

Social Security Privatization and the Poor^{*}

by

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Introduction

Social Security's long term financial health is weak at best. It is now well appreciated that reforms that maintain the system's structure—hiking payroll taxes or cutting benefits to restore solvency through the next 75 years—will postpone but not necessarily eliminate Social Security's financial shortfall. Moreover, such fixes will not remedy the system's structural shortcomings, nor will they eliminate the undesirable macroeconomic effects of the current system—distortions in saving and labor market choices. A more desirable solution is to move to a privatized system with individual accounts.

The major challenge in moving to a privatized system is financing the transition. However, critics also raise the issue of inequality: Social Security privatization is likely to expose retirement savings to greater market risk. Unlike high earning households, low earners—single mothers, minorities, and the less educated—do not possess, nor can they afford, the financial expertise necessary to appropriately manage their investment portfolios. These groups may end up with significantly larger shortfalls in retirement resources under a privatized system than they would under the current system. Hence, wealth inequality among retirees, already quite high, may increase even more.

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Most discussions about the impact of Social Security privatization on wealth inequality pay scant attention to a more fundamental cause of such inequality. Saving—or, rather, the lack of it—by low-earning households is probably equally if not more important than the issue of financial management skills in determining the degree of wealth inequality under the current environment. Indeed, very few seem to appreciate that Social Security itself may be contributing to the observed degree of wealth inequality among retirees rather than limiting it.

Today, I wish to highlight two research results: The first concerns the impact of traditional (nonprivatization) reforms on poor households and the second pertains to the impact of Social Security privatization on inequality in bequeathable wealth at retirement.

1. Traditional (Nonprivatization) Social Security Reforms and the Poor

The first result, based on calculations made by Larry Kotlikoff and myself, points out that most of the traditional “fixes” to the current system also impose disproportionately heavy burdens on low-income groups. Table 1 shows the impact of various Social Security reforms on the lowest, middle, and highest quintiles of lifetime earnings in selected cohorts by year of birth. The impact is measured in terms of increases in lifetime net-tax rates through Social Security (OASI) following particular policy changes to the system.¹ The first four columns in Table 1 show cohort-specific lifetime net-tax rates under “current rules” and alternative policy reforms that do not

¹ The lifetime net tax rate refers to the excess of the present value of OASI payroll taxes over the present value of OASI benefits as a percentage of the present value of lifetime earnings. The calculation pools observations within each combination of year-of-birth and lifetime earnings quintile, and present values are calculated using a 5 percent discount rate. For more details, see “Social Security’s Treatment of Postwar Americans: How Bad Can It Get” by Jagadeesh Gokhale and Laurence J. Kotlikoff in Distributional Aspects of Investment-Based Social Security Reforms, ed. by Martin Feldstein and Jeffery Leibman, forthcoming 2001.

involve privatization.² The last four columns show policy-specific increases in lifetime net-tax rates relative to those under current rules.

It is quite evident that the poorest lifetime earners suffer the largest increases in lifetime net-tax rates under all policies except those that, by design, exclusively increase the lifetime net tax rates of high lifetime earners. For example, a direct tax hike hits the poorest and middle lifetime earners the hardest. A direct benefit cut increases the lifetime net-tax rates of the poorest old and middle-aged cohorts by more than a direct tax hike. Moreover, increases in lifetime net-tax rates from a direct benefit cut are larger for the poorest compared to middle and upper income households.

Policies 3 through 7 and policy 10 impose indirect benefit cuts by manipulating different aspects of Social Security's benefit formula. In each case, the poorest lifetime earners suffer the largest increase in lifetime net-tax rates. The poorest earners enjoy the same or lower lifetime net-tax rates only under policies 8 and 9, both of which exclusively target tax hikes on high lifetime earners. The conclusion that the poorest lifetime earners suffer the largest increases in lifetime net-tax rates under most traditional Social Security reforms remains unchanged under alternative discount-rate assumptions.

2. Inequality in Bequeathable Wealth—Why is it Important?

The second result concerns inequality in *bequeathable* wealth at retirement and the transmission of this inequality across generations.³ Many less well-off households—minorities and those with low education and earnings—save very little and own almost no financial wealth at retirement. Low saving by low lifetime earners renders the

² The alternatives considered are based on popularly suggested reform proposals and all improve Social Security's financial position. However, none except the first two restore the system to full, long-term solvency.

distribution of bequeathable wealth among retiring cohorts in the United States highly unequal. According to the Federal Reserve's Survey of Consumer Finances, of all the wealth owned by married households around the time of retirement (age 60-69), the richest 1 percent own one third; the top 5 percent own about one-half; and the top 10 percent own nearly two-thirds. Contrary to conventional wisdom, Social Security may be a minor contributor to such a high level of inequality.

Wealth in the form of an entitlement to future Social Security and Medicare benefits—annuitized wealth—helps finance retirement consumption. However, it is now widely appreciated that these benefits alone are not enough. Access to wealth in “bequeathable” form (stocks, bonds, an “individual account”) provides additional options for spending during retirement. For example, financing a child's college education, helping him or her with a down-payment on a house, entering a nursing home, or leaving a bequest—are options that remain open with bequeathable wealth but are foreclosed when most of one's wealth is annuitized. Hence, the fact that the U.S. exhibits a sizable degree of inequality in bequeathable wealth at retirement is a matter of some concern.

Another issue that is not as evident and is hardly ever discussed (probably because we lack appropriate data) is that intergenerational mobility in bequeathable wealth may also be very low in the United States, especially in the upward direction. And, again, the reason for this may be Social Security.

3. Inequality in Bequeathable Wealth and Its Transmission across Generations

(What's Social Security Got to Do with it?)

³ Bequeathable wealth includes net worth and term life insurance. It excludes annuitized wealth—mainly the discounted value of Social Security, Medicare, and private pension benefits.

According to a recent simulation study, Social Security is an important contributor to inequality in bequeathable wealth in the United States.⁴ Moreover, because Social Security contributes significantly to inequality in bequests, it induces greater persistence in this inequality across household dynasties: The existence of Social Security reduces or eliminates low lifetime earners' incentives to arrive at retirement with significant personal savings. This is because Social Security already provides them with an annuity that almost fully covers their target post-retirement consumption level (consistent with smoothing their lifetime consumption). This implies that low lifetime earners possess little bequeathable wealth during retirement and therefore pass on next to nothing to their offspring.

In contrast, high earners—who receive only a very small fraction of their target retirement consumption from Social Security—accumulate considerable personal savings through retirement. They arrive at retirement with a stock of bequeathable wealth that is almost as high as it would be in the absence of Social Security. Hence, the children of the rich may continue to receive large inheritances upon their parents' death. Because of its asymmetric impact on saving by low and high lifetime earners, Social Security may be reducing or eliminating inheritances by children in poor households but not by those born in rich ones. In turn, this may reinforce the chance that the children of the poor, in contrast to those of the rich, themselves arrive at retirement with low bequeathable wealth levels.

This suggests that by making the distribution of bequests more unequal, Social Security may increase the persistence of inequality in bequeathable wealth among poorer

⁴ The other factors are skill (earnings) differences and assortative marriage by skills. See “Simulating the Transmission of Wealth Inequality via Bequests” by Jagadeesh Gokhale, Laurence J. Kotlikoff, James

households. Showing that this is true for any economy is difficult, if not impossible, because the required data on bequests and inheritances is unavailable and, indeed, may be impossible to collect. However, the aforementioned dynamic simulation calibrated to the U.S. economy can help provide ballpark estimates of Social Security's influence on inequality in bequeathable wealth at retirement and on the transmission of this inequality across generations.⁵

4. Results from a Simulation Study

1. Inequality in Bequeathable Wealth

Calibrating the simulation under current Social Security tax and benefit benchmarks yields a Gini coefficient of 0.674 for the distribution of bequeathable wealth at retirement.⁶ This is quite close to the observed value of 0.73 (as calculated from the Survey of Consumer Finances). Moreover, the simulated distribution of bequeathable wealth at retirement closely approximates the concentration of wealth at the upper tail of the observed distribution. In the simulated distribution, of all bequeathable wealth held by households that are about to retire, the top 1 percent hold 32.8 percent; the top 5 percent hold 49.4 percent; and the top 10 percent hold 58.8 percent. When Social Security is eliminated (which, in the simulation model, is equivalent to privatizing it), the simulated Gini value *falls* to 0.666.

Sefton, and Martin Weale, *Journal of Public Economics*, 79 (2001), pp. 93-128.

⁵ The model simulates an 88-period, overlapping-generations economy, with each generation consisting of 2000 married households with demographic and economic characteristics calibrated to the U.S. economy. The factors studied in this model are the process of involuntary bequests and inheritance, fertility differences, skill (earnings) differences, partial marital sorting by skill levels, partial inheritance of skills, rate-of-return heterogeneity, progressive income taxation, and Social Security.

⁶ The estimates reported here should be viewed with caution, as they are based on a stylized life-cycle simulation model. First, life-cycle behavior may not be an accurate representation of individual behavior and second, for tractability, the model abstracts from a number of features of the real-world U.S. economy—for example, all households are assumed to be married; fertility among all households is always positive, and the observed negative correlation of mortality with skills and wealth is ignored.

II. The Transmission of Inequality across Generations

The simulation's results on the *transmission* of inequality in bequeathable wealth across generations are more striking. Tables 2 and 3 report conditional bequeathable-wealth-transition probabilities in long-run equilibrium. In both tables, each row represents a parent wealth position at retirement; each column shows the child's wealth position when the child retires.⁷ For example, the number in the first row and fifth column in Table 1 (0.9) shows the probability (in percent) that the child's household will be in the fifth wealth range (24-30) at retirement given that the parent household was in the first wealth range (0-6) when it retired.

Table 2 shows the results under current Social Security conditions. Children of parents who are poorest at retirement have a 47.4 percent likelihood of ending up in the poorest group themselves just prior to their retirement. Simple calculations based on Table 2 show that, in long-run equilibrium, fully two-thirds of all households are in the two lowest bequeathable wealth categories and that the children of these parents will end up in one of the same two categories 76.7 percent of the time. On the other hand, the likelihood that these children will end up in one of the highest five wealth ranges is 1.2 percent. That is, in long-run equilibrium, a large fraction of households have low bequeathable wealth at retirement, and this state is highly persistent from one generation to the next. Simply stated, there is little upward intergenerational mobility in bequeathable wealth at retirement.

⁷ In the simulated economy, all inheritances are received prior to retirement. Hence, to study the full impact of bequests and inheritances on retirement wealth, wealth levels are compared across generations at each generation's retirement age. The wealth ranges specified are based on a normalization yielding a wage flow for the economy of \$176,000 per year.

Table 2 also suggests that children of those in wealth ranges greater than 18 (approximately the top quintile of the wealth distribution) will themselves end up in one of these wealth ranges 45.4 percent of the time. Children of the very rich—those in the highest wealth range in Table 2—have a 15.9 percent chance of ending up in the highest wealth range. Along with exhibiting low upward mobility, Table 2 also exhibits a fair amount of *downward* intergenerational mobility in bequeathable wealth: Children of the very rich have a 51.6 percent chance of ending up in one of the lowest five wealth ranges.

To see the impact on intergenerational wealth mobility of privatizing Social Security (which is implemented in the model by eliminating it), consider Table 3.⁸ Here, children of those who are poorest at retirement will also be in the poorest wealth range when they retire only 23.1 percent of the time (as opposed to 47.4 percent in Table 2). In long-run equilibrium, households in the two lowest wealth categories comprise only 34.9 percent of all households, and children in these households enter retirement with similar wealth levels only 57.2 percent of the time—much lower than the 76.7 percent likelihood of Table 2. Under privatized Social Security, the likelihood that these children will end up in the five richest wealth classes increases slightly from 1.2 to 1.9 percent. The children of the richest now have a higher likelihood of ending up in the richest wealth range themselves—22.6 percent. Finally, privatizing Social Security reduces downward wealth mobility: Children of the very rich now have only a 26.8 percent likelihood of ending up in the lowest five wealth ranges.

5. Conclusion

⁸ It is assumed that after eliminating Social Security, households do not (or cannot) replicate the annuitization imposed via Social Security. This assumption would be valid, at least at the margin, if most households prefer a lower degree of annuitization than they currently have under Social Security. This assumption is likely to be valid for poor households, whose share of annuitized to total retirement resources

Preserving a portion of total wealth in bequeathable form during retirement is desirable as it increases the configuration of spending options available for retirees. The observed degree of inequality in bequeathable wealth at retirement is quite high but, to a minor extent, this may be because of, rather than despite, the existence of Social Security. Simulating the long-run equilibrium distribution of bequeathable wealth at retirement for the U.S. economy suggests that privatizing Social Security may slightly reduce inequality. Given that most Social Security reforms that do not involve privatization may end up hurting the poor disproportionately, this result suggests that privatization may be the better alternative from the perspective of improving the lot of the poor. The case for privatizing Social Security is strengthened further by its likely long-run impact on intergenerational mobility across the distribution of bequeathable wealth at retirement. The simulation results presented here suggest that privatization will not worsen inequality in bequeathable wealth indeed, may reduce it slightly and it may improve in the upward intergenerational mobility across the distribution of bequeathable wealth.

is very high. Alternatively, annuity markets may remain thin because of adverse selection problems even after Social Security is privatized.

Table 1: The Impact of Potential OASI Reforms on Lifetime Net-Tax rates (discount rate=5%)

Quintile of Lifetime Earnings:	<u>Lifetime Net Tax Rate</u>				<u>Increase from Current Rules</u>			
	Lowest	Middle	Highest	All	Lowest	Middle	Highest	All
Birth Cohort 1945-49								
0 Current Rules	-4.2	6.1	5.0	5.3				
1 38% Tax Hike Beginning in Year 2000	-3.9	6.4	5.3	5.7	0.3	0.3	0.3	0.4
2 25% Benefit Cut Beginning in Year 2000	-.2	7.1	5.4	6.0	4.0	1.0	0.4	0.7
3 Accelerated Increase in NRA	-1.7	6.9	5.4	5.9	2.5	0.8	0.4	0.6
4 CPI Indexing of Covered Earnings	-3.0	6.4	5.1	5.6	1.2	0.3	0.1	0.3
5 Indexing Benefits by CPI Minus 1%	-2.5	6.5	5.1	5.6	1.7	0.4	0.1	0.3
6 Stabilize Real Per Capita Benefits	-2.3	6.6	5.2	5.7	1.9	0.5	0.2	0.4
7 Freeze Bend Points in Real Terms	-3.8	6.3	5.0	5.4	0.4	0.2	0.0	0.1
8 Eliminate Earnings Ceiling	-4.4	6.1	5.3	5.5	-0.2	0.0	0.3	0.2
9 Eliminate Earnings Ceiling w/o Benefit Change	-4.2	6.1	5.4	5.6	0.0	0.0	0.4	0.3
10 Increase Computation Years from 35 to 40	-3.5	6.3	5.0	5.4	0.7	0.2	0.0	0.1
Birth Cohort 1970-74								
0 Current Rules	-3.4	5.7	5.3	5.4				
1 38% Tax Hike Beginning in Year 2000	-1.1	8.4	7.1	7.6	2.3	2.7	1.8	2.2
2 25% Benefit Cut Beginning in Year 2000	.0	6.9	5.7	6.1	3.4	1.2	0.4	0.7
3 Accelerated Increase in NRA	-1.6	6.5	5.6	5.9	1.8	0.8	0.3	0.5
4 CPI Indexing of Covered Earnings	-2.2	6.1	5.4	5.6	1.2	0.4	0.1	0.2
5 Indexing Benefits by CPI Minus 1%	-1.9	6.2	5.4	5.7	1.5	0.5	0.1	0.3
6 Stabilize Real Per Capita Benefits	1.9	7.5	5.9	6.5	5.3	1.8	0.6	1.1
7 Freeze Bend Points in Real Terms	-2.2	6.3	5.5	5.8	1.2	0.6	0.2	0.4
8 Eliminate Earnings Ceiling	-4.1	5.7	7.7	6.9	-0.7	0.0	2.4	1.5
9 Eliminate Earnings Ceiling w/o Benefit Change	-3.4	5.7	8.2	7.3	0.0	0.0	2.9	1.9
10 Increase Computation Years from 35 to 40	-2.6	5.9	5.3	5.5	0.8	0.2	0.0	0.1
Birth Cohort 1995-00								
0 Current Rules	-2.9	5.5	5.4	5.4				
1 38% Tax Hike Beginning in Year 2000	.9	9.3	8.0	8.4	3.8	3.8	2.6	3.0
2 25% Benefit Cut Beginning in Year 2000	.4	6.7	5.8	6.1	3.3	1.2	0.4	0.7
3 Accelerated Increase in NRA	-1.3	6.2	5.6	5.8	1.6	0.7	0.2	0.4
4 CPI Indexing of Covered Earnings	-1.7	5.9	5.5	5.6	1.2	0.4	0.1	0.2
5 Indexing Benefits by CPI Minus 1%	-1.5	5.9	5.5	5.6	1.4	0.4	0.1	0.2
6 Stabilize Real Per Capita Benefits	6.8	9.0	6.6	7.5	9.7	3.5	1.2	2.1
7 Freeze Bend Points in Real Terms	-.9	6.4	5.7	5.9	2.0	0.9	0.3	0.5
8 Eliminate Earnings Ceiling	-3.3	5.5	8.2	7.1	-0.4	0.0	2.8	1.7
9 Eliminate Earnings Ceiling w/o Benefit Change	-2.9	5.5	8.7	7.5	0.0	0.0	3.3	2.1
10 Increase Computation Years from 35 to 40	-2.2	5.7	5.4	5.5	0.7	0.2	0.0	0.1

Source: Author's calculations based on "Social Security's Treatment of Postwar Americans: How Bad Can It Get" by Jagadeesh Gokhale and Laurence J. Kotlikoff in Distributional Aspects of Investment Based Social Security Reforms, ed. by Martin Feldstein and Jeffery Leibman, forthcoming 2001.

Table 2. Transition Matrix: Bequeathable Wealth at Retirement for Parent and Child Households

Features: Inheritances; Skill Differences; Marital Sorting; Inheritance of Skills; Partial Marital Sorting; Skewed Earnings Distribution; Rate-of-Return Heterogeneity; Consumption Growth (1.5% per year through age 66, 0% thereafter); Progressive Income Taxation and Current Social Security System.

j	0-6	6-12	12-18	18-24	24-30	30-36	36-42	42-48	48-54	54-60	66-72	72-78	78-84	84-90	90+
i															
0-6	47.4	41.0	7.1	2.2	0.9	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3
6-12	23.3	45.9	15.5	6.6	3.0	1.6	1.0	0.6	0.4	0.3	0.2	0.2	0.1	0.1	1.2
12-18	9.8	41.7	22.3	10.4	5.3	2.9	1.9	1.1	0.7	0.5	0.3	0.3	0.2	0.2	2.3
18-24	5.7	35.0	25.1	13.2	6.9	3.7	2.6	1.5	1.1	0.6	0.5	0.4	0.3	0.2	3.1
24-30	3.9	28.1	27.1	15.1	8.0	4.9	2.9	2.0	1.2	0.8	0.5	0.5	0.4	0.6	3.7
30-36	3.3	23.5	25.1	16.9	10.0	5.5	4.2	2.7	1.9	1.2	0.5	0.7	0.3	0.2	4.0
36-42	2.3	21.8	25.6	18.4	10.1	6.3	4.5	2.2	1.7	1.4	0.4	0.8	0.5	0.3	3.6
42-48	2.3	18.0	24.7	20.8	11.5	6.3	4.5	3.2	1.4	1.0	0.6	0.8	0.4	0.3	4.2
48-54	2.5	14.2	22.5	18.9	11.5	7.8	5.4	3.5	2.2	1.7	1.0	1.0	0.5	0.4	6.7
54-60	2.1	14.0	22.3	20.7	12.6	7.9	5.6	2.1	2.8	1.5	0.8	1.1	0.2	1.3	4.9
66-72	1.1	14.8	21.3	15.6	14.3	9.2	5.9	2.2	3.2	2.4	0.8	1.3	1.1	0.3	6.5
72-78	3.2	13.6	21.2	19.2	10.6	8.8	6.2	4.7	2.1	0.9	1.5	1.2	1.2	0.6	5.0
78-84	3.0	13.2	18.4	14.3	15.8	12.0	7.5	3.0	3.0	2.3	1.1	0.4	0.8	0.8	4.5
84-90	2.5	15.2	17.3	20.3	9.1	10.2	6.6	5.1	2.5	2.0	1.0	1.5	0.0	0.5	6.1
90+	3.6	11.6	11.6	13.8	11.0	8.4	6.5	5.0	3.3	3.3	1.9	1.7	1.5	1.0	15.9

Note: Numbers show probability (%) child household will be in wealth range j given parent household is in wealth range i.

Source: “Simulating the Distribution of Wealth Inequality via Bequests” by Jagadeesh Gokhale, Laurence J. Kotlikoff, James Sefton, and Martin Weale, *Journal of Public Economics* 79, (2001) 93-128.

Table 3. Transition Matrix: Bequeathable Wealth at Retirement for Parent and Child Households

Features: Inheritances; Skill Differences; Marital Sorting; Inheritance of Skills; Partial Marital Sorting; Skewed Earnings Distribution; Rate-of-Return Heterogeneity; Consumption Growth (1.5% per year through age 66, 0% thereafter); Progressive Income Taxation.

j	0-6	6-12	12-18	18-24	24-30	30-36	36-42	42-48	48-54	54-60	66-72	72-78	78-84	84-90	90+
i															
0-6	23.1	54.4	14.7	4.3	1.5	0.8	0.5	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.3
6-12	10.7	42.2	22.2	10.3	5.0	3.1	1.9	1.2	0.8	0.5	0.3	0.3	0.2	0.2	1.2
12-18	5.0	30.9	23.1	13.4	7.9	5.3	3.8	2.4	1.5	1.2	0.8	0.7	0.5	0.5	3.0
18-24	2.5	22.7	22.7	14.8	9.6	7.0	4.7	3.2	2.5	1.6	1.4	1.1	0.8	0.7	4.6
24-30	1.5	16.3	21.9	16.5	11.2	8.0	6.0	3.6	2.8	2.1	1.3	1.2	1.1	0.8	5.8
30-36	1.0	13.3	19.8	16.5	12.3	8.6	6.3	4.5	3.4	2.2	1.9	1.5	1.2	1.0	6.3
36-42	0.6	10.5	17.9	17.4	12.6	8.7	7.4	4.8	3.7	2.8	2.0	1.5	1.2	1.5	7.5
42-48	0.7	9.0	16.0	15.3	13.8	9.3	7.8	5.5	3.9	3.1	2.5	1.9	1.4	1.3	8.6
48-54	0.6	6.4	14.2	15.1	13.6	9.8	8.1	5.8	4.7	4.0	2.0	2.4	1.8	1.9	9.7
54-60	0.6	6.8	12.3	15.2	11.8	11.2	9.6	6.8	4.5	3.3	2.7	2.4	1.6	1.3	9.7
66-72	0.3	5.2	11.6	14.6	11.3	11.8	8.8	7.2	5.3	4.5	2.8	2.2	2.1	1.5	10.9
72-78	0.3	5.0	9.9	13.3	12.0	12.1	9.3	7.4	5.4	4.4	3.5	2.5	1.9	1.6	11.6
78-84	0.3	5.2	8.7	12.5	13.1	11.4	9.2	7.0	5.4	4.6	3.3	2.3	2.5	2.1	12.4
84-90	0.2	3.7	7.9	12.7	11.3	12.1	9.6	7.8	5.7	4.9	4.5	2.8	2.0	1.9	12.8
90+	0.5	4.0	5.9	7.9	8.6	8.8	8.9	7.3	6.4	5.2	4.2	3.6	3.4	2.7	22.6

Note: Numbers show probability (%) child household will be in wealth range j given parent household is in wealth range i.

Source: Author's calculations.