Social Security

Memorandum

Refer to: TCA

Date: October 8, 2003

To: Peter Diamond, Professor, Massachusetts Institute of Technology
Peter Orszag, Senior Fellow, Brookings Institution

From: Stephen C. Goss, Chief Actuary

Subject: Estimates of Financial Effects for a Proposal to Restore Solvency to the Social Security Program--INFORMATION

This memorandum provides a description of and financial estimates of the effect of a proposal that you have developed. The description that follows represents our understanding of your intent for the provisions of this proposal. Development of the specifics of these provisions and the estimates presented here were only possible through the creativity and extraordinary efforts of Jason Schultz, Alice Wade, Chris Chaplain, Seung An, Michael Clingman, Lesley Reece, Bill Piet, and many others in the Office of the Chief Actuary.

This proposal would, through a combination of increases in taxes and coverage, reductions in the general growth in benefit levels, and certain enhancements to benefit protections, restore solvency to the OASDI program over the 75-year projection period under the intermediate assumptions of the 2003 Trustees Report. Moreover, as the projected trend in the ratio of Trust Fund assets to the annual cost of the program would be stabilized and even rising slowly at the end of the period, the OASDI program would be made sustainably solvent under these assumptions for the foreseeable future.

The balance of this memorandum provides a detailed description of our understanding of the provisions of the proposal, followed by a description of the financial effects of enactment of the proposal, as indicated in the attached tables.

I. Provisions of the Proposal

Provision 1: Mortality adjustment

Under this provision, the Social Security Administration would compute successive adjustments to the PIA formula factors (90, 32, 15) and the OASDI payroll tax rates beginning with 2012. The first ratio adjustment factors would be computed in 2009, with ratios of values from the 2009 Trustees Report to values from the 2008 Trustees Report. The annual calculation would be done in October of each year 2009 and later as described below.

Compute the ratio of two expected present values of lifetime retirement benefits starting at the NRA of an individual who will attain age 59 in the current year (2009). Use the interest rates for the current Trustees Report for both present values. The numerator of the ratio would be the present value reflecting mortality from the period life table of the prior year's (2008) Trustees Report for the year TRyear -3 (2005). The denominator of the ratio would be based on mortality from the life table of the current (2009) Trustees Report for TRYear -3 (2006). Based on the intermediate projections of the 2003 Trustees Report, this ratio is expected to average about 0.9976 over the next 75 years. The PIA multiplicative factor applicable for those becoming eligible in the third following year (2012) would be one half of the change reflected in the ratio of expected present value amounts, or an average reduction of about 0.12 percent per year.

Compute the tax-rate multiplicative factor using the "85 percent" rule:
tax rate multiplier=(1+.85*(1-PIA multiplicative factor)) and apply that multiplier to the tax rates for the second following year, to determine the tax rates applicable for the third following year.

For years where the NRA will be changing for those who attain 59 in that year, (a) retain the tax rate multiplier from step 1; (b) for the PIA multiplier, evaluate the effect on benefits at the NRA from the change in the NRA and set PIA multiplier=1 for those years if the effect on benefits from the NRA increase is larger than the effect on benefits at the NRA from step 1;
if the effect from step 1 is larger, then reduce the PIA multiplier from step 1 to net out the effect of the NRA increase. For years of new benefit eligibility (at age 62) 2017 through 2022, the normal retirement age increase in current law is expected to exceed the reduction indicated by the ratios described above, and so the PIA multiplier is expected to be 1 for these years.

Implementation of this provision for all OASDI benefits would increase the OASDI long-range actuarial balance by an amount estimated to be 0.55 percent of taxable payroll.

Provision 2: Taxable maximum earnings base

Increase the maximum taxable earnings base by an additional 0.5% (by a factor of 1.005) for years 2005 through 2063 so that the percentage of OASDI covered earnings that falls below the maximum taxable amount would be projected to be 87 percent for years 2063 and later under the intermediate assumptions of the 2003 Trustees Report. Implementation of this provision would increase the OASDI long-range actuarial balance by an amount estimated to be 0.25 percent of taxable payroll.

Provision 3: Upper bracket PIA factor

Reduce the 15 percent PIA factor by 0.25 percentage point each year 2012 through 2031. The PIA factor would thus decline to 10 percent for beneficiaries newly eligible in years 2031 and later. This modification would be applied to the PIA factor before other adjustments described in this proposal. Implementation of this provision would increase the OASDI long-range actuarial balance by an amount estimated to be 0.18 percent of taxable payroll.

Provision 4: State and local workers

Cover all new State and local government employees hired in 2008 or later under the OASDI program. Implementation of this provision would increase the OASDI long-range actuarial balance by an amount estimated to be 0.19 percent of taxable payroll.

Provision 5: "Legacy charge"

Apply a 3-percent tax rate (1.5 for employers and employees each, and 3 percent for the self employed) to all OASDI covered earnings above the OASDI taxable maximum amount, as modified above. Benefit levels would not reflect the additional earnings subject to taxation. Implementation of this provision would increase the OASDI long-range actuarial balance by an incremental amount (after the effects of provisions 2 and 4 above) estimated to be 0.55 percent of taxable payroll.

Provision 6: Low-Earner PIA Enhancement

This provision would increase the PIA for workers becoming newly eligible for benefits in 2012 and later who have more than 20 years of work (or work for more than half the years since reaching age 22) at a relatively low earnings level. The provision would raise the PIA by 11.9 percent for a retiree becoming eligible in 2012 with 35 years of full-time work at the minimum wage level.[1] This would raise the PIA for this retiree to the projected aged poverty level for 2012.

The provision would provide the same 11.9-percent increase for 35-year workers with average earnings below that of the 35-year minimum wage worker. This 11.9 percent increase would be reduced for 35-year workers with higher career-average earnings levels (AIME), reaching 0 for those with AIMEs at the level of the SSA average wage index for the second year prior to their eligibility. For workers with more than 35 years of work, the percentage increase is maintained

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[1] The "minimum wage worker" is assumed to work 2,000 hours each year at a minimum hourly wage rate of $5.15 in 2003 and indexed thereafter by growth in the Social Security average wage index. The minimum wage worker is assumed not to work after the calendar year in which age 60 is attained.

at the same level as specified for workers with the same AIME level and only 35 years of work. However, the percentage increase is reduced for workers with fewer than 35 years of work, reaching 0 for those with 20 or fewer years of work. Thus, no enhancement is provided by this provision for retirees with 20 or fewer years of employment. The year-of-work requirements would be "scaled" to the length of the elapsed period from age 22 to benefit eligibility for workers who become disabled or die before reaching age 62.[2] The incremental effect of this provision after provisions 1 and 3 would be to reduce the size of the long-range OASDI actuarial balance by an estimated 0.14 percent of taxable payroll.

The table below illustrates the effect of the benefit enhancement for workers with low earnings.

Effect of Provision 6: Percentage Increase in PIA for Retirees with No Period of Disability, New Eligibility in 2012 or Later

		Average Earnings Level in Years Worked (2004 wage levels)						
Number of Years of Work	Quarters of Coverage (QCs)	$5,000	Minimum Wage $11,139	Low $16,291	Minimum Wage X 2 $22,277	Medium $36,203	High $57,924	Maximum $88,500
		Percentage Increase in PIA Due to Provision 6						
10	40	0	0	0	0	0	0	0
15	60	0	0	0	0	0	0	0
20	80	0	0	0	0	0	0	0
25	100	4.0	4.0	3.9	3.2	1.6	0	0
30	120	7.9	7.9	7.0	5.4	1.6	0	0
35	140	11.9	11.9	9.5	6.6	0	0	0
40	160	11.9	11.9	9.5	6.6	0	0	0

Based on intermediate assumptions of the 2003 Trustees Report.

The benefit enhancement under this provision would be computed according to the following formula:

For all workers whose AIME is less than twice the AIME for a medium scaled worker, the PIA is multiplied by

$$1 + \text{applicable percentage} \times \text{AIME factor} \times \text{coverage factor}.$$

[2] For example, the PIA of a 21-year minimum wage worker, who becomes disabled at age 46 in 2012 or later, would be increased 11.9 percent because this worker had OASDI covered earnings in seven eighths of the 24 elapsed years.

In the above formula,

- "Applicable percentage" is equal to 11.9 percent for beneficiaries initially eligible in 2012 and later;

- "AIME factor" is equal to

$$\begin{cases} 1 & \text{if AIME} \le \text{M} \\ (\text{A - AIME})/(\text{A - M}) & \text{if M} < \text{AIME} < \text{A} \\ 0 & \text{if AIME} \ge \text{A.} \end{cases}$$

  Here,
  A = AIME of a scaled medium worker and
  M = AIME for a 35-year minimum wage worker.

- "Coverage factor" is equal to

$$\begin{cases} 0 & \text{if QCs} \le 2 \times \text{elapsed years} \\ 1 + (\text{QCs} - 3.5 \times \text{elapsed years})/\text{elapsed years} & \text{if } 2 \times \text{elapsed years} < \text{QCs} < 3.5 \times \text{elapsed years} \\ 1 & \text{if QCs} \ge 3.5 \times \text{elapsed years.} \end{cases}$$

In the above formula for the coverage factor, "QCs" represents the number of quarters of coverage earned by the worker prior to benefit eligibility. "Elapsed years" represents the number of years starting with the year the worker attains age 22 through the year prior to benefit eligibility, excluding periods of disabled worker entitlement.

Provision 7: 75-Percent of Couple Benefit for Aged Widow/Widowers

This provision applies to a surviving spouse who is eligible for both a worker benefit and an aged surviving spouse benefit. This provision would provide, beginning in 2012, the option to receive 75 percent of the benefit that the married couple would be receiving if both were still alive. Calculation of the couple benefit would reflect all age-related reductions for such benefits. If the deceased spouse is not already entitled for OASDI benefits at death, then it will be assumed that the deceased spouse would have become entitled for benefits on the date of death, or the earliest eligibility date, if later. The potential benefit for survivors under this provision would be limited to what the survivor would receive as a retired worker beneficiary with the average Primary Insurance Amount for all worker beneficiaries with benefits in current payment in the year of eligibility for this provision. Implementation of this provision would increase the OASDI actuarial deficit by an estimated 0.08 percent of taxable payroll.

Provision 8: Residual legacy benefit and tax adjustments

This provision has three parts. It is designed to provide sufficient additional revenue and benefit reduction so that, in conjunction with all other provisions of this proposal, the OASDI program would be restored to solvency for the 75-year long-range period, and that this solvency would meet the criteria for sustainable solvency.

1. For years 2023 and later, reduce the three PIA formula factors annually by an additional 0.30 percent (multiply by the factor 0.997).
2. For years 2023 and later, increase the combined OASDI payroll tax rate annually by 0.255 percent (multiply by the factor 1.00255). This annual increase is 85 percent as large as the annual decrease applied to PIA factors.
3. For years 2023 and later, increase the 3-percent legacy payroll tax rate (applicable for covered earnings in excess of the taxable maximum, see provision 5) annually by 0.51 percent (multiply by the factor 1.0051). This increase is specified to be twice the increase applied to the basic payroll tax rate applicable to OASDI covered earnings below the taxable maximum.

The estimated incremental effect of provision 8 on the long-range OASDI actuarial balance after application of provisions 1-7 is 0.97 percent of taxable payroll.

Provision 9: Disability benefits

Compute a 75-year cost saving (present value for 2003-77) from applying all benefit changes in Provisions 1-8 to disabled workers and their auxiliary beneficiaries in 2012 and thereafter (the quarters of coverage necessary to receive the low-earner enhanced benefit would be scaled for disabled workers).

This provision is intended to provide an increment to benefits payable to beneficiaries under the DI program that will accumulate throughout their period of entitlement to such benefits, and will convey to any continuation of benefits payable under the OASI program after the death or conversion (at NRA) of the disabled worker. The increment is designed so that the net present value of the cost of such increments over the 75-year period 2003-77 would equal the net present value of the benefit reductions from Provisions 1-8 applied to all disabled worker beneficiaries and their auxiliaries (see above).

The provision would apply a "super-COLA" to disabled worker beneficiaries and their auxiliaries by increasing PIA for all DI beneficiaries by a factor of 1.009 (or 0.9 percent), applied cumulatively for each year of benefit receipt under the DI program, in 2012 and thereafter. Super COLAs received while a disabled worker beneficiary would be retained after conversion to retired worker status at NRA (or after the death of the worker), but no further super COLAs would be earned after such conversion or death. The excess of the super-COLA over the COLA will be treated as an increase in PIA for purposes of all auxiliary benefits and subsequent survivor benefits based on the worker's record.

The super COLA as computed above would also apply for years of benefit receipt as a child survivor or as a surviving spouse with an entitled child in care.

The estimated incremental effect of provision 9 on the long-range OASDI actuarial balance after application of provisions 1-8 is a reduction in the size of the long-range OASDI actuarial balance of 0.21 percent of taxable payroll.

II. Estimated Financial Effects of the Proposal

The attached tables provide estimates of the effects of enactment of this proposal on the actuarial status of the OASDI program, on the Federal Government Unified Budget, and on the cash flow between the combined OASDI Trust Funds and the General Fund of the U.S. Treasury over the next 75 years. All estimates are based on the intermediate assumptions of the 2003 OASDI Trustees Report.

Table 1 indicates that the long-range OASDI actuarial balance would be increased by an estimated 2.00 percent of taxable payroll, from a deficit of 1.92 percent of payroll under current law to a positive balance of 0.09 percent of payroll with enactment of the proposal. Expressed on a present-value basis as of the beginning of 2003, the 75-year unfunded obligation of $3.5 trillion for the OASDI program under current law would be replaced by an estimated combined Trust Fund balance at the end of the period of $0.5 trillion in present value discounted to January 1, 2003. Moreover, the solvency for the 75-year long range period would be deemed sustainable for the foreseeable future as indicated by the stable ratio of Trust Fund Assets to annual program cost (TFR) at the end of the period. The pattern of annual OASDI balances at the end of the period indicates that a rising TFR might be expected beyond the 75-year period if the provisions of the proposal are extended.

Table 1a provides a comparison of estimated combined OASDI Trust Fund assets at the end of each year under current law and under the proposal in constant 2003 dollars. Under the proposal, Trust Fund assets are projected to be rising in constant dollars at the end of the period. This table also provides a comparison of the estimates of OASDI effective taxable payroll under current law and under the proposal in constant 2003 dollars. By 2077, the effective taxable payroll is projected to be increased by over 12 percent.

Table 1b provides the estimated effect of enactment of the proposal on the Federal Government Unified Budget balance. The change in the annual unified budget cash flow would be positive for all years starting 2005. As a result, the proposal would have a substantial impact on the amount of Federal debt held by the public by the end of the period. This value, like the change in the annual Unified Budget balance as a result of the proposal, reflects the cumulative effects of reduced service on the debt under the proposal.

Table 1c provides a comparison of the annual cash flow from the combined OASDI Trust Funds to the General Fund of the Treasury under the proposal, and under a “Theoretical Social Security with PAYGO Transfers”. Under this Theoretical Social Security, it is assumed that the law is changed so that the General Fund would make transfers to the Trust Funds as needed just sufficient to permit continued full payment of scheduled benefits after the exhaustion of the Trust Fund assets in 2042. Values are shown as a percentage of payroll (equal to the annual balances in table 1), in current (nominal) dollars, in present value discounted to January 1, 2003, and in constant 2003 dollars. The total cash flow for the period 2003 through 2077 is indicated in present value. Under the *Theoretical Social Security with PAYGO Transfers*, the total cash flow needed from the General Fund would be $4.9 trillion, that is, $3.5 trillion in transfers in addition to the $1.4 trillion for redemption of assets held by the Trust Funds at the beginning of the period. Under the proposal, net cash flow from the General Fund is estimated at $0.9 trillion for the period, or $4 trillion less than under the Theoretical Social Security with PAYGO Transfers.

Stephen C. Goss

Attachments

Table 1 Projected OASDI Financial Status under Diamond-Orszag Propopsal
With Ult Real TF Int Rate of 3.0

Year	Cost Rate	Income Rate	Annual Balance	TFR 1-1-yr	OASDI Contrib Rate
2003	10.89	12.70	1.81	288	12.4
2004	10.82	12.69	1.88	309	12.40
2005	10.27	12.69	2.43	330	12.40
2006	10.18	12.69	2.51	357	12.40
2007	10.18	12.71	2.53	383	12.40
2008	10.21	12.72	2.51	408	12.40
2009	10.28	12.73	2.45	432	12.40
2010	10.39	12.75	2.36	454	12.40
2011	10.53	12.81	2.28	474	12.40
2012	10.78	12.82	2.04	489	12.41
2013	11.00	12.85	1.85	502	12.42
2014	11.25	12.88	1.63	513	12.44
2015	11.51	12.91	1.40	522	12.45
2016	11.81	12.94	1.13	527	12.46
2017	12.12	12.97	0.85	529	12.48
2018	12.45	13.01	0.56	529	12.49
2019	12.78	13.04	0.26	527	12.51
2020	13.12	13.07	-0.05	522	12.52
2021	13.48	13.11	-0.37	515	12.54
2022	13.82	13.14	-0.68	507	12.55
2023	14.12	13.21	-0.91	498	12.60
2024	14.42	13.28	-1.14	488	12.65
2025	14.70	13.34	-1.36	478	12.69
2026	14.96	13.41	-1.55	468	12.74
2027	15.21	13.47	-1.73	457	12.79
2028	15.44	13.54	-1.90	445	12.84
2029	15.64	13.60	-2.03	434	12.89
2030	15.81	13.66	-2.14	423	12.94
2031	15.95	13.72	-2.22	412	12.99
2032	16.06	13.78	-2.28	401	13.04
2033	16.16	13.84	-2.32	390	13.08
2034	16.23	13.90	-2.33	380	13.13
2035	16.27	13.95	-2.32	370	13.18
2036	16.30	14.01	-2.30	360	13.23
2037	16.31	14.06	-2.25	351	13.28
2038	16.32	14.11	-2.21	343	13.33
2039	16.32	14.16	-2.15	334	13.38
2040	16.31	14.22	-2.09	326	13.43
2041	16.30	14.27	-2.03	319	13.48
2042	16.28	14.32	-1.96	312	13.53
2043	16.28	14.37	-1.91	304	13.58
2044	16.28	14.42	-1.86	298	13.63
2045	16.28	14.47	-1.81	291	13.68
2046	16.29	14.53	-1.76	284	13.73
2047	16.29	14.58	-1.72	278	13.78
2048	16.31	14.63	-1.68	272	13.83
2049	16.33	14.68	-1.64	266	13.88
2050	16.34	14.74	-1.61	260	13.93
2051	16.37	14.79	-1.58	254	13.98
2052	16.39	14.84	-1.55	248	14.03
2053	16.42	14.90	-1.52	243	14.08
2054	16.44	14.95	-1.49	237	14.13
2055	16.46	15.01	-1.46	232	14.18
2056	16.49	15.06	-1.43	226	14.23
2057	16.51	15.11	-1.40	221	14.28
2058	16.52	15.17	-1.36	216	14.33
2059	16.53	15.22	-1.31	212	14.38
2060	16.54	15.27	-1.26	207	14.43
2061	16.54	15.32	-1.21	203	14.48
2062	16.54	15.38	-1.16	199	14.53
2063	16.54	15.43	-1.11	195	14.58
2064	16.54	15.48	-1.06	192	14.63
2065	16.54	15.53	-1.01	189	14.69
2066	16.55	15.59	-0.96	186	14.74
2067	16.55	15.64	-0.91	183	14.79
2068	16.55	15.69	-0.86	181	14.84
2069	16.55	15.75	-0.81	178	14.89
2070	16.56	15.80	-0.76	177	14.94
2071	16.56	15.85	-0.71	175	14.99
2072	16.56	15.90	-0.66	174	15.05
2073	16.56	15.96	-0.60	173	15.10
2074	16.55	16.01	-0.55	172	15.15
2075	16.55	16.06	-0.49	172	15.20
2076	16.54	16.11	-0.43	172	15.25
2077	16.54	16.17	-0.37	172	15.31
2078	16.53	16.22	-0.31	173	15.36

	Summarized CostRt OASDI	IncRt OASDI	ActBal OASDI	Change in ActBal
2003 -2077	14.44	14.52	0.09	2.00

Office of the Actuary
Social Security Administration
October 6, 2003

Based on Intermediate Assumptions of the 2003 Trustees Report
With Ult Real Int Rate of 3

Table 1 a Comparison of Trust Fund Assets and Effective Taxable Payroll for the Diamond-Orszag Proposal

Year	OASDI Trust Fund Assets (EOY) Present Law	OASDI Trust Fund Assets (EOY) Proposal	OASDI Effective Taxable Payroll Present Law	OASDI Effective Taxable Payroll Proposal
	(In billions of Constant 2003 Dollars)			
2003	1,543	1,543	4,387	4,387
2004	1,683	1,683	4,504	4,504
2005	1,833	1,859	4,628	4,838
2006	1,990	2,045	4,749	4,968
2007	2,154	2,240	4,860	5,090
2008	2,323	2,444	4,967	5,218
2009	2,493	2,654	5,069	5,344
2010	2,664	2,868	5,167	5,465
2011	2,835	3,087	5,261	5,582
2012	3,001	3,301	5,348	5,691
2013	3,161	3,511	5,439	5,800
2014	3,312	3,717	5,526	5,905
2015	3,452	3,915	5,611	6,008
2016	3,579	4,104	5,694	6,109
2017	3,691	4,281	5,779	6,209
2018	3,786	4,444	5,862	6,312
2019	3,863	4,594	5,948	6,414
2020	3,921	4,728	6,033	6,516
2021	3,957	4,844	6,120	6,619
2022	3,971	4,941	6,206	6,721
2023	3,964	5,023	6,292	6,825
2024	3,936	5,091	6,379	6,930
2025	3,885	5,143	6,467	7,036
2026	3,813	5,181	6,557	7,144
2027	3,718	5,205	6,648	7,253
2028	3,601	5,214	6,741	7,365
2029	3,461	5,211	6,836	7,480
2030	3,300	5,196	6,933	7,597
2031	3,119	5,172	7,033	7,716
2032	2,917	5,139	7,134	7,837
2033	2,696	5,099	7,236	7,960
2034	2,457	5,053	7,340	8,086
2035	2,200	5,004	7,445	8,213
2036	1,925	4,951	7,552	8,342
2037	1,634	4,898	7,660	8,473
2038	1,326	4,843	7,769	8,601
2039	1,001	4,788	7,880	8,732
2040	661	4,734	7,990	8,862
2041	303	4,681	8,101	8,993
2042		4,629	8,214	9,126
2043		4,578	8,327	9,256
2044		4,528	8,440	9,388
2045		4,478	8,555	9,521
2046		4,428	8,669	9,653
2047		4,378	8,784	9,787
2048		4,328	8,900	9,922
2049		4,277	9,018	10,058
2050		4,225	9,136	10,196
2051		4,173	9,256	10,335
2052		4,119	9,377	10,475
2053		4,064	9,499	10,617
2054		4,007	9,623	10,762
2055		3,950	9,749	10,908
2056		3,891	9,877	11,053
2057		3,832	10,008	11,199
2058		3,773	10,140	11,348
2059		3,715	10,274	11,499
2060		3,658	10,409	11,651
2061		3,603	10,546	11,805
2062		3,550	10,685	11,962
2063		3,499	10,826	12,120
2064		3,450	10,967	12,280
2065		3,405	11,111	12,441
2066		3,362	11,256	12,604
2067		3,322	11,402	12,769
2068		3,285	11,550	12,936
2069		3,251	11,699	13,105
2070		3,222	11,850	13,274
2071		3,196	12,002	13,446
2072		3,175	12,156	13,619
2073		3,159	12,311	13,794
2074		3,150	12,468	13,972
2075		3,146	12,627	14,151
2076		3,149	12,788	14,332
2077		3,159	12,950	14,515
2078		3,178	13,115	14,701

1/ Based on Intermediate Assumptions of the 2003 Trustees Report
With Ult Real Int Rate of 3

Office of the Actuary
Social Security Administration
October 6, 2003

Table 1 b Projected Unified Budget Effect of Diamond-Orszag Proposal

Year	Change in OASDI CashFlow	Change in Annual UnifBudg CashFlow	Change in Debt Held by Public 1/ (EOY)	Change in Annual UnifBudg Balance
		(In billions of Constant 2003 Dollars)		
2004	0.0	0.0	0.0	0.0
2005	25.2	25.2	-26.0	26.0
2006	27.3	27.3	-54.9	29.7
2007	28.7	28.7	-86.2	32.9
2008	31.3	31.3	-121.1	37.4
2009	34.1	34.1	-160.1	42.5
2010	36.9	36.9	-203.1	47.7
2011	41.0	41.0	-251.7	54.5
2012	38.3	38.3	-298.9	54.5
2013	40.6	40.6	-349.8	59.7
2014	42.6	42.6	-404.3	64.7
2015	44.4	44.4	-462.3	69.8
2016	46.3	46.3	-523.9	75.1
2017	47.9	47.9	-589.0	80.3
2018	49.8	49.8	-658.0	86.2
2019	51.5	51.5	-730.8	91.9
2020	53.0	53.0	-807.3	97.8
2021	54.2	54.2	-887.4	103.6
2022	55.6	55.6	-971.2	109.7
2023	59.2	59.2	-1,061.3	118.4
2024	63.1	63.1	-1,158.2	127.8
2025	67.4	67.4	-1,262.3	137.9
2026	71.9	71.9	-1,374.3	148.7
2027	76.7	76.7	-1,494.5	160.3
2028	81.8	81.8	-1,623.6	172.6
2029	87.5	87.5	-1,762.4	186.1
2030	93.5	93.5	-1,911.6	200.5
2031	100.0	100.0	-2,072.0	216.0
2032	107.0	107.0	-2,244.4	232.8
2033	114.1	114.1	-2,429.3	250.3
2034	121.7	121.7	-2,627.6	269.0
2035	129.8	129.8	-2,840.1	289.1
2036	138.3	138.3	-3,067.8	310.4
2037	147.4	147.4	-3,311.6	333.2
2038	155.7	155.7	-3,571.3	356.2
2039	164.5	164.5	-3,847.9	380.5
2040	173.6	173.6	-4,142.1	406.4
2041	183.3	183.3	-4,455.2	433.7
2042	193.5	193.5	-4,788.2	462.7
2043	203.1	203.1	-5,141.0	492.3
2044	213.1	213.1	-5,514.8	523.5
2045	223.7	223.7	-5,910.7	556.5
2046	234.8	234.8	-6,329.8	591.3
2047	246.4	246.4	-6,773.5	628.0
2048	257.8	257.8	-7,242.2	666.0
2049	269.6	269.6	-7,737.2	705.9
2050	282.1	282.1	-8,259.8	748.0
2051	295.0	295.0	-8,811.5	792.2
2052	308.6	308.6	-9,393.7	838.8
2053	322.3	322.3	-10,007.4	887.4
2054	336.4	336.4	-10,654.2	938.2
2055	351.1	351.1	-11,335.5	991.6
2056	365.7	365.7	-12,052.2	1,046.9
2057	380.6	380.6	-12,805.8	1,104.6
2058	396.0	396.0	-13,597.8	1,165.0
2059	411.7	411.7	-14,429.8	1,228.1
2060	427.9	427.9	-15,303.4	1,293.9
2061	444.4	444.4	-16,220.3	1,362.6
2062	461.5	461.5	-17,182.3	1,434.4
2063	479.3	479.3	-18,191.5	1,509.6
2064	497.6	497.6	-19,249.7	1,588.1
2065	516.3	516.3	-20,359.0	1,669.9
2066	535.5	535.5	-21,521.3	1,755.3
2067	555.3	555.3	-22,738.9	1,844.4
2068	575.8	575.8	-24,014.2	1,937.6
2069	597.0	597.0	-25,349.5	2,034.7
2070	618.5	618.5	-26,747.1	2,135.9
2071	640.7	640.7	-28,209.4	2,241.4
2072	663.3	663.3	-29,738.9	2,351.1
2073	686.9	686.9	-31,338.5	2,465.8
2074	711.0	711.0	-33,011.0	2,585.3
2075	735.7	735.7	-34,759.1	2,709.6
2076	760.9	760.9	-36,585.6	2,838.9
2077	786.7	786.7	-38,493.5	2,973.5
2078	813.5	813.5	-40,486.2	3,113.9

Based on Intermediate Assumptions of the 2003 Trustees Report
With Ult TF Real Int Rate of 3.0

Office of the Actuary
Social Security Administration
October 6, 2003

Table 1 c OASDI Cash Flow to General Fund of the Treasury---Diamond-Orszag Proposal vs. Theoretical OASDI

	Diamond-Orszag Proposal: Net Amount of Cash-Flow from the OASDI Trust Funds to the General Fund of the Treasury During the Year 1/				Theoretical Social Security with PAYGO Transfers: Net Amount of Cash-Flow from the OASDI Trust Funds to the General Fund of the Treasury During the Year 1/			
	Annual	Billions of Dollars ---			Annual	Billions of Dollars ---		
	Balance	Current $	PV Jan 1, 03	Const 2003$	Balance	Current $	PV Jan 1, 03	Const 2003$
2003	1.81	77	75	77	1.8	77	75	77
2004	1.88	83	76	81	1.9	83	76	81
2005	2.43	121	105	115	2.0	95	82	90
2006	2.51	133	108	123	2.1	103	84	95
2007	2.53	142	109	127	2.1	110	84	99
2008	2.51	148	107	129	2.0	112	81	98
2009	2.45	152	104	129	1.9	112	76	95
2010	2.36	154	99	127	1.8	110	70	90
2011	2.28	158	95	126	1.6	106	64	85
2012	2.04	148	84	115	1.4	99	56	76
2013	1.85	141	76	106	1.2	87	47	65
2014	1.63	130	66	95	1.0	72	37	52
2015	1.40	117	56	83	0.7	54	26	38
2016	1.13	99	45	68	0.4	31	14	21
2017	0.85	77	33	51	0.1	5	3	3
2018	0.56	52	21	34	-0.3	-25	-9	-16
2019	0.26	24	10	15	-0.6	-57	-21	-36
2020	-0.05	-7	-2	-5	-0.9	-94	-33	-58
2021	-0.37	-44	-14	-26	-1.3	-135	-44	-80
2022	-0.68	-82	-25	-47	-1.6	-178	-55	-103
2023	-0.91	-114	-33	-64	-1.9	-220	-64	-123
2024	-1.14	-149	-41	-81	-2.2	-265	-73	-144
2025	-1.36	-184	-48	-97	-2.5	-312	-81	-164
2026	-1.55	-220	-54	-113	-2.8	-361	-88	-184
2027	-1.73	-257	-59	-127	-3.1	-411	-95	-204
2028	-1.90	-294	-64	-142	-3.3	-463	-101	-223
2029	-2.03	-329	-67	-154	-3.5	-516	-106	-241
2030	-2.14	-362	-70	-165	-3.7	-568	-110	-258
2031	-2.22	-393	-72	-174	-3.9	-620	-113	-274
2032	-2.28	-421	-72	-181	-4.0	-671	-116	-288
2033	-2.32	-448	-72	-186	-4.1	-722	-117	-300
2034	-2.33	-471	-72	-190	-4.2	-773	-118	-312
2035	-2.32	-491	-71	-193	-4.3	-823	-119	-323
2036	-2.30	-509	-69	-194	-4.4	-872	-119	-332
2037	-2.25	-522	-67	-193	-4.4	-921	-118	-340
2038	-2.21	-535	-64	-192	-4.5	-969	-117	-348
2039	-2.15	-546	-62	-190	-4.5	-1,018	-116	-355
2040	-2.09	-555	-59	-188	-4.5	-1,069	-115	-361
2041	-2.03	-562	-57	-185	-4.5	-1,121	-113	-368
2042	-1.96	-569	-54	-181	-4.5	-1,176	-112	-375
2043	-1.91	-578	-52	-179	-4.6	-1,234	-111	-382
2044	-1.86	-588	-50	-177	-4.6	-1,297	-110	-390
2045	-1.81	-598	-47	-174	-4.6	-1,365	-109	-398
2046	-1.76	-609	-46	-172	-4.7	-1,438	-108	-407
2047	-1.72	-620	-44	-170	-4.7	-1,515	-108	-417
2048	-1.68	-633	-42	-169	-4.8	-1,598	-107	-427
2049	-1.64	-647	-40	-168	-4.8	-1,687	-106	-437
2050	-1.61	-661	-39	-166	-4.9	-1,782	-106	-448
2051	-1.58	-677	-38	-165	-5.0	-1,884	-106	-460
2052	-1.55	-694	-36	-165	-5.0	-1,995	-105	-473
2053	-1.52	-712	-35	-164	-5.1	-2,111	-105	-486
2054	-1.49	-730	-34	-163	-5.2	-2,234	-105	-500
2055	-1.46	-746	-33	-162	-5.2	-2,363	-105	-513
2056	-1.43	-763	-31	-161	-5.3	-2,498	-104	-526
2057	-1.40	-778	-30	-159	-5.4	-2,638	-104	-540
2058	-1.36	-790	-29	-157	-5.4	-2,783	-103	-553
2059	-1.31	-798	-28	-154	-5.5	-2,932	-103	-566
2060	-1.26	-803	-26	-150	-5.5	-3,088	-102	-578
2061	-1.21	-805	-25	-146	-5.6	-3,249	-101	-591
2062	-1.16	-806	-23	-142	-5.6	-3,420	-100	-604
2063	-1.11	-805	-22	-138	-5.7	-3,602	-99	-617
2064	-1.06	-802	-21	-133	-5.7	-3,793	-99	-631
2065	-1.01	-798	-19	-129	-5.8	-3,994	-98	-645
2066	-0.96	-793	-18	-124	-5.8	-4,207	-97	-660
2067	-0.91	-787	-17	-120	-5.9	-4,433	-97	-675
2068	-0.86	-777	-16	-115	-6.0	-4,672	-96	-691
2069	-0.81	-764	-14	-110	-6.0	-4,923	-95	-707
2070	-0.76	-749	-13	-104	-6.1	-5,188	-95	-723
2071	-0.71	-731	-12	-99	-6.1	-5,466	-94	-740
2072	-0.66	-709	-11	-93	-6.2	-5,759	-93	-756
2073	-0.60	-680	-10	-87	-6.3	-6,066	-93	-774
2074	-0.55	-646	-9	-80	-6.3	-6,389	-92	-791
2075	-0.49	-607	-8	-73	-6.4	-6,727	-91	-809
2076	-0.43	-562	-7	-66	-6.4	-7,082	-91	-826
2077	-0.37	-509	-6	-58	-6.5	-7,453	-90	-844
Total 2003-77			-929				-4,927	

1/ Equals net investment in special Treasury Bonds by the Trust Funds minus transfers from the General Fund of the Treasury. Results for PAYGO GR borrowing would be equivalent.

Based on Intermediate Assumptions of the 2003 Trustees Report

Office of the Actuary
Social Security Administration
October 6, 2003