2.9 PROJECTIONS

The 2018-20 scenario assumes still favourable external conditions ...

The macroeconomic projections for the Italian economy are based on the assumption that foreign demand will continue to grow in the three years 2018-20, in keeping with the projections of the main forecasters.[1] The assumptions regarding interest rates, inferred from the expectations incorporated in recent financial market prices, include a gradual upturn in long-term yields: the three-month Euribor is projected to reach 0.1 per cent in 2020, up from -0.3 on average in 2017, and the yields on ten-year Italian government securities should rise to 3.5 per cent, from 2.1 per cent (see the box 'The assumptions underlying the macroeconomic scenario').

THE ASSUMPTIONS UNDERLYING THE MACROECONOMIC SCENARIO

The forecasting scenario for the Italian economy prepared by Bank of Italy experts as part of the Eurosystem staff macroeconomic projection exercise is published on the Bank's website at the start of June and December at the same time as the euro-area projections.[1] The macroeconomic projections for Italy presented here update those published on 15 June[2] on the basis of the most recent data, including the latest national quarterly accounts released by Istat on 1 June, which became available after the closing date of the previous forecasting exercise. The technical assumptions have also been revised in the light of changes in the exogenous variables at 6 July.

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

	2017	2018	2019	2020
Potential foreign demand	4.1	4.3	4.5	3.9
Dollar/euro (1)	1.13	1.19	1.17	1.17
Nominal effective exchange rate (2)	-1.3	-0.4	0.4	0.0
Crude oil prices (1) (3)	54.3	73.7	73.5	69.4
3-month Euribor (1)	-0.3	-0.3	-0.2	0.1
1-year BOT yields (1)	-0.3	0.0	0.4	0.7
10-year BTP yields (1)	2.1	2.6	3.3	3.5

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.

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

a) Foreign demand weighted by the outlet markets for Italian exports grows by just over 4 per cent on average in the three years 2018-20;

b) The euro/dollar exchange rate, equal on average to 1.19 in 2018, holds stable at 1.17 in the two years 2019-20;[3]

c) The price of a barrel of Brent crude oil, fixed on the basis of the prices of futures contracts, is about $74 in 2018-19 ($54 in 2017), and falls to just over $69 in 2020;

1 See on the Bank of Italy's website '*Macroeconomic projections for Italy*', which include those published to date as part of the Eurosystem exercise.

2 The assumptions for global economic activity and potential foreign demand are consistent with those underlying the projections for the euro area agreed by the Eurosystem central banks and presented by the ECB in '*Eurosystem staff macroeconomic projections for the euro area, June 2018*'.

3 The technical assumptions on interest rates, exchange rates and oil prices are calculated on the basis of the spot and forward prices observed in the markets in the ten working days to 6 July.

1 The projections for the Italian economy presented in this Economic Bulletin update those prepared as part of the Eurosystem staff macroeconomic projections, which were based on information available up to 22 May, by taking subsequent developments into account. See the Bank of Italy's website: '*Macroeconomic projections for the Italian economy*', 15 June 2018.

d) Three-month interest rates on the interbank market (Euribor), equal to -0.3 per cent in the two years 2017-18, gradually rise to 0.1 per cent on average in 2020;

e) The yield on ten-year BTPs is 2.6 per cent in 2018, and goes up to 3.3 per cent in 2019 and to 3.5 per cent in 2020, in line with the values of forward rates implied by the term structure of interest rates on government bond yields;

f) As in the current legislation scenario presented in April's 2018 Economic and Financial Document (DEF), the scenario incorporates the provisions set out in previous budgetary measures, including that for the three years 2018-20. However, in contrast with the DEF, for the two years 2019-20 it is assumed that the safeguard clauses relative to VAT and excise duty increases are not activated. In accordance with the guidelines underlying the Eurosystem's projections, the macroeconomic scenario does not incorporate any measures for recouping missing revenue. It does not take account of measures which, though already announced, are not yet sufficiently detailed or included in the legislation.

... relaxed credit conditions ...

The scenario presupposes that credit supply conditions will remain relaxed. Interest rates on bank loans are not expected to diverge significantly from those prevailing in the euro-area over the entire projection horizon. Firms' demand for loans, which picked up in the second half of 2017 following a long period of stagnation, is set to continue expanding.

... and an accommodative monetary policy

The scenario takes account of the monetary policy measures adopted by the ECB Governing Council at its meeting on 14 June 2018 (see the box 'The monetary policy measures adopted in June 2018' in Chapter 1). Monetary conditions remain broadly expansionary. According to our estimates, while the contribution to GDP growth of the monetary policy measures implemented since 2014 is decreasing, it remains significant and equal to about half a percentage point per year on average in 2018-19 (i.e. slightly less than half of the contribution estimated for the previous two-year period; see the box 'The determinants of economic activity in 2017 according to the Bank of Italy's model' in Chapter 4, *Annual Report for 2017*, 2018). As in the current legislation scenario presented in April's 2018 Economic and Financial Document (DEF), this scenario takes account of previously approved budgetary measures. In accordance

Table 9

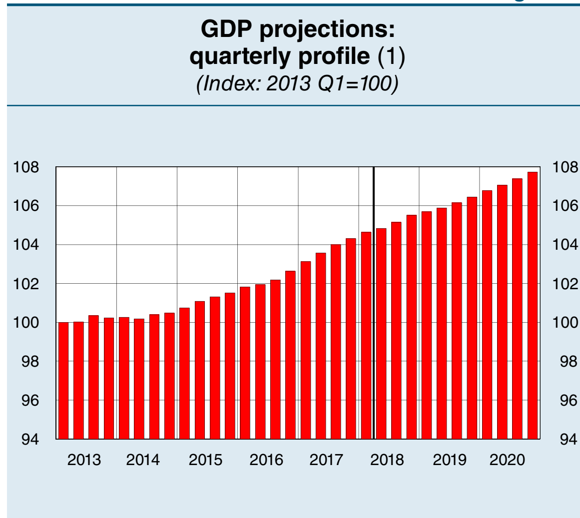
The macroeconomic scenario
(percentage changes on previous year unless otherwise indicated)

	2017	2018	2019	2020
GDP (1)	1.5	1.3	1.0	1.2
GDP (2)	1.6	1.2	1.0	1.1
Household consumption	1.4	1.1	0.8	0.8
Government consumption	0.1	0.2	0.0	0.2
Gross fixed investment	3.9	3.4	1.5	0.9
of which: in machinery, equipment and transport equipment	6.1	4.8	1.5	0.7
Total exports	6.0	1.9	4.1	3.7
Total imports	5.7	2.6	3.8	2.6
Change in stocks (3)	-0.1	0.1	0.0	0.0
HICP	1.3	1.3	1.5	1.5
HICP net of food and energy	0.8	0.8	1.3	1.5
Employment (standard units) (4)	0.9	0.9	0.8	0.7
Unemployment rate (5)	11.2	10.9	10.6	10.4
Export competitiveness (6)	0.1	0.5	0.4	0.4
Current account balance (7)	2.7	2.1	2.1	2.3

Sources: Based on Bank of Italy and Istat data.
(1) Not calendar adjusted; definition in line with Istat's annual national accounts. – (2) For GDP and its components: chain-linked volumes; changes resulting from the sum of quarterly data adjusted for seasonal and calendar effects. – (3) Includes valuables. Contributions to GDP growth; per cent. – (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 37

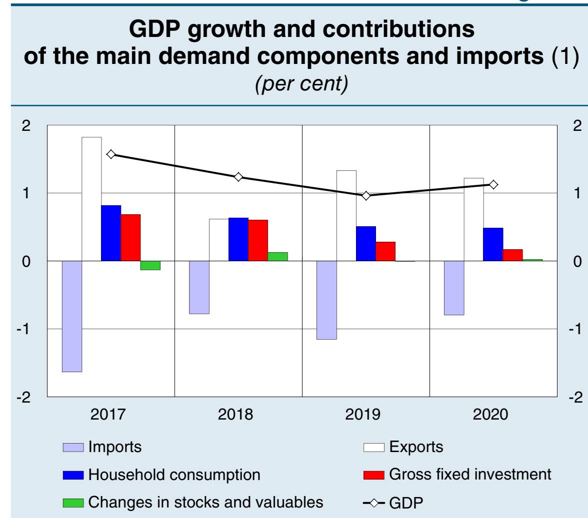
GDP projections: quarterly profile (1)
(Index: 2013 Q1=100)



Sources: Based on Bank of Italy and Istat data.
(1) Data seasonally and calendar adjusted. Actual data up to 2018 Q1; projections thereafter.

Figure 38

GDP growth and contributions of the main demand components and imports (1)
(per cent)



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

with the guidelines underpinning the Eurosystem projections, it is based, as in the past, on the technical assumption for abolishing the safeguard clauses without including alternative measures for recouping any missing revenue. It does not take account of measures that are not yet sufficiently detailed or included in the legislation. This scenario is compatible with a gradual reduction of the public debt to GDP ratio.

GDP continues to grow

Based on these assumptions and on the latest cyclical data, it is estimated that GDP, not adjusted for calendar effects, will grow by 1.3 per cent this year, 1.0 per cent in 2019 and 1.2 per cent in 2020 (Table 9 and Figure 37).[2] In the short run, the projections reflect the economy's performance in the second quarter, which available data indicate was less favourable than expected (see the box 'Economic activity in the second quarter based on cyclical indicators'). From next year, the gradual slowdown in domestic demand should be offset by a growing, positive contribution from net exports (Figure 38). The existing margin of spare production capacity is unlikely to be reabsorbed within the forecasting horizon (see the box 'Italian output gap estimates').

ITALIAN OUTPUT GAP ESTIMATES

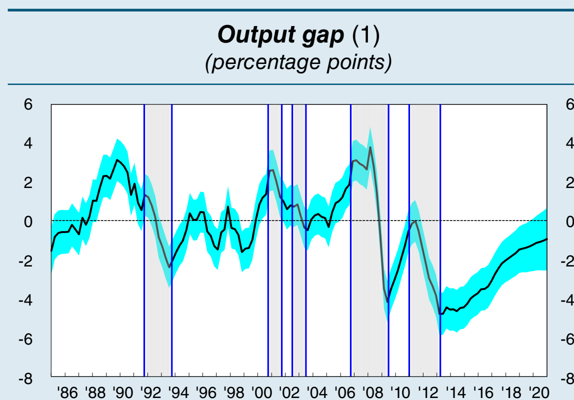
According to our estimates, the gap between the actual level of output and its potential level, i.e. the output gap, is still broadly negative in Italy[1] (the confidence bands shown in the figure gauge the uncertainty surrounding the estimates). The output gap for this year is estimated

[1] The Bank of Italy's estimates are made by combining: (a) a production function approach; (b) a structural VAR; (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.

[2] If the quarterly, calendar-adjusted data are summed, projected GDP growth comes to 1.2 per cent this year, 1.0 per cent in 2019 and 1.1 per cent in 2020.

to average between -2.8 and -0.5 per cent, with a central value of -1.7 per cent. Based on the macroeconomic projections set out in this Economic Bulletin, we expect that continuing GDP growth will lead to a gradual closing of the output gap, although its central estimate for the end of 2020 is still negative.

The existence of an output gap, which remains negative, contributes to the persistent weakness in core inflation. The IMF's assessments forecast that the output gap will be closed starting from 2020, while those of the European Commission and the OECD predict that this will occur as early as next year.

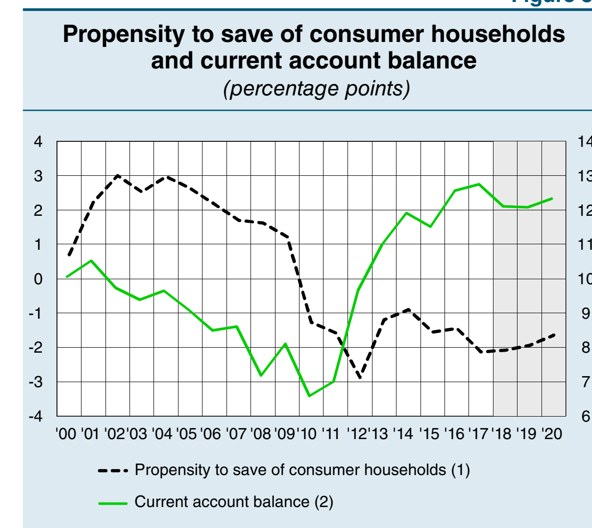


Sources: Based on Istat data through 2017 and our estimates for 2018-20.
(1) The output gap is measured as a percentage of potential output. The grey area represents recession periods as identified by Istat. The blue areas show the 90 per cent confidence bands calculated using the uncertainty intervals derived from the unobserved components model.

Consumption and employment expand further ...

Consumption is expected to continue to grow over the three-year forecasting horizon, but at a slower pace than in 2017. The continuation of the positive cyclical phase will probably be accompanied by a gradual rise in households' propensity to save, which should return close to 8.5 per cent (Figure 39). The number of persons in employment, which in May surpassed its pre-crisis highs, is projected to expand further, by an average of 0.8 per cent per year. The unemployment rate will decline slightly, to 10.4 per cent in 2020 (from 11.2 per cent in 2017), owing to the increase in the participation rate, which is in part the result of brighter employment prospects.

Figure 39



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

... as does investment

Notwithstanding the setback in the first quarter of this year (presumably relating to uncertainty about the renewal of the tax incentives, which probably prompted firms to bring forward expenditure to the end of 2017; see Section 2.2), capital formation is expected to return to growth over the course of 2018, buoyed by a continuation of the expansionary cyclical phase and accommodative borrowing conditions. As the tax incentives for investment in machinery, equipment and advanced technologies are due to expire at the end of 2018, the scenario factors in a slowdown in productive investment in the two years 2019-20. The residential component should continue to expand at a moderate pace following the cyclical recovery of the real estate market.

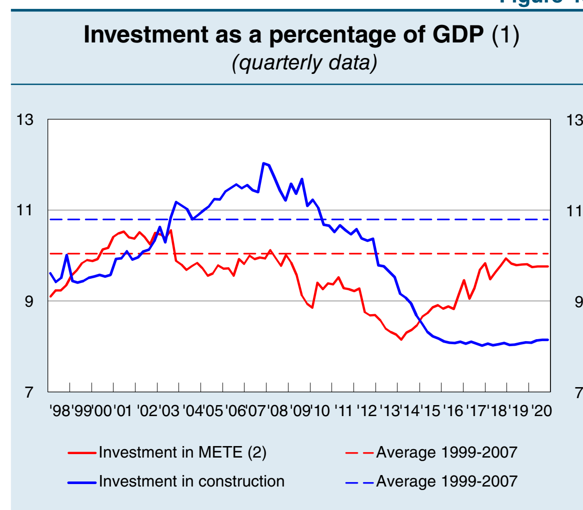
The ratio of nominal investment in METE (machinery, equipment, transport equipment) to GDP is expected to settle at the average levels recorded prior to the double-dip recession. In the construction sector, in 2020 the ratio is expected to still be almost 4 percentage points below the pre-crisis level (Figure 40).

The external accounts continue to post a surplus

Exports, which decreased in the first quarter after rising sharply in the second half of 2017, are expected to slow on average in 2018, but should start to grow again in 2019-20 at much the same pace as foreign demand weighted by outlet market, i.e. 4 per cent per year on average. Imports are projected to increase at a less rapid pace overall, partly as an effect of the deceleration in domestic demand. In the two years 2019-20 the contribution of net exports should be positive and equal on average to almost 0.3 percentage points per year.

Figure 40

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



Sources: Based on Bank of Italy and Istat data.
(1) Data seasonally and calendar adjusted. – (2) Investment in METE (machinery, equipment, transport equipment).

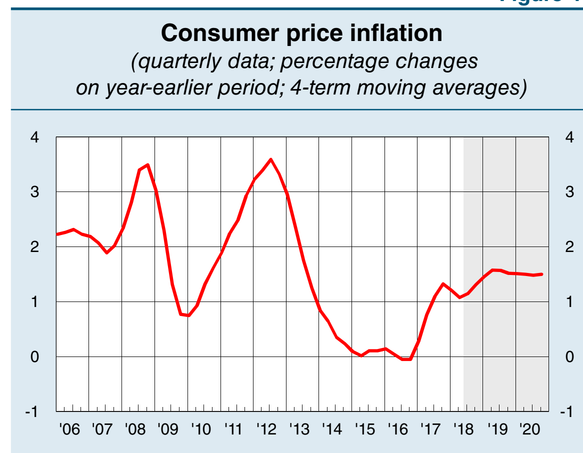
The current account of the balance of payments as a percentage of GDP is expected to remain firmly positive. It should diminish in 2018 as a consequence of the deterioration in the terms of trade induced by rising commodity prices, but should then rebound. The ratio is projected to stay above 2 per cent for the whole three-year period 2018-20 (Figure 39).

Inflation gradually picks up ...

Consumer prices are set to increase by 1.3 per cent on average this year and by 1.5 per cent in 2019-20, mainly driven by rising crude oil prices (Figure 41). Core inflation is projected to remain low in 2018 (0.8 per cent), primarily owing to the sharp slowdown in the service component recorded at the end of 2017 (see *Economic Bulletin*, 1, 2018), whose effect on annual growth rates will be reabsorbed at the end of the summer. Core inflation is projected to rise to 1.4 per cent on average in 2019-20, reflecting the gradual acceleration in private sector wages. Domestic inflation, measured by the GDP deflator, should hold stable around 1.5 per cent on average over the forecasting horizon; this year's developments are also, in part, a reflection of the increase in public sector wages.

Figure 41

Consumer price inflation
(quarterly data; percentage changes on year-earlier period; 4-term moving averages)



Sources: Based on Bank of Italy and Istat data.

... following a slow improvement in the expectations incorporated in wages

Private sector wages are projected to increase only marginally in the three years 2018-20 following the progressive rise in the inflation expectations incorporated in collective bargaining agreements. These expectations are mainly measured by Istat's recent forecasts of the performance of the consumer price index net of imported energy products (see the box 'Inflation expectations and wage developments'). Unit labour costs should increase more moderately owing to the cyclical turnaround in productivity. In the three-year forecasting period, profit margins in the private sector should expand by just over 1.5 percentage points; in 2020 they will have recovered around two thirds of the drop recorded from 2008 to 2012.

Growth projections are marginally lower than in January

The GDP growth projections are slightly lower than those presented in last January's *Economic Bulletin*: by 0.2 percentage points per year in 2018-19 and by 0.1 percentage points in 2020. The adjustment mainly reflects rising crude oil prices and, for the current year, the slowing of economic activity in the second quarter projected by the main cyclical indicators. The impact of higher interest rates will instead be offset by a weakening of the euro and a more favourable performance of foreign trade in the next two years.[3]

Inflation forecasts have been revised upwards by about 0.2 percentage points for 2018 and downwards by 0.1 percentage points for 2020. These adjustments are mainly due to commodity prices being higher this year, the effects of which should be offset in 2020 by more moderate wage growth.

Table 10

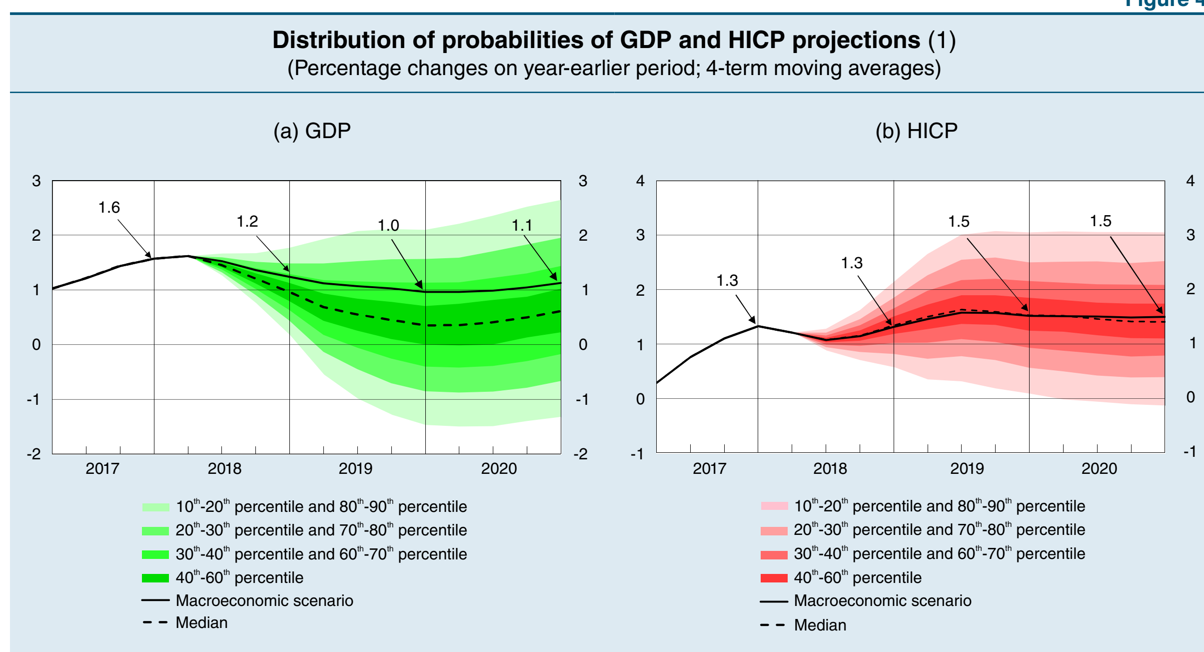
Other organizations' forecasts for Italy
(percentage changes on previous period)

	GDP (1)		Inflation (2)	
	2018	2019	2018	2019
IMF (April)	1.5	1.1	1.1	1.3
OECD (May)	1.4	1.1	1.2	1.7
European Commission (July)	1.3	1.1	1.4	1.6
Consensus Economics (June)	1.3	1.2	1.2	1.4

Sources: IMF, *World Economic Outlook*, April 2018; OECD, *OECD Economic Outlook*, May 2018; European Commission, European Economic Forecast – Summer 2018, July 2018; Consensus Economics, *Consensus Forecasts*, June 2018.
(1) The growth rate forecasts of the OECD are adjusted for calendar effects; those of the European Commission and IMF are not. – (2) HICP.

Figure 42

Distribution of probabilities of GDP and HICP projections (1)
(Percentage changes on year-earlier period; 4-term moving averages)



(1) Quarterly data, calendar-adjusted. The probability distribution is graphed, for percentile groups, by fan charts, based on stochastic simulations made via random extractions 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 described 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 figure shows year-on-year percentage changes of 4-term moving averages. The value corresponding to the fourth quarter of each year coincides with the average annual percentage change.

[3] These projections diverge slightly from those published in mid-June as part of the Eurosystem's coordinated exercise (see the Bank of Italy's website: '*Macroeconomic projections for Italy*', 15 June 2018) as a result of information that has become available in the meantime concerning economic activity in the second quarter and the updating of technical assumptions.

Our growth projections for 2018-19 are slightly less favourable than those of the IMF and the OECD, which have not been updated as recently and do not take account of data for the second quarter; they are instead basically in line with those published by the European Commission in July (Table 10). Our inflation projections are slightly lower than those of the European Commission and higher on average than those of the main institutional forecasters.

We estimate that most of the risks associated with the scenario described here are downside risks for growth and a generally balanced outlook for inflation (Figure 42).

The downside risks for growth stem mainly from protectionist tensions ...

Substantial risks overshadow the global economic recovery. They could stem from a more protectionist bias in trade policies, with repercussions on business confidence, on the expansion of world trade, and on global demand. Moreover, surges in financial market volatility cannot be ruled out in connection with a flare-up of uncertainty about economic policies, which could negatively affect borrowing conditions and the confidence of households and firms and, hence, economic activity.

... while the risks for inflation are more balanced

The downward risks to inflation are mostly related to those weighing on economic activity, which could translate into weaker wage growth than suggested here (see the box 'Inflation expectations and wage developments'). Upward pressures could instead derive from fresh increases in the prices of energy commodities.