Abstract

In this study, we explore the effects of uncertainty about the exchange rate predictability on international portfolio choice in a continuous time setting. Uncertainty regarding to the predictive relation affects the optimal portfolio choice through dynamic learning, and leads to a state-dependent relation between the optimal portfolio choice and the investment time horizon. First we investigate the hedge demands in international portfolio management for constant relative risk averse investors where the exchange rate can be predicted by the change of interest rate. Then our approach is implemented through the use of the martingale methodology developed by Cox and Huang (1989) as proposed in the work of Lioui and Poncet (2003). Since the learning processes influence the premium of exchange rate movements, the crucial changes lie in the difference of market price of risk of the interest rate movements to the updated exchange rates. The constructed optimal investment strategy is influenced by the adjusted factors. Hence the investors should dynamically rebalance their holding portfolio according to the filtering mechanism. Finally, the theoretical results show that the adjustment for the optimal weights are required to reflect the prediction effects in hedging the exchange rate risks.

Keywords: learning effects; stochastic variation; interest rate risk; market neutral valuation; mutual fund.