Untitled

Daniel Hsiao

November 12, 2018

Contents

1 Methodology

2 Threshold Truncation

2.1 Standard Approach

2.2 Truncation Approach

2.3 Bias Correction

3 Survey of Professional Forecasters (SPF)

To illustrate the empirical results, we use the data from ECB *(footnote link to data)* in this paper. The data, SPF, is a quarterly survey initiated by ECB, with the aim to obtain future estimates on inflation (HICP), RGDP and unemployment rate (UNEM) from the private sector. Every quarter, a gourp of professional forecasters from financial and non-financial instutition, such as economic research institutions, respond to the survey with the idea on the future economic. Starting 1999, SPF is the longest survey of macroeconomic expectation in the euro area. Until the date of this report, there are 75 quarters of observation available, with 1999 Q4 as the first forecasted value, and 2018 Q2 as the last observed true macroeconomic indice.

The set up of the survey consist of multiple magnitudes of questions, ranging from different horizon to different distribution. The forecaststers are asked to provide their point forecast and the probability of a certain scenario to happen. This enables ECB to do quantitative assessment on the consensus of the market, like the distribution statistics and standard deviations. For this paper, we take the 2 most answered time periods, which is 1 year ahead and 2 year ahead as our data set for all HICP, RGDP, and UNEM.

To compare the forecasts with the actual macroeconomics, we obtain the true value from ECB data base *(footnote link to data)*. The data cannot be observed from the economic in 100% accuracy within the first time frame, and exihibits changes to the initial estimates after revision. We use the final estimate of the macroeconomics where possible. This is due to the fact that the original forecast is not the real target to be forecasts.

In figure 1 and table *(label table)* we show the plots and the statistics of the forecasts, along side with the true value in the macroeconomics. To avoid too many lines on the figure by plotting all forecasts, we plot only the minimum, mean, and maximum from the forecasts. We see that there exist a high consistency across all forecasts, with 2 year ahead stronger than 1 year. The consistency in the forecast is lower in UNEM than the other two. Furthermore, many true values lies outside of the forecast range, with RGDP the worse of all three.

add more explanation

4 Empirical Results

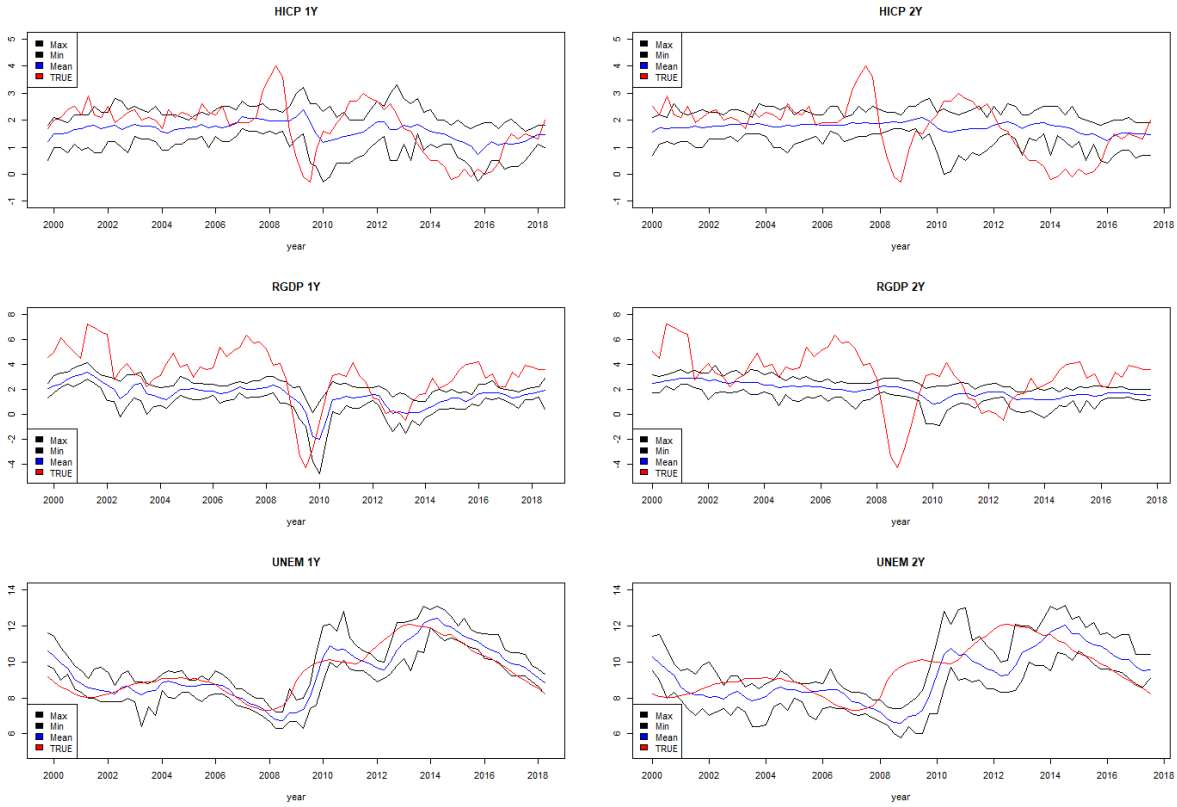

Figure 1: Survey of Professional Forecasters data illustration