

Forecasting economic activity in sectors of the Cypriot economy*

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ABSTRACT

The aim of this paper is to apply single equation dynamic models together with information from a large dataset of predictors in the construction of short-term growth forecasts for the production-side components of the national accounts, i.e. Gross Value Added of sectors, and import duties plus Value Added Tax. To summarise the information content in a large number of predictors, we employ techniques such as common factors and forecast combinations. Aggregate and component forecasts are computed under two approaches to forecasting GDP growth, namely a direct and a bottom-up approach. In the direct approach, unconstrained models for GDP growth are estimated to compute forecasts for the aggregate, while constrained component models are used to obtain the disaggregate forecasts, which add up to the GDP growth forecasts computed directly. In the bottom-up approach, unconstrained component models are estimated to compute growth forecasts for the components as well as for GDP growth by adding up the unconstrained component forecasts. The performance of aggregate and disaggregate forecasts from the two approaches is assessed via pseudo out-of-sample exercises. The results show that the use of macroeconomic and financial predictors improves on the accuracy of the naïve forecasts for most production-side components and the aggregate, under both the direct and bottom-up approaches. GDP growth forecasts from the direct approach are somewhat superior to those from the bottom-up approach. Both approaches result in gains in forecasting growth in industry, construction, trade, financial activities and duties. In the sector of professional services gains are limited for both constrained and unconstrained forecasts. In the sectors of agriculture and public administration, education and health, neither the unconstrained models nor the constrained sectoral models significantly improve on the naïve benchmark. Compared to the unconstrained component forecasts, gains attained through constrained forecasts are slightly lower, but more widespread across components and horizons.

Keywords: forecasting, combination forecasts, GDP, gross value added, bottom-up forecasts.

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