5. BOXES

Box I.5.1: Some technical elements behind the forecast

The cut-off date for taking information into account in this European Economic Forecast was 29 April 2022. Ad-hoc assumptions underpinning this forecast, relating to, e.g. the geo-political situation, are detailed in Box I.1.1.

Exchange and interest rates

The forecast builds on the technical assumption of fixed nominal exchange rates for all currencies (see Table 1 and Table 31 in the Statistical Annex).

Assumptions for interest rates 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.

Commodity prices

Assumptions for Brent oil, gas and electricity prices are based on futures markets, using the average over the 10-day reference period between 14 and 27 April.

Trade policies and assumptions

Also for trade policy, this forecast pencils in only the measures that have been implemented until the cut-off date, as detailed in Box I.1.1. includes bans on specific exports and imports (see https://ec.europa.eu/info/strategy/priorities-2019-2024).

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.

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 is estimated to be limited in 2022 and 2023, implying that adjusted and unadjusted annual growth rates differ only marginally (by up to ±0.1 pps.), but it may be significant in the case of some Member States. For the euro, area it is estimated to be +0.2 in 2022 and marginal in 2023.

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.

The inclusion of the Recovery and Resilience Facility in the forecast

The macroeconomic and budgetary projections in the forecast include the impact of the implementation of the Recovery and Resilience Facility (RRF). Unless mentioned otherwise, the

Table 1:
Technical assumptions

		Spring 2022 forecast		Autumn 2021 forecast	
	2021	2022	2023	2022	2023
3-month EURIBOR (percentage per annum)	-0.5	-0.1	1.3	-0.5	-0.3
10-year government bond yields (percentage per annum) (a)	-0.4	0.8	1.1	-0.1	0.1
USD/EUR exchange rate	1.18	1.09	1.08	1.16	1.16
GBP/EUR exchange rate	0.86	0.84	0.83	0.85	0.85
RMB/EUR exchange rate	7.63	7.00	6.97	7.46	7.46
JPY/EUR exchange rate	129.9	135.61	137.38	130.54	130.54
EUR nominal effective exchange rate (annual percentage change) (b)	1.30	-2.20	-0.50	-1.30	0.00
Natural gas (EUR/Mwh) (c)	47.1	97.83	80.36	49.49	30.61
Electricity (EUR/Mwh) (d)	107.23	234.31	210.54	130.72	84.39
Oil price (USD per barrel)	70.7	103.6	93.5	78.9	72.3
Oil price (EUR per barrel)	59.8	95.0	86.6	68.1	62.5

(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. (c) ICE Dutch TTF. (d) GDP - weighted average of electricity prices in DE, FR, IT, ES, NL, BE, AT.

(Continued on the next page)

Box (continued)

forecast includes the measures incorporated in the Recovery and Resilience Plans as submitted to the Commission. The cash disbursement and expenditure profiles implicit in the forecast are consistent with the time profile of milestones and targets as specified in the Plans (and - if adopted - the relevant Council Implementing Decisions). In all cases where the RRP was not yet endorsed by a Council Implementing Decision, the incorporation of the RRP in the forecast rests on the working assumption of a positive assessment by the Commission and future endorsement by a Council Implementing Decision. The working assumptions in the forecast do not pre-judge the outcomes of future Commission and Council decisions, nor the update of maximum financial contribution by 30 June 2022 per Article 11(2) of the RRF Regulation.

Transactions related to the RRF in the forecast are recorded in line with Eurostat's 'Guidance note on the statistical recording of the Recovery and Resilience Facility' of 7 October 2021. In particular, this implies that, except for 2020, the budgetary impact any expenditure or other costs financed with non-repayable financial support ('grants') from the RRF is neutralised in revenue projections by matching transfers received from the EU (in 2020, expenditure and other costs retroactively financed by RRF grants are offset by transfers from the EU in the year of adoption of the Council Implementing Decision). Expenditures financed by loans from the RRF are not neutralised and thus affect the government's balance, while the actual loans by the RRF are recorded as Member States' debt towards the EU.

Budgetary data and forecasts

The forecast incorporates validated public finance data up to 2021 as published in Eurostat's news release 46/2022 of 22 April 2022.

The public finance forecast is made under the 'no-policy-change' assumption, which extrapolates past revenue and expenditure trends and relationships in line with past policy orientations. This may also include the adoption of working assumptions, in particular to deal with structural breaks. 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 2022 in particular, the annual budgets adopted or presented to national parliaments are taken into consideration. The temporary emergency measures taken in response to COVID-19 crisis adopted in 2020 and 2021 are not treated as one-off and are thus reflected in the estimation of the structural budget balanceIn line with Eurostat's press release, EU and euro area aggregates for general government balance and debt 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 through the European Financial Stability Facility), the projections in the forecast years 2022 and 2023 are published on a non-consolidated basis. To ensure consistency in the time series, historical data are also published on the same basis. For 2021, this implies an aggregate debt-to-GDP ratio that is somewhat higher than the consolidated general government debt ratio published by Eurostat in its news release 46/2022 of 22 April 2022 (by 1.8 pps. in the EA and by 1.6 pps. in the EU).