

FORECASTING FINANCIAL TIME SERIES BASED ON ARTIFICIAL NEURAL NETWORKS

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ABSTRACT

The main objective of this research paper is to highlight the global implications arising in financial modeling modern paradigms. Reliable conceptual arguments and significant empirical evidence suggest the ability of artificial neural networks to predict future behavioral patterns. Moreover, forecasting noisy financial time series based on artificial neural networks lead to more satisfactory results compared to classical statistical methods. In recent past, the seemingly symbiotic relationship between financial theory and practice emphasizes more effective econometric tools for achieving high accuracy results. The analysis of predictive accuracy of artificial neural networks in the field of financial time series constitutes a real challenge in the context of globalization. This particular form of artificial intelligence represent one of the most important issue for further investigation in terms of computational finance.

KEYWORDS: Artificial Neural Networks, Financial Prediction, Financial Markets, Investment Patterns, Investment Behavior, Time Series Forecasting, Volatility