A reformulated asset pricing model based on contrarian strategies

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Abstract

Purpose

Researchers have proposed characteristics-based pricing models as an alternative to risk-based pricing models. While supported empirically, these characteristic-based models lack theoretical support. This paper seeks to reformulate an asset-pricing model (RAPM) to demonstrate why firm characteristics help to explain stock returns.

Design/methodology/approach

The RAPM is grounded in an economic setting where two groups of agents hold different beliefs about firm fundamental values, and the more sophisticated group (rationals) adopts contrarian strategies against the naïve group (quasis). The model is derived in a static equilibrium within the consumption-investment framework with heterogeneous agents.

Findings

The key theoretical result is a parsimonious equation of cross-sectional expected returns that not only are specified by the traditional risk-return relation, but also are determined by contrarian adjustments at both market-wide and firm-specific levels. When the model is taken to empirical specifications, it leads to consistent explanations for the behaviors of growth and value stocks, and for size and book-to-market effects.

Research limitations/implications

The RAPM is a one-period model that assumes that "rationals" have perfect knowledge about "quasis" sentiment parameter and their relative market weights. In future research, it is planned to extend this static model to multiple periods to incorporate a learning process by which "rationals" learn these parameters over time.

Practical implications

The RAPM clearly identifies four criteria for implementing arbitrage opportunities in investments. These criteria formalize the common practices in the mutual/hedge fund industry.

Originality/value

The paper develops an original framework that formally supports the characteristics-based models. It offers insights for researchers in behavioral finance and guidelines for investment practitioners.

Keywords

Assets valuation | Organizational behaviour | Modelling | Risk assessment

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The Capital Asset Pricing Model (CAPM). I. Readings and Suggested Practice Problems II. Introduction: from Assumptions to Implications III. (This is more precise statistically than obtaining direct estimates of expected returns based on averages of past returns). 3. Foundations of Finance: The Capital Asset Pricing Model (CAPM). III. The Market Portfolio. In order to characterize asset price, wealth dynamics and rational adaptiveness arising from the interaction of heterogeneous agents with CRRA utility, an adaptive discrete time equilibrium model in terms of return ad wealth proportions (among heterogeneous representative agents) is established. Taking trend followers and contrarians as the main hetergeneous agents in the model, the profitability of momentum and contrarian trading strategies is analyzed. Capital Asset Pricing Model (CAPM) is a measure of the relationship between the expected return and the risk of investing in security. This model is used to analyze securities and pricing them given the expected rate of return and cost of capital involved. CAPM Formula. The (capital asset pricing model) CAPM formula is represented as below. Expected Rate of Return = Risk-Free Premium + Beta * (Market Risk Premium). Ra = Rrf + βa * (Rm – Rrf). – Researchers have proposed characteristics-based pricing models as an alternative to risk-based pricing models. While supported empirically, these characteristic-based models lack theoretical support. This paper seeks to reformulate an asset-pricing model (RAPM) to demonstrate why firm characteristics help to explain stock returns. Design/methodology/approach. – The RAPM is grounded in an economic setting where two groups of agents hold different beliefs about firm fundamental values, and the more sophisticated group (rationals) adopts contrarian strategies against the naïve group (quasis). T