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The Financial Crisis and Saving in Personal Retirement Accounts

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The financial crisis of 2007-2008 had devastating effects on the finances of many American households. This analysis focuses on the impact of the crisis on one component of household wealth, namely accumulations in Personal Retirement Accounts (PRAs) defined broadly to include saving in 401(k) and similar employer-based retirement accounts, Individual Retirement Arrangements (IRAs) and Keogh plans for the self-employed. PRAs are now the principal source of retirement saving in the US. On the eve of the financial crisis in 2007, assets in private sector PRAs were over $9.1 billion, more than 3 times as much as the $2.6 billion held in private sector defined benefit plans. With PRAs becoming a keystone of retirement saving, early withdrawals from the accounts, declines in asset values, and reduced contributions can have a significant effect on financial preparation for retirement and could have important implications for potential reforms. A particular concern is that "self-directed" PRA saving may have been drawn down when households faced hardship during the financial downturn.

The aggregate effect of the crisis on PRA balances may not be evenly distributed across households and different households may have been affected in very different ways. Some households may have experienced declines in existing PRA holdings. Other households may have responded to the crisis by discontinuing (or not starting) contributions or by commencing the withdrawal of funds from these accounts. In many cases these contribution and withdrawal responses may have been triggered by the need to compensate for lost earnings following job loss. Still other households may have experienced reduced PRA asset growth because their employers suspended matching contributions.

We have estimated the effect of the financial and employment crises on PRA ownership and PRA account balances. We have also estimated the effect of the crises on the employment and earnings of older Americans. We caution that the HRS data we use to measure the "crisis" response are from 2008 and 2010. The 2008 data may pre-date the trough of the crisis and the 2010 data may post-date the trough. By 2010 stock prices had rebounded dramatically, but housing prices and most labor market indicators were still well below pre-crisis levels.

The estimates reveal several noticeable patterns. First, the employment rate for men age 50 to 60 was 3 percentage points lower during the crisis than before the crisis, but the employment rate at retirement ages (61 to 67) was greater during the crisis than in the pre-crisis period. The lower rate at younger ages is likely the result of job loss during the crisis and the higher employment rate at traditional retirement ages was apparently due to delayed retirement.

For men in their fifties, PRA ownership was greater during the crisis than in the pre-crisis period. This may have resulted simply from the secular increase in PRA ownership – persons at a given age in the pre-crisis period belong to an older birth cohort than persons who reached the same age in the crisis period, and they were less likely to have access to 401(k) plans in the workplace than workers a few years younger. In addition for men 65 and older, PRA balances were noticeably greater during the crisis period that during the pre-crisis years. We do not have good data on contributions and withdrawals that would allow us to determine the source of PRA account growth.

To determine the crisis period effects we estimated the relationship between each outcome and a set of covariates including the additional effect of each covariate in the crisis period. Although most of the additional "crisis" effects were not statistically significant, many of the baseline estimates are of particular interest. The most striking findings are the very strong relationships between the level of education and PRA ownership and PRA account balances. For men, the increase in the probability of PRA ownership associated with having a high school degree is over nine times as great as the increase associated with a $10,000 increment in earnings. The effect of a college degree is over 15 times as large as the increase associated with a $10,000 increment in earnings. Controlling for earnings, the association between education and the PRA balance is also very large. While a $10,000 increment in earnings is associated with about a $6,000 increment in the PRA balance, the effect of education (compared to those without a high school degree) ranges from about $51,000 for those with a high school degree to almost $250,000 for those with a college or post-college degree.

We interpret the relationship between PRA balances and education, controlling for earnings and health status as consistent with education as a proxy for the propensity to save. As an indicator of the propensity to save we calculated the ratio of wealth to lifetime earnings for all sample members who had linked Social Security earnings records. Given any level of lifetime earnings, the ratio of accumulated assets to lifetime earnings is, on average, 0.13 for persons with less than a high school degree, 0.16 for those with a high school education, 0.23 for persons with some college, and 0.47 for persons with a college degree or more. Education is also very strongly related to PRA ownership. The relationship of education of PRA ownership is surely due in large part to the employment of persons with low education in low-paying and high-turnover jobs that tend not to offer 401(k) plans.

The full working paper is available on our website, www.nber.org/programs/ag/rrc/books&papers.html, as paper NB13-02.

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