Social Security and the Aging of America

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Background

- Social Security consists of two separate programs: Old-age and Survivors Insurance (OASI) and Disability Insurance (DI).

- Social Security is financed primarily by FICA taxes levied on earnings up to a taxable wage ceiling, now set at $127,200. The combined OASDI tax rate is 12.4 percent, of which 10.6 percent is allocated to OASI and 1.8 percent to DI.

- The Social Security benefit formula is progressive. Although higher earners receive larger total benefits in dollars, lower earners receive higher replacement rates.

- The full benefit retirement age, which was 65 for most of Social Security’s history, is now rising in stages to 67. Actuarially reduced early retirement benefits are available at 62.

- The last major reform of Social Security was enacted in 1983. In addition to raising the retirement age, it raised payroll taxes in order to partially prefund the Baby Boom’s retirement.

- As of the end of 2015, the combined OASDI trust funds held $2.8 trillion in assets, which, together with future earmarked tax receipts, are projected to keep Social Security solvent until 2034.

- Solvency, however, is not the same as sustainability. Its trust funds notwithstanding, Social Security operates on a purely pay-as-you-go basis. It is already a burden on the budget—and that burden will grow dramatically as America ages.

- **OASI Replacement Rates for Workers Retiring at Age 65 in 2015, by Earnings History**

  - Low: 53%
  - Average: 39%
  - High: 25%

  Note: Low earners are assumed to have earned 45 percent of the average wage in OASDI-covered employment throughout their careers, while high earners are assumed to have earned the maximum taxable wage.

The Challenge
By developed-world standards, the United States is and will remain a relatively young country.

Percent of the Population Aged 60 & Over in 2010 and 2040

Source: UN Population Division (UN, 2013)
Although the United States will not age as much as other developed countries, its large Baby Boom means that it will age more rapidly than most.

- Between 2015 and 2050, the number of Social Security beneficiaries will increase from 60 million to 97 million.

- Meanwhile, the Social Security “support ratio” of contributing workers to retired beneficiaries will fall from 2.8 to 2.1.

- A falling support ratio in turn translates directly and proportionally into a rising cost rate for pay-as-you-go pension systems.

**Average Annual Growth Rate in the Population Aged 60 & Over from 2010 to 2040**

Source: UN Population Division (UN, 2013)
Social Security will come under mounting fiscal pressure as the Baby Boom retirement enters full swing.

The Social Security Trustees publish three alternative projections each year based on different demographic and economic assumptions. While the intermediate projection is the “official” projection, the high-cost projection is equally plausible.

### Key Assumptions

<table>
<thead>
<tr>
<th></th>
<th>Intermediate</th>
<th>High-Cost</th>
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</thead>
<tbody>
<tr>
<td>Fertility Rate</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Life Expectancy in 2050</td>
<td>82.8</td>
<td>84.9</td>
</tr>
<tr>
<td>Net Immigration</td>
<td>1.2 million</td>
<td>0.9 million</td>
</tr>
<tr>
<td>Real Wage Growth</td>
<td>1.2%</td>
<td>0.6%</td>
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</tbody>
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Note: Except for life expectancy, values refer to “ultimate” assumptions.

### OASDI Cost, as a Percent of Taxable Payroll, History and Alternative Projections, 1990-2090

- OASDI Cost Rate in 2015: 14.1%
- Intermediate Projection for 2090: 17.7%
- High-Cost Projection for 2090: 24.9%

Source: 2016 OASDI Trustees Report
Although its trust funds are projected to be solvent until 2034, Social Security is already running growing cash deficits that add to the overall budget deficit.

- The Social Security trust funds are memo accounts within the federal budget. Trust-fund assets constitute budget authority, but do not represent savings that can be drawn down to pay benefits.

- Economically, all that matters is the annual difference between Social Security tax revenues and Social Security outlays.

- Between 2010 and 2034, while Social Security’s trust funds are still “solvent,” its growing cash deficits will add $3.5 trillion in today’s dollars to the federal deficit.

**OASDI Cash Balance, as a Percent of Taxable Payroll, History and Intermediate Projection, 1970-2090**

![Graph showing OASDI Cash Balance from 1970 to 2090](source: 2016 OASDI Trustees Report)

2010: First Cash Deficit

2034: Trust Fund Exhaustion
Understanding the Colossal Liability Numbers

- Social Security’s actuarial deficit, the official measure of the program’s funding shortfall, is equal to the present value of projected benefits over the next 75 years minus current trust-fund assets and the present value of projected taxes.

- Social Security’s open group obligation, which dispenses with the arbitrary 75-year time horizon and assumes the program will continue indefinitely, provides a more meaningful measure of Social Security’s funding shortfall.

- Social Security’s closed group obligation represents the subsidy that today’s adults expect from future generations of workers and taxpayers. As such, it provides a measure of the cost of transitioning from today’s pay-as-you-go system to a fully funded system.

Alternative Measures of OASDI’s Unfunded Obligations as of January 1, 2016, in Trillions of Dollars

- **Actuarial Deficit**: $12.1 trillion
- **Open Group Obligation**: $32.1 trillion (Equivalent to 2.7% of taxable payroll over the next 75 years)
- **Closed Group Obligation**: $29.7 trillion

Source: 2016 OASDI Trustees Report
While early cohorts of Social Security retirees received benefits far in excess of the value of their contributions, current and future cohorts will be lucky to break even.

The rate of return on contributions for high earners is already well beneath the risk-free rate of return.

Upon trust-fund bankruptcy in 2034, benefits will have to be cut by 20 percent beneath current-law levels. This cut would turn most average earners into net losers as well.

**Real Rate of Return on OASI Contributions for Average-Earning Workers Retiring at Age 65, 1965-2015**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of Return</th>
</tr>
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<tbody>
<tr>
<td>1965</td>
<td>10.1%</td>
</tr>
<tr>
<td>1970</td>
<td>8.3%</td>
</tr>
<tr>
<td>1975</td>
<td>6.7%</td>
</tr>
<tr>
<td>1980</td>
<td>5.7%</td>
</tr>
<tr>
<td>1985</td>
<td>4.5%</td>
</tr>
<tr>
<td>1990</td>
<td>3.7%</td>
</tr>
<tr>
<td>1995</td>
<td>3.2%</td>
</tr>
<tr>
<td>2000</td>
<td>2.8%</td>
</tr>
<tr>
<td>2005</td>
<td>2.8%</td>
</tr>
<tr>
<td>2010</td>
<td>2.6%</td>
</tr>
<tr>
<td>2015</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

**Real Rate of Return on OASI Contributions for Average-Earning Workers Retiring at Age 65 in 2015, by Earnings History**

- **Low**: 3.3%
- **Average**: 2.4%
- **High**: 1.3%

Note: Low earners are assumed to have earned 45 percent of the average wage in OASDI-covered employment throughout their careers, while high earners are assumed to have earned the maximum taxable wage.

Directions for Reform

Paradigmatic Reforms

- **Increase Contributions.** There are two ways to increase contributions: Increase the FICA tax rate or raise (or eliminate) the taxable wage ceiling, usually called the “max tax.”

- **Cut Benefits Across-the-Board.** The most common proposal is to further increase the normal retirement age and/or index it to life expectancy.

- **Cut Benefits Progressively.** Initial benefits for higher earners can be cut by altering the brackets in the Social Security benefit formula. Benefits in current payment status can be cut through “progressive indexing.”

- **Increase Eligibility Ages.** Increasing Social Security’s early retirement age would both reduce lifetime benefits and increase lifetime contributions.

Structural Reforms

- **Notional Defined Contribution System.** Transform Social Security into a notional defined contribution system in which benefits are proportional to contributions. Index benefits to offset the impact of population aging. Handle redistribution through a separate flat benefit or means-tested supplement.

- **Retirement Income Backstop.** Refashion Social Security as a retirement income backstop for the “old old” rather than a retirement income floor for all of the elderly.

- **Personal Accounts System.** Transform Social Security in whole or in part into a mandatory system of funded personal accounts.
A Broader Perspective
As America ages, the cost of health-care programs will grow even more rapidly than Social Security.

Entitlement Spending by Type, as a Percent of GDP: 2000, 2015, and Average for 2037-46

*Includes Medicare, Medicaid, CHIP, and ACA subsidies.

Source: The Budget and Economic Outlook: 2016-2026 and The 2016 Long-Term Budget Outlook (CBO, 2016)
The intractability of health-care cost growth makes finding savings in Social Security even more urgent.

- Because Medicare is growing more rapidly than Social Security and constitutes a larger part of the long-term budget problem, some experts conclude that Social Security reform is less urgent or even unnecessary.

- What matters for the budget, the economy, and the after-tax living standard of future generations is the total transfer burden of old-age benefits, not which federal programs are collecting the taxes and dispensing the benefits.

**Average Annual Growth Rate in Real Age-Adjusted Per Capita Public Health-Care Spending, 1985-2010**

Source: OECD Health Data 2012 (OECD, 2012)
Many developed countries with far more expansive welfare states than ours have managed to enact major reforms of their public pension systems.

- Italy and Sweden are transforming their traditional DB public pension systems into notional defined contribution systems in which benefits are in effect indexed to the growth in the payroll tax base.

- Germany and Japan have added “demographic stabilizers” to their DB systems that achieve a similar result by automatically adjusting annual benefits to offset the annual change in the system dependency ratio of retired beneficiaries to contributing workers.

- Many other developed countries have raised retirement ages, trimmed benefit formulas, and adjusted indexing provisions.

Cumulative Percentage Decline in Current-Law Public Pension Benefits to the Elderly Relative to "Current-Deal" Benefits, from 2010 to 2040*

<table>
<thead>
<tr>
<th>Country</th>
<th>Cumulative Percentage Decline</th>
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<tbody>
<tr>
<td>Netherlands</td>
<td>3%</td>
</tr>
<tr>
<td>Sweden</td>
<td>-14%</td>
</tr>
<tr>
<td>US</td>
<td>-15%</td>
</tr>
<tr>
<td>Australia</td>
<td>-22%</td>
</tr>
<tr>
<td>UK</td>
<td>-24%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>-24%</td>
</tr>
<tr>
<td>Canada</td>
<td>-25%</td>
</tr>
<tr>
<td>France</td>
<td>-28%</td>
</tr>
<tr>
<td>Japan</td>
<td>-33%</td>
</tr>
<tr>
<td>Germany</td>
<td>-34%</td>
</tr>
<tr>
<td>Spain</td>
<td>-38%</td>
</tr>
<tr>
<td>Italy</td>
<td>-42%</td>
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*The "current-deal" projection assumes that retirement ages and replacement rates remain unchanged in the future.

Source: GAP Index, 2nd Edition (CSIS, 2013)
Meanwhile, despite the comparatively low level of dependence of the U.S. elderly on public benefits, Social Security reform continues to prove elusive.

- Part of the explanation may be that the challenge has appeared less urgent. Until recently, America’s age wave still loomed over the horizon, while in Europe and Japan aging populations have been burdening public budgets and slowing economic growth for decades.

- Part of the explanation may be that trust-fund accounting masks the magnitude of the cost challenge.

- Part may also lie in America’s peculiar entitlement ethos. Much of the public views Social Security as a quasi-contractual arrangement between individual and state, rather than as social welfare with a public purpose. Paradoxically, this mindset may make old-age benefits more difficult to reform in the United States than in Europe’s large welfare states.

**Public Benefits as a Percent of the Cash Income of the Median-Income Elderly (Aged 60 & Over) in 2010***

*Income refers to the third quintile of the elderly income distribution.

Source: GAP Index, 2nd Edition (CSIS, 2013)
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