Volume Title: Discoveries in the Economics of Aging

Volume Author/Editor: David A. Wise, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-14609-X (cloth); 978-0-226-14609-6 (cloth); 978-0-226-14612-6 (EISBN)

Volume URL: http://www.nber.org/books/wise13-1

Conference Date: May 9-11, 2013

Publication Date: June 2014

Chapter Title: Comment on "The Nexus of Social Security Benefits, Health, and Wealth at Death"

Chapter Author(s): Jonathan Skinner

Chapter URL: http://www.nber.org/chapters/c12965

Chapter pages in book: (p. 183 - 186)

Comment

Jonathan Skinner

For many years, Steve Venti and David Wise, later joined by James Poterba (hereafter PVW), have identified the key empirical facts essential to any understanding of retirement assets and wealth accumulation (e.g., Venti and Wise 1989; Poterba, Venti, and Wise 2011, 2012). Their findings often contradicted the implications of then-conventional life cycle models, and were instrumental in pushing researchers toward a newer wave of more realistic life cycle models. Gone was the idea that households spend their golden years dissaving optimally so as to end up with nothing at time T, the final year of life. Instead, the PVW research pointed to a world of surprising heterogeneity, where some households actually accumulate wealth through retirement, some arrive at retirement with virtually nothing, while others experience precipitous wealth declines, ending up with essentially no wealth prior to death (Poterba, Venti, and Wise 2012). Thus even those who might have been deemed to be saving adequately found themselves with virtually no financial wealth available during their last months of life.

In this chapter, they return to the question of how events preceding death affect wealth and consumption for older households in the Health and Retirement Study (HRS) study. They don't simply look at the wealth patterns of those who died, but instead consider wealth dynamics for everyone in the cohort (including those who didn't die by 2010, the last wave in the sample), stratified by three demographic groups: single households, two-person households where the spouse (or partner) is no longer present in the HRS wave prior to death, and two-person households where the spouse is present prior to death.

The authors make two primary observations. The first is that Social Security and defined benefit pensions can protect nonannuity wealth, in the sense that individuals with high levels of Social Security and defined benefit income are least likely to suffer downturns in their wealth, particularly as they approach death. And second, they note that poor health is central to dissaving and the consequent decline in nonannuity wealth, again for households close to death.

In this comment, I consider each point in turn. I am more equivocal about the interpretation of the first point, as measurement error in assets or (more likely) unobservable variations in consumption, could in theory generate the same empirical patterns they observe. I do agree entirely with the second point, that poor health is central to declines in wealth—and would further speculate that it is also a key reason for why people save in the first place.

Jonathan Skinner is the James O. Freedman Presidential Professor of Economics at Dartmouth College, the Professor of Family and Community Medicine at the Geisel School of Medicine and the Dartmouth Institute for Health Policy and Clinical Practice, and a research associate of the National Bureau of Economic Research.

For acknowledgments, sources of research support, and disclosure of the author's material financial relationships, if any, please see http://www.nber.org/chapters/c12965.ack.

Returning to the first point, the authors estimate a model that can be simplified and written as follows:

$$(1) \qquad \Lambda_t = \alpha + \beta\Lambda_{t-1} + \gamma Y_t + \theta G_t + \lambda H_{t-1} + \omega\Delta H_t + \varepsilon_t$$

where Λ_t, measured assets at time t, differ from true assets A_t because of the considerable measurement error in all wealth data, including the Health and Retirement Study (HRS) data used in their analysis (Venti 2011). In addition, the authors include an index of health status H_t (and the change in health status since the prior year, $H_{t\{\mathrm{nd}\}1}$), along with measures of pension income Y_t and social security income G_t. (I ignore the other covariates in their regression model.) Their basic estimated model for the "two-to-one" group was as follows:

$$(2) \qquad \Lambda_t = \alpha + 0.6\Lambda_{t-1} + 3.7Y_t + 5.8G_t + 1216H_{t-1} + 542\Delta H_t + \varepsilon_t.$$

It is clear that higher levels of G and Y are strongly associated with higher levels of current measured assets, even after conditioning on lagged assets—that is, pension and Social Security income appears remarkably effective at preserving assets. Yet the coefficients are so large that they almost seem too effective; how can one dollar in annual Social Security income lead to six dollars more wealth in this year relative to last?[1]

One alternative interpretation relies on the well-known positive association between income, assets, and saving rates (e.g., Dynan, Skinner, and Zeldes 2004). Given that the coefficient on assets is relatively modest, just 0.6, other markers for wealth, such as pension income or Social Security income, could step up in the regression to account for the cross-sectional variation in assets explained by differences in life cycle income. In other words, the higher level of wealth and the higher pension and Social Security income may both reflect higher lifetime wealth, but one is not necessarily causal for the other.

Measurement error is one explanation for why the AR coefficient is so modest, but in unreported sensitivity analysis, PVW have found that median regressions—less sensitive to measurement error—are similar in magnitude to the regression reported earlier. Another possibility is that fluctuations in consumption are driving the remarkable heterogeneity in savings patterns. Because consumption is not included on the RHS of the regression, however, the coefficient on lagged wealth will be diminished, with the magnitude of the attenuation dependent on the extent of cross-sectional consumption variability.[2]

1. The HRS waves are over the space of two years, so the coefficient on Y and G, if not appropriately normalized for the two-year period, could well be 2.0.

2. A quick simulation with 10,000 observations, a log-normal distribution of consumption, interest rate of 0.03, lagged assets a variable fraction of consumption (from zero to four times consumption), and a constant income level suggested support for this case. When consumption was included along with income in a regression, the coefficient on lagged assets was 1.03, as one might expect from estimating a budget constraint. When consumption was excluded from the regression, the coefficient on lagged assets dropped to 0.7.

If consumption were measured as well on the right-hand side, then we would be confronted with the budget constraint:

$$A_t = A_{t-1}(1 + r_t) + Y_t + G_t - C_t, \tag{3}$$

where C_t is consumption in year t. In this case, the coefficient on Y (and C) is restricted to be one. Of course, this requires measuring assets without error, but it is always best to put as much measurement error as possible on the left-hand side of the equation, as in the following equation (4):

$$\Delta A_t = A_{t-1}r_t + Y_t + G_t - C_t. \tag{4}$$

This could prove to be a cleaner test of the hypothesis of whether Y or G is protective of assets, but we are still not out of the forest yet. First of all, this is a budget constraint, so the coefficients on Y and G are one (or two if measured over a two-year period); any divergence occurs solely because of measurement error. But consumption is rarely measured accurately in any survey, particularly near death, so even this regression is problematic. Second, measured wealth would still be included on the right-hand side of the regression, leading to a mechanical negative correlation between it and the dependent variable.[3]

As the authors note, health status is an important predictor of wealth accumulation or deaccumulation. It is unlikely that health status *per se* leads to less wealth through interest rate effects (except perhaps during the Great Recession), or lower pension and Social Security income—most of that dissaving will occur because of a jump up in consumption.[4] So one suggestion for future research would be to focus in more detail on the components of consumption that are most likely to be variable near death. In particular, one might rewrite the budget constraint as:

$$A_t = A_{t-1}(1 + r_t) + Y_t + G_t - C_{ht} - C_{nht}, \tag{7}$$

where C_{ht} is spending on out-of-pocket health-related consumption and C_{nht} is residual nonhealth consumption. There is good evidence on at least a limited set of health-related expenditures from the HRS, although even that may not entirely reflect the full gamut of consumption that responds strongly to poor health (Marshall, McGarry, and Skinner 2011). Presumably the PVW regression estimates reflecting how changes in health status affect wealth accumulation are working through this channel.

I think their focus on health status is exactly right. Previous work has suggested that mean levels of out-of-pocket expenditures in the last five years

3. Finally, there are a variety of ways to present the data on changes over time in wealth; the authors sensibly consider two cases—dollar changes and percentage changes in wealth. Each has its advantages, but a third middle ground is to consider ratios of asset changes to permanent income, defined to be some appropriately weighted combination of current and past income.

4. Drops in assets could be explained too by transfers to children, but this seems unlikely for people nearing death concerned about paying for visiting nurses or other services.

of life are remarkably large, ranging from about $30,000 for households whose decedents died of kidney disease or cancers, to more than $60,000 for decedents with dementia (such as Alzheimer's disease) (Kelley et al. 2013); given the modest size of financial wealth for most retirees, as shown in PVW and elsewhere, medical expenditures could in theory attenuate initial wealth holdings quite substantially.

Furthermore, the hypothesis tested in this chapter—whether Social Security and pension income is protective of wealth?—might be extended to a related question, which is whether wealth is then protective of being able to afford the expenses of a lengthy chronic disease, something that Kathleen McGarry and I have found in preliminary work. While a far more complicated problem, understanding how unexpectedly good pension and Social Security income affects not just asset accumulation, but also health and well-being more generally, could be of interest in assessing the value of tax incentives and other mechanisms to encourage retirement savings.

References

Dynan, Karen, Jonathan Skinner, and Steven Zeldes. 2004. "Do the Rich Save More?" *Journal of Political Economy* 112 (April): 397–444.

Kelley, Amy S., Katherine McGarry, Sean Fahle, Samuel M. Marshall, Quingling Du, and Jonathan Skinner. 2013. "Out-of-Pocket Spending in the Last Five Years of Life." *Journal of General Internal Medicine* 28 (2): 304–9.

Marshall, Samuel M., Kathleen McGarry, and Jonathan Skinner. 2011. "The Risk of Out-of-Pocket Health Care Expenditures at the End of Life." In *Explorations in the Economics of Aging*, edited by David A. Wise, 101–132. Chicago: University of Chicago Press.

Poterba, James, Steven F. Venti, and David A. Wise. 2011. "Family Status Transitions, Latent Health, and the Post-Retirement Evolution of Assets." In *Explorations in the Economics of Aging*, edited by David A. Wise, 23–74. Chicago: University of Chicago Press.

———. 2012. "Were They Prepared for Retirement? Financial Status at Advanced Ages in the HRS and AHEAD Cohorts." In *Investigations in the Economics of Aging*, edited by David A. Wise, 21–69. Chicago: University of Chicago Press.

Venti, Steven F. 2011. "Economic Measurement in the Health and Retirement Study." *Forum for Health Economics & Policy* 14 (3): 1–20.

Venti, Steven F., and David A. Wise. 1989. "Aging, Moving, and Housing Wealth." In *The Economics of Aging*, edited by David Wise, 9–54. Chicago: University of Chicago Press.