

## **Box 5**

### **The 2002 Q1 Survey of Professional Forecasters (SPF)<sup>1</sup>**

In early February 2002, the ECB conducted the 13th round of the SPF. The 2002 Q1 questionnaire asked respondents what their expectations for average HICP inflation, real GDP growth and the unemployment rate in the euro area were for the calendar years 2002, 2003 and 2006. In addition, expectations for two “rolling horizons” were requested.<sup>2</sup> In the 2002 Q1 SPF, these rolling horizons were December 2002 and 2003 for the

*1 The survey is known as the Survey of Professional Forecasters (SPF) to reflect that all of the participants are experts affiliated with financial or non-financial institutions based in the European Union.*

*2 These so-called rolling horizons are set one and two years ahead of the period for which the latest data for each particular variable are available at the time the survey is conducted. They may be useful to identify some dynamic patterns that are difficult to detect from expected averages for calendar years.*

HICP inflation rate; the third quarter of 2002 and 2003 for the rate of growth in real GDP and November 2002 and 2003 for the unemployment rate. The aggregate results of the 2002 Q1 SPF, based on 57 replies, are summarised below. When interpreting them, it is important to bear in mind that the SPF participants are not given a common set of assumptions on which to base their forecasts. Hence, these aggregate results most likely reflect a relatively heterogeneous set of subjective views and assumptions.

### Results from the Survey of Professional Forecasters

(annual percentage changes, unless otherwise indicated)

	Survey horizon				
	2002	Dec. 2002	2003	Dec. 2003	2006
<b>HICP inflation</b>					
Latest survey, 2002 Q1	1.7	1.7	1.8	1.8	1.9
Previous survey, 2001 Q4	1.7	-	1.8	-	1.8
	2002	2002 Q3	2003	2003 Q3	2006
<b>Real GDP growth</b>					
Latest survey, 2002 Q1	1.3	1.6	2.5	2.6	2.5
Previous survey, 2001 Q4	1.5	-	2.5	-	2.5
	2002	Nov. 2002	2003	Nov. 2003	2006
<b>Unemployment rate <sup>1)</sup></b>					
Latest survey, 2002 Q1	8.6	8.6	8.4	8.3	7.3
Previous survey, 2001 Q4	8.6	-	8.2	-	7.2

1) As a percentage of the labour force.

### HICP inflation expected to be below 2.0% in 2002 and 2003

Forecasters expect the annual inflation rate to decrease from its current levels and to stabilise at levels below 2.0%. More specifically, average annual HICP inflation in the euro area is expected to be 1.7% in 2002 and 1.8% in 2003 (see table), unchanged from the expectations reported in the 2001 Q4 SPF. The inflation rates expected in December 2002 and December 2003 are 1.7% and 1.8% respectively.

The SPF questionnaire also asks for a quantitative assessment of the uncertainty surrounding participant's expectations for each variable and horizon. More specifically, the SPF questionnaire asks survey participants to assign some probability to actual outcomes falling into some specific intervals (for example, the intervals for inflation expectations are shown on the horizontal axis in Chart A below). The assigned probabilities reflect the forecaster's assessment of the risk of the actual outcome being different from the value considered most likely at the time the forecast is made. Although the aggregate probability distribution constructed from these subjective assessments may encompass many different macroeconomic scenarios, it helps to assess how survey participants, on average, gauge the risk of the actual outcome being above or below the most likely range.

Chart A shows the aggregate probability distributions for annual rates of HICP inflation at the shorter-term horizons requested in this survey round: the average for the current year, i.e. 2002, and for the rolling horizon one year ahead, i.e. December 2002. In the former, as expected, the highest probability (around 50%) is assigned to the range of values around the point estimate for this horizon 1.7%, i.e. to the 1.5-1.9% interval. In this particular case, the distribution is fairly well balanced around this central range 1.5-1.9% (see light bars). This indicates that survey participants felt there to be an equal "risk" that the actual average inflation in 2002 will turn out to be above or below the most likely range of 1.5-1.9% (around 25% on either side).

The darker bars in Chart A represent the probability distribution for the expected annual HICP inflation rate in December 2002. Survey participants also expect inflation to be 1.7% in December 2002, and most likely to fall

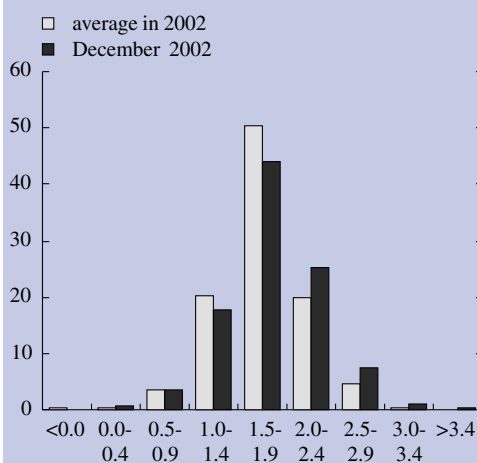
within the 1.5-1.9% range. However, Chart A also shows clearly asymmetrical risks for inflation expectations for the end of this year since the probability distribution is skewed to the right of the central interval. This indicates that survey participants consider that there is a higher “risk” of inflation ending up above the 1.5-1.9% range next December than below 1.5%. This is reflected in a cumulative probability of 34% assigned to outcomes above the most likely 1.5-1.9% range and only 22% to outcomes below this range. This pattern of probability distribution with regard to expected inflation for this horizon seems to be mostly related to survey participants’ expectations about the strength of the recovery in economic activity in the euro area towards the end of the current year (see the section on growth prospects below).

### Longer-term inflation expectations remain below 2.0%

Inflation expectations five years ahead have now for several years been within a narrow range between 1.8% and 1.9% (see Chart B). In the last survey, for 2006, HICP inflation is expected to average 1.9%. This level of expected inflation broadly corresponds to the measure of inflation expectations extracted from the long-term bonds indexed to the euro area HICP excluding tobacco that were recently issued by the French Treasury. The so-called break-even inflation rate extracted from this type of bond remained below 2% in February 2002. It is important to bear in mind, however, that break-even inflation rates are not a direct measure of market participants’ inflation expectations since they are influenced by risk, maturity and liquidity premiums.<sup>3</sup>

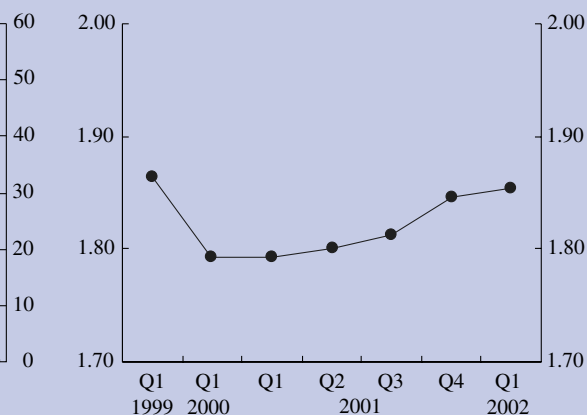
**Chart A: Short-term inflation expectations: probability assigned to each interval**

(percentages)



**Chart B: Average inflation rates expected five years ahead in each survey round<sup>1)</sup>**

(annual percentage changes)



1) Please note that before 2001 the SPF questionnaire only asked for inflation expectations five years ahead in the survey round conducted in the first quarter of the year.

### Real GDP growth rates revised downwards but a recovery is expected in the course of 2002 and 2003

In line with recent indications of weaker economic activity in the euro area, SPF participants have revised their expectations for the average annual growth rate of real GDP in 2002 to 1.3%, down by 0.2 percentage point compared with the previous survey round conducted last October. However, a higher annual rate of 1.6% is already expected for 2002 Q3, which suggests that a gradual upturn in economic growth is anticipated in the course of 2002. For 2003, a further increase in real GDP growth to 2.6% is expected for 2003 Q3 and 2.5% for the year as a whole. Long-term growth prospects, at 2.5% for 2006, remain in line with the upper end of the range for trend potential growth in the euro area.

3 For a thorough description of the nature of the break-even inflation rates, see the box entitled “Deriving long-term euro area inflation expectations from index-linked bonds issued by the French Treasury” on page 16 of the February 2002 issue of the Monthly Bulletin.

The euro area unemployment rate is expected to increase to an average of 8.6% for 2002. Thereafter it is expected to decline gradually over the forecast horizon. The unemployment rate is expected to average 8.4% in 2003, standing at 8.3% by December 2003, and to reach 7.3% in 2006.