At its most fundamental level, the future financial status of the Social Security program is straightforward. The financing for the program provides income exclusive of interest on trust fund assets that is about 4.5 percent of GDP. The cost of providing benefits scheduled in the law has been less for over two decades, through 2009, resulting in a substantial accumulation of assets in the Trust Funds. However, due to the aging of the population of the United States the cost will be rising to a level of about 6 percent of GDP by 2035 and will stay at essentially that level through 2085.

The permanently higher level of program cost as a share of GDP, which is reached over the next 25 years, could be met by an increase in scheduled revenue of about one third, or decrease in scheduled benefits of about one fourth, or any combination of these adjustments. The gap of 1.5 percent of GDP will need to be closed one way or another. Neither an immediate increase in payroll taxes nor an immediate reduction in benefits seems well advised given the current state of our economy. However, we will need to make changes over the next two decades. We can all agree that even if changes in scheduled taxes and scheduled benefits are not implemented immediately, we would be wise to enact necessary changes soon in order to provide time for future workers and beneficiaries to plan for and adapt to these changes.
Why is the Cost of Social Security going up over the Next 25 Years?

Apart from the near-term effects of the recent economic downturn, the real reason for the rising cost of Social Security over the next 25 years is the aging of the population, not principally because we are living longer or because of the post-World War II baby boom, but because of the drop in birth rates since the baby boom. Birth rates averaged 3.3 children per woman from 1946 through 1965, and were generally at around 3 children per woman for many decades before that time. Adjusting for the percent of births that survived to age 10 in the past, the effective birth rate was remarkably flat until 1965. This is especially true if we average out the low-birth years of the great depression with the high years post World War II.

The fact that overall birth rates dropped from 3 to 2 children per woman in the United States has led directly to the change in the age distribution of our population that presents a financial challenge not only to Social Security and Medicare in the future, but also to every aspect of our economy. The change from a world where elders had on average 3 children in the workforce behind them to a new world with only 2 children will as sure as the sun rises in the east increase in numbers of elders and beneficiaries compared to the numbers of working age persons in our country.

This shift can be seen readily in the projected numbers of workers per Social Security beneficiary. As the Social Security program gradually matured, finally offering the full opportunity to receive retirement, survivors and disability benefits to individuals at all ages around, the ratio of beneficiaries to workers settled in at 3.3 and stayed there through 2008. Between 2008 and 2035, however this ratio will drop to about 2 workers per beneficiary reflecting the drop in family size chosen by the baby boomers and subsequent generations.
In essence then, we have a choice between asking the relatively smaller numbers of children in the future to pay higher tax rates or work longer, or for the elders of the future to accept lower benefits or retire later. In all likelihood, the solution will be some combination of changes.

Social Security Trust Fund Assets
Social Security Trust Fund holdings were 5 percent of GDP in 1957, and were used over the next 25 years to augment current taxes for the payment of benefits. In that time, the Congress enacted major reform legislation three times, in 1972, 1977, and 1983. The reserves in the Trust Funds allowed Congress the time make judicious choices and to provide advance notice to those who would be affected.

While opinions about the significance of the Trust Funds vary, certain facts are indisputable. The Trust funds have allowed the Social Security program to spend more than current tax income for some periods. However, the Trust Funds cannot allow the program to go into debt. Unlike most other Federal programs, Social Security has no borrowing authority and must always maintain a position of having collected more in taxes from workers, their employers, and beneficiaries, than it has expended since it’s inception. The following facts provide a solidity to the commitment to make these assets available for program expenditures as has always occurred in the past:

1. Trust fund assets can by law be expended only for benefits and administrative expenses of the program,
2. All assets must be invested in interest bearing securities backed by the full faith and credit of the United States Government, and
3. The Contract with America Act of 1996 requires that all revenues for the system be credited expeditiously to the trust funds.

Perhaps the strongest evidence of the importance of the trust funds is constraint they provide on program financing. History clearly shows that Congress is moved, even forced into action anytime a trust fund approaches exhaustion.

Thus, while Social Security has run a cumulative surplus of $2.6 trillion since it started collecting taxes in 1937, the rest of government has run up a debt now over $14 trillion and rising. The fact that the Social Security reserves are a part of this total Federal debt is of no small consequence. Total Federal debt subject to limit is the sum of publicly held debt and the “public debt” held by the trust funds on behalf of the public. If the trust Funds had not loaned $2.6 trillion to the Treasury then the publicly held debt might simply be that much more today. While some argue that the Trust Fund accumulations in fact encouraged the rest of government to spend beyond its means, this theory does not explain the nearly $12 trillion in excess spending that is currently reflected in our borrowing directly from the public.

With trust reserves of $2.6 trillion, or roughly 18 percent of GDP, Social security financing might appear to be on solid ground. However, the impending demographic shift due to the drop in birth rates in the 1960’s requires adjustments to the program. The current substantial trust fund reserves represent a cushion allowing us time to phase in needed changes gradually.
Potential Adjustments to Social Security Revenue and Benefits

The Consequence of Inaction

If we do nothing, the Disability Insurance Trust Fund is expected to become exhausted in 2018, at which point continuing tax revenue would permit payment of only 86 percent of scheduled benefits on a timely basis. The change would be abrupt and devastating. This will of course not happen. Even if we only reallocate a part of the OASI payroll tax rate to the DI program, for no net increases in taxes, as we did in 1994, then both the OASI and DI trust funds would be extended to exhaustion in 2036, at which time 77 percent of scheduled benefits would be payable. These would be real consequences. The inability of the OASDI program to borrow would make this a reality in the absence of any Congressional action between now and 2018, or any substantial action between now and 2036.

Possibilities for Change

Clearly, the Congress will make substantial changes in Social Security scheduled revenue, in Social Security scheduled benefits, or both well before 2036.

Increasing Revenue

The primary focus of this hearing is on the possibilities and consequences of increasing revenue to help close the projected financing gap for Social Security. That gap is projected to rise gradually over the next 25 years to about 1.5 percent of GDP.
One possibility for increasing revenue for financing Social Security benefits is to increase the maximum amount of annual earnings that is subject to the 12.4-percent payroll tax. Back in 1982 and 1983, 90 percent of all earnings covered under Social Security were subject to the payroll tax. That percentage declined to about 83 percent in 2008 as the distribution of earnings became much more dispersed, that is the proportion of earnings for the very highest earners increased. We project that after the economy has fully recovered from the recent recession the percentage of earnings subject to the payroll tax will reach about 82.5 percent. The recent Fiscal Commission chaired by Erskine Bowles and Alan Simpson recommended gradually increasing, over 38 years, the taxable maximum to again tax 90 percent of covered earnings. This change would eliminate about 25 percent of the financing gap over the next 75 years, and even more if phased-in more rapidly.

Another possible source of increased revenue for Social Security would be to subject premiums for employer sponsored group health insurance to the payroll tax. This change, recommended by the Bipartisan Policy Center task force chaired by Alice Rivlin and Pete Domenici would close about 40 percent of the 75-year financial gap for Social Security. The share of all employee compensation---wages plus fringe benefits---subject to the payroll tax has declined over the years principally as health care costs have risen and more employee compensation has been directed to tax-favored employee sponsored group health insurance. Removing this tax-favored status would improve Social Security financial status and in addition potentially contribute to slowing in the increase in health care costs in general.

A proposal that would have a smaller increase in revenue, covering a little over 10 percent of the 75-year Social Security financing gap would be to subject employee compensation in the form of cafeteria Section 125 plan contributions to the payroll tax. Currently this tax-favored status is used primarily for employee payments toward the premiums of employer sponsored group health insurance.

Some have considered applying a payroll tax to all earnings above the current taxable maximum amount, either the full 12.4 percent or some smaller rate. Applying the 12.4-percent tax rate to all earnings above the current taxable maximum amount could completely eliminate the projected 75-year shortfall for Social Security, as indicated in estimates for Representative Deutch that we provided in October 2010. Applying a lesser tax rate to all earnings above the current limit would provide a partial solution to the financing gap.

In May 2010, we provided estimates to Representatives Johnson, Brady, and Ryan for an array of potential proposals to apply a payroll tax rate of 2, 3, or 4 percent to all OASDI covered earnings above $200,000, 300,000, or 400,000 starting in 2017. The potential revenue gains from these provisions ranged up to about 25 percent of the 75-year financing gap for Social Security.
The Consequence of Action

We know that if we fail to act in a substantial way between now and 2036, the current trust fund assets will be gradually redeemed and eventually exhausted. The process of redeeming the assets in the fund involves a reduction in the Federal debt owed to the trust funds while at the same time increasing the amount of federal debt owed directly to the public. The consequence of this shift in Federal debt from that owed to the trust funds, and thus indirectly to the public, to debt owed directly to the public is unclear. The total debt subject to limit is not affected.

What is affected by trading debt to the trust funds for publicly held debt is there is a greater amount of debt actually auctioned by the Treasury. The consequence of this shift over time is unclear. It is the job of financial markets to anticipate changes that will occur in the future and to incorporate expected changes into current pricing of financial securities today. The existence of the $2.6 trillion of Federal debt owed to the OASDI trust Funds is not a secret and it would be unreasonable that the sophisticated financial markets are not well aware to the projections for increased debt subject to auction as trust fund securities are redeemed.

To the degree that redemption of substantial amounts of trust fund assets and issuance of additional publicly held debt may be disruptive to the markets and the economy, this should be contrasted with the implications of raising additional revenue through taxes in order to limit the amount of current trust fund assets that will be redeemed by 2036. Both increases in taxes and increases in publicly held debt will have consequences for the economy and the markets. Which would have greater consequence is not clear and is debatable. Additional borrowing in the private markets arguably absorbs potential savings that might otherwise have been invested wholly in growing the economy. Additional taxes would presumably result in some combination of reduced savings and investment, and reduced consumption. Both would have consequence.

The alternative to increasing revenue is of course reduction in scheduled benefits for Social Security. This will happen automatically under current law once all trust fund assets are exhausted, assuming that taxes are then insufficient to pay full scheduled benefits. The consequence of precipitous reduction in benefits would be devastating to beneficiaries at a level far beyond the consequence for the economy as a whole. More gradual reduction in scheduled benefits, or changes that would slow the rate of increase in benefits in the future, would have less drastic consequence because the effects would occur gradually. Reduced benefit levels for future generations would mean less consumption, faster draw down of savings, and less passed on to their heirs. The effects on overall consumption, investment, and savings in the economy would be significant and may or may not be greatly different from the levels if currently scheduled benefits are maintained through increased taxes or increased borrowing from the public. The one clear consequence would be a relatively lower standard of living for most of the elderly and disabled population.
Conclusion

The projected Social Security financial shortfall is essentially the consequence of the drop in birth rates from an average of about 3 surviving children per woman for the long term past to a level of about 2 children per woman over a lifetime of child bearing since 1970 and for the indefinite future. This fundamental shift is now in the process of manifesting itself in the changing age distribution of our population as the last generations born of higher birth rates, the “baby-boom” generation, passes from working age to retirement age, and is replaced by workers born of lower birth-rate periods. This transition will be essentially complete by 2035, and the cost of Social Security will be elevated as a result from the level of less than 4.5 percent of GDP experienced over the last 20 years, to 6 percent of GDP for 2035 and thereafter.

This change in the fundamental age distribution of the population is inevitable now and will also affect Medicare and all other plans, public and private, that depend on investment or serve retirees. As a nation, we will need to adapt to having a higher proportion of the population at old age due to the drop in birth rates. Continuing increases in life expectancy will add to this change but only very gradually over the long-term future. We must adapt by either working longer, retiring later, increasing taxes on workers, reducing benefits and income generally to the elderly and disabled, or some of each.

The array of possible changes for closing the financial gap for Social Security, including revenue increases and benefit reductions reflect the entire range of possible adaptations. I know I speak for all members of the Office of the Chief Actuary at the Social Security Administration in saying that we look forward to continued work with members of the Congress and staff in the development of this range of options. We hope to contribute to a common knowledge and understanding of the implications of the potential changes so that you, our elected representatives can make the best possible choices on behalf of all of the American people.

Attached are brief lists of selected options for increasing revenue of reducing scheduled benefits for Social Security and the percent of the 75-year financial shortfall that each individually would eliminate. Note that the effect of several proposals on a combined basis is generally less than the sum of their individual effects due to interactions among provisions.
## Selected Options for Increasing Revenue for Social Security

<table>
<thead>
<tr>
<th>Provision</th>
<th>Estimated Percent of the 75-Year Shortfall Eliminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increase the OASDI taxable maximum amount gradually, from 2012 to 2049, to tax 90 percent of covered earnings. Include additional earnings for benefit credit.</td>
<td>27%</td>
</tr>
<tr>
<td>2. Phase out the payroll tax exclusion for employer sponsored group health insurance premiums between 2018 and 2028.</td>
<td>42%</td>
</tr>
<tr>
<td>3. Tax all voluntary salary reduction plan contributions (125 plans) like 401k plans for OASDI payroll tax.</td>
<td>10%</td>
</tr>
<tr>
<td>4. Eliminate the OASDI taxable maximum amount between 2011 and 2017, with no additional benefit credit.</td>
<td>100%</td>
</tr>
<tr>
<td>5a. Apply a 4 percent payroll tax to all earnings over $200,000 in 2017, wage indexing the threshold thereafter. Provide proportional benefit credit for additional earnings.</td>
<td>18%</td>
</tr>
<tr>
<td>5b. Apply a 4 percent payroll tax to all earnings over $200,000 in 2017, wage indexing the threshold thereafter. Provide no benefit credit for additional earnings.</td>
<td>22%</td>
</tr>
<tr>
<td>6. Cover all State and local government employees hired in 2020 and later.</td>
<td>7%</td>
</tr>
<tr>
<td>7. Gradually invest 15 percent of OASDI Trust Fund assets in a broad indexed fund of equities and maintain this percent.</td>
<td>11%</td>
</tr>
</tbody>
</table>

Note that combining several provisions will generally result in a change less than the sum of the individual changes due to interaction among provisions.

Source: Office of the Chief Actuary, Social Security Administration
June 23, 2011
http://www.ssa.gov/OACT/solvency/provisions/index.html
Selected Options for Reducing Scheduled Benefits for Social Security

<table>
<thead>
<tr>
<th>Provision</th>
<th>Estimated Percent of the 75-Year Shortfall Eliminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Beginning in 2023, reduce benefit levels for new retirees and survivors each year by the increase in life expectancy at 67.</td>
<td>22%</td>
</tr>
<tr>
<td>2. Starting 2023, index the normal retirement age to increase beyond 67 to maintain a constant ratio of expected retirement years to potential work years. Increase the earliest eligibility age above 62 to keep it 5 years below the NRA. For those with at least 25 years of earning 4 quarters of coverage, omit these changes if average earnings less than 250% of poverty, and limit change if below 400% of poverty.</td>
<td>42%</td>
</tr>
<tr>
<td>3. Starting with the December 2012 COLA, base the increase on increase in the chain-weighted Consumer Price Index (C-CPI-U)</td>
<td>23%</td>
</tr>
<tr>
<td>4. Price index initial benefits across generations beginning 2017. Reduce all PIA factors (90, 32, 15) by the real growth in average earnings.</td>
<td>113%</td>
</tr>
<tr>
<td>5a. Progressive price indexing so that steady maximum earners have price indexed benefits across generations, with lesser reductions for lower earners---no change for lowest 50% of earners.</td>
<td>42%</td>
</tr>
<tr>
<td>5b. Progressive price indexing so that steady maximum earners have price indexed benefits across generations, with lesser reductions for lower earners---no change for lowest 30% of earners.</td>
<td>64%</td>
</tr>
</tbody>
</table>

Note that combining several provisions will generally result in a change less than the sum of the individual changes due to interaction among provisions.

Source: Office of the Chief Actuary, Social Security Administration
June 23, 2011
http://www.ssa.gov/OACT/solvency/provisions/index.html