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Abstract

We solve a lifecycle model in which the consumer's **chronological** age does not move in lockstep with calendar time. Instead, **biological** age increases at a stochastic non-linear rate in time like a broken clock that might occasionally move backwards. In other words, biological age could actually decline. Our paper is inspired by the growing body of medical literature that has identified biomarkers which indicate how people age at different rates. This offers better estimates of expected remaining lifetime and future mortality rates. It isn't farfetched to argue that in the not-too-distant future personal age will be more closely associated with biological vs. calendar age. Thus, after introducing our stochastic mortality model we derive optimal consumption rates in a classic Yaari (1965) framework adjusted to our proper clock time. In addition to the *normative* implications of having access to biological age, our *positive* objective is to partially explain the cross-sectional heterogeneity in retirement spending rates at any given chronological age. In sum, we argue that neither biological nor chronological age alone is a sufficient statistic for making economic decisions. Rather, **both** ages are required to behave rationally.

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