

The forecasting horizon of inflationary expectations and perceptions in the EU – Is it really 12 months?

by Lars Jonung (Lund University, Swedish Fiscal Policy Council, Stockholm)
and Staffan Lindén (Directorate-General for Economic and Financial Affairs)

Inflationary expectations held by the public are important for macroeconomic policy-making. According to the present approach to monetary policy-making based on inflation targeting, central banks should be forward-looking, framing their policies today on the basis of forecasts of the rate of inflation one to two years ahead. This approach requires access to reliable and frequently reported data on a wide range of variables, including inflationary expectations of the public. The latter information, however, is lacking for the simple reason that inflationary expectations are not directly measurable in a way similar to aggregates such as interest rates, money supplies, rates of unemployment, consumer and producer prices.

An important method - and today the standard technique - to obtain measures of inflationary expectations is to use questionnaires and ask representative groups of respondents about their beliefs of the future rate of inflation. This type of data on inflationary expectations and perceptions are collected in a unified way on an EU-wide basis, make up the largest database on inflationary expectations in the world. More recently, a set of quantitative questions have been introduced in the EU-survey; the resulting database now contains more than 1.5 million replies concerning the expected rate of inflation 12 months ahead in time.

The characteristics or properties of inflationary expectations as measured by interviews have been examined in a large number of studies. These concern issues like the rationality, distribution, differences across socio-economic groups and uncertainty of inflationary expectations. Here we exploit the new EU database containing quantitative replies gathered within the Joint Harmonised EU Programme of Consumer Survey to examine an issue that to our knowledge does not appear to have been studied: the forecasting horizon implicitly used by the respondents.

In short, respondents are asked about their forecast for 12 months ahead. It is an open question, however, for which horizon they actually give the best forecast, i.e. the forecast with the smallest forecast error. We use the database to explore the forecast horizons implicitly used by EU respondents to questions about the expected rate of inflation during the coming 12 months in all EU member states that have supplied DG ECFIN with relevant data. We examine the forecast error using mean errors and root mean square error (RMSE). If the forecast horizon is truly 12 months, we expect a U-shaped pattern for the forecast error

reaching its lowest value at the 12-month horizon. We also study in a similar way the backcast error for inflationary perceptions.

We establish a mixed picture, finding large differences across countries. For most countries, we get the expected pattern, for others this is not the case. In addition, the horizon implicitly used by respondents when replying to the questionnaire is not related to the explicit time horizon of the questionnaire. On average, respondents use the same horizon to answer both questions, e.g. when respondents use a 12-month forecast horizon when replying to the question on future inflation, they use the same horizon when replying to the question on past inflation. Another result of our analysis is that the forecast errors are higher for countries with a history of relatively high inflation, and lower for countries that have experienced relatively lower inflation.

Our explorative study raises important questions concerning the interpretation and use of data obtained with surveys. It also points at the value of having our tests applied to databases on inflationary expectations gathered outside the EU. We leave it to others to develop the implications of our findings for policy use and use in econometric testing.