EFFECT OF OIL PRICE ON THE STOCK MARKET RETURN AND VOLATILITY IN SIX MAJOR OIL EXPORTING COUNTRIES

MASOUD YOUSEFI AMIN

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BY
MASOUD YOUSEFI AMIN

Thesis submitted to the School of Graduate Studies, University of Putra Malaysia in fulfillment of requirements for the Degree of Master of Science

August 2011
DEDICATION

Specially dedicated to my beloved parents for their endless support
EFFECT OF OIL PRICE ON THE STOCK MARKET RETURN AND VOLATILITY IN SIX MAJOR OIL EXPORTING COUNTRIES

By

MASOUD YOUSEFI AMIN
August 2011

Chairman : Dr. Normaz Wana Binti Ismail
Faculty: Economics and Management

This dissertation analyzes the dynamic relationship between oil price changes and stock market for the six main net oil exporting countries namely IRAN, RUSSIA, SAUDI ARABIA, NIGERIA, NORWAY and United Arab Emirates using weekly data from 16/1/2005–15/6/2010. The unrestricted multivariate Vector Autoregressions (VAR) model with 4 parameters (stock market return, oil domestic price changes, industrial production growth and world market return) is estimated as well as impulse response function and variance decomposition. The bivariate BEKK GARCH (1, 1) model is also used to show the impact of oil price volatility spillover on stock market volatility.

The empirical results of the impact of oil price shocks on the stock market return indicate that in most oil exporting countries, oil price shocks have undeniable effect on the stock market variation in the same week or in two weeks. However, the strength of shocks response in the stock market of countries changes adversely by the pick in

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RUSSIA and the least in NIGERIA and NORWAY. The comparison between impacts of oil price shocks and world market return shocks on the stock market show that in four out of six countries world market shocks have much more influential role in stock market variation than oil price shocks.

By exception of NORWAY it is found that most of oil exporters’ countries are much more sensitive to the shock by fall in oil price. However, empirical evidence is supported higher effective impact of surge shocks in NORWAY stock market return. Taking to the account different levels of reaction to the positive and negative oil price shocks the asymmetric impact of oil price shocks is completely apparent among most of countries.

In the sub-sample of 2005 to 2010 stock market have experienced high volatility weeks. Experimental findings of BEKK GARCH (1, 1) in the oil exporter countries financial market indicates that there is some strong evidence on linkage of lag-leads effect of oil price variation on stock market return volatility in RUSSIA, NIGERIA, NORWAY and IRAN. It is also highlighted that oil price volatility of first lag can be better traced by the domestic volatility identifications of oil price change in comparison to the US dollar.
Abstrak disertasi untuk dikemukakan kepada senat Universiti Putra Malaysia untuk memenuhi keperluan pengajian dalam ijazah, Master sains.

KESAN HARGA MINYAK ON THE RETURN STOK PASARAN DAN TURUN NAIK DALAM ENAM UTAMA MINYAK MENGEKSPORT NEGARA

Oleh

MASOUD YOUSEFI AMIN

Ogos 2011

Pengerusi: Dr. Normaz Wana Binti Ismail

Fakulti: Ekonomi dan Pengurusan


Keputusan empirik mengenai kesan kejutan harga minyak terhadap pululan pasaran saham menunjukkan bahawa kebanyakan negara pengeksport minyak memberi kesan

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ke atas variasi pasaran saham dalam minggu yang sama atau dua minggu yang berikutnya. Namun, kekuatan respons kejutan dalam pasaran saham negara-negara berkenaan berubah secara ketara bagi negara Rusia dan paling kurang bagi negara NIGERIA dan NORWAY. Perbandingan impak kejutan harga minyak dan kejutan pulangan pasaran dunia ke atas pasaran saham menunjukkan bagi empat daripada enam negara kejutan pasaran dunia mempunyai peranan yang lebih besar dalam variasi pasaran saham berbanding kejutan harga minyak.

Keputusan juga menunjukkan bahawa kebanyakan negara pengeksport minyak lebih sensitif kepada kejutan penurunan harga minyak, kecuali NORWAY. Namun, bukti empirik menunjukkan kesan efektif yang lebih tinggi pada kejutan pulangan pasaran saham NORWAY. Dengan mengambil kira tahap reaksi yang berbeza pada kejutan harga minyak yang positif serta negatif, impak tidak simetri kejutan harga minyak adalah lebih ketara bagi kebanyakan negara.

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I certify that an Examination Committee met on date of viva voce to conduct the final examination of Masoud Yousefi Amin on his Master of Science thesis entitled “effect of oil price on the stock market return and volatility in six major oil exporting countries” in accordance with Universities and University College Act 1971 and the Constitution of the University Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the candidate be awarded the Master of Science.

Members of the Examination Committee are as follows:

Normaz Wana Ismail, PhD
Senior Lecturer
Faculty of Economics and Management
University of Putra Malaysia
(Chairperson)

Wan Azman Saini Wan Ngah, PhD
Senior Lecturer, Head of Department
Faculty of Economics and Management
University of Putra Malaysia
(Internal examiner)

Lee Chin, PhD
Senior Lecturer
Faculty of Economics and Management
University of Putra Malaysia
(Internal examiner)

HOOY CHEE WOOI, PhD
Senior Lecturer
School of management
University Sains Malaysia

BUJANG KIM HUAT, Ph.D.
Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia
This thesis was submitted to the Senate of University Putra Malaysia has been accepted as fulfillment of the requirements for the degree of Master of Science. The members of the Supervisory Committee were as follows:

**Law Siong Hook, PhD**  
Associate Professor  
Faculty of Economics and Management  
University of Putra Malaysia  
(Chairman)

**Mansor Ibrahim, PhD**  
Professor  
Faculty of Economics and Management  
University of Putra Malaysia  
(Member)

**BUJANG BIN KIM HUAT**  
Professor and Dean  
School of Graduate Studies  
University Putra Malaysia  
(Date:)

IX
DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not currently submitted for any of other degree at University Putra Malaysia or at any other institutions.

Masoud Yousefi Amin
Masoud Yousefi Amin

Date: 15 August 2011
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