EUROPEAN CENTRAL BANK
EUROSYSTEM

The ECB Survey of Professional Forecasters

First quarter of 2017

January 2017

Contents

The results of the ECB Survey of Professional Forecasters (SPF) for the first quarter of 2017 show average inflation expectations of 1.4%, 1.5% and 1.6% for, 2017, 2018 and 2019, respectively.[1] That represents an upward revision of 0.2 and 0.1 percentage points (p.p.) to expectations for 2017 and 2018, respectively, which is largely attributable to higher oil prices. Expectations for 2019 were not surveyed in the previous round. Average five-year-ahead inflation expectations (for 2021) continued to stand at 1.8%; this value (to one decimal place) has now been reported each quarter since the first quarter of 2016. Expectations for real GDP growth were 1.5% per annum for each calendar year from 2017 to 2019, and 1.6% for the longer-term (2021). That represents an upward revision of 0.1 percentage point for 2017, but otherwise growth expectations were unchanged. Unemployment rate expectations continued to show a downward-sloping trajectory, and were again revised downwards.

Table

Results of the SPF in comparison with other forecasts and projections

(annual percentage changes, unless otherwise indicated)

	Survey horizon			
	2017	2018	2019	Longer-term[1)]
HICP inflation				
SPF Q1 2017	1.4	1.5	1.6	1.8
Previous SPF (Q4 2016)	1.2	1.4	-	1.8
Eurosystem staff macroeconomic projections (Dec. 2016)	1.3	1.5	1.7	-
Consensus Economics (Jan. 2017)	1.4	1.4	-	1.9
Euro Zone Barometer (Dec. 2016)	1.3	1.6	1.6	1.4
Real GDP growth				
SPF Q1 2017	1.5	1.5	1.5	1.6
Previous SPF (Q4 2016)	1.4	1.5	-	1.6
Eurosystem staff macroeconomic projections (Dec. 2016)	1.7	1.6	1.6	-
Consensus Economics (Jan. 2017)	1.4	1.5	-	1.2
Euro Zone Barometer (Dec. 2016)	1.4	1.4	1.4	1.4
Unemployment rate2)				
SPF Q1 2017	9.5	9.2	8.9	8.5
Previous SPF (Q4 2016)	9.7	9.3	-	8.7
Eurosystem staff macroeconomic projections (Dec. 2016)	9.5	9.1	8.7	-
Consensus Economics (Jan. 2017)	9.7	9.3	-	-
Euro Zone Barometer (Dec. 2016)	9.7	9.1	8.9	8.6

1) Longer-term expectations refer to 2021 for the Q1 2017 and Q4 2016 SPF. For the Eurozone Barometer expectations for 2018, 2019 and the longer-term horizon are taken from the October 2016 survey, longer-term expectations for Consensus Economics are taken from the October 2016 survey.

2) As a percentage of the labour force.

[1] The survey was conducted between 4 and 11 January. The total number of responses was 57, broadly comparable with the average number of responses to surveys Q1 (59). The survey requested information on expectations for euro area HICP inflation, real GDP growth and the unemployment rate for 2017, 2018 , 2019 and 2021, as well as for each of these variables one and two years ahead. Participants were provided with a common set of the latest data available for annual HICP inflation (December 2016 flash estimate, 1.1%), annual GDP growth (Q3 2016, 1.7%) and unemployment (October 2016, 9.8%, updated for the November 2016 release, which was also 9.8% on 10 January).

1 Near-term inflation expectations a little higher, due to oil price rises

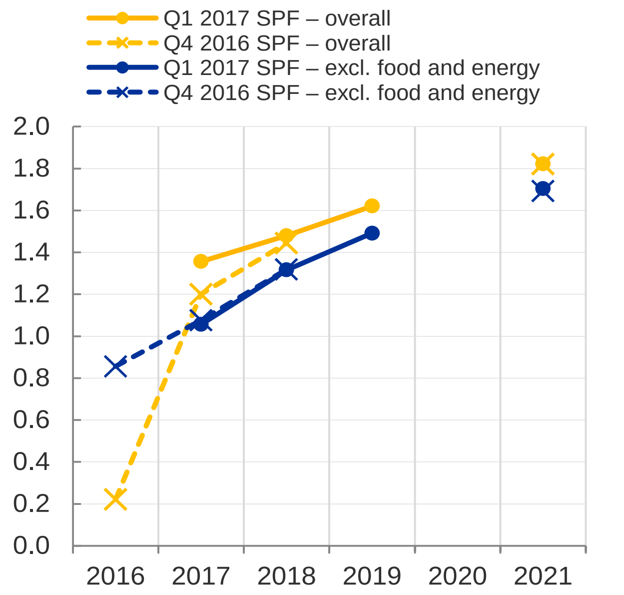
The results of the SPF for the first quarter of 2017 show average inflation expectations of 1.4%, 1.5% and 1.6% for, 2017, 2018 and 2019, respectively. That represents an upward revision of 0.2 and 0.1 percentage points (p.p.) to expectations for 2017 and 2018, respectively (see Table). Similarly, the forecast figures for the rolling 12- and 24-month-ahead horizon (which this round referred to inflation in December 2017 and December 2018) have also increased since the 2016 survey for the fourth quarter (which asked for information on September 2017 and September 2018 inflation rates).

These near-term upward revisions can largely be attributed to the effects of higher oil prices. These effects were, to some extent, already reflected in the flash December HICP inflation figure, released just before this survey opened.

Chart 1

Inflation expectations:
overall HICP and HICP excluding food and energy

(annual percentage changes)



Underlying inflation is also expected to pick up, but to remain weaker than headline inflation (see Chart 1). On average, SPF respondents expected HICP inflation excluding food and energy to be 1.1%, 1.3% and 1.5% in 2017, 2018, and 2019, respectively, increasing to 1.7% by 2021. This is almost the same profile as that reported in the survey for the fourth quarter of 2016 and, as before, respondents continued to attribute the relatively gradual increase in the projection for underlying inflation to modest GDP growth expectations and the consequently slow closing of the output gap.

The increase in point expectations for 2017 and 2018 reflects a shift in the probability distribution away from lower outcomes (see Charts 2 and 3). There has been a notable reduction in the probabilities associated with lower inflation outcomes, and a minor increase in those associated with higher inflation outcomes. Compared to the survey for the fourth quarter of 2016, the probability assigned to inflation outcomes of less than 1% for 2017 fell from 31% to 21%, and the probability for such outcomes in 2018 fell from 21% to 17%. Respondents put the probability of inflation being negative, on average, in 2017 and 2018 at around 2% for each year, a little lower than in last round. Probabilities for outcomes in 2019 were surveyed for the first time in this round (see Chart 4).

Chart 2

Aggregate probability distribution of inflation expectations for 2017

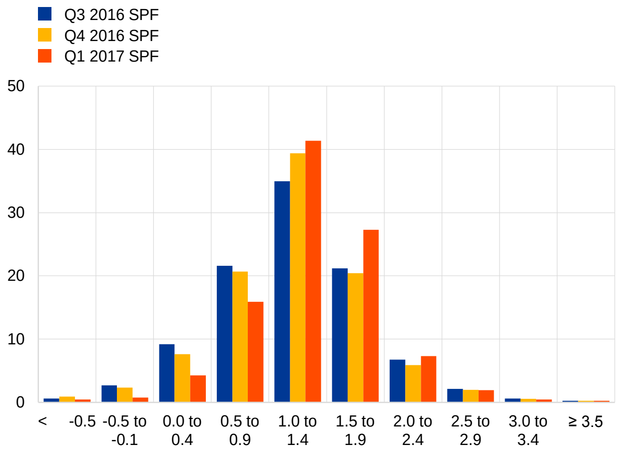


Chart 3

Aggregate probability distribution of inflation expectations for 2018

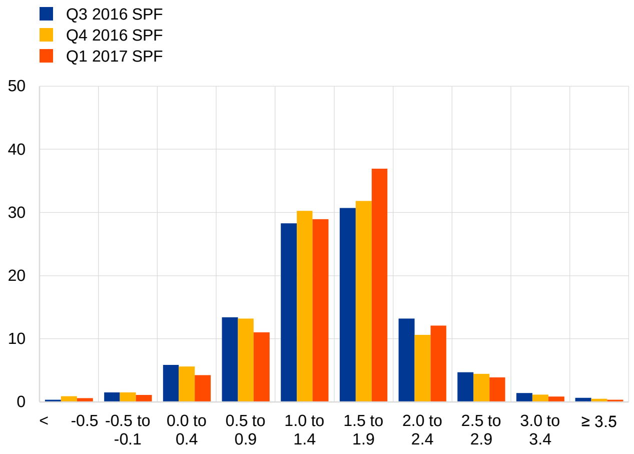
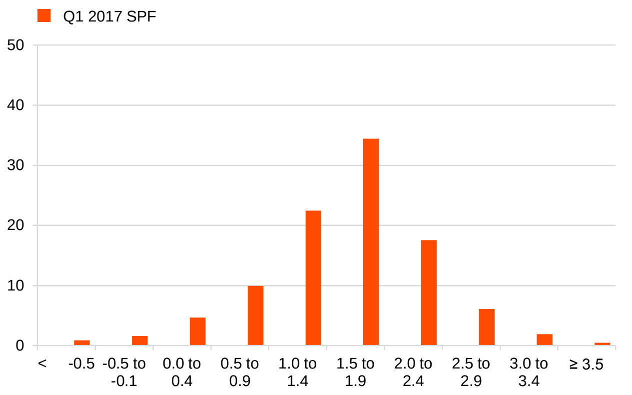


Chart 4

Aggregate probability distribution of inflation expectations for 2019



The survey asked specifically for information on the baseline and risk implications of recent oil price and exchange rate developments. Respondents generally noted that in the short run, movements in inflation tended to be driven by oil price developments. There were, however, differences in opinion as to what the medium to long-term effects of the recent shocks of higher dollar oil prices and a lower euro-dollar exchange rate might be. While a few forecasters pointed to the risk that higher overall inflation could influence wage negotiations, thereby generating broader inflationary pressure further out, others thought that the still-elevated unemployment rate would limit workers' bargaining power. That, in turn, would result in an erosion of purchasing power which would undermine the consumption-led recovery, thereby dragging on inflation.

2 Longer-term inflation expectations unchanged at 1.8%

The average point forecast for longer-term inflation expectations (for 2021) remained unchanged at 1.8% (1.82% versus 1.83% previously, when shown to two decimal places)**.** The median was also unchanged at 1.8% (Chart 5). This is now the fifth consecutive survey for which the average point forecast (to one decimal place) was 1.8%. Focusing on the subset of professional forecasters who responded to all of those last five surveys, the mean of their point forecasts ticked up from 1.84% to 1.86%, and the median forecast increased from 1.85% to 1.90%. About 85% of all the respondents who provided longer-term expectations expect them to be in the range 1.7-2.0% (see Chart 6).

Chart 5

Longer-term inflation expectations

(annual percentage changes)

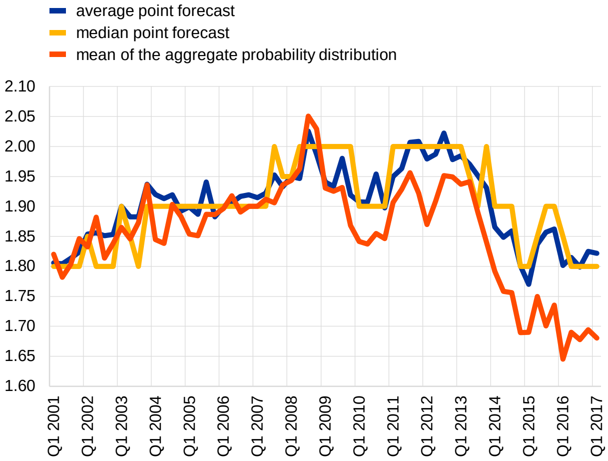


Chart 6

Cross-sectional distribution of longer-term inflation forecasts

(percentages of respondents)

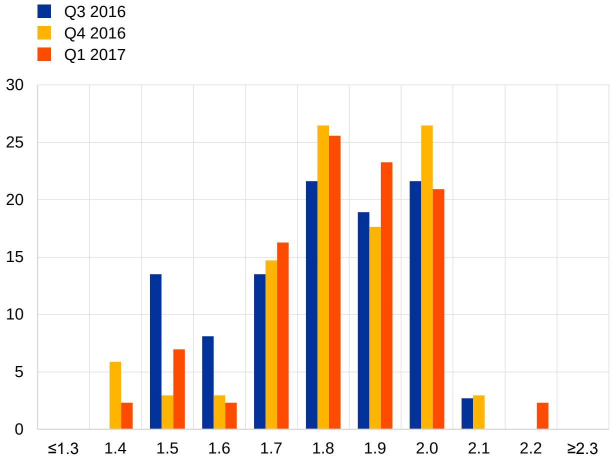
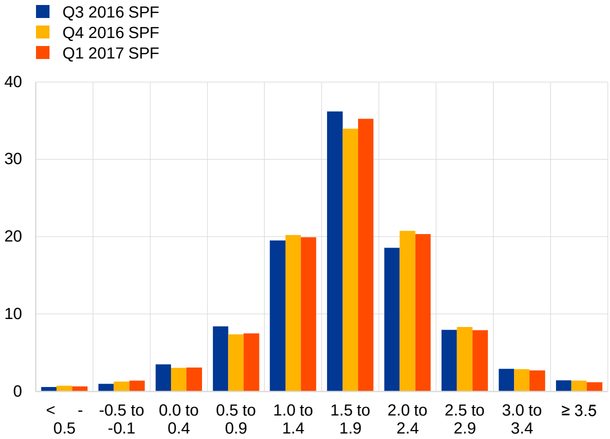


Chart 7

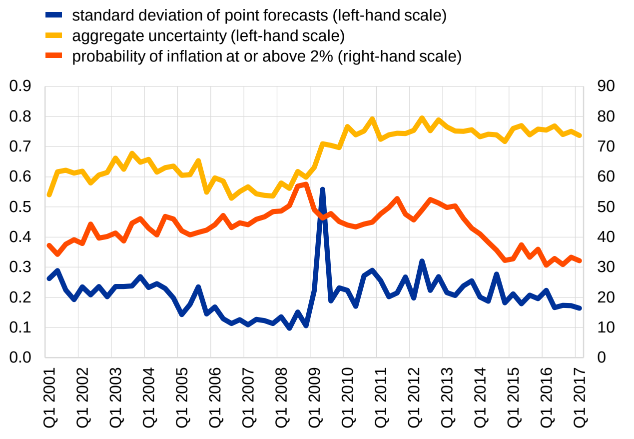
Aggregate probability distribution of inflation expectations for 2021



The aggregate probability distribution is broadly unchanged in comparison with that recorded in the previous SPF. The distribution shows a broadly symmetric probability mass around the central range 1.5-1.9% (see Chart 7). A quantitative measure of the balance of risks is given by the difference between the average point forecast and the mean of the aggregate probability distribution. As has been the case since 2009, this measure signals downside risks, with the distributional mean standing at 1.68% and the average of point forecasts at 1.82%. The probability of inflation being at or above 2.0% was 32%, compared with 33% in the fourth quarter of 2016, while that of it being below 1% was 13%, compared with 12% in the previous round. The probability of negative inflation rates at this horizon remained low at 2%.

Chart 8

Disagreement and uncertainty regarding longer-term inflation expectations



Disagreement over longer-term inflation expectations, as measured by the standard deviation of the point forecasts, is unchanged from the previous round, and thus remains below the average levels observed since 2009. The quasi-standard deviation – a measure which can be more robust to outliers – declined, reflecting the increased concentration of point estimates in the range 1.7-2.0%.[2] The aggregate uncertainty surrounding longer-term inflation expectations, as measured by the standard deviation of the aggregate probability distribution (see Chart 8), remained essentially unchanged, as both disagreement and average individual uncertainty (the average standard deviation of the individual probability distributions) were largely unchanged.[3]

3 Real GDP growth expectations for 2017 revised upwards, but left unchanged further out

Expectations for real GDP growth were 1.5% per annum for each calendar year from 2017 to 2019, and 1.6% for the longer-term (2021). The average point forecast for 2017 was revised upwards, from 1.4% to 1.5%, while the average point forecast for 2018 remained unchanged at 1.5%. This is the first SPF round to ask for expectations for 2019. In their qualitative comments, respondents typically noted that the upward revisions to their near-term outlook reflected the view that some of the momentum recorded at the end of 2016 would be carried over into the start of this year. Longer-term growth expectations (for 2021) were unchanged at 1.6%.

The aggregate probability distribution for 2017 tilted a little to the right, and became more concentrated in the modal range (see Chart 9). In contrast, there was little change in the aggregate probability distributions for GDP growth in 2018 and five years ahead (see Charts 10 and 12).

2 The quasi-standard deviation is calculated as half of the difference between the 16th and 84th percentiles of the sample of point forecasts, which, with normally distributed data, delivers the standard deviation.

3 The dispersion of the aggregate probability distribution ('aggregate uncertainty') can be decomposed into two factors: 'disagreement' and average 'individual uncertainty'. Disagreement is measured by the dispersion of the individual forecasts, whilst average individual uncertainty is measured by the average dispersion of the individual probability distributions.

Chart 9

Aggregate probability distribution of 2017 GDP growth expectations

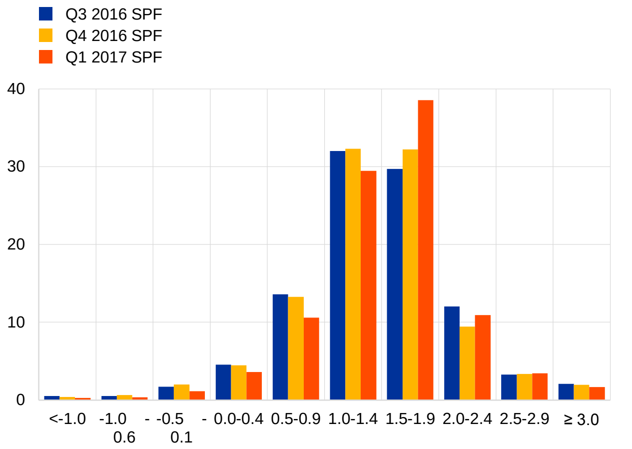


Chart 10

Aggregate probability distribution of 2018 GDP growth expectations

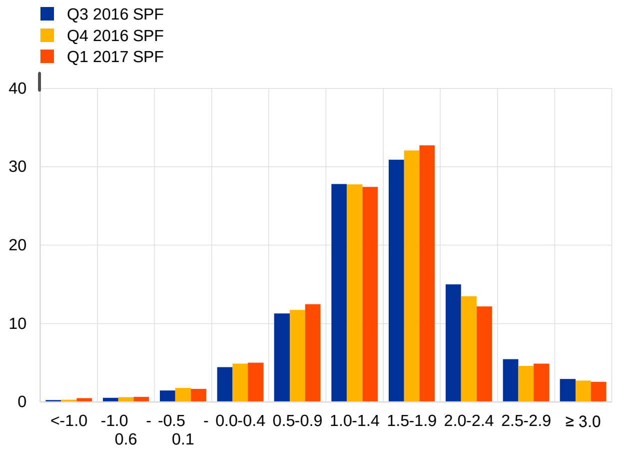


Chart 11

Aggregate probability distribution of 2019 GDP growth expectations

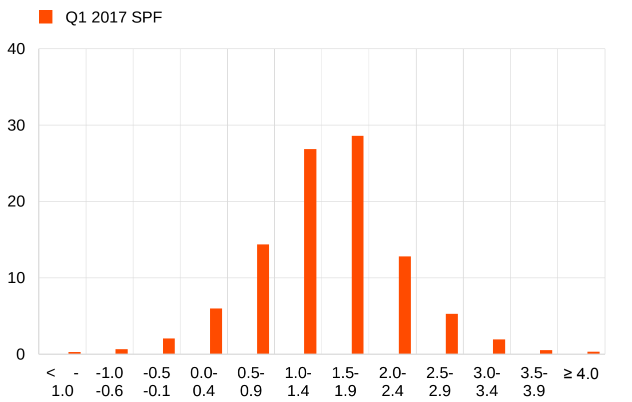
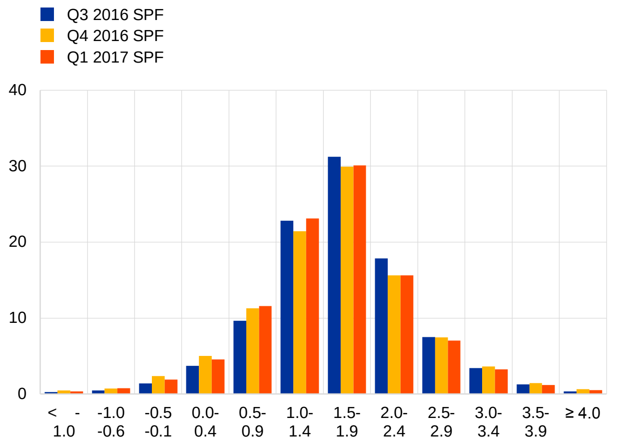


Chart 12

Aggregate probability distribution of longer-term GDP growth expectations (five years ahead)



The balance of risks to GDP growth expectations remained tilted to the downside at all horizons. The quantitative balance of risks measure was negative at all horizons, marginally more so than in the previous round. Respondents' qualitative comments referred to structural headwinds to medium term growth emanating from different countries within the euro area, e.g. the comparatively weak capitalisation of some banking systems, and the fiscal positions of, and political risks in, some countries. Looking beyond the euro area, professional forecasters believed that a slowdown of economic activity in China and increasingly protectionist trade policies throughout the world would weaken the outlook for world trade, thereby offsetting the boost to exports that might otherwise have been expected from the depreciation of the euro. Higher oil prices were also judged to act as a drag on growth.

4 Unemployment rate expectations revised downwards at all horizons

The average point forecasts of 9.5%, 9.2% and 8.9% for 2017, 2018 and 2019 respectively for the unemployment rate continue to imply a clear downward trajectory. This represents downward revisions of 0.2 percentage point and 0.1 percentage point for 2017 and 2018, respectively, relative to the previous SPF. Expectations for 2019 were surveyed for the first time this round.

The average point forecast for the longer-term unemployment rate (in 2021) was revised downwards to 8.5%, from 8.7% in the SPF for the fourth quarter of 2016. This is the lowest longer-term unemployment rate recorded since 2012, but it is still above average pre-crisis expectations (around 7%).

The balance of risks to unemployment rate expectations is to the upside for all horizons (see Charts 13-16). The means of the aggregate probability distributions were higher than the average of point forecasts for all horizons, indicating that the balance of risks is tilted towards higher unemployment rates. The degree of upside risk increased with the forecast horizon. The risks around unemployment rate expectations mirrored those around the expected path of GDP growth.

Chart 13

Aggregate probability distribution of the unemployment rate for 2017

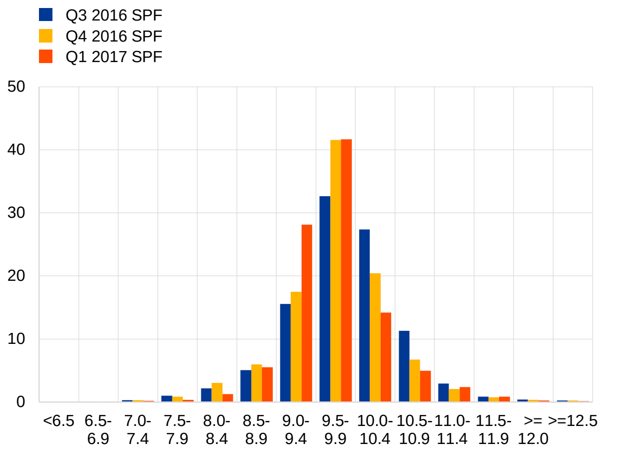


Chart 14

Aggregate probability distribution of the unemployment rate for 2018

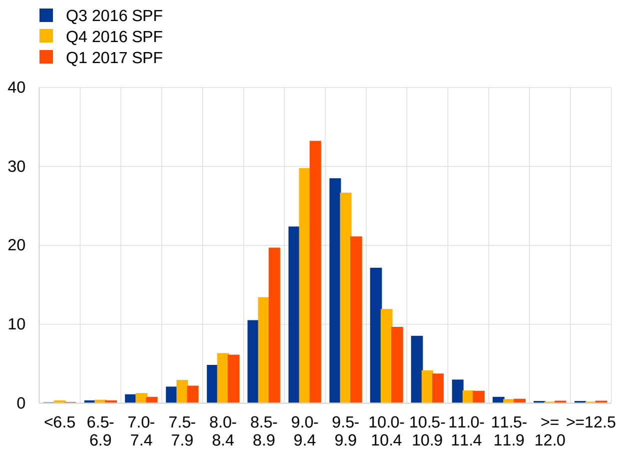


Chart 15

Aggregate probability distribution of the unemployment rate for 2019

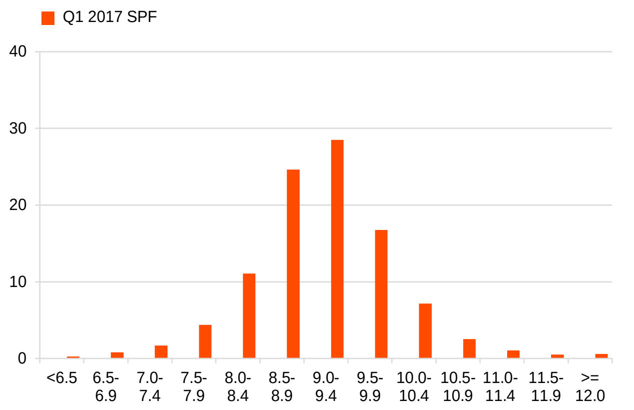
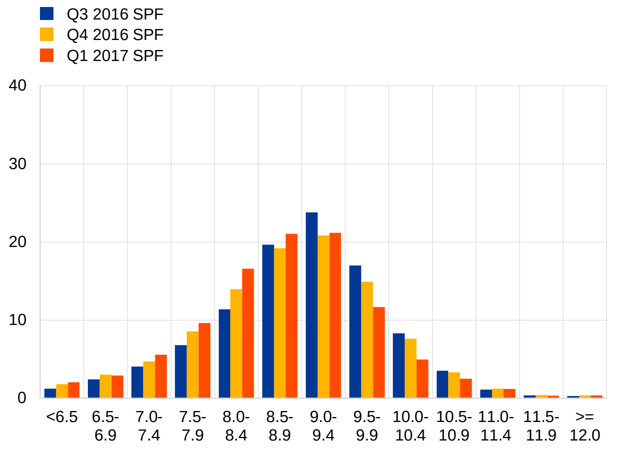


Chart 16

Aggregate probability distribution of longer-term unemployment rate expectations



5 Other variables and conditioning assumptions

Other information provided by respondents suggests that they expected monetary policy to continue to be accommodative; the exchange rate of the euro vis-à-vis the US dollar to remain unchanged in the near-term, but then to strengthen thereafter; oil prices to increase by about 10% by 2018; and labour cost growth to increase slowly. The mean assumption for the rate on the *Eurosystem's main refinancing operations* was to remain around 0% until the end of 2018, increasing a little to 0.1% in 2019 (see Chart 17a). Since the previous round, the implied start of policy rate increases has been pushed back, from 2018 to 2019.

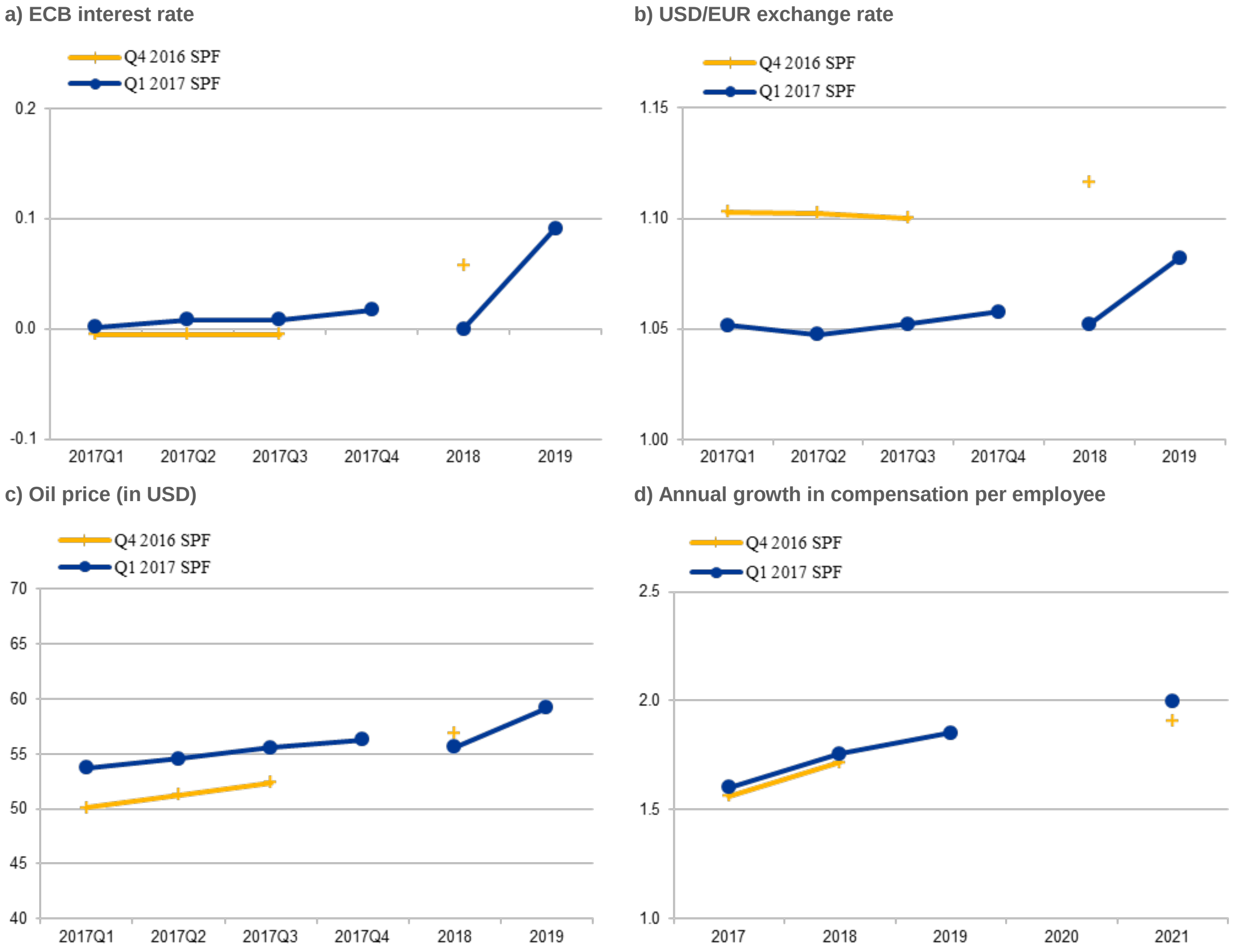
The mean assumption for the expected path of the *USD/EUR exchange rate* was that it would fluctuate around 1.05 in 2018, which is 5.5% weaker compared to the previous SPF round, before strengthening to 1.08 in 2019 (see Chart 17b). The key driver of exchange rate developments was expected to be the increasingly divergent paths of monetary policy in the euro area and the United States.

Oil prices were expected to average USD 54 per barrel in the first quarter of 2017, increasing to USD 56 by the fourth quarter of the year, and to around USD 59 by 2019. Compared to the previous survey, US dollar oil price assumptions are about 5.5% higher for 2017, but about 2% lower for 2018 (see Chart 17c). The combination of assumptions regarding oil prices in US dollars and the USD/EUR exchange rate implies that near-term projections for oil prices in euro terms are some 11% higher than in the SPF for the fourth quarter of 2016.

On average, the profile for annual growth *in whole economy compensation per employee* is 1.6% for 2017, 1.8% for 2018, 1.9% in 2019 and 2.0% for 2021 (see Chart 17d). Relative to the previous SPF, those expectations were marginally higher in the near term, with the size of that upward revision reaching 0.1 percentage point for 2021.

Chart 17

Underlying assumptions



Notes: The dashed lines proxy the uncertainty surrounding average assumptions (plus/minus one standard deviation of the point estimates).

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