Asset Allocation

Is Value Riskier than Growth?

Authors: Ralitsa Petkova, Lu Zhang
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Abstract

Value stocks appear to have higher returns than growth stocks. The explanation for this difference has been the subject of numerous studies, using different methods of investigation, to find out whether there is a risk premium for value stocks. Some of the results are controversial. In this article Petkova and Zhang study the relative risk of value and growth stocks in relation to the economic situation. They refer to the findings of previous studies and compare them with their own results, giving the reasons for the differences. The approaches used in the different studies are of two kinds. Some rely on rational asset pricing theory, while others use arguments from behavioral finance.

Petkova and Zhang conducted a study to verify whether there are cross-sectional variations in beta-premium sensitivities across portfolios sorted by size and book-to-market, to confront rational asset pricing and behavioral finance from an empirical point of view. They used monthly returns for a period covering January 1927 to December 2000. They proceeded using conditional CAPM and obtained the following results: the conditional betas of value stocks covary positively with the expected risk premium, while growth stocks have betas that covary negatively with the expected risk premium. The betas of small stocks covary positively with the expected risk premium, while the betas of large stocks covary weakly or negatively with the expected risk premium. They find that value stocks are more (less) risky than growth stocks in bad (good) times when the expected risk premium is high (low). These results accord with rational asset pricing theory (cf. Zhang (2002)). They also observe that the asymmetric risk dispersion between value and growth persists when betas are measured with respect to unexpected industrial production growth. In short, their results indicate that the sensitivity of portfolio betas to the business cycle accounts for a considerable share of the cross-sectional differences in average returns. The explanatory power of conditional betas also appears to be much more important than that of unconditional market beta.

In contrast, according to Lakonishok, Sheifer and Vishny (1994) (LSV) value strategies earn higher returns because they are contrarian to the naive strategies followed by other investors. Their argument accords with behavioral finance. In that case, beta should have nothing to do with the higher returns of value strategies. Petkova and Zhang performed an empirical study to compare their results with those of LSV. This led them to explain the differences through the fact that LSV consider ex-post realized market excess returns instead of expected risk premiums. Since ex-post market excess return is correlated with its own unexpected component, the LSV procedure suffers from attenuation, which biases their estimates of business cycle sensitivity of value and growth portfolio betas towards zero.

Petkova and Zhang conclude that their approach to estimating the relative riskiness of value and growth is more justifiable than that used by LSV, both theoretically and econometrically. They also conclude that their results lend further support to rational asset pricing.

References


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