

FORECASTING THE VALUES OF MOTORIZATION LEVEL INDICATORS USING CLASSICAL TREND MODELS

Summary

In this paper the usefulness of classical trend models in forecasting the values of motorization level indicators was examined. In the process of prediction the following trend models were considered: linear, parabolic, third -order polynomial, fourth-order polynomial, power, exponential, logarithmic and hyperbolic. The method drawing on minimization of *ex ante* forecast error was applied. By changing the number of L recent years used in prediction process the minimum value of *ex ante* error was sought. For the optimum number of years the forecast value was determined. The method was elaborated with the example of predicting the value of selected motorization level indicators: the number of cars registered in Szczecin and the number of motor vehicles registered in Gliwice as well as in Poland. Calculations were made for the data from years 2000-2006, whereas the data from 2007 were used to determine *ex post* forecast error.

Translated by Jan Purczynski