ECONOMIC
ACTIVITY
INDICATOR IN BULGARIA

The Economic Activity Indicator (EAI) is aimed at giving an overall picture of the performance of the Bulgarian economy, as well as an account of its long-term and cyclical components. It has been constructed based on a dynamic factor model and consists of fifteen macroeconomic variables, measuring changes in both the internal and external environment. Gross domestic product (GDP) is the most popular aggregate indicator of the business activity and EAI and GDP have reported more or less the same pattern of dynamics over time. Nonetheless, the two indicators might differ in certain periods in their dynamics both in terms of magnitude and even in direction of change.

As a composite indicator, the EAI enjoys a number of advantages:

- If data on the variables, making up EAI are revised, the composite indicator's change will run significantly lower than the revisions made to GDP data;

- GDP dynamics is sometimes susceptible to sector-specific factors that are often discrete or temporary by nature, and should therefore not be treated as factors affecting the overall economic situation.

The breakdown of every time series into a common and specific component allows for the elimination of the impact of temporary and specific factors, as well as for adjustments for likely errors in gauging a variable.

EAI has been calculated based on a dynamic factor model applied to quarterly data sets of 67 macroeconomic time series for both Bulgaria and the world business situation. Subsequently, the number of variables making up the indicator has been reduced to 15, with each variable being exploited with its real change in a given quarter on a year earlier. The variables, making up EAI, have been taken at the current period or with a one-period lag, as follows (the lag is given in brackets): GDP (0), industrial production index (0), construction index (0), retail trade turnover index (0), overall business climate (-1), industrial orders (-1), industrial employment expectations (-1), industrial price expectations (-1), industrial capacity utilization (0), M1 (0), long-term loan interest rates in BGN (-1), VAT revenues (0), petrol price index (-1), non-energy commodity price index (-1) and EU 28 GDP (-1).

Estimates of the cyclical component of EAI have been made by eliminating:

- The long-term component using the Hordrick-Prescott filter. Although the HP filter has been in the limelight of much controversy, it remains the most widely used technique of detrending economic series;

- The short-term component, accounting for fluctuations within a year that have been estimated using a moving average with 4 lags.