Preparation for Retirement, Financial Literacy and Cognitive Resources

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Abstract

Successful planning for retirement requires forming expectations about a number of events, even far into the future, and integrating and translating these into economic decisions. Standard economic theory offers clear prescriptions on how individuals should make financial and retirement decisions, but many individuals have only a vague idea of these prescriptions or even have quite incorrect ideas. In this paper we develop a theoretical model that treats financial knowledge as a form of human capital and the acquisition of knowledge as an investment. We assume that investment in improved financial knowledge allows households to obtain a higher expected rate of return on their assets, holding risk constant. The cost of acquiring additional knowledge depends on cognitive ability, effort, the existing stock of knowledge, and payments for financial education or advice. The benefit of additional knowledge is equal to the increase in the expected rate of return multiplied by the amount of savings that will earn the higher return. The scale economy created by this multiplicative relationship helps to explain why the fraction of wealth held in stock tends to be an increasing function of total wealth, why low wealth households often hold no stock and, in addition, shows how cognitive ability, the opportunity cost of time and the availability of advice influence portfolio decisions.

We use this theory as a framework for our empirical work using new data from the American Life Panel and Cognitive Economics Survey. In particular, we study how variations in financial literacy (knowledge) and effort vary in the population. Acquiring additional financial information for a knowledgeable person will be low cost, whereas it will be high cost for a person largely lacking in financial knowledge. However, if the person lacking in knowledge is willing to exert effort to learn or seek outside advice he may nevertheless make optimal or close to optimal portfolio decisions. We investigate to what extent the variation in financial knowledge, effort and cognitive resources explains variation in outcomes that capture preparation for retirement such as retirement savings in excess of Social Security and pensions, portfolio diversification and uncertainty about retirement resources.