# Article information:

Gold price volatility: A forecasting approach using the Artificial Neural Network–GARCH model - ScienceDirect
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# Article summary:

1. The ability to predict gold price volatility is important for commodity markets and the world economy.

2. Traditional GARCH models have high errors in prediction, leading to economic loss and market inefficiencies.

3. The ANN-GARCH model improves accuracy in forecasting gold price volatility by incorporating financial variables as inputs and focusing on the capability to forecast future volatility rather than explaining past behavior.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled Gold price volatility: A forecasting approach using the Artificial Neural Network–GARCH model provides a detailed analysis of the use of artificial neural networks (ANN) and generalized autoregressive conditional heteroskedasticity (GARCH) models to forecast gold price volatility. The article highlights the importance of accurate forecasting in commodity markets and for the world economy, as well as the potential economic losses that can result from flawed models.

The article provides a comprehensive literature review on various models used to forecast volatility, including ARCH, TARCH, TGARCH, ARMA, and AP-GARCH. The authors also discuss the use of ANN in modeling gold prices and their ability to incorporate financial variables that are significant for the price or volatility of gold.

One potential bias in this article is its focus on the accuracy of forecasting using hybrid models rather than traditional GARCH models. While accuracy is important, it is not the only factor to consider when evaluating forecasting models. Other factors such as interpretability, simplicity, and computational efficiency should also be considered.

Additionally, while the article discusses various macroeconomic variables that may influence gold prices such as oil prices and inflation, it does not explore counterarguments or alternative explanations for these relationships. For example, while there may be a high correlation between gold and oil prices over the last four decades, this relationship may not hold true in all market conditions.

Furthermore, while the article notes that improved accuracy in gold price estimations and volatility will result in better investor decision making and improve market efficiency, it does not address any potential risks associated with relying too heavily on these forecasts. It is important to note that no model can accurately predict future market conditions with 100% certainty.

Overall, while this article provides valuable insights into using ANN-GARCH models for forecasting gold price volatility, readers should approach its findings with caution and consider other factors beyond just accuracy when evaluating forecasting models.

# Topics for further research:

* Alternative explanations for the relationship between gold and oil prices
* Critiques of using hybrid models for forecasting volatility
* Importance of interpretability and simplicity in forecasting models
* Computational efficiency in forecasting models
* Risks associated with relying too heavily on market forecasts
* Limitations of forecasting models in predicting future market conditions

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