

Название публикации:

Research of objective market price factors in the formation of prices on the oil market

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Наименование журнала:

Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration

Volume 26, Issue 43, 2018, Pages 50-61

Аннотация:

“Brent” oil prices (BOP) serves as a global standard for commodity market and it strongly influences the world economy. Forecasting BOP presents a significant and at the same time an arduous task. The main question related to “Brent” prices forecasting is the correct determination of the cause-effect relations. In order to conduct the causality analysis, we have employed adaptive-neuro fuzzy interface system based on the if-then rules and a great potential for the determination of cause-effect relations. The modeling has shown unobvious results. Despite the fundamental law, which claims that the balance of supply and demand forms the oil price, we have proved that the fundamental dependencies are not valid for “Brent” oil pricing. We have revealed that precious metals prices (Palladium, Gold, Silver and Platinum) and commodity currencies exchange rates (USD/NOK, USD/AUD, USD/CAD and USD/ZAR) serve as a signal or cause for the “Brent” price changes. Additionally, we have examined the efficiency of the forecasting model in terms of forecasting oil price trends, achieving maximum 62% of accuracy on the daily data. © 2018 University of Pardubice. All rights reserved.

Ключевые слова:

ANFIS, ANN, Causality Analysis, Forecasting, Fuzzy Logic, “Brent” Oil Prices