The Value Premium and the CAPM

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Previous research has shown that value stocks have higher returns than growth stocks—a difference referred to as the value premium. The authors examine the relationship between company size and the value premium and whether the capital asset pricing model (CAPM) explains the value premium. They also consider whether returns are, in general, related to beta in the manner indicated by the CAPM.

Previous research has determined that value stocks have higher average rates of return than do growth stocks. Evidence from earlier studies is not conclusive regarding whether the value premium is limited to small-cap stocks and whether the value premium is consistent with the capital asset pricing model (CAPM) in all time periods.

The authors examine the relationship between the value premium and company size and whether the value premium is consistent with the CAPM. The final goal is to determine whether, in general, variations in beta are related to observed returns in the way indicated by the CAPM. Data used in this study for the U.S. stock market include returns on NYSE companies since 1926, returns on Amex companies since 1962, and returns on NASDAQ companies since 1972. All data are through 2004. International return data are from Morgan Stanley Capital International and include 14 markets outside the United States for the 1975–2004 period.

The relationship between company size and the value premium is dependent on the sample period, the proxy used to classify companies as value or growth, and whether one considers U.S. or international stocks. In the U.S. market, if stocks with a high B/M (book-to-market ratio) are considered value stocks and stocks with a low B/M are classified as growth stocks, then a value premium exists for both big and small companies, although the premium is smaller for big

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companies in the post-1963 period. If U.S. companies are classified as either value or growth on the basis of earnings-to-price ratio (E/P) rather than B/M, the value premium is as high for large companies as it is for small companies in both the pre-1963 and post-1963 periods.

Evidence from international markets shows higher returns for value stocks regardless of whether the value versus growth is classified on the basis of B/M or E/P. In addition, the value premium is as large for big companies as it is for small companies.

The next issue investigated is whether the CAPM is consistent with the value premium. If beta is allowed to vary annually, then the CAPM is consistent with the value premium for the 1926–63 period but is inconsistent with value premiums in the post-1963 period. In the latter period, value stocks, on average, have lower betas and higher returns than growth stocks do. According to the CAPM, stocks with lower betas should have lower, not higher, returns.

The final goal of this article is to examine whether variations in beta are related to observed returns in a way that is consistent with the CAPM. For the entire 1926–2004 period, small companies have higher betas than large companies and the CAPM explains much of the higher return associated with small companies. From 1926 to 1963, value stocks have higher betas than growth stocks do, and again, the CAPM is consistent with the value premium. For the 1963–2004 period, however, value stocks have lower betas than growth stocks do, and the CAPM is inconsistent with the observed value premium. For the entire 1926–2004 period, if portfolios are sorted on the basis of company size and B/M, returns and betas are not associated as indicated by the CAPM. The authors conclude that it is not beta but company size and B/M, or the risks related to them, that are compensated in the form of higher returns.

Keywords: Investment Theory: CAPM, APT, and other pricing theories; Equity Investments: fundamental analysis and valuation models