Loss Aversion and the Term Structure of Interest Rates

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Abstract

This paper studies how the loss averse behavior affects the term structure of real interest rates. Since the pro-cyclical conditional expected marginal rate of substitution, implied from the U.S. consumption data, is consistent with the proposition of loss aversion, we incorporate the loss averse behavior of prospect theory into the consumption-based asset pricing model. Motivated by the similarity between habit formation and the prospect theory utility, habit formation is exploited to determine endogenously the reference point of this behavioral finance utility. The highly curved characteristic of the term structure of real interest rates can thus be captured by the additional consideration of loss aversion. This model also fits the downward sloping volatility of the real yield curve in the data of TIPS. Moreover, depending on the global risk attitude of the representative agent with the loss averse behavior of prospect theory, our model is capable of generating a normal or an inverted yield curve.

JEL Classification G12

Keywords Loss aversion; Prospect theory; Pro-cyclical conditional expected marginal rate of substitution; Highly curved term structure; Downward sloping volatility of yield curves

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