Box I.3: Some technical elements behind the forecast

The cut-off date for taking new information into account in this European Economic Forecast was 1 February. The forecast incorporates validated public finance data as published in Eurostat's news release 204/2016 of 21 October 2016.

External assumptions

This forecast is based on a set of external assumptions, reflecting market expectations at the time of the forecast. To shield the assumptions from possible volatility during any given trading day, averages from a 10-day reference period (between 16 and 27 January) were used for exchange and interest rates, and for oil prices.

Exchange and interest rates

The technical assumption regarding exchange rates was standardised using fixed nominal exchange rates for all currencies. This technical assumption leads to an implied average USD/EUR rate of 1.07 in 2017 and 2018. The average JPY/EUR is 121.88 in 2017 and 121.85 in 2018.

Interest-rate assumptions are market-based. Short-term interest rates for the euro area are derived from futures contracts. Long-term interest rates for the euro area, as well as short- and long-term interest rates for other Member States are calculated using implicit forward swap rates, corrected for the current spread between the interest rate and swap rate. In cases where no market instrument is available, the fixed spread vis-à-vis the euro area interest rate is taken for both short- and long-term rates. As a result, short-term interest rates are assumed to be -0.3% in 2017 and -0.2% in 2018 in the euro area. Long-term euro area interest rates are assumed to be 0.5% in 2017, and 0.7% in 2018.

Commodity prices

Commodity price assumptions are also, as far as possible, based on market conditions. According to futures markets, prices for Brent oil are projected to be on average 56.38 USD/bbl in 2017, and 56.86 USD/bbl in 2018. This would correspond to an oil price of 52.80 EUR/bbl in 2017, and 53.22 EUR/bbl in 2018.

Budgetary data and forecasts

Data up to 2015 are based on data notified by Member States to the European Commission before 1 October and validated by Eurostat on 21 October 2016.

For 2017, the budgets adopted by the national parliaments and all other measures credibly announced and specified in sufficient details are taken into consideration. For 2018, the public finance forecast is made under the ‘no-policy-change’ assumption, which extrapolates past revenue and expenditure trends and relationships in a way that is consistent with past policy orientations. This may also include the adoption of a limited number of working assumptions, especially to deal with possible structural breaks.

EU and euro area aggregates for general government debt in the forecast years 2016-18 are published on a non-consolidated basis (i.e. not corrected for intergovernmental loans, including those made through the European Financial Stability Facility). To ensure consistency in the time series, historical data are also published on the same basis. For 2015, this implies an aggregate debt-to-GDP ratio which is somewhat higher than the consolidated general government debt ratio published by Eurostat in its news release 204/2016 of 21 October 2016 (by 2.2 pps. in the EA19 and by 1.5 pps. in the EU).

ESA 2010

The current forecast is based on the ESA 2010 system of national accounts for all Member States, the EU and the euro area aggregates.

Calendar effects on GDP growth and output gaps

The number of working days may differ from one year to another. The Commission’s annual GDP forecasts are not adjusted for the number of working days, but quarterly forecasts are.

However, the working-day effect in the EU and the euro area is estimated to be limited over the forecast horizon, implying that adjusted and unadjusted annual growth rates differ only marginally (by up to ±0.1 pps.). The calculation of potential growth and the output gap does not adjust for working days. Since the working-day effect is considered as temporary, it should not affect the cyclically-adjusted balances.