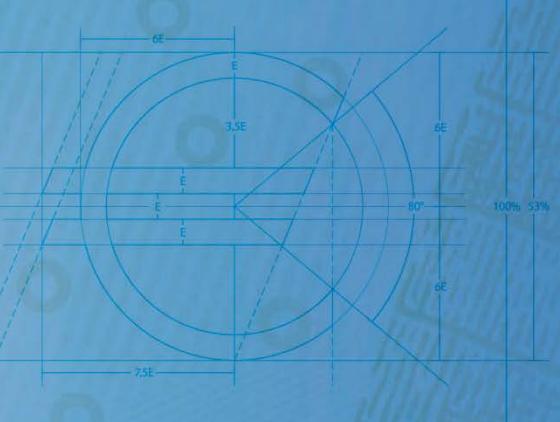


The ECB survey of professional forecasters

1st Quarter of 2015

January 2015



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The results of the ECB Survey of Professional Forecasters (SPF)¹ for the first quarter of 2015² imply average inflation expectations of 0.3%, 1.1% and 1.5% for 2015, 2016 and 2017 respectively.³ Respondents report that the downward revisions – 0.7 percentage point for 2015 and 0.3 percentage point for 2016 – mainly reflect lower oil prices. Average longer-term inflation expectations (for 2019) are broadly unchanged at 1.8%. Real GDP growth expectations were revised down slightly for 2015, standing at 1.1%, before rising to 1.5% for 2016 and 1.7% for 2017 and 2019. Unemployment expectations indicate a fall to 10.3% in 2017 and 9.4% in 2019; they remained stable for the short term, but were revised marginally downwards for longer-term horizons.

Table

Results of the SPF. Eurosystem staff macroeconomic projections. Consensus Economics and the Euro Zone Barometer

(annual percentage changes, unless otherwise indicated)

	Survey horizon			
	2015	2016	2017	Long-term ¹⁾
HICP inflation				
SPF Q1 2015	0.3	1.1	1.5	1.8
Previous SPF (Q4 2014)	1.0	1.4	-	1.8
Eurosystem staff macroeconomic projections (Dec. 2014)	0.7	1.3	-	-
Consensus Economics (Jan. 2015)	0.1	1.2	-	1.9
Euro Zone Barometer (Dec. 2014)	0.6	1.3	1.6	1.8
Real GDP growth				
SPF Q1 2015	1.1	1.5	1.7	1.7
Previous SPF (Q4 2014)	1.2	1.5	-	1.7
Eurosystem staff macroeconomic projections (Dec. 2014)	1.0	1.5	-	-
Consensus Economics (Jan. 2015)	1.1	1.6	-	1.6
Euro Zone Barometer (Dec. 2014)	1.2	1.6	1.6	1.6
Unemployment rate²⁾				
SPF Q1 2015	11.3	10.9	10.3	9.4
Previous SPF (Q4 2014)	11.3	10.9	-	9.5
Eurosystem staff macroeconomic projections (Dec. 2014)	11.2	10.9	-	-
Consensus Economics (Jan. 2015)	11.3	10.9	-	-
Euro Zone Barometer (Dec. 2014)	11.3	11.0	10.6	10.3

1) Long-term expectations refer to 2019 (2018 for Euro Zone Barometer). For Consensus Economics long-term expectations are taken from the October 2014 surveys.

2) As a percentage of the labour force.

¹ The ECB Survey of Professional Forecasters (SPF) collects the views of professional forecasters outside the Eurosystem. The quarterly survey gathers expectations for the rates of inflation, real GDP growth and unemployment in the euro area for several horizons, together with a quantitative assessment of the uncertainty surrounding them. The participants in the ECB SPF are experts affiliated with financial or non-financial institutions based within the European Union. The survey results do not represent the views of the ECB's decision-making bodies or of the ECB staff.

² The survey was conducted between 8 and 13 January 2015. The total number of responses was 59, which is broadly in line with the historical average of 58.

³ The survey requested information on expectations for the euro area HICP inflation rate, the real GDP growth rate and the unemployment rate for 2015, 2016, 2017 and 2019, as well as forecasts for each of these variables one and two years ahead—note expectations for 2017 were not surveyed in the previous (2014 Q4) SPF round. Participants were provided with a common set of the latest available data for HICP inflation (December 2014, -0.2% year-on-year), GDP growth (2014 Q3, 0.8% year-on-year) and unemployment (November 2014, 11.5%).

I OIL PRICES BEHIND DOWNWARD REVISIONS TO INFLATION FORECASTS FOR 2015-2016

The SPF average point forecasts for inflation in 2015, 2016 and 2017 stand at 0.3%, 1.1% and 1.5% respectively (see Table). This implies downward revisions by 0.7 percentage point for 2015 and 0.3 percentage point for 2016 compared with the survey round from the fourth quarter (Q4) of 2014 – inflation expectations for 2017 were not surveyed in the previous round. Expected inflation in 2015 and 2016 in the SPF from the first quarter (Q1) of 2015 is lower (by 0.4 and 0.2 percentage point respectively) than that in the December 2014 Eurosystem staff macroeconomic projections, which was finalised on the basis of data and assumptions available in mid-November. SPF expectations for 2015 and 2016 are also below those of the December 2014 Euro Zone Barometer survey. They are 0.2 percentage point above those for 2015 from the January Consensus Economics survey but 0.1 percentage point lower for 2016.

According to SPF respondents, the main factor behind the strong downward revision and low inflation forecast in 2015 is the sharp drop in oil prices observed since mid-2014. Around one in six (or 10 out of 58) respondents forecast a negative annual inflation outcome in 2015. The expected evolution of oil prices is also a factor behind the anticipated increase in inflation in 2016 and 2017, as, on balance, SPF panellists on balance expect oil prices to increase gradually from current low levels. Thus, not only should the negative impact from recent declines fall out of the annual inflation rates from the second half of 2015, but oil prices are expected to contribute positively, albeit moderately, to inflation in 2016 and 2017. An upward impact on inflation is expected to come from the depreciation of the euro exchange rate. Nevertheless, on balance, respondents expect underlying inflation developments to remain moderate, owing to the modest nature of the pick-up expected in economic activity, which implies that the slack remaining in the euro area economy will be removed only gradually. Ongoing adjustments and rebalancing in some euro area countries is also expected to contribute to containing inflationary pressures. While a number of respondents report that they expect inflation to remain low, they do not foresee deflation. The main factors cited for this are the continuing economic recovery, the effects of the euro depreciation and the fact that monetary policy is expected to provide a supporting role. In addition, respondents do not generally expect the negative energy price developments to have a substantial effect on wage developments.

Nearly all respondents who participated in both the 2015 Q1 and 2014 Q4 rounds revised down their inflation forecasts for 2015 (94%) and 2016 (74%). The main factor cited as

being behind the downward revisions compared with the previous survey round was lower oil prices.⁴ On the other hand, exchange rate developments were cited as a counteracting factor in the revisions.

Compared with the previous SPF round, the aggregate probability distributions for expected inflation in 2015-2016 have moved further towards lower outcomes. For 2015, the most likely (modal) outcome has shifted down one bin to the 0.0-0.4% range, from the 0.5-0.9% range (see Chart 1). For 2016, although the most likely outcome remained in the same bin (i.e. 1.0-1.4%), the probability associated with lower outcomes has increased noticeably (see Chart 2). According to survey participants, whilst there is a relatively high probability of inflation remaining below 1.0% in 2016 (48%), and in 2017 (26%), the probability of negative inflation remains low: 6% in 2016 and 2% in 2017 –see also Chart 3.

Chart 1

Aggregated probability distribution of inflation expectations for 2015

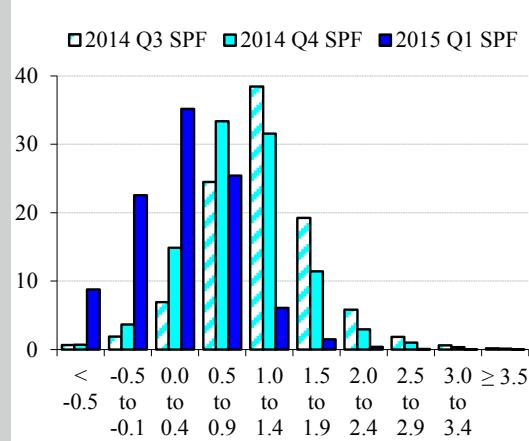
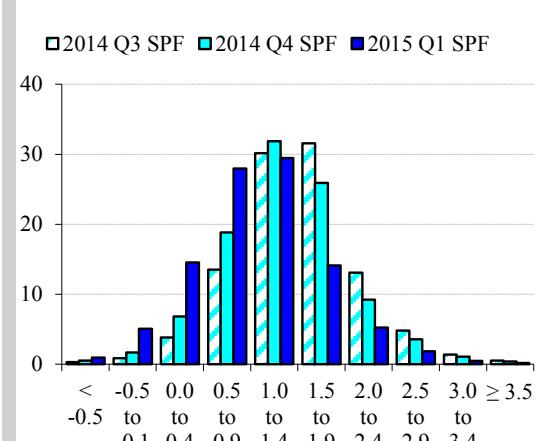


Chart 2

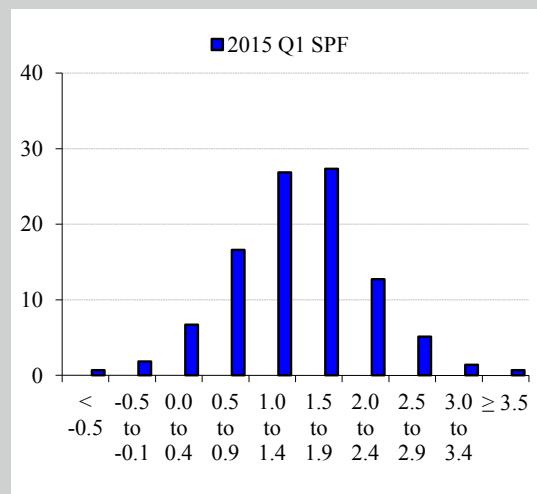
Aggregated probability distribution of inflation expectations for 2016



⁴ In this round, participants were explicitly asked “In particular, we would be grateful if you could (a) elaborate on the main factors underlying (and the risks surrounding) your baseline oil price assumptions and (b) discuss the role that changes in your oil price assumptions have in revisions to your inflation and real GDP growth outlook at the different horizons.” See the section entitled “Other variables and conditioning assumptions” for further information.

Chart 3

Aggregated probability distribution of inflation expectations for 2017



Risks to the baseline inflation outlook are generally perceived to be slightly on the downside. Global economic developments are mainly reported as a downside risk. The possibility that inflation expectations may become unanchored is seen as a downside risk as well. On balance, the risks stemming from the euro area growth outlook are also slightly on the downside, although some respondents see upside risks. Regarding oil prices, whilst a number of respondents see risks of further declines in the very short term, risks further out are more balanced, with some respondents seeing scope for

higher increases than assumed, depending on the evolution of the demand for and supply of oil. Exchange rates and monetary policy actions are cited as sources of upward risk.

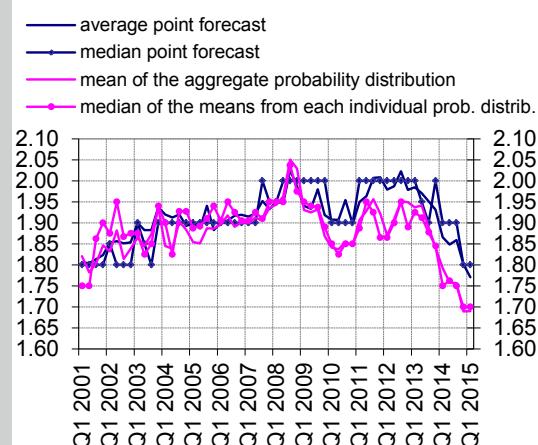
2 LONGER-TERM INFLATION EXPECTATIONS (FOR 2019) BROADLY UNCHANGED AT 1.8%.

The average point forecast for longer-term inflation expectations (five years ahead – 2019) remains at 1.8%, although it declined by 0.03 percentage point to 1.77% when rounded to two decimal places (see Chart 4). The median of the 2015 Q1 point forecasts remained unchanged at 1.8% and the largest portion (29%) of respondents provided a point forecast of 1.8%, although a large number continued to provide a point forecast of 2.0% (see Chart 5).⁵ The SPF long-term inflation expectations are in line with the latest inflation expectations (for 2018) from the October 2014 Eurozone Barometer and 0.1 percentage point below those for 2019 from the October 2014 Consensus Economics survey.

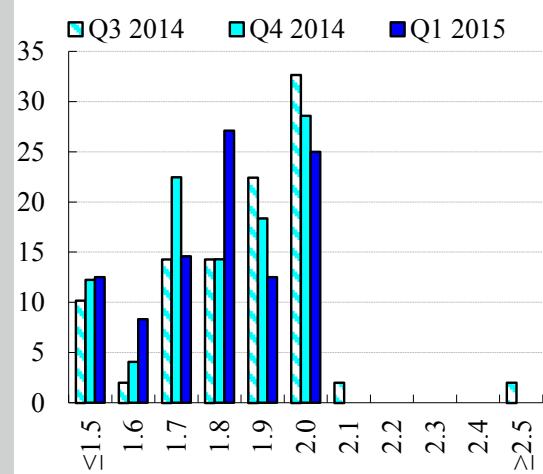
⁵ Whilst the 90th percentile remained unchanged at 2.0%, the 75th percentile fell below 2% for the first time to 1.94%. The 25th and 10th percentiles of the distribution of the point forecasts were unchanged at 1.70% and 1.50% respectively.

Chart 4**Outlook for longer-term inflation expectations**

(annual percentage changes)

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

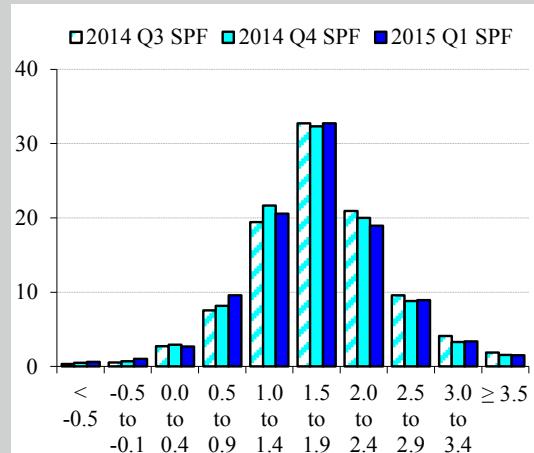
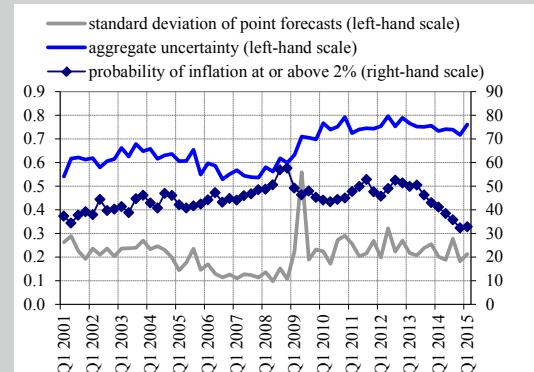
(% of respondents)



The aggregate probability distribution has remained largely unchanged compared with the previous SPF round (see Chart 6). On average, the balance of risks around the point forecast is assessed as being on the downside (as has been the case since 2009), with the estimated mean of the aggregated probability distribution standing at around 1.7% compared with the mean point estimate of 1.8%. The probability of inflation being at or above 2.0% was 33% compared with 32% in 2014 Q4, while that of being below 1% was 14% compared with 12% in the previous round. The probability of negative inflation rates remained low at 2% (up from 1%).

Disagreement over longer-term inflation expectations as measured by the standard deviation of the point forecasts increased compared with the previous round.⁶ The aggregate uncertainty surrounding longer-term inflation expectations, as measured by the standard deviation of the aggregate probability distribution (see Chart 7), also increased slightly, reflecting increases both in the standard deviations of the individual point forecasts and the average standard deviations of the individual probability distributions.

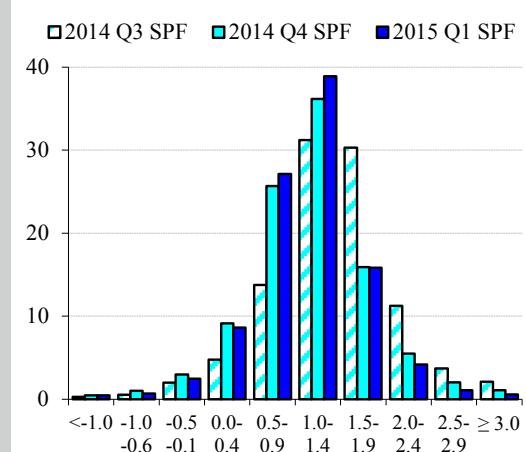
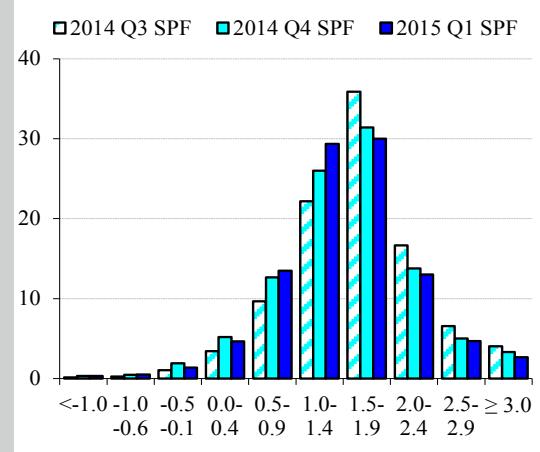
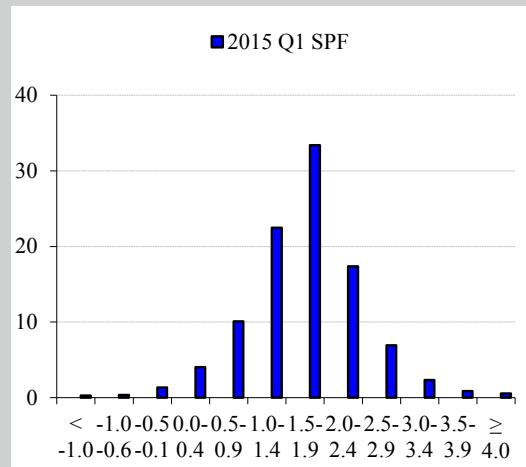
⁶ The quasi-standard deviation also increased. This measure can be more robust to outliers and is calculated as half of the difference between the 16th and 84th percentiles of the sample of point forecasts, which, with “normally” distributed data, delivers the standard deviation.

Chart 6
Aggregated probability distribution of long-term inflation expectations (5 years ahead)
**Chart 7**
Disagreement and uncertainty about longer-term inflation expectations


3 REAL GDP GROWTH EXPECTATIONS STABLE, INDICATING A GRADUAL RECOVERY

The average point forecasts for real GDP growth in 2015 decreased to 1.1% (-0.1 percentage point compared with the previous survey round) while forecasts for growth in 2016 remained unchanged at 1.5% (see Table). For 2017 participants expect real GDP to grow by 1.7%. The downward revision for 2015 was explained with weaker than expected hard and soft data releases for the end of 2014 and lower expected investment, in turn mainly due to various (geo)political uncertainties such as the crisis in Ukraine. The small downward revision for 2015 and stable expectations for later periods reflects the fact that respondents included positive effects from the fall in the oil price, the depreciation of the euro and a highly accommodative monetary policy in their baseline forecast.

The average SPF point forecast is 0.1 percentage point higher than the December 2014 Eurosystem staff macroeconomic projections for 2015 and in line with that for 2016. As regards the latest forecasts from Euro Zone Barometer and Consensus Economics, SPF expectations are in line with the latest Consensus for 2015 (but slightly below the Euro Zone Barometer from December 2014) and on the lower side for 2016 (both forecasting 1.6%).

Chart 8
Aggregated probability distribution of 2015 GDP growth expectations
**Chart 9**
Aggregated probability distribution of 2016 GDP growth expectations
**Chart 10**
Aggregated probability distribution of 2017 GDP growth expectations


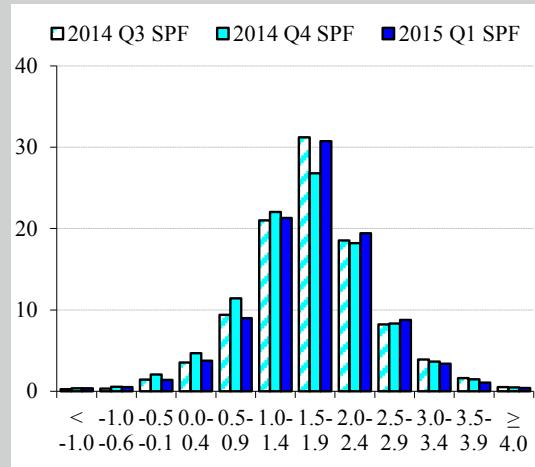
The aggregate probability distributions for 2015 and 2016 have narrowed (see Chart 8 and Chart 9), suggesting that SPF respondents perceive some reduction of uncertainties surrounding the growth outlook. For 2015 the highest probability (39%) continues to be assigned to the interval between 1.0% and 1.4%, compared with 36% beforehand. For 2016 almost equal probabilities are assigned to the intervals between 1.0% and 1.4% and between 1.5% and 1.9% (29% and 30%, respectively), whereas in the previous survey, the bin with the higher outcome clearly had the highest probability.

For 2017 the largest probability (33%) is assigned to the bin between 1.5% and 1.9% (see Chart 10).

The balance of risks to GDP growth (as measured in the difference between the mean of the aggregate probability distribution and the average point forecast) has become more balanced for 2015, but is somewhat tilted to the downside for 2016 and 2017. The qualitative comments by the respondents identify lower external demand due to geopolitical

Chart 11

Aggregated probability distribution of longer-term GDP growth expectations (5 years ahead)



upside risks mentioned relate to higher consumption and investment than already included in the baseline owing to the effects of lower oil prices on real disposable incomes and the unexpectedly quick recovery of exports, driven also by the favourable euro exchange rate. Some respondents see upside risks in a strong decrease in financial fragmentation in the euro area, due to quantitative easing by the ECB.

Longer-term growth expectations (for 2019) remained unchanged at 1.7%. The SPF results for that horizon are higher than the latest available Consensus Economics and Euro Zone Barometer forecasts for five years ahead, which stood at 1.6%. The aggregate probability distribution of the SPF longer-term growth expectations shifted towards higher outcomes and has become more balanced than in previous rounds (see Chart 11).

4 UNEMPLOYMENT EXPECTATIONS BROADLY UNCHANGED ON SLOWLY DECLINING PATH

The average point forecasts for the unemployment rate are 11.3% for 2015, 10.9% for 2016 and 10.3% for 2017, with expectations for 2015 and 2016 unchanged from the previous round (see Table). The latest SPF is in line with private sector forecasts for 2015, but lower than the Euro Zone Barometer by 0.1 percentage point for 2016 and by 0.3 percentage

tensions mainly in the Ukraine and Russia, but also larger than expected structural weaknesses in emerging markets (notably China) as the dominant downside risks surrounding their forecasts. Election-related uncertainty and concern about the continuation of structural reforms in some countries were also mentioned frequently. Some respondents notably mentioned risks of political uncertainty following the terrorist attacks in Paris and heightened volatility in financial markets due to an uncoordinated end of the Federal Reserve's highly accommodative monetary policy. The main

point for 2017. Compared with the December 2014 Eurosystem staff macroeconomic projections it is 0.1 percentage point higher for 2015 but the same for 2016.

Risks to the baseline outlook remain tilted to the upside (see Charts 12-14) and are related to the modest nature of the recovery and to the uncertainty surrounding the impact of the structural reforms of the labour market in some euro area countries. Moreover, some forecasters mentioned a potential deterioration in the growth outlook of non-stressed economies as a risk for further increasing unemployment. Smaller downside risks to the unemployment outlook are mostly associated with the stronger than envisaged effects of the structural reforms already implemented and a decline in the participation rate of countries where the unemployment rate has been persistently high.

Chart 12

Aggregated probability distribution of unemployment rate for 2015

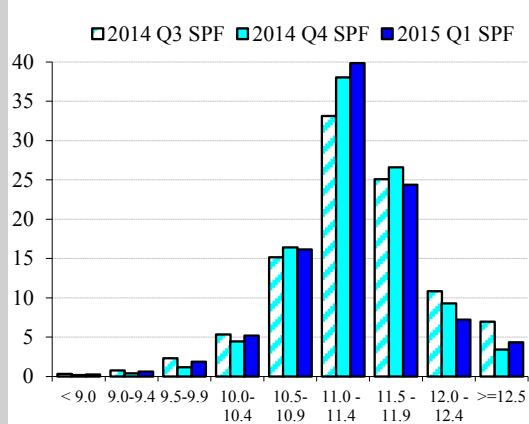


Chart 13

Aggregated probability distribution of unemployment rate for 2016

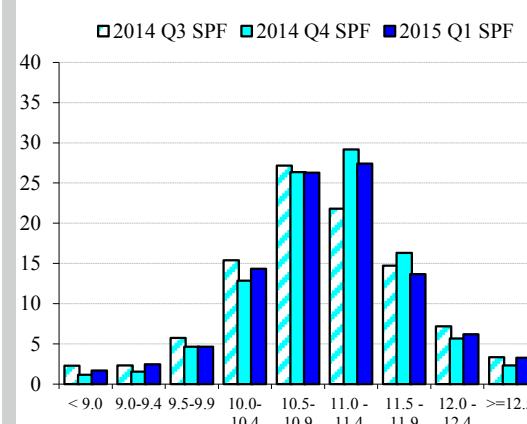
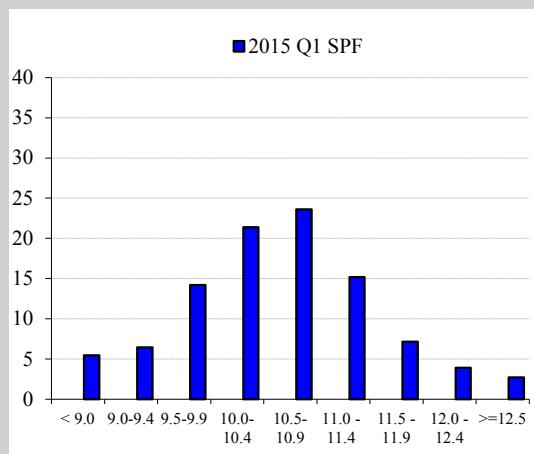
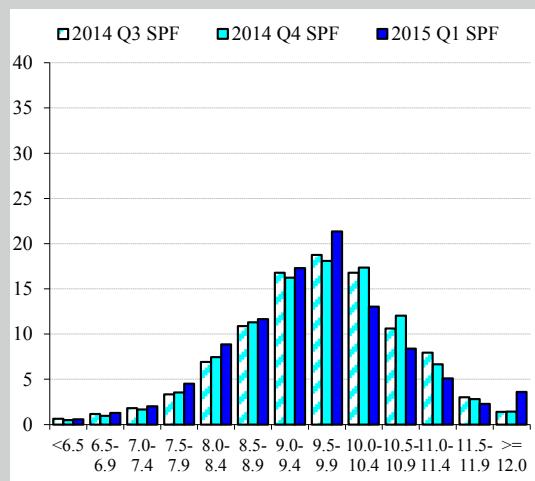


Chart 14

Aggregated probability distribution of unemployment rate for 2017

**Chart 15**

Aggregated probability distribution of longer-term unemployment rate expectations



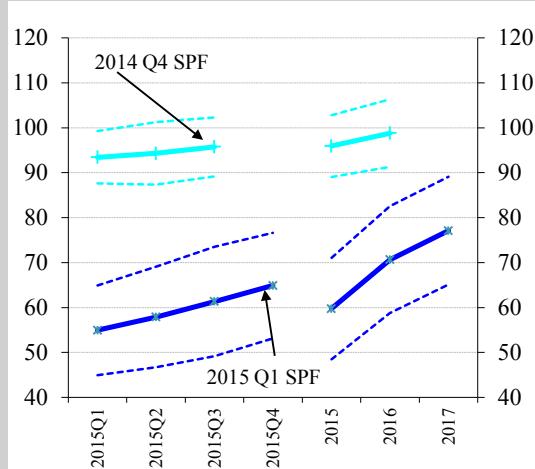
The average point forecast for longer-term unemployment rate expectations (9.4% for the reference year 2019) is 0.1 percentage point lower than in the previous SPF round. The aggregate probability distribution has shifted slightly towards lower outcomes compared with the previous SPF round (see Chart 15).

5 OTHER VARIABLES AND CONDITIONING ASSUMPTIONS

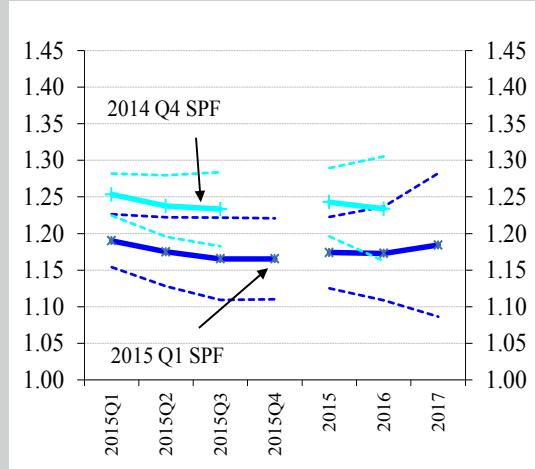
Other information provided by respondents (changes in their assumptions) implied significant downward revisions to the oil price in US Dollar (USD) and the USD/EUR exchange rate, while expectations for the growth rate of compensation per employee and for the short-term interest rate remained rather stable.

Chart 16
Underlying assumptions

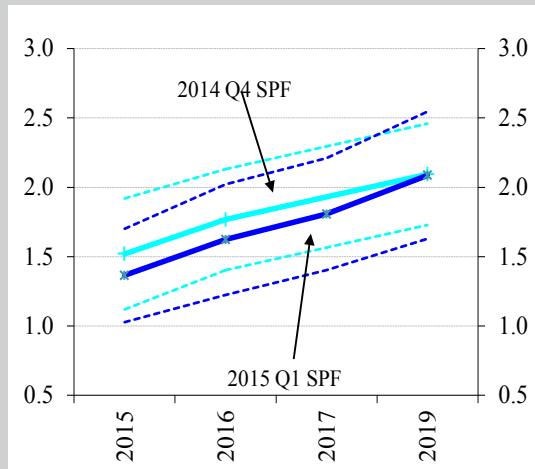
a) Oil price (in USD)



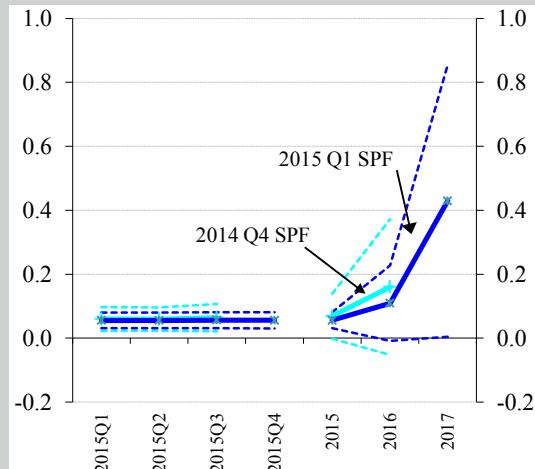
b) USD/EUR exchange rate



c) Compensation per employee



d) ECB interest rate



Note: Dotted lines proxy the uncertainty surrounding average assumptions (plus/minus one standard deviation of the point estimates)

Oil price assumptions were revised significantly downwards over all the forecast horizons; compared with the previous round they are lower by around USD 36 per barrel in 2015 and by more than USD 28 in 2016 (see Chart 16a). The oil price is expected to stand at USD 54.9 per barrel in 2015 Q1 and increase gradually to USD 64.9 in 2015 Q4 and further to levels of around USD 77.1 in 2017. According to the explicit question asked on the nature of the oil shock (see footnote 3), respondents see the recent decline in oil prices as being driven by both demand and supply factors, although the latter are believed to be more significant. While

respondents expect the current demand-supply imbalance to be gradually rectified, primarily by a choking off of supply, in the very near term, risks of further declines are not ruled out. The forecast of the EUR/USD exchange rate is markedly lower in relation to the previous SPF, standing at 1.19 in 2015 Q1, and is expected to decline gradually in the short run to 1.17 in 2015 Q4 (see Chart 16b). By 2017, it is expected to have moderately increased up to 1.18%. Assumptions for the annual growth in compensation per employee were revised down by 0.1 to 0.2 percentage point, standing at 1.4% in 2015, and 1.6% in 2016 (see Chart 16c). For 2017, wage growth is expected to be at 1.8%. For the five-year-ahead horizon, assumptions remain stable at 2.1%. The mean assumption for the ECB main refinancing rate implies a marginal downward revision of 0.01 percentage point for 2015, but a further reduction of 0.05 percentage point for 2016, standing around 0.06% throughout the whole of 2015 and marginally higher at 0.11% in 2016 (see Chart 16d). Forecasters expect an increase to, on average, 0.4% in 2017, although the increasing standard deviation suggests more disagreement at this horizon.