ANALYSES OF OIL SHOCKS ASYMMETRY ON INFLATION: NEW EMPIRICAL EVIDENCE FROM OPEC MEMBER COUNTRIES

[1]MOHAMMAD JAFARI, [2]AKBAR KHODABAKHSHI

[1,2]Department of Economics, Lorestan University, Khoramabad, Iran. Department of Economics, Bu Ali Sina University, Hamedan, Iran
E-mail: [1]mohjafari@gmail.com, [2]akbarkh2006@gmail.com

Abstract- This paper tries to investigate the asymmetric effects of oil shocks on inflation in OPEC member countries during the period 1980-2011 by using hidden panel co-integration approach (proposed via Hatemi-J (2011)). To achieve the purpose, firstly, the crude oil prices and consumer price index variables are decomposed for these countries to cumulative positive and negative components. Accordingly, the cross-sectional dependence in models, used the Pesaran unit root test (2007) and Westland co-integration test (2007) and shown that does not exist long-run relationship between crude oil prices and the consumer price index (not support linear co-integration); but there is a long-term relationship between this variables and between positive components of the consumer price index and negative components of the oil prices (support hidden co-integration). Finally, these long-term relationships calculated by using the continuously-updated and fully-modified (Cup-FM) (proposed via Bai et al (2009)). The results indicate that both positive and negative oil price shock increase the inflation in the OPEC member countries, so that the impact of negative shocks is more than positive shocks (support asymmetry).

Keywords- Inflation, Oil Price, Cross-Sectional Dependence, Hidden Panel Co-integration, Continuously-Updated and Fully-Modified (Cup-FM). JEL Classification: C23, E21, Q43.

I. INTRODUCTION

Oil price and its export revenues plays crucial role in determining the performance and structure of the economy of the oil exporting countries. Thus any unexpected shock to global oil markets can be dramatic effects on the economic structure of these countries. Most the studies focused on the effects of oil price volatility on key macroeconomic variables, mostly in oil-importing countries (for example, Mory (1993: Ss161-151), Hamilton (1996, pp: 220-215) and Hamilton (2003 : Ss398-363)).

The experimental results of those studies shows that the increase in oil prices has been a major factor in accession of economic stagnancy, when oil prices decreasing has small role in economic prosperity that has been occurred. These results portend that there is no symmetry relationship between oil prices and economic activity in these countries. Over time and with the reliable results from these studies, the new idea took shape among economic researchers that Asymmetric impact of oil prices on the economies of exporting this product also can be analyzed, while the negative effects of oil prices decreasing in these country more than its positive effects (Jafari and Golkhndan, 2013: p. 130). Due to this phenomenon and dependence of the economy of Petroleum Exporting Countries on oil revenues, this paper attempts to separation of positive and negative oil price shocks to precision explanation of the fluctuations in oil prices on inflation this country.

Using a hidden panel Co-integration and Unit Root and Co-integration test panels with cross-sectional dependence this study aims to to give a brief analysis of positive and negative oil prices effect on inflation in oil-exporting countries. The paper is organized in five sections. After the introduction, the second section examines the literature. The third part is devoted to the Models and Methods. The fourth section analyzes the model and results are discussed. In the final section conclusions are presented.

II. LITERATURE REVIEW

In economic literature, any deviation of the variables from the expected long-term trend called shock, and the price of oil always is under consideration in this term. In this regard, it can be said that the rise in oil prices has been more important of the other types of supply shocks affected the world economy after World War II.

The issue of oil price shocks on real economic activity of the oil exporting and importing countries depends on the various factors including: spending strategy of additional revenues resulting from the oil prices jump and the income security resulting from falling prices in oil-exporting countries, changing in the general level of prices and wages as a result of the sudden variations in oil prices, the various policies of the government to control of these shocks and...

Generally, countries can be divided into two groups in terms of the influence of oil shocks, oil-importing and oil-exporters countries in which they show different expression of oil price shocks. According to many economists, oil price hike leads to lower economic growth and higher inflation in oil-importing countries. From different aspects this object can be examined. On the one hand, increasing of the oil prices cause energy scarcity as a raw material for manufacturing firms that this increased operating costs and reduced profits for the firms, as a result reducing the tendency of companies to buy fresh capital goodstherefore