

Weighting Business Survey Results for Cyprus

Nicoletta Pashourtidou* and Marianna A. Charalambous

Abstract

The published business survey results for Cyprus are produced using a single-step weighting method where no weights are applied to individual responses to obtain survey results at the subsector level, while weights based on population data for subsector turnover are used to compute sectoral aggregates. Thus, in the calculation of survey results only the size of firms' subsector in terms of turnover matters, while the size of individual firms is not taken into account. In this paper, we investigate the application of a two-step weighting method for computing the business survey results for Cyprus, by using survey-reported data on the number of employees. At the subsector level, the results are obtained by weighting individual responses by the number of employees, thus replies given by firms with more staff members gain greater importance. At the sector level, survey results are computed by applying weights drawn from subsector population data on turnover, as in the single-step weighting method. The sectoral and economy-wide survey indicators from the single-step and two-step weighting methods are compared in terms of in-sample tracking performance, volatility, and out-of-sample forecasting ability examined in a setup that simulates real-time data availability. The application of the two-step weighting method results in survey indicators that are very similar to the currently published indicators in tracking and forecasting relevant hard data. However, the sectoral confidence indicators obtained from the two-step weighting method are noisier than their single-step counterparts, a finding that favours the currently used single-step weighting method. Moreover, regardless of the weighting method applied, the forecasting performance of models that include survey data tends to be at least as good as the performance of models with officially published monthly indicators.

Keywords: business surveys, weighting methods, forecasting, nowcasting.

* Corresponding author address: Economics Research Centre, University of Cyprus, P.O. Box 20537, 1678, Nicosia, Cyprus. Email: pashourtidou.nicoletta@ucy.ac.cy.