A three-way analysis of the relationship between the USD value and the prices of oil and gold: A wavelet analysis

By: Alturturi, BHM [Alturturi, Basheer H. M.][1]; Alshammari, AA [Alshammari, Ahmad Alrazil][1]; Saiti, B [Saiti, Buerhan][2]

Abstract
This study examines the relationships among oil prices, gold prices, and the USD real exchange rate. It adopts the wavelet approach as a nonlinear causality technique to decompose the data into various scales over time. Higher-order coherence and partial coherence were used to identify the lag effect and mutual coherence function among the variables. The results show that changes in the USD exchange rate influence the prices of oil and gold negatively in the short- and medium-term. While in the long-term, the oil price has a negative impact on the value of the USD. Oil and gold are significantly linked and correlated because their prices are determined in USD. The findings of this paper have significant implications, particularly for risk management.

Keywords
Author Keywords: wavelet; partial wavelet coherence; U.S. dollar value; oil prices; gold prices

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5. Title: [not available]
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NONLINEAR PROCESSES IN GEOPHYSICS Volume: 11 Issue: 5-6 Pages: 561-566 Published: 2004

19. OIL AND THE MACROECONOMY SINCE WORLD-WAR-II
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AMERICAN ECONOMIC REVIEW Volume: 99 Issue: 3 Pages: 1053-1069 Published: JUN 2009

25. Oil shocks and exchange rate dynamics
By: Krugman, P.
Exchange Rates and International Macroeconomics; Published: 1983
Publisher: University of Chicago Press, Chicago

26. Title: [not available]
By: Le, TH; Chang, Y.
Oil and gold: correlation or causation Published: 2011
URL: https://core.ac.uk/download/pdf/12028729.pdf

27. Testing Granger Causality in the presence of threshold effects
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INTERNATIONAL JOURNAL OF FORECASTING Volume: 22 Issue: 4 Pages: 771-780 Published: 2006

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INT C BUS INF BAI200 Published: 2008
Working Paper presented at

29. Cross-correlations between crude oil and agricultural commodity markets
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