Decomposing the Price-to-Book Ratio

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Abstract

I propose a theoretical and empirical framework to decompose the price-to-book ratio into a fundamental component and a discount-rate component. Firms with good accounting fundamentals have high price-to-book ratios and high subsequent stock returns, while firms with low discount rates have high price-to-book ratios and low subsequent stock returns. Since the price-to-book ratio is the sum of these two components that predict returns with opposite signs, the summation offsets their respective return predictability. Portfolios sorted by the two components exhibit systematic variation in expected returns, and they give rise to a long-short portfolio with a Sharpe Ratio of 0.68 per annum. These results are consistent with the model of investor sentiment proposed by Barberis, Shleifer, and Vishny (1998). In particular, the fundamental component captures the underreaction of stock prices, and the discount-rate component captures the overreaction.

Keywords: Value Premium, Investor Sentiment, Discount Rates, the Price-to-Book Ratio.

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