Forecasting Cyprus GDP and its demand components: Single equation models and forecast combinations*

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Executive Summary

The official National Accounts data are published with a considerable delay with respect to the reference quarter and therefore short-term forecasts for the growth rate of GDP and its demand components (i.e. private and public consumption, investment, imports and exports) constitute a valuable tool for macroeconomic surveillance and policy-making. The aim of this paper is the construction of short-term forecasts for the growth rate of GDP and its demand components using a large dataset of predictors and single equation dynamic models. The resulting forecasts are combined using different forecast combination methods whose performance is evaluated. At the same time it is assessed whether the adjustment of model-based forecasts via the application of intercept corrections can improve the forecast accuracy.

The results show that forecast combinations with weights based on the historical performance of individual forecasts are usually associated with higher forecast accuracy than other combination methods. The application of intercept corrections to the model forecasts appears to enhance the forecasting performance. The use of an extensive dataset of predictors from Business and Consumer Surveys for Cyprus at the cost of shorter time series is not found to result in forecast gains. The analysis also reveals that forecasting GDP growth directly leads to much more accurate forecasts than computing forecasts for the growth rates of all the demand components and subsequently aggregating them to obtain the GDP growth forecast (i.e. bottom-up approach). This finding has implications for the construction of forecasts for GDP and its components that are consistent with the National Accounts identity.

The paper also investigates the forecasting performance of bridge equations that link quarterly GDP (or its demand components) with timely available monthly indicators. Such models can be applied for obtaining real time estimates of National Accounts that can be revised with the release of new monthly information. Forecasts from bridge equations that are associated with superior forecasting performance in very recent quarters are found to yield substantial gains over simple models and other combination methods.

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