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Forecast evaluation of dynamic regression and sarima models applied to Electricity Spot Prices - Time Series Analysis

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Abstract

Deregulation changed the dynamics of the Swedish power market. The deregulated market opened up for the power exchange, Nord Pool. In this thesis we will examine if a dynamic regression model including daily temperature data provides a more powerful model in terms of forecasting than a univariate time series model solely based on the electricity spot price. In this thesis a SARIMA model is deemed suitable due to the weekly seasonality found in the electricity spot price data. The analysis indicates that a dynamic regression model with the inclusion of an exogenous variable can provide a more powerful model, in terms of forecasting.

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