WHY IS THE MARKET SKEWNESS-RETURN RELATIONSHIP NEGATIVE?

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Abstract
The observed negative relationship between market skewness and excess return or the negative price of market skewness risk in the cross-section of stock returns is somewhat counterintuitive when we consider the usual interpretation of e.g. option-implied skewness as an indicator of jump risk or downside risk. One possible explanation for this inconsistency is that there are factors affecting option-implied market skewness other than jump risk in the stock market. In this paper, I find that price pressure associated with “crowded trades” of mutual funds is an important endogenous factor. Given that retail investors are prone to herding, the directional trading of mutual funds is correlated, and their collective actions can generate short-term price pressure on aggregate stock prices. Short sellers systematically exploit these patterns not only in the equity lending market, but also in the options market. In line with this economic channel, I find that firstly, the significant negative relationship between market skewness and returns becomes insignificant, once I control for price pressure. Secondly, the negative relationship is only present for the “bad” downside component of risk-neutral skewness, associated with out-of-the-money put options. For the “good” upside component of risk-neutral skewness, associated with out-of-the-money call options, the relationship is always positive. Thirdly, price pressure affects the skewness-return relationship, which can be clearly distinguished from the impact of flows on the volatility-return relationship in terms of the leverage effect.

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