Accepted Manuscript

Title: The Impact of Oil Price Shocks on the Stock Market Return and volatility relationship

Author: Wensheng Kang Ronald A. Ratti Kyung Hwan Yoon

PII:	S1042-4431(14)00127-9
DOI:	http://dx.doi.org/doi:10.1016/j.intfin.2014.11.002
Reference:	INTFIN 745

To appear in: *Int. Fin. Markets, Inst. and Money*

Received date:	20-9-2014
Accepted date:	2-11-2014

Please cite this article as: Kang, Wensheng, Ratti, Ronald A., Yoon, Kyung Hwan, The Impact of Oil Price Shocks on the Stock Market Return and volatility relationship.Journal of International Financial Markets, Institutions and Money http://dx.doi.org/10.1016/j.intfin.2014.11.002

The Impact of Oil Price Shocks on the Stock Market Return

and Volatility Relationship

Highlights

- Covariance of return and volatility is constructed from daily data
- Shocks to oil demand are associated with negative effects on the covariance
- Oil supply disruptions are associated with positive effects on the covariance
- Spillover between oil shocks and stock covariance is large and significant

Abstract

This paper examines the impact of structural oil price shocks on the covariance of U.S. stock market return and stock market volatility. We construct from daily data on return and volatility the covariance of return and volatility at monthly frequency. The measures of daily volatility are realized-volatility at high frequency (normalized squared return), conditional-volatility recovered from a stochastic volatility model, and implied-volatility deduced from options prices. Positive shocks to aggregate demand and to oil-market specific demand are associated with negative effects on the covariance of return and volatility. Oil supply disruptions are associated with positive effects on the covariance of return and volatility. The spillover index between the structural oil price shocks and covariance of stock return and volatility is large and highly statistically significant.

JEL classifications: E44, G10, Q41, Q43
Key words and phrases: Stock return and volatility, oil price shocks, stock volatility, structural VAR

The Impact of Oil Price Shocks on the Stock Market Return

and Volatility Relationship

1. Introduction