

**PREDICTIVE ANALYSIS AND EVALUATION OF THE BULGARIAN  
ECONOMY'S MOST SIGNIFICANT INDICATORS<sup>5</sup>**

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***Abstract:** This paper develops a mathematical methodology to study and predict the future values of some of the Bulgarian's economy indicators. The considered exponents include the harmonized consumer price index, the total business climate indicator, the state budget balance – deficit/surplus and the long-term interest rate for convergence assessment purposes. The employed approaches for predictive analysis are the (S)ARIMA methods from the time-series toolkit and the LSTM neural networks. The data is gathered from the Bulgarian National Bank and the National Statistical Institute. The aforementioned models are calibrated and forecasts are made, which, in general, prognosticate a mid-term increase after a short-term decline of the economy indicators. They, in turn, predict a moderate rise of the Bulgarian economic situation. The future values of the factors are interpreted and justified and some important implications are drawn in the conclusion of the paper.*

***Keywords:** Economy Indicators, Convergence Criteria, Harmonized consumer price index, Total business climate indicator, State budget balance, Long-term interest rate, ARIMA, LSTM, Forecast .*

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