A View to the Short and Long Run Dynamic Relationship between Crude Oil and the Major Asset Classes

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Abstract: *Using DCC-MIDAS model, we analyze the time-varying correlations between crude oil and the major asset classes by taking into account both long and short term components. Next, the structural changes in the long term correlation components are determined by a novel methodology of penalized contrast functions, and the robustness of the results is checked with Markov switching regressions. We reveal that there is a strong positive (negative) secular trend toward higher correlation magnitudes across crude oil and gold (dollar index) over our sample time period. On the other hand, the increase toward higher positive correlation levels between crude oil-stock market and crude oil-bond market occur in a near-instantaneous fashion after the 2008 global financial crisis. In particular, the structural changes in the long term correlations are observed around April-May 2009. Following Fed's tapering signals in 2013, we observe a significant rise in crude oil-dollar index correlation for both short and long run components. Such a situation might indicate the reversion of the relationship between these two markets to pre-crisis status.*

Keywords: *DCC-MIDAS; crude oil; interest rate; exchange rate; stock market; gold.*