2.10 PROJECTIONS

The projections for the Italian economy presented in this Economic Bulletin update those published on 13 December, which were prepared as part of the Eurosystem staff macroeconomic projection exercise.[1] The technical assumptions include the information available at 13 January. Compared with those released in July 2019, the projections incorporate the effects of the weaker international outlook, partly offset by the more expansionary monetary policy stance and better conditions in the Italian financial markets.

The macroeconomic scenario is based on weak growth in world trade ...

The prospects for world trade incorporated in the forecasting scenario remain modest in the next three quarters as well (see Section 1.1) and only gradually strengthen over the forecasting horizon. Foreign demand for Italian products weighted by the outlet markets expanded by 1.3 per cent in 2019 (by 3.6 per cent in the previous three years). It is expected to expand by 1.7 per cent this year and to then accelerate to 2.6 per cent on average in 2021 and in 2022 (see the box 'The assumptions underlying the macroeconomic scenario').

THE ASSUMPTIONS UNDERLYING THE MACROECONOMIC SCENARIO

The forecasting scenario for the Italian economy prepared by the Bank of Italy experts as part of the Eurosystem staff macroeconomic projection exercise is published each June and December following the release of the euro-area projections.[1] The macroeconomic projections for Italy presented here update those released on 13 December 2019 and are based on the information available at 13 January.

The main assumptions underlying the scenario are as follows (see the table):

a) foreign demand, weighted by the outlet market for Italian exports, increases by around 2.3 per cent each year on average in the period 2020-22;

b) the euro/dollar exchange rate, which averaged 1.12 in 2019, stays at the same level in the three years 2020-22;[2]

c) the price of a barrel of Brent crude oil, equal to $64 on average in 2019, falls gradually in the subsequent three years; the scenario also assumes a reduction in the regulated energy prices at the beginning of 2020;

d) three-month interest rates on the interbank market (Euribor), equal to -0.4 per cent in 2019, rise a little in the three-year period;

e) the yield on ten-year BTPs, equal to 1.9 per cent on average in 2019, falls to 1.6 per cent in 2020, then increases gradually to 2.2 per cent in 2022, in line with the values of forward rates implied by the term structure of interest rates on government bond yields. The spread with respect to the equivalent German bond, equal to around 160 basis points at the end of 2019, rises gradually by around 50 basis points across the entire forecasting horizon;

f) the scenario incorporates the measures set out in the budget for the three years 2020-22. As in previous macroeconomic projection exercises, for 2020-22 it is assumed that there are no increases in indirect taxes attributable to the so-called safeguard clauses. In accordance with the guidelines underlying the

1 See on the Bank of Italy's website 'Macroeconomic projections for Italy', containing the projections published to date as part of the Eurosystem coordinated exercise.

1 See also the Bank of Italy's website: 'Macroeconomic projections for the Italian economy', 13 December 2019.

Eurosystem forecasts, which do not incorporate measures that have yet to be defined in sufficient detail, the macroeconomic scenario excludes alternative measures for recouping revenue.

Assumptions for the main exogenous variables
(percentage changes on previous year unless otherwise indicated)

	2019	2020	2021	2022
Potential foreign demand	1.3	1.7	2.6	2.7
Dollar/euro (1)	1.12	1.12	1.12	1.12
Nominal effective exchange rate (2)	0.9	-0.2	0.0	0.0
Crude oil prices (1) (3)	64.5	64.0	59.4	57.4
3-month Euribor (1)	-0.4	-0.4	-0.3	-0.2
1-year BOTs (1)	0.0	-0.2	-0.1	0.0
10-year BTPs (1)	1.9	1.6	1.9	2.2

Sources: Based on Bank of Italy and Istat data.
(1) Annual averages. – (2) Positive changes indicate a depreciation. – (3) Dollars per barrel of Brent crude oil.

... and highly accommodative monetary and financial conditions

The scenario assumes very accommodative monetary and financial conditions. Expectations based on market prices are for short-term interest rates to remain negative over the forecasting horizon; the yields on ten-year Italian government bonds are estimated to rise to 1.6 per cent in 2020, 1.9 per cent in 2021, and to 2.2 per cent in 2022. Medium- to long-term interest rates are expected to remain at below the average levels recorded in the two years 2018-19; the decline reflects the fall in sovereign risk premiums, which came down by around 120 basis points starting from last June, as well as the more accommodative monetary policy stance. The average cost of borrowing for firms (1.6 per cent; see Section 2.7) is estimated to remain low across the entire forecasting horizon.

The forecasting scenario takes into account the public finance package passed at the end of December; the Government's planning scenario incorporates a substantial increase in public investment, equal to around 20 percentage points over the three years as a whole. In accordance with the guidelines underpinning the Eurosystem

Table 15

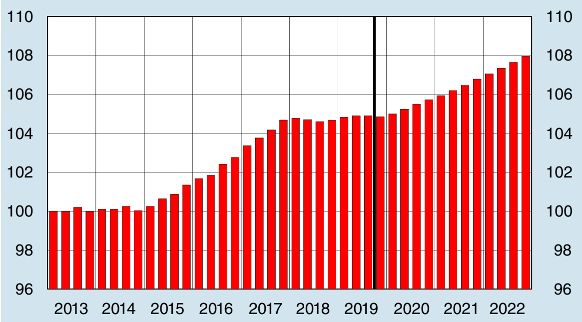
Macroeconomic scenario
(percentage change on previous year unless otherwise indicated)

	2019	2020	2021	2022
GDP (1)	0.2	0.5	0.9	1.1
Household consumption	0.6	0.8	0.8	0.9
Government consumption	0.1	0.3	0.3	0.2
Gross fixed investment	2.5	0.4	1.7	2.1
of which: in capital goods	1.8	0.4	1.6	2.3
Total exports	1.8	1.7	2.5	2.7
Total imports	1.1	2.3	2.4	2.6
Change in stocks (2)	-0.9	0.0	0.0	0.0
Memorandum item: GDP, raw data (3)	0.2	0.6	0.9	1.0
Prices (HICP)	0.6	0.7	1.1	1.3
HICP net of food and energy	0.5	0.7	1.1	1.4
GDP deflator	0.8	1.0	1.1	1.3
Employment (standard units) (4)	0.6	0.4	0.6	0.7
Unemployment rate (5)	9.9	9.7	9.6	9.4
Export competitiveness (6)	2.0	0.6	0.1	0.1
Current account balance of the balance of payments (7)	2.8	2.7	2.8	2.9

Sources: Based on Bank of Italy and Istat data.
(1) For GDP and its components: chain-linked volumes; changes estimated on the basis of quarterly data adjusted for seasonal and calendar effects. – (2) Includes valuables. Contributions to GDP growth; per cent. – (3) Not calendar adjusted. – (4) Standard labour units. – (5) Annual averages; per cent. – (6) Calculated by comparing the price of foreign manufactures with the deflator of Italian merchandise exports (excluding energy and agricultural products); a positive value indicates a gain in competitiveness. – (7) Per cent of GDP.

Figure 46

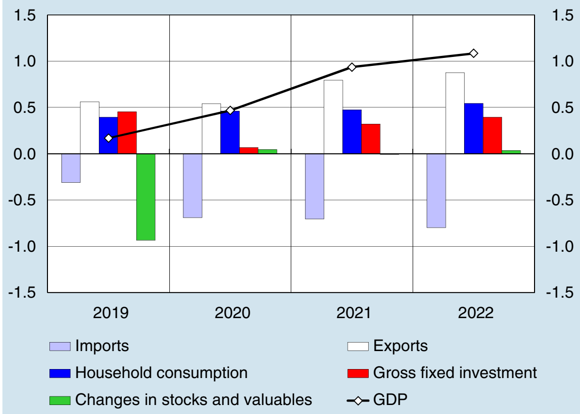
GDP projections: quarterly profile (1)
(quarterly data; indices: Q1 2013=100)



Sources: Based on Bank of Italy and Istat data.
(1) Data seasonally and calendar adjusted. Actual data up to Q3 2019; projections thereafter.

Figure 47

GDP growth and contributions of the main demand components and of imports (1)
(annual data; percentage changes and percentage points)



Sources: Based on Bank of Italy and Istat data.
(1) Data seasonally and calendar adjusted.

projections, the scenario excludes the VAT increases envisaged in 2021-22 under the safeguard clauses and alternative measures for recouping the revenue lost as a result.

GDP accelerates gradually during the three years

Based on these assumptions and in light of the latest data, it is estimated that GDP, adjusted for calendar effects, will expand by 0.5 per cent in 2020, 0.9 per cent in 2021 and 1.1 per cent in 2022 (Table 15 and Figure 46). Over the three-year forecasting horizon, economic activity is expected to be supported by domestic demand and by a gradual recovery in world trade (Figure 47). It is likely that the still ample margins of spare production capacity will be only partly reabsorbed over the next two years (see the box 'Italian output gap estimates').

ITALIAN OUTPUT GAP ESTIMATES

Our assessments indicate that the gap between the actual level of output and its potential level, i.e. the output gap, will continue to be broadly negative this year, at between -3 and -0.7 percentage points of potential output, with a central value of -1.9 (see the figure).[1] In 2021 and 2022, the gradual strengthening of economic activity is likely to bring about a partial reabsorption of the output gap, which nevertheless is estimated at around -1 per cent at the end of 2022.

Our central estimate for the output gap is broadly in line with that of the OECD (see the table); the IMF also expects it to remain negative both this year and next, but to a lesser extent.

[1] The estimates are made by combining, with variable weights linked to past performances, the results of: (a) a production function approach; (b) a structural vector autoregressive (VAR) model; (c) an unobserved components model; and (d) a time-varying autoregressive model. The methodology is described in A. Bassanetti, M. Caivano and A. Locarno, 'Modelling Italian potential output and the output gap', Banca d'Italia, Temi di Discussione (Working Papers), 771, 2010.

Other organizations' forecasts for Italy

(percentage changes on previous year unless otherwise indicated)

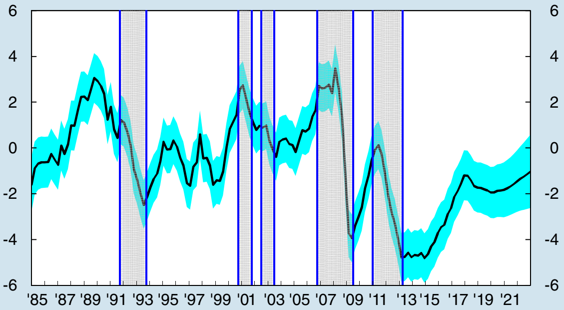
	Output gap (1)			GDP (2)			Inflation (3)		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Bank of Italy	-1.8	-1.9	-1.6	0.2	0.5	0.9	0.8	1.0	1.1
IMF	-1.0	-0.8	-0.5	0.0	0.5	0.8	0.8	1.0	1.0
OECD	-2.3	-2.0	-1.6	0.2	0.4	0.5	0.6	0.7	1.1
European Commission	-0.2	-0.1	0.2	0.1	0.4	0.7	0.6	0.9	1.1

Sources: IMF, *World Economic Outlook*, October 2019; OECD, *OECD Economic Outlook*, November 2019; European Commission, *Autumn 2019 Economic Forecast*, November 2019.
(1) As a percentage of potential output. – (2) The growth rates forecast by the Bank of Italy and the OECD are adjusted for calendar effects but those of the European Commission and IMF are not. – (3) As measured by the percentage change in the GDP deflator.

The European Commission estimates that the output gap will be almost zero as early as this year and will probably turn positive in 2021. The marked difference between our estimates and those of the Commission mirrors the different methodologies for calculating potential output. The Commission takes a production function approach which, compared with other methods, tends to attribute to the potential output a broader portion of the fluctuations of the actual output and thus produces a smaller output gap (see the box 'Methodological refinements of output gap estimates for Italy based on the production function', in *Economic Bulletin*, 3, 2019).

Output gap (1)

(quarterly data; percentage points)



Sources: Based on Istat data until Q3 2019 and on our own forecasts up to 2022.
(1) The output gap is measured as a percentage of potential output. The grey area represents periods of recession as identified by Istat. The blue area shows the 90 per cent confidence bands calculated using the uncertainty intervals derived from the unobserved components model.

Consumption expands a little

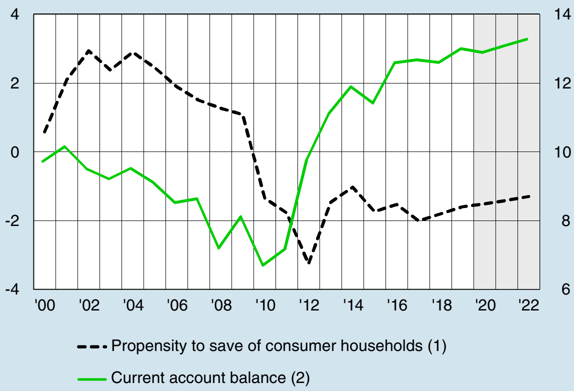
In the forecasting scenario, household consumption accelerates slightly (to around 0.8 per cent per year in the period 2020-22), partly thanks to income support measures; according to our assessments the new minimum income scheme (*Reddito di cittadinanza* or RdC) will raise household spending by around 0.3 percentage points in total between the second half of 2019 and 2020. The propensity to save is estimated to rise moderately (Figure 48), in line with the trend usually observed in a phase of progressive cyclical expansion.

Employment is likely to increase at a moderate pace, by a little more than half a percentage point per year in the period 2020-22. As observed in the past, our assessments indicate that the greater numbers of people leaving the labour market

Figure 48

Propensity to save of consumer households and current account balance

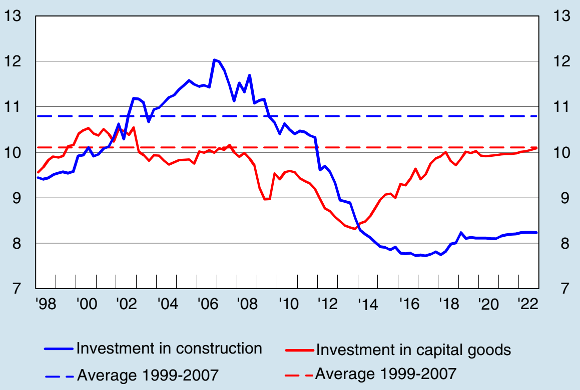
(quarterly data; percentage points)



Sources: Based on Bank of Italy and Istat data.
(1) Right-hand scale. – (2) Per cent of GDP.

Figure 49

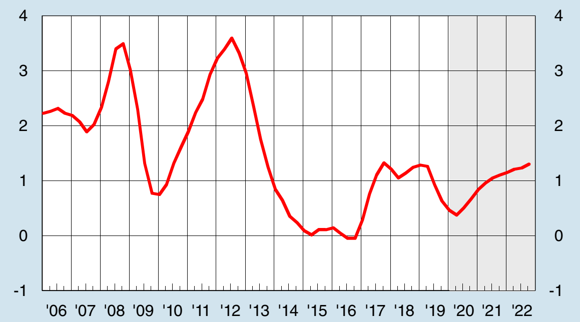
Investment as a percentage of GDP (1)
(quarterly data)



Sources: Based on Bank of Italy and Istat data.
(1) Data seasonally and calendar adjusted.

Figure 50

Consumer price inflation (1)
(quarterly data; year-on-year percentage changes)



Sources: Based on Bank of Italy and Istat data.
(1) HICP; 4-term moving averages.

following the introduction of the *quota 100* early retirement scheme will only partly be offset by new hires; the impact of these measures on overall employment is expected to be in the order of -0.4 percentage points. The unemployment rate is estimated to decline gradually, reaching 9.4 per cent at the end of the three-year forecasting horizon.

Investment increases but is affected by uncertainty

Investment is likely to continue to increase, though at a slower pace than in the previous three years, driven by favourable lending conditions. The ongoing deep uncertainty surrounding trade policies and the outlook for demand will nonetheless continue to adversely affect firms' propensity to invest. It is estimated that investment will slow to 0.4 per cent in 2020, and then strengthen moderately in 2021 and 2022, thanks to the improved demand outlook and low interest rates. In particular, the decline in sovereign spreads observed since the beginning of last June is expected to support investment by around 3.5 percentage points overall in the three years 2020-22. Capital accumulation would also benefit from the acceleration of expenditure on the public investment planned in the next two years. The ratio of investment in capital goods to GDP, which at the end of 2017 had returned to levels close to those recorded prior to the double-dip recession, is expected to remain stable; for the construction component this ratio is expected to remain about 3.5 percentage points below pre-crisis levels (Figure 49).

The external accounts continue to post a surplus

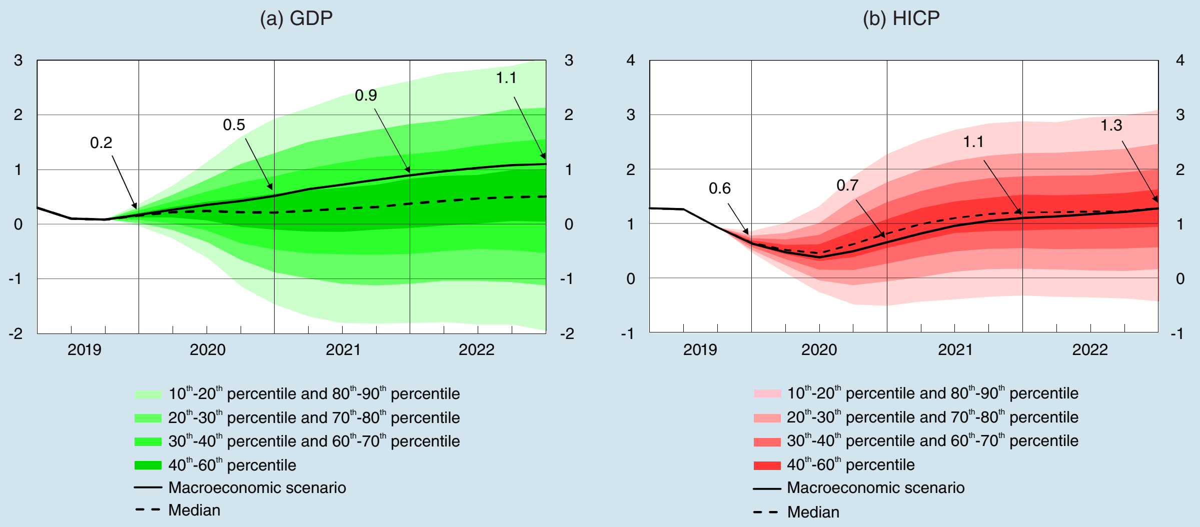
Exports of goods and services are expected to grow on average by around 2.3 per cent in each of the three years 2020-22, virtually in line with demand from the outlet markets; the market share of Italian goods is likely to remain basically unchanged. Imports are expected to increase at almost the same pace, held back by the slowdown in productive investment, the demand component with the highest foreign goods content. The contribution of net foreign demand to GDP growth is estimated to be slightly negative this year and positive in the two years 2021-22. The current account surplus should remain close to 3 per cent of GDP (Figure 48).

Inflation rises gradually

Inflation, calculated based on the change in the harmonized index of consumer prices, should pick up slowly over the next three years (Table 15 and Figure 50). It is expected to reach 0.7 per cent this year, 1.1 per cent in 2021 and 1.3 per cent in 2022, mostly reflecting the trend in the core component. Contributions to strengthening

Figure 51

Distribution of probabilities of GDP and HICP projections (1)
(quarterly data; percentage changes on year-earlier period; 4-term moving average)



(1) Data seasonally and calendar adjusted. The probability distribution is graphed for percentile groups by fan charts, based on stochastic simulations made via random extraction from the shock distribution of the Bank of Italy's quarterly econometric model. The distribution takes account of asymmetric shocks to the equations that reflect the main risk factors according to the procedure in C. Miani and S. Siviero, 'A non-parametric model-based approach to uncertainty and risk analysis of macroeconomic forecasts', Banca d'Italia, Temi di Discussione (Working Papers), 758, 2010. The value corresponding to the fourth quarter of each year coincides with the average annual percentage change.

inflation are expected from the acceleration in unit labour costs, driven by improved wage dynamics, and the gradual upturn in profit margins, thanks to better cyclical conditions.

Monetary stimulus is countering global weakness

Compared with the forecasting scenario published in last July's *Economic Bulletin*, GDP growth projections for 2020 and 2021 have been revised downwards by 0.3 and 0.1 percentage points. The revision is primarily attributable to the weaker international outlook; the effects of the latter are, however, mostly offset by the stimulus from lower interest rates determined by the more expansionary monetary policy stance and lower risk premiums on Italian sovereign debt. Inflation forecasts have been revised downwards by 0.2 percentage points for 2020 and by 0.3 percentage points for 2021. This is mainly attributable to the direct and indirect effects of the fall in commodity prices.

Table 16

Other organizations' forecasts for Italy
(percentage changes on previous period)

	GDP (1)		Inflation (2)	
	2020	2021	2020	2021
IMF (October)	0.5	0.8	1.0	1.1
OECD (November)	0.4	0.5	0.6	1.2
European Commission (November)	0.4	0.7	0.8	1.1
Consensus Economics (December)	0.4	–	0.9	–

Sources: IMF, *World Economic Outlook*, October 2019; OECD, *OECD Economic Outlook*, November 2019; European Commission, *Autumn 2019 Economic Forecast*, November 2019; Consensus Economics, *Consensus Forecasts*, December 2019.
(1) The growth rate forecasts of the OECD are adjusted for calendar effects; those of the European Commission and IMF are not. – (2) HICP.

Our growth projections are broadly in line with the latest estimates of the IMF, while they are higher than those of the European Commission and the OECD (Table 16). Our inflation projections for 2020 are practically in line with those of the European Commission and lower than those of the IMF and Consensus Economics; they are comparable to those of the other forecasters for 2021.

There are risks originating from the global context and the outlook for private and public investment

These projections are subject to downside risks – connected with global uncertainty, geopolitical tensions, trade conflicts (which have only partly subsided) and the performance of the economies of our main European partners – which could have adverse effects on exports and firms' investment propensity (Figure 51). Downside risks also stem from the large increases in public investment envisaged for the three years 2020-22, whose actual implementation could fall behind schedule, and from renewed tensions in the financial markets. The risks for inflation are balanced: the upside risks are mostly associated with increases in energy commodity prices. The downside ones are instead connected to a further weakening of the domestic and international growth outlook.