

SCRIPTIE

Why options tell you how to make money on stocks

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In theory, a stock option should simply reflect expectations that have already been priced in its underlying stock. However, by investigating the option trading measures *implied volatility (IV) spread and skew* in accordance with recent research, this study evidences that option markets lead stock markets. In particular, the higher the observed IV spread value, the higher the predicted positive excess returns on the respective stock. IV skew values, on the other hand, significantly predict negative excess returns. Consequently, options must contain information that has not yet been priced into their underlying stocks. This research links this predictive power of option markets to informed traders, i.e. traders that have information on future stock performance other market participants do not have. Following the notion that informed traders prefer exploiting their information advantage in the option market rather than the stock market, information on future stock performance is first reflected in option trading activities and then diffused into the stock market at a later point in time.

This raises the question from what source informed traders obtain their information advantage. The findings in this study support the conjecture that *analyst tipping* is a driving force behind the option market predictability. Analyst tipping refers to a leakage of information on the timing and content of forthcoming analyst reports to investors through the analysts themselves. The results in this study are consistent with the analyst tipping hypothesis, as they show that the option market's predictive power for future stock returns increases in the presence of *analyst-related events*, defined as analyst recommendation changes, forecast revisions and initial recommendations on the option's underlying stock. These findings are unlikely to be explained by alternative hypotheses, such as *common information* on future stock returns that both analysts and traders share or *reverse tipping*, where analysts release their announcements based on tips by informed traders.

Moreover, the results reveal that given the presence of an analyst-related event, the



predictive power of option markets increases in times of high *information uncertainty*, i.e. periods in which the future performance of a certain stock is difficult to predict. It can be concluded that traders, who received tips from analysts on the timing and content of a forthcoming analyst-related event, more actively exploit their information advantage in option markets, when the information uncertainty of the stock's future performance is high. In times of high information uncertainty, the occurrence and content of a new analyst announcement is less likely to be anticipated by "normal" non-informed traders and thus has the greatest impact on the stock returns once the analyst's announcement is released to the public. To put it differently, knowing the content and timing of a forthcoming analyst-related event, informed traders that were tipped by analysts can gain higher returns when information uncertainty on the future performance of a stock is high. Consequently, they exploit their information advantage more actively in times of high information uncertainty, which, given that

informed traders prefer the option market to capitalize their information advantage, can be significantly predicted by respective option trading measures IV spread and skew.

Against this backdrop, findings point out that the type of the announcement on the analyst event day, i.e. positive or negative, interacts with IV spread and skew, showing that for negative events informed traders are less actively exploiting their information advantage. This could be explained through short-selling bans and a lower availability of put options.

The results of this study bear economic significance. This is demonstrated by conducting a trading strategy based on IV spread and skew. At every trading day IV spreads and skews, respectively, are ranked according to their average values of the past five trading days from highest to lowest. Their underlying stocks are then grouped into deciles based on that ranking. A portfolio is created in which the trader goes long in the stocks of the top and short in the stocks of the bottom decile. Such a trading strategy is capable of generating significant risk-adjusted alphas of 3.7 basis points for the IV spread- and -6.6 basis points for the IV skew-portfolio per day, which translates to 9.8 and -15.3 percent, respectively, per annum. ■

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De volledige scriptie "Does information uncertainty influence the option market predictability for future stock returns? – Evidence from analyst tipping" is beschikbaar via de website van de VBA.