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Permanent Shocks, Signal Extraction, and Portfolio Selection[*]

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Abstract

Recent empirical research in portfolio selection shows that investor's allocation to risky assets is low at young ages and does not exhibit a clear pattern of change as investors grow old. We show that standard models in the current literature predict a large allocation to stocks because they implicitly assume that transitory shocks dominate the stock price dynamics, and study a portfolio selection model in which the stock price is driven by a transitory and a dominant permanent component. The model captures time variation in expected returns and generates asset allocations that are small relative to the ones obtained in the current literature, and less dependent on the investor's horizon. We investigate our model under complete and incomplete information, and find that under incomplete information our results are stronger.

Keywords: Portfolio Selection, Kalman Filter, Mean Reversion

JEL Classification: G11, G13