

Would a Privatized Social Security System Really Pay a Higher Rate of Return?

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Abstract

Many advocates of social security privatization argue that rates of return under a defined contribution individual account system would be much higher for all than they are under the current social security system. This claim is false. The mistake comes from ignoring accrued benefits already promised based on past payroll taxes, and from underestimating the riskiness of stock investments. Confusion arises because three distinct reforms are muddled. By privatization we mean creating individual accounts (which could, for example, be invested exclusively in bonds). By diversification we mean investing in stocks, and perhaps other assets, as well as bonds; diversification might be undertaken either by individuals in their private social security accounts, or by the social security trust fund. By prefunding we mean closing the gap between social security benefits promised to date and the assets on hand to pay for them. Any one of these reforms could be implemented without the other two. If the system were completely privatized, with no prefunding or diversification, the social security system would need to raise new taxes in order to pay benefits already accrued. These added taxes would completely eliminate any rate of return advantage on the individual accounts. If the economy continued to grow at rates comparable to the last 25 years, and if real interest rates remained at levels comparable to their long run historical average, then the new taxes would amount to 3% of payroll in perpetuity (which is a quarter of today's social security taxes). Unlike diversification, prefunding would raise rates of return for later generations, but at the cost of lower returns for today's workers. For households able to invest in the stock market on their own, diversification would not raise rates of return, correctly adjusted to recognize risk. Households that are constrained from holding stock, due to lack of wealth outside

of social security or to fixed costs from holding stocks, would gain higher risk-adjusted returns and would benefit from diversification. If this group is large, diversification would raise stock values, thus helping current stockholders, but it would lower future stock returns, thus hurting young unconstrained households. Overall, since the number of truly constrained households is probably not that large, privatization and diversification would have a much smaller effect on returns than reformers typically claim.

Table 1: Differentiating Privatization, Prefunding, and Diversification of Social Security

- **Privatization:** Replace existing social security system with a system of individual accounts held and managed by individuals.
- **Prefunding:** Raise contributions and/or cut benefits so as to lower the sum of explicit and implicit debt associated with the system.
- **Diversification:** Invest social security funds into a broad range of assets, including equities.

		Privatization	
		NO	YES
Prefunding	NO	• Current system Diversification No: Current system Yes: Borrow, invest proceeds in equities through trust fund	• Create individual accounts • Issue recognition bonds • Perpetually roll over principal and enough interest to keep path of debt same as that of unfunded liability under current system Diversification No: Require individual accounts to hold bonds Yes: Permit individual accounts to hold equities and bonds
	YES	• Raise taxes / cut benefits to decrease unfunded liability Diversification No: Invest trust fund in bonds Yes: Invest trust fund in equities	• Create individual accounts • Issue recognition bonds • Raise taxes / cut benefits to make path of debt lower than path of unfunded liability under current system Diversification No: Require individual accounts to hold bonds Yes: Permit individual accounts to hold equities and bonds

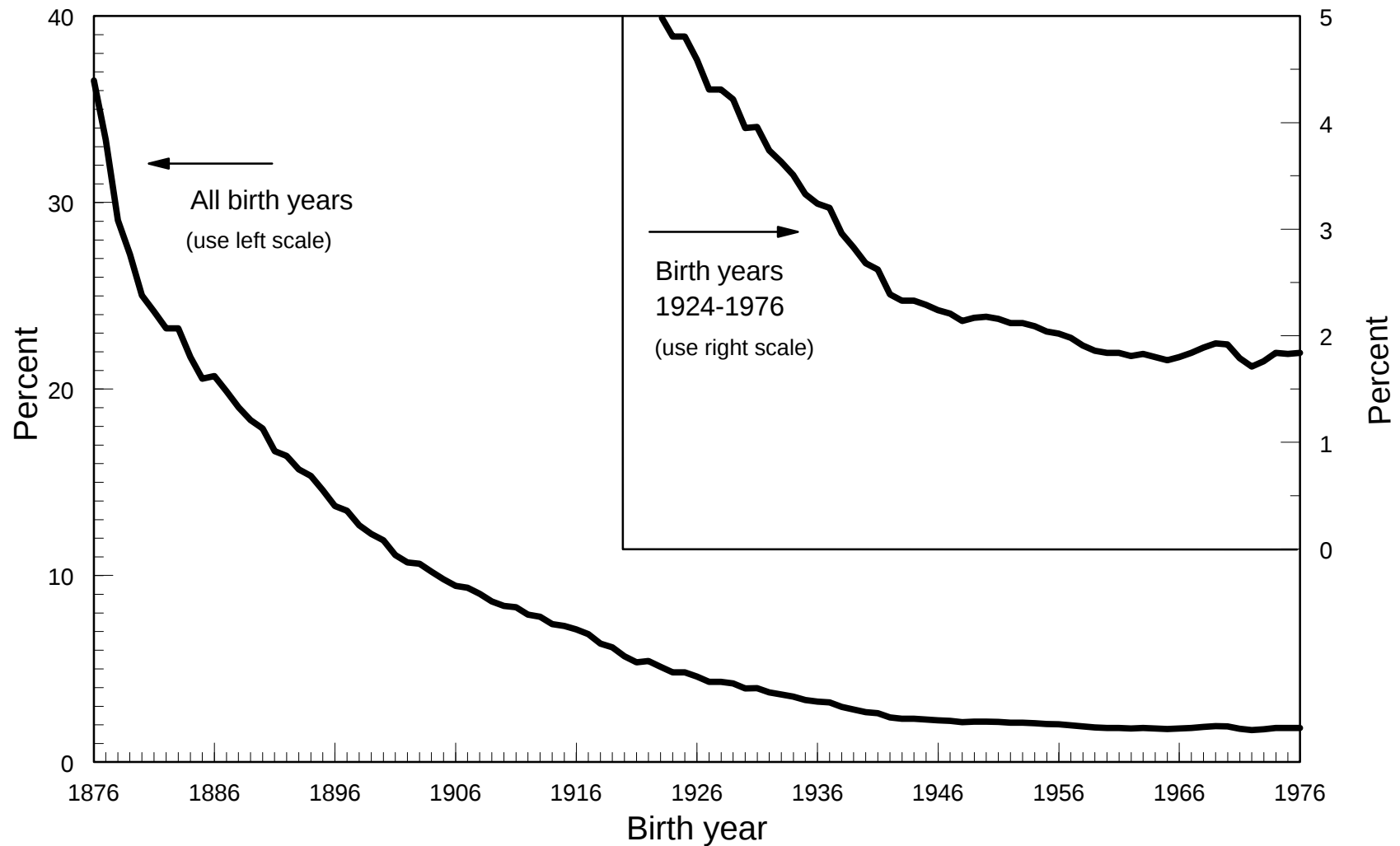
Privatization, prefunding, and diversification are distinct concepts. It is possible to have any one, without either of the other two.

**Table 2: Annual Inflation-Adjusted Returns on
Stocks and Government Bonds: 1926-1996**

Asset	Arithmetic average return (%)	Standard deviation (%)
Real S&P 500	9.4	20.4
Real long-term government bond	2.4	10.5
Real intermediate-term government bond	2.3	7.1
Real short-term T-bill	0.7	4.2

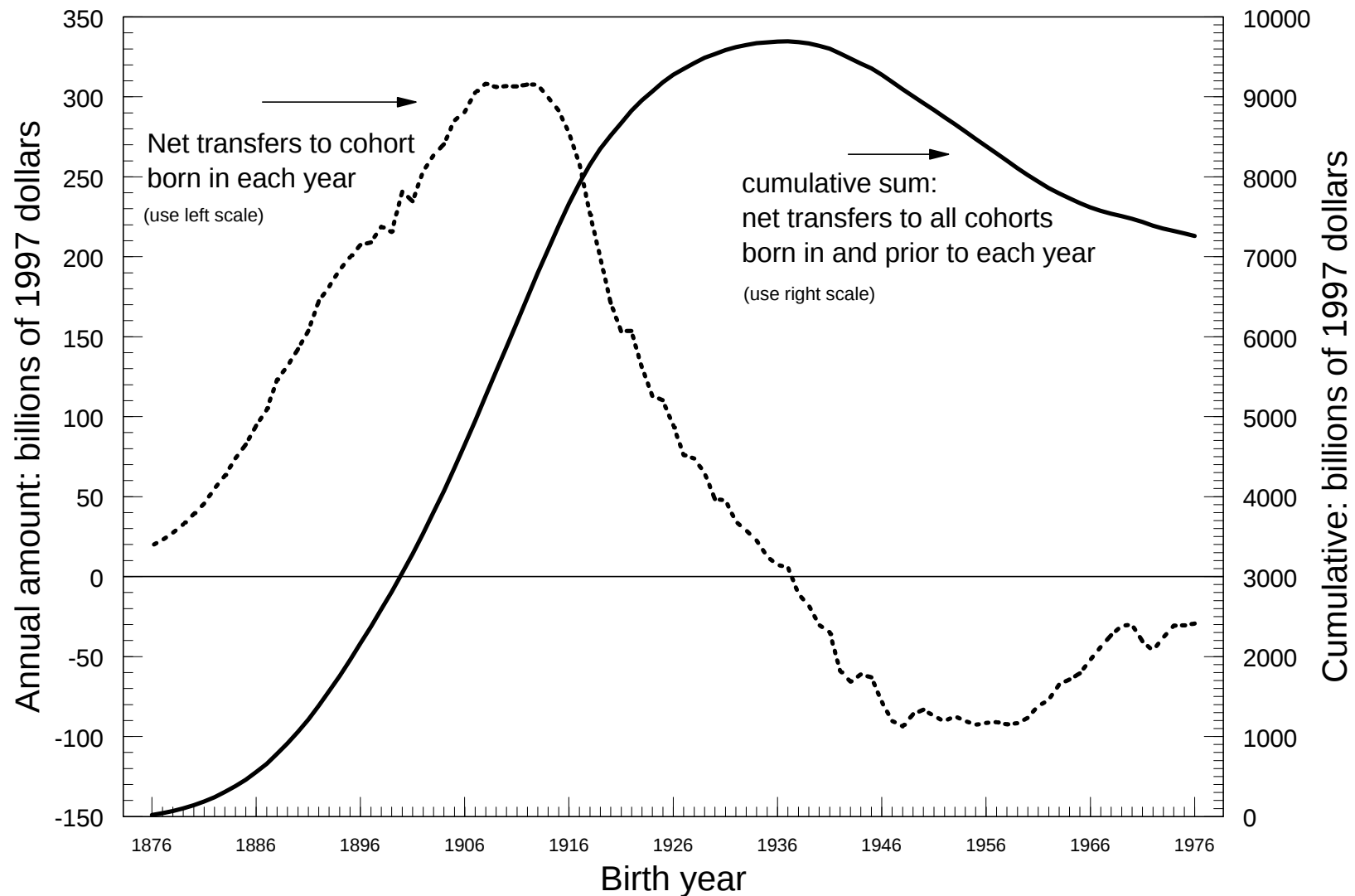
Source: Authors' calculations based on data from Ibbotson & Associates (1998).

Figure 1:
Estimated Real Internal Rates of Return
on Social Security Contributions



Source: Leimer (1994) tax increase balanced budget scenario.

Figure 2: Social Security Net Intercohort Transfers



Source: Leimer (1994) tax increase balanced budget scenario, and authors' calculations.
All figures are present values as of 1997.