

How Do Subjective Mortality Beliefs Affect the Perceived Value of Longevity Insurance?

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Abstract

Individuals in the *Health and Retirement Study* are asked to assess their probabilities of surviving to specified ages. It has been difficult to interpret the responses. An estimate of 50 percent could mean that the individual assesses his survival probability at precisely 50 percent. But it could be an approximation to his true underlying beliefs, or he could be signaling that he has no idea. Using previously unanalyzed follow-up questions that enable us to distinguish between the above alternatives, we will investigate how subjective mortality beliefs affect the perceived value of both Social Security and private annuities. We will first determine the proportion and types of individuals that understand the concept of survival probability, an important component of financial literacy. We will adjust usable responses for focal point bias, and recover individual level subjective life tables from these usable responses. We will consider whether individuals exhibit systematic forecasting biases, and in particular, whether they are optimistic or pessimistic as to their life expectancy, and whether they underestimate the risk of living exceptionally long. Using numerical optimization techniques, we will calculate the impact of the above misperceptions on the perceived value of Social Security and private annuities.