Optimal Payoffs under KMM Preferences

Morten Wilke

Vrije Universiteit Brussel
Pleinlaan 5, 1050 Brussel
Belgium

Joint work with: An Chen (Ulm University), Steven Vanduffel (Vrije Universiteit Brussel)

We study optimal payoff choice for an investor in a one-period model under KMM preferences proposed by Klibanoff et al. (2005). In contrast, to the existing literature on optimal asset allocation for a KMM investor in a one-period model, we also allow payoffs that are non-linear in the stock price. Our contribution is threefold. First, we characterize and derive the optimal payoff under KMM preferences. Second, we demonstrate that a KMM investor solves an equivalent problem to an investor under classical subjective expected utility (CSEU) with adjusted second-order beliefs. Third, in a setting of a log-normal market asset under drift and volatility uncertainty, we reveal that ambiguity leads to optimal payoffs that are no longer necessarily long in the market asset.