

Investor Sentiment and Volume-Volatility Relationship

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Abstract

This paper shows the effect of investor sentiment on information processing in financial markets. We investigate how disagreement among investors affects the relationship between trading intensity and price volatility around macroeconomic announcements during high- and low-sentiment periods. By incorporating into the Kandel and Pearson (1995) model a one-factor structure with heterogeneous beliefs in the idiosyncratic component, we explicitly derive the volume-volatility elasticity for individual stocks around systematic information release. Our empirical results are based on intra-day transaction data for the S&P 500 ETF and Dow Jones 30 components, analyzed with high-frequency econometric tools in a multi-dimensional setting. Consistent with the model predictions, measures of investor disagreement only have a significantly negative effect on the volume-volatility elasticity in high-sentiment periods, and this is true both for the market portfolio and for individual stocks. This result is in line with changes in the confidence level of investors when sentiment regime shifts. Our estimates of elasticity also decrease significantly with the ratio of idiosyncratic variance, which indicates that higher idiosyncratic risks introduce larger dispersion among investors.

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