Forecast Evaluation

The latest datapoint of *Consumer Loans: Credit Cards and Other Revolving Plans, All Commercial Banks*, was released on April 24, 2024 at 3:36 PM CDT. The true value was $1,053.45 billion, while our prediction was $1,053.88 billion. This is an error of about 0.04%. This value fell well within our 95% confidence interval, which was (1049.51, 1058.25). With our forecast, a decision maker would have have been in a strong position to form a successful plan given the newly released data.

We would not change our model if we knew the actual realization in advance. The true realization fell well within our 95% confidence interval, and thus this data point alone would not suggest an obvious flaw with our model. One may suggest that our forecast interval was too wide given the realized margin between the 95% confidence values. However, just because the true value ended up very close to our point forecast, this does not imply our confidence interval was too large. In fact, barring true realizations that fell far beyond our confidence interval, one new data point alone may be unlikely to provide sufficient evidence to reevaluate our entire model. This holds especially true given the fact that our model was trained using 1243 observations of the target series (plus a similar number of observations of each of the exogenous variables). Comparing further realizations of the target series with our model's predictions (each time incorporating the recent data) would provide additional evidence with which we could make an informed decision whether to adjust our model. With further data, we would then, for instance, be able to determine whether our confidence intervals are well-tuned to the variability of the true observations.

Overall, we still have confidence in our model selection and forecasting process. We do not believe the most recent observation provides significant evidence to change our model, however, we would recommend continuous reevaluation given further data if a decision maker were to act on our forecasts.