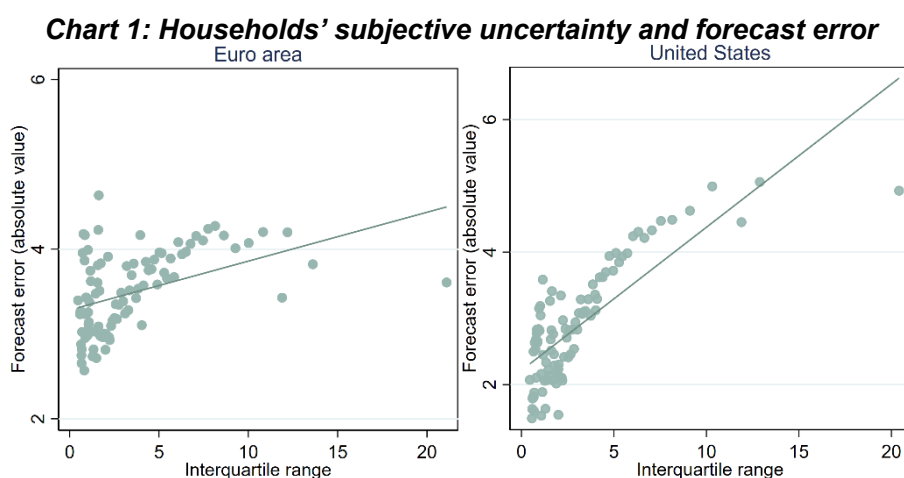


Does uncertainty surrounding inflation forecasts predict their accuracy?

By Paul Hubert and Rose Portier

Are individuals who are most confident in their forecasts the most accurate? This is what household surveys reveal, unlike professional forecasters. Drawing on four surveys from the euro area and the United States, we show that the uncertainty reported by households regarding their inflation forecasts contains information about the quality of those forecasts, particularly when households overestimate inflation.



Source: Hubert and Portier (2026), based on ECB CES and NY Fed SCE data.

Note: The horizontal axis represents the interquartile range of the individual subjective distribution; the vertical axis represents the forecast error (absolute value) for inflation over 12 months.

Can we trust our own uncertainty?

The four surveys of households and professional forecasters that we use ask not only for an inflation forecast, but also for a probability distribution associated with different inflation scenarios. These “density forecasts” enable us to measure each respondent’s subjective uncertainty. In concrete terms, an individual who believes that their central scenario has a 100% chance of occurring is considered as certain, while an individual who assigns an identical probability to all scenarios is considered as highly uncertain.

When an individual reports a high level of uncertainty, are they actually less accurate? In other words, does subjective uncertainty predict forecast error? If so, this implies that the individual is aware of the quality of their own signal. Conversely, when an individual reports a low level of uncertainty, might they be biased due to overconfidence?

To answer these questions, we draw on four surveys: the Survey of Professional Forecasters of the ECB (EA SPF) and of the Federal Reserve Bank of Philadelphia (US SPF) for professional forecasters, and the Consumer Expectations Survey of the ECB (EA CES) and the Survey of Consumer Expectations of the Federal Reserve Bank of New York (US SCE) for households. In total, these surveys contain nearly one million individual observations.

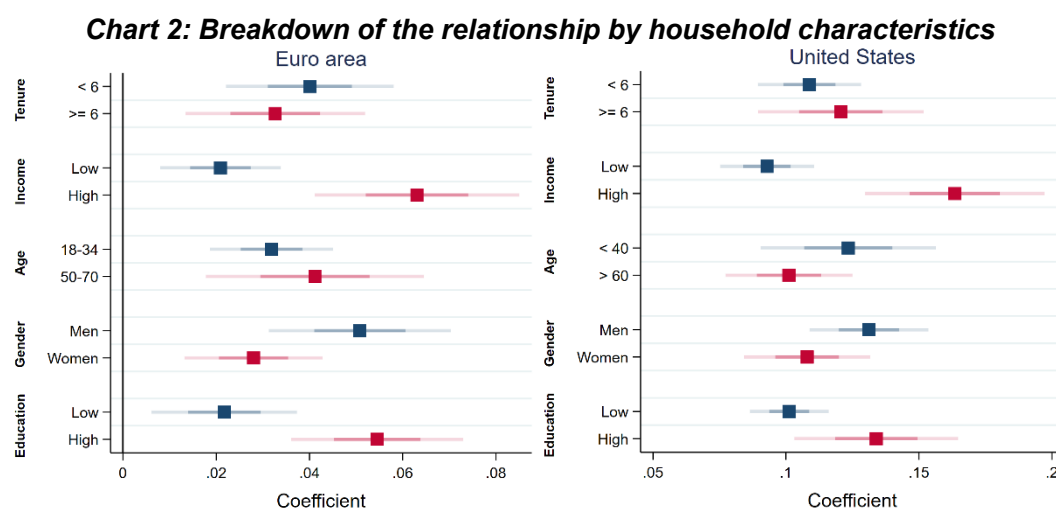
A strong result for households, but not for professional forecasters

As a first step, across all surveys, we show that respondents who report higher levels of uncertainty on average make larger forecast errors. This result seems intuitive.

Reality is actually more complex. When we compare different individuals, we are in the presence of very distinct sources of error (see [Post No. 285](#)): some forecasters systematically make larger forecasting errors regardless of the economic context and are more uncertain than others; and during major macroeconomic shocks, everyone simultaneously becomes less accurate and more hesitant (errors are larger during recessions, see [Dovern and Janssen, 2017](#), and [Ducoudré et al., 2020](#)). To distinguish individual information from a macroeconomic signal, we include individual and time fixed effects in our regressions.

The divergence between households and professional forecasters becomes noticeable. For professionals, the relationship between subjective uncertainty and forecast error disappears entirely once fixed effects are included. Their uncertainty does not reflect doubt about the quality of their forecast: it simply reflects who they are (their level of expertise) and the period (the macroeconomic volatility at the time).

For households, however, the relationship remains positive, strong and significant in both surveys. When a given household expresses greater uncertainty than usual – and more than its peers that month – it does indeed make a larger error than its characteristics and the macroeconomic context would suggest. Households' subjective uncertainty therefore contains real individual information about the accuracy of their forecasts. This finding contrasts with that observed for firms, whose expectations are better calibrated (see [Post No. 407](#)). There is a positive and significant relationship between forecast error and uncertainty for all demographic subgroups, regardless of age, gender, income level or educational attainment (Chart 2).



Source: Hubert and Portier (2026), based on data from the ECB's CES and the NY Fed's SCE. Note: This chart shows the correlation between subjective uncertainty (IQR) and absolute forecast error for various demographic subgroups. The bars represent 1- and 2-standard-error confidence intervals.

Uncertainty is more informative when households overestimate inflation

Our third finding is perhaps the most striking. The relationship between subjective uncertainty and forecast error is not symmetric in terms of the sign of the error.

We distinguish between two cases: households that overestimate future inflation (they expect higher inflation than has actually occurred) and those that underestimate it. In both cases, larger uncertainty predicts a larger absolute error. However, the effect is significantly greater in the first

case. Among households that overestimate inflation, uncertainty is at least twice as strong a predictor of the error as among those that underestimate it.

This asymmetry is present in both household surveys, in the euro area and in the United States. It cannot be explained by the period of high inflation from 2020 to 2022, nor by composition effects relating to household characteristics.

Why does this asymmetry exist? Noisy information and rational inattention models can explain the main finding: an individual who receives imprecise signals about inflation may be aware of this and therefore report a high degree of uncertainty. However, the asymmetry based on the sign of the error is more difficult to reconcile with these symmetric models. It cannot be interpreted as the consequence of macroeconomic events, since the estimates include time fixed effects that absorb the aggregate variations in the inflationary environment. This asymmetry points to behavioural mechanisms. Some households appear to pay disproportionate attention to information signalling high inflation (see [Post No. 340](#)), or to extrapolate excessively from signals perceived as inflationary. Our results suggest that the formation of household expectations is not limited to rational filtering of information but incorporates behavioural bias. For a given level of information, some individuals appear to process inflation-related signals differently, particularly those associated with scenarios of rising prices. Subjective uncertainty thus emerges as an indicator of how this information is interpreted and incorporated into their expectations.

These results also have implications for the monitoring of inflation expectations by central banks (see [Post No. 412](#)) and the effects of their announcements on these expectations (see [Post No. 307](#)): periods when households collectively express greater uncertainty are also periods when their forecasts are collectively less reliable.