

Forecasting CPI for All Urban Consumers: Airline Fares in U.S. City Average

The one-step-ahead point forecast of CPI Air for Mar 2023 was 299.8877 whereas the 90% forecast interval was [288.7697, 311.0057]. The BLS released the latest data of CPI at 8:30 a.m. Apr 12, 2023, and the actual realization of CPI Air for Mar 2023 is 301.893. Though our forecasting model does not perfectly predict the point value of CPI Air, the actual realization still lies within our forecasting interval. This demonstrates a good forecasting ability of our model and implies that validity of further forecasts.

Our model can give decision makers some implication on where the variable will move in the future. In a one-year future horizon, our model clearly suggests a downward trend for CPI Air which is somewhat credible given the lower pressure on price level due to increased federal fund rate and declined energy prices. However, some political factors we cannot take into account in our model may also influence airline fares prices such as a new round of travel restrictions spurred by contagious diseases and restrictions on visa issuing for international travelers. It is wise for decision makers not only rely on econometric models but also gather information from other aspects of the economy.

I will not change my model if I know the actual realization in advance. The reason is that the new realization is 'well-behaved' in the sense of forecasting. As opposed to sudden change of CPI due to significant exogeneous impacts e.g., Financial Crisis and Covid-19 Pandemic, there is no sudden drastic changes for the new realization of CPI from previous months. As a result, it can be captured reasonably by our forecasting model.

