

A Regime Switching Vector Error Correction Model of Analysis of Cointegration in Oil, Gold, Stock Markets

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Abstract. This paper uses the concept of Markov Switching Vector Error Correction model (MS-VECM) to examine the relationship among USA stock, gold and crude oil markets with monthly data set from May 1988 to May 2018. The various specifications of the model, namely MSIAH-VECM, MSIA-VECM, and MSIH-VECM are considered and compared in this study. The results show that MSIAH-VECM outperforms other MS-VECM specifications and also linear VECM. The model can capture all structural changes in the financial time series data, corresponding to the NBER recession periods. We also find significant positive effect of gold on oil, and stock on oil during the market upturn.