
Investor Sentiment and the Cross-Section of Stock Returns

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Journal of Finance

vol. 61, no. 4 (August 2006):1645–1680

Classical finance theory suggests that in efficient markets, rational investors hold diversified portfolios and security prices reflect the discounted value of expected cash flows. Future cash flows, in turn, depend on systematic risk alone, and investor sentiment has no effect on security prices. Contrary to the theory, the authors argue that investor sentiment may, in fact, affect security valuation. They find that when investor sentiment is low, subsequent returns are relatively high for stocks of small, young, highly volatile, unprofitable, nondividend-paying, extreme growth, and distressed companies. On the other hand, when sentiment is high, the returns for these stocks are relatively low.

According to classical finance theory, the present value of expected cash flows discounted at a risk-adjusted discounted rate determines the value of securities and investor sentiment plays no role in the valuation. The authors hypothesize that investor sentiment may, actually, have a significant effect on stock prices. They suggest that because it is difficult to value the stocks of certain companies—new, small, young, highly volatile, unprofitable, nondividend-paying, extreme growth, and distressed companies—stock prices are likely to be more affected by investor sentiment. The authors suggest that the valuation of new companies, nondividend-paying companies, and companies on the extreme ends of the growth scale is too subjective. The subjective valuation makes these stocks speculative such that changes in investor sentiment drive the stocks' prices. The authors contend that, in practice, stocks that are harder to value also tend to be harder to arbitrage. On the other hand, the valuation of companies with a long earnings history, tangible assets, and stable dividends is much less subjective and much less likely to be affected by sentiment.

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The authors create a composite sentiment index by constructing six proxies. These proxies include the closed-end fund discount, NYSE share turnover, the number of and average first-day returns on initial public offerings, the equity share in new issues, and the dividend premium. The data include all the stocks in the merged CRSP–Compustat database. The authors use monthly stock returns between 1963 and 2001 to construct equally weighted decile portfolios based on several company characteristics to test the effect of sentiment at the beginning of a period on the cross-section of subsequent stock returns.

Analysis reveals that when sentiment is low (below the sample average), the subsequent returns are higher for newly listed stocks than for older stocks, for more volatile stocks than for less volatile stocks, for unprofitable stocks than for profitable stocks, and for nondividend-paying stocks than for dividend-paying stocks. When sentiment is high, these patterns are reversed. However, although small stocks are found to provide higher returns when sentiment is low, the size effect disappears when sentiment is high.

Sentiment has a similar effect on extreme growth and distressed companies. These companies fall at the two extremes when stocks are categorized into deciles by sales growth, book-to-market ratio, or external financing activity; the more stable companies fall in the middle deciles. The authors find that when sentiment is low, the subsequent returns on stocks on the two extremes are particularly high whereas the stocks in the middle do not appear to be affected by sentiment. This result is consistent with the authors' theoretical construct. The extreme growth and distressed stocks would be expected to be affected by sentiment because their valuations are relatively subjective and they are relatively hard to arbitrage.

The conclusions of this study challenge classical finance theory and suggest that stock valuation needs to incorporate investor sentiment.

Keywords: Equity Investments: fundamental analysis and valuation models; Investment Theory: efficient market theory