Box: Incorporation of an effective external demand measure, i.e. effective EU GDP, into the model

In order to more accurately assess how the external economic climate weighs on the domestic economic environment, starting with the current projection round, external demand dynamics for Romania’s exports are estimated based on an effective indicator. This indicator is calculated using a weighting system that takes into account the breakdown of Romania’s exports by destination. In addition, the new indicator considers a broader range of trade partners[2].

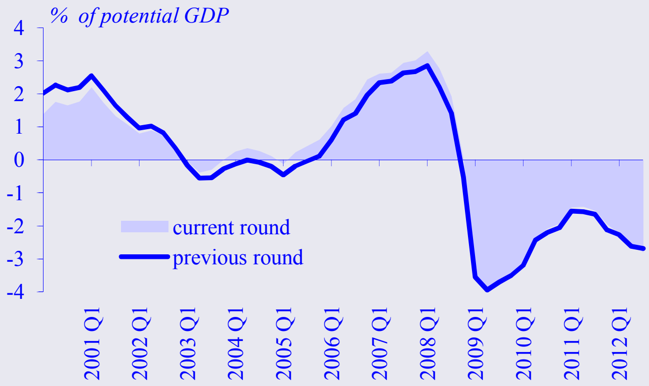
The option for an effective measure to the detriment of a standard one, which is common practice with other central banks (in the Czech Republic, Hungary, Turkey), was motivated by its providing relatively more relevant information. For instance, using a weighting system to measure the economic growth of trade partners based on Romania’s exports to these countries is more relevant in both theory and practice than the one based on the relative size of each economy within the group (the former methodology was compatible with a GDP-based weighting system).

Since the model for analysis and medium-term forecasting (MAMTF) assesses domestic economic activity dynamics starting from its cyclical component (e.g. GDP deviation), introducing the effective external demand indicator into the model requires the weighting of the GDP deviations from their potential levels[3], calculated for each country, using the structure of the Romanian exports by destination. Thus, the breakdown of Romania’s exports to other contries was taken from the NIS (data available until 2011 included), with annual figures being interpolated at quarterly level; starting 2012, the latest available annual weights have been used.

Similar calculations were made to obtain an aggregate measure of the growth rates of trade partners, i.e. the effective external GDP index, the fixed base of which was 2000 Q1. Subsequently, the potential GDP index can be calculated given the effective external GDP index and its deviation from the potential level respectively.

The broadening of the scope of the external demand indicator implies to consider the entire European Union (Romania excluded) as a trade partner, whereas the former methodology covered the euro area alone. Thus, the coverage of the indicator estimating external demand was added approximately 18 percentage points, given that 71 percent of Romania’s exports are channelled to EU Member States.

Effective EU GDP Deviation



Source: EC forecast and NBR calculations

Under these conditions, compared to the previous projection round, external GDP deviation was estimated to be higher in the period 2005-2008 and lower (in absolute terms) more recently, entailing *ceteris paribus* a negative output gap that is, on average, 0.3 percentage points lower in absolute terms in the period 2009-2012.

[2] Over the past three projection rounds, external demand was assessed based on the euro area GDP deviation from the medium-term trend, according to EC estimates.

[3] Country-by-country estimates for the GDP deviation from the medium-term trend are taken from the EC and are based on the production function methodology.