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Asset pricing with beliefs-dependent risk aversion and learning[☆]

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Abstract

This paper studies equilibrium in a pure exchange economy with unobservable Markov switching growth regimes and beliefs-dependent risk aversion (BDRA). Risk aversion is stochastic and depends nonlinearly on consumption and beliefs. Equilibrium is obtained in closed form. The market price of risk, the interest rate, and the stock return volatility acquire new components tied to fluctuations in beliefs. A three-regime specification is estimated using the generalized method of moments (GMM). Model moments match their empirical counterparts for a variety of unconditional moments, including the equity premium, stock returns volatility, and the correlations between stock returns and consumption and dividends. Dynamic features of the data, such as the countercyclical behaviors of the equity premium and volatility, are also captured. Model volatility provides a good fit for realized volatility. A new factor, the information risk premium, is found to be a strong predictor of future excess returns. These results are obtained with an estimated risk aversion fluctuating between 1.44 and 1.93.

Keywords: asset pricing puzzles, beliefs-dependent risk aversion, equity premium, risk-free rate, volatility.

JEL classification: G11

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