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By *J. H. Ouellette* President

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Divergent Opinions and Value Stock Performance

BY JOHN A. DOUKAS

Those who believe that capital markets—that is, markets for stocks and bonds—operate efficiently and asset prices fully reflect all publicly available information are engaged in an ongoing debate about the exact interpretation of the “value premium” with those who reject this view. Value premium refers to the superior returns generated by the purchase of value stocks relative to growth, or glamour, stocks. Rationalists, the group believing in market efficiency, argue that because value stocks are fundamentally riskier than growth stocks, the value premium is compensation for bearing risk. Behavioralists, the group arguing that market asset prices don’t reflect all publicly available information, however, claim that value stocks produce higher returns mostly because investors consistently overestimate the future earnings of growth stocks relative to value stocks. The essence of this argument is that investors are excessively pessimistic about value stocks because they tie their earnings expectations to past earnings. That is, investors make systematic errors in predicting future growth in earnings for value stocks, and investors’ excessive pessimism about these stocks causes the superior performance of value stocks relative to growth stocks. This behavioral explanation of the value premium is known as the “extrapolation” or “errors-in-expectations” explanation, and many researchers support it.

Recently, some fellow researchers and I, using U.S. analyst earnings forecasts as a proxy for the market’s expectations of future earnings, provided evidence against the errors-in-expectations view. Therefore, the observed abnormal return of value stocks on earnings announcement days is obviously not caused by surprise in the level of earnings but by some different mechanism. This mechanism of disagreement about future payoffs of company stocks, the focus of our recent work, provides an alternative explanation for the “value premium” puzzle.

Investors’ Divergent Opinions Affect Risk Level

In our article, published in the *Journal of Finance* (2002), we argued that previous researchers of both schools of thought (rationalists and behavioralists) have overlooked investor differences of opinion as a possible source of risk that could explain the value premium anomaly. While disagreement among investors is widely recognized as the main source of stock trading, it has been overlooked as a potential explanation of the “value premium” puzzle.

The concept of heterogeneous beliefs dates back to

F.H. Knight’s (1921) work, but was ignored in rational and behavior asset pricing models. These models invariably assume that investor beliefs are homogeneous and, on the average, do not matter when it comes to the determination of asset prices. A few exceptions to this notion exist and our work builds on the very old concept of “Knightian uncertainty” rather than risk. According to Knight, the true measure of risk is “uncertainty,” not risk that the finance profession conveniently measures as the departure from the average (i.e., deviation from the mean). Conventional finance theorists also tend to believe that the mean of the stock return distribution is bell-shaped and well-known *a priori!* When you drop this set of convenient and unrealistic assumptions, you can easily arrive at a positive relationship between stock returns and investor disagreement. This is also consistent with Knight’s measure of risk, simply because as uncertainty about the future payoffs of stock returns increases, so does the disagreement among investors. Investor disagreement, then, emerges as a source of risk, nonfundamental, that warrants compensation. That is, greater disagreement among investors about the future performance of a stock acts as a source of risk, arising from uncertainty that deters investors from purchasing the stock unless they get compensated with a premium.

Uncertainty Drives Rates of Return Higher

Hence, in this framework, we argue that the superior future performance of certain stocks arises because not all investors possess completely accurate beliefs about what is likely to happen. Heterogeneous expectations among investors matter in asset pricing because the opportunity set, or the future return payoffs of stocks, is partly unknown. When investors don't know what the real chances are of certain stock return payoffs, they tend to have different subjective opinions of the future prospects of stocks. When uncertainty about the future prospects of a stock is high, subjective beliefs will diverge, causing investors to demand high rates of return to invest in the stock.

An alternative view is that the higher returns for stocks exposed to greater disagreement among investors arise because, in imperfect capital markets, capital market equilibrium requires determining the asset prices and also the identity of investors trading in each asset at the same time.

Dispersion of opinion, then, may represent a unique source of risk, and its impact on prices should be compounded by the degree of disagreement. To examine this issue, we used dispersion in analysts' earnings forecasts as a proxy for investors' heterogeneous beliefs. We proposed that value stocks have greater exposure to dispersion in forecasts and, therefore, should earn a higher return than growth stocks with lower exposure.

Our results are consistent with the investor disagreement explanation for the return differences between value and growth stocks. We found that the divergence in analysts' earnings forecasts, a proxy for investor disagreement, is much higher for portfolios composed of stocks that include value

stocks. We obtained similar results when we compared the extreme portfolios of stocks ranked by size. Small-capitalization stocks, those representing smaller companies, exhibited greater forecast dispersion than stocks of large companies. These results suggest that value stocks and small-cap stocks earn higher returns because there is greater disagreement among investors about the stocks' future payoffs.

Our tests confirmed that investor disagreement, manifested in the dispersion of analysts' earnings forecasts, is a risk factor that is priced, together with other risk factors such as size and book-to-market, in the determination of value stock and small-cap stock returns. It is worth emphasizing that the disagreement risk factor plays an important role in affecting stock returns. These results are consistent with the view that investors require higher returns for stocks exposed to greater investor disagreement. For risk-averse investors the implication is obvious: avoid investing in stocks that are subject to heightened disagreement among market participants about their future performance.

These findings have important implications for corporate financing and investment decisions, investment banking strategies and security design. At the aggregate level, our results also have implications for policy-making decisions. In sum, we cannot continue assuming that economic agents have the same expectations, and when their beliefs tend to diverge from one another they do not matter, on average. Empirical evidence fails to support this view.

The idea of disagreement has the potential to explain several economic and business phenomena. An interesting application of the concept of disagreement is China (treat it as a stock/firm). The low disagreement among world investors/businesses about the future economic prospects of China during the last 10 years has

reduced the disagreement premium for China substantially! As a result, China has experienced an unprecedented inflow (foreign direct investment) of capital. This, of course, was not the case prior to China's policy change adopted about 10 years ago. Hence, the required premium to invest in China used to be so high that it prohibited any inflow of foreign capital into the Chinese markets. The result? Poverty. Overall, the reduction of investor disagreement about the future prospects of a stock/country by CEOs/government (policy makers) is essential to economic growth and prosperity.



John A. Doukas is a professor of finance and eminent scholar. This article draws on his work, co-authored with Chan Kim and Chris Pantzalis, which was published in the *Financial Analysts Journal*, CFA Institute (November/December 2004, Volume 60, Number 6). It received the Graham-Dodd Best Paper Award for 2004.