

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 and Value Added Tax. To summarise the information content in a large number of predictors, we employ techniques such as common factors and forecast combinations. The computation of sectoral forecasts takes into account the adding-up restriction, arising from the national account identity, by adopting direct and bottom-up approaches to forecasting GDP growth. The direct approach amounts to forecasting the aggregate variable directly and obtaining a set of component forecasts by imposing constraints, so that the latter add up to the direct aggregate forecast. In the bottom-up approach we construct unconstrained sectoral growth forecasts that are aggregated to obtain GDP growth forecasts. The results show that bottom-up GDP growth forecasts are somewhat inferior to direct forecasts. Estimating constrained sectoral forecasts that add up to the direct GDP growth forecasts, leads to improved accuracy in the sectors of construction, trade, transport, accommodation and food services, information and communication, and other services. The losses in terms of forecasting gains from the use of constrained forecasts in industry, financial services and real estate activities appear to be limited. In the sectors of agriculture, public administration, education and health, and professional services neither the unconstrained models nor the constrained sectoral models significantly improve on the naïve benchmark.

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

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