Data Science Lab 6

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FORECASTING MODELS

Traffic Time Series
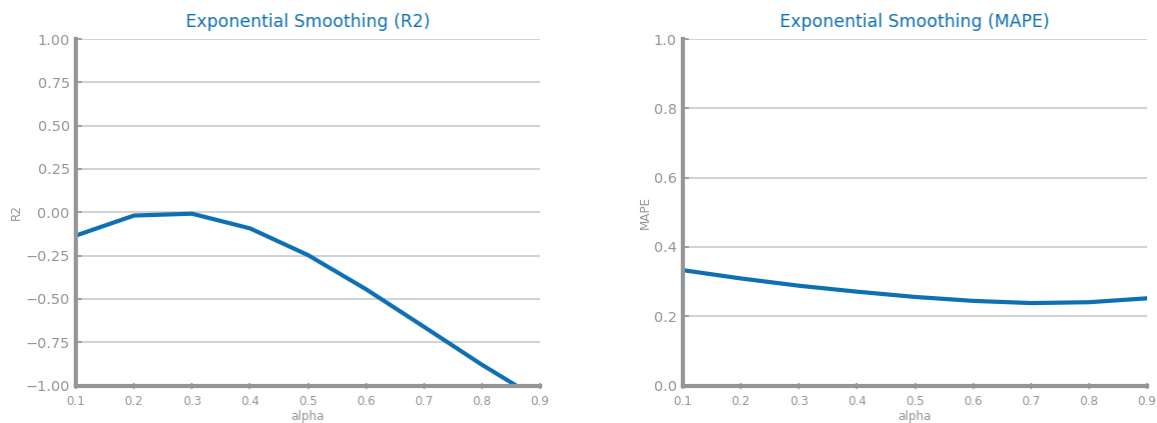
Exponential Smoothing

Univariate

Figure 1: Exponential Smoothing (Univariate) R2 and MAPE study for Traffic Time Series

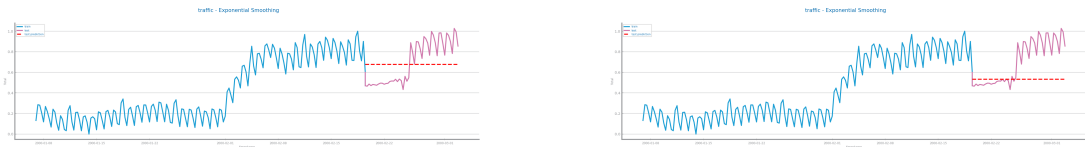Figure 2: Exponential Smoothing (Univariate) R2 and MAPE evaluation results for Traffic Time Series

Figure 3: Exponential Smoothing (Univariate) R2 and MAPE forecasting for Traffic Time Series
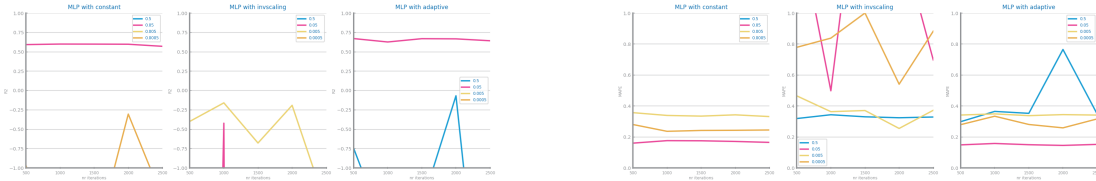
Multi-layer Perceptron

Multivariate

Figure 4: MLP (Multivariate) R2 and MAPE study for Traffic Time Series

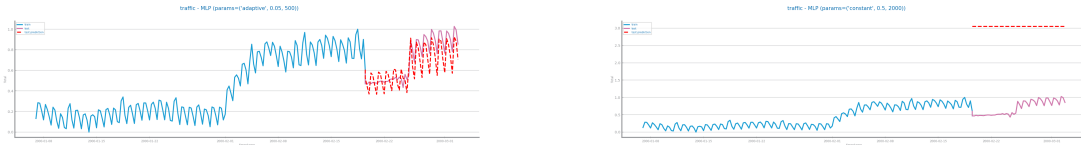Figure 5: MLP (Multivariate) R2 and MAPE evaluation results for Traffic Time Series

Figure 6: MLP (Multivariate) R2 and MAPE forecasting for Traffic Time Series
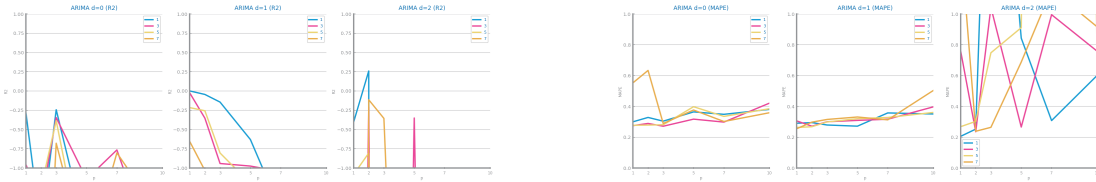
ARIMA

Univariate

Figure 7: ARIMA (Univariate) R2 and MAPE study for Traffic Time Series

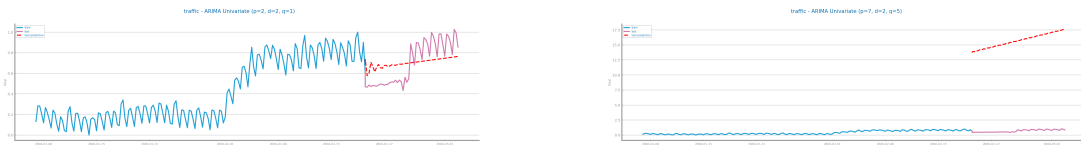Figure 8: ARIMA (Univariate) R2 and MAPE evaluation results for Traffic Time Series

Figure 9: ARIMA (Univariate) R2 and MAPE forecasting for Traffic Time Series
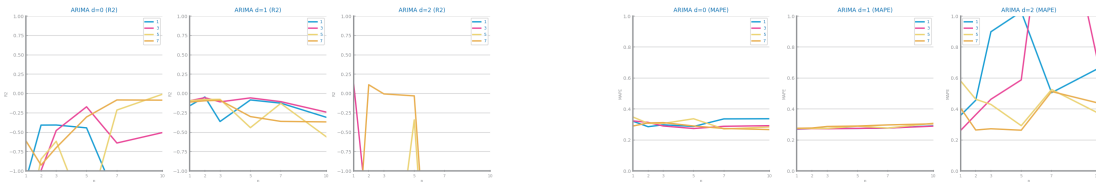
Multivariate

Figure 10: ARIMA (Multivariate) R2 and MAPE study for Traffic Time Series
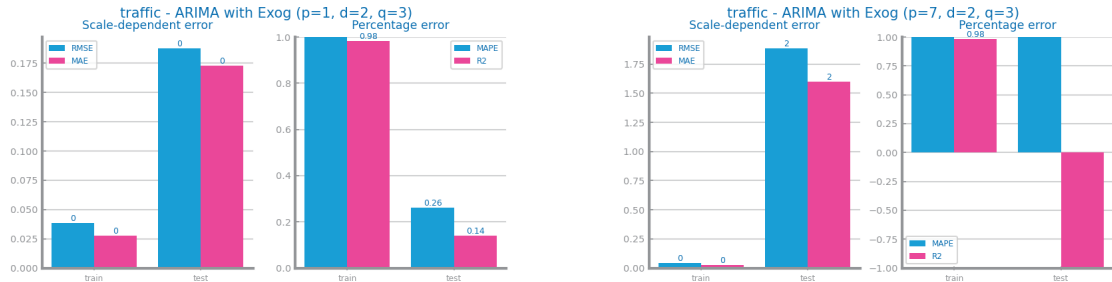
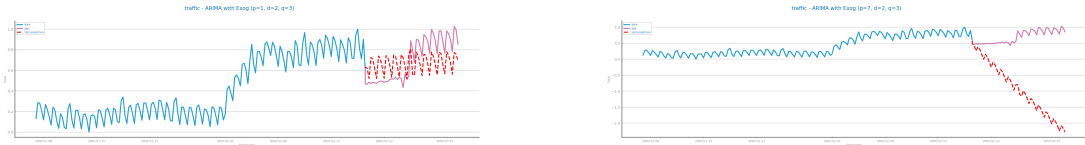Figure 11: ARIMA (Multivariate) R2 and MAPE evaluation results for Traffic Time Series

Figure 12: ARIMA (Multivariate) R2 and MAPE forecasting for Traffic Time Series
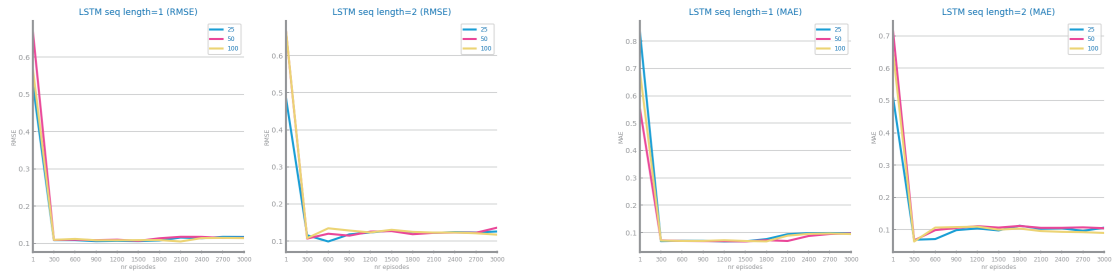
LSTM

Univariate

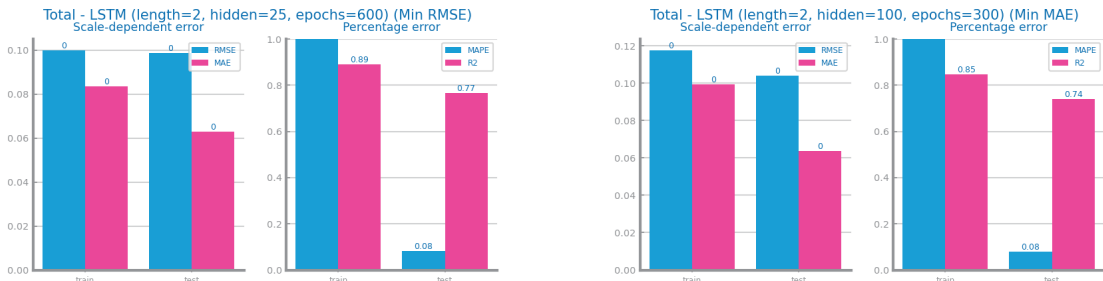Figure 13: LSTM (Univariate) RMSE and MAE study for Traffic Time Series

Figure 14: LSTM (Univariate) RMSE and MAE evaluation results for Traffic Time Series
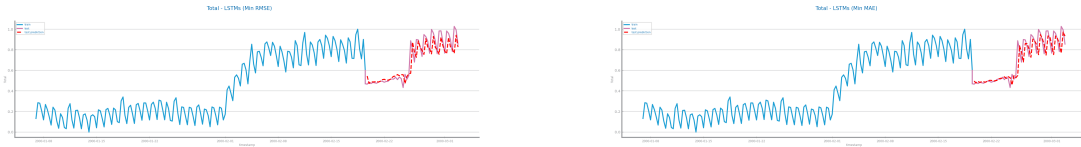
Figure 15: LSTM (Univariate) RMSE and MAE forecasting for Traffic Time Series
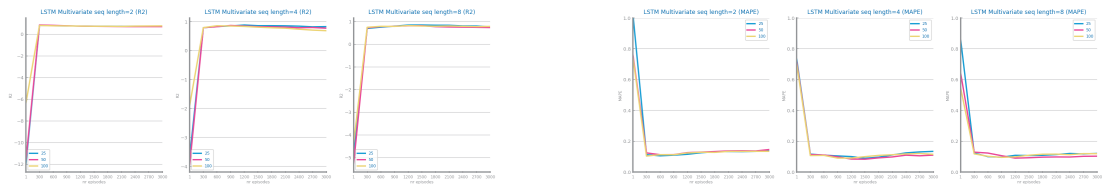
Multivariate

Figure 16: LSTM (Multivariate) R2 and MAPE study for Traffic Time Series
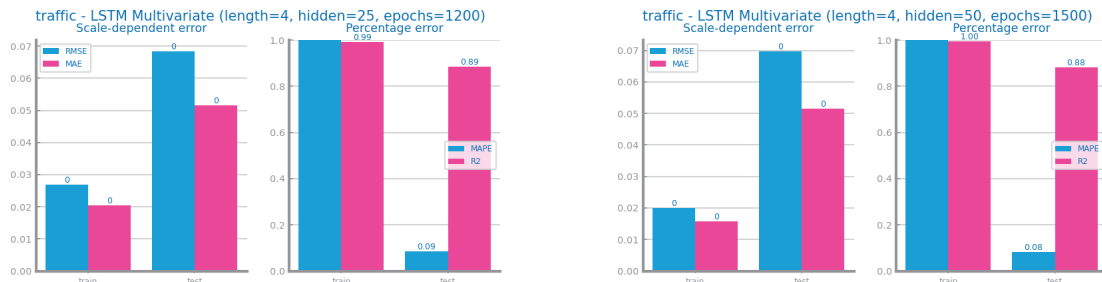

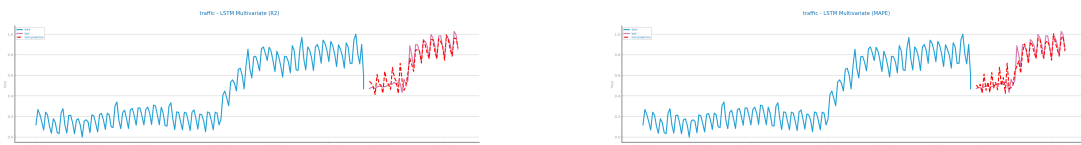Figure 17: LSTM (Multivariate) R2 and MAPE evaluation results for Traffic Time Series

Figure 18: LSTM (Multivariate) R2 and MAPE forecasting for Traffic Time Series

Inflation Rate Time Series

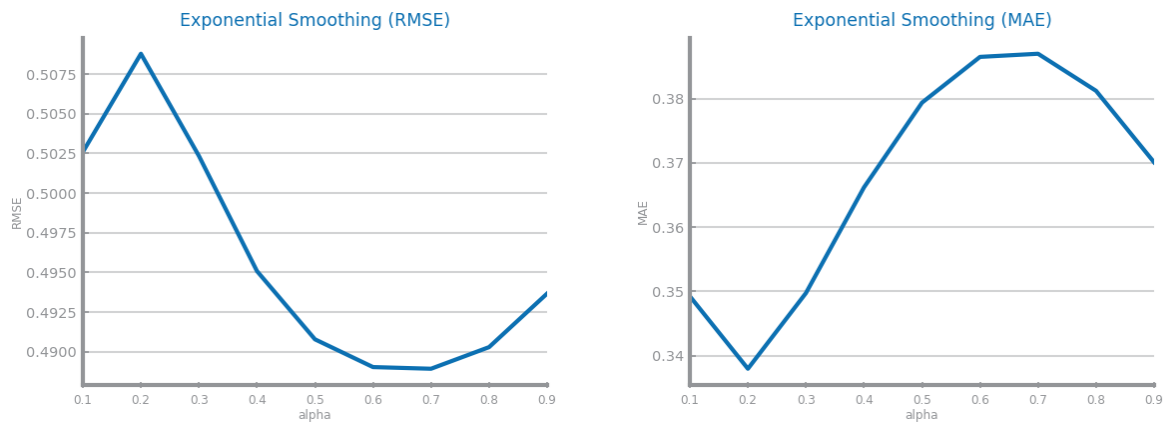## *Exponential Smoothing*

Univariate

Figure 19: Exponential Smoothing (Univariate) RMSE and MAE study for Inflation Rate Time Series
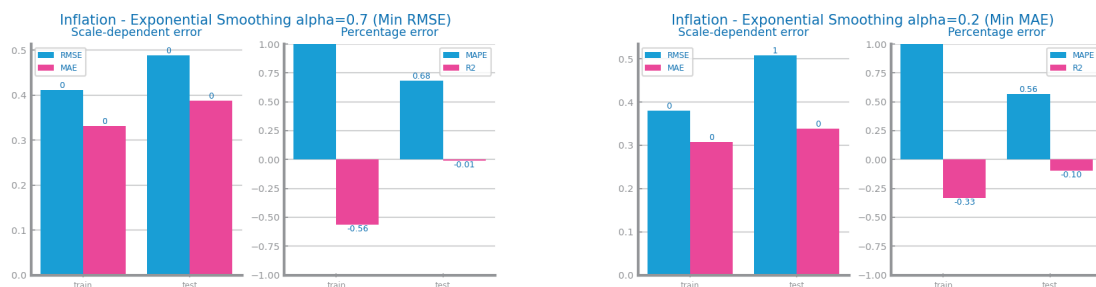

Figure 20: Exponential Smoothing (Univariate) RMSE and MAE evaluation results for Inflation Rate Time Series
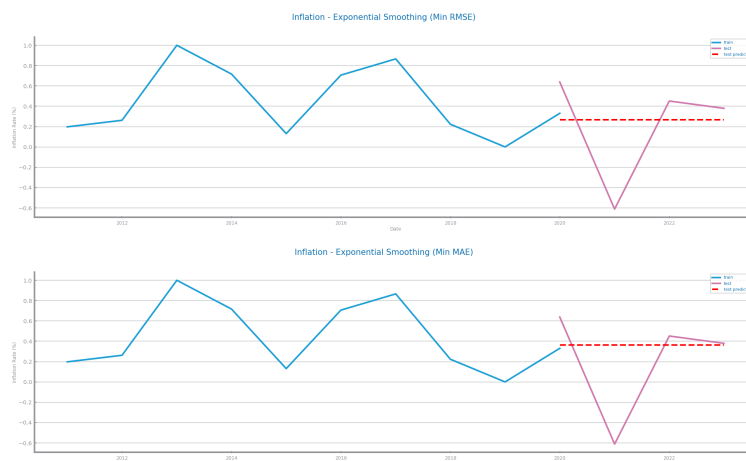

Figure 21: Exponential Smoothing (Univariate) RMSE and MAE forecasting for Inflation Rate Time Series
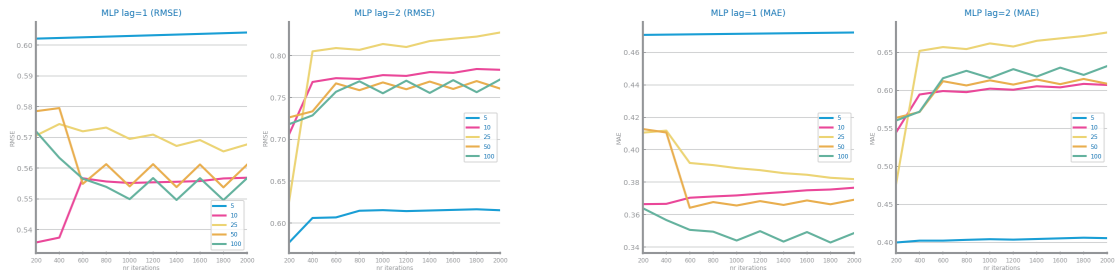
Multi-layer Perceptron

Univariate

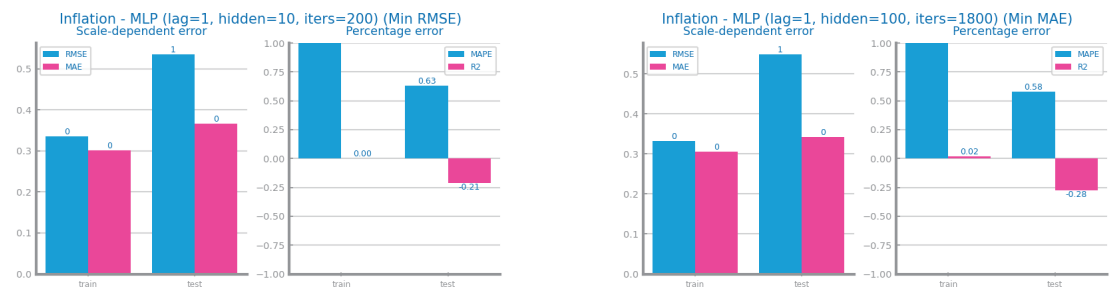Figure 22: MLP (Univariate) RMSE and MAE study for Inflation Rate Time Series

Figure 23: MLP (Univariate) RMSE and MAE evaluation results for Inflation Rate Time Series

Figure 24: MLP (Univariate) RMSE and MAE forecasting for Inflation Rate Time Series
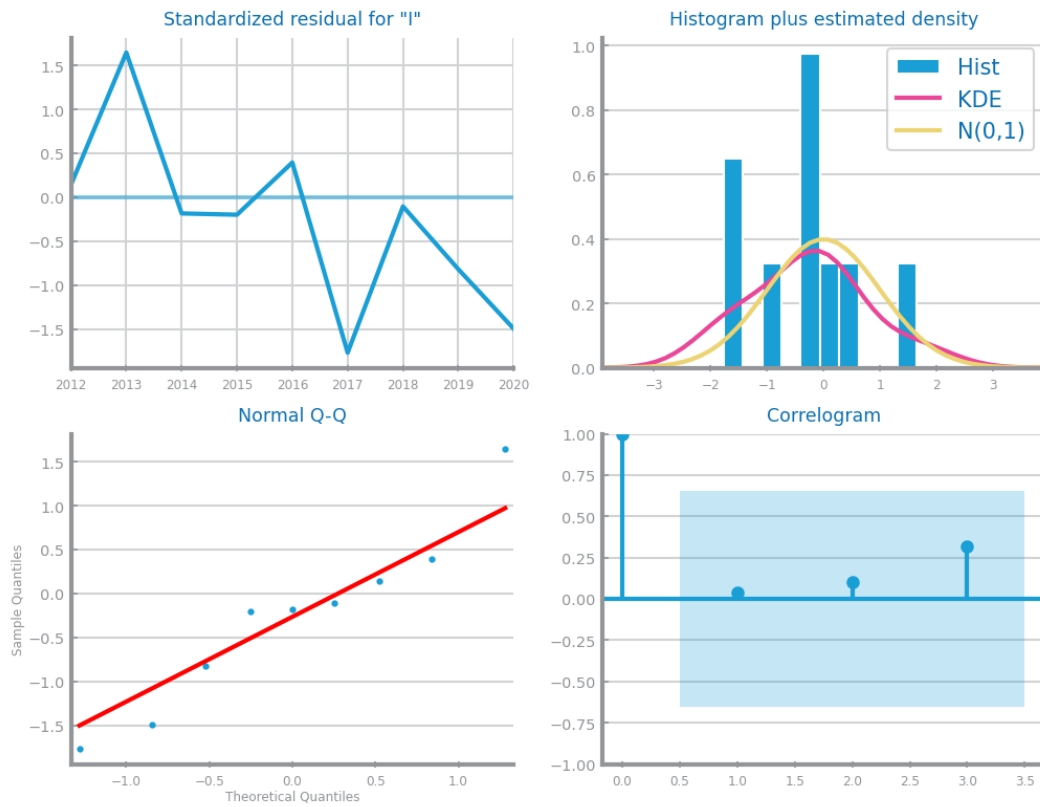
ARIMA

Univariate

Figure 25: ARIMA (Univariate) diagnostics for Inflation Rate Time Series
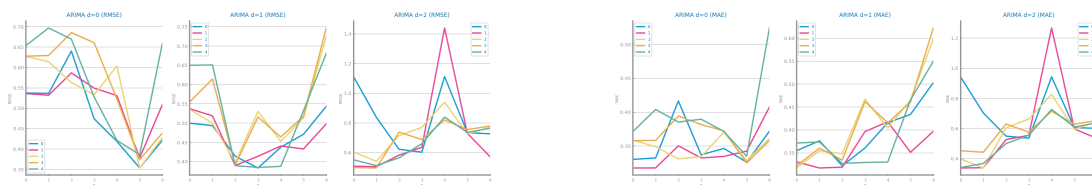

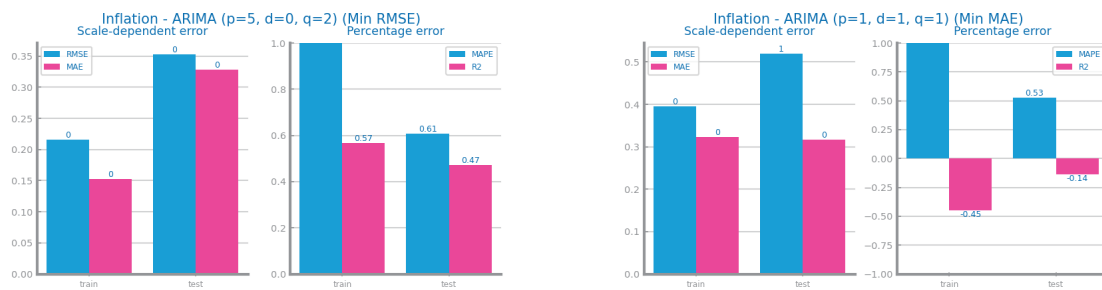Figure 26: ARIMA (Univariate) RMSE and MAE study for Inflation Rate Time Series

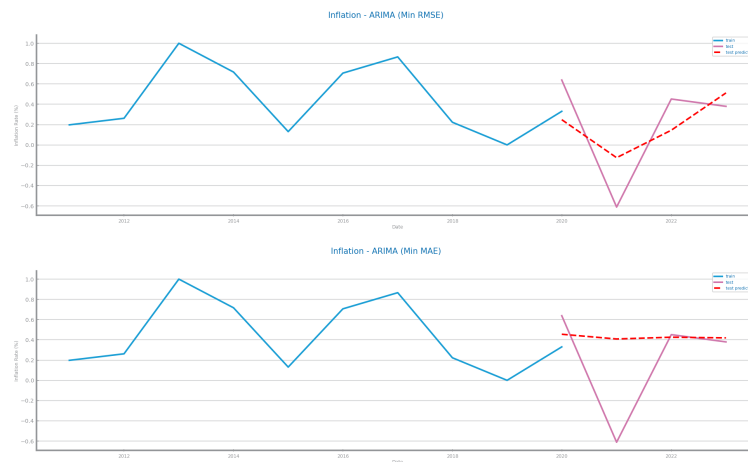Figure 27: ARIMA (Univariate) RMSE and MAE evaluation results for Inflation Rate Time Series

Figure 28: ARIMA (Univariate) RMSE and MAE forecasting for Inflation Rate Time Series
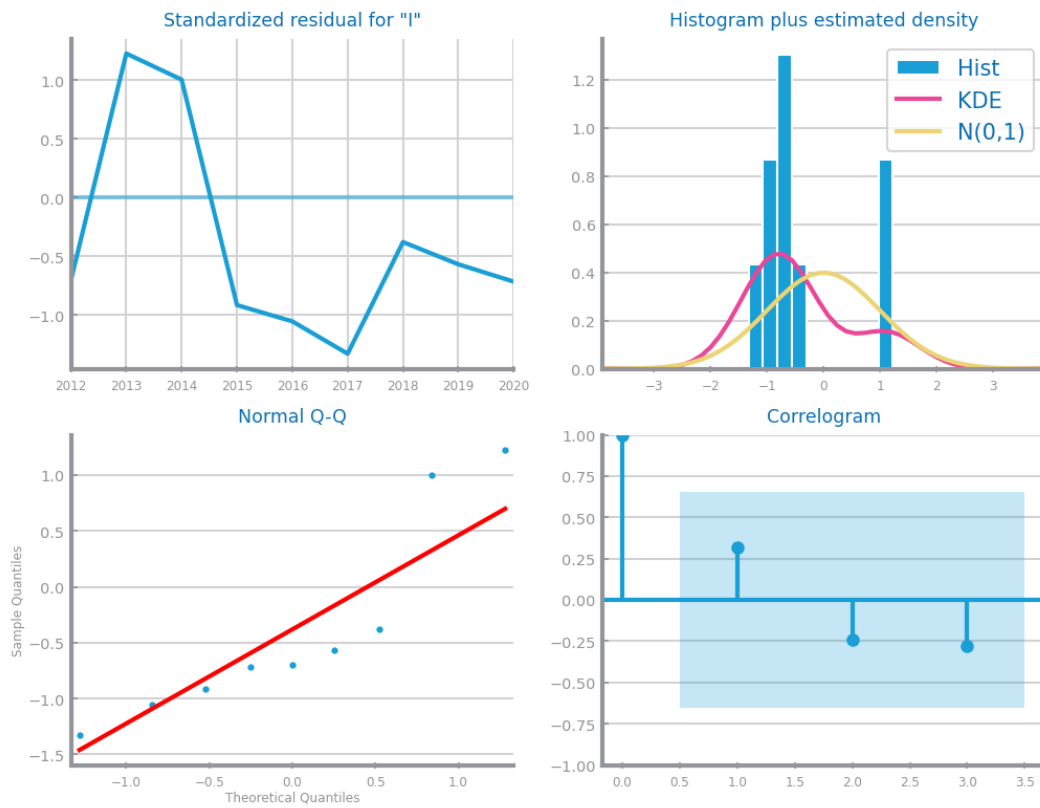
Multivariate

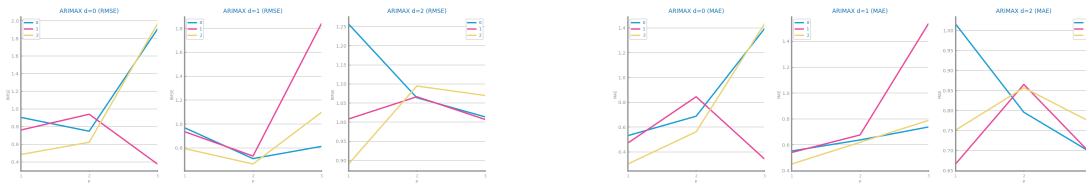Figure 29: ARIMA (Multivariate) diagnostics for Inflation Rate Time Series

Figure 30: ARIMA (Multivariate) RMSE and MAE study for Inflation Rate Time Series
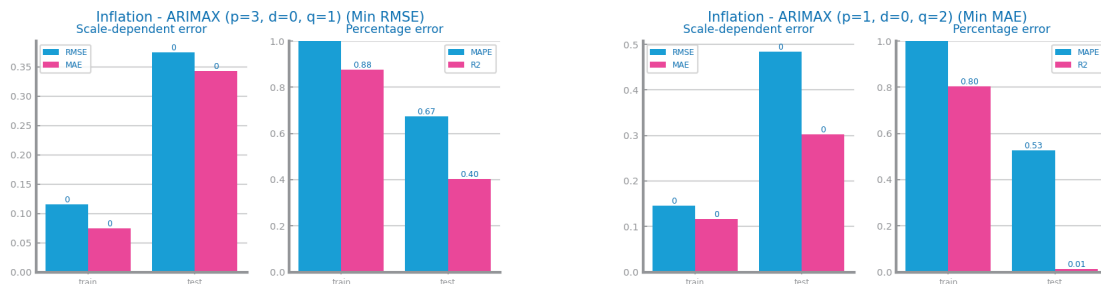

Figure 31: ARIMA (Multivariate) RMSE and MAE evaluation results for Inflation Rate Time Series
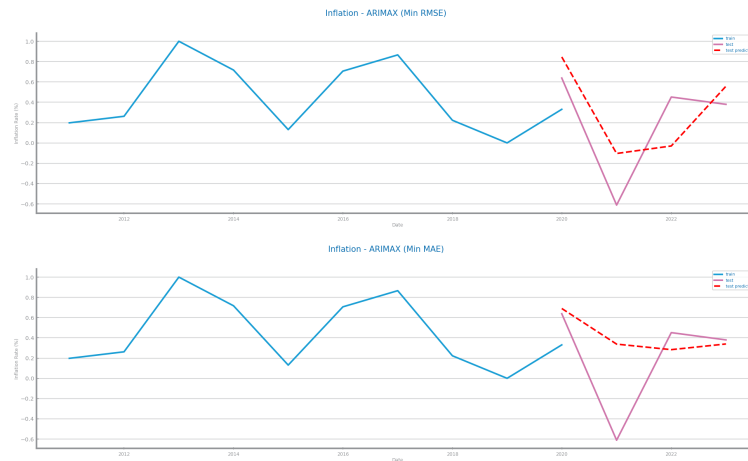
Figure 32: ARIMA (Multivariate) RMSE and MAE forecasting for Inflation Rate Time Series
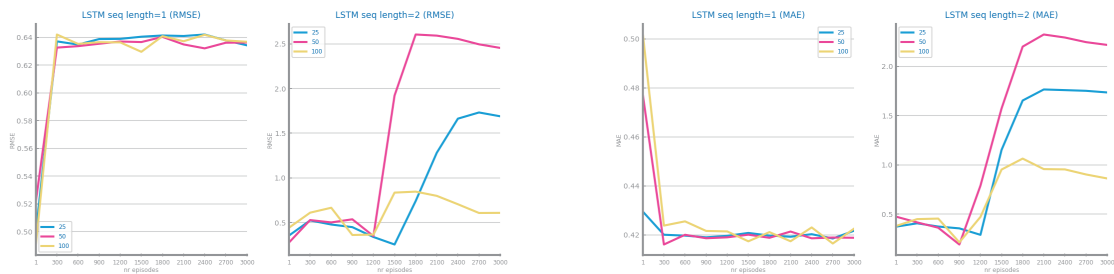
LSTM

Univariate

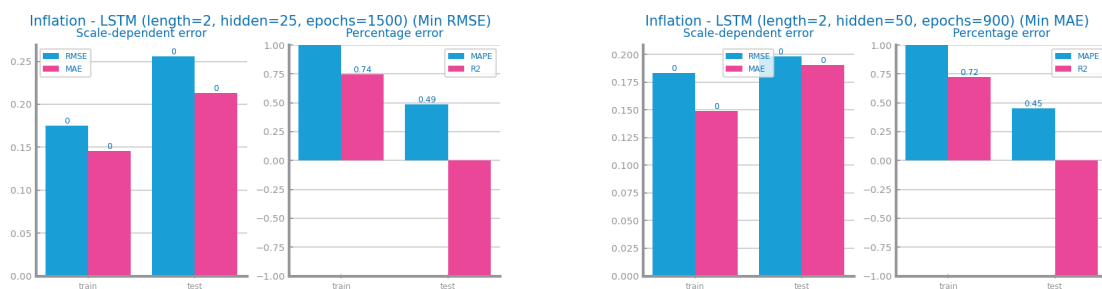Figure 33: LSTM (Univariate) RMSE and MAE study for Inflation Rate Time Series

Figure 34: LSTM (Univariate) RMSE and MAE evaluation results for Inflation Rate Time Series

Figure 35: LSTM (Univariate) RMSE and MAE forecasting for Inflation Rate Time Series
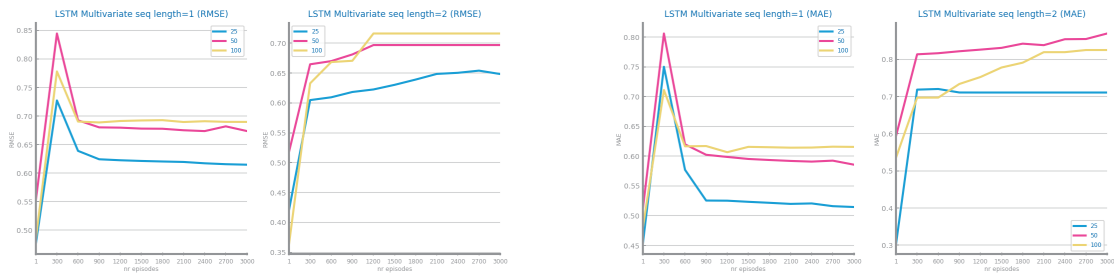
Multivariate

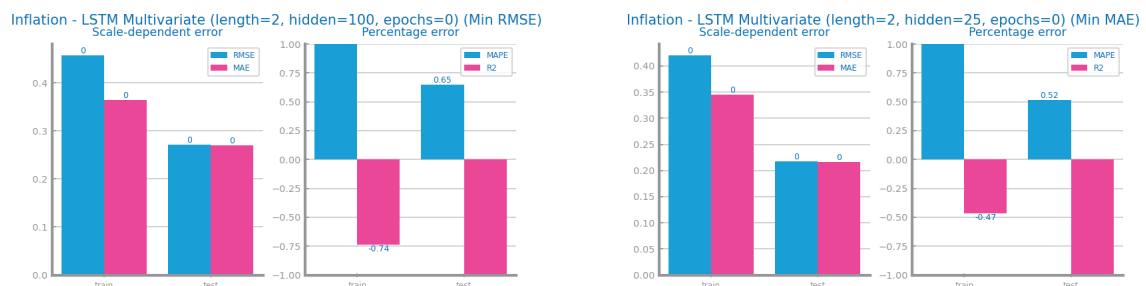Figure 36: LSTM (Multivariate) RMSE and MAE study for Inflation Rate Time Series

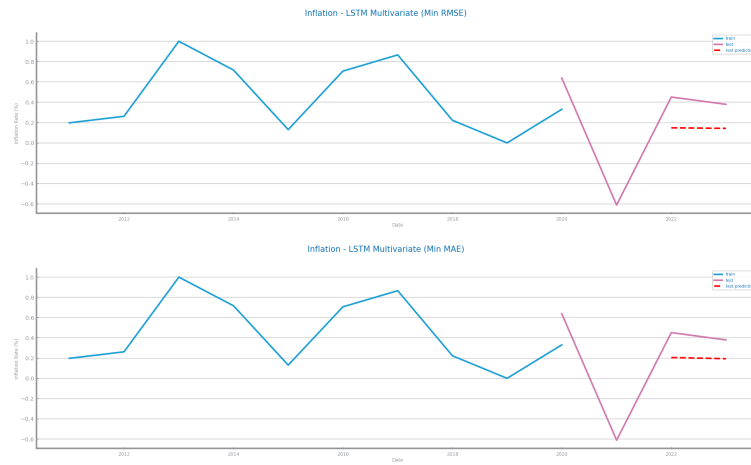Figure 37: LSTM (Multivariate) RMSE and MAE evaluation results for Inflation Rate Time Series

Figure 38: LSTM (Multivariate) RMSE and MAE forecasting for Inflation Rate Time Series