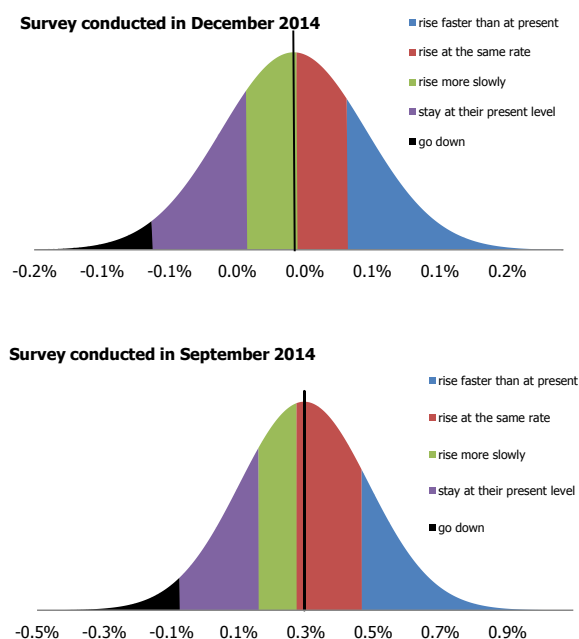


## Survey on Inflation Expectations<sup>1</sup>

**The Inflation Expectations Survey** includes three groups of respondents: economic analysts, companies and financial institutions. The questionnaire contains two questions to measure inflation expectations, one qualitative and one quantitative in nature. For the first question on inflation expectations, the respondents indicate the direction and extent of price changes compared with the change in the previous 12 months<sup>2</sup>. Carlson and Parkin (1975) probability approach has been used for quantification of qualitative answers, which assumes that at a sufficiently large number of respondents, the expected change in prices is normally distributed among the population. The second question requires from the respondent to quantify precisely the expected average rate of change of prices in the next two years<sup>3</sup>. The overall expected rate is calculated as a simple average of the responses of all participants. The resulting indicator is useful for obtaining indications for the direction of the respondents' expectations.



The Inflation Expectations Survey was conducted in December 2014<sup>4</sup>. **Given the further reduction in the inflation rate (as of November, the average inflation in the previous 12-month period equaled -0.1%<sup>5</sup>, versus 0.3% in the previous 12-month period as of August 2014), the results from the December survey indicated lower inflation expectations compared with the previous quarter.** Thus, contrary to the September expectations for 0.3% inflation rate in the next 12-month period, in December, the respondents expected around 0% inflation in the next 12-month period. There are similar expectations with respect to different surveyed groups (economic analysts, companies and financial institutions) who expect the rate of inflation in the next 12-month period to gravitate around 0%.

**Lower inflation expectations can be confirmed through the answers of the quantitative question for the expected rate of inflation for 2015.** Namely, in the period between the two surveys, the respondents' expectations for inflation for 2015 decreased by 0.5 percentage points, on average.

<sup>1</sup> In order to improve the survey measure of inflation expectations, in 2013, the Monetary Policy and Research Department of the National Bank of the Republic of Macedonia started an in-depth analysis of the experiences of other central banks associated with conducting surveys. On that basis, the existing survey was redesigned and starting from October 2013, data were collected for the new survey, thus ensuring greater approximation to the European practice.

<sup>2</sup> The qualitative question of expectations reads as follows: "Compared with the past 12 months, how do you expect consumer prices to change in the next 12 months? a) will have a faster growth; b) will grow at the current pace; c) will grow at a slower pace; d) will remain almost unchanged; e) will decrease; f) it is difficult to determine "

<sup>3</sup> The quantitative question reads as follows: "What are your expectations/forecasts for the average inflation rate for 2015 and 2016?"

<sup>4</sup> Refers to the period December 2013 to November 2014. The percentage of responsiveness to the Survey conducted in December was 33.3%, which compared to the previous quarter, represents a decrease of responsiveness. Analyzed by groups of respondents, the financial institutions' responsiveness is 55.6%, followed by economic analysts with 41.2% and companies with 24.3%.

<sup>5</sup> In circumstances of a negative price growth, the interpretation of the results of the survey can be blurred, and therefore, it is necessary to change the method of calculation of the indicator for inflation expectations. Thus, in the procedure for quantification, the negative rate is replaced with the last positive growth rate. This is the way to avoid the contradictory responses from the survey that assume a positive price growth. Taking into account that changes in the method are of a purely technical nature, the quantification of qualitative answers for the expected rate of inflation in periods of negative inflation should be taken with caution, while the indicator for inflation expectations as approximate.

In December, respondents pointed to the movement of consumer prices in the domestic economy in the past period, as well as the reduction in the world price of crude oil, amid increased oil supply and low demand, as **factors that explain the lower inflation expectations.**