



SOCIAL SECURITY

MEMORANDUM

Date: November 18, 2003 **Refer To:** TCA

To: Stephen C. Goss, Chief Actuary

From: Chris Chaplain, Actuary
Alice H. Wade, Deputy Chief Actuary

Subject: Estimated OASDI Financial Effects of “Social Security Solvency and Modernization Act of 2003” introduced by Senator Lindsey Graham--**INFORMATION**

This memorandum provides long-range estimates of the financial effects on the Social Security (OASDI) program assuming enactment of “Social Security Solvency and Modernization Act of 2003”, introduced on November 18, 2003. Specifications of the provisions in the bill were provided by Jen Olson of Senator Lindsey Graham’s staff. A description of these specifications, reflecting our understanding of the intent of this bill, is given below. All estimates are based on the intermediate assumptions of the 2003 Trustees Report, as well as additional assumptions described below.

Proposal Summary

The proposal would allow workers who have attained age 25 to choose one of three options for program participation. One of these options involves the establishment of a personal account. Current retirees and workers aged 55 or older as of the beginning of 2004 would remain in the current-law program and would not participate in the personal account program. Brief summaries of the three options are listed below. More details concerning the proposed provisions of the bill are given in the following sections of this memorandum.

Option 1 (Default option): Beginning in 2006, workers would redirect 4 percentage points of their OASDI payroll contributions, up to \$1,300 annually (in 2006, with this limit being wage-indexed in future years), to personal accounts (also referred to as individual accounts (IA) in the memo). The personal accounts would be invested in pooled funds similar to those of the Federal Thrift Savings Plan (TSP), with a default portfolio set at 60 percent stocks and 40 percent long-term government bonds. After the account balance reaches \$10,000 (in 2006, with this threshold being wage-indexed in future years), workers could then choose to invest in specific private-market, centrally-managed, SEC-approved retirement funds. In exchange for the personal account contributions, OASI benefits would be offset by a hypothetical annuity based on the worker’s account contributions compounded at an interest rate of 0.3 percent below the realized or expected market yield on long-term Treasury bonds. The proposal would also include a

number of specific changes to scheduled OASI benefits (the defined benefit portion). These changes include:

- Reducing the PIA benefit formula factors (90, 32, and 15) in determining retirement and survivor benefits by the difference between CPI and average wage growth;
- Providing a variable minimum PIA of up to 120 percent of the poverty level; and
- Increasing the benefits, of those widows and widowers with benefits that are generally lower than average, to as much as 75 percent of the benefit that the couple would have been receiving if both were still alive.

Option 2: Workers would not have a personal account. However, workers would still be subject to the three specific changes to scheduled OASDI benefits that are bulleted under Option 1.

Option 3: Workers would not have a personal account and would maintain current-law scheduled Social Security benefits by paying additional payroll contributions to the Trust Funds. Initially, the payroll tax rate would be set at 14.4 percent. This rate is 2 percentage points higher than under current law and approximates the long-range actuarial deficit of 1.92 percent projected under the 2003 Trustees Report. Each year thereafter, the long-range actuarial balance would be calculated as if all individuals had selected this option. Whenever the long-range actuarial deficit under this calculation becomes higher than 0.25 percent of payroll, then an automatic 0.25 percent increase in payroll tax would take effect.

The proposal also includes the following changes to the OASDI program for all individuals, regardless of the option they select:

- Starting in 2006, revenues from taxation of Social Security benefits that currently go to the HI Trust Fund, would be redirected to the OASDI Trust Funds; and
- Starting in 2006, 1.25 percent of taxable payroll would be transferred from the General Fund of the Treasury to the OASDI Trust Funds.

Even though participation in personal accounts would be voluntary upon attainment of age 25, universal participation in Option 1 (personal accounts) is assumed for these estimates. Option 1 and Option 2 would result in approximately equal monthly benefit levels (OASDI and IA benefits combined) if the personal account under Option 1 were invested in long-term government bonds and annuitized upon retirement. Monthly benefits under Option 1 will be larger than benefits under Option 2 if the yield on personal accounts is generally above the interest rate on long-term government bonds. In addition, even if monthly benefits are the same under Options 1 and 2, the potential availability of some of the IA accumulations in a form other than a monthly annuity (provided that the remaining IA balance plus the monthly Social Security benefit payment is at least 100 percent of the poverty level, as detailed in the “Account Distributions” section) makes Option 1 attractive.

It should be further noted that in the later years of the projection period, even if the yield on personal accounts were somewhat lower than the government bond yield, Option 1 could still generate a higher monthly benefit than would Option 2. This is because the benefit provisions of the proposal generally decrease the Social Security “defined” benefit over time so that offsets to

benefits due to the personal accounts, which are limited to the size of the Social Security defined benefit, become increasingly likely to be smaller than the value of the IA distributions.

Compared to Options 1 and 2, Option 3 might provide a higher monthly benefit through the guarantee of present-law benefits. However, it is anticipated that very few individuals would choose to have their combined payroll tax rate (employer plus employee) increased by a *minimum* of 2 percentage points with later increases that could be much larger and are unknown. A preliminary estimate of the *total increase* in the combined payroll tax rate needed in 2040 is about 3.2 percentage points.

The proposal would require the Social Security Trustees to recommend specific program changes to the Congress if projected trust fund balances fall below a critical level at any time in the future. These recommendations, or similar measures, would be required to be implemented quickly. Conversely, if the trust fund ratio were at least 200 percent as of the initial year of the 75-year projection period and were expected to rise steadily thereafter, the Trustees would be required to recommend program changes to Congress. These changes could include increasing the “defined” Social Security benefit, increasing payroll tax contributions to personal accounts, reducing total payroll taxes, or other changes.

Enactment of this proposal, assuming universal participation in Option 1, is expected to eliminate the estimated long-range OASDI actuarial deficit (1.92 percent of taxable payroll under present law) based on “intermediate” assumptions described below and to result in sustainable solvency for the foreseeable future.

The Proposal: Personal Accounts

Contributions and Investment Up To Benefit Entitlement

Personal accounts would be available to all Social Security covered workers who have not attained age 55 at the beginning of 2004 (that is, to workers born in 1949 or later). Current workers aged 25-54 at the beginning of 2004 would be initially placed in the default option (Option 1 above). Workers then have one year to switch to one of the other two options. All future workers are placed in default Option 1 until age 25. At age 25, workers can then choose to change to one of the other options, but are locked into their preferred option upon attaining age 26. If Option 2 or 3 is selected, then the personal account balance as of age 26 is required to be rolled over to an IRA.

Starting in 2006, SSA would redirect, from the OASDI Trust Funds to individual personal accounts, 4 percent of the OASDI taxable earnings (up to a specified dollar limit), for those covered workers who choose Option 1. The dollar limit for 2006 would be \$1,300. For subsequent years, the dollar limit would be increased by the growth in the average wage indexing series.

The proposal allows voluntary contributions to personal accounts (for those who have selected Option 1), above and beyond the payroll tax redirections, with government matching

contributions for specified lower earners. Workers who choose to participate in personal accounts and have earnings of less than \$27,500 in 2006 would each receive a \$100 contribution to their accounts from the Federal government if they voluntarily contribute \$1 extra to their accounts (both contribution amounts would also be indexed in future years by average wages). The government would then match 50 percent of any additional voluntary contributions, up to a total government subsidy of \$500 per year. This government subsidy would be phased out for workers earning \$32,500 in 2006. The General Fund of the Treasury would fund this subsidy for low-income workers. The voluntary contributions from low-income workers can be “funded” from any earned income tax credit they have on their individual tax returns. The estimates in this memorandum assume that, on average, such low-income workers will contribute \$101 per year, thereby receiving a matching government subsidy of \$150 (\$100 for the first \$1 of worker contributions, plus \$50 for the additional \$100 in contributions). In addition, all workers, regardless of income level, can voluntarily contribute up to \$5,000 per year to their personal accounts.

Disabled workers (who select option 1) may contribute to their personal accounts during their period of disability and may benefit from the government matching subsidy described above. Neither voluntary additional contributions nor the Federal matching subsidy would be included for the purpose of calculating benefit offsets under Option 1. All amounts—the contribution limits, the earnings threshold, and contribution amounts from both workers and the matching government subsidy—would be indexed in years after 2006 by average wage growth.

Accounts would be established as soon as practicable. For the purpose of these estimates, it is assumed that accounts would be established by the end of 2006. Account contributions would be collected using the existing structure for collecting OASDI payroll tax contributions. In addition, account contributions would be managed by a central authority in a manner similar to that of the Federal Employee Thrift Savings Plan. Initially, available investment choices would be limited to a first tier of options that would include several broad index funds (equity, government bonds, and corporate and other bonds) plus several balanced funds.

After a worker’s account balance reaches \$10,000 (wage-indexed after 2006), the worker would have the option of investing in a second tier of funds. The second tier, still managed centrally, would offer a range of funds provided by approved private investment firms. The worker would select an investment firm and the funds offered by that firm. For both tiers, the central authority would maintain individual account records and would combine account transactions in aggregate amounts when dealing with the private investment firms.

A default portfolio allocation of 60 percent stock and 40 percent long-term government bonds would apply to all workers, unless they opted to change the allocation. Switching among investment funds would be allowed once per year. Withdrawals prior to benefit entitlement to retired worker, aged spouse, or aged survivor benefits would be permitted only if one could purchase an annuity from the personal account equal to 100% of the monthly poverty level.

Personal Account Accumulations

IA portfolios are to be invested, both prior to retirement benefit entitlement and after benefit entitlement, in approved funds with individual account records and transactions being centrally managed. We assume that the aggregate investment portfolio of all IAs will on average be distributed at about 60 percent in equities and 40 percent in long-term government bonds. An annual average administrative expense charge of 30 basis points is assumed.

The long-term ultimate average real yield on stock investments made in the future is assumed to be 6.5 percent, the same as used for other proposals over the last couple of years. This assumed equity yield is somewhat less than the 7-percent real yield that was assumed for the analysis of the plans proposed by the 1994-96 Advisory Council. This reduction in expected average yield is consistent with both (1) a growing consensus among economists that the market may value equities at somewhat higher average price-to-earnings ratios in the future based on broader access and a reduction in the perceived level of risk, and (2) the Trustees' increase in the assumed real yield on Treasury bonds from the level assumed in 1995. The expected ultimate average real portfolio yield for the base projection would thus be 4.8 percent, net of administrative expense,

$$(0.6*6.5\% + 0.4*3.0\% - 0.3\%) = 4.8\%.$$

Account Distributions

Under Option 1 of the proposal, workers could have some flexibility in the nature of account distributions. Life annuities are required to be purchased from the personal accounts, if needed, so that monthly annuity payments, when added to the Social Security benefit, provide for total payments that are not less than 100 percent of the monthly poverty level amount for the applicable year and family size. Any remaining balances may be used at the discretion of the account holder.

The proposal does not allow for withdrawal from the personal accounts in the event of disability. If a worker dies before OASI benefit entitlement, the proceeds of the worker's personal account is transferred to the account of the spouse. If there is no spouse, then account proceeds go to the worker's estate.

For workers who participate in Option 1, Social Security retirement and aged survivor benefits payable, as revised under the proposal, will be reduced according to a hypothetical account accumulation and annuity computation using a specified "offset yield rate." The offset yield rate for each year for this plan is the actual realized yield from long-term U.S. bonds (the intermediate assumptions of the OASDI Trustees Report would be used for future years) minus 0.3 percent.

The hypothetical account accumulation at retirement would be equal to the worker's redirected payroll taxes (but not including voluntary additional contributions by the worker or government

subsidies to the account for low-income workers discussed in the previous section) accumulated using the specified offset yield rate for each past year. The retirement (retired worker, aged spouse, and aged survivor) benefit offset would be the computed amount of a CPI-indexed life annuity purchased with this hypothetical accumulation, and based on the expected future mortality, inflation, and real interest rates used for the intermediate assumptions of the most recent OASDI Trustees Report. Offset annuities would be based on expected unisex mortality for workers who are not married at retirement. Joint and two-thirds survivor life annuities would be computed for workers who are married at retirement, reflecting the actual ages of each spouse and sex distinct expected mortality.

If this hypothetical offset annuity exceeds the OASI benefit, then *no* Social Security benefits are paid. It should be emphasized that no benefit offset is computed or applied to benefits from the DI Trust Fund.

This provision provides a financial gain, relative to the Social Security defined benefit under the proposal, for workers who realize an average actual net annual return on their personal accounts that is higher than the accumulated offset rate. On the other hand, workers who realize an average net return that is lower than the offset rate can be disadvantaged by this provision, especially if the present value of expected OASI benefits exceeds the hypothetical accumulation of the personal accounts. In this scenario, a worker's combined personal account and Social Security proceeds would be less than the Social Security benefit that would be payable without personal account participation. However, because the offset yield rate is set at the long-term government bond yield rate minus 0.3 percent (assumed to ultimately be 2.7 percent real), workers investing in the default portfolio would be “worse off” through personal account participation only if accumulated returns on investments in equities (assumed to be 6.5 percent real) actually turn out to be less than the offset yield rate on average throughout their working lifetime.

Taxation of Personal Accounts and Distributions

Funds accumulate in the personal accounts on a tax-deferred basis, including additional voluntary contributions. Voluntary additional cash contributions to personal accounts are allowed up to \$5,000 yearly, in after-tax dollars.

The taxation treatment of distributions from the personal accounts differs depending upon the source of the contribution. Distributions related to redirected Social Security payroll taxes (whether annuitized or not) receive the same taxation treatment as Social Security benefits do under current law. Revenue from personal income tax on these distributions would be transferred to the OASI and HI Trust Funds in the same manner as for revenue taxed on OASDI benefits under current law.

Distributions related to additional voluntary contributions would be tax-free, though the contributions would come out of after-tax dollars (similar to the tax treatment of Roth IRAs). Contributions and distributions from the government matching subsidy for low-income earners would be completely tax-free.

For workers who die before OASI entitlement and have no surviving spouse, personal account balances that go to the estate of the deceased worker are not taxed.

The Proposal: Additional Changes to OASDI Benefits

1) CPI-Index the Benefit Formula Factors (applies to all except those in Option 3)

For OASI beneficiaries becoming newly eligible for benefits in 2009 and later, this provision would modify the primary insurance amount (PIA) formula factors (90, 32, and 15), reducing them successively by the measured real wage growth in the second prior year. This provision does not apply to DI beneficiaries but would apply to young survivors (surviving spouses under 62 with a child in care). The provision would result in benefit levels for individuals with equivalent relative lifetime earnings across generations (relative to the average wage level) that would increase at the rate of price growth (CPI), rather than at the rate of growth in the average wage level as in current law. Calculation of the average indexed monthly earnings (AIME) and the PIA bend points used in computing the benefit would be unaffected by this provision.

For disabled workers who reach disability conversion age, the reduction in the retirement benefit due to this provision would be limited as shown below:

1. The following formula would be used to prorate the conversion benefit between DI and the OASI levels:

DI benefit level (present-law scheduled DI benefit) *times* (years receiving DI benefits in the elapsed year period¹ / 40)

plus

OASI benefit level *times* (years not receiving DI benefits in the elapsed year period / 40).

2. In determining the OASI benefit level, a PIA would be computed using the formula applicable for newly eligible retired workers in the year the converting worker reached age 62. The disability freeze years would apply in computing the AIME.

For example, a worker who becomes disabled at age 32 and is thereafter continuously receiving disability benefits would receive no reduction in his/her benefit level due to this provision until disability conversion age (ultimately, age 67). At conversion, monthly benefits would be paid from the individual account, and a portion of the reduction due to the change in benefit formula factors would begin to apply to the PIA. Of the 40 potential working years, 10 years (ages 22 through 31) were years that the worker did not receive a disability-worker benefit. Thus, for this worker, only one-fourth of the reduction due to CPI-indexing the benefit formula factors would apply to his/her PIA level.

¹ Elapsed year period includes years from age 22 through age 61.

This provision alone would increase the long-range OASDI actuarial balance (reduce the actuarial deficit) by an estimated 2.10 percent of taxable payroll.

2) Variable Minimum PIA for Retired Workers, for Retired Workers Converted from DI, and for Survivors (applies to all except those in Option 3)

This provision would set a minimum retired worker PIA at 120% of the *Monthly Applicable Poverty Level* (see below for definition) for workers newly eligible in 2011 with 35 years of work (quarters of coverage equal to 3.5 times the number of elapsed years), decreasing to no minimum with 10 years of work (quarters of coverage equal to the number of elapsed years). The variable minimum PIA is phased in during the years 2007 through 2010. For workers newly eligible in 2007, the percentage of the *Monthly Applicable Poverty Level* is one-fifth of the fully phased-in percentage in 2011. This fraction increases by an additional one-fifth for each year during the phase-in period, reaching four-fifths in 2010.

The *Annual Applicable Poverty Level* for 2002 is set equal to \$8,628 (the poverty level for an individual aged 65 or older in 2002). The *Monthly Applicable Poverty Level* would equal one-twelfth of this amount. The *Annual Applicable Poverty Level* that applies to an individual in his/her year of initial eligibility is determined by increasing the 2002 level by the COLA for 2002 through the year prior to the year of initial benefit eligibility.

This provision does not apply to DI beneficiaries. For the purpose of computing a benefit at disability conversion age, the minimum PIA, when applicable, would augment only the OASI benefit level, as detailed in the prior description of CPI-indexing the benefit formula factors for DI conversions. In doing so, the year-of-work requirements for the minimum PIA would be “scaled” to the proportion of elapsed years for which the worker was not entitled to a disabled worker benefit.² Such “scaling” of year-of-work requirements, for calculating the minimum PIA, would also apply for survivor cases where the worker died before attaining age 62.

The incremental effect of this provision after applying provision 1 would be to reduce the long-range OASDI actuarial balance (increase the actuarial deficit) by an estimated 0.03 percent of taxable payroll.

3) Increased Benefits for Widow(er)s (applies to all except those in Option 3)

Under this provision, starting in 2006, all aged surviving spouses (aged 62 or older) would receive 75 percent of the benefit that would be received by the couple if both were still alive (including all applicable actuarial reductions and delayed retirement credits), if this is higher than

² For example, an individual who becomes disabled at age 32 and stays disabled until normal retirement age would need to have quarters of coverage equal to 140 (35 years) X 10 years of work / 40 total elapsed years for retired worker with no disability, or 35 quarters of coverage, to qualify for a minimum PIA of 120 percent of the *Monthly Applicable Poverty Level*.

their current benefit. The benefit provided by this option would be limited to what the survivor would receive as a retired worker beneficiary with a PIA equal to the average PIA of all retired worker beneficiaries for December of the year prior to becoming eligible for this option. Actuarial reduction for this limitation would be computed as if the survivor had begun receiving a retired worker benefit on the earliest of the actual ages upon which benefits began as an aged spouse, an aged surviving spouse, or a retired worker beneficiary, but not before 62. This provision alone would reduce the long-range OASDI actuarial balance (increase the actuarial deficit) by an estimated 0.08 percent of taxable payroll.

4) Redirect Taxation of Benefits Revenue from the HI Fund to the OASDI Trust Funds

Currently, revenue collected by the IRS from Federal income taxes payable on OASDI benefits, in excess of the tax on 50 percent of such benefits, gets transferred to the Medicare HI Trust Fund. Under this provision, this revenue would be redirected to the OASDI Trust Funds. The provision would redirect 10 percent of this revenue for 2006, 20 percent for 2007, ..., and 100 percent for 2015 and later. This provision alone would increase (improve) the long-range OASDI actuarial balance by an estimated 0.43 percent of taxable payroll.

5) Transfers from the General Fund of the Treasury

This provision would require specified transfers from the General Fund to the OASDI Trust Funds equaling 1.25 percent of payroll, starting in 2006. Under this provision, a commission would be appointed to recommend cuts in corporate welfare programs to offset the cost of these transfers. However, these transfers would be made whether or not the cuts in corporate welfare programs were achieved. This provision alone would increase (improve) the long-range OASDI actuarial balance by an estimated 1.18 percent of taxable payroll.

Annual Estimates of Trust Fund Operations, Estimated Effects on the Unified Budget Balance, and Cash Flow between the Trust Funds and the General Fund of the Treasury

Provided below are summarized descriptions of the attached tables, some of which have been referenced throughout this memorandum. For a more detailed description of tables 1 through 1c, please see our January 31, 2002 memorandum (pp. 21-26) on financial effects of the three models developed by the President's Commission to Strengthen Social Security. This memorandum is available on the Internet at

http://www.ssa.gov/OACT/solvency/PresComm_20020131.pdf.

As stated earlier, we assume that all workers will participate in the individual account option (Option 1). Tables 1 through 1c reflect this assumption.

OASDI Trust Fund Operations

Table A provides a brief description of the plan provisions and provides estimates of the effect of each provision, as well as the effect of all provisions combined, on the long-range OASDI actuarial balance assuming that all workers choose Option 1. The table also shows that, for the basic provisions only, without increased payroll taxes (i.e., the same as universal participation in Option 2), the estimated effect on the long-range OASDI actuarial balance would be an increase of 3.53 percent of taxable payroll. In addition, table A shows that, assuming 100-percent worker participation in Option 1 of the proposal, the estimated effect on the long-range OASDI actuarial balance would be an increase of 2.55 percent of taxable payroll.

Table 1 shows estimated annual and summarized income rates, cost rates, and balances under the proposal. In addition, the table shows the trust fund ratio for each year, as well as changes in contribution rates to the OASDI Trust Funds under the proposal. As shown in the table, sustainable solvency is indicated for the foreseeable future, because the Trust Fund ratio is steadily rising at the end of the projection period.

Additional Aggregate Values for Trust Funds and Personal Accounts

Table 1a shows estimated trust fund balances at the end of each year under current law and under the proposal. In addition, the "IA/Annuity Assets EOY" column shows the total IA and annuity account assets at the end of each year, excluding transfers made to a worker's estate for death before benefit entitlement where there is no spouse, assuming that the accounts accumulate at the assumed average net yield rate (4.8 percent real). The next two columns show aggregate IA contributions and disbursements for each year. All of these amounts appear on a present value basis as of January 1, 2003.

The estimates of annual dollar flows and accumulations of the personal accounts are based on very specific assumptions that all personal account assets are converted to CPI-indexed life annuities at retirement (see description in the section on assumptions above). In practice, many individuals would likely annuitize only part of their personal account accumulation so estimated annuity assets are overstated to some degree. Total personal account and annuity assets (referred to as "IA/Annuity Assets EOY" in the tables) include both the assets of personal accounts held prior to retirement, and the assets held by the annuity provider after retirement. If the personal accounts are considered as a part of "Social Security", it is reasonable to combine the amounts of trust fund assets and personal accounts for a representation of total system assets.

Furthermore, the individual account estimates that are shown in table 1a are used in determining estimates of income from taxation of benefits. For the accumulation phase of the individual accounts, workers are assumed to maintain individual accounts that would have an average distribution of 60 percent in equities and 40 percent in long-term U.S. Treasury bonds. Based on the rates of return assumed for stocks and bonds, this implies an average annual real yield rate of 4.8 percent, after deducting 0.3 percent assumed for administrative expense. During the distribution or annuity phase, the net real yield is assumed to be the same as long-term U.S. Treasury bonds (3 percent).

The last two columns in table 1a provide, under the proposal, the present value of (1) net cash flow from the General Fund of the Treasury to the OASDI Trust Funds, and (2) the change in annual unified budget cash flows. Both sets of information appear in constant dollars—the former in table 1c and the latter in table 1b.

Effects on Annual Federal Unified Budget Balances

Table 1b provides a rough estimate of the effects of the proposal on the annual Federal unified budget balance for each calendar year through 2078. All amounts in this table appear in constant 2003 dollars (that is, dollar amounts that are indexed back to 2003 based on the consumer price index (CPI)). The first three columns in these tables include sources of changes to the unified budget balance, as follows:

- Annual aggregate OASDI payroll taxes that are redirected to IAs (including government subsidies to the accounts for lower earners)--these amounts result in a reduction to the unified budget balance because the monies go into personal accounts;
- Estimated annual amounts of OASDI benefit offset based on hypothetical accumulations of earlier deposits to personal accounts--an increase to the unified budget balance because these proceeds reduce Social Security benefit payments; and
- Other changes in OASDI cash flow (as compared to present law) from the other benefit provisions (but not from transfers between the General Fund and the Trust Fund, which have no unified budget effect).

The last three columns present the aggregate effects on the unified budget:

- Change in the annual unified budget cash flow, which is simply the sum of the sources of unified budget balance changes identified above;
- Change in debt held by the public, as of the end of each year, which represents the cumulative change in the unified budget cash flows, with interest (at the assumed rates earned by the Trust Funds); and
- Change in annual unified budget balance, which includes changes in both unified budget cash flow and in interest on the publicly held debt.

These unified-budget estimates are based on the intermediate assumptions of the 2003 Trustees Report, including the trust-fund interest assumption, and thus are not consistent with projections made by CBO and OMB (which use different assumptions). However, differences in payroll and benefit estimates are not large during the first 10 projection years so these values can be viewed as very rough approximations of the magnitude of effects on the unified budget balances through this period.

Annual Cash Flows from the General Fund of the Treasury to the OASDI Trust Fund

Table 1c provides the estimated annual net cash flow from the General Fund of the Treasury to the OASDI Trust Funds. All values in these tables are expressed in constant 2003 dollars (i.e., dollar amounts that are indexed back to 2003 based on the CPI).

For comparison purposes, cash flow estimates are provided in table 1c for three different cases:

- The proposal described in this memorandum, assuming the 1.25 percent General Fund transfers starting in 2006;
- Present Law OASDI modified to allow borrowing from the General Fund to pay scheduled benefits; and
- Present Law OASDI where only benefits payable with current financing provisions are paid (no General Fund borrowing).

For each of these cases, three columns are provided. The first column shows estimates of the specified amount of transfers from the General Fund under the plan. The second column is the estimated total net cash flow from the General Fund to the Trust Funds under the plan, including transfers and borrowing. The third column is the total net cash flow for years starting with 2003 through the end of the given year, including accumulated interest cash flows for the period.

/s/

Chris Chaplain

/s/

Alice H. Wade

Attachments: 5

Table A--Estimated Long-Range OASDI Financial Effect of a Proposal Developed by
 Senator Lindsey Graham
 (Assumes universal participation in personal accounts—Option 1 of plan)

<u>Provision</u>	<u>Estimated Change in Long-Range OASDI Actuarial Balance ^{1/} (as a percent of payroll)</u>
Starting in 2009, successively reduce the PIA benefit formula factors by the measured real wage growth for the second prior year. Provide a minimum PIA for retiree and survivor benefits. Set the minimum PIA at 120 percent of the <i>Monthly Applicable Poverty Level</i> in 2011 for a 35-year worker (140 quarters of coverage). Grade the minimum PIA as a percentage of the <i>Monthly Applicable Poverty Level</i> down linearly until it reaches 0 percent of the poverty level for a 10-year worker (40QCs). The variable minimum PIA is phased in during 2007 through 2010 at 1/5, 2/5, 3/5, and 4/5 the fully phased in poverty level percentage. For survivors or workers dying before age 62, prorate the work years used in determining the percentage poverty level by multiplying by elapsed years/40. At conversion to retirement for disabled workers, provide a weighted average retirement benefit, using the current-law DI benefit and the proposal retirement benefit	2.06
Starting in 2006, provide widow(er)s a benefit option equal to 75 percent of the combined benefit that would be payable if both members of the couple were still alive. Limit amount payable based on the average PIA for retired workers in December of the previous year.....	-0.08
Credit all revenue from taxation of OASDI benefits to the OASDI Trust Funds by 2015 (phase in revenue redirection from HI to OASDI during the period 2006-2015).....	0.43
Starting in 2006, transfer 1.25 percent of payroll from the General Fund of the Treasury to the OASDI Trust Funds.....	<u>1.18</u>
Subtotal, basic provisions (including interaction).....	3.53
Establish a Social Security program that presents three choices for workers younger than 55 at the beginning of 2004 (all are assumed to choose Option 1):	
<ul style="list-style-type: none"> • Option 1: Invest 4 percent of redirected Social Security payroll taxes into personal accounts starting in 2006, up to \$1,300 (wage-indexed for future years). In exchange for the personal account, OASI benefits would be offset by an annuity based on the worker's account contributions compounded at an interest rate of 0.3 percent below the realized or expected market yield on long-term Treasury bonds. • Option 2: Worker chooses not to invest in personal accounts, but is subject to basic benefit changes under the proposal • Option 3: Present-law benefit levels would remain the same, but worker pays additional payroll taxes--calculated as the 75-year actuarial deficit as calculated based on the prior year Trustees Report and assuming all remained in the old system. Initially the payroll tax rate would be set as 14.4%, 2 percentage points higher than the current law rate. An automatic provision would raise the payroll tax further (by 0.25 percentage point increments) based on the 75-year actuarial deficit. This automatic increase would apply to everyone choosing this option plus those who have already chosen this option 	<u>-0.98</u>
Total for proposal	2.55

Note: All estimates are based on the intermediate assumptions of the 2003 OASDI Trustees Report.
^{1/} Totals for individual provisions exclude interaction.

Table 1--Financial Effects of the Senator Lindsey Graham Proposal Assuming a 100% Participation Rate

IA proceeds go to surviving spouse's individual account if worker dies before entitlement													
Ultimate Real Trust Fund Interest Rate				3.00						Assumed IA Participation Rate <u>1/</u>			
Ultimate Real IA Rate for Offset				2.70						100%			
Year	OASDI			TFR 1-1-yr	Marginal Changes in OASDI Contribution Rate		Net OASDI Contribution Rate	IA Contribution Rate <u>4/</u>			Total IA Contribution Rate		
	Cost Rate <u>2/</u>	Income Rate <u>3/</u>	Annual Balance		From IA Contributions	General Fund Transfers		From Trust Funds	Low-Income Subsidy from General Fund				
2003	10.89	12.70	1.81	288			12.40						
2004	10.82	12.69	1.88	309			12.40						
2005	10.73	12.70	1.97	330			12.40						
2006	10.73	11.59	0.85	349	-2.39	1.25	11.26	2.39	0.21		2.60		
2007	10.74	11.59	0.84	359	-0.04		11.22	2.43	0.21		2.64		
2008	10.81	11.59	0.79	368	-0.03		11.19	2.46	0.21		2.67		
2009	10.92	11.60	0.68	375	-0.03		11.16	2.49	0.21		2.70		
2010	11.05	11.62	0.57	380	-0.03		11.13	2.52	0.21		2.73		
2011	11.21	11.68	0.47	384	-0.02		11.11	2.54	0.21		2.76		
2012	11.39	11.72	0.33	388	-0.02		11.09	2.56	0.21		2.78		
2013	11.60	11.76	0.16	388	-0.02		11.07	2.58	0.21		2.80		
2014	11.82	11.80	-0.02	388	-0.02		11.05	2.60	0.21		2.81		
2015	12.04	11.84	-0.20	386	-0.01		11.04	2.61	0.21		2.83		
2016	12.29	11.86	-0.43	382	-0.01		11.03	2.62	0.21		2.84		
2017	12.55	11.88	-0.67	377	-0.01		11.02	2.63	0.21		2.85		
2018	12.81	11.91	-0.90	370	-0.01		11.01	2.64	0.21		2.86		
2019	13.06	11.93	-1.13	361	-0.01		11.00	2.65	0.21		2.86		
2020	13.31	11.96	-1.35	351	-0.01		10.99	2.66	0.21		2.87		
2021	13.57	11.98	-1.58	340	-0.01		10.99	2.66	0.21		2.88		
2022	13.79	12.01	-1.79	329	-0.01		10.98	2.67	0.21		2.88		
2023	13.98	12.03	-1.95	317	0.00		10.98	2.67	0.21		2.89		
2024	14.15	12.05	-2.10	304		0.00	10.97	2.68	0.21		2.89		
2025	14.30	12.07	-2.23	291			10.97	2.68	0.21		2.89		
2026	14.43	12.09	-2.33	278			10.97	2.68	0.21		2.89		
2027	14.53	12.12	-2.42	265			10.97	2.68	0.21		2.89		
2028	14.61	12.14	-2.48	251			10.97	2.68	0.21		2.89		
2029	14.66	12.16	-2.51	237			10.97	2.68	0.21		2.89		
2030	14.68	12.17	-2.51	224			10.97	2.68	0.21		2.89		
2031	14.67	12.19	-2.48	211			10.97	2.68	0.21		2.89		
2032	14.63	12.20	-2.43	198			10.97	2.68	0.21		2.89		
2033	14.56	12.21	-2.35	185			10.97	2.68	0.21		2.89		
2034	14.47	12.21	-2.26	173			10.97	2.68	0.21		2.89		
2035	14.36	12.22	-2.14	162			10.97	2.68	0.21		2.89		
2036	14.23	12.22	-2.00	151			10.97	2.68	0.21		2.89		
2037	14.08	12.22	-1.85	141			10.97	2.68	0.21		2.89		
2038	13.91	12.23	-1.68	132			10.97	2.68	0.21		2.89		
2039	13.73	12.23	-1.51	124			10.97	2.68	0.21		2.89		
2040	13.55	12.23	-1.32	116			10.97	2.68	0.21		2.89		
2041	13.36	12.22	-1.13	110			10.97	2.68	0.21		2.89		
2042	13.16	12.22	-0.94	105			10.97	2.68	0.21		2.89		
2043	12.97	12.22	-0.75	101			10.97	2.68	0.21		2.89		
2044	12.78	12.22	-0.56	98			10.97	2.68	0.21		2.89		
2045	12.59	12.22	-0.37	97			10.97	2.68	0.21		2.89		
2046	12.40	12.23	-0.18	97			10.97	2.68	0.21		2.89		
2047	12.22	12.23	0.01	99			10.97	2.68	0.21		2.89		
2048	12.04	12.23	0.19	102			10.97	2.68	0.21		2.89		
2049	11.84	12.23	0.39	107			10.97	2.68	0.21		2.89		
2050	11.66	12.24	0.58	114			10.97	2.68	0.21		2.89		
2051	11.49	12.24	0.75	123			10.97	2.68	0.21		2.89		
2052	11.34	12.25	0.91	133			10.97	2.68	0.21		2.89		
2053	11.19	12.26	1.07	145			10.97	2.68	0.21		2.89		
2054	11.05	12.26	1.22	159			10.97	2.68	0.21		2.89		
2055	10.90	12.26	1.36	175			10.97	2.68	0.21		2.89		
2056	10.76	12.27	1.50	192			10.97	2.68	0.21		2.89		
2057	10.62	12.27	1.65	212			10.97	2.68	0.21		2.89		
2058	10.48	12.27	1.79	234			10.97	2.68	0.21		2.89		
2059	10.35	12.27	1.93	258			10.97	2.68	0.21		2.89		
2060	10.21	12.28	2.06	284			10.97	2.68	0.21		2.89		
2061	10.08	12.28	2.19	313			10.97	2.68	0.21		2.89		
2062	9.96	12.28	2.32	344			10.97	2.68	0.21		2.89		
2063	9.84	12.28	2.44	377			10.97	2.68	0.21		2.89		
2064	9.73	12.28	2.55	412			10.97	2.68	0.21		2.89		
2065	9.62	12.28	2.66	450			10.97	2.68	0.21		2.89		
2066	9.52	12.28	2.76	490			10.97	2.68	0.21		2.89		
2067	9.42	12.28	2.86	532			10.97	2.68	0.21		2.89		
2068	9.33	12.28	2.95	577			10.97	2.68	0.21		2.89		
2069	9.24	12.28	3.04	624			10.97	2.68	0.21		2.89		
2070	9.15	12.28	3.13	673			10.97	2.68	0.21		2.89		
2071	9.06	12.28	3.21	725			10.97	2.68	0.21		2.89		
2072	8.98	12.27	3.29	780			10.97	2.68	0.21		2.89		
2073	8.90	12.27	3.37	837			10.97	2.68	0.21		2.89		
2074	8.82	12.27	3.45	896			10.97	2.68	0.21		2.89		
2075	8.75	12.27	3.52	958			10.97	2.68	0.21		2.89		
2076	8.67	12.26	3.59	1023			10.97	2.68	0.21		2.89		
2077	8.60	12.26	3.66	1091			10.97	2.68	0.21		2.89		
2078	8.52	12.26	3.73	1162			10.97	2.68	0.21		2.89		
	Summarized				Change in								
2003	Cost	Income	Actuarial		Actuarial Balance								
-2077	Rate	Rate	Balance		2.55								
	12.15	12.79	0.63										

Based on Intermediate Assumptions of the 2003 Trustees Report.
1/ Assumes that all workers will invest 4% in IAs up to \$1,300 (amount wage-indexed after 2006).
2/ Net of Benefit Cost Reductions from IA offsets.
3/ Includes specified transfers from the General Fund of the Treasury.
4/ Excludes any voluntary worker contributions.

Table 1b--IA Contributions, Offsets to OASDI Trust Funds from IAs, and Budget Effects

IA proceeds go to surviving spouse's individual account if worker dies before entitlement

Ultimate Real Trust Fund Interest Rate		3.00				
Ultimate Real IA Rate for Offset		2.70		Assumed IA Participation Rate		
					100%	
Year	Contributions to IA by Federal Government <u>1/</u>	Offset to OASI Benefits from IAs <u>2/</u>	Other Changes in OASDI Cash Flow	Change in Annual Unified Budget Cash Flow	Change in Debt Held by Public (end of year)	Change in Annual Unified Budget Balance
(In Billions of Constant 2003 Dollars)						
2004	0.0	0.0	0.0	0.0	0.0	0.0
2005	0.0	0.0	0.0	0.0	0.0	0.0
2006	123.7	0.0	-3.7	-127.4	131.2	-131.3
2007	128.4	0.0	-3.8	-132.1	271.5	-144.1
2008	132.9	0.0	-3.8	-136.7	420.9	-157.3
2009	137.2	0.0	-3.8	-141.0	579.4	-170.7
2010	141.2	0.0	-3.7	-144.8	746.7	-184.1
2011	145.0	0.8	-3.3	-147.5	921.7	-196.8
2012	148.5	1.8	-2.7	-149.5	1,104.1	-209.2
2013	152.1	2.9	-1.8	-151.0	1,293.3	-221.4
2014	155.4	4.3	-0.4	-151.6	1,488.8	-233.2
2015	158.6	5.8	1.4	-151.3	1,689.8	-244.3
2016	161.6	7.6	3.8	-150.2	1,895.5	-254.9
2017	164.6	9.6	6.7	-148.3	2,105.1	-264.8
2018	167.5	11.9	10.1	-145.6	2,318.2	-274.4
2019	170.4	14.4	14.0	-142.1	2,534.1	-283.4
2020	173.3	17.1	18.4	-137.7	2,752.0	-291.7
2021	176.1	20.1	23.4	-132.6	2,971.2	-299.3
2022	178.9	23.4	28.7	-126.8	3,190.9	-306.3
2023	181.7	27.0	34.4	-120.3	3,410.5	-312.6
2024	184.5	30.9	40.6	-113.0	3,629.3	-318.1
2025	187.0	35.0	47.2	-104.8	3,846.1	-322.5
2026	189.6	39.5	54.2	-95.9	4,060.2	-326.2
2027	192.2	44.3	61.8	-86.1	4,270.7	-328.8
2028	194.9	49.4	70.1	-75.4	4,476.6	-330.2
2029	197.7	54.9	78.6	-64.2	4,677.0	-330.8
2030	200.5	60.7	87.5	-52.3	4,871.2	-330.4
2031	203.4	66.8	96.7	-39.9	5,058.4	-329.1
2032	206.3	73.3	106.1	-26.9	5,237.9	-326.8
2033	209.3	80.1	115.8	-13.3	5,408.7	-323.4
2034	212.3	87.3	125.7	0.8	5,570.2	-319.0
2035	215.3	94.9	135.9	15.5	5,721.4	-313.4
2036	218.4	102.8	146.3	30.7	5,861.4	-306.7
2037	221.5	111.1	156.9	46.4	5,989.4	-298.7
2038	224.7	119.7	167.8	62.8	6,104.4	-289.5
2039	227.9	128.7	178.9	79.7	6,205.4	-278.8
2040	231.1	138.1	190.3	97.4	6,291.3	-266.6
2041	234.3	147.9	202.2	115.8	6,360.8	-252.7
2042	237.5	158.1	214.4	135.0	6,412.5	-237.0
2043	240.8	168.6	227.2	155.0	6,445.2	-219.5
2044	244.1	179.6	240.5	176.0	6,457.3	-199.8
2045	247.4	191.0	254.3	197.9	6,447.2	-178.0
2046	250.7	202.8	268.7	220.8	6,413.3	-153.8
2047	254.0	214.5	283.6	244.1	6,354.2	-127.7
2048	257.4	226.7	299.1	268.4	6,268.4	-99.2
2049	260.8	240.2	315.1	294.5	6,153.1	-67.3
2050	264.2	253.4	331.6	320.8	6,007.2	-33.4
2051	267.7	266.1	348.8	347.2	5,829.8	2.5
2052	271.2	277.9	366.4	373.2	5,620.3	39.7
2053	274.7	289.7	384.3	399.3	5,377.7	79.0
2054	278.3	301.4	402.6	425.7	5,100.5	120.5
2055	281.9	313.0	421.3	452.3	4,787.6	164.3
2056	285.6	324.5	440.3	479.2	4,437.7	210.5
2057	289.4	336.0	459.6	506.2	4,049.4	259.0
2058	293.2	347.3	479.0	533.1	3,621.8	309.6
2059	297.1	358.5	498.4	559.8	3,153.9	362.5
2060	301.0	369.5	517.9	586.5	2,644.4	417.6
2061	305.0	380.5	537.5	613.0	2,092.4	475.1
2062	309.0	391.2	557.5	639.7	1,496.2	535.2
2063	313.1	401.8	577.9	666.6	854.5	598.2
2064	317.2	412.2	598.5	693.5	165.8	663.8
2065	321.3	422.4	619.4	720.6	-571.5	732.4
2066	325.5	432.5	640.8	747.8	-1,358.8	804.0
2067	329.7	442.3	662.8	775.4	-2,198.3	879.0
2068	334.0	452.0	685.4	803.4	-3,091.7	957.5
2069	338.3	461.5	708.3	831.5	-4,040.9	1,039.2
2070	342.7	470.8	731.7	859.8	-5,047.8	1,124.6
2071	347.1	480.0	755.5	888.4	-6,114.3	1,213.5
2072	351.5	489.0	779.8	917.2	-7,242.4	1,306.2
2073	356.0	497.8	804.5	946.2	-8,434.3	1,402.8
2074	360.6	506.5	829.6	975.5	-9,692.1	1,503.4
2075	365.2	515.0	855.2	1005.0	-11,018.0	1,608.2
2076	369.8	523.5	881.2	1034.9	-12,414.5	1,717.4
2077	374.5	531.8	907.6	1064.9	-13,883.8	1,830.9
2078	379.3	540.1	934.4	1095.3	-15,428.4	1,949.0

1/ Includes low-income worker subsidies from the General Fund of the Treasury as well as redirection of payroll tax revenues.
2/ Represents reductions to OASDI benefit payments based on hypothetical accumulation of IAs at 2.7 percent real.
 Based on Intermediate Assumptions of the 2003 Trustees Report.

Table 1c--Cash Flow from the General Fund of the Treasury to the OASDI Trust Funds--Constant 2003 Dollars

IA proceeds go to surviving spouse's individual account if worker dies before entitlement									
Ultimate Real Trust Fund Interest Rate			3.00			Assumed IA Participation Rate			100%
Ultimate Real IA Rate for Offset			2.70						
<u>Estimate for Lindsey Graham Proposal</u>				<u>Estimate for Modified Present Law with Borrowing to Pay Scheduled Benefits</u>			<u>Estimate for Present Law with Only Payable Benefits</u>		
Year	Specified Transfers to Trust Funds 1/	Net Cash Flow from General Fund to Trust Funds	Total to End Of Year with Interest	Borrowing Needed In Year 2/	Net Annual Cash Flow from General Fund	Total to End Of Year with Interest	Borrowing Needed In Year 2/	Net Annual Cash Flow from General Fund	Total to End Of Year with Interest
	(billions of Constant 2003\$)			(billions of Constant 2003\$)			(billions of Constant 2003\$)		
2003	0	-79	-82	0	-79	-82	0	-79	-82
2004	0	-84	-172	0	-84	-172	0	-84	-172
2005	0	-91	-271	0	-91	-271	0	-91	-271
2006	60	19	-261	0	-97	-380	0	-97	-380
2007	63	20	-249	0	-100	-494	0	-100	-494
2008	65	23	-233	0	-99	-612	0	-99	-612
2009	68	29	-210	0	-96	-731	0	-96	-731
2010	71	36	-180	0	-92	-848	0	-92	-848
2011	75	41	-143	0	-86	-963	0	-86	-963
2012	78	50	-96	0	-77	-1,072	0	-77	-1,072
2013	81	60	-38	0	-66	-1,173	0	-66	-1,173
2014	85	70	33	0	-54	-1,264	0	-54	-1,264
2015	89	82	118	0	-39	-1,343	0	-39	-1,343
2016	91	96	221	0	-23	-1,406	0	-23	-1,406
2017	93	111	342	0	-5	-1,453	0	-5	-1,453
2018	95	126	482	0	15	-1,482	0	15	-1,482
2019	97	142	642	0	35	-1,490	0	35	-1,490
2020	99	157	824	0	56	-1,477	0	56	-1,477
2021	101	174	1,027	0	79	-1,440	0	79	-1,440
2022	104	189	1,253	0	101	-1,379	0	101	-1,379
2023	106	202	1,498	0	122	-1,295	0	122	-1,295
2024	108	214	1,764	0	142	-1,187	0	142	-1,187
2025	110	225	2,049	0	163	-1,055	0	163	-1,055
2026	112	235	2,353	0	183	-899	0	183	-899
2027	114	244	2,675	0	203	-717	0	203	-717
2028	116	251	3,014	0	222	-510	0	222	-510
2029	118	257	3,369	0	240	-279	0	240	-279
2030	121	261	3,739	0	256	-23	0	256	-23
2031	123	263	4,122	0	272	256	0	272	256
2032	125	263	4,516	0	286	558	0	286	558
2033	127	261	4,920	0	298	882	0	298	882
2034	129	258	5,333	0	310	1,228	0	310	1,228
2035	131	253	5,754	0	320	1,595	0	320	1,595
2036	133	246	6,180	0	330	1,982	0	330	1,982
2037	135	238	6,610	0	338	2,390	0	338	2,390
2038	137	228	7,043	0	346	2,818	0	346	2,818
2039	139	218	7,479	0	353	3,265	0	353	3,265
2040	141	206	7,915	0	359	3,733	0	359	3,733
2041	143	193	8,352	0	366	4,222	0	366	4,222
2042	145	180	8,788	74	373	4,732	0	366	4,222
2043	147	167	9,223	380	380	5,265	0	298	882
2044	149	153	9,657	387	387	5,822	0	0	4,940
2045	151	139	10,090	396	396	6,405	0	0	5,088
2046	153	124	10,520	405	405	7,014	0	0	5,240
2047	155	109	10,948	414	414	7,651	0	0	5,398
2048	157	94	11,374	424	424	8,317	0	0	5,560
2049	159	78	11,795	435	435	9,015	0	0	5,726
2050	162	62	12,213	446	446	9,744	0	0	5,898
2051	164	46	12,627	458	458	10,508	0	0	6,075
2052	166	32	13,039	471	471	11,308	0	0	6,257
2053	168	18	13,448	484	484	12,146	0	0	6,445
2054	171	4	13,855	497	497	13,022	0	0	6,638
2055	173	-11	14,260	510	510	13,938	0	0	6,838
2056	176	-25	14,662	524	524	14,895	0	0	7,043
2057	178	-39	15,061	537	537	15,895	0	0	7,254
2058	181	-54	15,457	550	550	16,938	0	0	7,472
2059	183	-69	15,850	563	563	18,026	0	0	7,696
2060	186	-84	16,239	575	575	19,159	0	0	7,927
2061	188	-99	16,624	588	588	20,339	0	0	8,164
2062	191	-114	17,005	601	601	21,568	0	0	8,409
2063	193	-128	17,383	614	614	22,848	0	0	8,662
2064	196	-142	17,758	628	628	24,180	0	0	8,921
2065	198	-156	18,130	642	642	25,566	0	0	9,189
2066	201	-170	18,500	657	657	27,009	0	0	9,465
2067	204	-183	18,866	672	672	28,512	0	0	9,749
2068	206	-196	19,230	687	687	30,075	0	0	10,041
2069	209	-209	19,591	703	703	31,701	0	0	10,342
2070	212	-222	19,950	719	719	33,393	0	0	10,653
2071	214	-235	20,306	736	736	35,153	0	0	10,972
2072	217	-248	20,659	753	753	36,983	0	0	11,301
2073	220	-261	21,010	770	770	38,885	0	0	11,640
2074	222	-274	21,359	787	787	40,863	0	0	11,990
2075	225	-287	21,704	805	805	42,918	0	0	12,349
2076	228	-299	22,047	823	823	45,052	0	0	12,720
2077	230	-312	22,387	840	840	47,270	0	0	13,101

1/ Includes the General Fund transfer of 1.25% of taxable payroll beginning in 2006 and redirection of taxation of benefit revenues from the HI Trust Fund to the OASDI Trust Funds.
 2/ Trust Funds are assumed to borrow from the General Fund of the Treasury.