The Journal of Alternative Investments

Market sentiment has received significant attention from both practitioners and academics. The late Fischer Black argued that changes in noise trader sentiment is a major driver of mispricing in financial markets. Available empirical evidence shows that temporary arbitrage opportunities and mispricing of securities do appear in markets, although a number of factors limit arbitrage activities, thereby preventing securities prices from converging rapidly to their fundamental values. These factors are typically ignored in the textbook definitions of arbitrage; in real-world cases, however, they limit the amount of capital that traders are willing or able to commit to some arbitrage opportunities. As a result, certain arbitrage or risk arbitrage opportunities may persist through time. The presence of noise traders is one of the factors that can make it more difficult for arbitrageurs to take advantage of temporary mispricing of securities. The classical description of the efficient market hypothesis assumes that investors are rational and only act on information that can affect the fundamental values of securities. The term *noise traders* refers to those investors who trade securities for reasons unrelated to their fundamental values. For example, some investors may sell securities in order to meet liquidity needs, whereas others may decide to buy securities simply because their prices have been increasing in recent days. Another factor that affects noise traders' behavior is *sentiment*, defined as the overall attitude of investors toward financial markets. Some refer to sentiment as *market psychology*; if everything fails to explain a particular movement in markets, commentators will attribute it to a change in sentiment or market psychology.

Although investors' sentiment could serve as a source of risk that prevents arbitrageurs from taking advantage of market opportunities, the ability to measure and use the information provided by changes in sentiment could prove to be quite useful. Academics and practitioners have attempted to develop various measures of market sentiment, and some publications report their own measure of investors' sentiment. For example, *Investor Business Daily* has an index of investor sentiment that is based on a regular survey, and researchers have used changes in discounts on closed-end funds as a measure of small investors' sentiment.

The lead article of this issue of *The Journal of Alternative Investments* is by Liew, Guo, and Zhang, in which they attempt to use social media data to measure investors' sentiment. Their article, "Tweet Sentiments and Crowd-Sourced Earnings Estimates as Valuable Sources of Information around Earnings Releases" examines the confluence of two

important financial social media databases that capture *crowdsourced* information. These sources of information have begun to appear increasingly important for financial market research. The authors focus on corporate earnings announcements to determine if the information/opinions disclosed through these social media data sources are more accurate than Wall Street's consensus earnings, and they show that this is indeed the case. Second, they document that the objectivity of the crowd is one reason why it is more accurate, whereas Wall Street's consensus is biased due to the *lowballing* phenomenon that is pervasive in the industry. Third, the authors find economically and statistically significant evidence that tweet sentiment contains distinct information that is not contained in traditional preannouncement variables. The authors conclude that their measure of tweet sentiment does contain actionable information about earnings and post–earning release performance of security prices.

In "Dividend Swaps and Dividend Futures: *State of Play*," Mixon and Onur use regulatory data related to derivatives trading to explore the over-the-counter (OTC) index dividend swap market and contrast it with the listed index dividend futures market. They report that in terms of the notional amount, the OTC market for these derivatives is about $2.5 billion for transactions involving dealers and end users, with another $4 billion involving only dealers. An interesting finding is that the majority of the dealer–dealer swaps are in the S&P 500, whereas the majority of transactions for non-U.S. underlyings are between dealers and end users. Although very standardized OTC swaps and listed futures coexist for several major indexes, only the listed EURO STOXX 50 future clearly dominates the OTC market, with nearly five times the notional outstanding of the OTC swaps. The authors observe an average of around one end-user transaction per week for the OTC EURO STOXX market, with less activity in other indexes. Risk transfer appears largest for the EURO STOXX 50, with dealers net short nearly USD 1 billion notional to end users.

"Volatility Weighting Applied to Momentum Strategies," by du Plessis and Hallerbach, considers two new types of momentum trading strategies in which the signals are adjusted by the volatility and the underlying securities of the strategy. The authors present some simple theoretical results for the Sharpe ratios of weighted strategies and present empirical results for momentum strategies applied to U.S. industry portfolios. The authors find that volatility weighting improves the Sharpe ratio of the strategy.

The second part of this issue is concerned with downside risk as a source of return and as a source of risk. Israelov, Nielsen, and Villalon observe that investors have asymmetric risk preferences when it comes to bearing downside risk versus participating in the upside. Options markets provide a useful and intuitive way to quantify these asymmetric preferences by way of the returns associated with being on either side. Their article, "Embracing Downside Risk," shows this result using equity index options. They find that most of the empirical equity risk premium reflects compensation for downside risk—in fact, upside participation earned very little reward in the long run, reflecting an extreme asymmetry that might be surprising to some investors. The authors extend their analysis to other asset classes and find similar results. Data and economic theory suggest that investors who attempt to deal with downside risk by being long options should expect to underperform.

In "Semivolatility of Returns as a Measure of Downside Risk," Chambers and Lu observe that within statistics, semistandard deviation is a well-known measure of the dispersion of probability distributions. In addition, they argue that in finance, semistandard deviation of returns is sometimes defined consistently with its statistical definition, but is sometimes defined differently. The ambiguity emanates from whether the number of observations in the calculation of semistandard deviation includes the entire sample or only those observations that are below the threshold. The authors show that using the total number of observations is consistent with the use of semistandard deviation in statistics but generates a measure that cannot be directly compared to standard deviation. Practitioners should be aware of the implications of using either figure as a stand-alone risk measure or as the denominator of the Sortino ratio.

Finally, Molyboga and L'Ahelec analyze the portfolio management implications of using drawdown-based measures in allocation decisions. The authors introduce modified conditional expected drawdown (MCED), a new risk measure that is derived from portfolio draw-

downs. They show that MCED exhibits the attractive properties of coherent risk measures that are present in conditional expected drawdown but are lacking in the historical maximum drawdown commonly used in the industry. The authors introduce a robust method for calculating MCED and show that MCED is less sensitive to sample errors. Next, they evaluate several drawdown-based minimum risk and equal-risk allocation approaches using a subset of hedge funds in the managed futures space. The authors find that the MCED-based equal-risk approach dominates the other drawdown-based techniques but does not consistently outperform the simple equal volatility-adjusted approach. This finding highlights the importance of carefully accounting for sample error and cautions against overreliance on drawdown-based measures in portfolio management.

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