Volatility Transmission between Oil Price and Stock Return of Emerging and Developed Countries

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Abstract : In this work, our objective is to study the transmission of volatility between oil and stock markets in developed (USA, Germany, Italy, France and Japan) and emerging countries (Tunisia, Thailand, Brazil, Argentina, and Jordan) for the period 1998-2015. Our methodology consists of analyzing the monthly data by the GARCH-BEKK model to capture the effect in terms of volatility in the variation of the oil price on the different stock market. The empirical results in the emerging countries indicate that the relationships are unidirectional from the stock market to the oil market. For the developed countries, we find that the transmission of volatility is unidirectional from the oil market to stock market. For the USA and Italy, we find no transmission between the two markets. The transmission is bi-directional only in Thailand. Following our estimates, we also noticed that the emerging countries influence almost the same extent as the developed countries, while at the transmission of volatility there a bid difference. The GARCH-BEKK model is more effective than the others versions to minimize the risk of an oil-stock portfolio.

Keywords : GARCH, oil prices, stock market, volatility transmission
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