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Forecast errors – speech by Ben Broadbent

In a speech to the Mile End Group of Queen Mary, University of London, Ben Broadbent explains why the existence of "errors" in economic forecasts is not, in and of itself, evidence that those forecasts were flawed when they were made. That, he argues, has lessons for both forecasters themselves, who should remain aware of their limitations, and those who judge forecasts, who are often too inclined to view a forecast "error" as a mistake. He concludes by discussing the role of forecasting on the Monetary Policy Committee.

Ben Broadbent points out that forecast errors are inevitable: "Indeed, without them we wouldn't even need forecasts. A world without forecasting errors wouldn't have the need for any financial assets either – or none, at least, whose prices ever changed." This does not mean that all forecasts are equally good or beyond improvement. But it does mean that a fair assessment of forecasts takes time, and cannot be made after only a few observations.

This is particularly true, he says, if the economic series being forecast are noisy and unpredictable: "The greater the [genuinely unpredictable] noise in a series, the more often a bad forecast will outperform a good one, and the harder it is to tell them apart." This conclusion is only stronger "when you're trying to predict things that happen only occasionally", such as financial crises. "Learning about infrequent events, and distinguishing between forecasts of those events, takes time".

Genuine unpredictability means forecasting errors are unavoidable and may at times be large. But, in recent years, Ben Broadbent notes that the MPC and other forecasters also seem to have made repeated forecasting errors in the same direction: economic growth has generally turned out weaker than expected, inflation higher. Even this may be the result of limited information, however, not systematic and correctable bias. He says that perhaps the most important source of forecast error over the past has been the sort of rare event that changes the underlying workings of the economy – so-called "structural breaks". Without sufficient historical experience, he argues that it is often only possible to learn about the consequences of such shifts only as we go along. And "as you [learn], you are likely to make repeated forecast errors in the same direction...Indeed, it's only through making these repeated errors that the forecaster is able to learn that a shift has occurred."

The point that, because the world is unpredictable, "you may need a lot of data to distinguish true structure from what is just chance" is, Ben Broadbent says, "surely uncontroversial". But, as experimental psychologists have revealed, he adds, "we often seem to behave in ways that suggest we do not, intuitively, grasp the point... we wishfully see structure in random events; believing this structure, we are often over-confident about our own predictions; when it comes to others', we are [also] too quick to assign significance to their forecasting errors, whether small or large". Thus "economic forecasters, including the MPC, should continually expose themselves to question", as the recent Stockton Report recommends, and "keep in mind that, over the past, we've been able to predict only a minority of movements in GDP growth". The same obligation, Ben Broadbent says, "should apply to those who judge forecasts".

That said, he does not want to give the impression that economic forecasting is so inaccurate that we shouldn't bother with it: "For one thing, we have to: central banks cannot avoid making judgements about future risks, in some form or other, because monetary policy only works with a lag." In addition, "the usefulness of the Inflation Report process extends well beyond the production of the fancharts: it facilitates a detailed discussion of the implications of alternative policies and allows the MPC to communicate its views to the public.”

Nor should forecasters be defensive about criticism. “We should always be interested in how to improve [our forecasting techniques] and alert to the possibility that they are, in fact, flawed”. And even “invalid” criticism is useful, he says: “while it may wrongly presuppose the existence of some much better forecasting process, one that doesn’t make “errors”, the criticism of the MPC’s predictions should at least keep us honest about our limitations.”