Random Non-Expected Utility: Non-Uniqueness

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Abstract

In random expected utility (Gul and Pesendorfer, 2006), the distribution of preferences is uniquely recoverable from random choice. This paper shows through two examples that such uniqueness fails in general if risk preferences are random but do not conform to expected utility theory. In the first, non-uniqueness obtains even if all preferences are confined to the betweenness class (Dekel, 1986) and are suitably monotone. The second example illustrates random choice behavior consistent with random expected utility that is also consistent with random non-expected utility. On the other hand, we find that if risk preferences conform to weighted utility theory (Chew, 1983) and are monotone in first-order stochastic dominance, random choice again uniquely identifies the distribution of preferences. Finally, we argue that, depending on the domain of risk preferences, uniqueness may be restored if joint distributions of choice across a limited number of feasible sets are available.

Keywords: random choice, joint choice distribution, random utility/preference, non-expected utility, identification

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