Does Oil Price Explosivity Impact Stock Return for Oil Sectors?

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Abstract

Understanding the link between oil price and stock return is a long-standing question in the economic and finance literature. However, there is still a gap in the effect of oil price explosivity on stock returns. The aim of the paper is threefold: (1) to examine whether the oil price series contains price explosivity, (2) to understand whether price explosivity offers excess return for oil-related, oil-substitute and oil-user companies in the U.S. stock markets, and (3) to discover whether the effect of price explosivity on the stock return differs between leaders and followers in the various sectors. The paper uses monthly WTI crude oil prices which spans between January 1985 and December 2019 and employs the Generalized Supremum Augmented Dickey-Fuller test proposed by Philips, Shi, and Yu (2015) to detect the price explosivity. The results indicate that there are multiple episodes of price explosivity in the sample period, especially most of the price explosivity months coincides prior to the 2008 financial crisis. Oil price explosivity leads to an excess return for oil-related companies; whereas, there is a negative impact of price explosivity on oil-substitute and oil-user companies. The findings also show that the results are robust for the followers but not the leaders of the industries.

Keywords: Price explosivity, oil price, excess return, the U.S. stock markets

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