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A comparison of VAR and neural networks with genetic algorithm in forecasting price of oil. (English) [Zbl 1118.91350](#)

Binner, Jane M. (ed.) et al., Applications of artificial intelligence in finance and economics. Selected papers of international conference on artificial intelligence (IC-AI '03), Las Vegas, NV, USA, June 23–26, 2003. Amsterdam: Elsevier/JAI (ISBN 0-7623-1150-9/hbk). Advances in Econometrics 19, 203-223 (2004).

Summary: This study applies VAR and ANN techniques to make ex-post forecast of U.S. oil price movements. The VAR-based forecast uses three endogenous variables: lagged oil price, lagged oil supply and lagged energy consumption. However, the VAR model suggests that the impacts of oil supply and energy consumption has limited impacts on oil price movement. The forecast of the genetic algorithm-based ANN model is made by using oil supply, energy consumption, and money supply (M1). Root mean squared error and mean absolute error have been used as the evaluation criteria. Our analysis suggests that the BPN-GA model noticeably outperforms the VAR model.

For the entire collection see [\[Zbl 1090.91001\]](#).

MSC:

[91B82](#) Statistical methods; economic indices and measures

Cited in **2** Documents

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