

THE INTERPLAY OF WEALTH, RETIREMENT DECISIONS, POLICY AND ECONOMIC SHOCKS

JOHN KARL SCHOLZ AND ANANTH SESHADRI *

September 2012

In this paper, we seek to enhance understanding of the relationship between Social Security, wealth and retirement decisions. Many economic models of life-cycle consumption and wealth accumulation either treat retirement as being exogenous, and therefore not affected by unforeseen household circumstances, or model behavior of a small number of stylized household “types,” which ignores heterogeneity in earnings, health, and demographic change that are essential to understanding the distribution of wealth. We develop a rich life-cycle model of optimal consumption and retirement decisions. We use the model to study the complex interplay of saving/consumption decisions, retirement, Social Security policy and macroeconomic shocks.

An obvious way for some households to respond to perceived (or actual) shortfalls in retirement wealth accumulation is to work longer than they originally anticipated. Similarly, households with net worth considerably higher than the amount needed to equate the discounted marginal utility of consumption may choose to retire earlier than initially expected. Of course, these households may also be concerned with the prospect of facing unusually high out-of-pocket medical or other necessary expenses, or they may wish to leave assets to children or philanthropic organizations. We use our model to study the way retirement expectations, wealth accumulation, shocks to earnings and health, and Social Security policy interact to influence retirement decisions.

We present a rich model capable of capturing several of the elements that are central to an analysis of retirement decisions. In addition to standard features of life-cycle models, we model health investments and longevity. We solve our model for each household and compare predictions of the model to data on medical expenditures, wealth levels, and retirement decisions. In the data, low lifetime income households with poor health status retire very early (age 54) while the majority of households retire at 62. The early retirement of poor households is triggered by the early onset of bad health shocks. These households typically have low earnings options and choose (or are forced) to retire early. Richer households who have better health expect to live longer and hence choose to retire later, partly to finance a longer retirement period. The model does a very good job matching the distribution of health, wealth and retirement ages. The interplay between health and wealth is critical in explaining retirement decisions as well. We then use the model to analyze the implications of wealth shocks and changes in Social Security policy on retirement decisions. We analyzed two experiments to isolate the impact of exogenous changes on retirement decisions.

Economic Shocks: Our first thought experiment addresses the role played by wealth shocks on retirement

* *John Karl Scholz* is a professor of economics at the University of Wisconsin-Madison, where he specializes in public economics. *Ananth Seshadri* is professor and chair of the department of economics at the University of Wisconsin-Madison, where he specializes in macroeconomics and public finance. This Research Brief is based on MRRC Working Paper 2012-271.

decisions. Consider first a sudden, unexpected shock that results in a 20 percent decline in wealth. The stock market declines in the recent years may be thought of as a very large shock to households near retirement. What is the impact of this on economic decisions? Since poorer households are less reliant on private savings to finance retirement than are richer households, this decline in wealth has a much smaller impact on their decisions (we are assuming the macroeconomic shock does not affect the generosity of Social Security and Medicare). Consequently, richer households experience a greater decline in consumption than poorer households.

As expected, the decline in wealth results in an increase in the median retirement age. The 20 percent shock to wealth induces households to postpone retirement by one year, on average, with households at the low end of the distribution remaining relatively unaffected. The magnitude of this increase is smaller than would be if health were treated exogenously. In response to the decline in wealth, households react by cutting health expenditures as well, which increases mortality. The reduction in expected lifetimes leads households to save less than they otherwise would since their horizon is shorter than they had previously anticipated.

Changes in Early Eligibility Age (EEA): The EEA is the youngest age at which a worker can obtain Social Security benefits, currently age 62. Many workers begin to draw their Social Security retirement benefits at age 62 or shortly thereafter. Retired-worker benefits beginning exactly at age 62 are 70 to 80 percent of the full retirement benefit, depending on the specific year the worker retired. Raising the EEA would result in many workers receiving larger monthly benefits at older ages (due to increasing the average indexed monthly earnings). At older ages workers may be less able to supplement their benefits with earnings from work. However, raising the EEA could adversely affect individuals with low incomes, who tend to have poorer health and rely more heavily than others on Social Security benefits. It is interesting to note that various discussions of increasing the EEA deal primarily with the concern that changes in EEA could adversely affect households with poor health status. Our framework with endogenous health is well suited to examining this issue.

We consider an unanticipated increase in the EEA from 62 to 65 when households are 55 years old. In response to the increase in EEA, households decrease their consumption beginning at age 55 onwards and increase their savings. The effect is more pronounced for poorer households. Another consequence of this change is that the median retirement age rises to 64 from 62. Finally, while households spend a little less on medical expenses, the fact that households generally work longer mitigates the adverse consequences for health. Hence, the stock of health at age 62 is not very much affected and mortality remains similar to the baseline model. We conclude that changes in the EEA result in large changes in the age of retirement but has fairly small effects on the health status of most households.

University of Michigan Retirement Research Center
Institute for Social Research 426 Thompson Street Room 3026
Ann Arbor, MI 48104-2321 Phone: (734) 615-0422 Fax: (734) 615-2180
mrrcumich@umich.edu www.mrrc.isr.umich.edu

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) through the Michigan Retirement Research Center (MRRC). The findings and conclusions expressed are solely those of the author(s) and do not represent the views of SSA, any agency of the federal government, or the MRRC.

Regents of the University of Michigan: Julia Donovan Darlow, Laurence B. Deitch, Denise Ilitch, Olivia P. Maynard, Andrea Fischer Newman, Andrew C. Richner, S. Martin Taylor, Katherine E. White, Mary Sue Coleman, Ex Officio