EUROPEAN CENTRAL BANK

EUROSYSTEM

The ECB Survey of Professional Forecasters

Fourth quarter of 2017

October 2017

Contents

The results of the ECB Survey of Professional Forecasters (SPF) for the fourth quarter of 2017 show average inflation expectations of 1.5%, 1.4% and 1.6% for 2017, 2018 and 2019, respectively, unchanged from the previous quarter.[1] Average longer-term inflation expectations (which, like all other longer-term expectations in the SPF, refer to 2022) were revised upwards to 1.9%. Expectations for real GDP growth averaged 2.2%, 1.9% and 1.7% for 2017, 2018 and 2019, respectively, and 1.6% for the longer term, representing upward revisions of 0.3 percentage points (p.p.) for 2017 and 0.1 p.p. for 2018 and 2019. Expectations for the unemployment rate were again revised downwards, such that the downward-sloping trajectory steepened further.

Table 1

Results of the SPF in comparison with other expectations and projections

(annual percentage changes, unless otherwise indicated)

	Survey horizon			
	2017	2018	2019	Longer term[1)]
HICP inflation				
Q4 2017 SPF	1.5	1.4	1.6	1.9
Previous SPF (Q3 2017)	1.5	1.4	1.6	1.8
ECB staff macroeconomic projections (Sep. 2017)	1.5	1.2	1.5	-
Consensus Economics (Oct. 2017)	1.5	1.3	1.5	1.8
Euro Zone Barometer (Oct. 2017)	1.5	1.3	1.6	1.9
Memo: HICP inflation excluding food and energy				
Q4 2017 SPF	1.1	1.4	1.5	1.8
Previous SPF (Q3 2017)	1.1	1.3	1.5	1.7
ECB staff macroeconomic projections (Sep. 2017)	1.1	1.3	1.5	-
Real GDP growth				
Q4 2017 SPF	2.2	1.9	1.7	1.6
Previous SPF (Q3 2017)	1.9	1.8	1.6	1.6
ECB staff macroeconomic projections (Sep. 2017)	2.2	1.8	1.7	-
Consensus Economics (Oct. 2017)	2.2	1.8	1.5	1.4
Euro Zone Barometer (Oct. 2017)	2.1	1.9	1.7	1.4
Unemployment rate[2)]				
Q4 2017 SPF	9.1	8.6	8.2	7.9
Previous SPF (Q3 2017)	9.2	8.8	8.4	8.1
ECB staff macroeconomic projections (Sep. 2017)	9.1	8.6	8.1	-
Consensus Economics (Oct. 2017)	9.2	8.6	-	-
Euro Zone Barometer (Oct. 2017)	9.2	8.6	8.1	7.7

1) Longer-term expectations refer to 2022 for the SPF and Consensus Economics and to 2021 for the Euro Zone Barometer.
2) As a percentage of the labour force.

1 This survey was conducted between 2 and 6 October. The total number of responses was 58, which is in line with the average number of responses to surveys in the fourth quarter (59). The survey requested information on expectations for the euro area HICP inflation rate (overall and excluding food and energy), the real GDP growth rate and the unemployment rate for 2017, 2018, 2019 and 2022, as well as for each of these variables one and two years ahead. Participants were provided with a common set of the latest available data for annual HICP inflation (September 2017 flash estimates: overall inflation: 1.5%; inflation excluding food and energy: 1.1%), annual GDP growth (Q2 2017: 2.3%) and unemployment (August 2017: 9.1%).

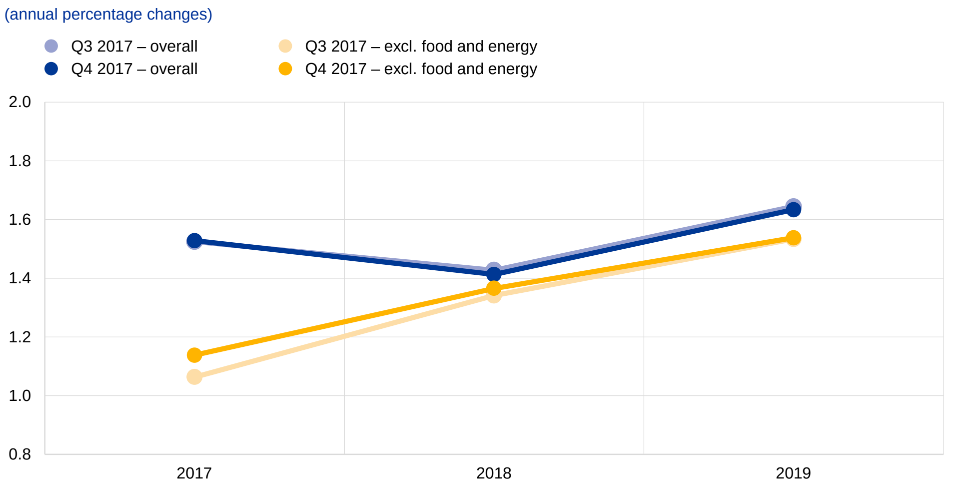
1 Expectations for HICP inflation over the period 2017-19 unchanged, but expectations for inflation excluding food and energy revised slightly upwards

The results of the SPF for the fourth quarter of 2017 show average inflation expectations of 1.5%, 1.4% and 1.6% for 2017, 2018 and 2019, respectively, unchanged from the previous survey (see Chart 1). This profile is in line with the expectations reported in other surveys (i.e. within 0.1 p.p. of those figures). In addition, this survey specifically asked about how recent exchange rate movements had affected expectations. Many forecasters noted that the *ceteris paribus* effect of a comparably sized exogenous exchange rate shock was, in this case, counterbalanced by stronger domestic activity including the tightening labour market. Thus, on balance, most forecasters reported no (or only slight) downward revisions.

Expectations for inflation excluding food and energy were revised slightly upwards. Average expectations for this measure of underlying inflation stood at 1.1%, 1.4% and 1.5% for 2017, 2018 and 2019, respectively.[2]

Chart 1

Inflation expectations: overall HICP and HICP excluding food and energy



The probabilities assigned to inflation outcomes of less than 1% declined for 2017, 2018 and 2019. The probabilities assigned to inflation in 2017 continued moving towards the centre of the distribution, since uncertainty for the current year naturally declines as more data are released (see Chart 2). Meanwhile, the probabilities assigned to inflation outcomes of less than 1% declined for both 2018 and 2019 (see Charts 3 and 4). For 2018, this was matched by an increase in the

2 Although the largest upward revision was observed for 2017 (see Chart 1), only the smaller revision for 2018 crossed the rounding threshold. Thus, when quoted to one decimal place (e.g. in Table 1), the average expectation for 2017 appears unrevised, while the expectation for 2018 appears to be 0.1 p.p. higher.

probability of inflation outcomes of between 1.0% and 1.4%, whereas for 2019, the largest increase in probability was for outcomes of between 1.5% and 1.9%.

Chart 2

Aggregate probability distribution for inflation expectations for 2017

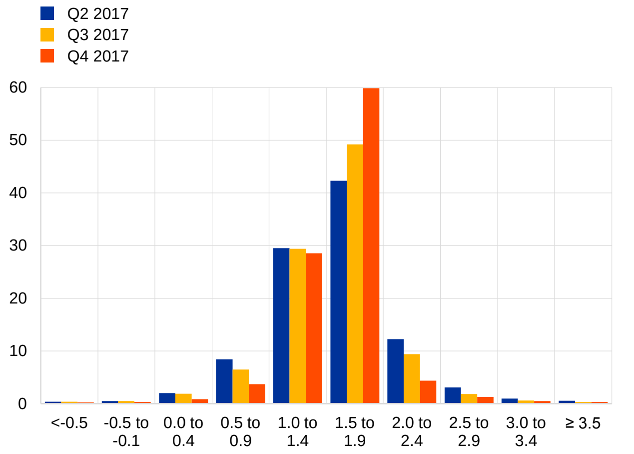


Chart 3

Aggregate probability distribution for inflation expectations for 2018

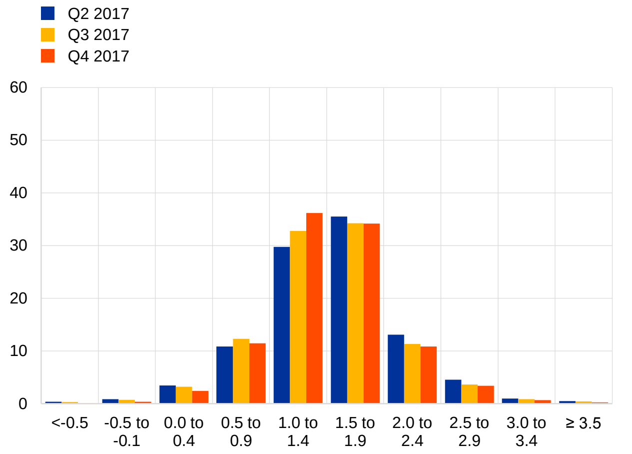
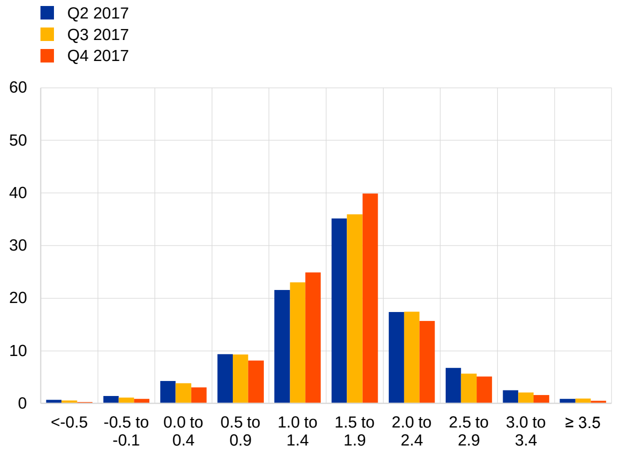


Chart 4

Aggregate probability distribution for inflation expectations for 2019



2 Longer-term inflation expectations revised upwards to 1.9%

The mean point forecast for longer-term inflation expectations increased from 1.83% to 1.88%. The median point forecast also increased, rising from 1.85% to 1.90% (see Chart 5). The percentage of respondents expecting outcomes of 1.5% or lower continued to decrease, while the percentage expecting outcomes of over 2.0% continued to increase (see Chart 6).

Chart 5
Longer-term inflation expectations

(annual percentage changes)

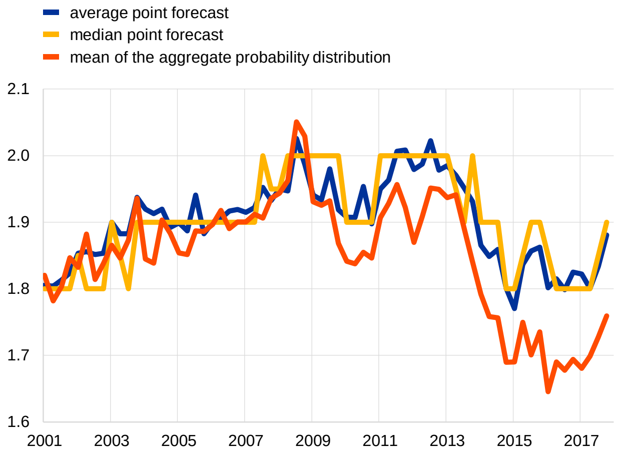
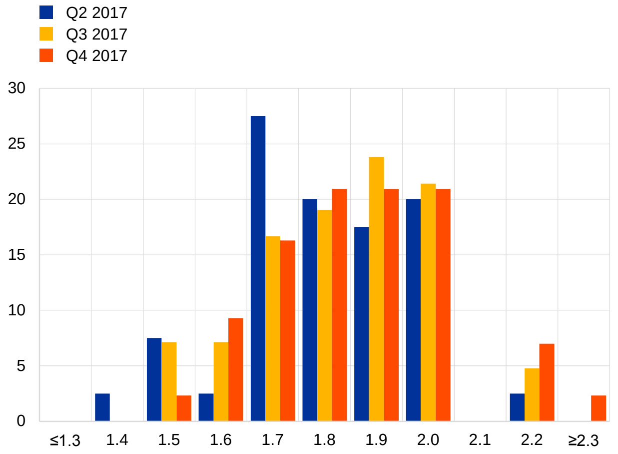


Chart 6
Distribution of point expectations for HICP inflation in the longer term

(percentages of respondents)

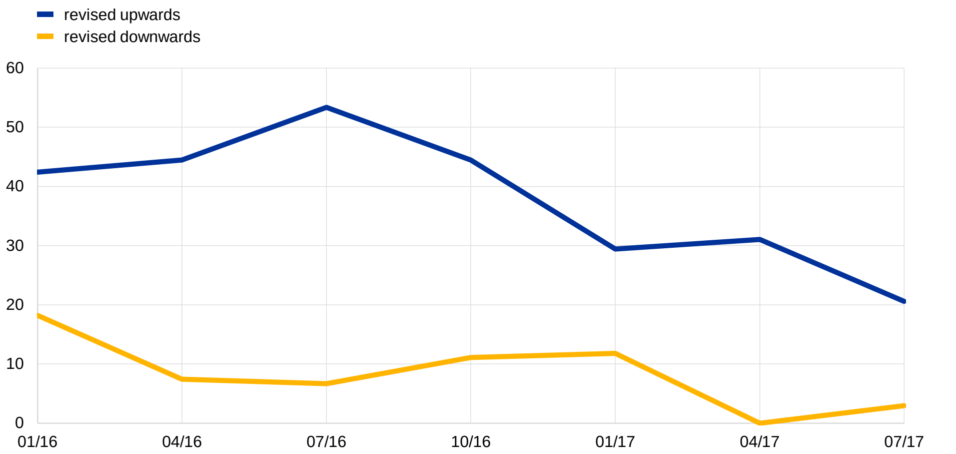


Matched sample analysis also implies an upward adjustment in longer-term inflation expectations, albeit one proceeding slowly. Changes in average survey results can be driven not only by changes in individual forecasters' expectations, but also by changes in the composition of the forecasters participating in each survey. In this regard, matched sample statistics may provide a less noisy measurement of the underlying change in expectations. Of the 34 forecasters who responded to both this survey and the previous survey, seven revised their longer-term point forecasts upwards, compared with only one downward revision. Extending this matched sample analysis back over a broader sweep of data, we can see that the further back the historical comparison point, the greater the percentage of forecasters whose most recent longer-term expectations represent upward revisions to the expectations reported in that earlier survey (see Chart 7).

Chart 7

Matched sample revisions to longer-term inflation expectations

(percentages of respondents)



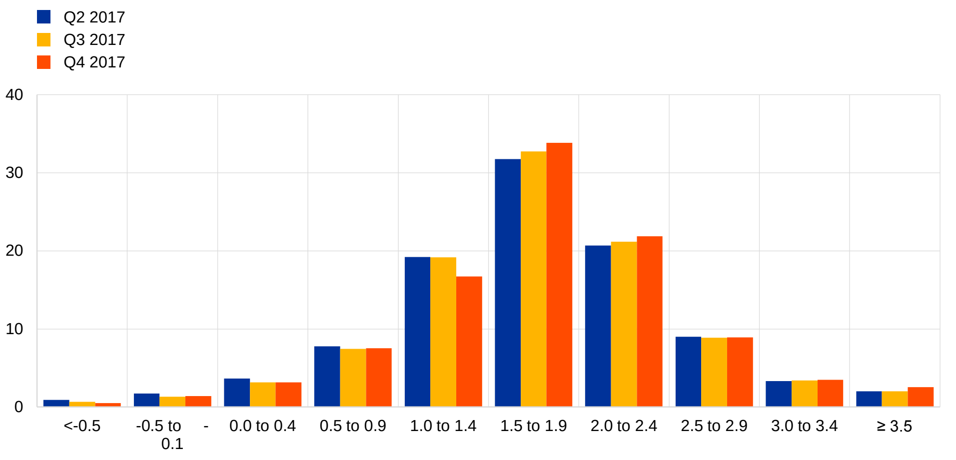
Notes: This chart shows the percentages of forecasters that have revised their expectations upwards and downwards since the date indicated for those forecasters who responded to both the Q4 (October) 2017 survey and the survey for the date indicated. For example, of those forecasters who replied to both the Q4 (October) 2017 survey and the Q1 (January) 2017 survey, 30% have revised their forecasts upwards since Q1 and 12% have revised their forecasts downwards.

The centre of the aggregate probability distribution tilted towards the right, but there was little change to the left-hand tail (see Chart 8). The probabilities assigned to outcomes of 1.5% or more increased, while there was little change in the probabilities assigned to outcomes of 0.9% or less. The mean of the aggregate probability distribution increased slightly, rising from 1.73% to 1.76%.

Chart 8

Aggregate probability distribution for longer-term inflation expectations

(percentages of respondents)



The negatively skewed aggregate probability distribution suggests that the balance of risks remained to the downside. The asymmetry of a forecast distribution is indicative of the balance of risks that the forecast embodies. In the context of the SPF, where probabilities are reported for discrete intervals, there are a number of alternative ways of measuring that skewness. Furthermore, because the point forecast is reported separately to the distribution in the SPF, these two pieces of information can be combined to derive a further indicator of the balance of risks, calculated as the mean of the aggregate probability distribution minus the average point forecast. These different measures all tend to co-move strongly, and in this survey they continued to point to downside risks.[3]

3 Real GDP growth expectations revised upwards for 2017, 2018 and 2019

Expectations for real GDP growth stood at 2.2%, 1.9% and 1.7% for 2017, 2018 and 2019, respectively. That implies upward revisions of 0.3 p.p. for 2017 and 0.1p.p. for 2018 and 2019. In their qualitative comments, respondents pointed to the recent better-than-expected releases of hard and soft data, which indicated self-sustaining growth in the euro area. A few respondents noted a more supportive outlook for foreign demand relative to the previous survey, which more than offset the negative impact on exports as a result of the euro's recent appreciation. Longer-term growth expectations remained unchanged at 1.6%.

The euro's recent appreciation had only a limited impact on forecasters' growth expectations. Overall, in response to a specific question on the impact of exchange rate developments, respondents interpreted the appreciation as a sign of the euro area's stronger cyclical position and saw only a limited negative impact on the outlook for exports, at least in the short term. For instance, some argued that, for many euro area producers, the impact of the exchange rate had declined owing to the increasing import content of exports. Besides exports, which were seen as the main channel through which the exchange rate had affected growth expectations, many respondents saw a positive impact on domestic demand owing to increases in consumers' purchasing power.

Aggregate probability distributions shifted further to the right in the case of short- and medium-term expectations, but remained broadly unchanged for longer-term expectations. In line with the revisions seen for point forecasts, the largest revisions were observed for short-term expectations (see Charts 9 to 12). The probability of GDP growth in excess of 2% in 2017 increased from 43% to 72%, while the probability of an outcome in excess of 1.5% increased from 71% to 80% for 2018 and from 60% to 66% for 2019.

[3] For further information, see the box entitled "How do professional forecasters assess the risks to inflation?", Economic Bulletin, Issue 5, ECB, 2017.

Chart 9

Aggregate probability distribution for GDP growth expectations for 2017

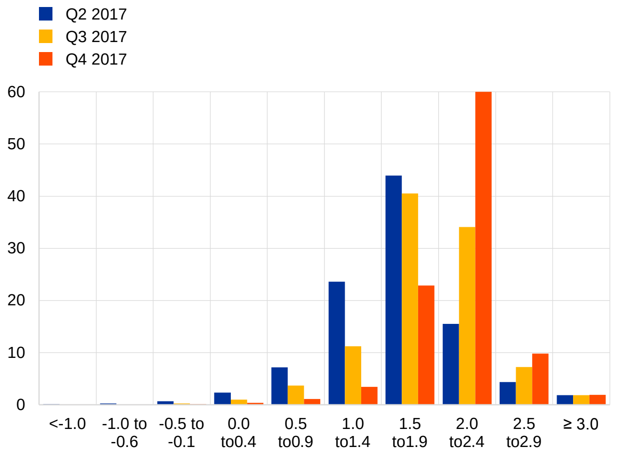


Chart 10

Aggregate probability distribution for GDP growth expectations for 2018

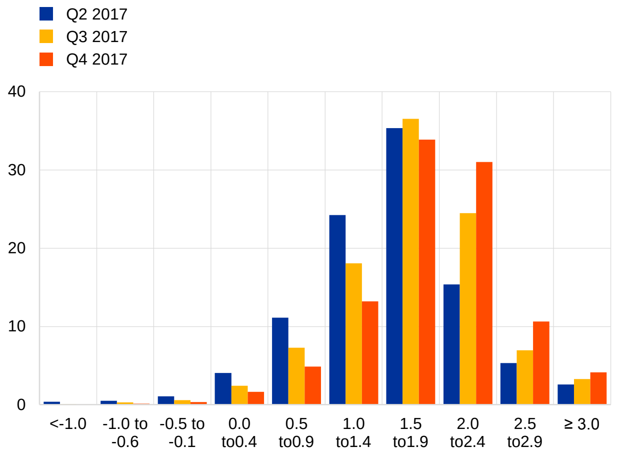


Chart 11

Aggregate probability distribution for GDP growth expectations for 2019

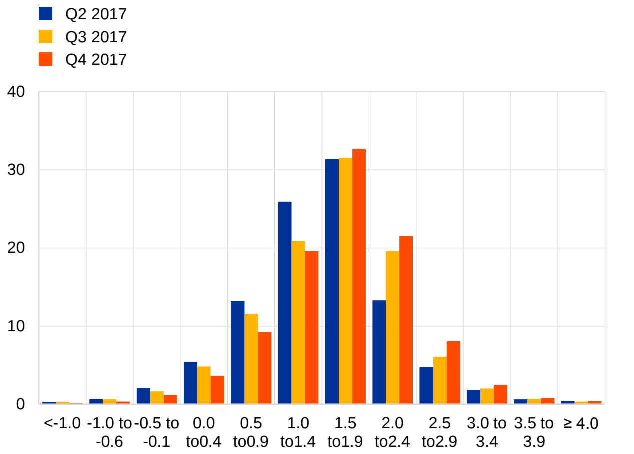
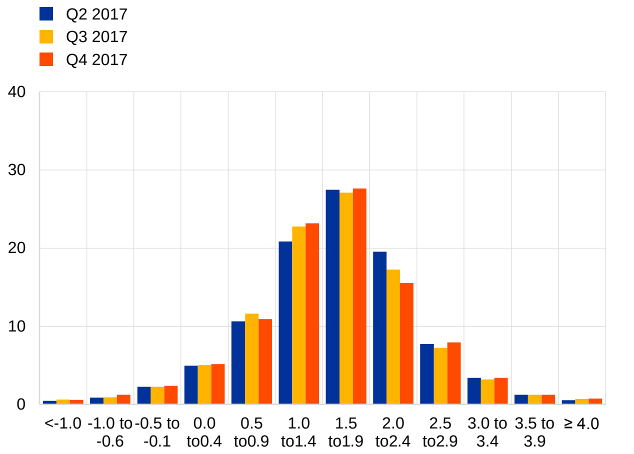


Chart 12

Aggregate probability distribution for longer-term GDP growth expectations



Overall, risks were seen as broadly balanced in the short term, but to the downside in the longer term. Upside risks cited by respondents included the possibility of a stronger than expected recovery in business investment, while downside risks included a variety of political factors, both inside and outside the euro area. Several respondents continued to cite the risk of a stronger than expected slowdown in China. For longer-term expectations, the mean of the aggregate probability distribution was 0.1 p.p. lower than the average point forecast, a slight deterioration relative to the previous survey round, indicating some downside risk.

4 Unemployment rate expectations revised downwards again

The average point forecasts for the unemployment rate were again revised downwards, and the downward-sloping trajectory steepened further. In this survey, unemployment rate expectations stood at 9.1%, 8.6% and 8.2% for 2017, 2018 and 2019 respectively, representing downward revisions of 0.1 p.p. for 2017 and 0.2 p.p. for 2018 and 2019. Those downward revisions to point forecasts were reflected in changes to the aggregate probability distributions, which shifted to the left (see Charts 13 to 16). Many forecasters indicated in their qualitative comments that their downward revisions to unemployment rates echoed their upward revisions to growth rates. Some respondents explicitly cited a link to the ongoing implementation of structural reforms, with greater labour market flexibility being expected to lead to stronger growth, higher levels of employment and lower levels of unemployment.

Longer-term unemployment rate expectations were revised downwards by 0.2 p.p. to 7.9%. These expectations have been steadily revised downwards in recent survey rounds, and this latest result is 0.8p.p. lower than the longer-term expectation in the survey for the fourth quarter of 2016 (8.7%). In contrast, expectations for 2018 have been revised downwards by 0.5 p.p. over the same period. Nevertheless, this is still higher than the average expectations observed prior to the financial crisis (when forecasts of around 7% were reported).

The balance of risks in the longer term remains skewed to the upside. Although the aggregate probability distribution for this horizon also shifted to the left, the distribution remained clearly skewed towards higher unemployment rate outcomes (see Chart 16). For instance, at 8.2%, the mean of the aggregate probability distribution was 0.3 p.p. higher than the average point forecast. Forecasters' qualitative comments continued to suggest that upside risks to unemployment mirror downside risks to longer-term growth.

Chart 13

Aggregate probability distribution for the unemployment rate for 2017

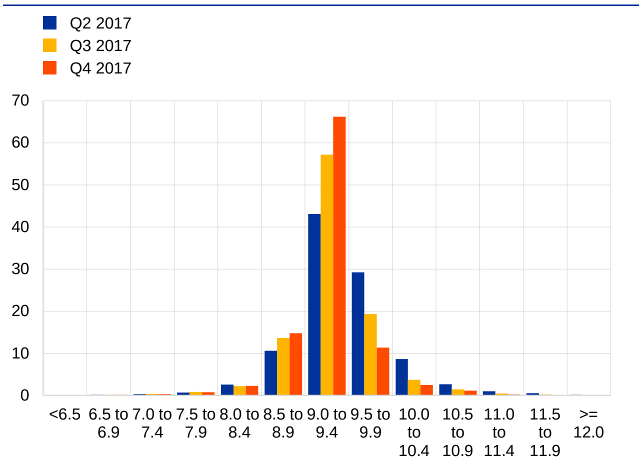


Chart 14

Aggregate probability distribution for the unemployment rate for 2018

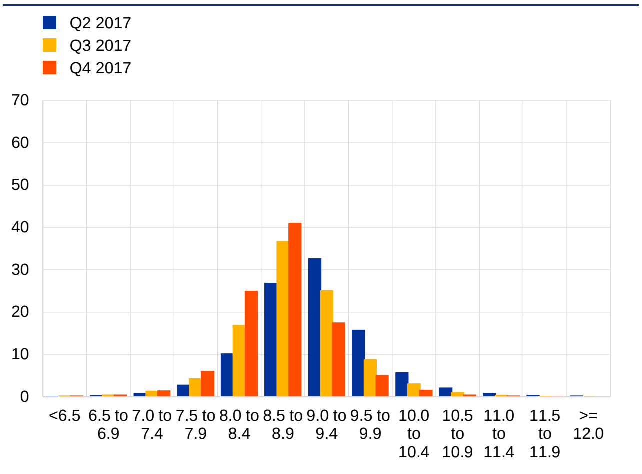


Chart 15

Aggregate probability distribution for the unemployment rate for 2019

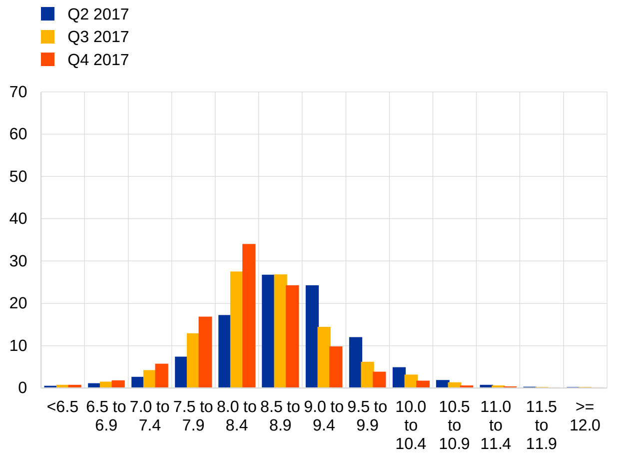
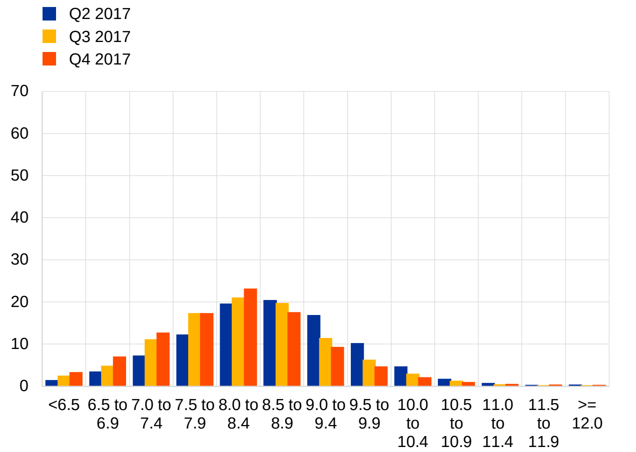


Chart 16

Aggregate probability distribution for the unemployment rate in the longer term



5 Other variables and conditioning assumptions

Respondents also reported: (i) that they expected US dollar-denominated oil prices to increase by around 6% by 2019; (ii) that they anticipated a very gradual strengthening of the USD/EUR exchange rate, with that strengthening continuing into 2019; (iii) that they expected the ECB's main refinancing rate to stay at zero until 2019; and (iv) that they expected labour cost growth to pick up a little faster, reaching 2.1% by 2019.

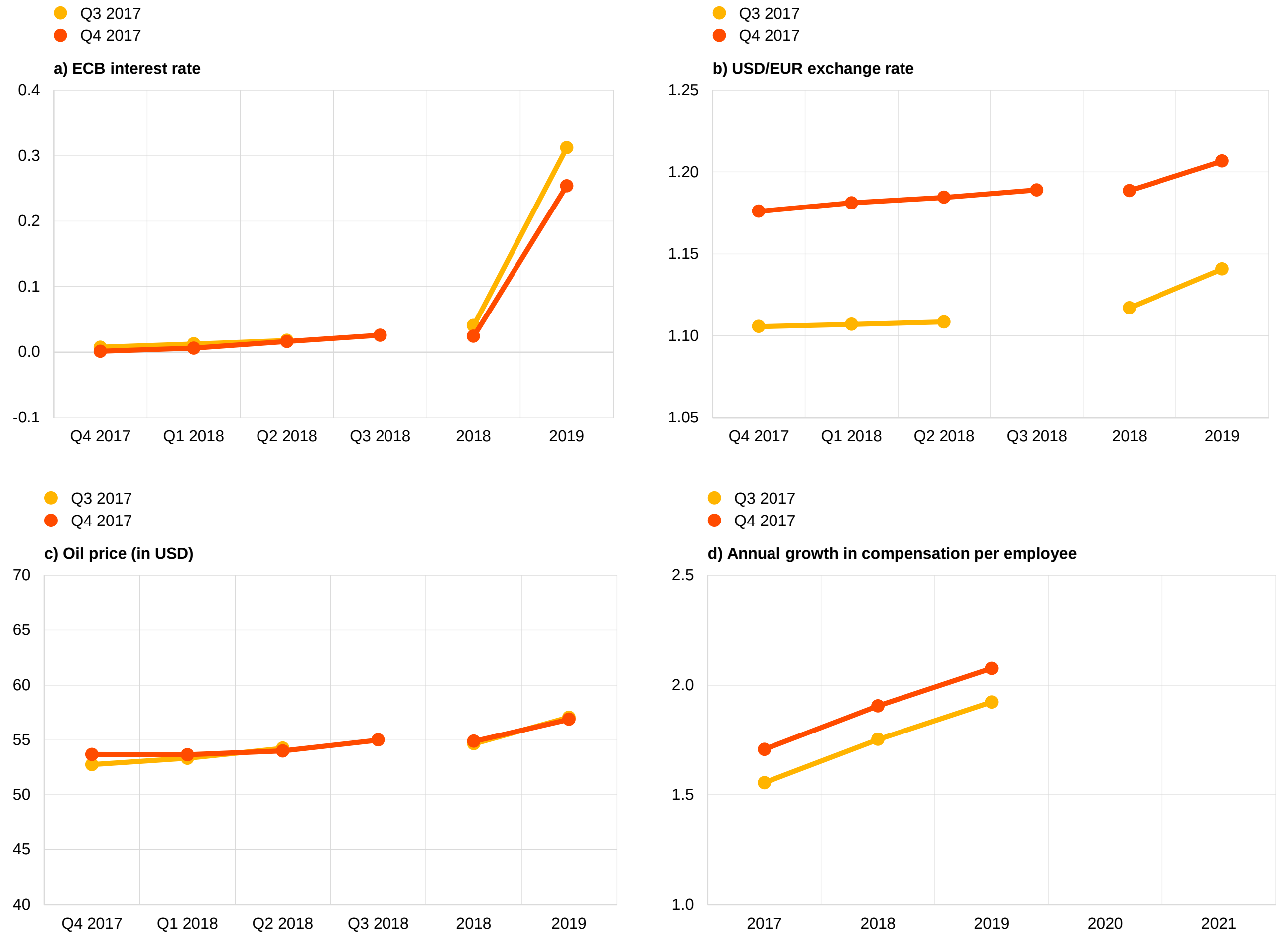
The mean assumption for the rate on the Eurosystem's main refinancing operations was that it would remain at around 0% throughout 2017 and 2018, before increasing a little to stand at 0.25% in 2019, which represents a slight decline relative to the previous survey (see panel (a) of Chart 17).

The USD/EUR exchange rate at the time of this survey was around 7% higher than that observed at the time of the previous survey. The anticipated forward dynamics, however, were not substantially different from those expected last quarter, with respondents forecasting a very gradual strengthening (totalling around 1%) over the next four quarters, continuing into 2019. However, the magnitude of the appreciation expected from 2018 to 2019 declined a little (see panel (b) of Chart 17).

US dollar-denominated oil prices were expected to average $54 per barrel for the remainder of 2017, before averaging $55 in 2018 and $57 in 2019. While expectations for 2017 rose slightly (by $2) relative to the previous survey, expectations for 2018 and 2019 remained unchanged (see panel (c) of Chart 17). When combined with expectations of a slight strengthening in the USD/EUR exchange rate, these survey results imply a price profile in euro terms that is around 5% lower than that reported in the previous survey, with prices increasing from €46 per barrel in Q4 of 2017 to €47 per barrel in 2019.

Annual growth in compensation per employee was expected to stand at 1.7% in 2017, 1.9% in 2018, 2.1% in 2019 and 2.3% in 2022, which represents a slight increase at all horizons relative to the previous survey (see panel (d) of Chart 17).

Chart 17
Underlying assumptions



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