

**A leading indicator for employment
in the Belgian private sector**

**Jan De Mulder
Pierrick Stinglhamber
Philippe Delhez**

In this paper we construct a quarterly leading indicator for the cyclical evolution of employment in the Belgian private sector. It is intended to be a qualitative indicator, i.e. it should accurately indicate the turning points and periods of accelerating and decelerating growth.

As a starting point, a procedure based on Tramo-Seats, combined with a Hodrick-Prescott filter, was used to decompose sixteen time series, all related to the labour market, in order to eliminate the irregular, seasonal, calendar and trend factors. The normalised resulting cyclical components were considered as potential partial indicators.

The pattern of these series was linked to the cyclical developments of the reference series by looking at mutual correlations and performing a detailed comparison of turning points, determined by using the Bry-Boschan algorithm. For the latter criterion, the absence of false signals and missing turning points was considered essential.

A global performance ratio, reflecting the results concerning correlations and turning points, was subsequently used to test various combinations of partial indicators in order to determine the best performing composite indicator.

The optimal indicator obtained consists of a combination of six partial indicators and is available from the end of 1990 onwards. It shows a strong correlation, maximal at a lead of 2 quarters, with the cyclical evolution of Belgian private employment, and its turning points precede those of the reference series over the whole period covered, with a median of 2 quarters. In addition to this good ex post behaviour, a simulation showed that the indicator also performs well ex ante.