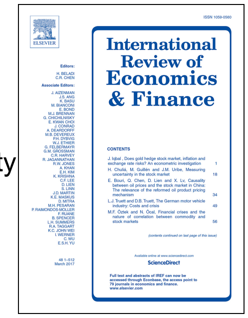

Dynamic impacts of crude oil price on Chinese investor sentiment: Nonlinear causality and time-varying effect

Zhifang He

PII: S1059-0560(18)30985-7

DOI: https://doi.org/10.1016/j.iref.2019.11.004

Reference: REVECO 1856

To appear in: *International Review of Economics and Finance*

Received Date: 10 November 2018

Revised Date: 14 November 2019

Accepted Date: 17 November 2019

Highlights

The Chinese investor sentiment is constructed by the principal component analysis.

Non-linear Granger causality and time-varying parameter VAR model are employed.

Oil price non-linearly causes Chinese investor sentiment, but not vise versa.

Effects of oil price on China's investor sentiment are negative and time-varying.

The magnitudes of the effects are distinct on different time points.

Dynamic impacts of crude oil price on Chinese investor sentiment: nonlinear causality and time-varying effect

Zhifang He

School of Business, Jiangnan University, Wuxi, Jiangsu, China, 214122

Email: hezfang@126.com

Abstract: Although much attention has been given on the linear relationship between oil price and investor sentiment, the nonlinear causality and time-varying behaviors have been neglected. The present paper fills this gap in literature and examines the nonlinear causality between Chinese investor sentiment and crude oil price by applying the Hiemstra and Jones (HJ) and the Diks and Panchenko (DP) tests. The study finds a significant non-linear Granger causality relationship run from oil price to Chinese investor sentiment. In addition, this paper further examines the impacts of oil price on Chinese investor sentiment by the time-varying parameter VAR (TVP-VAR) model. The empirical results show that effects of oil price on Chinese investor sentiment are time-varying and in most cases are negative. Moreover, the negative effect is large in the latest year of 2017, followed by the global financial crisis of 2008, yet small for the steady economic period in 2012, and minimal for the China’s oil product pricing reform in 2013. These findings are robust for alternative crude oil prices and investor sentiments variables.

Keywords: Oil price, Investor sentiment, Non-linear causality, Time-varying effect