

This work concentrates on exploring the influence of social networks to financial markets. We have introduced a novel approach to Twitter sentiment analysis, in which we collect continuous stream of data and analyze it. Our original data set contains over 200 million English written Tweets from the period between July 1, 2014 and October 9, 2014. Twitter sentiment is used as a good representative of investors' mood. On hourly data we investigate how investors are influenced by basic emotions, moods and sentiment in their decision making processes as well as the influence of keywords related to specific securities and FOREX symbols. Particularly, we examine the relationships between Twitter-based variables and returns as well as volatility of several financial instruments on a wide range of data including commodities, currencies and S&P 500 Cash Index. We show that Twitter sentiment influences volatility of securities' returns, tested and shown on both conditional and realized volatility models. We also describe the effect of Twitter sentiment on securities' returns. Moreover, we reveal the influence of basic emotions on investors' decision making processes. Our results suggest that investors are influenced by emotions and moods, especially at longer investment horizons. The impact of emotions at shorter investment horizons is limited and differs for particular securities as well as emotions.