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Derya Ezgi Kayalar, C. Coşkun Küçüközmen, A. Sevtap Selcuk-Kestel

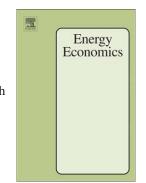
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## **ACCEPTED MANUSCRIPT**

# THE IMPACT OF CRUDE OIL PRICES ON FINANCIAL MARKET INDICATORS: COPULA APPROACH

Derya Ezgi KAYALAR<sup>1</sup>, C. Coşkun KÜÇÜKÖZMEN<sup>2</sup>, A. Sevtap SELCUK-KESTEL<sup>34</sup>

#### **ABSTRACT**

Oil price changes have varying impacts on the financial indicators of global markets and economies. This study aims to explore the dependence structure between crude oil prices and stock market indices, as well as the exchange rates in a number of economies categorized with respect to their status as developing/emerging markets, and oil importer/exporter countries. Dependence structures in this study are evaluated in considerable depth using Copula models. The broad time period covered allows the investigation of the effect of global financial crisis on the mentioned dependence structure. An additional feature of this study is the inclusion of 1 to 30-day analysis to capture the variation of dependence on duration change. To serve these aims, as well as ARIMA and GARCH models, various copula measures are used to illustrate the level of the association. Additionally, a special focus on the Turkish case is given to illustrate its sensitivity to oil prices. We find that exchange rates and stock indices of most oil exporter countries show higher oil price dependency, whereas, emerging oil importer markets are less vulnerable to price fluctuations. Considerable impacts were found for the global crisis and the continuing recent sharp decrease in oil prices.

Key words: Oil prices, stock market indices, exchange rates, copula, emerging markets

#### 1. INTRODUCTION

Crude oil prices have the potential to affect the economies through three major channels: Firstly, changes in crude oil prices have a profound effect on inflation, through changes in production costs, leading to shifts in the supply curve. Secondly, especially for oil-importing countries, changes in oil prices have significant impact on balance of payments, thus on exchange rates. Finally, price changes affect the total consumption value of a household, causing substitution effects, i.e. a downward shift in demand with increasing prices, and vice versa. Moreover, since inflation and trade balance are both important determinants of exchange rates in the medium and long term, oil prices are expected to play an important role in this process. In contrast, short term effects usually originate from financial markets.

<sup>&</sup>lt;sup>1</sup> Central Bank of the Republic of Turkey, Head Office, Ankara, Turkey, <a href="mailto:deryaezgi.kayalar@tcmb.gov.tr">deryaezgi.kayalar@tcmb.gov.tr</a>

<sup>&</sup>lt;sup>2</sup>Department of International Trade and Finance, Faculty of Business, Izmir University of Economics, Izmir, Turkey, <u>coskun.kucukozmen@ieu.edu.tr</u>

<sup>&</sup>lt;sup>3</sup> Institute of Applied Mathematics, Middle East Technical University, Ankara, Turkey, <a href="mailto:skestel@metu.edu.tr">skestel@metu.edu.tr</a>

<sup>&</sup>lt;sup>4</sup> Corresponding Author

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