

The Future of Social Security

Andrew B. Abel

October 4, 2000

OASDI Operations Estimates for 2000

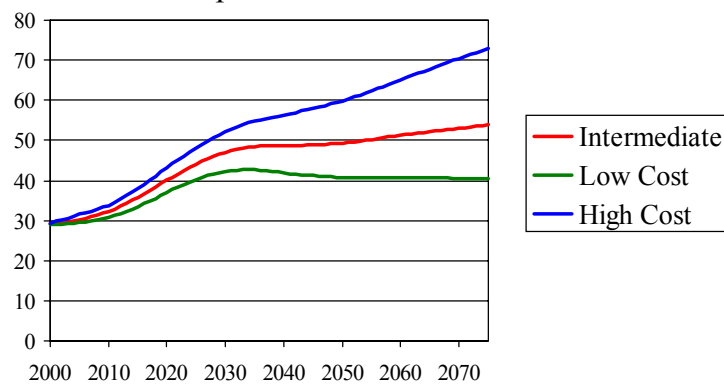
(billions of dollars, except Trust fund ratio)

| | | |
|---------------------------------|-------|--------|
| Trust fund at beginning of year | | 896.1 |
| Income excluding interest | 500.7 | |
| Interest income | 64.9 | |
| Total income | 565.7 | |
| Outgo | 410.3 | |
| Net income | 155.4 | |
| Trust fund at end of year | | 1051.5 |
| Trust fund ratio | | 2.18 |

Source: 2000 OASDI Trustees Report, Table III.B2.

Social Security: Demographic Time Bomb

Beneficiaries per 100 Covered Workers



Source: 2000 OASDI Trustees Report, Table II.F.19

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3

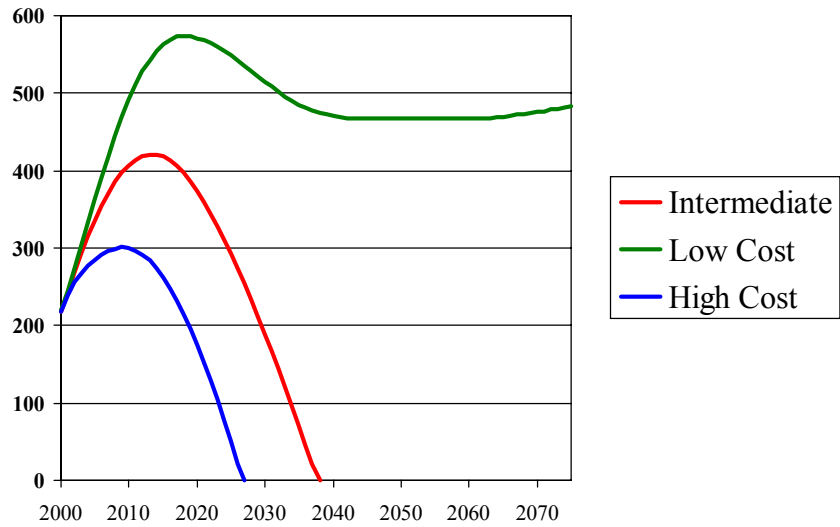
Baby Boom in a PayGo System

- Seeds of the Problem
 - Boomers in the work force
 - Easy to pay high per-retiree benefits to early (small) cohorts of retirees
- The Problem Blossoms
 - Boomers in retirement
 - High per-retiree benefits are expected (promised)
 - Large number of retirees

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4

OASDI Trust Fund Ratio



Source: 2000 OASDI Trustees Report, Table II.F.20
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5

OASDI Trust Fund Ratios

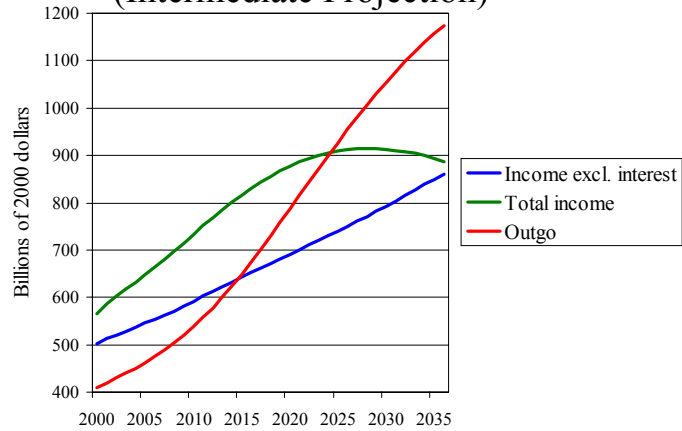
| | Intermediate | Low Cost | High Cost |
|------------------------------|--------------|----------|-----------|
| Maximum trust fund ratio (%) | 421 | 574 | 301 |
| Year attained | 2013 | 2018 | 2009 |
| Year of exhaustion | 2037 | -- | 2026 |

Source: 2000 OASDI Trustees Report, Table I.G3.

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6

Trust Fund Operations (Intermediate Projection)



First year outgo exceeds income excl. interest: 2015

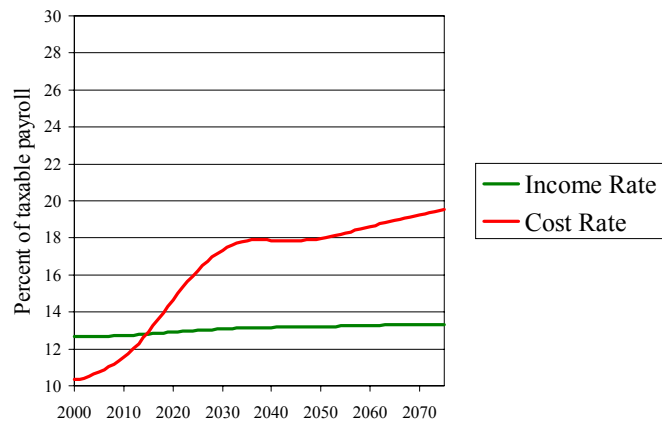
First year outgo exceeds total income: 2025

Source: 2000 OASDI Trustees Report, Table III.B2.

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7

Income and Cost Rates: Intermediate

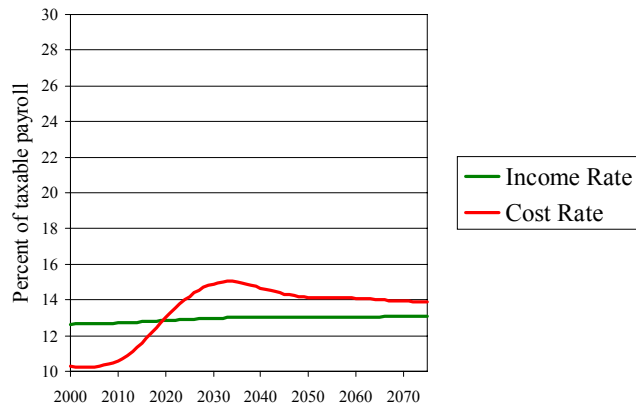


Source: 2000 OASDI Trustees Report, Table II.F.13

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8

Income and Cost Rates: Low Cost

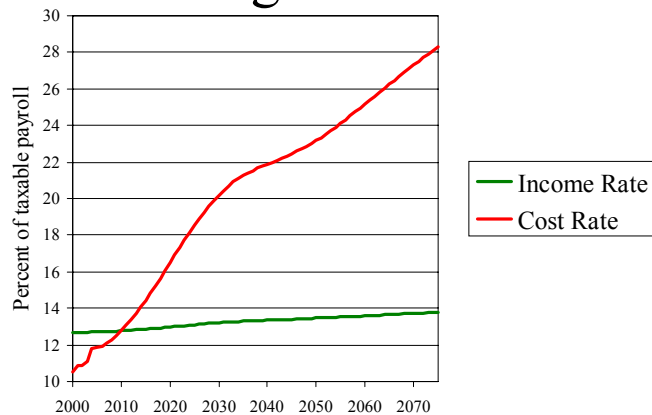


Source: 2000 OASDI Trustees Report, Table II.F.13

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9

Income and Cost Rates: High Cost



Source: 2000 OASDI Trustees Report, Table II.F.13

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10

Actuarial Balance

| Intermediate | Income rate | Cost rate | Balance |
|---------------------|--------------|--------------|--------------|
| 2000 - 2024 | 12.76 | 12.30 | 0.46 |
| 2025 - 2049 | 13.11 | 17.55 | -4.44 |
| 2050 - 2074 | 13.26 | 18.67 | -5.42 |
| 2000 - 2074 | 13.51 | 15.40 | -1.89 |
| Low Cost | Income rate | Cost rate | Balance |
| 2000 - 2024 | 12.73 | 11.30 | 1.43 |
| 2025 - 2049 | 12.98 | 14.65 | -1.68 |
| 2050 - 2074 | 13.03 | 14.04 | -1.01 |
| 2000 - 2074 | 13.41 | 13.03 | 0.38 |
| High Cost | Income rate | Cost rate | Balance |
| 2000 - 2024 | 12.81 | 13.62 | -0.81 |
| 2025 - 2049 | 13.27 | 21.11 | -7.84 |
| 2050 - 2074 | 13.59 | 25.40 | -11.81 |
| 2000 - 2074 | 13.65 | 18.65 | -5.00 |

Source: 2000 OASDI Trustees Report, Tables I.G1 and I.G2.

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11

75-Year Actuarial Balance and Annual Balance in 2075 (percent of taxable payroll)

| | 75-Year Actuarial Balance | Annual Balance in 2075 |
|--------------|------------------------------|---------------------------|
| Intermediate | -1.89 | -6.19 |
| Low Cost | 0.38 | -0.86 |
| High Cost | -5.00 | -14.50 |

Source: Tables I.G2 and II.F13

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12

Why Should the Government Provide Retirement Income?

- Myopia/Ignorance of Individuals?
- Adverse Selection in Private Annuities
 - Compulsory program is immune to adverse selection
- Moral Hazard of Individual Savers
 - Government will not let them starve
- Redistribution of Income
 - Intra-generational and inter-generational

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13

PayGo vs. Funded

- PayGo
 - Decreases national capital accumulation
 - Allows intergenerational risk sharing
 - Social Security began during Great Depression
 - Requires intergenerational cooperation
- Funded
 - Increases capital accumulation and wages
 - Does not rely on intergenerational cooperation
 - Does not allow intergenerational risk sharing

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14

Strategies for Fixing Social Security

- Changes within Current PayGo Framework
- Change the Structure to a Funded System
 - Funded system run by government
 - Funded system with limited individual control
 - Privatization
 - These changes require a transition that respects currently accrued promises

Strategies in PayGo Framework

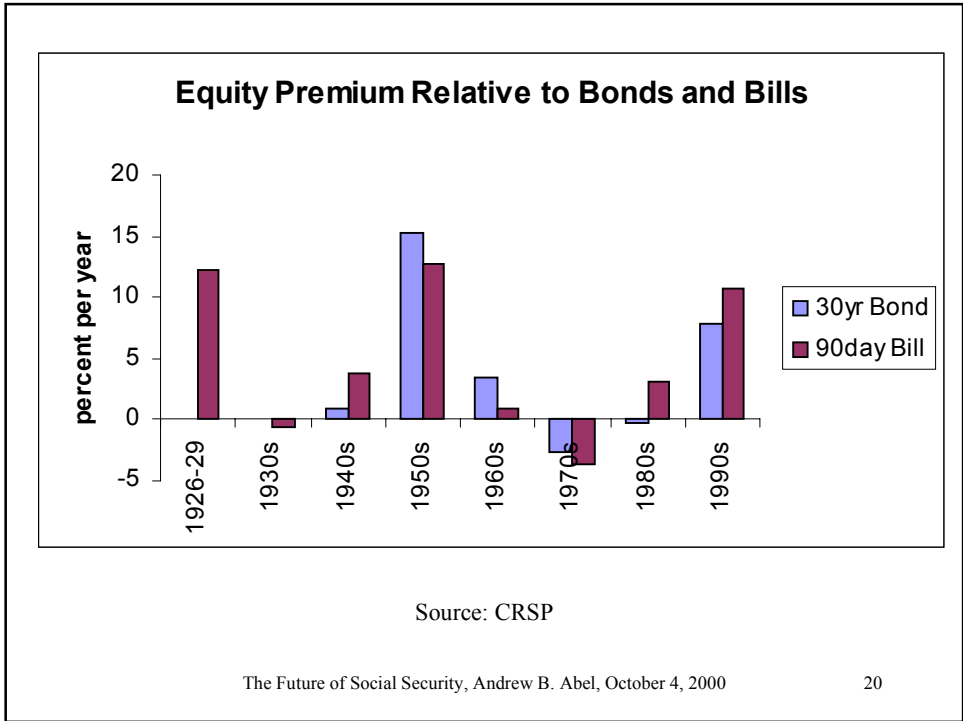
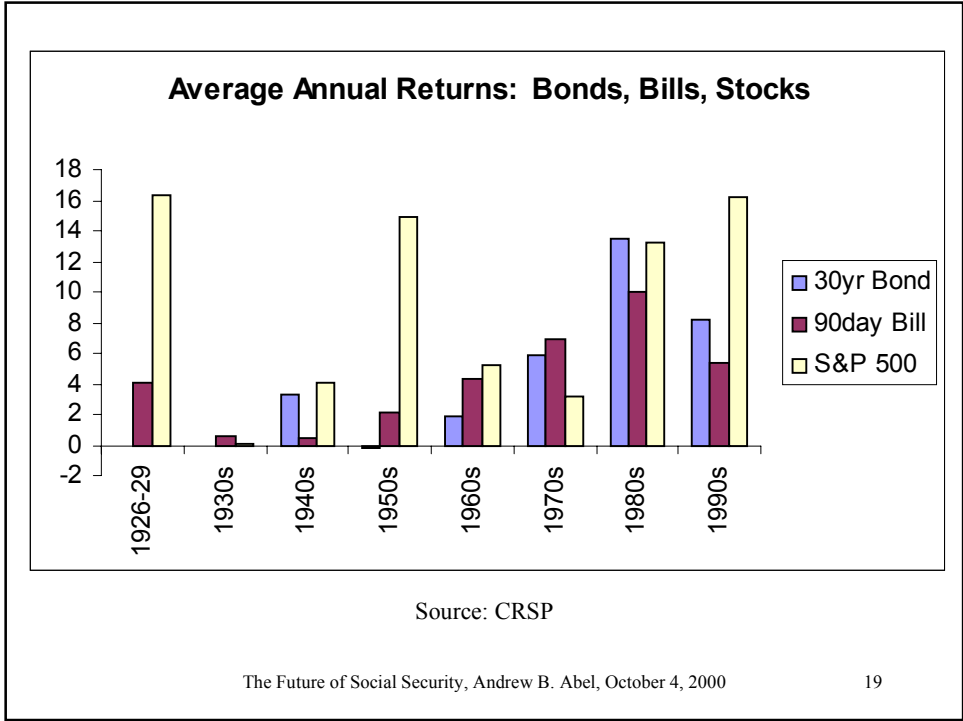
- Increase Contributions by Workers
 - Increase OASDI taxes
 - increase tax rate or remove cap
 - Increase retirement age
- Reduce Benefits Paid to Retirees
 - Increase retirement age
 - Tax Social Security benefits (redistributional)
- Earn Higher Return on Assets in Trust Fund
 - Invest in other assets such as equities

Moving to a Funded System

- \$9 Trillion of Unfunded Liabilities
 - Transition to funded system cannot ignore these
 - Could issue “recognition bonds”
 - People might accept less than 100% of claim
 - Would increase debt/GDP from 0.35 to 1.25

Motivation for Equity Investment: Exploit the Equity Premium

- Equity Premium = Rate of return on stock minus riskless interest rate
 - Ex post equity premium - data presented below
 - Ex ante equity premium
 - should guide investment
 - unobservable
- No Free Lunch: Equity premium is risky



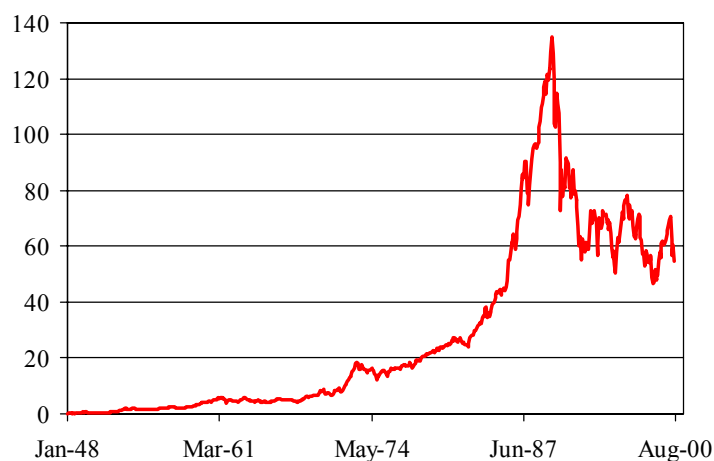
Will the Equity Premium Persist?

- Is the Market Overvalued?
 - Historically high price/earnings ratios
 - Reversion to typical P/E would reduce returns
- Demographic Factors?
- Effect of Trust Fund Investment on Equity Premium?
 - Probably will reduce equity premium
 - By how much?

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21

Index of Stock Prices in Japan



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22

How Big is the Risk of Investing in Equities? - Conceptual Issues

- Who Bears the Risk of Low Investment Returns?
 - If Trust Fund invests in equities
 - If private accounts invest in equities
- Can the Trust Fund be Used to Share Risks across Generations?
- Intra-generational Distributional Issues
 - Social Security is more important for low-income families
 - May bear more of the risk

Gore Plan – Debt Reduction

- “Prosperity for America’s Families – The Gore Lieberman Economic Plan”
- Pay off Federal debt to public by 2012
- Current debt held by public: \$3.4 trillion
- Ten-year plan for \$3 trillion public debt reduction
 - \$2.3 trillion from SS surplus
 - \$0.45 trillion from Medicare surplus
 - \$0.3 trillion (1/6 of non-SS/non-Medicare surplus) in Surplus Reserve Fund

Gore Plan – Social Security

- Plan to extend solvency of SS system to 2054
- Save SS surplus in lockbox
- During years 2011-2050, use interest savings (from reduced Federal debt) for Social Security
- Reduce poverty among elderly women
 - Reduce motherhood penalty (5 years credit for raising children)
 - Increase widow's benefit
- Retirement Savings Plus accounts
 - Matching tax credits (3-to-1 for low income)

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25

Bush “Plan” Six Principles

- Do not change existing benefits for retirees or near-retirees
- Use SS surpluses only for future SS
- Do not increase SS payroll taxes
- Government must not invest SS funds in stock market
- Preserve disability and survivors components
- Individually controlled, voluntary personal retirement accounts

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26

Lockbox

- Trust Fund holds Treasury's debt
 - Asset of Trust Fund
 - Liability of Treasury
 - No effect on net worth of consolidated Federal government
- Debt held by public
 - Claims on future tax revenues
- Treasury debt in Trust Fund is a claim on future tax revenue