EUROPEAN CENTRAL BANK
EUROSYSTEM

The ECB Survey of Professional Forecasters (SPF)

Second quarter of 2016

April 2016

Contents

The results of the ECB Survey of Professional Forecasters (SPF) for the second quarter of 2016[1] *show average inflation expectations of 0.3%, 1.3% and 1.6% for 2016, 2017 and 2018 respectively. The expected outcomes for 2016 and 2017 were revised downward by 0.4 and 0.1 percentage point respectively, while the expectation for 2018 was unchanged from the previous (Q1) round. Average longer-term inflation expectations (for 2020) stand at 1.8% – unchanged with respect to the previous round. Real GDP growth expectations were revised down for 2016 and 2017 but were unchanged for further ahead, standing at 1.5% for 2016, 1.6% for 2017 and 1.7% for 2018 and in the longer-term (for 2020). Unemployment rate expectations, which continue to show a downward profile, were revised down by 0.1-0.2 percentage point over the whole horizon.*

Table

Results of the SPF in comparison with other forecasts and projections

(annual percentage changes, unless otherwise indicated)

	Survey horizon			
HICP inflation	**2016**	**2017**	**2018**	**Longer-term[1)]**
SPF Q2 2016	0.3	1.3	1.6	1.8
Previous SPF (Q1 2016)	*0.7*	*1.4*	*1.6*	*1.8*
ECB staff macroeconomic projections (Mar. 2016)	0.1	1.3	1.6	-
Consensus Economics (Mar. 2016)	0.3	1.4	1.6	1.9
Euro Zone Barometer (Mar. 2016)	0.3	1.4	1.7	1.9
Real GDP growth	**2016**	**2017**	**2018**	**Longer-term[1)]**
SPF Q2 2016	1.5	1.6	1.7	1.7
Previous SPF (Q1 2016)	*1.7*	*1.8*	*1.7*	*1.7*
ECB staff macroeconomic projections (Mar. 2016)	1.4	1.7	1.8	-
Consensus Economics (Mar. 2016)	1.5	1.6	1.5	1.4
Euro Zone Barometer (Mar. 2016)	1.6	1.7	1.6	1.4
Unemployment rate[2)]	**2016**	**2017**	**2018**	**Longer-term[1)]**
SPF Q2 2016	10.1	9.7	9.3	8.8
Previous SPF (Q1 2016)	*10.3*	*9.9*	*9.4*	*9.0*
ECB staff macroeconomic projections (Mar. 2016)	10.4	10.2	9.9	-
Consensus Economics (Mar. 2016)	10.3	9.9	-	-
Euro Zone Barometer (Mar. 2016)	10.2	9.8	9.6	9.1

1) Longer-term expectations refer to 2020. For Consensus Economics and the Euro Zone Barometer, expectations for 2018 and the longer term are taken from the October 2015 (Consensus Economics) and January 2016 (Euro Zone Barometer) surveys.
2) As a percentage of the labour force.

[1] The survey was conducted between 31 of March and 6 April 2016. The total number of responses was 53, which is slightly below the historical average number of responses (58). The survey requested information on expectations for the euro area HICP inflation rate, the real GDP growth rate and the unemployment rate for 2016, 2017, 2018 and 2020, 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 HICP inflation (March 2016 flash estimate, -0.1% year on year), GDP growth (Q4 2015, 1.6% year on year) and unemployment (February 2016, 10.3%). The cut-off date for data used in this report was 12 April 2016.

1 Inflation expectations revised down for 2016 and 2017

The Q2 2016 SPF average point forecasts for inflation in 2016, 2017 and 2018 stand at 0.3%, 1.3% and 1.6% respectively. This implies downward revisions of 0.4 percentage point for 2016 and 0.1 percentage point for 2017 compared with the survey round from the first quarter of 2016 (see Table). Forecasts for 2018 are unchanged at 1.6%. Compared with the March 2016 ECB staff macroeconomic projections, which were finalised on the basis of data and assumptions available in mid-February, expected inflation is 0.2 percentage point higher for 2016 but the same for 2017 and for 2018. The Q2 2016 SPF inflation expectations are broadly in line with those from the March 2016 Consensus Economics and Euro Zone Barometer surveys.

Respondents reported that the downward revisions compared with the previous round mainly reflected oil price developments since the previous (Q1) survey. Aside from oil price developments, lower global demand and the stronger USD/EUR exchange rate were also mentioned by a small number of respondents as being factors behind their revisions.

Respondents continue to expect a strong pick-up in inflation in the course of 2016 and in 2017 once the impact of the oil price decline subsides. According to respondents, oil price movements are the main factor driving the evolution of headline inflation over the next 12-18 months. In the short term, oil price movements will continue to exert a downward effect on inflation. Thereafter, on the basis of assumed oil prices (see the section entitled "Other variables and conditioning assumptions"), this downward impact will fade out and energy prices will start to contribute positively to inflation. The evolution of the euro exchange rate in recent months means it will be less supportive for inflation. Labour cost growth is assumed to pick up slowly in the context of still high (albeit declining) unemployment. More generally, respondents envisage a profile of moderate but gradually increasing underlying inflation which is shaped by the ongoing expansion of economic activity and supported by the monetary policy stance.

Respondents mostly included a positive impact of recent monetary policy in their baseline expectations for euro area growth and inflation and also incorporated the measures via the reduction of downward risks. In addition to lower rates, respondents emphasised the elements of the policy actions supporting the credit channel as being of key importance.

Compared with the previous SPF round, the aggregated probability distributions for expected inflation in 2016 and 2017 moved towards lower outcomes. For 2016, the modal (or most likely) outcome is now in the 0.0-0.4% range (compared with the 1.0-1.4% range two quarters ago – see Chart 1), while for 2017 it has also moved down to the 1.0-1.4% bin (see Chart 2). For 2018, the most likely outcome remains in the 1.5-1.9% range, however, the probability mass on the lower side of the mean has increased compared with the previous round – see Chart 3. According to survey participants, there is a very high probability of inflation remaining below 1.0% in 2016 (90%), but this probability is lower for 2017 (at around 30%) and 2018 (at around 20%). Respondents put the probability of negative inflation at around 20% for 2016 but considerably lower, at around 2-4%, for 2017 and 2018.

Chart 1

Aggregated probability distribution of inflation expectations for 2016

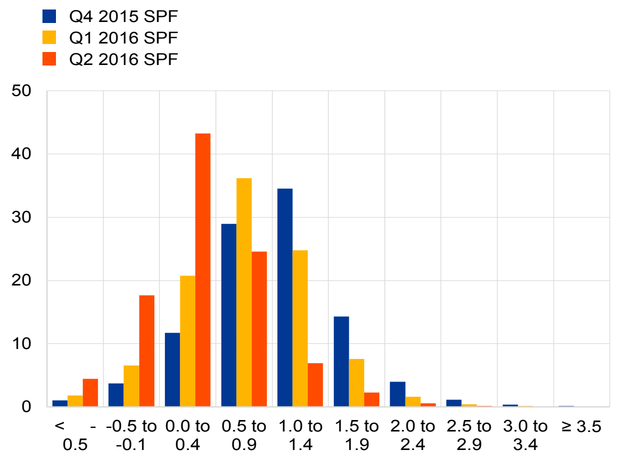


Chart 2

Aggregated probability distribution of inflation expectations for 2017

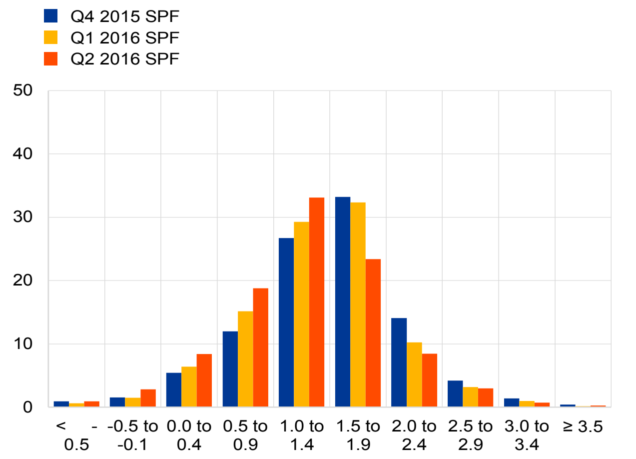
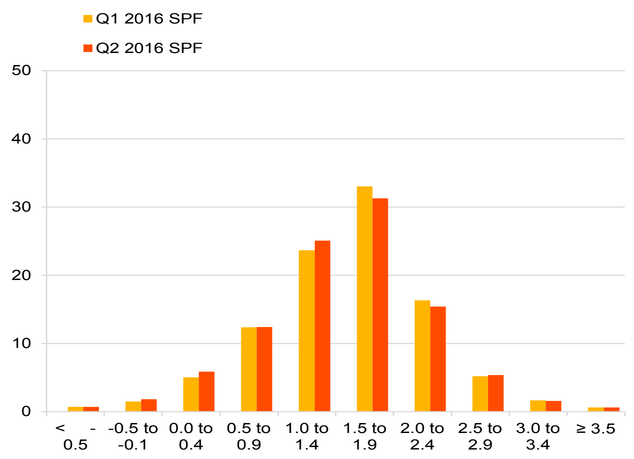


Chart 3

Aggregated probability distribution of inflation expectations for 2018



The SPF results imply that the balance of risks to the baseline inflation outlook remain mostly on the downside. A quantitative comparison of the estimated means of the aggregated probability distribution with the average point forecasts suggests that the risks to the baseline inflation outlook are perceived as being to the upside for 2016 but to the downside otherwise. The qualitative comments refer to downside risks stemming primarily from external factors – in particular global demand and geopolitical issues. Regarding oil prices, upward risks are perceived to dominate in the shorter-term.

2 Longer-term inflation expectations unchanged at 1.8%

The average point forecast for longer-term inflation expectations (for 2020) remained unchanged at 1.8% in the Q2 survey round. The median moved down to 1.80% from 1.85% (Chart 4) and the modal (most reported) value was 1.8% compared with 1.9% previously. Over 80% of respondents expect longer-term inflation to be in the range 1.7-2.0%, while the share expecting outcomes lower than or equal to 1.5% fell back from the previous round (see Chart 5).[2]

Chart 4
Longer-term inflation expectations

(annual percentage changes)

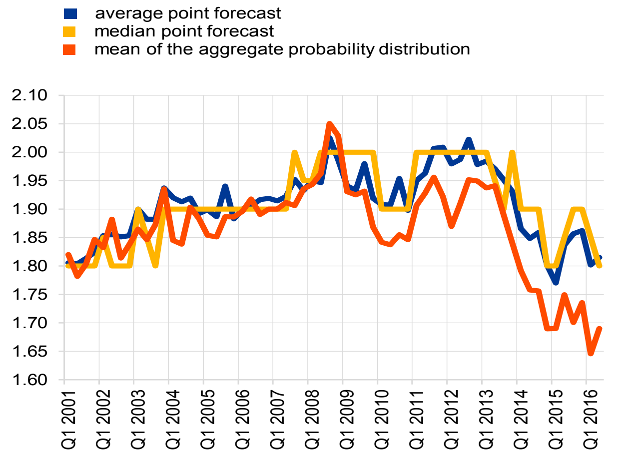
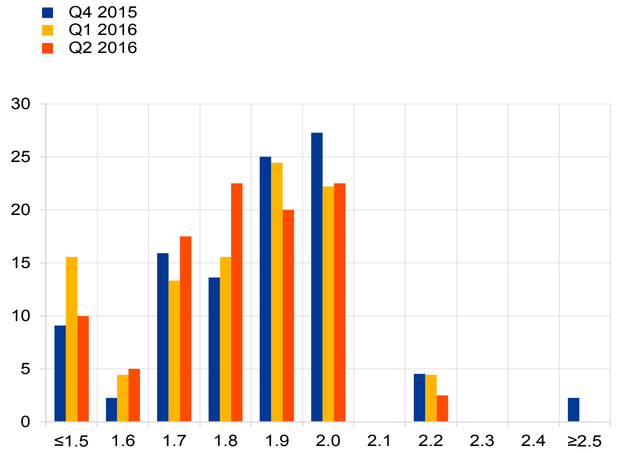


Chart 5
Cross-sectional distribution of long-term inflation forecasts

(percentage of respondents)



The aggregate probability distribution tilted slightly towards higher values compared with the previous SPF round (see Chart 6). However, on average, the balance of risks around the point forecast is assessed as remaining on the downside (as has been the case since 2009), with the estimated mean of the aggregated probability distribution standing at around 1.69% (up from 1.64% in the previous round) compared with the average point estimate of 1.81%. The probability of inflation being at or above 2.0% was 33%, compared with 30% in the first quarter of 2016, while that of its being below 1% was 14%, down from 15% in the previous round. The probability of negative inflation rates remained low at 2%.

Disagreement over longer-term inflation expectations, as measured by the standard deviation of the point forecasts, decreased from the previous round. This was also the case with the quasi-standard deviation – a measure which is more robust to outliers.[3] The aggregate uncertainty surrounding longer-term inflation expectations, as measured by the standard deviation of the aggregated probability

2 The 75th percentile of the distribution of the point forecasts moved down to 1.91% from 1.96%, while the 25th percentile was unchanged at 1.70%.

3 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.

distribution (see Chart 7), increased slightly, as the decrease in disagreement was offset by an increase in average individual uncertainty (the average standard deviation of the individual probability distributions).[4]

Chart 6

Aggregated probability distribution of longer-term inflation expectations (five years ahead)

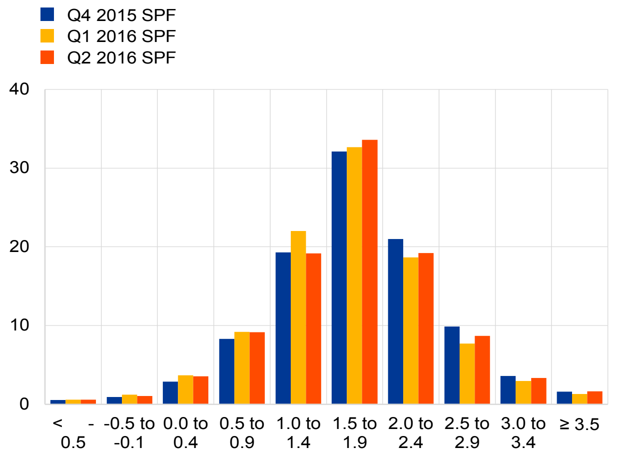
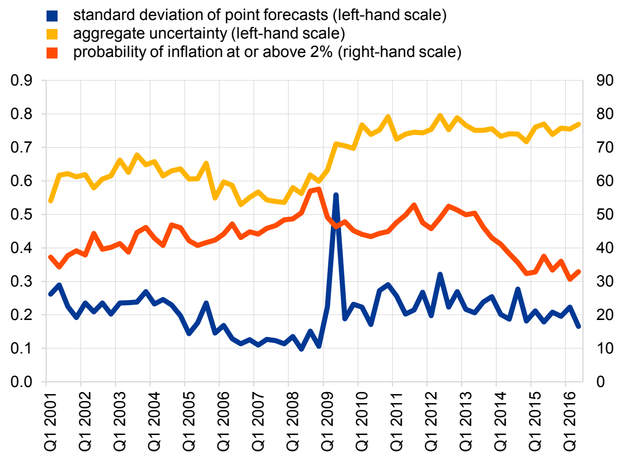


Chart 7

Disagreement and uncertainty regarding longer-term inflation expectations



3 Real GDP growth expectations revised downwards for 2016 and 2017

Regarding the GDP forecasts, the outlook for economic activity was revised downwards by 0.2 percentage point for both current and next year. The average point forecasts for real GDP growth now stand at 1.5% for 2016 and 1.6% for 2017 – see table. For 2018, the average point forecast remained stable at 1.7%. Based on the information provided by the respondents, about half of the downward revision to the forecast for 2016 stemmed from lower carryover growth due to disappointing recent data releases. The respondents' baseline scenarios continue to explain the robust economic growth path as being driven by domestic demand, as the current low level of energy prices supports the real disposable income of households and profit margins of companies. In addition, respondents expect the benefits from the accommodative monetary policy and less restrictive fiscal policies on domestic demand to outweigh the headwinds for external demand from emerging markets.

The average SPF point forecasts are broadly in line with the March 2016 ECB staff macroeconomic projections. They are 0.1 percentage point higher for 2016 but 0.1 percentage point lower for 2017 and 2018. SPF expectations for 2016 and

[4] The dispersion of the aggregated 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, while average individual uncertainty is measured by the average dispersion of the individual probability distributions.

2017 are also broadly in line with the latest forecasts from the Euro Zone Barometer and from Consensus Economics surveys.

Chart 8

Aggregated probability distribution of 2016 GDP growth expectations

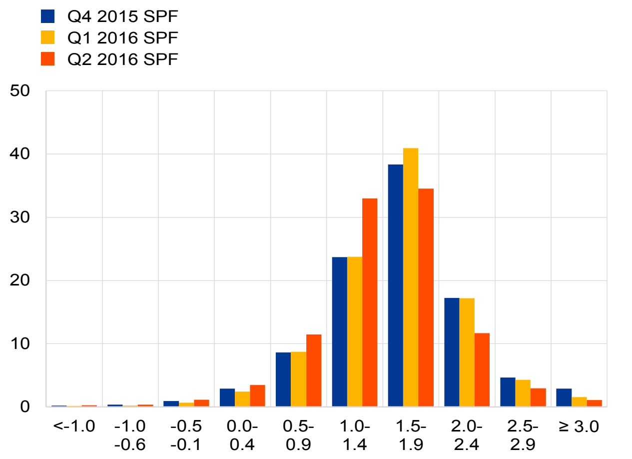


Chart 9

Aggregated probability distribution of 2017 GDP growth expectations

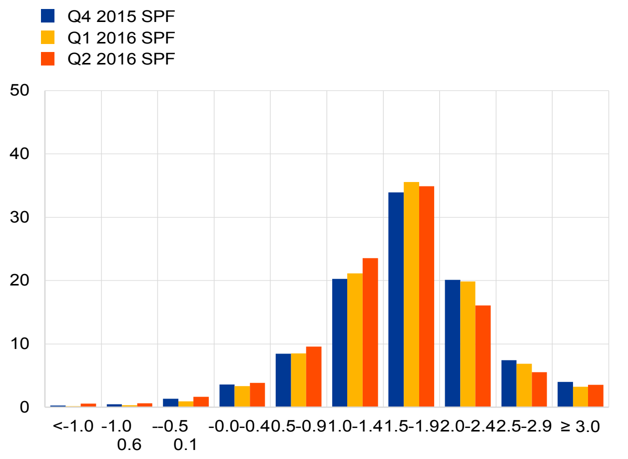


Chart 10

Aggregated probability distribution of 2018 GDP growth expectations

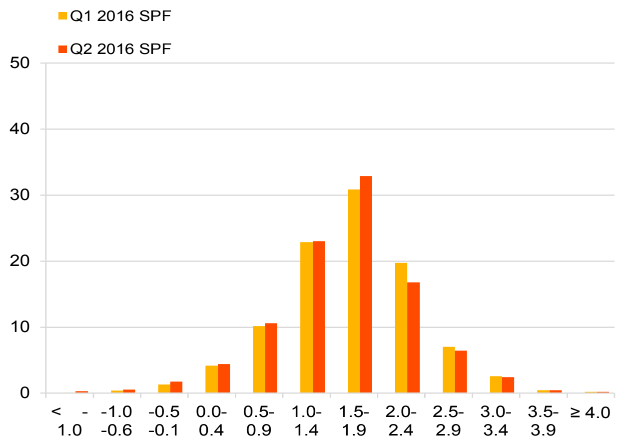
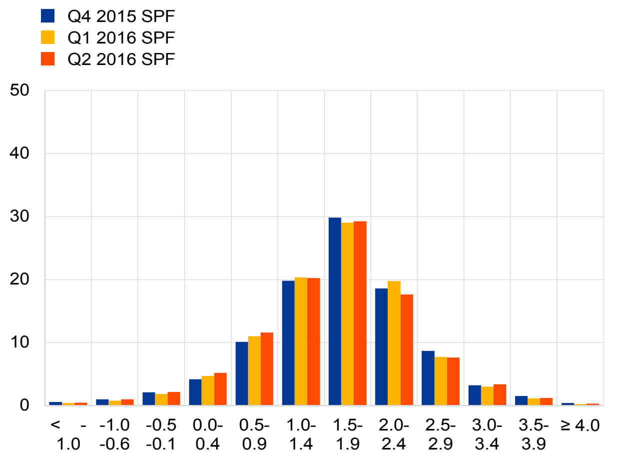


Chart 11

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



The aggregate probability distributions for 2016, 2017 and 2018 have become somewhat more skewed towards lower outcomes, although still with a most expected outcome between 1.5% and 1.9% for all three years. (See Charts 8-10.) For 2016 and, to a lesser extent, 2017 the probabilities assigned to this bin (35% for both years) have decreased compared with the previous survey round. For 2018 outcomes above 2% are also seen as less likely compared with the previous survey round; however forecasters assign a slightly higher probability (33%) to an outcome between 1.5% and 1.9% than before.

The balance of risks to GDP growth (as measured by the difference between the mean of the aggregated probability distribution and the average point forecast) remains tilted somewhat to the downside for all three years. The majority of the qualitative comments provided continued to give a possibly stronger downturn in China and other emerging economies as the main downside risk surrounding the forecasts, especially if there were adverse financial market spillovers from further interest rate increases in the United States. Other downside risks mentioned by the respondents relate to other external factors, including a possible escalation of geopolitical tensions. In addition to external factors, respondents identified downside risks stemming from continuing policy uncertainty within Europe regarding the continuation of structural reforms and further integration as well as the results of recent elections in a number of countries. The UK referendum on the EU in June was further mentioned as a downside risk by a number of respondents. The few upside risks identified relate to the structural reforms in some European countries providing a higher than assumed contribution to growth.

Longer-term growth expectations (for 2020) remained unchanged at 1.7%. The SPF results for that horizon remain higher than the latest available Consensus Economics and Euro Zone Barometer forecasts from October 2015 and January 2016, respectively, which stood at 1.4%. The aggregated probability distribution of the SPF longer-term growth expectations remained broadly unchanged and its mean continues to be lower than the average point forecast, which suggests that respondents perceive risks to be slightly on the downside (see Chart 11).

4 Unemployment rate expectations revised down across all horizons

The average point forecasts for the unemployment rate were 10.1% for 2016, 9.7% for 2017 and 9.3% for 2018. This implies a downward revision by 0.2 percentage point for 2016 and 2017 compared with the previous round (see table). Forecasts for 2018 declined by 0.1 percentage point. The expectations path remains downward sloping and lower than those implied by other forecasts.

The balance of risks to the unemployment rate expectations (as measured by the difference between the mean of the aggregated probability distribution and the average point forecast) remains tilted somewhat to the upside for all horizons. (See Charts 12-14.) These upside risks are principally mirroring downside risks to expected real GDP growth. In the short run, some forecasters attribute this to the slowdown in global growth creating macroeconomic uncertainty and, consequently, a lack of confidence which delays job creation. Stronger wage growth is also listed among the potential causes of upside risks. Regarding downside risks, the number of forecasters considering structural reforms to be likely to improve labour market conditions, in terms of flexibility and lower input costs, increased with respect to the previous round. Although domestic growth is still foreseen to be moderate, some respondents indicated this factor as able to have a stronger than anticipated impact on reducing the euro area unemployment rate.

Chart 12

Aggregated probability distribution of the unemployment rate for 2016

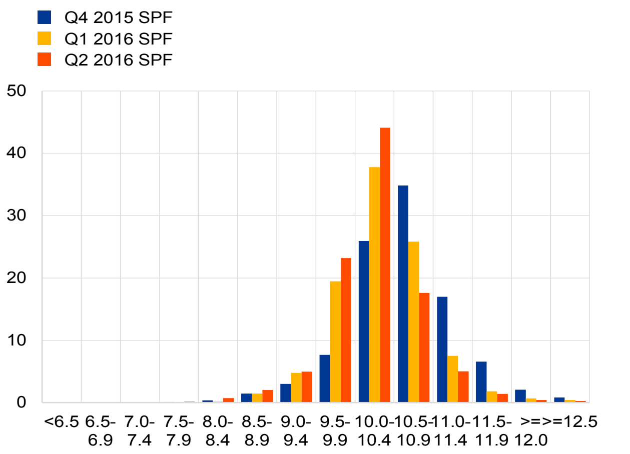


Chart 13

Aggregated probability distribution of the unemployment rate for 2017

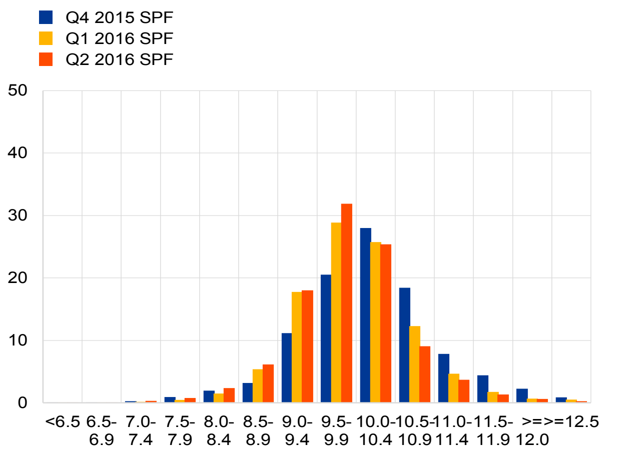


Chart 14

Aggregated probability distribution of the unemployment rate for 2018

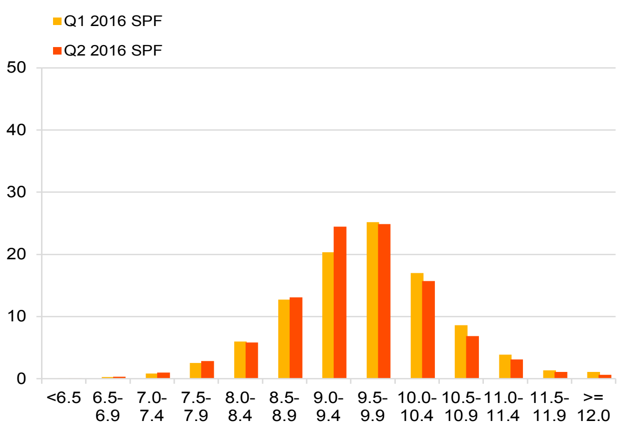
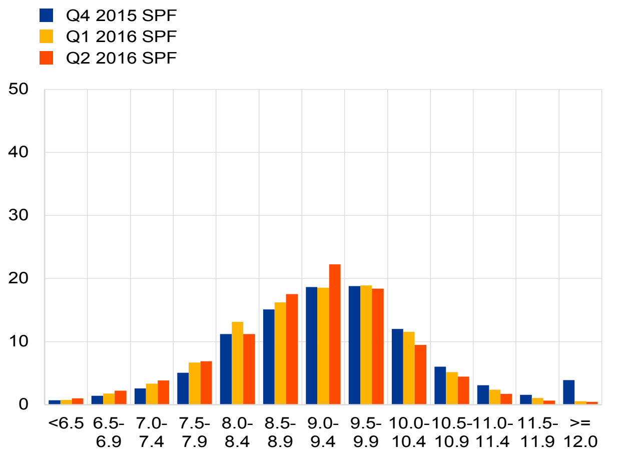


Chart 15

Aggregated probability distribution of longer-term unemployment rate expectations

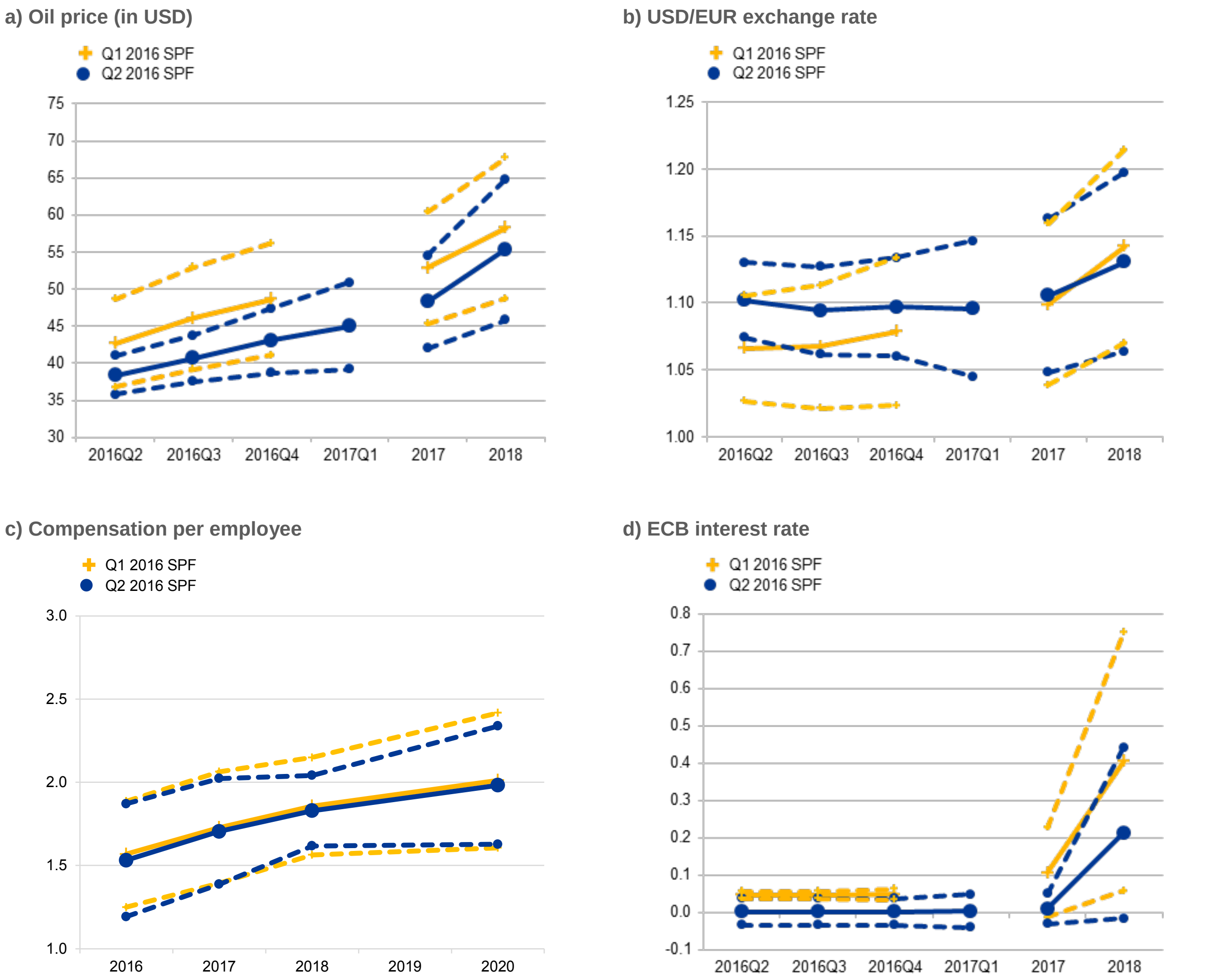


The average point forecast for the longer-term unemployment rate (in 2020) is 8.8%, representing a downward revision of 0.2 percentage point from the previous round. This is the lowest level since 2012, although it is still above the average pre-crisis expectations (of around 7%). The aggregated probability distribution has also moved slightly towards lower levels compared with the previous SPF round (see Chart 15). However, the mean of the distribution is still clearly higher than the average point forecast, thereby signalling upside risk. This is in line with the downside risks recorded for real GDP expectations.

5 Other variables and conditioning assumptions

Other information provided by respondents suggests that the inflation revisions mainly reflect lower oil prices in euro compared with the previous round. Oil prices are expected to average USD 38 per barrel in the second quarter of 2016, and to increase to USD 45 by the first quarter of 2017 and to levels of around USD 48 in 2017 and USD 55 in 2018. Compared with the previous survey round, oil prices are lower by around 10% in Q1 2016 and 5-10% thereafter (see Chart 16a). The expected path for the USD/EUR exchange rate (fluctuating around 1.10 until Q1 2017 but with the euro strengthening slightly thereafter) is initially higher (by 2-3%) than in the previous SPF round but broadly the same for 2017 and 2018 (see Chart 16b). The combination of the downward revisions to oil prices in US Dollars and upward revisions to the USD/EUR exchange rate mean that oil prices in euro terms are expected to be lower by 13-14% in 2016. The profile of annual growth in compensation per employee has been revised down, but by less than 0.1 percentage point across the horizon, standing at 1.5% for 2016, 1.7% for 2017, 1.8% for 2018 and 2.0% for 2020 (see Chart 16c). The mean assumption for the rate on the Eurosystem's main refinancing operations is that it will stand at, or close to, 0% throughout 2016 and 2017 and only edge upwards to 0.2% in 2018 (see Chart 16d). Compared with the previous round, the expectation is lower by 0.05 percentage point lower for 2016, 0.10 percentage point for 2017 and 0.20 percentage point for 2018.

Chart 16
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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