

Virtual workshop on “Revisiting and Improving Prediction Tools for Central Banks”, 25 February 2022

Organised by Malte Knüppel (Deutsche Bundesbank)

Monetary policy decisions affect many economic developments with considerable time lags. Therefore, before central banks take action, they need to assess future economic developments. This task requires the use of prediction tools, such as time series models or forecast surveys amongst economic agents.

While the abilities of these prediction tools are regularly monitored and improved by their developers and users, the dramatic course of the COVID-19 pandemic brought about many unprecedented challenges. Against this background, this workshop aimed at providing timely insights into the current state of forecasting approaches that are relevant to central banks. Eight research economists from central banks as well as universities presented their latest findings. Due to the pandemic, the workshop was held online. Around 50 participants attended the event and discussed the issues raised in the presentations.

The uncertainty surrounding the development of commodity prices was one of the major topics of the workshop. Laurent Ferrara (SKEMA Business School) showed how this uncertainty affects various aspects of economic growth. Knut Are Aastveit (Norges Bank) proposed a method of accurately measuring the uncertainty surrounding future oil prices. Methodological advances were also at the heart of the presentations by Alain Hecq (Maastricht University) and Francesco Ravazzolo (BI Norwegian Business School), where the former focused on the modelling of high-dimensional time series, while the latter demonstrated how textual data can be used to forecast stock and bond market returns and volatilities, and that this approach works well during unstable periods such as the pandemic. Instabilities in dynamic models and innovative ideas on how to handle them was the topic discussed by Barbara Rossi (ICREA - Pompeu Fabra University), who also provided new insights into the effects of fiscal policy. Ana Galvão (Warwick Business School) presented a dynamic model for the probability of sovereign defaults in a panel of 50 countries, which was used to assess the probability of such events due to developments during the pandemic. Finally, two survey-related presentations investigated issues concerning the accuracy of survey expectations and their interpretation. Marta Bańbura (European Central Bank) showed that taking consideration of information from surveys among professional forecasters helps to improve model-based inflation forecasts. Timo Dimitriadis (Heidelberg University) demonstrated how to determine whether survey expectations actually refer to the mean, median or mode of the forecast distribution.

The complete workshop programme and a large number of presentation slides are available on the workshop's [web page](#).