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Evidences for a structural change in the oil market before a financial crisis: the flat horizon effect

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Abstract. There are growing evidences that the *commodity bubble* in the 2000s had a major impact in the 2007-08 financial crisis. A salient feature of this *commodity bubble* was the dramatic increasing in the correlation of indexed commodities with oil price following the financialisation of the oil market. In this paper we suggest that, besides the growing demand from emerging economies and the following inflow of money from speculative traders, the introduction of the electronic platform could have had an important and underestimated effect on the oil market. Our analysis of the spot and futures oil prices at the NYMEX based on the Generalized Hurst Exponent confirms that the period 2004-2007 is pivotal in the oil market and corroborates the hypothesis that a structural change occurred in both markets. The evident decrease in multifractality suggests a flattening of the time horizon in financial oil markets and the coexistence of long-termism and short-termism. This structural change could partially explain the observed increase of correlations between commodities and oil price.

1 Introduction: chronology of events and literature review

When it comes to the concept of the real economy, as opposed to the financial economy, nothing is more representative of the real, tangible, thus measurable, manifestation of markets than commodities. Among commodities traded worldwide, crude oil has the lion's share. According to Comtrade crude oil (SITC group 333) was the top exported commodity in 2014 with 7.7 percent of total exports, for a value of 1444 bln of US dollars. Crude oil is also the most liquid commodity market in Europe and in U.S. Futures contracts, rather than option contracts dominate the commodity market and, therefore, those are generally

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