

Energy Market Integration

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Significant oil price increases since 2004 have helped create record profits for oil-related businesses and generated a lot of interest in diversifying into the energy sector. Among others, one important issue is how reliable this diversification is. We utilize Engle (2002) DCC model to investigate time-varying dynamics on correlation of energy futures contracts. Six traded futures contracts - WTI, Brent, US natural gas, UK natural gas, US heating oil, UK heating oil, and daily data from 31/7/1991 – 31/7/2006 are covered.

Our results indicate: (1) UK and US marker crudes and products are well correlated (2) In the natural gas market, cross border correlation is almost nil (3) US cross product linkages are higher than those in UK, indicating more integrated energy mix in the US (4) Correlation between marker crudes and major oil products is highly volatile, but no trend has been detected over time (1991-2006); with the exception of US natural gas and heating oil which shows significantly increased correlation over time.

Our empirical findings have empirical implications in the reliability of asset diversification into energy, and energy risk management practice.