



Rational learning for risk-averse investors by conditioning on behavioral choices

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Abstract

We present a rational learner agent, which considers the information coming from a behavioral counterpart during the allocation process. The learner agent adopts a herding behaviour by conditioning her choice on the selection of the portfolio's constituents. The considered framework has therefore two types of agents with two different utility functions: the rational agent with a hyperbolic absolute risk aversion (HARA) utility function and the other one with a general behavioral utility function. We use the concept of performance measure related to utility functions to define agents' preferences: the higher the measure, the higher the expected utility of a given asset. The rational learner agent updates her information in a Bayesian manner similarly to the Black-Litterman model, which makes use of a weighting factor in blending the two components. We support our methodological framework with an empirical analysis including all the assets present in the NASDAQ and NYSE stock exchange from September 1977 to December 2014.

Keywords

Learner agent, investment decision, behavioral agents, Bayesian updating.

JEL Codes

G110, G140, G150, G170.

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