

**Box 1.5: Some technical elements behind the forecast**

The cut-off date for taking new information into account in this European Economic Forecast was 25 April 2017. The forecast incorporates validated public finance data as published in Eurostat's news release 67/2017 of 24 April 2017.

**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 7 and 20 April) 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 1.06 in 2017 and 2018. The average JPY/EUR is 117.82 in 2017 and 116.73 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 0.3% in 2017, and 0.4% 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 55.50 USD/bbl in 2017, and 55.93 USD/bbl in 2018. This would correspond to an oil price of 52.12 EUR/bbl in 2017, and 52.53 EUR/bbl in 2018.

**Budgetary data and forecasts**

Data up to 2016 are based on data notified by Member States to the European Commission before 1 April and validated by Eurostat on 24 April 2017.

Eurostat is expressing a reservation on the quality of the data reported by Luxembourg in relation to the sector classification of hospitals, as well as a number of technical issues such as the recording of receivables and payables, the size of statistical discrepancies in the EDP tables and the unavailability of data for local government. Eurostat will investigate these issues with the Luxembourgish statistical authorities.

Eurostat is maintaining the reservation on the quality of the data reported by Belgium in relation to the sector classification of hospitals. Eurostat considers that, in line with ESA 2010, government controlled hospitals in Belgium should be classified inside government. This is currently not the case. A future reclassification will most likely result in a limited increase in government debt.

Eurostat is maintaining the reservation on the quality of the data reported by Hungary in relation to the sector classification of Eximbank (Hungarian Export-Import Bank plc). Eurostat considers that Eximbank should be reclassified inside the general government sector which will result in an increase in government debt. Moreover, Eurostat is discussing with the Hungarian statistical authorities the possible rerouting of operations carried out by the Hungarian National Bank and its Foundations, deemed to be undertaken on behalf of government, as well as the reclassification inside the general government sector of certain entities (such as National Resolution Fund, National Deposit Insurance Fund and all their subsidiaries, MARK Hungarian Restructuring and Debt Management plc).

Eurostat is withdrawing the reservations on the quality of the data reported by Cyprus in relation to a series of technical issues which had not been clarified in a satisfactory manner during the October 2016 data assessment.

Eurostat has made no amendments to the data reported by Member States.

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*Box (continued)*

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 2017-18 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 2016, 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 67/2017 of 24 April 2017 (by 2.1 pps. in the EA19 and by 1.6 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  $\pm 0.1$  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.