

Non-technical summary for ‘Real GDP Forecasts by International Organisations’

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What did we set out to do?

We studied the properties of real gross domestic product (GDP) forecasts by four international organisations – the International Monetary Fund, the World Bank, the European Commission and the Organisation for Economic Co-operation and Development. These organisations invest weeks of work by large teams of economists into each forecast round. This high amount of effort reflects the importance of the forecasts for the decisions of international organisations and others.

To build on existing research, we compiled a uniquely broad dataset that includes multiple vintages of forecasts from these organisations, plus average forecasts from the monthly survey by Consensus Economics. Covering as many economies as possible and extending to 2025, this dataset allowed us to identify global patterns rather than economy-specific anomalies. We used this dataset to compare the accuracy of different forecasters. We also used it to test whether forecasts were as accurate as possible given the information available at the time, a concept called ‘forecast efficiency’ or ‘forecast rationality’ in the academic literature.

What did we learn?

When comparing accuracy between organisations for individual economies, it is almost always the case that one forecaster performed better than the other over our sample period. However, these differences are rarely statistically significant, which means that they could easily have arisen by chance, rather than indicating that one forecaster is more capable than the other.

By contrast, for each forecaster, we find statistically significant departures from forecast rationality for the majority of economies. That is, the forecasts did not minimise our chosen measure of forecast accuracy given the information available at the time. Common reasons include optimistic bias, overly large revisions, or forecasts that are too extreme. This suggests our measure of accuracy would have been lower if the forecasts had been slightly lower, revisions smaller and extremes avoided. It does not imply, however, that the forecasts are ‘irrational’ in the colloquial sense. For example, forecasters may have successfully minimised a different measure of accuracy.

The statistical test of forecast rationality used in our paper has been used in lots of previous literature. It is common to find that the forecasts do not satisfy forecast rationality according to this test. We investigated two explanations for this that may be especially relevant to international organisations:

1. International organisations often make forecasts that are conditional on future outcomes of a set of explanatory variables. This can make the forecasts appear irrational according to the standard test of forecast rationality.
2. International organisations may make ‘modal’ forecasts (i.e. their view of what is most likely). However, the standard test of forecast rationality implicitly assumes that the forecaster is giving a ‘mean’ forecast (i.e. an average over different possible future outcomes, weighted by their probability). Our evidence suggests these modal forecasts tend to be slightly higher than the mean forecasts assumed by rationality tests.

Importantly, these are explanations of why the forecasts may not satisfy forecast rationality according to the standard test. The practices of making conditional forecasts and modal forecasts are reasonable, rather than being ‘irrational’ in the usual sense of the word.

What was our key takeaway?

Forecasting is challenging, and so evaluating forecasts rigorously is essential. We find few statistically significant differences in accuracy across organisations, but many forecasts fail standard (forecast) rationality tests. While this might point to ways to improve accuracy, it could also reflect legitimate forecasting practices. Understanding these nuances matters for interpreting performance and guiding better forecasting methods.