Box I.5: Some technical elements behind the forecast

Given the ongoing negotiations on the terms of the UK withdrawal from the EU, projections for 2019 are based on a purely technical assumption of status quo in terms of trading relations between the EU27 and the UK. This is for forecasting purposes only and has no bearing on the talks underway in the context of the Article 50 process.

The cut-off date for taking new information into account in this European Economic Forecast was 22 October 2018. The forecast incorporates validated public finance data as published in Eurostat's news release 163/2018 of 22 October 2018.

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 4 and 17 October) 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 1.18 in 2018 and 1.15 both in 2019 and in 2020. The average JPY/EUR is 130.74 in 2018 and 130.10 in both 2019 and 2020.

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 2018, -0.2% in 2019 and 0.2% in 2020 in the euro area. Long-term euro area interest rates are assumed to be 0.5% in 2018, 0.7% in 2019 and 0.9% in 2020.

Commodity prices

Commodity price assumptions are also based on market conditions. According to futures markets, prices for Brent oil are projected to be on average 75.12 USD/bbl in 2018; 80.64 USD/bbl in 2019 and 76.68 USD/bbl in 2020. This would correspond to an oil price of 63.44 EUR/bbl in 2018, 69.96 EUR/bbl in 2019 and 66.52 EUR/bbl in 2020.

Budgetary data and forecasts

Data up to 2017 are based on data notified by Member States to the European Commission before 1 October and validated by Eurostat on 22 October 2018. [1]

Eurostat is **maintaining the reservation** on the quality of the data reported by Hungary in relation to the sector classification of the foundations created by the Hungarian National Bank. Eurostat considers that these foundations, including their subsidiaries, should be classified inside general government. This would lead to an estimated increase in government deficit in 2015 by 25.3 bn HUF (0.1% of GDP), in 2016 by 54.0 bn HUF (0.2% of GDP) and in 2017 by 33.7 bn HUF (0.1% of GDP). The debt figures would remain unchanged.

Eurostat is **withdrawing the reservation** on the quality of the data reported by France in relation to the sector classification of the Agence Française de Développement. Eurostat is also withdrawing the reservation on the treatment of the capital injection into AREVA with an impact on the deficit, for an amount of €2.5 bn (0.1% of GDP) in 2017. In the October 2018 EDP Notification the recording has been changed and is now treated as a capital transfer.

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. The forecast reflects all fiscal policy measures that imply a change to these past policy orientations on the condition that they are sufficiently detailed as well as adopted or at least credibly announced. For 2019 in particular, draft budgets presented before the cut-off date of the forecast are taken into consideration.

(1) Eurostat News Release No 163/2018.

(Continued on the next page)

Box (continued)

Table 1:
Technical assumptions

		Autumn 2018 forecast			Spring 2018 forecast	
	2017	2018	2019	2020	2018	2019
3-month EURIBOR (percentage per annum)	-0.3	**-0.3**	**-0.2**	**0.2**	*-0.3*	*-0.1*
10-year government bond yields (percentage per annum) (a)	0.3	**0.5**	**0.7**	**0.9**	*0.6*	*0.8*
USD/EUR exchange rate	1.13	**1.18**	**1.15**	**1.15**	*1.23*	*1.23*
JPY/EUR exchange rate	126.61	**130.74**	**130.10**	**130.10**	*132.20*	*131.90*
GBP/EUR exchange rate	0.88	**0.88**	**0.88**	**0.88**	*0.87*	*0.87*
EUR nominal effective exchange rate (annual percentage change) (b)	2.1	**5.0**	**0.6**	**0.0**	*4.8*	*0.2*
Food prices (in USD, annual percentage change)	0.5	**3.6**	**2.6**	**1.4**	*4.2*	*3.1*
Oil price (USD per barrel)	54.8	**75.1**	**80.6**	**76.7**	*67.7*	*63.9*
Oil price (EUR per barrel)	48.5	**63.4**	**70.0**	**66.5**	*55.0*	*51.9*

(a) 10-year government bond yields for the euro area equal the German government bond yields.
(b) 42 industrial countries EU-28, TR CH NR US CA JP AU MX NZ KO CN HK RU BR.

EU and euro area aggregates for general government debt in the forecast years 2018-20 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 2017, 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 163/2018 of 22 October 2018 (by 2.1 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 in 2018 and 2019, implying that adjusted and unadjusted annual growth rates differ only marginally (by up to ±0.1 pps.). In 2020, this difference will be close to ¼ pps. in the euro area.

Estimations of potential GDP and output gaps are not adjusted for working days. Furthermore, since the working-day effect is considered temporary, it is not expected to affect cyclically-adjusted balances.