**Revealing asymmetries in the loss function of WTI oil futures market.**

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## Abstract

This paper examines behavioural aspects of the West Texas Intermediate (WTI) oil 1-month futures from 1995 to 2012. We consider that oil futures are formed based on an underlying generalised loss function with some unknown shape parameters that provide information regarding preferences. Even without observing fundamentals of WTI oil futures we can assess whether preferences lean towards a symmetric or otherwise an asymmetric loss function. Our empirical evidence is robust across information sets and shows that overall loss preferences of WTI 1-month oil futures are rather optimistic and thus the underlying loss function is asymmetric. This implies that if one disregards this asymmetry the WTI oil futures should not be viewed as rational. We further provide statistical tests that allow deviations from a symmetric loss function. As part of a sensitivity analysis, and given the long span of our sample, we perform a novel analysis for detecting breakdowns in our series over time. Based on this analysis we re-examine the shape parameters of the loss function for WTI oil month futures for sub-periods. Interestingly, preferences of WTI 1-month oil futures have shifted towards optimism post 2008 period, marking the collapse of Lehman Brothers.

Keywords: Asymmetric Loss Function, WTI Oil Futures, Structural Breaks.

JEL Classifications: C53, E27, E37.

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