4. BOXES

Box I.4.1: Some technical elements behind the forecast

The cut-off date for taking information into account in this European Economic Forecast was 22 October 2020.

External assumptions

The external assumptions underpinning this forecast reflect market expectations at the time of the forecast. To shield them from possible volatility during any given trading day, averages from a 10-day reference period (between 6 and 19 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 1.14 in 2020 and 1.18 both in 2021 and in 2022. The average JPY/EUR is 121.71 in 2020 and 124.23 in both 2021 and 2022.

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 -0.4% in 2020 and -0.5% in 2021 and -0.6% in 2022 in the euro area. Long-term euro area interest rates are assumed to be -0.5% in 2020, 2021 and 2022.

Commodity prices

According to futures markets, prices for Brent oil are projected to be on average 42.6 USD/bbl in 2020, 44.6 USD/bbl in 2021 and 46.4 USD/bbl in 2022. This would correspond to an oil price of 37.5 EUR/bbl in 2020, 37.9 EUR/bbl in 2021 and 39.4 EUR/bbl in 2022.

Trade policies and assumptions

For the assumption on the trade relations between the EU and the UK after the end of the transition period, on 31 December 2020, see Box I.4.2.

Also for trade policy, this forecast pencils in only the measures that have been implemented until the cut-off date. Compared to the summer interim forecast, there were only limited changes.

- On 15/08/2020, the US administrations imposed additional restrictions against Huawei. Companies will have to obtain a license before they can sell microchips, which are made using US equipment or software, to Huawei.
- On 21/08/2020, the US and the EU announced lower tariffs on several goods following the "most-favoured-nation-rules".

Budgetary data and forecasts

The forecast incorporates validated public finance data up to 2019 as published in Eurostat's news release 156/2020 of 22 October 2020.

Eurostat is **withdrawing the reservation** on the quality of the data reported by Denmark for the year 2019, which was motivated by the incomplete data provided in March 2020 by the Danish statistical authorities and to the high statistical discrepancy. A complete data set has now been provided by the Danish statistical authorities and the discrepancy has decreased considerably.

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 working assumptions, namely to deal with structural breaks caused by the COVID-19 pandemic. The no-policy-change forecast includes all fiscal policy measures that imply a change to past policy orientations on the condition that they are sufficiently detailed as well as adopted or at least credibly announced. For 2021, draft budgets are taken into consideration. For 2022, the forecast incorporates the lasting impact of those measures. For the treatment of the Next Generation EU instrument and its centrepiece Recovery and Resilience Facility, please see Box I.4.3.

EU and euro area aggregates for general government balance and debt in the Commission forecast and in the Eurostat's press release are based exclusively on the Member States' balances and debt. For debt, whereas Eurostat publishes the consolidated figures (corrected for intergovernmental loans, including those made

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Box (continued)

Table 1:
Technical assumptions

		Autumn 2020 forecast			Spring 2020 forecast		
	2019	2020	2021	2022	2019	2020	2021
3-month EURIBOR (percentage per annum)	-0.4	**-0.4**	**-0.5**	**-0.6**	*-0.4*	*-0.3*	*-0.4*
10-year government bond yields (percentage per annum) (a)	-0.3	**-0.5**	**-0.5**	**-0.5**	*-0.3*	*-0.4*	*-0.3*
USD/EUR exchange rate	1.12	**1.14**	**1.18**	**1.18**	*1.12*	*1.09*	*1.09*
JPY/EUR exchange rate	122.05	**121.71**	**124.23**	**124.23**	*122.05*	*118.35*	*117.78*
GBP/EUR exchange rate	0.88	**0.89**	**0.91**	**0.91**	*0.88*	*0.87*	*0.87*
EUR nominal effective exchange rate (annual percentage change) (b)	-1.2	**3.9**	**2.7**	**0.0**	*-1.2*	*1.5*	*0.5*
Oil price (USD per barrel)	64.1	**42.6**	**44.6**	**46.4**	*64.1*	*38.4*	*40.2*
Oil price (EUR per barrel)	57.2	**37.5**	**37.9**	**39.4**	*57.2*	*35.1*	*36.9*

(a) 10-year government bond yields for the euro area are the German government bond yields.
(b) 42 industrial countries EU-27, TR CH NR US UK CA JP AU MX NZ KO CN HK RU BR.

through the European Financial Stability Facility), the projections in the forecast years 2020, 2021 and 2022 are published on a non-consolidated basis. To ensure consistency in the time series, historical data are also published on the same basis. For 2019, 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 156/2020 of 22 October (by 1.9 pps. in the EA and by 1.6 pps. in the EU).

Coronavirus relief measures

In the forecast, the budgetary impact of such measures is estimated in line with the established "no-policy-change" guidelines. In particular, a distinction is made between discretionary measures with a direct budgetary impact and broader liquidity support measures that do not imply an immediate budgetary impact.

Liquidity provisions in the form of public guarantees or loans to companies are in general considered risks to the budgetary projection. Their impacts are only included in the projections in specific cases, notably in case of standardised instruments, where a certain share of such loans or guarantees can be assumed to have an impact on the government balance ex-ante. This recording is without prejudice to the statistical treatment of these measures by the national statistical authorities and Eurostat. The short-term measures taken in direct response to the coronavirus outbreak in 2020 and 2021 are not treated as one-off and are thus reflected in the estimation of the structural budget balance.

ESA 2010

The forecast is based on the ESA 2010 system of national accounts for all Member States, the EU and the euro area aggregates. Information on data quality under ESA 2010, including effects of the Covid-19 pandemic, are available on Eurostat's website. [1]

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.

The working-day effect in the EU and the euro area is estimated to be limited in 2020, 2021 and 2022 implying that adjusted and unadjusted annual growth rates differ only marginally (by up to ±0.1 pps.).

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.

(1) https://ec.europa.eu/eurostat/web/esa-2010/esa-2010-implementation-and-data-quality