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Measuring multiple bubbles in the international oil market

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EXTENDED ABSTRACT

INTRODUCTION

The non-renewable energy of oil has now been able to occupy a significant part of the global economy, as one of the important sources and for the chemical products; so that the economy of many countries (both exporters and importers) is dependent on it. The energy crises (such as the bubble) lead to macro effects in the global economy and create special conditions for market participants, in this framework. Oil price bubbles can lead to further developments in the international economy by affecting the supply and demand mechanism. The fact is that oil is a production input and store of value creates a political and strategic role for that. Oil can be considered the most prominent and volatile commodity in the global economy and financial markets. Oil and oil products are not only used as raw materials by many economic enterprises, but are also used in many service and traded sectors on the stock exchange. Therefore, any fluctuations in oil prices will have global and regional effects on the global economy.

METHODOLOGY

The main purpose of the research is to investigate the existence of price bubbles in the international oil markets using recursive unit root tests (GSADF, RADF, SADF).

In this regard, the monthly data of Brent, West Texas, Iran and Oman oil prices were used in the period of 1980:01 to 2018:06.

Shahid Chamran University of Ahvaz
Quarterly Journal of Quantitative Economics
(former Economic Studies)

FINDINGS

The results showed that Iran, Brent, Oman and West Texas oil prices have experienced nine, ten, nine and eight bubble periods, respectively. Also, although the history of the bubbles are somewhat close to each other, but they differ from each other from the point of view of the bubble structure, so that the bubble structure of Iran, Brent, Oman and West Texas oil prices is 44%, 50%, 37% and 25% respectively. It is multiple bubbles.

CONCLUSION

Oil price changes and the occurrence of the bubble in this market (especially) can give an important signal to policy makers; because this bubble market can indicate the fear of an economic collapse among investors, itself (as one of the early warning signs of a financial crisis). Therefore, it is very important for policymakers to know when oil bubbles occur; because these bubbles will create potential consequences on financial stability. On the other hand, knowing about the occurrence of the bubble is not enough, but the policymaker must be able to decide between observing the developments and the market collapse, and fighting against speculative activities. This can be the subject of a complete study to examine this issue as closely as possible. For example, the central bank can prevent the fluctuation of the dollar price and stabilize the price to avoid making wrong monetary decisions, by knowing the potential effect of the dollar on oil price bubbles. There is a possibility of reducing speculative activities in favor of stabilizing the price of basic commodities, including crude oil, as a result of taking such a decision.

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