Social Security Wealth, Inequality, and Lifecycle Saving

John Sabelhaus*

Abstract

Household wealth inequality in the U.S. has been rising, but those measures do not account for Social Security. Policy analysis of Social Security generally involves studying how payroll taxes reduce income for workers and how benefits supplement other types of income for retirees. From another vantage point, though, Social Security represents an unmeasured component of household wealth. For every Social Security participant, Social Security Wealth (SSW) is equal to the present value of future benefits that participant will receive less the present value of future taxes they will pay. When an individual enters the labor force, they face a lifetime of taxes to pay before they will receive any benefits, and thus their SSW is initially negative. As the individual moves through their taxpaying years and into their beneficiary years, their SSW gradually goes from very negative to very positive, before falling again through retirement. The potential magnitude is substantial, as SSW is estimated to dominate other forms of retirement wealth for most workers on the verge of retirement. The accrual of SSW over the working life is also most dramatic for lower-income workers, because the progressive Social Security benefit formula means that taxes paid while working are associated with proportionally higher benefits in retirement. Adding SSW to existing household wealth data sets, which this paper does using a combination of Survey of Consumer Finances (SCF) public-use data and Health and Retirement Study (HRS) data sets, provides a more comprehensive view of wealth inequality over time. The wealth perspective also yields important insights about how Social Security interacts with other retirement wealth, and makes it possible to study how wealth inequality and savings or labor force participation would be affected by future policy actions, including policies focused on system solvency.

Keywords: Social Security Wealth, Wealth Inequality, Lifecycle Savings

*Assistant Director, Division of Research and Statistics, Board of Governors of the Federal Reserve System. Contact: jsabelhaus@gmail.com.

Social Security Wealth, Inequality, and Lifecycle Saving

John Sabelhaus, Federal Reserve Board

Extended Abstract

Introduction

Wealth inequality in the U.S. has been rising for several decades, measured using either income-capitalization (Saez and Zucman 2016) or wealth surveys (Bricker, Henriques, Krimmel, and Sabelhaus 2016). However, these estimates of wealth inequality do not account for the present value of Social Security benefits less the present value of Social Security taxes—or Social Security Wealth (SSW). There are well-developed methods (Fang and Kapinos 2016) for estimating SSW at the household level, and Social Security is growing relative to the size of the overall economy. A comprehensive measure of household wealth that includes SSW could have important implications for estimated levels and trends in overall wealth inequality, our understanding of lifecycle saving behavior, and the effects of Social Security policy.

Aggregate Social Security benefits received are now roughly the same order of magnitude as total pension benefits received plus retirement account withdrawals. Social Security benefits are also growing, from roughly four percent of personal income in the early 1970s to almost six percent today. Focusing on just the benefit side of SSW, the present value of Social Security benefits for everyone age 16 or older is $68.6 trillion in 2018 (Social Security Actuaries). Thus, the present value of Social Security benefits is roughly double all of household-sector pension and retirement account assets combined, and approximately three-fourths the size of all household net worth. Social Security is also an important wealth equalizer, as pension and retirement accounts accrue disproportionately to high wealth families (Sabelhaus and Henriques-Volz 2019).

Social Security Wealth over the Lifecycle

Unlike pensions and other forms of retirement wealth, aggregate net SSW is zero, because there are no associated private claims to future production. The relatively small OASDI trust fund in principle represents real claims of Social Security beneficiaries on the rest of government, but even those claims are in the form of government bonds that are also the

liabilities of taxpayers. However, individual SSW (the present value of future benefits less the present value of future taxes) does vary over the lifecycle, meaning some (older) participants have positive SSW, while others (the young) have negative SSW. Indeed, the evolution (or accrual) of SSW over the lifecycle is an important form of saving/dissaving that is measurable, just like any other type of lifecycle saving (Feiveson and Sabelhaus 2019). SSW accrual rates are generally positive during one's working years and negative for beneficiaries.

SSW accrual also varies within age groups by lifetime income because of the progressive Social Security benefit formula. In particular, lower-income workers have much higher accrual rates. In a lifecycle sense, workers with low lifetime earnings are "saving" much more than higher lifetime income groups at any given working age, because each dollar of tax paid is associated with a larger increase in the net present value of benefits they will ultimately receive. Even these conceptually adjusted wealth measures may not completely capture the effect of including SSW, however, because Social Security benefits are inflation-adjusted and the rate of return is generally more certain than other types of retirement wealth. Said differently, the specific discounting assumption associated with each type of wealth matters for overall wealth inequality.

Data: Survey of Consumer Finances (SCF) and the Health and Retirement Study (HRS)

The key empirical contribution in the project is bringing together the household data sets and administrative records required for a comprehensive wealth measure that includes SSW. The public-use SCF is a primary data source used to study wealth inequality, but the relatively sparse information about work histories in the SCF makes estimating SSW problematic. (For a description of the SCF and latest results, see Bricker et al, 2017). The HRS has extensive longitudinal information, and it has a (restricted use) matched data set with links to Social Security earnings records and estimates of SSW. Both data sets have extensive demographic, income, and balance sheet information over the past several decades, but the strength of the SCF is capturing high wealth families at all ages, and the strengths of the HRS are in the longitudinal dimension, linkage to administrative records, and the availability of existing restricted-use algorithms for estimating SSW (Fang and Kapinos 2016).

The key methodological contribution here is statistically merging HRS and SCF respondents to create comprehensive wealth measures including SSW. Unlike the HRS and other

surveys, the SCF cannot (by legal agreement) be exactly matched with any other data set, especially administrative records. However, there is an extensive overlap in the core demographic, labor force, income, and wealth variables to enable the necessary statistical linkage between comparable respondents in the two data sets. The statistical match will be implemented for SCF triennial cross-section beginning in 1992, which is the first year of the HRS, and around the same time at which measured U.S. household wealth concentration began to rise substantially.

The resulting statistically merged data set will essentially be an SCF micro file with imputed SSW values taken from the HRS. The fact that the HRS does not capture the top of the wealth distribution will not invalidate the match, because the SSW values for very high-income respondents are generally constrained by the Social Security Taxable Maximum. Likewise, the lack of HRS observations for younger individuals is not a problem for constructing SCF estimates, because the available SCF work histories and early career/current earnings for younger people are sufficient to generate reasonable estimates of SSW. Other differences in the underlying distributions of population characteristics can be an issue for this type of statistical matching algorithm, but given the statistical properties of the two surveys (random samples, post-stratified, extensive data for both head and spouse) the pre-match alignment should not be problematic.

Specific Research Questions

The synthesized data set will produce a new, comprehensive total wealth measure and thus the match will generate a new time series for wealth distribution and saving across birth cohort and various subpopulations, including permanent income and education groups. Thus, the immediate top-line result will be new statistics on the distribution of household wealth at three-year intervals, for 1992 through 2016. Given the framework for measuring accrual, the data will also make it possible to study (1) the extent to which total saving is consistent with basic lifecycle theory, (2) the extent to which SSW and other forms of retirement wealth interact across groups and time, and (3) the impact of policy on levels and trends in inequality.

Recent work by Feiveson and Sabelhaus (2018, 2019) shows that using conceptually and empirically reconciled micro and macro income and wealth data provides important insights about lifecycle saving behavior that is not captured in the usual narrowly-focused panel studies

of household-level financial assets. Adding SSW to the other adjustments in Feiveson and Sabelhaus (2019) will put their results in perspective; for example, the lack of (measured) saving for lower-income and lesser-educated groups is consistent with much higher (relative to income) SSW accrual. The merged data will also make it possible to better understand the interaction between SSW and other retirement asset accumulation (Sabelhaus and Henriques-Volz 2019) as well as retirement asset draw down (Armour and Hung 2017). Finally, the comprehensive data also provides a starting point for studying the interplay between Social Security and labor market outcomes. For example, before-tax wage rates are presumed to be independent of benefit progressivity, but measures of total earnings that account for differences in SSW accrual within birth cohorts could in principle show that the return to working is less unequal and has a different trend than existing studies of earnings inequality over the past several decades.

Social Security Policy Analysis from a Wealth Perspective

The statistically merged data with a comprehensive wealth measure will make it possible to analyze Social Security policy from a new vantage point. In particular, the new data will make it possible to assess how the distribution of SSW and total household wealth would be affected under various approaches to resolving expected Social Security funding shortfalls. The wealth-based approach allocates the effect of policy changes across and within birth cohorts in a transparent and internally consistent way, whether those changes are on the tax or benefit side of the ledger, because SSW is present value gap between benefits and taxes for every individual.

More importantly, the new data set will make it possible to study the potential behavioral responses to proposed policy changes. The merged data makes it possible to better understand the potential for labor force participation to react to policy, because the historical relationship between income, wealth, and working is now measured comprehensively in one data set. The potential saving responses to higher taxes or lower benefits can also be studied, and specifically, the role for other forms of retirement saving, whether individual or employer-sponsored. One immediate application of the data would be to study the extent to which additional incentives for employer-sponsored plans for certain types of workers would be able to offset (say) benefit cuts.

References

Armour, Philip, and Angela A. Hung. 2017. "Drawing Down Retirement Wealth: Interactions between Social Security Wealth and Private Retirement Savings," RAND Labor and Population Working Paper WR-1165. (January)

Bricker, Jesse, Alice Henriques, Jacob Krimmel, and John Sabelhaus. 2016. "Measuring Income and Wealth at the Top Using Administrative and Survey Data," *Brookings Papers on Economic Activity, 1:2016*, p. 261-321.

Bricker, Jesse, Lisa J. Dettling, Alice Henriques, Joanne W. Hsu, Lindsay Jacobs, Kevin B. Moore, Sarah Pack, John Sabelhaus, Jeffrey Thompson, and Richard A .Windle. 2017. "Changes in U.S. Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, 103(3): 1-42. (September)

Fang, Chichun, and Kandice Kapinos. 2016. *Health and Retirement Study Prospective Social Security Wealth Measures of Pre-Retirees Wave 10*, Institute for Social Research, University of Michigan. (March)

Feiveson, Laura, and John Sabelhaus. 2019. "Lifecycle Patterns of Saving and Wealth Accumulation," Finance and Economics Discussion Series 2019-010. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2019.010

Feiveson, Laura, and John Sabelhaus. 2018. "How Does Intergenerational Wealth Transmission Affect Wealth Concentration?," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, June 1, 2018, https://doi.org/10.17016/2380-7172.2209.

Sabelhaus, John, and Alice Henriques-Volz. 2019. "Is the US Retirement System Contributing to Rising Wealth Inequality?" FEDS Notes. Washington: Board of Governors of the Federal Reserve System, February 1, 2019, https://doi.org/10.17016/2380-7172.2308.

Saez, Emmanuel and Gabriel Zucman. 2016. "Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data," *Quarterly Journal of Economics*, 131(2):519–578.