

Reducing Social Security PRA Risk at the Individual Level: Lifecycle Funds and No-Loss Strategies

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National Bureau of Economic Research
December 2006

Policy Abstract

This paper examines how following different personal retirement account (PRA) asset allocation strategies over the course of a worker's career would affect the distribution of retirement wealth and the expected utility of wealth at retirement. It considers rules that allocate a constant portfolio fraction to various assets at all ages, as well as "lifecycle" rules that vary the mix of portfolio assets as the worker ages. The analysis simulates retirement wealth using asset returns that are drawn from the historical return distribution. The expected utility associated with different PRA asset allocation strategies, and the ranking of these strategies, is sensitive to four features of markets and households: the return on corporate stock, the worker's relative risk aversion, the amount of non-PRA wealth that the worker will have available at retirement, and the expense ratios charged for the investment. At modest levels of risk aversion, or in the presence of substantial non-PRA wealth at retirement, the historical pattern of stock and bond returns implies that the expected utility of investing completely in diversified stocks is greater than that from any of the more conservative strategies. Higher risk aversion or lower expected returns on stocks raises the expected utility of portfolios that include less risky assets. There often exists a fixed-proportions portfolio of stocks and inflation-indexed government bonds that yields expected utility at retirement that is at least as high as that from typical lifecycle investment strategies. When asset allocation is near the allocation that generates the highest expected utility, variation in expense ratios has a greater effect on retirement utility than variation in asset allocation.