

The asymmetric housing wealth effect on childbirth

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Abstract

The existing literature has shown that increases in housing wealth, driven by unexpected house price shocks, have a positive effect on birth rates of homeowners. According to the canonical model, a decrease in housing wealth has a symmetric negative impact on fertility behavior of households. That is, housing gains and losses of the same size should have identical quantitative effects (in an absolute sense) on fertility. In comparison, the theory of reference-dependent preferences suggests that people care more about housing losses than about equivalent gains, leading to an asymmetric housing wealth effect on a fertility decision. In our model, a utility from having a baby is weighted by a utility from house price where reference levels are based on the house price in the prior years. The theoretical model suggests that the probability of giving birth is kinked at a reference housing wealth level and the wealth effects are discontinuously larger below the kink than above the kink. This theoretical prediction is tested using the panel survey data of Japanese households. Our empirical results suggest that, consistent with the theoretical prediction, homeowners' fertility responses, which are measured by the birth hazard rate, are substantially larger when their housing wealth is below its reference level than when housing wealth is above reference level. Specifically, while the estimated marginal effect is significantly positive when housing wealth is below its reference level, it is still positive but insignificant when housing wealth is above reference level.

Key words: childbirth; housing price; wealth; home ownership; reference-dependent preferences; loss aversion