The impact of trades by traders on asymmetric volatility for Nasdaq-100 index futures

Jullavut Kittiakarasakun, Yiuman Tse, George H.K. Wang

Managerial Finance
ISSN: 0307-4358 (International Standard Serial Number.)
Article publication date: 29 June 2012

Abstract

Purpose

The purpose of this paper is to examine the impact of trades by informed traders and uninformed traders on the asymmetric volatility relation, a stylized fact that has long been puzzling financial economists. Avramov, Chordia, and Goyal's hypothesized that asymmetric volatility, defined as the negative relationship between daily volatility and lagged unexpected return, is governed by the trading dynamics of informed traders and uninformed traders. However, the hypothesis has not been directly tested due to lack of a measure for informed and informed trades. The authors aim to test the hypothesis using a direct measure for informed trades and uninformed trades.

Design/methodology/approach

The authors employ the Computer Trade Reconstruction (CTR) data of Nasdaq-100 index futures for the period of 2002 through 2004. The dataset contains a unique variable distinguishing informed trades and uninformed trades, allowing the authors to directly examine the impact of the trades (i.e. selling activities) on the asymmetric volatility relation.

Findings

Based on the Nasdaq-100 index futures data, the asymmetric volatility relation is driven by the selling activity of uninformed traders, particularly from small-size trades. These results are only significant during the first half of the

While risk and returns are important for asset pricing and risk management, most financial researchers consider them from a fundamental perspective. This paper's results suggest that selling activity of uninformed traders can significantly influence asset return and volatility and, hence, deserves more attention from the researchers.

Originality/value

The paper is the first to provide a direct test for Avmarov et al.'s hypothesis and shows that uninformed trades cause the asymmetric volatility. The authors contribute to ongoing discussions of how noise trading behavior can impact asset return and volatility.

Keywords

Asset pricing | Returns | Risk management | Informed and uninformed traders | Asymmetric volatility | Nasdaq-100 index futures

Citation

Kittiakarasakun, J., Tse, Y. and Wang, G.H.K. (2012), "The impact of trades by traders on asymmetric volatility for Nasdaq-100 index futures", Managerial Finance, Vol. 38 No. 8, pp. 752-767. https://doi.org/10.1108/03074351211239388

Download as .RIS

Publisher: Emerald Group Publishing Limited