SOCIAL SECURITY
Office of the Chief Actuary

February 16, 2017

The Honorable Bernie Sanders
United States Senate
Washington, D.C. 20510

The Honorable Peter DeFazio
United States House of Representatives
Washington, D.C. 20515

Dear Senator Sanders and Representative DeFazio:

I am writing in response to your request for estimates of the financial effects on Social Security
of the *Social Security Expansion Act*, which you introduced today. The estimates provided here
reflect the intermediate assumptions of the 2016 Trustees Report. These Bills (hereafter referred
to as the proposal) include five provisions with direct effects on the Social Security Trust Funds.
We have enjoyed working closely with Jeff Cruz and Rina Wulfing of your staffs in developing
this proposal to meet your goals.

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 2078, under the intermediate assumptions of the 2016 Trustees Report.

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,
Jason Schultz, Kyle Burkhalter, Anna Kirjusina, Katie Sutton, and Tiffany Bosley.

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 proposal:

> *Section 2. Increase the first PIA bend point above the current law level for workers who
> become newly eligible for retirement or disability benefits or die after 2022.* Phase in an
> ultimate 15-percent increase in the first bend point by raising it 1 percent above the current
> level for workers who becoming newly eligible or dying in 2023, 2 percent for workers

becoming newly eligible or dying in 2024, and so on, until it reaches 15 percent for workers becoming newly eligible or dying in 2037 and later.

Section 3. Use the increase in the Consumer Price Index for the Elderly (CPI-E) rather than the increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) 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 4. Increase the special minimum PIA for workers who become newly eligible for retirement or disability benefits or die in 2018 or later. For workers becoming newly eligible or dying in 2018, the minimum initial PIA for workers with 30 or more years of coverage (YOCs) is 125 percent of the annual poverty guideline for a single individual, as published by the Department of Health and Human Services for 2017, divided by 12. For workers becoming newly eligible or dying after 2018, the minimum initial PIA increases by the growth in the national average wage index (AWI).

Sections 5 and 6. Apply the combined OASDI payroll tax rate on earnings above $250,000, effective for 2018 and later. Tax all earnings once the current-law taxable maximum exceeds $250,000. Do not credit the additional taxed earnings for benefit purposes.

Section 7. Apply a separate 6.2-percent tax on investment income, as defined in the Affordable Care Act (ACA), with unindexed thresholds as in the ACA, effective for 2018 and later. The ACA thresholds are $200,000 for a single filer and $250,000 for a married couple filing jointly. Under this provision, there is no limit on the amount taxed.

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 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 estimated 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 five provisions of this proposal. 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 2078, under the intermediate assumptions of the 2016 Trustees Report.

Figure 1. Current Law and Proposal OASDI Trust Fund Reserves as Percent of Annual Cost: 2016 TR Intermediate Assumptions
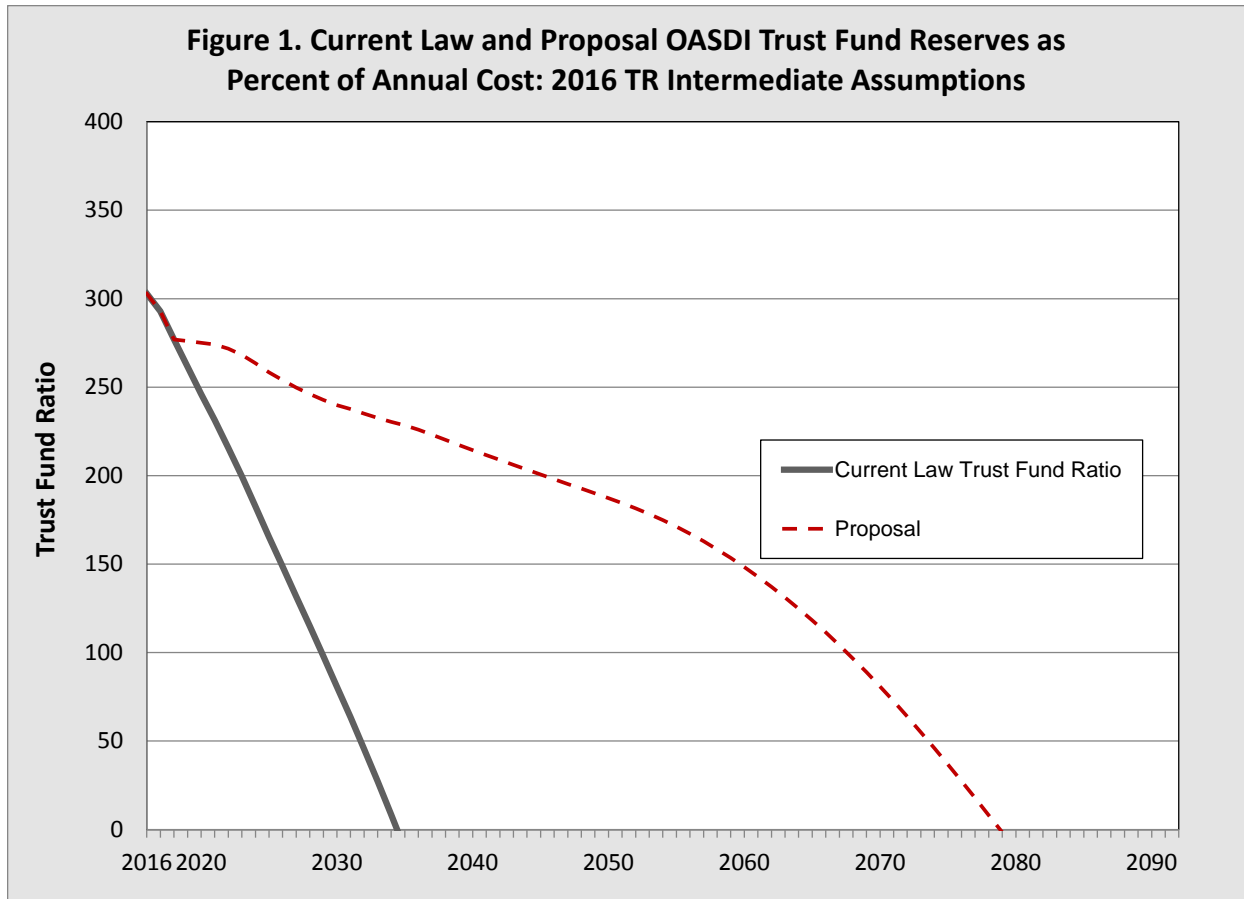
Note: *Trust Fund Ratio* for a given year is the ratio of reserves in the combined OASI and DI Trust Funds at the beginning of the year to the cost of the program for the year.

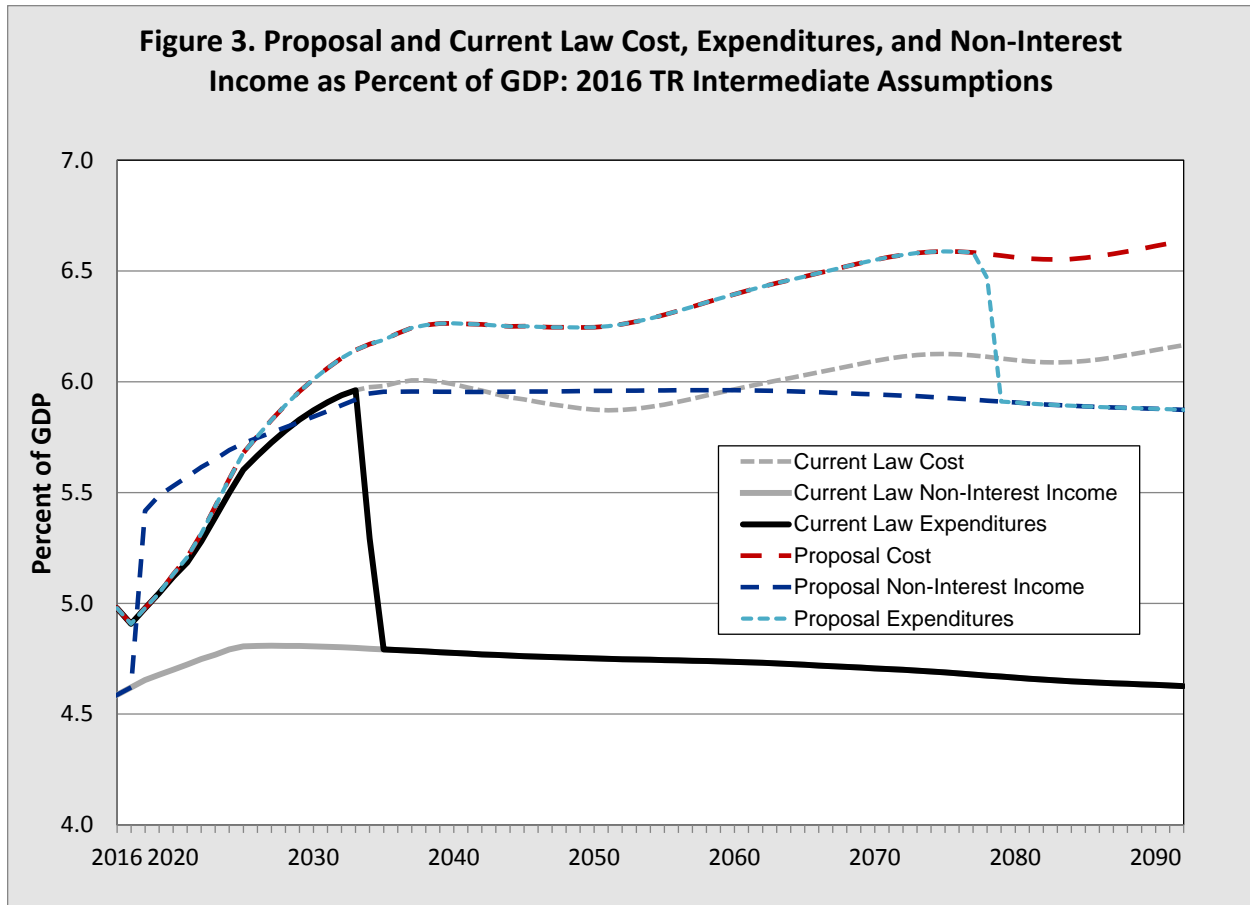Under current law, 79 percent of scheduled benefits are projected to be payable in 2034 after depletion of the combined trust fund reserves, with the percentage payable declining to 75 percent for 2078 and to 74 percent for 2090. Under the proposal, 89 percent of scheduled benefits are projected to be payable in 2078 after depletion of the combined trust fund reserves, with this percentage declining to 88 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 0.41 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 present-law taxable payroll. The projected level of cost reflects the full cost of scheduled benefits under both present law and the proposal. Under the proposal, projected expenditures equal the full cost of scheduled benefits through 2077, the year prior to trust fund reserve depletion.

Figure 2. Proposal and Current Law Cost, Expenditures, and Non-Interest Income as Percent of Taxable Payroll: 2016 TR Intermediate Assumptions
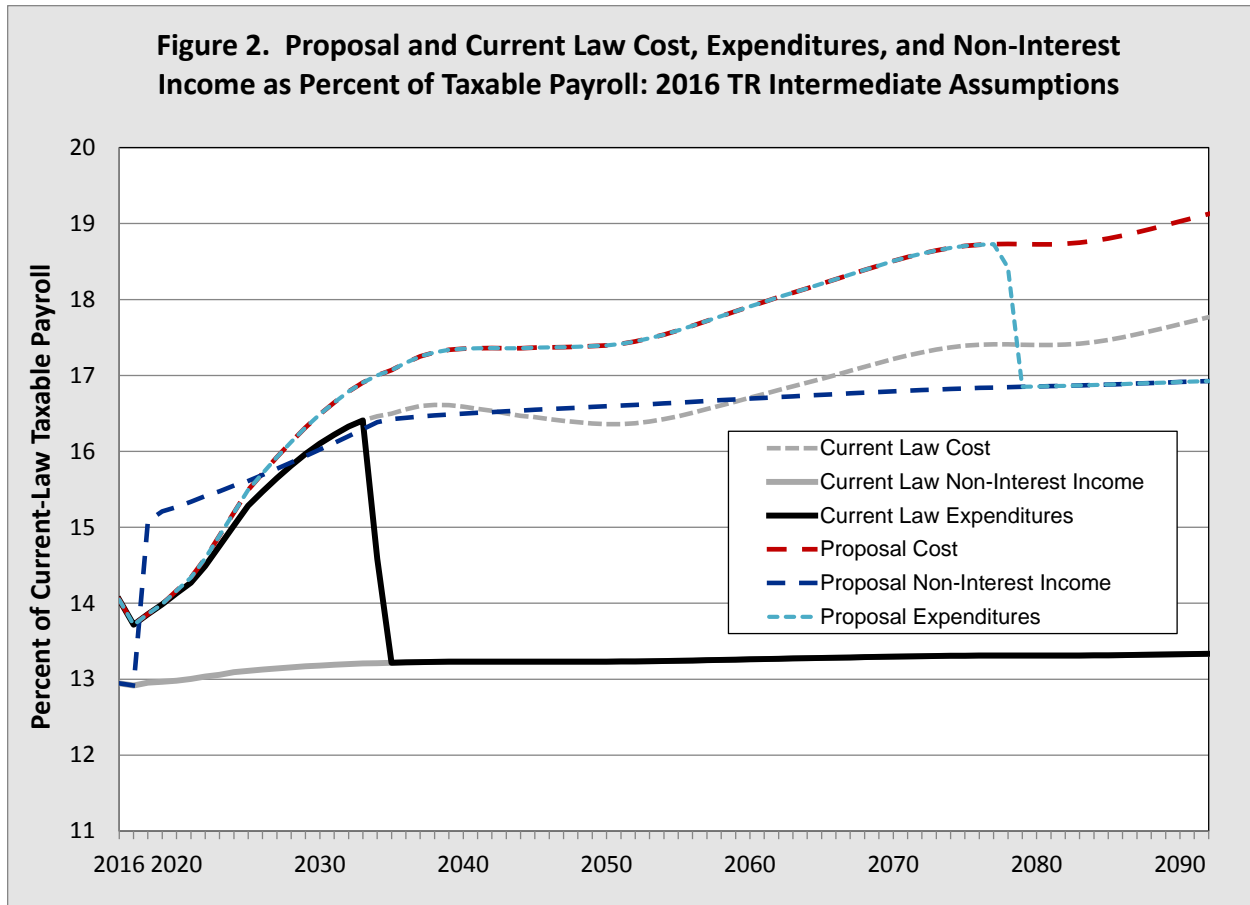
Beginning in 2018, OASDI program cost is higher under the proposal than under current law. This difference in program cost increases quickly at first, then increases gradually over time to about 1.4 percent of current-law payroll by 2090. Non-interest income under the proposal is also higher than under current law, with the difference in non-interest income growing from 2.1 percent of present-law payroll for 2018 to 3.6 percent of present-law payroll by 2090. The proposal improves the annual balance (non-interest income minus program cost) by 2.6 percent of payroll for 2034, with the improvement declining to 2.2 percent of payroll for 2090. Under the proposal, the annual balance is negative in 2016 and 2017, positive from 2018 through 2025, and then negative through the end of the long-range period. The annual deficit generally increases to 2.1 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 below illustrates these levels under both current law and the proposal.

Figure 3. Proposal and Current Law Cost, Expenditures, and Non-Interest Income as Percent of GDP: 2016 TR Intermediate Assumptions

Specification for Provisions of the Proposal

Section 2. Increase the first PIA bend point above the current law level for workers becoming newly eligible for retirement or disability benefits or dying after 2022.

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 changed (indexed) for each year by the increase or decrease in the AWI from the third prior year to the second prior year. This provision would increase the level of the first PIA bend point, from the level that would apply under current law, by 1 percent for workers becoming newly eligible or dying in 2023, by 2 percent for workers becoming newly eligible or dying in 2024, and so on, until it reaches 15 percent for workers becoming newly eligible or dying in 2037 and all subsequent years.

We estimate that enactment of this provision alone would increase the long-range OASDI actuarial deficit by 0.37 percent of taxable payroll and would increase the annual deficit for the 75th projection year (2090) by 0.71 percent of payroll.

Section 3. 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 point per year on average.

We estimate that enactment of this provision alone would increase the long-range OASDI actuarial deficit by 0.37 percent of taxable payroll and would increase the annual deficit for the 75th projection year (2090) by 0.52 percent of payroll.

Section 4. Increase the special minimum PIA for workers who become newly eligible for retirement or disability benefits or die in 2018 and later.

Under this provision, the minimum initial PIA for worker beneficiaries newly eligible in 2018 with 30 or more years of coverage (YOCs) would be 125 percent of the annual poverty guideline for a single individual, as published by the Department of Health and Human Services for 2017, divided by 12. For those with less than 30 YOCs, the minimum PIA per YOC in excess of 10 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 beneficiaries newly eligible after 2018, the initial PIA per YOC in excess of 10 is indexed by growth in the SSA average wage index (AWI) to determine the minimum applicable for the year of initial eligibility. After the year of initial eligibility, the minimum PIA per YOC is increased by the COLA.

We estimate that enactment of this provision alone would increase the long-range OASDI actuarial deficit by 0.13 percent of taxable payroll and would increase the annual deficit for the 75th projection year (2090) by 0.19 percent of payroll.

Sections 5 and 6. Apply the combined OASDI payroll tax rate on earnings above $250,000, effective for 2018 and later.

This provision applies the OASDI payroll tax rate to earnings above $250,000 in 2018 and later. The $250,000 level is a fixed amount after 2018 and not indexed to the average wage increase. All earnings would be taxed once the current-law taxable maximum exceeds $250,000, which is projected to occur in 2035. Any earnings above the higher of $250,000 or the current-law taxable maximum in a given year would not be credited for benefit computation purposes.

We estimate that enactment of this provision alone would reduce the long-range OASDI actuarial deficit by 2.17 percent of taxable payroll and would reduce the annual deficit for the 75th projection year (2090) by 2.45 percent of payroll.

Section 7. Apply a separate 6.2-percent tax on investment income, as defined in the Affordable Care Act (ACA), with unindexed thresholds as in the ACA, effective for 2018.

The ACA thresholds for Modified Adjusted Gross Income, or MAGI (AGI with adjustments for specific circumstances), are $200,000 for a single filer and $250,000 for a married couple filing jointly. This provision applies a 6.2 percent Social Security tax to the lesser of MAGI above these thresholds and total investment income, in the same way as the 3.8 percent tax on

investment income that went into effect in 2013 under the ACA. Under this provision, there is no limit on the amount taxed.

We estimate that enactment of this provision alone would reduce the long-range OASDI actuarial deficit by 0.93 percent of taxable payroll and would reduce the annual deficit for the 75th projection year (2090) by 1.15 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 present-law taxable payroll) for the 75th 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 three 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 present-law taxable maximum level (equivalent to $118,500 for 2016). 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 provisions of the proposal, to both scheduled and payable present-law benefit levels. All benefit amounts under the proposal are higher than those scheduled in current law, especially for the very low and low hypothetical earners with at least 30 years of earnings (due largely to the minimum benefit provision). 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.

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 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 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.

Payroll Tax Effects

Under the proposal, workers with covered earnings in excess of the higher of $250,000 and the current-law taxable maximum would, along with their employers, pay additional payroll taxes.

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 44 years, from 2034 under current law to 2078. 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 present 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 2.25 percent of taxable payroll, from an actuarial deficit of 2.66 percent of payroll under current law to an actuarial deficit of 0.41 percent of taxable payroll.

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 this 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) cash flows and balances, assuming enactment of the five Social Security provisions of this 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 and 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 obtained by additional borrowing from the public.

Column 1 of Table 1b shows the added proposal general fund transfers (zero in this case). 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 2018 and later, reflecting the newly applied tax on investment income in section 7 and the payroll tax newly applied to earnings above $250,000 in sections 5 and 6.

Column 4 of Table 1b indicates that the effect of implementing the five provisions is a reduction of the Federal debt held by the public, reaching about $10.3 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 2016 Trustees Report and thus 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 present 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. 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 present-law unfunded obligation of $11.4 trillion is reduced to $1.0 trillion in present value. This change of $10.3 trillion results from:

- A $14.1 trillion increase in revenue (column 2), primarily from additional tax revenue, *minus*
- A $3.8 trillion increase in cost (column 3), primarily from the special minimum PIA provision, calculating the COLA using the CPI-E rather than the CPI-W, and increasing current and future benefits by increasing the first PIA bend point by 15 percent ultimately.

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

Sincerely,

Stephen C. Goss
Chief Actuary

Enclosures

Table A--Estimated Long-Range OASDI Financial Effects of the *"Social Security Expansion Act"*, Introduced by Senator Sanders and Rep. DeFazio

Provision	Estimated Change in Long-Range OASDI Actuarial Balance [1] (as a percent of payroll)	Estimated Change in Annual Balance for 75th year [2] (as a percent of payroll)
Section 2) Increase the first PIA bend point above the current law level for workers becomingly newly eligible for retirement or disability benefits or dying after 2022. Phase in an ultimate 15-percent increase in the first bend point by raising it 1 percent above the current level for workers becoming newly eligible or dying in 2023, 2 percent for workers becoming newly eligible or dying in 2024, and so on, until it reaches 15 percent for workers becoming newly eligible or dying in 2037 and later	-0.37	-0.71
Section 3) Use the increase in the Consumer Price Index for the Elderly (CPI-E) rather than the increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) to calculate the cost-of-living adjustment (COLA), effective for December 2019 and later COLAs. We estimate this new computation would increase the effective COLA by about 0.2 percentage point, on average	-0.37	-0.52
Section 4) Beginning in 2018, reconfigure the special minimum PIA for workers becoming newly eligible or dying after 2017: (a) A year of coverage (YOC) is defined as a year in which 4 quarters of coverage are earned. (b) For workers becoming newly eligible or dying in 2018 with 30 or more YOCs, set the minimum PIA equal to 125 percent of the 2017 Department of Health and Human Services (HHS) monthly poverty level. For those with under 30 YOCs, the PIA per YOC in excess of 10 YOCs is 125 percent of the HHS monthly poverty level for 2017, divided by 20. (c) For workers becoming newly eligible or dying after 2018, index the initial PIA per YOC by growth in the national average wage index (AWI). The 30 and 10 YOC levels apply for all workers, including those who die or become disabled under age 62..	-0.13	-0.19
Sections 5 and 6) Apply the combined OASDI payroll tax rate on earnings above $250,000 starting in 2018. Tax all earnings once the current-law taxable maximum exceeds $250,000. Do not provide benefit credit for additional earnings taxed...............	2.17	2.45
Section 7) Apply a separate 6.2 percent tax on investment income as defined in the Affordable Care Act (ACA), with unindexed thresholds as in the ACA ($200,000 single filer, $250,000 for married filing joint), starting in 2018. Proceeds go to the OASDI Trust Funds..	0.93	1.15

Table A--Estimated Long-Range OASDI Financial Effects of the
"Social Security Expansion Act", Introduced by Senator Sanders and Rep. DeFazio

Provision	Estimated Change in Long-Range OASDI Actuarial Balance [1] (as a percent of payroll)	Estimated Change in Annual Balance for 75th year [2] (as a percent of payroll)
Total for all provisions, including interaction..........................	**2.25**	**2.23**

[1]Under current law, the estimated long-range OASDI actuarial balance is -2.66 percent of taxable payroll.
[2]Under current law, the estimated 75th year annual balance is -4.35 percent of taxable payroll.

Notes: All estimates are based on the intermediate assumptions of the 2016 OASDI Trustees Report.
  Estimates of individual provisions appear on a stand-alone basis relative to current law, unless otherwise stated.

Table B1. Changes in Benefits for Hypothetical Workers Beginning Benefit Receipt at age 65
Social Security Expansion Act, introduced by Senator Bernie Sanders and Representative Peter DeFazio

Year Attain Age 65	Current Law Scheduled Monthly Benefits[3]		Scheduled Benefit Level Percent Change at age 65				Proposal Scheduled Benefit Percent of Current Law:	
	(Wage-Indexed 2015 Dollars)	(CPI-Indexed 2015 Dollars)	Increased COLA[4]	Benefit Formula[5]	Minimum Benefit[6]	Total	Scheduled	Payable
			(Percent change)				(Percents)	
Very-Low-AIME ($12,280 for 2016[1]) 30-Year Scaled Earner (8.9% of Retirees[2])								
2016	718	718	0.0	0.0	0.0	0.0	100	100
2030	660	812	0.6	3.1	41.9	47.2	147	147
2050	661	1,036	0.6	8.4	35.0	47.2	147	184
2080	665	1,469	0.6	8.4	35.0	47.2	147	-
Very-Low-AIME ($12,280 for 2016[1]) 20-Year Scaled Earner (5.2% of Retirees[2])								
2016	718	718	0.0	0.0	0.0	0.0	100	100
2030	660	812	0.6	3.1	0.0	3.7	104	104
2050	661	1,036	0.6	8.4	0.0	9.0	109	137
2080	665	1,469	0.6	8.4	0.0	9.0	109	-
Very-Low-AIME ($12,280 for 2016[1]) 14-Year Scaled Earner (4.2% of Retirees[2])								
2016	718	718	0.0	0.0	0.0	0.0	100	100
2030	660	812	0.6	3.1	0.0	3.7	104	104
2050	661	1,036	0.6	8.4	0.0	9.0	109	137
2080	665	1,469	0.6	8.4	0.0	9.0	109	-
Low-AIME ($22,105 for 2016[1]) 44-Year Scaled Earner (16.9% of Retirees[2])								
2016	940	940	0.0	0.0	0.0	0.0	100	100
2030	863	1,062	0.6	2.4	9.3	12.5	112	112
2050	865	1,356	0.6	7.0	4.5	12.5	112	141
2080	869	1,921	0.6	7.0	4.5	12.5	112	-
Low-AIME ($22,105 for 2016[1]) 30-Year Scaled Earner (4.4% of Retirees[2])								
2016	940	940	0.0	0.0	0.0	0.0	100	100
2030	863	1,062	0.6	2.4	9.3	12.5	112	112
2050	865	1,356	0.6	7.0	4.5	12.5	112	141
2080	869	1,921	0.6	7.0	4.5	12.5	112	-
Low-AIME ($22,105 for 2016[1]) 20-Year Scaled Earner (2.0% of Retirees[2])								
2016	940	940	0.0	0.0	0.0	0.0	100	100
2030	863	1,062	0.6	2.4	0.0	3.0	103	103
2050	865	1,356	0.6	7.0	0.0	7.7	108	135
2080	869	1,921	0.6	7.0	0.0	7.7	108	-
Medium-AIME ($49,121 for 2016[1]) 44-Year Scaled Earner (29.2% of Retirees[2])								
2016	1,548	1,548	0.0	0.0	0.0	0.0	100	100
2030	1,423	1,750	0.6	1.4	0.0	2.0	102	102
2050	1,425	2,234	0.6	4.3	0.0	4.9	105	131
2080	1,433	3,166	0.6	4.3	0.0	4.9	105	-
Medium-AIME ($49,121 for 2016[1]) 30-Year Scaled Earner (3.2% of Retirees[2])								
2016	1,548	1,548	0.0	0.0	0.0	0.0	100	100
2030	1,423	1,750	0.6	1.4	0.0	2.0	102	102
2050	1,425	2,234	0.6	4.3	0.0	4.9	105	131
2080	1,433	3,166	0.6	4.3	0.0	4.9	105	-
High-AIME ($78,594 for 2016[1]) 44-Year Scaled Earner (19.8% of Retirees[2])								
2016	2,053	2,053	0.0	0.0	0.0	0.0	100	100
2030	1,885	2,319	0.6	1.1	0.0	1.7	102	102
2050	1,888	2,960	0.6	3.2	0.0	3.8	104	130
2080	1,899	4,195	0.6	3.2	0.0	3.8	104	-
Maximum-Current-Law-AIME ($118,500 for 2016[1]) 43-Year Steady Earner (6.3% of Retirees[2])								
2016	2,492	2,492	0.0	0.0	0.0	0.0	100	100
2030	2,308	2,839	0.6	0.9	0.0	1.5	101	101
2050	2,309	3,622	0.6	2.6	0.0	3.2	103	129
2080	2,317	5,119	0.6	2.6	0.0	3.2	103	-

[1] Average of highest 35 years of taxable earnings wage indexed to 2016. For the Maximum-Current-Law-AIME worker, we show the taxable maximum in 2016.

[2] Projected percent of new retired worker awards in 2050 with current-law AIME levels and years of covered earnings closest to AIME levels and years of covered earnings shown.

[3] After the trust fund reserves deplete under current law continuing taxes are expected to be enough to pay about three fourths of scheduled benefits.

[4] Starting Dec 2019, compute the COLA using the CPI-E, producing 0.2% higher annual COLAs on average.

[5] For newly eligibles, increase the current-law first PIA bend point by 1% for 2023, 2% for 2024, …, and 15% for 2037 and later.

[6] For beneficiaries newly eligible in 2018, establish a minimum PIA level such that a worker with 30/10 years of coverage would receive an initial PIA of at least 125%/0% of the monthly poverty level for 2017. For beneficiaries newly eligible after 2018, the initial minimum PIA level would be adjusted for average wage growth. The Minimum Benefit Percent change is calculated after all other provisions, so that the Proposed Benefit Amount is at least the Minimum Bernfit, where applicable.

All estimates based on the intermediate assumptions of the 2016 Trustees Report.

Office of the Chief Actuary, Social Security Administration   February 16, 2017

Table B2. Changes in Benefits for Hypothetical Workers Beginning Benefit Receipt at age 65
Social Security Expansion Act, introduced by Senator Bernie Sanders and Representative Peter DeFazio

Proposal Scheduled Benefit as Percent of Current Law Scheduled

Year Attain Age 65	Age 65	Age 75	Age 85	Age 95
		(Percent)		
Very-Low-AIME ($12,280 for 2016[1]) 30-Year Scaled Earner (8.9% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	147.2	150.1	153.0	156.0
2050	147.2	150.1	153.0	156.0
2080	147.2	150.1	153.0	156.0
Very-Low-AIME ($12,280 for 2016[1]) 20-Year Scaled Earner (5.2% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	103.7	105.7	107.8	109.9
2050	109.0	111.1	113.3	115.6
2080	109.0	111.1	113.3	115.5
Very-Low-AIME ($12,280 for 2016[1]) 14-Year Scaled Earner (4.2% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	103.7	105.7	107.8	109.9
2050	109.0	111.1	113.3	115.6
2080	109.0	111.1	113.3	115.5
Low-AIME ($22,105 for 2016[1]) 44-Year Scaled Earner (16.9% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	112.5	114.7	117.0	119.3
2050	112.5	114.7	116.9	119.2
2080	112.5	114.7	117.0	119.3
Low-AIME ($22,105 for 2016[1]) 30-Year Scaled Earner (4.4% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	112.5	114.7	117.0	119.3
2050	112.5	114.7	116.9	119.2
2080	112.5	114.7	117.0	119.3
Low-AIME ($22,105 for 2016[1]) 20-Year Scaled Earner (2.0% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	103.0	105.0	107.0	109.1
2050	107.7	109.8	111.9	114.1
2080	107.7	109.8	111.9	114.1
Medium-AIME ($49,121 for 2016[1]) 44-Year Scaled Earner (29.2% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	102.0	104.0	106.1	108.2
2050	104.9	106.9	109.0	111.2
2080	104.9	106.9	109.1	111.2
Medium-AIME ($49,121 for 2016[1]) 30-Year Scaled Earner (3.2% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	102.0	104.0	106.1	108.2
2050	104.9	106.9	109.0	111.2
2080	104.9	106.9	109.1	111.2
High-AIME ($78,594 for 2016[1]) 44-Year Scaled Earner (19.8% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	101.7	103.7	105.7	107.8
2050	103.8	105.9	108.0	110.1
2080	103.8	105.9	108.0	110.1
Maximum-Current-Law-AIME ($118,500 for 2016[1]) 43-Year Steady Earner (6.3% of Retirees[2])				
2016	100.0	101.4	103.4	105.4
2030	101.5	103.5	105.5	107.6
2050	103.2	105.3	107.3	109.4
2080	103.2	105.3	107.3	109.5

[1] Average of highest 35 years of taxable earnings wage indexed to 2016. For the Maximum-Current-Law-AIME worker, we show the taxable maximum in 2016.

[2] Projected percent of new retired worker awards in 2050 with current-law AIME levels and years of covered earnings closest to AIME levels and years of covered earnings shown.

Note: Starting Dec 2019, compute the COLA using the CPI-E, producing 0.2% higher annual COLAs on average.

Other Changes:

- For newly eligibles, increase the current-law first PIA bend point by 1% for 2023, 2% for 2024, …, and 15% for 2037 and later.

- For beneficiaries newly eligible in 2018, establish a minimum PIA level such that a worker with 30/10 years of coverage would receive an initial PIA of at least 125%/0% of the monthly poverty level for 2017. For beneficiaries newly eligible after 2018, the initial minimum PIA level would be adjusted for average wage growth.

All estimates based on the intermediate assumptions of the 2016 Trustees Report.

Office of the Chief Actuary, Social Security Administration   February 16, 2017

Table B3. Important Characteristics of Hypothetical Workers in 2007

Percent of Beneficiaries Within Each Category That Are:

Category	Dually Entitled[2]	WEP[3]	Foreign Born	All Others[4]
Very-Low-AIME ($12,280 for 2016[1]):				
30-Year Scaled Earner (9.3% of Retirees)	47	6	11	40
20-Year Scaled Earner (5.8% of Retirees)	38	16	21	31
14-Year Scaled Earner (5.3% of Retirees)	22	21	45	20
Low-AIME ($22,105 for 2016[1]):				
44-Year Scaled Earner (13.1% of Retirees)	15	2	6	78
30-Year Scaled Earner (5.9% of Retirees)	16	9	18	59
20-Year Scaled Earner (3.1% of Retirees)	10	23	35	37
Medium-AIME ($49,121 for 2016[1]):				
44-Year Scaled Earner (23.0% of Retirees)	1	1	5	93
30-Year Scaled Earner (4.4% of Retirees)	1	8	26	67
High-AIME ($78,594 for 2016[1]):				
44-Year Scaled Earner (20.5% of Retirees)	0	0	6	93
Maximum-Current-Law-AIME ($118,500 for 2016[1]):				
Steady Earner (9.4% of Retirees)	0	0	7	93

Note 1:Table B3 displays the percentages of these newly-entitled retired workers in 2007 that are closest to each of the illustrative examples.

Note 2: Percents based on tabulations of a 10-percent sample of newly entitled retired-worker beneficiaries in 2007 (169,725 records). We can be 95 percent confident that each of the values shown above is within 1.4 percentage points of the value we would find using 100 percent of the retirees in 2007.

Note 3: The sum of the percentages for each category (sum across rows) could be greater than 100 percent because some beneficiaries can be classified in more than one of the following groups: dually entitled, WEP, and foreign born.

[1] Average of highest 35 years of taxable earnings wage indexed to 2016. For the Maximum-Current-Law-AIME worker, we show the taxable maximum in 2016.

[2] Under current law, entitled to an additional benefit based on someone else's account. The dually entitled percent is a minimum value. Some beneficiaries that are not currently dually entitled could become dually entitled in the future.

[3] Covered by pension from government employment and are subject to the windfall elimination provision (WEP).

[4] Neither foreign born, subject to WEP, or dually entitled.

Office of the Chief Actuary, Social Security Administration   June 22, 2016

Table 1 - OASDI Cost Rate, Income Rate, Annual Balance, and Trust Fund Ratio
Social Security Expansion Act, introduced by Senator Bernie Sanders and Representative Peter DeFazio

| | Proposal | | | Trust Fund Ratio | Change from Current Law | | |
| | Expressed as a percentage of current-law taxable payroll | | | | Expressed as a percentage of current-law taxable payroll | | |
Year	Cost Rate	Income Rate	Annual Balance	1-1-year	Cost Rate	Income Rate	Annual Balance
2016	14.05	12.94	-1.10	303	0.00	0.00	0.00
2017	13.72	12.92	-0.80	293	0.00	0.00	0.00
2018	13.86	15.08	1.22	277	0.00	2.12	2.12
2019	13.99	15.21	1.22	276	0.00	2.24	2.24
2020	14.17	15.27	1.10	275	0.03	2.29	2.25
2021	14.34	15.34	1.00	274	0.07	2.33	2.27
2022	14.59	15.41	0.82	272	0.10	2.38	2.28
2023	14.89	15.47	0.58	268	0.13	2.42	2.28
2024	15.19	15.55	0.36	264	0.17	2.46	2.29
2025	15.49	15.61	0.12	258	0.21	2.50	2.29
2026	15.71	15.69	-0.02	254	0.24	2.56	2.32
2027	15.92	15.77	-0.15	250	0.28	2.63	2.35
2028	16.13	15.85	-0.27	246	0.31	2.70	2.39
2029	16.32	15.94	-0.38	243	0.35	2.77	2.42
2030	16.49	16.02	-0.46	240	0.39	2.84	2.46
2031	16.64	16.11	-0.53	238	0.42	2.92	2.50
2032	16.79	16.20	-0.59	235	0.46	3.00	2.54
2033	16.91	16.29	-0.61	233	0.50	3.09	2.59
2034	17.00	16.39	-0.62	230	0.54	3.17	2.64
2035	17.07	16.42	-0.65	228	0.57	3.21	2.63
2036	17.17	16.44	-0.73	226	0.61	3.22	2.61
2037	17.25	16.46	-0.79	223	0.65	3.23	2.58
2038	17.30	16.47	-0.83	220	0.69	3.24	2.55
2039	17.34	16.49	-0.85	217	0.73	3.26	2.53
2040	17.35	16.50	-0.86	214	0.76	3.27	2.50
2041	17.36	16.51	-0.85	212	0.80	3.28	2.48
2042	17.36	16.52	-0.84	209	0.83	3.29	2.46
2043	17.36	16.53	-0.83	206	0.86	3.30	2.44
2044	17.36	16.54	-0.82	203	0.89	3.31	2.42
2045	17.37	16.55	-0.82	201	0.92	3.32	2.40
2046	17.37	16.56	-0.81	198	0.94	3.33	2.38
2047	17.37	16.57	-0.81	195	0.97	3.34	2.37
2048	17.38	16.58	-0.80	193	0.99	3.34	2.35
2049	17.39	16.58	-0.80	190	1.02	3.35	2.34
2050	17.40	16.59	-0.80	187	1.04	3.36	2.32
2051	17.42	16.60	-0.81	185	1.06	3.37	2.31
2052	17.45	16.61	-0.84	182	1.08	3.38	2.30
2053	17.49	16.62	-0.87	178	1.10	3.38	2.29
2054	17.54	16.63	-0.91	175	1.11	3.39	2.28
2055	17.59	16.64	-0.95	171	1.13	3.40	2.27
2056	17.65	16.65	-1.00	167	1.15	3.41	2.26
2057	17.72	16.66	-1.05	163	1.16	3.41	2.25
2058	17.78	16.67	-1.11	158	1.18	3.42	2.25
2059	17.85	16.69	-1.16	153	1.19	3.43	2.24
2060	17.91	16.70	-1.21	148	1.20	3.43	2.23
2061	17.97	16.71	-1.26	143	1.21	3.44	2.23
2062	18.03	16.72	-1.32	137	1.22	3.45	2.22
2063	18.09	16.73	-1.36	131	1.23	3.45	2.22
2064	18.15	16.74	-1.41	125	1.24	3.46	2.22
2065	18.21	16.74	-1.46	118	1.25	3.47	2.21
2066	18.27	16.75	-1.51	111	1.26	3.47	2.21
2067	18.33	16.76	-1.57	104	1.27	3.48	2.21
2068	18.39	16.77	-1.62	97	1.28	3.48	2.21
2069	18.45	16.78	-1.67	89	1.28	3.49	2.21
2070	18.51	16.79	-1.72	81	1.29	3.49	2.20
2071	18.56	16.80	-1.76	72	1.30	3.50	2.20
2072	18.60	16.81	-1.80	64	1.30	3.50	2.20
2073	18.65	16.81	-1.83	55	1.31	3.51	2.20
2074	18.68	16.82	-1.86	46	1.31	3.51	2.20
2075	18.71	16.83	-1.88	37	1.31	3.52	2.21
2076	18.72	16.84	-1.89	27	1.32	3.52	2.21
2077	18.73	16.84	-1.89	18	1.32	3.53	2.21
2078	18.73	16.85	-1.88	8	1.32	3.53	2.21
2079	18.73	16.85	-1.88	----	1.32	3.54	2.22
2080	18.73	16.85	-1.87	----	1.32	3.54	2.22
2081	18.73	16.86	-1.87	----	1.33	3.55	2.22
2082	18.73	16.86	-1.87	----	1.33	3.55	2.22
2083	18.75	16.87	-1.88	----	1.33	3.56	2.23
2084	18.77	16.87	-1.90	----	1.33	3.56	2.23
2085	18.80	16.88	-1.92	----	1.33	3.57	2.23
2086	18.84	16.89	-1.95	----	1.34	3.57	2.23
2087	18.88	16.89	-1.99	----	1.34	3.57	2.23
2088	18.93	16.90	-2.03	----	1.34	3.58	2.23
2089	18.98	16.91	-2.07	----	1.35	3.58	2.23
2090	19.03	16.91	-2.11	----	1.35	3.59	2.23
2091	19.08	16.92	-2.16	----	1.36	3.59	2.23

| Summarized Rates: OASDI | | | | | Summarized Rates: OASDI | | |
	Cost Rate	Income Rate	Actuarial Balance	Year of reserve depletion[1]	Change in Cost rate	Change in Income Rate	Change in Actuarial Balance
2016 - 2090	17.35%	16.94%	-0.41%	2078	0.84%	3.09%	2.25%

Based on Intermediate Assumptions of the 2016 Trustees Report.
[1]Under present law the year of combined Trust Fund reserve depletion is 2034.

Office of the Chief Actuary
Social Security Administration
February 16, 2017

Table 1a - General Fund Transfers, OASDI Trust Fund Reserves, and Theoretical OASDI Reserves
Social Security Expansion Act, introduced by Senator Bernie Sanders and Representative Peter DeFazio

	Proposal General Fund Transfers			*Present Value in Billions as of 1-1-2016*			
						Theoretical Social Security[1] with Borrowing Authority	
				Proposal Total OASDI Trust Fund		Net OASDI Trust Fund Reserves at End of Year	
		Present Value in Billions as of 1-1- 2016					
	Percentage of Payroll	Annual Amounts	Accumulated as of End of Year	Reserves at End of Year	Gross Domestic Product	Without General Fund Transfers	With Plan General Fund Transfers
Calendar Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2016	0.0	0.0	0.0	2,741.0	18,368.5	2,741.0	2,741.0
2017	0.0	0.0	0.0	2,687.5	18,780.3	2,687.5	2,687.5
2018	0.0	0.0	0.0	2,772.4	19,199.4	2,625.9	2,625.9
2019	0.0	0.0	0.0	2,859.3	19,590.0	2,554.4	2,554.4
2020	0.0	0.0	0.0	2,939.5	19,948.3	2,471.7	2,471.7
2021	0.0	0.0	0.0	3,013.9	20,275.2	2,378.9	2,378.9
2022	0.0	0.0	0.0	3,076.1	20,546.2	2,270.6	2,270.6
2023	0.0	0.0	0.0	3,121.0	20,765.2	2,142.4	2,142.4
2024	0.0	0.0	0.0	3,149.3	20,965.2	1,994.9	1,994.9
2025	0.0	0.0	0.0	3,159.5	21,141.0	1,827.2	1,827.2
2026	0.0	0.0	0.0	3,158.9	21,283.5	1,645.4	1,645.4
2027	0.0	0.0	0.0	3,148.1	21,355.9	1,450.6	1,450.6
2028	0.0	0.0	0.0	3,128.2	21,346.6	1,244.3	1,244.3
2029	0.0	0.0	0.0	3,100.4	21,259.6	1,028.4	1,028.4
2030	0.0	0.0	0.0	3,066.2	21,099.1	804.8	804.8
2031	0.0	0.0	0.0	3,027.1	20,898.2	575.3	575.3
2032	0.0	0.0	0.0	2,984.4	20,696.5	341.0	341.0
2033	0.0	0.0	0.0	2,940.1	20,500.4	103.7	103.7
2034	0.0	0.0	0.0	2,896.2	20,306.0	-134.7	-134.7
2035	0.0	0.0	0.0	2,850.5	20,116.5	-372.8	-372.8
2036	0.0	0.0	0.0	2,799.5	19,925.6	-612.3	-612.3
2037	0.0	0.0	0.0	2,744.3	19,743.3	-852.1	-852.1
2038	0.0	0.0	0.0	2,686.9	19,571.8	-1,090.4	-1,090.4
2039	0.0	0.0	0.0	2,628.8	19,401.7	-1,326.1	-1,326.1
2040	0.0	0.0	0.0	2,570.8	19,234.9	-1,558.1	-1,558.1
2041	0.0	0.0	0.0	2,513.7	19,071.7	-1,786.1	-1,786.1
2042	0.0	0.0	0.0	2,457.6	18,908.8	-2,010.0	-2,010.0
2043	0.0	0.0	0.0	2,402.8	18,751.3	-2,229.8	-2,229.8
2044	0.0	0.0	0.0	2,349.3	18,594.5	-2,445.4	-2,445.4
2045	0.0	0.0	0.0	2,296.3	18,429.9	-2,657.8	-2,657.8
2046	0.0	0.0	0.0	2,244.1	18,269.6	-2,866.7	-2,866.7
2047	0.0	0.0	0.0	2,193.0	18,107.9	-3,072.2	-3,072.2
2048	0.0	0.0	0.0	2,142.5	17,944.3	-3,274.5	-3,274.5
2049	0.0	0.0	0.0	2,092.6	17,781.3	-3,473.9	-3,473.9
2050	0.0	0.0	0.0	2,043.2	17,618.6	-3,670.6	-3,670.6
2051	0.0	0.0	0.0	1,993.5	17,454.0	-3,865.4	-3,865.4
2052	0.0	0.0	0.0	1,942.8	17,289.8	-4,059.0	-4,059.0
2053	0.0	0.0	0.0	1,890.7	17,125.7	-4,251.9	-4,251.9
2054	0.0	0.0	0.0	1,836.9	16,960.9	-4,444.5	-4,444.5
2055	0.0	0.0	0.0	1,780.9	16,796.5	-4,637.2	-4,637.2
2056	0.0	0.0	0.0	1,722.5	16,631.9	-4,830.5	-4,830.5
2057	0.0	0.0	0.0	1,661.6	16,467.6	-5,024.3	-5,024.3
2058	0.0	0.0	0.0	1,598.3	16,304.7	-5,218.8	-5,218.8
2059	0.0	0.0	0.0	1,532.6	16,142.6	-5,413.9	-5,413.9
2060	0.0	0.0	0.0	1,464.5	15,981.3	-5,609.6	-5,609.6
2061	0.0	0.0	0.0	1,394.3	15,821.7	-5,805.8	-5,805.8
2062	0.0	0.0	0.0	1,322.0	15,664.2	-6,002.5	-6,002.5
2063	0.0	0.0	0.0	1,247.8	15,508.7	-6,199.6	-6,199.6
2064	0.0	0.0	0.0	1,171.7	15,355.7	-6,397.1	-6,397.1
2065	0.0	0.0	0.0	1,093.7	15,204.5	-6,595.0	-6,595.0
2066	0.0	0.0	0.0	1,013.8	15,055.3	-6,793.3	-6,793.3
2067	0.0	0.0	0.0	932.1	14,907.9	-6,992.1	-6,992.1
2068	0.0	0.0	0.0	848.6	14,762.2	-7,191.4	-7,191.4
2069	0.0	0.0	0.0	763.4	14,618.0	-7,391.0	-7,391.0
2070	0.0	0.0	0.0	676.5	14,476.2	-7,591.0	-7,591.0
2071	0.0	0.0	0.0	588.3	14,336.4	-7,791.2	-7,791.2
2072	0.0	0.0	0.0	499.2	14,198.6	-7,991.1	-7,991.1
2073	0.0	0.0	0.0	409.3	14,062.2	-8,190.5	-8,190.5
2074	0.0	0.0	0.0	319.2	13,927.2	-8,389.1	-8,389.1
2075	0.0	0.0	0.0	229.0	13,793.7	-8,586.7	-8,586.7
2076	0.0	0.0	0.0	139.4	13,661.5	-8,782.6	-8,782.6
2077	0.0	0.0	0.0	50.6	13,530.3	-8,976.7	-8,976.7
2078	0.0	0.0	0.0	-37.1	13,399.9	-9,168.8	-9,168.8
2079	0.0	0.0	0.0	-123.6	13,271.0	-9,358.6	-9,358.6
2080	0.0	0.0	0.0	-208.8	13,143.2	-9,546.2	-9,546.2
2081	0.0	0.0	0.0	-292.9	13,016.0	-9,731.8	-9,731.8
2082	0.0	0.0	0.0	-376.3	12,889.1	-9,915.6	-9,915.6
2083	0.0	0.0	0.0	-459.2	12,762.3	-10,098.0	-10,098.0
2084	0.0	0.0	0.0	-542.0	12,635.6	-10,279.3	-10,279.3
2085	0.0	0.0	0.0	-625.0	12,509.3	-10,459.9	-10,459.9
2086	0.0	0.0	0.0	-708.4	12,383.5	-10,639.8	-10,639.8
2087	0.0	0.0	0.0	-792.5	12,258.4	-10,819.4	-10,819.4
2088	0.0	0.0	0.0	-877.3	12,134.0	-10,998.8	-10,998.8
2089	0.0	0.0	0.0	-963.0	12,010.4	-11,177.9	-11,177.9
2090	0.0	0.0	0.0	-1,049.5	11,887.6	-11,356.8	-11,356.8
2091	0.0	0.0	0.0	-1,136.8	11,765.8	-11,535.6	-11,535.6

Total 2016-2090   0.0

Based on the Intermediate Assumptions of the 2016 Trustees Report.
Ultimate Real Trust Fund Yield of 2.7%.

[1] Theoretical Social Security is the current Social Security program with the assumption
that the law is modified to permit borrowing from the General Fund of the Treasury.

Table 1b - OASDI Changes & Implications for Federal Budget and Debt of Specified Plan Provision Effects on OASDI[1] (Present Value Dollars)
Social Security Expansion Act, introduced by Senator Bernie Sanders and Representative Peter DeFazio

Billions of Present Value Dollars as of 1-1-2016

Year	Specified General Fund Transfers (1)	Basic Changes in OASDI Cash Flow (2)	Change in Annual Unified Budget Cash Flow (3)	Change in Debt Held by Public at End of Year (4)	Change in Annual Unified Budget Balance (5)	Change in Total Federal Debt End Of Year (6)	Change in Annual On Budget Balance (7)
2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	0.0	146.5	146.5	-146.5	146.5	0.0	0.0
2019	0.0	158.4	158.4	-304.9	162.9	0.0	0.0
2020	0.0	163.0	163.0	-467.8	172.5	0.0	0.0
2021	0.0	167.1	167.1	-635.0	181.9	0.0	0.0
2022	0.0	170.5	170.5	-805.5	190.9	0.0	0.0
2023	0.0	173.1	173.1	-978.6	199.6	0.0	0.0
2024	0.0	175.7	175.7	-1,154.3	208.9	0.0	0.0
2025	0.0	178.0	178.0	-1,332.3	218.3	0.0	0.0
2026	0.0	181.2	181.2	-1,513.5	231.9	0.0	0.0
2027	0.0	184.0	184.0	-1,697.5	246.4	0.0	0.0
2028	0.0	186.4	186.4	-1,883.9	261.7	0.0	0.0
2029	0.0	188.1	188.1	-2,072.0	277.8	0.0	0.0
2030	0.0	189.4	189.4	-2,261.4	295.0	0.0	0.0
2031	0.0	190.4	190.4	-2,451.8	305.6	0.0	0.0
2032	0.0	191.6	191.6	-2,643.4	316.5	0.0	0.0
2033	0.0	193.0	193.0	-2,836.3	327.7	0.0	0.0
2034	0.0	194.6	194.6	-3,030.9	339.2	0.0	0.0
2035	0.0	192.4	192.4	-3,223.3	346.9	0.0	0.0
2036	0.0	188.4	188.4	-3,411.8	352.7	0.0	0.0
2037	0.0	184.6	184.6	-3,596.4	358.5	0.0	0.0
2038	0.0	181.0	181.0	-3,777.3	364.3	0.0	0.0
2039	0.0	177.5	177.5	-3,954.8	370.0	0.0	0.0
2040	0.0	174.1	174.1	-4,128.9	375.7	0.0	0.0
2041	0.0	170.9	170.9	-4,299.8	381.3	0.0	0.0
2042	0.0	167.8	167.8	-4,467.6	387.0	0.0	0.0
2043	0.0	164.9	164.9	-4,632.5	392.6	0.0	0.0
2044	0.0	162.2	162.2	-4,794.7	398.3	0.0	0.0
2045	0.0	159.4	159.4	-4,954.1	403.8	0.0	0.0
2046	0.0	156.8	156.8	-5,110.9	409.2	0.0	0.0
2047	0.0	154.3	154.3	-5,265.1	414.7	0.0	0.0
2048	0.0	151.8	151.8	-5,417.0	420.2	0.0	0.0
2049	0.0	149.5	149.5	-5,566.5	425.6	0.0	0.0
2050	0.0	147.3	147.3	-5,713.8	431.0	0.0	0.0
2051	0.0	145.1	145.1	-5,858.9	436.3	0.0	0.0
2052	0.0	142.9	142.9	-6,001.8	441.5	0.0	0.0
2053	0.0	140.8	140.8	-6,142.6	446.7	0.0	0.0
2054	0.0	138.8	138.8	-6,281.3	451.8	0.0	0.0
2055	0.0	136.8	136.8	-6,418.1	456.9	0.0	0.0
2056	0.0	134.9	134.9	-6,553.0	462.0	0.0	0.0
2057	0.0	133.0	133.0	-6,685.9	466.9	0.0	0.0
2058	0.0	131.1	131.1	-6,817.1	471.9	0.0	0.0
2059	0.0	129.4	129.4	-6,946.5	476.8	0.0	0.0
2060	0.0	127.7	127.7	-7,074.1	481.7	0.0	0.0
2061	0.0	126.0	126.0	-7,200.1	486.5	0.0	0.0
2062	0.0	124.4	124.4	-7,324.5	491.4	0.0	0.0
2063	0.0	122.9	122.9	-7,447.4	496.2	0.0	0.0
2064	0.0	121.4	121.4	-7,568.7	500.9	0.0	0.0
2065	0.0	119.9	119.9	-7,688.6	505.6	0.0	0.0
2066	0.0	118.5	118.5	-7,807.1	510.3	0.0	0.0
2067	0.0	117.1	117.1	-7,924.2	515.0	0.0	0.0
2068	0.0	115.8	115.8	-8,039.9	519.6	0.0	0.0
2069	0.0	114.4	114.4	-8,154.4	524.2	0.0	0.0
2070	0.0	113.2	113.2	-8,267.5	528.7	0.0	0.0
2071	0.0	111.9	111.9	-8,379.5	533.3	0.0	0.0
2072	0.0	110.7	110.7	-8,490.2	537.8	0.0	0.0
2073	0.0	109.6	109.6	-8,599.8	542.3	0.0	0.0
2074	0.0	108.5	108.5	-8,708.3	546.8	0.0	0.0
2075	0.0	107.4	107.4	-8,815.7	551.2	0.0	0.0
2076	0.0	106.3	106.3	-8,922.0	555.6	0.0	0.0
2077	0.0	105.3	105.3	-9,027.3	560.0	0.0	0.0
2078	0.0	104.3	104.3	-9,131.7	564.4	0.0	0.0
2079	0.0	103.3	103.3	-9,235.0	568.7	0.0	0.0
2080	0.0	102.4	102.4	-9,337.4	573.1	0.0	0.0
2081	0.0	101.4	101.4	-9,438.8	577.3	0.0	0.0
2082	0.0	100.5	100.5	-9,539.3	581.5	0.0	0.0
2083	0.0	99.5	99.5	-9,638.8	585.7	0.0	0.0
2084	0.0	98.5	98.5	-9,737.4	589.8	0.0	0.0
2085	0.0	97.5	97.5	-9,834.9	593.8	0.0	0.0
2086	0.0	96.5	96.5	-9,931.4	597.8	0.0	0.0
2087	0.0	95.5	95.5	-10,026.9	601.7	0.0	0.0
2088	0.0	94.5	94.5	-10,121.4	605.5	0.0	0.0
2089	0.0	93.5	93.5	-10,214.9	609.3	0.0	0.0
2090	0.0	92.5	92.5	-10,307.4	613.1	0.0	0.0
Total 2016-2090	0.0	10,307.4	10,307.4				

Based on Intermediate Assumptions of the 2016 Trustees Report.
Ultimate Real Trust Fund Yield of 2.7%.
Note: Changes reflect the budget scoring convention that presumes benefits not payable after reserve depletion would
   nonetheless be paid, based on transfers from the General Fund of the Treasury resulting in additional borrowing from the public.
[1] Effects of tax provisions on the On-Budget are not reflected in this table.

Office of the Chief Actuary
Social Security Administration
February 16, 2017

Table 1b.n - OASDI Changes & Implications for Federal Budget and Debt of Specified Plan Provision Effects on OASDI[1] (Nominal Dollars)
Social Security Expansion Act, **introduced by Senator Bernie Sanders and Representative Peter DeFazio**

Billions of Nominal Dollars

Year	Specified General Fund Transfers	Basic Changes in OASDI Cash Flow	Change in Annual Unified Budget Cash Flow	Change in Debt Held by Public at End of Year	Change in Annual Unified Budget Balance	Change in Total Federal Debt End of Year	Change in Annual On Budget Balance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	0.0	158.2	158.2	-160.9	160.9	0.0	0.0
2019	0.0	176.4	176.4	-345.8	184.9	0.0	0.0
2020	0.0	187.4	187.4	-548.3	202.5	0.0	0.0
2021	0.0	198.4	198.4	-769.0	220.7	0.0	0.0
2022	0.0	209.0	209.0	-1,008.8	239.8	0.0	0.0
2023	0.0	219.3	219.3	-1,269.2	260.4	0.0	0.0
2024	0.0	230.3	230.3	-1,552.3	283.1	0.0	0.0
2025	0.0	241.5	241.5	-1,859.6	307.3	0.0	0.0
2026	0.0	255.2	255.2	-2,198.7	339.1	0.0	0.0

Based on Intermediate Assumptions of the 2016 Trustees Report.

Note: Changes reflect the budget scoring convention that presumes benefits not payable after reserve depletion would nonetheless be paid, based on transfers from the General Fund of the Treasury resulting in additional borrowing from the public.

[1] Effects of tax provisions on the On-Budget are not reflected in this table.

Office of the Chief Actuary
Social Security Administration
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Table 1c - Current Law and Proposal Cost, Expenditures, and Income: As Percent of Gross Domestic Product
Social Security Expansion Act, **introduced by Senator Bernie Sanders and Representative Peter DeFazio**

Calendar Year	Current Law OASDI				Proposal OASDI		
	Cost (1)	Expenditures (Payable) (2)	Non-Interest Income (3)		Cost (4)	Expenditures (Payable) (5)	Non-Interest Income (6)
2016	4.98	4.98	4.59		4.98	4.98	4.59
2017	4.91	4.91	4.62		4.91	4.91	4.62
2018	4.98	4.98	4.65		4.98	4.98	5.42
2019	5.05	5.05	4.68		5.05	5.05	5.49
2020	5.12	5.12	4.70		5.13	5.13	5.53
2021	5.18	5.18	4.72		5.21	5.21	5.57
2022	5.28	5.28	4.75		5.32	5.32	5.61
2023	5.39	5.39	4.77		5.44	5.44	5.65
2024	5.50	5.50	4.79		5.56	5.56	5.69
2025	5.60	5.60	4.81		5.68	5.68	5.72
2026	5.67	5.67	4.81		5.75	5.75	5.75
2027	5.73	5.73	4.81		5.83	5.83	5.77
2028	5.78	5.78	4.81		5.89	5.89	5.79
2029	5.83	5.83	4.81		5.96	5.96	5.82
2030	5.87	5.87	4.81		6.01	6.01	5.84
2031	5.91	5.91	4.80		6.06	6.06	5.87
2032	5.94	5.94	4.80		6.11	6.11	5.89
2033	5.96	5.96	4.80		6.14	6.14	5.92
2034	5.98	5.29	4.80		6.17	6.17	5.95
2035	5.98	4.79	4.79		6.19	6.19	5.95
2036	6.00	4.79	4.79		6.22	6.22	5.96
2037	6.01	4.79	4.79		6.24	6.24	5.96
2038	6.01	4.78	4.78		6.26	6.26	5.96
2039	6.00	4.78	4.78		6.26	6.26	5.96
2040	5.99	4.78	4.78		6.26	6.26	5.95
2041	5.97	4.77	4.77		6.26	6.26	5.95
2042	5.96	4.77	4.77		6.26	6.26	5.95
2043	5.94	4.77	4.77		6.25	6.25	5.95
2044	5.93	4.76	4.76		6.25	6.25	5.96
2045	5.92	4.76	4.76		6.25	6.25	5.96
2046	5.91	4.76	4.76		6.25	6.25	5.96
2047	5.90	4.76	4.76		6.25	6.25	5.96
2048	5.89	4.76	4.76		6.25	6.25	5.96
2049	5.88	4.75	4.75		6.25	6.25	5.96
2050	5.87	4.75	4.75		6.25	6.25	5.96
2051	5.87	4.75	4.75		6.25	6.25	5.96
2052	5.87	4.75	4.75		6.26	6.26	5.96
2053	5.88	4.75	4.75		6.27	6.27	5.96
2054	5.89	4.75	4.75		6.29	6.29	5.96
2055	5.90	4.74	4.74		6.30	6.30	5.96
2056	5.91	4.74	4.74		6.32	6.32	5.96
2057	5.92	4.74	4.74		6.34	6.34	5.96
2058	5.94	4.74	4.74		6.36	6.36	5.96
2059	5.95	4.74	4.74		6.38	6.38	5.96
2060	5.97	4.74	4.74		6.40	6.40	5.96
2061	5.98	4.73	4.73		6.41	6.41	5.96
2062	5.99	4.73	4.73		6.43	6.43	5.96
2063	6.01	4.73	4.73		6.45	6.45	5.96
2064	6.02	4.73	4.73		6.46	6.46	5.96
2065	6.03	4.72	4.72		6.48	6.48	5.95
2066	6.04	4.72	4.72		6.49	6.49	5.95
2067	6.06	4.72	4.72		6.51	6.51	5.95
2068	6.07	4.71	4.71		6.52	6.52	5.95
2069	6.08	4.71	4.71		6.54	6.54	5.95
2070	6.09	4.71	4.71		6.55	6.55	5.94
2071	6.10	4.70	4.70		6.56	6.56	5.94
2072	6.11	4.70	4.70		6.57	6.57	5.94
2073	6.12	4.70	4.70		6.58	6.58	5.93
2074	6.12	4.69	4.69		6.59	6.59	5.93
2075	6.13	4.69	4.69		6.59	6.59	5.93
2076	6.12	4.68	4.68		6.59	6.59	5.92
2077	6.12	4.68	4.68		6.58	6.58	5.92
2078	6.11	4.67	4.67		6.58	6.47	5.91
2079	6.11	4.67	4.67		6.57	5.91	5.91
2080	6.10	4.66	4.66		6.56	5.91	5.91
2081	6.09	4.66	4.66		6.56	5.90	5.90
2082	6.09	4.66	4.66		6.55	5.90	5.90
2083	6.09	4.65	4.65		6.55	5.89	5.89
2084	6.09	4.65	4.65		6.55	5.89	5.89
2085	6.09	4.64	4.64		6.56	5.89	5.89
2086	6.10	4.64	4.64		6.57	5.89	5.89
2087	6.11	4.64	4.64		6.58	5.88	5.88
2088	6.12	4.64	4.64		6.59	5.88	5.88
2089	6.13	4.63	4.63		6.60	5.88	5.88
2090	6.14	4.63	4.63		6.61	5.88	5.88

Based on Intermediate Assumptions of the 2016 Trustees Report.

Table 1d - Change in Long-Range Trust Fund Reserves / Unfunded Obligation
Social Security Expansion Act, **introduced by Senator Bernie Sanders and Representative Peter DeFazio**

(Billions of Dollars, Present Value on 1-1-2016)

Year	Current Law OASDI Trust Fund Reserves / Unfunded Obligation Through End of Year (1)	Changes in OASDI Income (2)	Changes in OASDI Cost (3)	Basic Changes in OASDI Cash Flow (4) = (2)-(3)	Total Change Through End of Year (5) = cumulative sum(4)	Proposal OASDI Trust Fund Reserves / Unfunded Obligation Through End of Year (6) = (1)+(5)
2016	2,741.0	0.0	0.0	0.0	0.0	2,741.0
2017	2,687.5	0.0	0.0	0.0	0.0	2,687.5
2018	2,625.9	146.6	0.1	146.5	146.5	2,772.4
2019	2,554.4	158.5	0.2	158.4	304.9	2,859.3
2020	2,471.7	165.4	2.4	163.0	467.8	2,939.5
2021	2,378.9	172.0	4.9	167.1	635.0	3,013.9
2022	2,270.6	178.0	7.5	170.5	805.5	3,076.1
2023	2,142.4	183.3	10.2	173.1	978.6	3,121.0
2024	1,994.9	188.7	13.0	175.7	1,154.3	3,149.3
2025	1,827.2	193.9	15.9	178.0	1,332.3	3,159.5
2026	1,645.4	200.0	18.8	181.2	1,513.5	3,158.9
2027	1,450.6	205.6	21.6	184.0	1,697.5	3,148.1
2028	1,244.3	210.8	24.4	186.4	1,883.9	3,128.2
2029	1,028.4	215.1	27.1	188.1	2,072.0	3,100.4
2030	804.8	219.1	29.7	189.4	2,261.4	3,066.2
2031	575.3	222.6	32.2	190.4	2,451.8	3,027.1
2032	341.0	226.3	34.7	191.6	2,643.4	2,984.4
2033	103.7	230.2	37.2	193.0	2,836.3	2,940.1
2034	-134.7	234.2	39.6	194.6	3,030.9	2,896.2
2035	-372.8	234.3	41.9	192.4	3,223.3	2,850.5
2036	-612.3	232.7	44.3	188.4	3,411.8	2,799.5
2037	-852.1	231.2	46.6	184.6	3,596.4	2,744.3
2038	-1,090.4	229.8	48.9	181.0	3,777.3	2,686.9
2039	-1,326.1	228.5	51.0	177.5	3,954.8	2,628.8
2040	-1,558.1	227.0	53.0	174.1	4,128.9	2,570.8
2041	-1,786.1	225.7	54.8	170.9	4,299.8	2,513.7
2042	-2,010.0	224.3	56.5	167.8	4,467.6	2,457.6
2043	-2,229.8	223.0	58.1	164.9	4,632.5	2,402.8
2044	-2,445.4	221.7	59.6	162.2	4,794.7	2,349.3
2045	-2,657.8	220.3	60.9	159.4	4,954.1	2,296.3
2046	-2,866.7	218.9	62.1	156.8	5,110.9	2,244.1
2047	-3,072.2	217.4	63.2	154.3	5,265.1	2,193.0
2048	-3,274.5	216.0	64.1	151.8	5,417.0	2,142.5
2049	-3,473.9	214.5	65.0	149.5	5,566.5	2,092.6
2050	-3,670.6	213.0	65.7	147.3	5,713.8	2,043.2
2051	-3,865.4	211.4	66.3	145.1	5,858.9	1,993.5
2052	-4,059.0	209.8	66.9	142.9	6,001.8	1,942.8
2053	-4,251.9	208.1	67.3	140.8	6,142.6	1,890.7
2054	-4,444.5	206.5	67.7	138.8	6,281.3	1,836.9
2055	-4,637.2	204.8	68.0	136.8	6,418.1	1,780.9
2056	-4,830.5	203.1	68.3	134.9	6,553.0	1,722.5
2057	-5,024.3	201.4	68.4	133.0	6,685.9	1,661.6
2058	-5,218.8	199.7	68.6	131.1	6,817.1	1,598.3
2059	-5,413.9	198.0	68.6	129.4	6,946.5	1,532.6
2060	-5,609.6	196.2	68.6	127.7	7,074.1	1,464.5
2061	-5,805.8	194.5	68.5	126.0	7,200.1	1,394.3
2062	-6,002.5	192.8	68.4	124.4	7,324.5	1,322.0
2063	-6,199.6	191.1	68.2	122.9	7,447.4	1,247.8
2064	-6,397.1	189.4	68.0	121.4	7,568.7	1,171.7
2065	-6,595.0	187.6	67.7	119.9	7,688.6	1,093.7
2066	-6,793.3	185.9	67.5	118.5	7,807.1	1,013.8
2067	-6,992.1	184.2	67.2	117.1	7,924.2	932.1
2068	-7,191.4	182.6	66.8	115.8	8,039.9	848.6
2069	-7,391.0	180.9	66.5	114.4	8,154.4	763.4
2070	-7,591.0	179.3	66.1	113.2	8,267.5	676.5
2071	-7,791.2	177.6	65.7	111.9	8,379.5	588.3
2072	-7,991.1	176.0	65.3	110.7	8,490.2	499.2
2073	-8,190.5	174.4	64.8	109.6	8,599.8	409.3
2074	-8,389.1	172.8	64.3	108.5	8,708.3	319.2
2075	-8,586.7	171.2	63.8	107.4	8,815.7	229.0
2076	-8,782.6	169.7	63.3	106.3	8,922.0	139.4
2077	-8,976.7	168.1	62.8	105.3	9,027.3	50.6
2078	-9,168.8	166.5	62.2	104.3	9,131.7	-37.1
2079	-9,358.6	165.0	61.6	103.3	9,235.0	-123.6
2080	-9,546.2	163.4	61.0	102.4	9,337.4	-208.8
2081	-9,731.8	161.9	60.4	101.4	9,438.8	-292.9
2082	-9,915.6	160.4	59.9	100.5	9,539.3	-376.3
2083	-10,098.0	158.8	59.3	99.5	9,638.8	-459.2
2084	-10,279.3	157.3	58.8	98.5	9,737.4	-542.0
2085	-10,459.9	155.8	58.3	97.5	9,834.9	-625.0
2086	-10,639.8	154.3	57.8	96.5	9,931.4	-708.4
2087	-10,819.4	152.8	57.3	95.5	10,026.9	-792.5
2088	-10,998.8	151.3	56.8	94.5	10,121.4	-877.3
2089	-11,177.9	149.8	56.3	93.5	10,214.9	-963.0
2090	-11,356.8	<u>148.3</u>	<u>55.9</u>	<u>92.5</u>	10,307.4	-1,049.5

Total 2016-2090   14091.3   3784.0   10307.4

Based on Intermediate Assumptions of the 2016 Trustees Report.

Ultimate Real Trust Fund Yield of 2.7%.