

The dependence between international crude oil price and Vietnam stock market: Nonlinear cointegration test approach

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Abstract. This paper investigates the relationship between crude oil prices and Vietnam stock prices by using the daily data in the period from 01/03/2006 to 08/31/2015. The data is divided into four phases, corresponding to two important events, the financial crisis in 2007 and the significant decline of crude prices from the third quarter of 2014. The research methods employed are the threshold cointegration test of Gregory and Hansen (1996), TY procedure for Granger non-causality proposed Toda- Yamamoto (1995) and Error correction model (Granger, 1987). The results show that there exists a long run relationship between crude oil prices and Vietnam stock market in the entire sample; however, there is no cointegration between these variables in all four phases. There is evidence that crude oil prices unidirectional affect stock prices in the entire sample and in the second and third phases; and the crude oil price variable is an exogenous one. In the last phase attached with the decline of crude oil prices, no evidence in statistic shows that the oil prices do Granger cause to stock prices. It likely proves that volatilities of world crude oil prices can affect negatively or positively to profit outlooks of the listed companies on Vietnam stock market, and there is a balance between benefits and damages in this period. ECM model indicates that oil prices and stock prices have a positive relationship in short term, and the speed of adjustment of stock price to return the equilibrium state after a shock is slow around 0.25%. These findings also have an important policy implication that helps the government intercept the market to reduce the negative effects from the energy shocks in general and oil price shocks in particular. Those are to pay more attention to domestic production and trade revenues to get more stable budget, research the alternative energy and enhance international cooperation in the energy sector.