

Are Changes in Crude Oil Prices Predictable?*

Michał Dominik STASIAK and Żaneta STASZAK

Poznan University of Economics and Business, Poznan, Poland

Correspondence should be addressed to: Michał Dominik STASIAK, michal.stasiak@ue.poznan.pl

* Presented at the 43th IBIMA International Conference, 26-27 June 2024, Madrid, Spain.

Abstract

The oil prices influence the transport sector, and subsequently the profitability of trade and the condition of countries' economies. Therefore, the prediction of future price changes is of high importance. Said prices can be forecasted by macroeconomic or technical methods of analysis, yet both of those are often questioned. In the article, we present a method for a complex verification of the hypothesis that current prices are not influenced by historical changes in oil prices. To do so we applied an alternative and more precise representation of prices than the most commonly used candlestick representation, i.e. the binary temporal representation and utilized advanced statistical testing. In the paper, we also present the results of empirical research performed on the oil price quotations, with the use of advanced software in C++. The research confirms the sensibility of using technical and fundamental analysis.

Keywords: crude oil, raw materials, transport, technical analysis, market investment decision support.