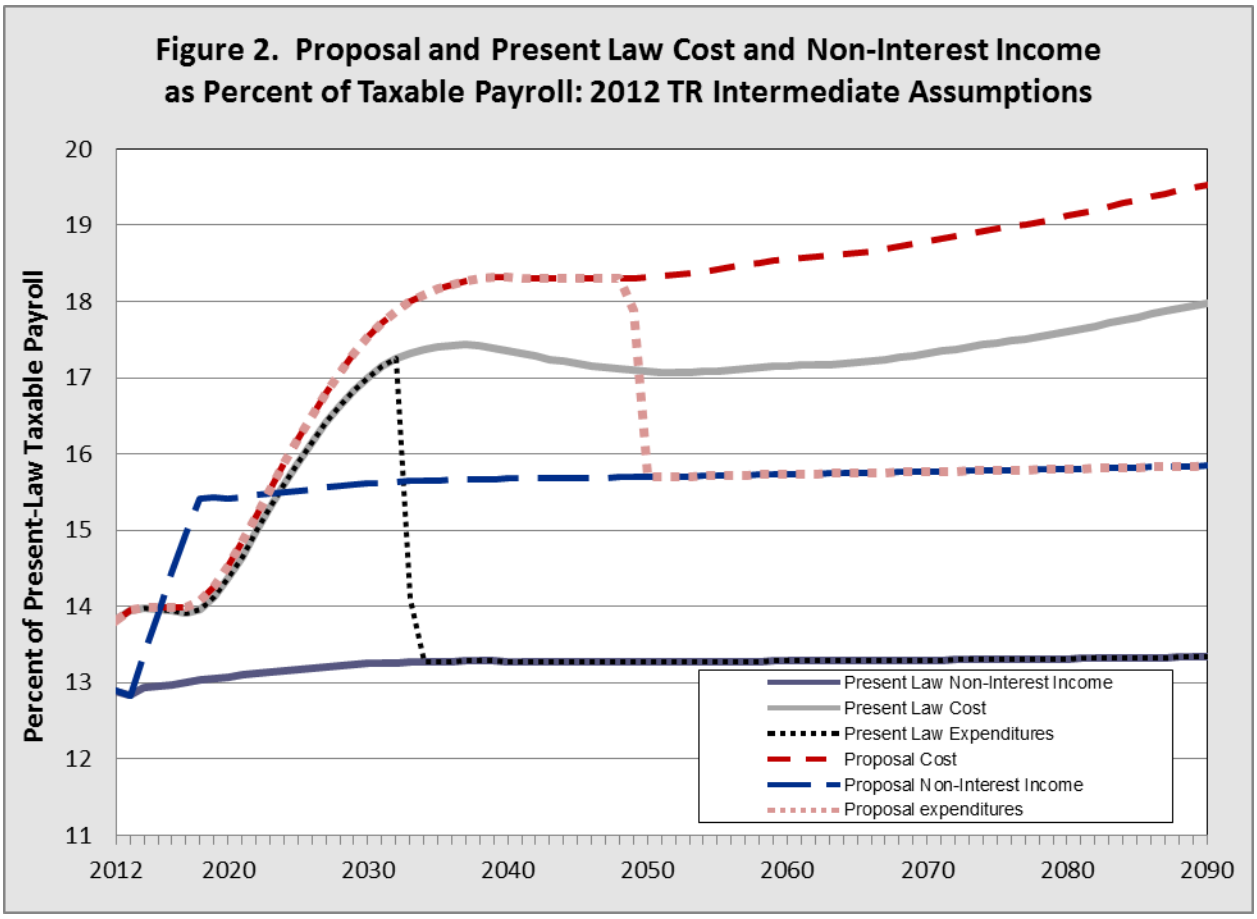
Note: *Trust Fund Ratio* for a given year is the ratio of reserves in the combined OASI and DI Trust Funds at the beginning of the year to the cost of the program during the year.

The level of reserves for the theoretical combined OASI and DI Trust Funds would decline from 340 percent of annual program cost at the beginning of 2012 until these reserves would become depleted in 2049 (16 years later than projected depletion under current law). At the time of reserve depletion in 2049, the program would be able to pay about 85 percent of then scheduled benefits with continuing taxes (under current law, 75 percent of scheduled benefits are projected

to be payable in 2033 after depletion). By 2086, 81 percent of benefits scheduled under the proposal would be payable compared to 73 percent of scheduled benefits payable under present law.

Enactment of the three provisions of this Bill would eliminate about one-half of the long-range OASDI actuarial deficit of 2.67 percent of taxable payroll under current law, lowering the OASDI actuarial deficit to 1.30 percent of payroll for the long-range period.

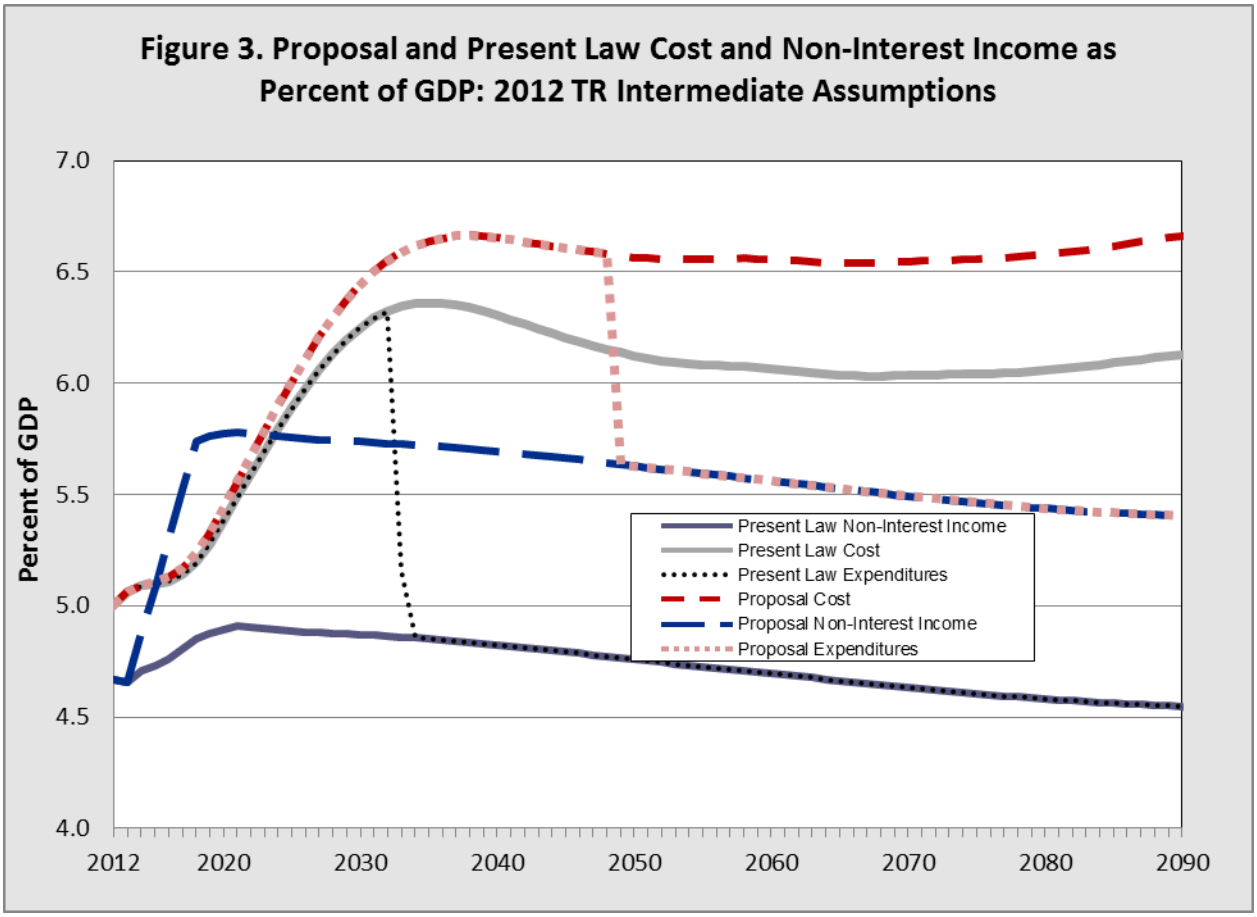
Figure 2 below illustrates annual projected levels of cost, expenditures, and non-interest income as a percent of the current-law taxable payroll. The projected levels of cost reflect the full cost of scheduled benefits under both present law and the proposal. After trust fund reserve depletion, projected expenditures under current law and under the proposal include only amounts payable from projected tax revenues (non-interest income), which are less than projected cost.



After 2014, OASDI program cost is higher under the proposal than under current law. This difference in program cost increases gradually over time to over 1.5 percent of current-law payroll by 2080. Non-interest income under the proposal is also higher than under current law, with the difference in non-interest income growing to just under 2 percent of payroll by 2017 and to 2.4 percent of payroll by 2040. The proposal improves the annual cash-flow balance (non-interest income minus program cost) by almost 2.3 percent of payroll for 2018, with the improvement declining to 1.0 percent of payroll by 2086. Under the proposal, annual cash-flow balance is positive for 2016 through 2022, with annual deficits rising thereafter to 3.54 percent of

payroll by 2086. As a comparison, the projected annual deficit under current law is 4.50 percent of payroll for 2086.

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). The graph below illustrates these levels under both current law and the proposal.



Specification for Provisions of the Proposal

(1) Eliminate the Taxable Maximum by 2018

Under current law, payroll taxes totaling 12.4 percent apply to covered earnings in a year up to the contribution and benefit base, or taxable maximum. This taxable maximum is $113,700 for 2013 and increases in the future in line with increases in the national average wage index (AWI). All covered earnings subject to the payroll tax are also credited toward computation of potential benefits as well as attainment of insured status.

Under this provision, all covered earnings in excess of the present-law taxable maximum would be subject to some payroll tax starting in 2014. Covered earnings in excess of the maximum would be taxed at a 2.48 percent rate in 2014, at a 4.96 percent rate in 2015, at a 7.44 percent rate in 2016, … , and at a 12.4 percent rate in 2018 and later years. Therefore, all covered earnings

above and below the present-law taxable maximum would be taxed at the full 12.4 percent payroll tax rate for 2018 and later.

Under this provision as modified, the primary insurance amount (PIA) would be determined in two components. The first component would be computed exactly as under current law, based on the average indexed monthly earnings (AIME), restricted to earnings at the level of the current-law contribution and benefit base ($113,700 for 2013) for each year. The second component of the PIA would be computed using the "AIME+." The AIME+ would be computed exactly like the AIME, except that annual earnings amounts used would be restricted to just the excess amount taxable (if any) over the current-law contribution and benefit base for each year.[2] The second component of PIA would be 5 percent of AIME+ for benefits in 2015 and later.

This provision alone is estimated to reduce the long-range OASDI actuarial deficit by 2.11 percent of taxable payroll and to reduce the annual deficit for the 75th projection year (2086) by 2.21 percent of payroll.

(2) Modify the First PIA Bend Point

Under current law, any portion of the AIME that is below the first PIA bend point is multiplied by a factor of 0.90 in computing the PIA. The first bend point is increased (indexed) by the increase in the AWI. This provision would increase the level of the first PIA bend point, from the level that would apply in the absence of this provision, by 1 percent for individuals newly eligible for benefits in 2019, 2 percent for 2020, …, and 15 percent for individuals newly eligible for benefits in 2033 and all subsequent years.

This provision alone is estimated to increase the long-range OASDI actuarial deficit by 0.37 percent of taxable payroll and to increase the annual deficit for the 75th projection year (2086) by 0.71 percent of payroll.

(3) Base the COLA on CPI for the Elderly

The OASDI automatic cost of living adjustment (COLA) that applies for benefit increases after the year of initial benefit eligibility is currently based on the increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The CPI-W was the only CPI series produced by the Bureau of Labor Statistics (BLS) when the COLA was enacted into law in 1972. The CPI-W computes price increases for a broad market basket of goods and services from month to month, with revisions to the weights in the market basket every two years reflecting the distribution of expenditures by urban wage earners and clerical workers.

Under this provision, effective December 2014, the Social Security COLA would be based on changes in the Consumer Price Index for the Elderly (CPI-E), rather than the CPI-W. The CPI-E was developed by the BLS to reflect the spending patterns of consumers over age 62. Elderly consumers spend relatively more on health and housing. We assume that using the CPI-E would result in an average annual COLA of 3.0 percent per year, which is 0.2 percentage point higher than the average annual increase assumed in the 2012 Trustees Report for the CPI-W. Our assumption that the average annual increase in the CPI-E will be 0.2 percentage point greater

[2] For years 2014 through 2017, only a portion of the earnings above the current law taxable maximum is included for determining AIME+. The portion equals the ratio of the payroll tax rate applied during the year to the full payroll tax rate of 12.4 percent.

than the CPI-W is based on analysis of the historical increases for the CPI-W and the CPI-E, the difference in component weights for these two series, and our assumptions about the future relative levels of average annual increase in these components.

This provision alone is estimated to increase the long-range OASDI actuarial deficit by 0.37 percent of taxable payroll and to increase the annual deficit for the 75th projection year (2086) by 0.51 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 three provisions of the proposal separately and on a combined basis. Summary estimates are also provided for the effect on the annual balance (the difference between income rate and the cost rate, expressed as a percent of present-law taxable payroll) for the 75th projection year, 2086.

Benefit Illustrations

Tables B1 and B2 provide illustrative examples of the projected change in benefit levels under the three provisions 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 present-law taxable maximum level (equivalent to $113,700 in 2013). As a result, the provision to increase the taxable maximum does not affect benefit levels illustrated in these tables. **Table B3** provides additional important information on characteristics of the illustrative retiring workers.

Table B1 compares the initial benefit levels assuming retirement at age 65 under the basic provisions of the proposal to both scheduled and payable present-law benefit levels. Future retirees would have three COLAs based on the CPI-E at age 65 so their expected benefit levels would be about 0.6 percentage point higher than under current law based on this provision alone. The change in the first PIA bend point would increase the basic benefit level (PIA) for all beneficiaries with career-average indexed monthly earnings (AIME) above the current-law first bend point, and would increase benefits by the same dollar amount for all beneficiaries whose AIME is 15 percent or more above the current-law first bend point. The large majority of retired workers have AIMEs at least 15 percent above the current-law first bend point (nearly 90 percent), including all of the illustrative cases in these tables. Therefore, the percentage increase in benefits for this provision is largest for the very-low-AIME illustrative worker and is lowest for the maximum-AIME worker. The final two columns of this table show the level of scheduled benefits under the proposal as a percentage of present law scheduled and present law payable benefits, respectively. In the final column, no percentage is provided for years after 2048 because scheduled benefits under the proposal would not be fully payable.

Table B2 compares the change in scheduled benefit levels at ages 65, 75, 85, and 95 under the proposal to scheduled benefits under present law, assuming retirement at age 65. Table B2 shows that projected scheduled benefits under the provisions of this proposal increase in relation to

present-law scheduled benefits between ages 65 and 95, because the provision to use the CPI-E for calculating the COLA has a positive cumulative effect as beneficiaries age.

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 has 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.

Trust Fund Operations

Table 1 shows the annual cost and income rates, annual balances, and trust fund ratios (reserves as percent of annual program cost) for OASDI assuming enactment of the three basic Social Security provisions of the proposal. This table also shows the change from present law in these cost rates, income rates, and balances. Included at the bottom of this table are summarized rates for the 75-year (long-range) period.

Table 1 indicates that the OASDI program is projected to be solvent for an additional 16 years assuming enactment of the three provisions. The year in which the combined reserves of the OASI and DI Trust Funds are projected to deplete would change from 2033 under current law to 2049 under the proposal. Even after depletion of the trust fund reserves, however, the actuarial status of the program is improved as continuing income would be sufficient to pay a higher percentage of scheduled benefits than under current law. Under current law, 75 percent of benefits are projected to be payable at trust fund reserve depletion in 2033, declining to 73 percent payable by 2086. Under this proposal, 100 percent of the proposed (higher) scheduled benefits would be fully payable through 2048, and 85 percent would be payable at trust fund reserve depletion late in 2049, declining to 81 percent payable by 2086.

The actuarial deficit for the OASDI program over the 75-year projection period is reduced by 1.36 percent of taxable payroll, from an actuarial deficit of 2.67 percent of payroll under current law to an actuarial deficit estimated at 1.30 percent of taxable payroll under the proposal.

We project annual balances (annual income rate minus annual cost rate) to become positive for years 2016 through 2022 under the proposal and to be negative thereafter. Annual deficits (negative annual balances) after 2022 are projected to be smaller than the deficits projected under current law by 0.96 percentage points or more through 2086.

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 under the basic Social Security provisions of the proposal, expressed in present value dollars discounted to January 1, 2012. The table indicates that the basic 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 the added general fund transfers (if any) provided under the proposal (column 6) and with the proposal added transfers (column 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 to 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 Basic 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) cash flows and balances, assuming enactment of the three basic Social Security provisions of this proposal. Table **1b.n** provides the estimated nominal dollar effect of enactment of the three basic provisions of the proposal on the annual budget balances for years 2012 through 2022. All values in these tables represent the amount of the *change* from the level projected under current law.

The effect of the three basic Social Security provisions on unified budget cash flow (column 3) is expected to be positive starting for 2014, reflecting the gradual application of the payroll tax to earnings above the current-law taxable maximum amount.

Column 4 of Table 1b indicates that the projected effect of implementing the three basic Social Security provisions is a reduction, starting in 2014, of the Federal debt held by the public, reaching about $4.7 trillion in present value by 2086. Column 5 provides the projected effect of the basic Social Security provisions on the annual unified budget balances, including both the cash flow effect in column 3 and the additional interest on the accumulated debt indicated in column 4. Columns 6 and 7 indicate that the basic Social Security 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 these estimates are based on the intermediate assumptions of the 2012 Trustees Report and thus are not consistent with estimates made by the Office of Budget and Management or the Congressional Budget Office based on their assumptions.

Annual Trust Fund Operations as a Percent of GDP

Table 1c provides annual cost, annual expenditures (on a payable basis), and annual tax income for the OASDI program expressed as a percentage of GDP. These values are shown for both present law and assuming enactment of the three basic Social Security provisions of the Bill. Showing the annual trust fund 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 (see Table 1).

Effects on Trust Fund Reserves and Unfunded Obligations

Table 1d provides estimates of the changes due to enactment of the three basic Social Security provisions of this Bill in the level of projected trust fund reserves for years prior to trust fund reserve depletion and the level of unfunded obligations for years after trust fund reserve depletion. All values in the table are expressed in present-value discounted dollars. For the 75-year (long-range) period as a whole, the present-law unfunded obligation of $8.6 trillion in present value is reduced to an unfunded obligation of $3.9 trillion in present value. This $4.7 trillion change equals the following:

- A $7.7 trillion increase in revenue (column 2), primarily from additional payroll tax but also reflecting additional taxation of benefits revenues arising from increased aggregate benefit levels, *minus*
- A $3.0 trillion increase in cost (column 3), from basing the COLA on the CPI-E, from increasing the first PIA bend point, and from additional benefits for those with earnings above the present-law taxable maximum.

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

Sincerely,

Stephen C. Goss
Chief Actuary

Enclosures