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A floating period based coal price prediction model. (Chinese. English summary) [Zbl 07448772]

Summary: Coal is the basic raw material of energy and chemical industry in China. The accurate prediction of coal price is of great significance for industrial development. In this paper, the principal component analysis method is used to dynamically select the factors that influence the coal price. Then, a dynamic coal price prediction model is formulated based on a floating period adjustment mechanism for optimizing the prediction results. Finally, the proposed model and several existing prediction models are simultaneously applied by the real coal prices. The corresponding case study results show that the proposed method outperforms existing prediction methods on the prediction accuracy.

MSC:
62M20 Inference from stochastic processes and prediction
91B24 Microeconomic theory (price theory and economic markets)

Keywords:
coal price; prediction; floating period; dynamic multi-factor