

## **Developing Forecasting Models for Unemployment Rate by Gender: Cross Countries Comparison**

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### **Abstract**

In this paper the best forecasting model for unemployment rates for each gender in selected European countries are developed using yearly official time series data assuming the socio-economic and other circumstances in the analysed countries in the short time horizon would remain unchanged. Separate forecasting models are developed for male and female unemployment rates. The paper shows cross-country comparison of the forecasting models efficiency for short-term forecasts for both genders. Countries in the focus are: Austria, with the lowest unemployment rates, and several with very high rates, such as Spain, Greece, both with the highest unemployment rates, Croatia, Portugal, Slovenia, the potential EU candidates: Albania, Bosnia and Herzegovina, Montenegro, and the official candidates: the FYR of Macedonia, Serbia and Turkey. Linear trend forecasting using ordinary least squares estimators was the most precise for some countries, while for the others double exponential smoothing forecasting appeared to be the most precise.

**Keywords:** unemployment rate; regression forecasting models; double exponential smoothing forecasting method; mean absolute percentage error MAPE