Quantifying Health Shocks Over the Life Cycle

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Abstract

We first show (1) the importance of investigating health expenditure process using the order two Markov chain model, rather than the standard order one model, which is widely used in the literature. Markov chain of order two is the minimal framework that is capable of distinguishing those who experience a certain health expenditure level for the first time from those who have been experiencing that or other levels for some time. In addition, using the model we show (2) that the probability of encountering a health shock first decreases until around age 10, and then increases with age, particularly, after age 40, (3) that health shock distributions among different age groups do not differ until their percentiles reach the median range, but that above the median the health shock distributions of older age groups gradually start to first-order dominate those of younger groups, and (4) that the persistency of health shocks also shows a U-shape in relation to age. (*JEL*: I10, I12, I18)