# Social Security 

## Memorandum

Date: December 19, 2001
To: Representative Jim DeMint
From: Steve Goss, Chief Actuary
Subject: Estimated Financial Effects of the "Social Security Ownership and Guarantee Act of 2001" --INFORMATION

This memorandum presents estimates for the plan sponsored by you and Representative Armey. Our understanding of the intent of this plan comes as a result of working with Matt Hoskins of your staff.

This plan would establish voluntary, progressive individual accounts for workers who are under age 55 on January 1, 2003 and provide for an offset against their Social Security retirement and aged survivor benefits. Individual account (IA) assets would be invested by individual workers through the Personal Savings Board (PSB) with a specified allocation 60 percent in broad indexed equity funds and 40 percent in bonds issued by the Federal government. At least partial annuitization of the IA accumulation would be required at retirement.

The benefit offset would be based on the amount of the full annuity that would be available through the PSB at retirement. The offset would initially be at a level of 90 percent of the available full annuity, providing an incentive for early participation. The offset rate would rise gradually to 100 percent over roughly 40 years as the program matures. As the program matures and workers are able to make IA contributions throughout their careers, the likelihood that the full IA annuity would exceed the scheduled OASI benefit would increase, thus maintaining an incentive to participate. The ability of the Social Security trust funds to meet benefit obligations would be maintained through a combination of transfers from the General Fund of the Treasury and special Social Security Transition (SST) Bonds issued to individual accounts.

Under the plan specifications and assumptions described below the Social Security program would be expected to meet its benefit obligations throughout the long-range period 2001 through 2075. All estimates are based on the intermediate assumptions of the 2001 Trustees Report plus additional assumptions described below.

## Plan Specification

## Individual Accounts

Starting in 2003, workers who have not yet reached their $55^{\text {th }}$ birthday as of January 1, 2003 and have earnings in OASDI (Social Security) covered employment will have a portion of their payroll tax contribution (12.4 percent of taxable earnings in total) redirected from the OASDI Trust Funds to an individual account. The percentage of taxable earnings to be redirected will vary based on a linear, progressive scale, with 8 percentage points redirected for a worker with $\$ 1$ of earnings, and 3 percentage points redirected for a worker with maximum taxable earnings (\$80,400 for 2001). See Table A attached. The progressive scale for IA contributions redirected from the OASDI Trust Funds is estimated to amount to about 5.1 percentage points of the 12.4 percent payroll tax rate on average. The total amount redirected from the OASDI contribution rate indicated in Table 1a is less than 5.1 percent of payroll for years through 2026, because workers age 55 and older at the beginning of 2003 have no IA contributions.

While the plan would offer the IA as an option, the nature of the plan will provide a high likelihood that available retirement benefits will be higher than if the option is not selected. In addition, the plan would guarantee that total potential retirement benefits for each worker who selects the option and selects full annuitization would be at least as large as benefits scheduled under current law for Social Security. Thus, participation is assumed to be universal for estimates presented in this memorandum.

IA contributions directed to the IA of a worker based on a year's earnings are not determinable until earnings are reported to and tabulated by the Social Security Administration. Because this reporting is made by employers on an annual basis after the end of the calendar year, amounts for individual workers are not determinable for somewhat over a year, on average, after the date on which earnings are paid. Under the proposal, IA contributions would be credited to the individual accounts as soon as current reporting permits, with amounts increased by the equivalent of a money-market yield from June 30 of the year of earnings to the point of crediting to the workers account. The real money-market yield is assumed to average 2 percent, or about 1 percentage point below the yield on special bonds issued to the Trust Funds.

Under the plan, individual account (IA) assets, once credited, would be automatically invested by workers through the Personal Savings Board (PSB). IA balances would be maintained with 60 percent in one or more specified broad index funds consisting of private equities for corporations based in the United States (such as the Wilshire 5000) and 40 percent in long-term bonds issued by the Federal government. Initially the bond portion of assets would be invested in special Social Security Transition (SST) Bonds. Due to the nature of the accounts, an ultimate administrative cost of 0.1 percent of assets is assumed to be reasonable.

## IA Disbursements and Annuitization

At retirement, the worker would have two annuitization options for IA balances. The first option would provide for full annuitization of all IA assets in a CPIindexed life annuity administered by the PSB. The annuity would be computed at retirement based on an assumption of investment of 60 percent in a broad equity index and 40 percent in long-term Federal bonds, with an assumed administrative expense of 0.3 percent of assets each year. Assets held by the PSB would, in fact, be invested 60 percent in equities and 40 percent in Federal bonds. The annuity would be computed using the assumed long-term future returns on equities and long-term Federal bonds as determined by the PSB at the time of annuitization. This PSB would assume all risk associated with guaranteeing this yield on life annuities, regardless of what actual investment returns turn out to be. The PSB would be backed by the Treasury of the United States government. Thus, the General Fund of the Treasury would provide the "insurance" that the full amount of the annuity will be paid for life regardless of actual investment returns.

Under the second option available at retirement, 40 percent of accumulated IA assets would be required to be used to purchase special CPI-indexed life annuities administered by the PSB that would have a yield based on having all assets invested in long-term Federal bonds. If this annuity plus the Social Security benefit, reduced by the offset under this provision, provide a total monthly income that is less than the poverty level, then additional assets in the IA will be required to be annuitized in order to bring the total monthly payment up to the poverty level. If less than the total amount of IA assets are annuitized, the balance of IA assets may be disbursed or held as the retired worker wishes. All disbursements from IAs after retirement are considered to be Social Security benefits for the purpose of Federal income taxation, with revenue directed to the OASI, DI and HI trust funds as under current law.

Upon entitlement to retirement or aged survivor benefits under the current rules of the OASDI program, a monthly CPI-indexed annuity amount based on either full annuitization or at least 40 percent of assets (at the option of the retiree) would be computed by the Personal savings Board. The annuity would reflect all potential benefits that might be payable under the OASDI program (i.e., retired worker, spouse, child, widow(er), and surviving spouse benefits). Annuity calculations would be made at benefit entitlement based on the then-current expected long-range future yield on invested assets and the then-current expected future death rates for the potential beneficiaries.

For individuals who die before receiving retirement (retired worker or aged spouse) benefits, the IA assets will be transferred to the account of the surviving spouse, if any, but will be allocated as needed to provide annuities for any surviving children of the deceased. If there are no survivors, and the worker dies before retiring, then the account balance goes to the worker's estate, tax free.

## Social Security Benefit Offset

OASI retirement and aged survivor benefits will be reduced (offset) based on the amount of the annuity that was available under the full-annuitization option whether this option was selected or not. Benefits payable to disabled workers, to their dependents, and to survivors other than surviving spouse beneficiaries at age 60 or older are not subject to offset.

For workers 24 and under in 2003, OASI benefits will be reduced (offset) $\$ 1$ for each $\$ 1$ of total potential annuity payment (assuming full annuitization had been selected). For workers age 54 on January 1, 2003, OASDI benefits will be reduced by $\$ 0.90$ for each $\$ 1$ of IA potential annuity. For workers at ages 25, 26, ... , 53 in 2003, a linear scale of reduction will be applied, equal to $\$ 0.9967$, $\$ 0.9933, \ldots, \$ 0.9033$ for each $\$ 1$ of potential IA annuity, respectively.

## Social Security Transition Bonds

The Social Security Transition (SST) Bonds would be issued by the OASDI Trust Funds, or on behalf of the Trust Funds (by the Department of the Treasury). Money invested in SST Bonds would be deposited in the OASDI Trust Funds. SST Bonds would be assigned the same interest rate that is applicable to special obligations of the Treasury newly issued to the OASDI Trust Funds, i.e., the average market yield on all marketable U.S. Treasury securities with a remaining duration to maturity over 4 years.

The proportion of the non-equity assets in IAs and special annuity accounts would be gradually shifted from SST Bonds to marketable long-term U.S. Treasury securities, as quickly as possible (after transfers from the General Fund of the Treasury to the trust funds are no longer expected to be needed) while maintaining a non-negative cash flow from the Trust Funds to the General Fund of the Treasury (see Table 1c). A percentage would be determined annually for the amount of total IA and annuity assets that would be held in SSA Bonds. When this percentage is lower than 40 percent, the difference would be invested in marketable Treasury securities. For those selecting the full-annuitization option, assets would be invested as are assets for individual accounts. For those selecting the optional partial annuitization, all assets would be initially held in SST Bonds. As the percentage of IA assets and full-annuity assets required to be held in SST Bonds is reduced below 40 percent, the percentage of assets for the partial annuity that would be held in SST Bonds would be reduced below 100 percent, on a proportionate basis (i.e., by 2.5 percentage points below 100 percent for each 1-percentage-point reduction below 40 percent).

If tax revenue for the OASDI program is expected to be insufficient to pay program benefits for any year after the percentage of IA assets held in SST Bonds has been reduced below 40 percent, then this percentage will be
increased for the following year in order to provide sufficient revenue for full payment of benefits, but to no higher than 40 percent of IA assets.

## Personal Savings Board

The IA assets and special annuity assets (at least 40 percent of accumulated IA assets being required to have been annuitized) of all workers will be managed with a single entity, the Personal Savings Board (PSB), maintaining records and issuing periodic statements to account holders. The IA management would be based on the design of the government employee Thrift Savings Plan (TSP), with limited reporting requirements. Assets would be invested in bulk with large financial institutions. Through this approach it is assumed that IA administrative costs can be expected to be modest, ultimately around 0.1 percent of IA assets for each account holder, as for the TSP. This might require some Federal subsidy in early years for the IA, when account balances are low and start-up costs are incurred.

## General Fund Transfers to the Trust Funds

The OASDI Trust Funds will receive transfers from the General Fund of the Treasury as needed in any future year sufficient to maintain Trust Fund cash holdings at a minimum level equal to about one year's estimated net OASDI cost (net of benefit reductions under the plan). Trust Fund cash holdings include revenue "invested" in the Trust Funds by IAs in the form of SST Bonds. The amount of General Fund transfer for each calendar year would be determined by the end of the preceding year by the Social Security Administration based on the intermediate estimates included in the Trustees most recent Annual Report. General Fund transfers will be required only after the portion of IA assets held in SST Bonds has been set at 40 percent.

## Assumptions

The nature of the guarantee that participants in the voluntary option for individual accounts would receive under this proposal would assure that their total benefits will be no lower than if they do not exercise the option, but may well be higher. As a result, universal participation for eligible workers has been assumed for estimates presented in this memorandum.

As indicated above, estimates provided in this memorandum are based on the intermediate assumptions of the 2001 Trustees Report. In addition, the longterm ultimate average annual real yield assumed for equities is 6.5 percent. This is slightly lower than the expected real equity yield used for estimates produced by the Office of the Chief Actuary over the last several years.

A consensus is forming among economists that equity pricing as indicated by price-to-earnings ratios may average somewhat higher in the long-term future
than in the long-term past. This is consistent with broader access to equity markets and the belief that equities may be viewed as somewhat less "risky" in the future than in the past. Equity pricing will vary in the future as in the past. Price-to-earnings ratios were very high in the recent past, and are now lower. The average ultimate real equity yield assumed for estimates in this memorandum is consistent with an average ultimate level of equity pricing somewhat above the average level of the past. The extent of this ultimate change is unknown, but it is consistent with assuming a real equity yield somewhat below the long-range past average of about 7 percent.

The assumption for an ultimate real equity yield of 7 percent that was used until this year was developed in 1995 with the 1994-6 Advisory Council. At the time, the Trustees assumption for the ultimate average real yield on long-term Treasury bonds was 2.3 percent at the time. Real yields on corporate bonds are believed to bear a close relationship to Treasury bond yields of similar duration. The 2001 Trustees Report includes the assumption that the ultimate real yield on long-term Treasury bonds will average 3 percent, or 0.7 percentage point higher than in 1995. This increase in the assumed bond yield is consistent with a reduction in the perceived risk associated with equity investments.

## Financial Effects of the Plan

Table 1a indicates that under intermediate assumptions for the future, GeneralFund transfers specified under the plan would be needed to keep the trust fund ratio from falling below 100 percent of annual expenditures starting 2019 and continuing through 2047. While the "cash position" of the Trust Funds would be positive throughout the long-range period, meaning that benefits would be payable in all years, the "net assets" of the Trust Funds would be negative after 2013 because of SST Bonds issued to the IAs are effectively loans to the Trust Funds. As a result, the OASDI actuarial balance is projected to be -1.16 percent of taxable payroll. However, the proportion of IA and annuity assets that would be held in SST bonds would be expected to start declining around 2051, declining from 40 percent in the initial years of the plan and reaching about 35 percent by 2076. As this proportion would be expected to continue declining under the intermediate assumptions, the plan would be moving toward paying off the debt financing provided through SST bonds.

Tables 1 b1 provides an analysis of the cash position of Trust Fund reserves, and of net OASDI Trust Fund assets. For purpose of comparison, the net OASDI Trust Fund assets are also shown for a theoretical Social Security program where borrowing authority is assumed for the Trust Funds. (The theoretical Social Security program with borrowing authority is presented both with and without the General Fund transfers expected under this plan, as shown in table 1a.) As indicated in Table 1a, the percentage of IA and annuity assets held in SST Bonds would be expected to begin declining below 40 percent in 2051.

Table 1b2 Provides estimates of the effect on federal unified budget cash flows and balances under this plan and these assumptions. The effect on unified budget cash flow would be expected to be negative initially, but positive starting 2039. It is important to note that these estimates are based on the intermediate assumptions of the 2001 Trustees report and thus are not consistent with estimates made by the OMB or the CBO based of their assumptions.

Table 1c provides estimates of the net cash flow from the OASDI Trust Funds to the General Fund of the Treasury. Revenue transferred from the Treasury to the Trust Funds for the redemption of the special-issue Treasury obligations held by the Trust Funds is included here as a negative cash flow to the General Fund. Values in Table 1c are shown as a percent of taxable payroll, in current dollars, in present value dollars as of 1/1/2001, and in constant 2001 dollars (discounted to 2001 with the projected growth in the CPI). For comparison purposes, net cash flow is also shown for a theoretical Social Security program where transfers from the General Fund of the Treasury to the OASDI Trust Funds are assumed to occur as needed to assure full payment of scheduled benefits in 2038 and later.

Table 1d provides estimates of the percentage of potential aggregate retirement benefits (OASI benefits plus IA annuities assuming all participate in the IA and all select full annuitization) that would be provided by the IA annuities. Under the assumptions stated above, this percentage would be expected to reach 80 percent by 2073.

Table 1e provides a comparison of total expected benefits from: (1) OASDI under current-law scheduled benefit formulas, (2) OASDI with benefits limited to the amount that is expected to be payable under current law after the trust funds are exhausted in 2038, (3) OASDI benefits under the DeMint proposal, reflecting benefit offsets assuming all participate in the IA, and (4) total OASDI and IA potential benefits under the DeMint proposal assuming all participate and select full annuitization. Amounts for the latter three are also shown as a percentage of scheduled OASDI benefits under current law.

## Sensitivity Analysis

Tables 2, 3, and 4 provide analyses of the implications of realizing actual real yields on accounts that are one percent higher than expected (Table 2), one percent lower than expected (Table 3), and the same level as assumed for longterm Treasury bonds (Table 4). Table 4 illustrates the case where either the average real yield on equities is no higher than on bonds, or the illustration of a risk-adjusted return on equities. In each case, the "expected" yield on annuitized assets is assumed to match the actual yield, on average. It should be noted that while average real yields for equities below 3 percent occur for periods of a decade or so, the likelihood of having such a low average yield for a period of several decades seems extremely low. The sensitivity analysis with a 1-percent
lower average yield for the total portfolio would be consistent with a bond yield as expected plus an equity yield that is $12 / 3$ percent lower than expected, or about 4.8 percent real. A rate this low should be expected to be very unlikely over a longer range period, like 50 to 75 years, based on historical experience. Thus, the likelihood that the financing of the OASDI program over the next 75 years would differ by as much as indicated in these sensitivity analyses is low. Similarly, long-term average real equity yields well above 6.5 percent are also possible, but unlikely. Universal participation in the IA and full annuitization by all are assumed for these sensitivity analyses.

Table 2a indicates the possibility of substantially smaller General Fund transfers for fewer years (2020 through 2038) under the plan if IA yields are above expectations. Tables 3 a and 4 a indicate substantially higher transfers would be needed from the General Fund of the Treasury, starting 2018 and 2017, respectively, and lasting indefinitely. The percentage of IA and annuity assets held in SST Bonds would be expected to drop below 21 percent by 2076 with the higher yields in Table 2, but not be expected to be reduced below 40 percent for the lower yields in Tables 3 and 4.

It must be noted that the uncertainties associated with equity investments, bond yields, and mortality improvement, as well as with a number of additional variables means that actual experience could vary from the illustrations provided in Tables 1, 2, 3, and 4. In any case, the DeMint plan would provide for adequate financing for the OASDI program through the provisions described above.

## Expected IA Annuity Payments Relative to OASDI Benefit Levels

## Methodology

For the purpose of this analysis, individuals are assumed to have taken the fullannuitization option. Values in the "Monthly Annuity" Tables 3 and 4 provide the expected level of a CPI-indexed, monthly life annuity from an individual account accumulation, expressed as a percentage of the scheduled monthly Social Security benefit under present law for several hypothetical cases. These estimates are indicated as preliminary because they may tend to overstate the level of monthly payment that can be provided from individual account asset accumulations somewhat. (See discussion of mortality below).

For these hypothetical cases, earnings and IA contributions are assumed to begin at age 21 ( 22 for steady maximum workers), or in the year 2003 if later. Contributions are assumed to be at the formula rate based on each worker's earnings that are taxable under the OASDI program. IA contributions apply only for individuals 54 or younger at the beginning of 2003, so those reaching age 65 in 2013 and later are all assumed to participate. Individuals reaching age 65 in

2012 would not participate, but values for them are included in the tables in order to illustrate the limit of IA annuities at the oldest ages. All annuities for married couples are assumed to be joint, with the survivor receiving two thirds of the monthly payment that is provided while both spouses are alive.

Four illustrative earnings levels are included. The "scaled" low, medium, and high earners have earnings patterns that reflect the relative probability of work and relative level of earnings by age during the period 1988-97. The absolute level of earnings in each case was set so that the Social Security PIA would be equal to that for a "steady" earner with low, average, and high earnings, respectively, in each year prior to retirement. For the steady average earner, the earnings level is the SSA average wage index (AWI) level for each year. For the steady low earner, earnings at 45 percent of the AWI are assumed. For the steady high earner, earnings at 160 percent of the AWI are assumed. The steady maximum worker is assumed to have earnings equal to the SSA taxable maximum each year prior to retirement. While these cases are hypothetical, the PIA for the medium (or steady average) earner is close to the median PIA for retired worker beneficiaries. See Social Security Administration Actuarial Note Number 144 for a full description of these hypothetical cases.

These two tables provide projected ratios of potential monthly life annuity from the IA (assuming full annuitization) to the scheduled OASDI benefit under present law, for single and married workers, respectively. IA assets for individuals are assumed to be invested 60 percent in stock, and account balances are assumed to be used to purchase a life annuity at retirement (assumed at age 65). Four cases are illustrated in four columns of values.

Values in the first column reflect the expected returns under the intermediate assumptions. These assume the expected ultimate average real yield on equities at 6.5 percent with a net real yield on IA assets of 5.0 percent (with 60 percent in equities, 40 percent in Federal bonds, and an administrative expense of 0.1 percent). Life annuities are assumed to reflect a real yield (valuation interest rate) of 4.8 percent, based on investment 40 percent in equities and an administrative expense of 0.3 percent of assets.

The second column in these illustrations, is a case where total annual real returns on IA assets and annuities are assumed to be 1 percentage point higher than under the intermediate assumptions. This is consistent with the sensitivity analysis shown in Table 2a. To achieve this higher yield within the model, a higher percentage of the portfolio was indicated as being in equities (even though this is not permitted in the plan), but the case is intended to illustrate the effect of a higher yield for any reason.

The third and fourth columns in these illustrations illustrate the implications of lower yields, consistent with the assumptions in Tables 3a and 4a, respectively.

Table A3 provides estimated accumulated IA assets at age 65, just prior to annuitization for the cases described above. Estimates are provided in both current dollars and constant 2001 dollars.

## Mortality Assumption

Mortality for the individual account annuities calculated here is assumed to be the average for the total U.S. population, for all income levels. In fact, if individual account annuities were to be provided at retirement for individual account accumulations, the expected mortality experience of annuitants, weighted by amount of assets to be annuitized, would be better (lower death rates) than for the general population. Individuals with lower accumulated assets due to lower lifetime earnings, or disability prior to retirement, tend to have higher mortality, all else being equal. Thus, the use of general-population mortality in these illustrations tends to understate the weighted life expectancy of annuitants, and overstate the size of the monthly annuity from individual account accumulations.

The tendency to overstate the size of payments from annuities is much greater if these illustrations are used in the analysis of a voluntary plan where higherincome and healthier individuals would be expected to be more likely to participate in annuitization.


Stephen C. Goss

Table A. Individual Account Contributions for Workers in 2001
DeMint Contrib Rt:
8 \% for \$1, 3 \% for Max

| Level of <br> Annual <br> OASDI | PSA <br> Taxable <br> Earnings | Contribution <br> as a <br> Percentage <br> of Earnings |
| ---: | ---: | ---: |
| $\$ 1,000$ |  | Pontribution <br> in Dollar <br> Amount |
| 5,000 | $7.94 \%$ |  |
| 10,000 | $7.69 \%$ | $\$ 79.38$ |
| 20,000 | $7.38 \%$ | 384.45 |
| 30,000 | $6.76 \%$ | 737.81 |
| 40,000 | $6.13 \%$ | $1,351.24$ |
| 50,000 | $5.51 \%$ | $1,840.30$ |
| 60,000 | $4.89 \%$ | $2,204.98$ |
| 70,000 | $4.27 \%$ | $2,445.27$ |
| 80,400 (taxable maximum) | $3.65 \%$ | $2,561.19$ |
|  | $3.00 \%$ | $2,552.74$ |
| 15,156 (Low = 45\% of AWI | $7.06 \%$ | $2,412.00$ |
| 33,680 (Average = AWI) | $5.91 \%$ |  |
| 38,100 (1/2 taxable maximum) | $5.63 \%$ | $1,069.64$ |
| 53,889 (High = 160\% of AWI | $4.65 \%$ | $1,988.98$ |
| 64,320 (Peak \$ Contrib) | $4.00 \%$ | $2,145.26$ |
|  |  | $2,505.13$ |
|  |  | $2,572.80$ |

OCACT/SSA December 16, 2001


Table 1
b1 OASDI Trust Fund under Proposal (Cash Reserve and Assets Net of Borrowing from IAs), Individual Account Assets, and Theoretical OASDI Assets

|  | Total OASDI Trust Fund | SST Bonds | nvested in the | Trust Funds | Net OASDI TF Assets | Individual | Theoretic | Social Security*** orrowing Authority |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cash | Interest | Purchase | Accumulated | at End of Yr: | Account | Net OASD | Assets End of Yr |
| Calendar | Reserve* | Earned | (Sale) ** | Value at | Net of Borrowing | Assets *** | Without GF | With GF Transfer |
| Year | at End of Yr <br> (1) | in Year (2) | During Year <br> (3) | at End of Yr <br> (4) | Through SST Bonds (5) | at End of Yr <br> (6) | Transfer <br> (7) | (see Table 1a) (8) |
|  |  | Onstant 200 | Dollars |  | Billions | Constant 2001 | Dollars |  |
| 2001 | 1,198 |  |  | 0 | 1,198 |  | 1,198 | 1,198 |
| 2002 | 1,338 | 0.0 | 0.0 | 0 | 1,338 | 0 | 1,338 | 1,338 |
| 2003 | 1,372 | 2.3 | 68.4 | 70 | 1,303 | 174 | 1,482 | 1,482 |
| 2004 | 1,396 | 6.8 | 76.5 | 150 | 1,246 | 374 | 1,628 | 1,628 |
| 2005 | 1,415 | 11.9 | 80.7 | 236 | 1,179 | 590 | 1,776 | 1,776 |
| 2006 | 1,429 | 17.4 | 85.1 | 329 | 1,100 | 823 | 1,924 | 1,924 |
| 2007 | 1,438 | 23.3 | 89.5 | 430 | 1,008 | 1,075 | 2,074 | 2,074 |
| 2008 | 1,439 | 29.7 | 93.6 | 537 | 902 | 1,344 | 2,221 | 2,221 |
| 2009 | 1,432 | 36.5 | 97.9 | 652 | 779 | 1,632 | 2,366 | 2,366 |
| 2010 | 1,415 | 43.8 | 101.5 | 775 | 641 | 1,938 | 2,506 | 2,506 |
| 2011 | 1,389 | 51.7 | 105.5 | 905 | 485 | 2,263 | 2,642 | 2,642 |
| 2012 | 1,350 | 60.1 | 109.2 | 1,042 | 308 | 2,608 | 2,769 | 2,769 |
| 2013 | 1,297 | 69.0 | 112.9 | 1,188 | 109 | 2,973 | 2,886 | 2,886 |
| 2014 | 1,228 | 78.5 | 116.6 | 1,342 | -114 | 3,359 | 2,991 | 2,991 |
| 2015 | 1,143 | 88.6 | 119.6 | 1,504 | -361 | 3,765 | 3,082 | 3,082 |
| 2016 | 1,040 | 98.9 | 122.5 | 1,674 | -634 | 4,191 | 3,158 | 3,158 |
| 2017 | 918 | 109.7 | 125.4 | 1,852 | -933 | 4,637 | 3,216 | 3,216 |
| 2018 | 777 | 121.0 | 128.0 | 2,038 | -1,260 | 5,104 | 3,255 | 3,255 |
| 2019 | 786 | 132.9 | 130.6 | 2,232 | -1,446 | 5,592 | 3,274 | 3,445 |
| 2020 | 810 | 145.2 | 133.0 | 2,434 | -1,624 | 6,101 | 3,273 | 3,649 |
| 2021 | 835 | 158.0 | 135.3 | 2,645 | -1,810 | 6,631 | 3,251 | 3,854 |
| 2022 | 852 | 171.4 | 137.3 | 2,864 | -2,012 | 7,183 | 3,209 | 4,047 |
| 2023 | 872 | 185.3 | 139.0 | 3,092 | -2,219 | 7,756 | 3,146 | 4,242 |
| 2024 | 886 | 199.7 | 140.4 | 3,328 | -2,442 | 8,351 | 3,063 | 4,427 |
| 2025 | 900 | 214.6 | 141.6 | 3,572 | -2,672 | 8,967 | 2,959 | 4,608 |
| 2026 | 917 | 230.0 | 142.5 | 3,824 | -2,908 | 9,605 | 2,834 | 4,785 |
| 2027 | 931 | 246.0 | 143.2 | 4,085 | -3,154 | 10,265 | 2,688 | 4,955 |
| 2028 | 938 | 262.4 | 143.3 | 4,354 | -3,415 | 10,947 | 2,522 | 5,111 |
| 2029 | 948 | 279.4 | 143.1 | 4,630 | -3,682 | 11,649 | 2,338 | 5,260 |
| 2030 | 950 | 296.8 | 142.5 | 4,915 | -3,965 | 12,372 | 2,134 | 5,391 |
| 2031 | 956 | 314.7 | 141.6 | 5,207 | -4,250 | 13,116 | 1,912 | 5,517 |
| 2032 | 957 | 333.1 | 140.1 | 5,506 | -4,549 | 13,881 | 1,672 | 5,626 |
| 2033 | 953 | 351.9 | 138.7 | 5,813 | -4,860 | 14,666 | 1,415 | 5,717 |
| 2034 | 953 | 371.2 | 137.3 | 6,127 | -5,175 | 15,471 | 1,143 | 5,800 |
| 2035 | 945 | 391.0 | 135.4 | 6,450 | -5,504 | 16,295 | 856 | 5,861 |
| 2036 | 939 | 411.3 | 133.1 | 6,779 | -5,840 | 17,138 | 556 | 5,908 |
| 2037 | 927 | 432.0 | 130.3 | 7,116 | -6,188 | 17,998 | 242 | 5,933 |
| 2038 | 919 | 453.1 | 126.9 | 7,459 | -6,540 | 18,876 | -85 | 5,943 |
| 2039 | 908 | 474.6 | 123.1 | 7,809 | -6,901 | 19,770 | -424 | 5,931 |
| 2040 | 894 | 496.5 | 118.6 | 8,165 | -7,271 | 20,679 | -776 | 5,896 |
| 2041 | 877 | 518.8 | 113.4 | 8,526 | -7,649 | 21,603 | -1,141 | 5,837 |
| 2042 | 865 | 541.4 | 107.6 | 8,892 | -8,027 | 22,538 | -1,520 | 5,758 |
| 2043 | 848 | 564.3 | 101.0 | 9,262 | -8,415 | 23,485 | -1,914 | 5,652 |
| 2044 | 840 | 587.4 | 94.3 | 9,637 | -8,798 | 24,442 | -2,324 | 5,531 |
| 2045 | 825 | 610.8 | 86.8 | 10,016 | -9,191 | 25,409 | -2,751 | 5,380 |
| 2046 | 802 | 634.4 | 78.4 | 10,397 | -9,595 | 26,383 | -3,195 | 5,195 |
| 2047 | 789 | 658.1 | 67.8 | 10,779 | -9,990 | 27,359 | -3,659 | 4,992 |
| 2048 | 784 | 681.9 | 56.7 | 11,162 | -10,377 | 28,335 | -4,142 | 4,768 |
| 2049 | 794 | 705.6 | 45.7 | 11,544 | -10,750 | 29,312 | -4,646 | 4,531 |
| 2050 | 819 | 729.4 | 34.4 | 11,927 | -11,108 | 30,289 | -5,172 | 4,280 |
| 2051 | 845 | 753.1 | 19.5 | 12,306 | -11,461 | 31,273 | -5,723 | 4,014 |
| 2052 | 872 | 776.5 | 4.3 | 12,681 | -11,809 | 32,264 | -6,299 | 3,729 |
| 2053 | 900 | 799.5 | -13.6 | 13,049 | -12,149 | 33,263 | -6,902 | 3,427 |
| 2054 | 929 | 822.2 | -29.6 | 13,412 | -12,483 | 34,269 | -7,534 | 3,105 |
| 2055 | 959 | 844.6 | -45.8 | 13,770 | -12,811 | 35,283 | -8,196 | 2,762 |
| 2056 | 990 | 866.7 | -60.0 | 14,124 | -13,134 | 36,305 | -8,889 | 2,398 |
| 2057 | 1,021 | 888.5 | -74.2 | 14,474 | -13,453 | 37,336 | -9,614 | 2,012 |
| 2058 | 1,054 | 910.2 | -85.9 | 14,822 | -13,768 | 38,377 | -10,373 | 1,602 |
| 2059 | 1,088 | 931.8 | -97.5 | 15,170 | -14,082 | 39,428 | -11,165 | 1,168 |
| 2060 | 1,122 | 953.4 | -109.0 | 15,516 | -14,394 | 40,490 | -11,994 | 710 |
| 2061 | 1,158 | 974.9 | -117.6 | 15,864 | -14,706 | 41,565 | -12,859 | 225 |
| 2062 | 1,194 | 996.6 | -125.8 | 16,214 | -15,020 | 42,653 | -13,763 | -285 |
| 2063 | 1,234 | 1,018.3 | -136.5 | 16,564 | -15,330 | 43,761 | -14,705 | -824 |
| 2064 | 1,273 | 1,039.9 | -151.5 | 16,909 | -15,635 | 44,886 | -15,688 | -1,390 |
| 2065 | 1,313 | 1,061.3 | -163.4 | 17,252 | -15,939 | 46,029 | -16,713 | -1,986 |
| 2066 | 1,354 | 1,082.5 | -175.0 | 17,594 | -16,240 | 47,193 | -17,780 | -2,612 |
| 2067 | 1,398 | 1,103.9 | -181.6 | 17,939 | -16,541 | 48,379 | -18,893 | -3,269 |
| 2068 | 1,442 | 1,125.3 | -192.5 | 18,284 | -16,842 | 49,590 | -20,051 | -3,959 |
| 2069 | 1,489 | 1,146.9 | -198.1 | 18,633 | -17,145 | 50,827 | -21,257 | -4,681 |
| 2070 | 1,538 | 1,168.8 | -203.1 | 18,988 | -17,450 | 52,093 | -22,511 | -5,439 |
| 2071 | 1,589 | 1,191.0 | -207.6 | 19,349 | -17,760 | 53,391 | -23,817 | -6,232 |
| 2072 | 1,642 | 1,213.6 | -211.6 | 19,717 | -18,074 | 54,723 | -25,175 | -7,062 |
| 2073 | 1,696 | 1,236.7 | -215.1 | 20,092 | -18,396 | 56,091 | -26,587 | -7,931 |
| 2074 | 1,751 | 1,260.3 | -218.2 | 20,475 | -18,725 | 57,499 | -28,055 | -8,840 |
| 2075 | 1,805 | 1,284.4 | -220.7 | 20,868 | -19,063 | 58,949 | -29,581 | -9,789 |
| 2076 | 1,864 | 1,309.3 | -216.9 | 21,276 | -19,412 | 60,443 | -31,167 | -10,782 |

* Including cumulative amount invested by IAs in the form of SST Bonds.
** Excluding reinvestment of interest on SST Bonds.
*** Including annuity assets, assuming all annuitize fully in the 60/40 option
**** Theoretical Social Security is the current Social Security program with the assumption that the law is modified to permit forrowing from the General Fund of the Treasury.

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Table 1 b2 IA Contributions, OASDI Benefit Offset from IA, \& Unified Budget Effect


1 / Including SST Bonds
Based on Intermediate Assumptions of the 2001 Trustees Report With Ult TF Real Int Rate of


Table 1
d Percent of Potential Retirement Benefits from Potential IA Annuity (Full Annuitization)

| Year | Net Benefits from OASI Trust Fund | Expected Total Payments from IA | Expected <br> Total <br> Retirement <br> Payments | Percentage of Total from IA |
| :---: | :---: | :---: | :---: | :---: |
| (Billions of Constant 2001 \$) |  |  |  |  |
| 2002 | 378.5 | 0.0 | 378.5 | 0.0 |
| 2003 | 384.8 | 0.0 | 384.8 | 0.0 |
| 2004 | 391.8 | 0.0 | 391.8 | 0.0 |
| 2005 | 399.6 | 0.0 | 399.6 | 0.0 |
| 2006 | 407.9 | 0.0 | 407.9 | 0.0 |
| 2007 | 417.4 | 0.0 | 417.4 | 0.0 |
| 2008 | 428.6 | 0.0 | 428.6 | 0.0 |
| 2009 | 442.4 | 0.1 | 442.5 | 0.0 |
| 2010 | 455.5 | 2.1 | 457.6 | 0.5 |
| 2011 | 470.6 | 4.5 | 475.1 | 1.0 |
| 2012 | 487.0 | 7.4 | 494.4 | 1.5 |
| 2013 | 504.6 | 10.7 | 515.3 | 2.1 |
| 2014 | 523.3 | 14.6 | 537.9 | 2.7 |
| 2015 | 542.7 | 19.0 | 561.7 | 3.4 |
| 2016 | 562.8 | 24.0 | 586.8 | 4.1 |
| 2017 | 583.4 | 29.7 | 613.0 | 4.8 |
| 2018 | 604.3 | 36.1 | 640.4 | 5.6 |
| 2019 | 625.4 | 43.2 | 668.6 | 6.5 |
| 2020 | 646.4 | 51.1 | 697.5 | 7.3 |
| 2021 | 664.9 | 59.9 | 724.8 | 8.3 |
| 2022 | 681.8 | 69.5 | 751.3 | 9.3 |
| 2023 | 697.7 | 80.1 | 777.9 | 10.3 |
| 2024 | 712.6 | 91.7 | 804.4 | 11.4 |
| 2025 | 726.2 | 104.4 | 830.6 | 12.6 |
| 2026 | 738.2 | 118.2 | 856.4 | 13.8 |
| 2027 | 749.6 | 133.1 | 882.7 | 15.1 |
| 2028 | 760.1 | 149.3 | 909.5 | 16.4 |
| 2029 | 768.4 | 166.8 | 935.2 | 17.8 |
| 2030 | 774.4 | 185.6 | 960.0 | 19.3 |
| 2031 | 778.6 | 205.8 | 984.5 | 20.9 |
| 2032 | 780.9 | 227.5 | 1,008.4 | 22.6 |
| 2033 | 781.9 | 250.6 | 1,032.6 | 24.3 |
| 2034 | 779.6 | 275.4 | 1,055.0 | 26.1 |
| 2035 | 774.4 | 301.8 | 1,076.1 | 28.0 |
| 2036 | 766.8 | 329.8 | 1,096.6 | 30.1 |
| 2037 | 757.4 | 359.7 | 1,117.0 | 32.2 |
| 2038 | 746.1 | 391.4 | 1,137.5 | 34.4 |
| 2039 | 732.8 | 425.0 | 1,157.7 | 36.7 |
| 2040 | 717.4 | 460.6 | 1,177.9 | 39.1 |
| 2041 | 700.4 | 498.3 | 1,198.7 | 41.6 |
| 2042 | 682.2 | 538.1 | 1,220.4 | 44.1 |
| 2043 | 664.8 | 580.3 | 1,245.1 | 46.6 |
| 2044 | 648.3 | 623.0 | 1,271.3 | 49.0 |
| 2045 | 631.3 | 668.2 | 1,299.4 | 51.4 |
| 2046 | 613.8 | 715.9 | 1,329.6 | 53.8 |
| 2047 | 593.1 | 769.7 | 1,362.8 | 56.5 |
| 2048 | 573.3 | 824.9 | 1,398.2 | 59.0 |
| 2049 | 555.4 | 879.9 | 1,435.2 | 61.3 |
| 2050 | 538.6 | 935.9 | 1,474.5 | 63.5 |
| 2051 | 530.0 | 984.3 | 1,514.3 | 65.0 |
| 2052 | 523.3 | 1,033.2 | 1,556.4 | 66.4 |
| 2053 | 513.6 | 1,082.3 | 1,595.9 | 67.8 |
| 2054 | 505.3 | 1,131.7 | 1,637.0 | 69.1 |
| 2055 | 498.1 | 1,181.2 | 1,679.3 | 70.3 |
| 2056 | 492.4 | 1,230.7 | 1,723.1 | 71.4 |
| 2057 | 488.1 | 1,280.2 | 1,768.3 | 72.4 |
| 2058 | 485.3 | 1,329.4 | 1,814.7 | 73.3 |
| 2059 | 483.7 | 1,378.4 | 1,862.1 | 74.0 |
| 2060 | 483.3 | 1,427.0 | 1,910.3 | 74.7 |
| 2061 | 484.0 | 1,475.1 | 1,959.1 | 75.3 |
| 2062 | 485.8 | 1,522.7 | 2,008.4 | 75.8 |
| 2063 | 481.6 | 1,569.5 | 2,051.1 | 76.5 |
| 2064 | 478.3 | 1,615.6 | 2,094.0 | 77.2 |
| 2065 | 476.0 | 1,660.9 | 2,136.9 | 77.7 |
| 2066 | 474.7 | 1,705.3 | 2,180.0 | 78.2 |
| 2067 | 474.6 | 1,748.8 | 2,223.4 | 78.7 |
| 2068 | 475.5 | 1,791.3 | 2,266.8 | 79.0 |
| 2069 | 477.4 | 1,832.8 | 2,310.2 | 79.3 |
| 2070 | 480.4 | 1,873.3 | 2,353.7 | 79.6 |
| 2071 | 484.4 | 1,912.8 | 2,397.3 | 79.8 |
| 2072 | 489.6 | 1,951.4 | 2,441.0 | 79.9 |
| 2073 | 495.9 | 1,989.2 | 2,485.0 | 80.0 |
| 2074 | 503.2 | 2,026.1 | 2,529.3 | 80.1 |
| 2075 | 511.6 | 2,062.2 | 2,573.8 | 80.1 |
| 2076 | 520.9 | 2,097.8 | 2,618.7 | 80.1 |

e Comparison of Total Expected Plan Payments under Present Law and DeMint Proposal

|  | Scheduled $^{*}$ | PL OASDI | Expected Benefits Payable |
| :---: | :---: | ---: | ---: |
| Total OASDI | Benefits | under DeMint Proposal*** |  |
| Calendar | Eenefits under | Expected to | from OASDI total including |
| Year | PresentLaw | Be Payable ${ }^{* *}$ | Trust Funds |


| Billions of Constant 2001 Dollars |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2001 | 433 | 433 | 433 | 433 |
| 2002 | 440 | 440 | 440 | 440 |
| 2003 | 450 | 450 | 450 | 450 |
| 2004 | 460 | 460 | 460 | 460 |
| 2005 | 472 | 472 | 472 | 472 |
| 2006 | 484 | 484 | 484 | 484 |
| 2007 | 498 | 498 | 498 | 498 |
| 2008 | 513 | 513 | 513 | 513 |
| 2009 | 531 | 531 | 531 | 531 |
| 2010 | 550 | 550 | 547 | 550 |
| 2011 | 570 | 570 | 566 | 571 |
| 2012 | 593 | 593 | 586 | 594 |
| 2013 | 618 | 618 | 607 | 618 |
| 2014 | 643 | 643 | 629 | 644 |
| 2015 | 670 | 670 | 652 | 671 |
| 2016 | 699 | 699 | 676 | 700 |
| 2017 | 728 | 728 | 699 | 729 |
| 2018 | 758 | 758 | 723 | 759 |
| 2019 | 789 | 789 | 747 | 790 |
| 2020 | 820 | 820 | 771 | 822 |
| 2021 | 850 | 850 | 792 | 852 |
| 2022 | 879 | 879 | 813 | 882 |
| 2023 | 909 | 909 | 832 | 912 |
| 2024 | 938 | 938 | 850 | 942 |
| 2025 | 966 | 966 | 867 | 971 |
| 2026 | 994 | 994 | 882 | 1,000 |
| 2027 | 1,022 | 1,022 | 895 | 1,029 |
| 2028 | 1,049 | 1,049 | 907 | 1,056 |
| 2029 | 1,074 | 1,074 | 916 | 1,083 |
| 2030 | 1,098 | 1,098 | 923 | 1,109 |
| 2031 | 1,122 | 1,122 | 929 | 1,135 |
| 2032 | 1,146 | 1,146 | 932 | 1,160 |
| 2033 | 1,168 | 1,168 | 935 | 1,185 |
| 2034 | 1,188 | 1,188 | 934 | 1,210 |
| 2035 | 1,206 | 1,206 | 931 | 1,233 |
| 2036 | 1,224 | 1,224 | 926 | 1,256 |
| 2037 | 1,241 | 1,241 | 919 | 1,278 |
| 2038 | 1,257 | 1,169 | 910 | 1,301 |
| 2039 | 1,273 | 927 | 899 | 1,324 |
| 2040 | 1,288 | 939 | 886 | 1,347 |
| 2041 | 1,304 | 952 | 873 | 1,371 |
| 2042 | 1,320 | 965 | 858 | 1,397 |
| 2043 | 1,337 | 977 | 845 | 1,425 |
| 2044 | 1,354 | 989 | 832 | 1,455 |
| 2045 | 1,371 | 1,004 | 819 | 1,487 |
| 2046 | 1,389 | 1,017 | 805 | 1,521 |
| 2047 | 1,408 | 1,028 | 788 | 1,558 |
| 2048 | 1,427 | 1,043 | 771 | 1,596 |
| 2049 | 1,447 | 1,055 | 757 | 1,636 |
| 2050 | 1,468 | 1,068 | 743 | 1,679 |
| 2051 | 1,489 | 1,081 | 738 | 1,722 |
| 2052 | 1,512 | 1,095 | 734 | 1,767 |
| 2053 | 1,536 | 1,108 | 728 | 1,810 |
| 2054 | 1,561 | 1,122 | 723 | 1,854 |
| 2055 | 1,586 | 1,135 | 719 | 1,900 |
| 2056 | 1,611 | 1,150 | 716 | 1,947 |
| 2057 | 1,637 | 1,164 | 714 | 1,994 |
| 2058 | 1,664 | 1,178 | 714 | 2,043 |
| 2059 | 1,690 | 1,192 | 715 | 2,093 |
| 2060 | 1,717 | 1,207 | 717 | 2,144 |
| 2061 | 1,744 | 1,221 | 720 | 2,195 |
| 2062 | 1,772 | 1,237 | 724 | 2,247 |
| 2063 | 1,799 | 1,252 | 723 | 2,293 |
| 2064 | 1,827 | 1,266 | 723 | 2,339 |
| 2065 | 1,855 | 1,282 | 724 | 2,385 |
| 2066 | 1,884 | 1,298 | 726 | 2,431 |
| 2067 | 1,912 | 1,314 | 729 | 2,478 |
| 2068 | 1,941 | 1,328 | 733 | 2,525 |
| 2069 | 1,970 | 1,346 | 739 | 2,572 |
| 2070 | 2,000 | 1,362 | 745 | 2,619 |
| 2071 | 2,030 | 1,378 | 753 | 2,666 |
| 2072 | 2,060 | 1,392 | 762 | 2,713 |
| 2073 | 2,090 | 1,411 | 772 | 2,761 |
| 2074 | 2,121 | 1,428 | 783 | 2,809 |
| 2075 | 2,153 | 1,442 | 796 | 2,858 |
| 2076 | 2,184 | 1,459 | 809 | 2,907 |

* Based on benefit formulas in the law, without regard to adequacy of financing.
** Assuming that benefits would be reduced as needed starting in 2038.
${ }^{* * *}$ Amount from Trust funds is net of benefit offset under the proposal.
Expected Payments
As \% of Scheduled PL OASDI Benefits

PL OASDI | Expected Benefits Payable |
| ---: |
| Benefits | under DeMint Proposal**

Percent

| cent |  |  |
| :---: | :---: | :---: |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 100 | 100 |
| 100 | 99 | 100 |
| 100 | 99 | 100 |
| 100 | 98 | 100 |
| 100 | 98 | 100 |
| 100 | 97 | 100 |
| 100 | 97 | 100 |
| 100 | 96 | 100 |
| 100 | 95 | 100 |
| 100 | 95 | 100 |
| 100 | 94 | 100 |
| 100 | 93 | 100 |
| 100 | 92 | 100 |
| 100 | 92 | 100 |
| 100 | 91 | 100 |
| 100 | 90 | 100 |
| 100 | 89 | 101 |
| 100 | 88 | 101 |
| 100 | 87 | 101 |
| 100 | 85 | 101 |
| 100 | 84 | 101 |
| 100 | 83 | 101 |
| 100 | 81 | 101 |
| 100 | 80 | 102 |
| 100 | 79 | 102 |
| 100 | 77 | 102 |
| 100 | 76 | 103 |
| 100 | 74 | 103 |
| 93 | 72 | 103 |
| 73 | 71 | 104 |
| 73 | 69 | 105 |
| 73 | 67 | 105 |
| 73 | 65 | 106 |
| 73 | 63 | 107 |
| 73 | 61 | 108 |
| 73 | 60 | 108 |
| 73 | 58 | 109 |
| 73 | 56 | 111 |
| 73 | 54 | 112 |
| 73 | 52 | 113 |
| 73 | 51 | 114 |
| 73 | 50 | 116 |
| 72 | 49 | 117 |
| 72 | 47 | 118 |
| 72 | 46 | 119 |
| 72 | 45 | 120 |
| 71 | 44 | 121 |
| 71 | 44 | 122 |
| 71 | 43 | 123 |
| 71 | 42 | 124 |
| 70 | 42 | 125 |
| 70 | 41 | 126 |
| 70 | 41 | 127 |
| 70 | 40 | 127 |
| 69 | 40 | 128 |
| 69 | 39 | 129 |
| 69 | 39 | 129 |
| 69 | 38 | 130 |
| 68 | 38 | 130 |
| 68 | 37 | 131 |
| 68 | 37 | 131 |
| 68 | 37 | 131 |
| 68 | 37 | 132 |
| 68 | 37 | 132 |
| 67 | 37 | 132 |
| 67 | 37 | 133 |
| 67 | 37 | 133 |

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Table 2


Year 2001 2003
2004 2005 2006 2008 2010
2011 2012 2013
2014 2015 2017 2019
2020

2021
2022
2023
2024
2025
2026
2028
2029
2030
2030
2031
2032
2033
2034
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2069
2070
2071 2072
2073
2074
2075
2076

|  | Summarized |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
| 2001 | CostRt | IncRt | ActBal | Change in |
| -2075 | OASDI | OASDI | OASDI | ActBal |
|  | 10.82 | 9.85 | -0.97 | 0.90 |

a DeMint: Sensitivity--IA/Annuity Yields 1-Percent Above Expected $\begin{array}{lr}\text { With Ult Real TF Int Rate of } & 3.0 \\ \text { With Ult Real IA Yld Rate for Age 40+ of } 6.0 \\ \text { With Offset Annuity Net Yld Rate of } & 5.8\end{array}$
With Offset Annuity Net Yld Rate of 5.8
$\leq 40, \mid$ A Y Id/ $/ \%$ Stk
6.0
60
60 held

IA Cntrb
5.1 \%, Ben Offset
100.0 \%

Real Int Rt First 1.33 Year after earnings 2.0
$\begin{array}{lll}\text { Effectv } & \text { Cash Flow } & \text { Net Purchase } \\ \text { OASDI } & \text { Change in OASDI } \\ \text { to the GF } \\ \text { of SST Bonds } & \text { Contrib Rt from-- }\end{array}$
Contrib (Tab c) by Individual IA Transfer

Rate (bill cur\$) Accounts*** Contrib from GF 12.40 12.40

Table 3
Stock YId 6.5\%

Year
2001 2001 2003
2004 2005
2006

2008
2009

2011
2013
2014
2015
2016
2017
2019
2020
2021
2021
2023
2025
2026
2028
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2038
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2045
2046

2048
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2052
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2055

2057
2059

2060
2062
2064
2065
2067
2068

2070
2071
2072
2073
2073
2074
2075
2076

## 2001 -2075

DeMint: Sensitivity--IA/Annuity Yields 1-Percent Below Expected $\begin{array}{lr}\text { With Ult Real TF Int Rate of } & 3.0 \\ \text { With Ult Real IA Yld Rate for Age 40+ of } 4.0 \\ \text { With Offset Annuity Net Yld Rate of } & 3.8\end{array}$
With Offset Annuity Net Yld Rate of 3.8

| h Offset | Annuity Net Yld Rate of | 3.8 | 60 | held in |
| :---: | ---: | ---: | :---: | ---: |
| Cost | Income | Annual | TFR $^{\star *}$ | SST Bonds |
| Rate $^{*}$ | Rate | Balance | $1-1-\mathrm{yr}$ | On 12/31 |
| 10.49 | 12.72 | 2.23 | 239 |  |

IA Cntrb
5.1 \%, Ben Offse
100.0 \%

Real Int Rt First 1.33 Year after earnings 2.0
$\begin{array}{lll}\text { Effectv } & \text { Cash Flow } & \text { Net Purchase } \\ \text { OASDI } \\ \text { to the GF } \\ \text { of SST Bonds }\end{array} \quad \begin{aligned} & \text { Change in OASDI } \\ & \text { Contrib Rt from-- }\end{aligned}$

| Contrib | (Tab c) | by Individual | IA | Transfer |
| ---: | :---: | :---: | :---: | :---: |
| Rate | (bill cur\$) | Accounts $^{* * *}$ | Contrib | from GF |

40

| 8.37 | -7 |
| ---: | ---: |
| 8.05 | -18 |

2.40
3.70
3.90
4.10
4.30
4.50
4.80
4.80
4.90
4.90
4.90
4.90
4.90
4.90
4.90
4.60
4.60
4.60
4.40
4.20
4.00
3.80
11.10
10.70
10.70
10.40
10.30
10.10
9.90
9.50
9.40
9.20
9.10
9.00
9.00
8.90

4
4
4
8.80
8.80
40.00
40.00
40.0
40.00
40.00
40.00
40.00
40.00
40.00
40.00
40.00
40.00

| 40.00 | 8.60 | $-1,369$ |
| :--- | :--- | :--- |
| 40.00 | 8.60 | $-1,440$ |

40.00
40.00

| 40.00 | 8.60 | $-1,518$ | -1.37 | 5.10 | 1.30 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 40.00 | 8.65 | $-1,606$ | -1.39 | 5.10 | 1.35 |
| 40.00 | 8.70 | $-1,703$ | -1.41 | 5.10 | 1.40 |
| 40.00 | 8.70 | $-1,810$ | -1.42 | 5.10 | 1.40 |
| 40.00 | 8.70 | $-1,927$ | -1.43 | 5.10 | 1.40 |
| 40.00 | 8.70 | $-2,059$ | -1.44 | 5.10 | 1.40 |

Change in
ActBal 0.89

| Table 4 | a DeMint: Sensitivity--IA/Annuity Yields at Expected Treas Bond Yield |  |  |  |  | IA Cntrb 5.1 \%, Ben Offset |  |  | 100.0 \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NO Clawback | With Ult Real TF Int Rate of 3.0 |  |  | <40,IAYId/\%Stk | Percent of | Real Int Rt First 1.33 Year after earnings 2.0 |  |  |  |  |
| at Death <65 | With Ult Real IA Yld Rate for Age 40+ of 2.9 |  |  | 2.9 | ts | Effectv | Cash Flow | Net Purchase | Change | OASDI |
| If No Survivor | With Offset | Annuity Net Y | Yld Rate of 2.7 | 60 | held in | OASDI | to the GF | of SST Bonds | Contrib | om-- |
| Stock YId 6.5\% | Cost | Income | Annual | TFR** | SST Bonds | Contrib | (Tab c) | by Individual | IA | Transfer |
| Year | Rate* | Rate | Balance | 1-1-yr | On 12/31 | Rate | (bill cur\$) | Accounts*** | Contrib | from GF |
| 2001 | 10.49 | 12.72 | 2.23 | 239 |  | 12.40 |  |  |  |  |
| 2002 | 10.42 | 12.72 | 2.30 | 264 |  | 12.40 |  |  |  |  |
| 2003 | 10.43 | 8.70 | -1.74 | 289 | 40 | 8.37 | -7 | 1.59 | 4.03 |  |
| 2004 | 10.48 | 8.39 | -2.09 | 290 | 40 | 8.05 | -18 | 1.71 | 4.35 |  |
| 2005 | 10.56 | 8.32 | -2.24 | 288 | 40 | 7.97 | -25 | 1.74 | 4.43 |  |
| 2006 | 10.64 | 8.25 | -2.39 | 284 | 40 | 7.90 | -33 | 1.77 | 4.50 |  |
| 2007 | 10.77 | 8.18 | -2.59 | 278 | 40 | 7.82 | -45 | 1.80 | 4.58 |  |
| 2008 | 10.93 | 8.15 | -2.78 | 271 | 40 | 7.77 | -57 | 1.81 | 4.63 |  |
| 2009 | 11.12 | 8.12 | -3.00 | 261 | 40 | 7.73 | -73 | 1.83 | 4.67 |  |
| 2010 | 11.30 | 8.09 | -3.21 | 250 | 40 | 7.68 | -90 | 1.83 | 4.72 |  |
| 2011 | 11.48 | 8.05 | -3.43 | 236 | 40 | 7.63 | -110 | 1.83 | 4.77 |  |
| 2012 | 11.70 | 8.01 | -3.69 | 221 | 40 | 7.59 | -134 | 1.82 | 4.81 |  |
| 2013 | 11.95 | 7.98 | -3.97 | 204 | 40 | 7.54 | -163 | 1.81 | 4.86 |  |
| 2014 | 12.22 | 7.95 | -4.27 | 185 | 40 | 7.50 | -195 | 1.81 | 4.90 |  |
| 2015 | 12.50 | 7.94 | -4.56 | 164 | 40 | 7.47 | -229 | 1.79 | 4.93 |  |
| 2016 | 12.78 | 7.94 | -4.84 | 141 | 40 | 7.46 | -267 | 1.76 | 4.94 |  |
| 2017 | 13.07 | 9.13 | -3.94 | 117 | 40 | 8.64 | -309 | 1.73 | 4.96 | 1.20 |
| 2018 | 13.36 | 11.73 | -1.63 | 100 | 40 | 11.22 | -354 | 1.70 | 4.98 | 3.80 |
| 2019 | 13.65 | 12.03 | -1.62 | 100 | 40 | 11.50 | -402 | 1.67 | 5.00 | 4.10 |
| 2020 | 13.92 | 12.22 | -1.70 | 100 | 40 | 11.69 | -453 | 1.64 | 5.01 | 4.30 |
| 2021 | 14.16 | 12.63 | -1.54 | 100 | 40 | 12.07 | -504 | 1.60 | 5.03 | 4.70 |
| 2022 | 14.39 | 12.84 | -1.55 | 100 | 40 | 12.25 | -556 | 1.56 | 5.05 | 4.90 |
| 2023 | 14.59 | 12.95 | -1.64 | 100 | 40 | 12.34 | -609 | 1.51 | 5.06 | 5.00 |
| 2024 | 14.77 | 13.16 | -1.61 | 100 | 40 | 12.53 | -664 | 1.46 | 5.07 | 5.20 |
| 2025 | 14.93 | 13.48 | -1.45 | 100 | 40 | 12.82 | -720 | 1.41 | 5.08 | 5.50 |
| 2026 | 15.06 | 13.59 | -1.47 | 100 | 40 | 12.91 | -776 | 1.36 | 5.09 | 5.60 |
| 2027 | 15.17 | 13.70 | -1.47 | 100 | 40 | 13.00 | -833 | 1.30 | 5.10 | 5.70 |
| 2028 | 15.25 | 13.72 | -1.52 | 100 | 40 | 13.00 | -889 | 1.24 | 5.10 | 5.70 |
| 2029 | 15.29 | 13.85 | -1.44 | 100 | 40 | 13.10 | -943 | 1.17 | 5.10 | 5.80 |
| 2030 | 15.30 | 13.97 | -1.33 | 100 | 40 | 13.20 | -996 | 1.10 | 5.10 | 5.90 |
| 2031 | 15.28 | 13.99 | -1.30 | 100 | 40 | 13.20 | -1,049 | 1.03 | 5.10 | 5.90 |
| 2032 | 15.25 | 14.01 | -1.24 | 100 | 40 | 13.20 | -1,101 | 0.96 | 5.10 | 5.90 |
| 2033 | 15.18 | 13.93 | -1.25 | 100 | 40 | 13.10 | -1,150 | 0.89 | 5.10 | 5.80 |
| 2034 | 15.07 | 13.85 | -1.23 | 100 | 40 | 13.00 | -1,193 | 0.82 | 5.10 | 5.70 |
| 2035 | 14.94 | 13.76 | -1.17 | 100 | 40 | 12.90 | -1,232 | 0.75 | 5.10 | 5.60 |
| 2036 | 14.78 | 13.68 | -1.10 | 100 | 40 | 12.80 | -1,267 | 0.68 | 5.10 | 5.50 |
| 2037 | 14.60 | 13.59 | -1.01 | 100 | 40 | 12.70 | -1,300 | 0.60 | 5.10 | 5.40 |
| 2038 | 14.40 | 13.41 | -0.99 | 100 | 40 | 12.50 | -1,329 | 0.53 | 5.10 | 5.20 |
| 2039 | 14.19 | 13.32 | -0.87 | 100 | 40 | 12.40 | -1,355 | 0.45 | 5.10 | 5.10 |
| 2040 | 13.97 | 13.13 | -0.84 | 100 | 40 | 12.20 | -1,379 | 0.37 | 5.10 | 4.90 |
| 2041 | 13.76 | 13.05 | -0.71 | 100 | 40 | 12.10 | -1,402 | 0.29 | 5.10 | 4.80 |
| 2042 | 13.54 | 12.86 | -0.68 | 100 | 40 | 11.90 | -1,425 | 0.21 | 5.10 | 4.60 |
| 2043 | 13.33 | 12.78 | -0.55 | 100 | 40 | 11.80 | -1,449 | 0.13 | 5.10 | 4.50 |
| 2044 | 13.13 | 12.69 | -0.44 | 100 | 40 | 11.70 | -1,475 | 0.05 | 5.10 | 4.40 |
| 2045 | 12.93 | 12.51 | -0.42 | 100 | 40 | 11.50 | -1,500 | -0.04 | 5.10 | 4.20 |
| 2046 | 12.73 | 12.42 | -0.31 | 100 | 40 | 11.40 | -1,526 | -0.12 | 5.10 | 4.10 |
| 2047 | 12.52 | 12.34 | -0.18 | 100 | 40 | 11.30 | -1,548 | -0.21 | 5.10 | 4.00 |
| 2048 | 12.32 | 12.16 | -0.16 | 100 | 40 | 11.10 | -1,572 | -0.31 | 5.10 | 3.80 |
| 2049 | 12.13 | 12.17 | 0.04 | 100 | 40 | 11.10 | -1,599 | -0.39 | 5.10 | 3.80 |
| 2050 | 11.96 | 12.09 | 0.13 | 100 | 40 | 11.00 | -1,630 | -0.48 | 5.10 | 3.70 |
| 2051 | 11.84 | 12.11 | 0.26 | 100 | 40 | 11.00 | -1,678 | -0.55 | 5.10 | 3.70 |
| 2052 | 11.75 | 12.02 | 0.28 | 100 | 40 | 10.90 | -1,733 | -0.61 | 5.10 | 3.60 |
| 2053 | 11.66 | 12.04 | 0.38 | 100 | 40 | 10.90 | -1,793 | -0.68 | 5.10 | 3.60 |
| 2054 | 11.58 | 12.05 | 0.47 | 100 | 40 | 10.90 | -1,859 | -0.74 | 5.10 | 3.60 |
| 2055 | 11.51 | 12.07 | 0.56 | 100 | 40.00 | 10.90 | -1,930 | -0.80 | 5.10 | 3.60 |
| 2056 | 11.45 | 12.08 | 0.63 | 100 | 40.00 | 10.90 | -2,008 | -0.85 | 5.10 | 3.60 |
| 2057 | 11.40 | 12.00 | 0.60 | 100 | 40.00 | 10.80 | -2,091 | -0.91 | 5.10 | 3.50 |
| 2058 | 11.35 | 12.11 | 0.76 | 100 | 40.00 | 10.90 | -2,180 | -0.96 | 5.10 | 3.60 |
| 2059 | 11.31 | 12.02 | 0.72 | 100 | 40.00 | 10.80 | -2,274 | -1.00 | 5.10 | 3.50 |
| 2060 | 11.27 | 12.14 | 0.86 | 100 | 40.00 | 10.90 | -2,375 | -1.05 | 5.10 | 3.60 |
| 2061 | 11.24 | 12.05 | 0.81 | 100 | 40.00 | 10.80 | -2,482 | -1.09 | 5.10 | 3.50 |
| 2062 | 11.22 | 12.16 | 0.95 | 100 | 40.00 | 10.90 | -2,596 | -1.13 | 5.10 | 3.60 |
| 2063 | 11.19 | 12.17 | 0.98 | 100 | 40.00 | 10.90 | -2,703 | -1.16 | 5.10 | 3.60 |
| 2064 | 11.17 | 12.09 | 0.91 | 100 | 40.00 | 10.80 | -2,830 | -1.19 | 5.10 | 3.50 |
| 2065 | 11.16 | 12.20 | 1.04 | 100 | 40.00 | 10.90 | -2,964 | -1.22 | 5.10 | 3.60 |
| 2066 | 11.15 | 12.21 | 1.06 | 100 | 40.00 | 10.90 | -3,108 | -1.25 | 5.10 | 3.60 |
| 2067 | 11.14 | 12.22 | 1.07 | 100 | 40.00 | 10.90 | -3,260 | -1.28 | 5.10 | 3.60 |
| 2068 | 11.14 | 12.23 | 1.08 | 100 | 40.00 | 10.90 | -3,422 | -1.31 | 5.10 | 3.60 |
| 2069 | 11.15 | 12.33 | 1.19 | 100 | 40.00 | 11.00 | -3,595 | -1.33 | 5.10 | 3.70 |
| 2070 | 11.16 | 12.34 | 1.19 | 100 | 40.00 | 11.00 | -3,779 | -1.35 | 5.10 | 3.70 |
| 2071 | 11.17 | 12.35 | 1.18 | 100 | 40.00 | 11.00 | -3,975 | -1.37 | 5.10 | 3.70 |
| 2072 | 11.19 | 12.36 | 1.17 | 100 | 40.00 | 11.00 | -4,185 | -1.39 | 5.10 | 3.70 |
| 2073 | 11.21 | 12.47 | 1.26 | 100 | 40.00 | 11.10 | -4,408 | -1.41 | 5.10 | 3.80 |
| 2074 | 11.24 | 12.47 | 1.24 | 100 | 40.00 | 11.10 | -4,645 | -1.43 | 5.10 | 3.80 |
| 2075 | 11.26 | 12.58 | 1.32 | 100 | 40.00 | 11.20 | -4,898 | -1.44 | 5.10 | 3.90 |
| 2076 | 11.30 | 12.59 | 1.29 | 100 | 40.00 | 11.20 | -5,169 | -1.45 | 5.10 | 3.90 |
|  | Summarized |  |  |  |  |  |  |  |  |  |
|  | CostRt | IncRt | ActBal | Change in |  |  |  |  |  |  |
| 2001 | OASDI | OASDI | OASDI | ActBal |  |  |  |  |  |  |
| -2075 | 12.70 | 11.99 | -0.70 | 1.16 |  |  |  |  |  |  |

Based on Intermediate Assumptions of the 2001 Trustees Report
With Ult TF Real Int Rate of $3.00 \quad{ }^{* *}$ Including borrowing from Ind Accts in Form of SST Bonds

* Net of Benefit Offset
${ }^{* * *}$ Excluding reinvestment of interest in SST Bonds.

Table 3. Monthly Annuity as Percent of Social Security Benefit -- Single Annuity-- UNISEX
Retire at 65
PRELIMINARY*
Contrib Rt:
$8 \%$ for \$1,
3 \% for Max
Percent of Present Law OASDI Retirement Benefit Provided with Annuity from Spec\% IA
Contributions Start 2003, or Age 21, If Later, Through Age 64
DeMint Contrib Rts Based on Formula

|  | Percent of Assets Invested in Equities |  |  |  | IA Annual Admin = | 0.1 | \% of Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $60.0 \%$ $88.6 \%$ $31.4 \%$ <br> Percent of Assets in Corporate Bonds  $0.0 \%$ |  |  |  | IA Annuity Admin = | 0.3 |  |
|  |  |  |  |  |  |  |  |
|  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | --Balance in LT U.S. Go | onds |  |
|  | Real Net Yield on | ssets During | ccumula |  | Real YId @ ages <40 is | 0.00\% | Higher |
|  | 5.0 | 6.0 | 4.0 | 2.9 |  |  |  |
| Year Attain Age 65 | Annuity Real Return Rate -- Net of IA Administrative Expenses |  |  |  |  |  |  |
|  | 4.8 | 5.80002 | 3.799 | 2.7 |  |  |  |
| Scaled Low Earner |  |  |  |  |  |  |  |
| 2012 | 10.9 | 12.4 | 9.5 | 8.1 |  |  |  |
| 2022 | 33.6 | 40.7 | 27.6 | 22.1 |  |  |  |
| 2032 | 67.5 | 87.1 | 52.1 | 39.2 |  |  |  |
| 2042 | 107.0 | 147.0 | 77.9 | 55.1 |  |  |  |
| 2052 | 121.6 | 171.1 | 86.6 | 59.8 |  |  |  |
| Scaled Medium Earner |  |  |  |  |  |  |  |
| 2012 | 12.7 | 14.4 | 11.1 | 9.5 |  |  |  |
| 2022 | 37.9 | 45.8 | 31.2 | 25.0 |  |  |  |
| 2032 | 75.6 | 97.5 | 58.5 | 44.0 |  |  |  |
| 2042 | 121.4 | 167.0 | 88.4 | 62.5 |  |  |  |
| 2052 | 139.7 | 197.1 | 99.2 | 68.4 |  |  |  |
| Scaled High Earner |  |  |  |  |  |  |  |
| 2012 | 12.8 | 14.5 | 11.2 | 9.6 |  |  |  |
| 2022 | 36.1 | 43.6 | 29.8 | 24.0 |  |  |  |
| 2032 | 71.4 | 92.0 | 55.4 | 41.8 |  |  |  |
| 2042 | 117.2 | 161.4 | 85.2 | 60.2 |  |  |  |
| 2052 | 137.4 | 194.7 | 97.3 | 66.8 |  |  |  |
| Steady Maximum Earner |  |  |  |  |  |  |  |
| 2012 | 11.2 | 12.7 | 9.8 | 8.4 |  |  |  |
| 2022 | 29.3 | 35.3 | 24.2 | 19.6 |  |  |  |
| 2032 | 57.0 | 73.3 | 44.3 | 33.5 |  |  |  |
| 2042 | 95.7 | 132.0 | 69.5 | 49.1 |  |  |  |
| 2052 | 120.3 | 172.4 | 84.3 | 57.3 |  |  |  |

Note: "Self Annuitization" presumes that retirees would continue to invest their assets in the same manner as before retirement, and make monthly withdrawals that, on average, roughly match the pattern of a CPI-indexed life annuity.

* Note: Values may be somewhat overstated due to use of general population mortality for annuity calculations.

Earnings Scale
Factors \#2: using cross section data of all fully insured for 1985-94

Based on the intermediate assumptions of the 2001 Trustees Report
OCACT/SSA December 16, 2001

Table 4. Monthly Annuity as Percent of Social Security Benefit -- Joint \& 2/3 Survivor Annuity

| Retire at 65 | PRELIMINARY* | Contrib Rt: | $8 \%$ for \$1, | $3 \%$ for Max |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Percent of Present Law OASDI Retirement Benefit Provided with Annuity from Spec\% IA |  |  |  |  |  |
|  |  |  |  |  |  |

DeMint Contrib Rts Based on Formula

|  | Percent of 60.0\% Percent of 0.0\% | Is Inve <br> 88.6\% <br> ts in C $0.0 \%$ | $\begin{aligned} & \text { in Equi } \\ & 31.4 \% \\ & \text { ate Bo } \\ & 0.0 \% \end{aligned}$ | $\begin{gathered} 0.0 \% \\ 0.0 \% \end{gathered} \text {--Bala }$ | IA Annu <br> IA Annuly <br> in LT U.S. Gov | $\begin{aligned} & \text { dmin }= \\ & \text { dmin }= \\ & \text { onds } \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.3 \end{aligned}$ | \% of Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Real | Yield on | ts Dur | Accumulation | Real YId @ | <40 is | 0.00\% | Higher |
|  | 5.0 | 6.0 | 4.0 | 2.9 | 5.0 | 6.0 | 4.0 | 2.9 |
| Year | Annuity Real Return Rate -- Net of IA Administrative Expenses |  |  |  |  |  |  |  |
| Attain | 4.8 | 5.8 | 3.8 | 2.7 | 4.8 | 5.8 | 3.8 | 2.7 |
| Age 65 |  |  |  |  |  |  |  |  |
|  | 2-earner couple |  |  | Scaled Low Earner |  | 1-earner couple |  |  |
| 2012 | 10.2 | 11.6 | 8.9 | 7.5 | 6.8 | 7.8 | 5.9 | 5.1 |
| 2022 | 31.5 | 38.3 | 25.8 | 20.6 | 21.2 | 25.8 | 17.3 | 13.8 |
| 2032 | 63.3 | 82.1 | 48.7 | 36.4 | 42.8 | 55.4 | 32.9 | 24.6 |
| 2042 | 100.6 | 138.7 | 72.9 | 51.3 | 67.9 | 93.7 | 49.3 | 34.7 |
| 2052 | 114.5 | 161.8 | 81.2 | 55.8 | 77.3 | 109.3 | 54.8 | 37.7 |
|  | 2-earner couple |  |  | Scaled Medium Earner |  | 1-earner couple |  |  |
| 2012 | 11.9 | 13.6 | 10.3 | 8.8 | 8.0 | 9.1 | 6.9 | 5.9 |
| 2022 | 35.5 | 43.1 | 29.1 | 23.2 | 23.9 | 29.0 | 19.6 | 15.6 |
| 2032 | 71.0 | 91.9 | 54.7 | 40.9 | 47.9 | 62.1 | 36.9 | 27.6 |
| 2042 | 114.2 | 157.6 | 82.7 | 58.2 | 77.1 | 106.5 | 55.9 | 39.3 |
| 2052 | 131.5 | 186.3 | 93.0 | 63.8 | 88.8 | 125.8 | 62.8 | 43.1 |
|  | 2-earner couple |  |  | Scaled High Earner |  | 1-earner couple |  |  |
| 2012 | 12.0 | 13.6 | 10.4 | 8.9 | 8.0 | 9.2 | 7.0 | 6.0 |
| 2022 | 33.8 | 41.0 | 27.8 | 22.3 | 22.8 | 27.6 | 18.7 | 15.0 |
| 2032 | 67.1 | 86.7 | 51.8 | 38.8 | 45.3 | 58.6 | 34.9 | 26.2 |
| 2042 | 110.2 | 152.4 | 79.8 | 56.0 | 74.4 | 102.9 | 53.9 | 37.8 |
| 2052 | 129.4 | 184.1 | 91.2 | 62.3 | 87.4 | 124.3 | 61.6 | 42.1 |
|  | 2-earner couple |  |  | Steady Maximum Earner |  | 1-earner couple |  |  |
| 2012 | 10.5 | 12.0 | 9.2 | 7.8 | 7.0 | 8.0 | 6.1 | 5.2 |
| 2022 | 27.5 | 33.2 | 22.6 | 18.2 | 18.5 | 22.3 | 15.2 | 12.2 |
| 2032 | 53.5 | 69.1 | 41.4 | 31.2 | 36.1 | 46.6 | 28.0 | 21.0 |
| 2042 | 90.0 | 124.7 | 65.1 | 45.7 | 60.8 | 84.2 | 44.0 | 30.9 |
| 2052 | 113.3 | 162.9 | 79.0 | 53.4 | 76.5 | 110.0 | 53.4 | 36.1 |

Note: "Self Annuitization" presumes that retirees would continue to invest their assets in the same manner as before retirement, and make monthly withdrawals that, on average, roughly match the pattern of a CPI-indexed life annuity.

[^0]Based on the intermediate assumptions of the 2001 Trustees Report
OCACT/SSA December 16, 2001

Table A3. Accumulated Assets in Individual Account at Retirement
Earnings Scale 2

| Retire at 65 | Contrib Rt: | $8 \%$ for \$ | 3 \% for Max | Factors \#2: using cross section data of all fully insured for 1985-94 |
| :---: | :---: | :---: | :---: | :---: |
| DeMint A | Accumulated IA at Spec Percent of OASDI Taxable Earnings |  |  |  |
|  | s Start 2003 | 21, If Late | gh Age 64 |  |

DeMint Contrib Rts Based on Formula


| (current dollars) |  |  |
| ---: | ---: | ---: |
| 15,474 | 16,234 | 14,750 |
| 71,518 | 79,704 | 64,256 |
| 214,619 | 254,431 | 181,695 |
| 527,589 | 664,849 | 421,603 |
| 928,102 | $1,196,777$ | 726,033 |

13,996
57,230
152,050
332,585
560,705

| (constant 2000 dollars) |  |  |  |
| ---: | ---: | ---: | ---: |
| 10,932 | 11,469 | 10,421 | 9,888 |
| 36,519 | 40,699 | 32,811 | 29,223 |
| 79,208 | 93,901 | 67,057 | 56,116 |
| 140,732 | 177,346 | 112,461 | 88,716 |
| 178,933 | 230,732 | 139,975 | 108,101 |


| (current dollars) |  |  |
| ---: | ---: | ---: |
| 29,780 | 31,229 | 28,401 |
| 133,016 | 148,050 | 119,671 |
| 397,029 | 470,282 | 336,448 |
| 988,545 | $1,246,887$ | 789,362 |
| $1,759,957$ | $2,275,286$ | $1,373,535$ |

Scaled Medium Earner
26,965 21,039

| (constant 2000 dollars) |  |  |
| ---: | ---: | ---: |
| 22,063 | 20,065 | 19,050 |
| 75,598 | 61,107 | 54,509 |
| 173,564 | 124,171 | 104,038 |
| 332,602 | 210,559 | 166,003 |
| 438,662 | 264,809 | 204,046 |


| (current dollars) |  |  | Scaled High Earner |  | (constant 2000 dollars) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39,610 | 41,507 | 37,803 | 35,921 | 27,984 | 29,324 | 26,707 | 25,378 |
| 167,596 | 186,142 | 151,118 | 135,142 | 85,579 | 95,049 | 77,165 | 69,007 |
| 495,781 | 586,423 | 420,817 | 353,309 | 182,974 | 216,427 | 155,308 | 130,393 |
| 1,260,727 | 1,592,595 | 1,005,468 | 791,944 | 336,293 | 424,818 | 268,204 | 211,248 |
| 2,287,946 | 2,969,820 | 1,778,971 | 1,365,850 | 441,103 | 572,564 | 342,975 | 263,328 |
|  | (current dollars) |  | Steady Maximum Earner |  | (constant 2000 dollars) |  |  |
| 41,332 | 43,252 | 39,503 | 37,596 | 29,201 | 30,557 | 27,909 | 26,561 |
| 164,606 | 182,348 | 148,825 | 133,509 | 84,052 | 93,112 | 75,994 | 68,173 |
| 479,843 | 566,363 | 408,269 | 343,786 | 177,092 | 209,024 | 150,677 | 126,879 |
| 1,247,260 | 1,577,806 | 993,720 | 782,240 | 332,701 | 420,873 | 265,070 | 208,659 |
| 2,425,784 | 3,183,372 | 1,866,858 | 1,418,702 | 467,677 | 613,736 | 359,919 | 273,518 |

Average Annual Earnings level in 2000 is assumed at:

| Low | 15,156 |
| :--- | :--- |
| Average | 33,680 (=SSA AWI) |
| High | 53,888 |

Ultimate Assumed Growth Rates and Real Yields
4.30 percent annual increase in Average Earnings
3.30 percent annual CPI increase
3.00 percent annual real yield on LT U.S. Government Bonds
3.50 percent annual real yield on Corporate Bonds
6.50 percent annual real yield on Equities
0.10 percent annual Administrative Expense
3.398 percent equity premium over LT Govt Bonds

Based on the intermediate assumptions of the 2001 Trustees Report


[^0]:    * Note: Values may be somewhat overstated due to use of general population mortality for annuity calculations.

    Earnings Scale
    Factors \#2: using cross section data of all fully insured for
    1985-94

