



**NATIONAL BANK OF SERBIA**

**REPORT ON THE RESULTS  
OF THE INFLATION EXPECTATION SURVEY**

**February 2016**

Belgrade, March 2016

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## **Introductory note**

Indicators of inflation expectations of economic agents are an important factor in the process of monetary policy decision-making in an inflation targeting regime. The effectiveness of the inflation targeting strategy is measured by the degree of stability of inflation expectations and by how firmly they are anchored within the target tolerance band. Stable and well- anchored inflation expectations contribute to greater credibility of the monetary policy framework. Consistent with best international practice, after introducing the inflation targeting regime in January 2009, the NBS began monitoring and analysing inflation expectations of economic agents, drawing on the inflation expectations survey, conducted for the NBS by Ninamedia since December 2014. Survey participants are classified into four institutional sectors (the financial sector, corporate sector, trade unions and households) and asked to state their one-year ahead price growth expectations, and since March 2014, also their medium-term, i.e. two- year ahead, expectations for y-o-y price growth.

## Summary

**According to the February survey results, the financial sector and corporates expect price stability to be maintained both one year ahead and over the medium run.**

One-year ahead expectations of the financial sector and trade unions rose negligibly from January. On the other hand, expectations of corporates declined, while those of households remained unchanged. Mid-term expectations declined in the financial and corporate sectors, increased among trade unions, and were kept unchanged by the household sector.

According to the Ninamedia survey, inflation expectations of the *financial sector* inched up from 2.7% in January to 2.8% in February. One-year ahead inflation expectations of the financial sector have been moving within the target tolerance band for over two years now.

**One-year ahead** inflation expectations of *corporates* declined to 2.0% in February, sliding below the lower bound of the target tolerance band. *Household* inflation expectations have been stable at 5.0% since October. In February, inflation expectations of *trade unions* returned within the target tolerance band, coming at 3.0%.

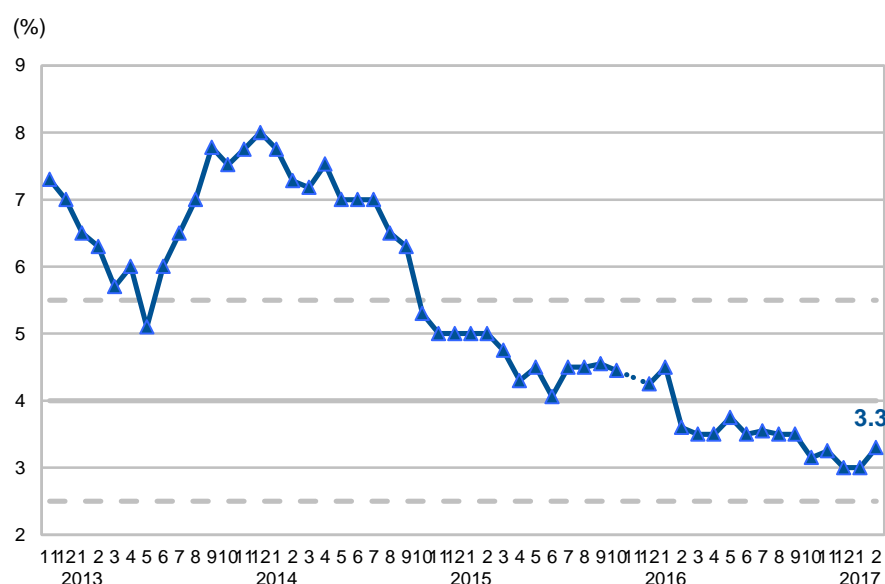
**Mid-term** inflation expectations of all sectors have been moving within the target tolerance band for a year now.

Firmly-anchored inflation expectations are one of the prerequisites for achieving low, stable and predictable inflation. The fact that inflation expectations in Serbia are anchored confirms the credibility of the NBS inflation target and indicates the absence of major inflationary and disinflationary pressures.

## Inflation expectations of the financial sector

According to the Ninamedia survey, one-year ahead inflation expectations of the financial sector have been within the target tolerance band for over two years now (since October 2013) and came at 2.8% in February. Bloomberg survey results also show that financial sector expectations have been moving within the target tolerance band since October 2013, equalling 3.5% in March 2016.

**Chart 1** Composite measure of inflation expectations of the financial sector



Source: NBS, Ipsos, Ninamedia and Bloomberg.

The composite measure of one-year ahead inflation expectations of the financial sector<sup>1</sup> (covering the results of Ninamedia and Bloomberg surveys) rose from the 3.0% minimum in January and reached 3.3% in February.

Mid-term (two-year ahead) inflation expectations of the financial sector have been within the target tolerance band since the first survey (March 2014) and measured 3.5% in February.

<sup>1</sup> Calculated by weighting individual responses by the size of the respondent's share in total assets of the surveyed financial institutions. Institutions participating in both surveys are assigned the arithmetic mean of the responses provided in Ninamedia and Bloomberg surveys. Hence, banks with a larger market share have a greater influence on the aggregate result, which corresponds to the real situation, as their impact on economic flows is somewhat stronger.

## Inflation expectations of the corporate sector

One-year ahead inflation expectations of the corporate sector fell below the lower bound of the target tolerance band – down to 2.0%. Low inflation expectations of the corporate sector stem from muted demand, but also weaker cost pressures due to low prices of oil and other primary products.

The net percentage<sup>2</sup> (NP) of enterprises expecting an increase in prices of their *inputs* over the next three months came at 12.4 pp in February (vs. 16.2 pp in January). The NP of respondents expecting a drop in prices of *final products* in the same period was 10.4 pp (vs. the January NP figure of 3.2 pp of respondents expecting an increase in prices of final products). **The majority of respondents anticipated prices of both inputs (84.0%) and final products (87.2%) to stagnate in the next three months.** In terms of expectations for the next twelve months, results in February are as follows: the NP of enterprises expecting an increase in prices of *inputs* was 24.3 pp (vs. 21.0 pp in January), and of those anticipating an increase in prices of *final products* 7.7 pp (vs. 21.0 pp in January). This means that enterprises do not expect to be able to pass the potential cost increase onto final consumers, which is one of the factors pushing corporates' expectations below the lower bound of the target tolerance band.

As regards production/trade, the NP of respondents expecting an increase in the next three months dropped to 11.2 pp (from 17.5 pp in January), while the **NP of respondents anticipating an increase in production/trade in the next twelve months was 27.6 pp (vs. 47.9 pp in January).**

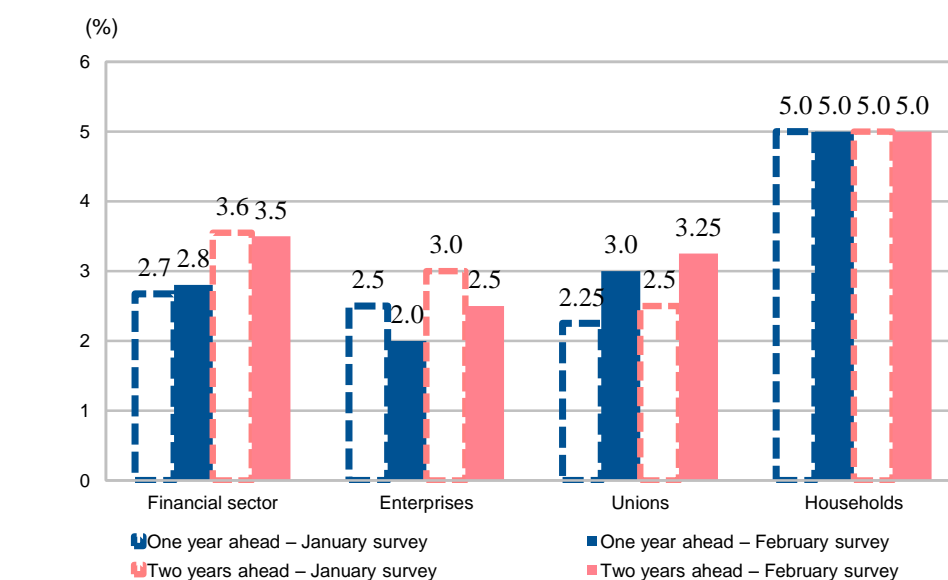
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<sup>2</sup> Calculated as the difference between the share of enterprises expecting prices to increase and enterprises expecting prices to decrease, weighted by operating income.



Staying at 5.0%, two-year ahead inflation expectations of households remained unchanged for the thirteenth consecutive month, which indicates that households expect inflation to stabilise within the target tolerance band over the medium run.

**Chart 3** Expected y-o-y inflation one and two years ahead



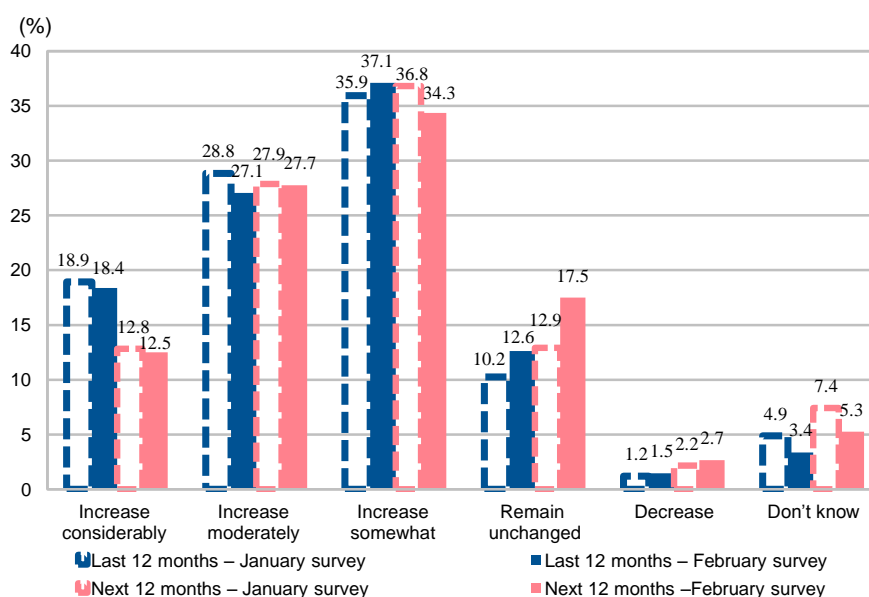
Source: Ninamedia.

### Qualitative inflation expectations of households

Descriptive (qualitative) expectations of households regarding a rise in prices indicate that the majority of respondents (62.1%) expect a moderate or mild increase in prices in the next twelve months, 17.5% of respondents expect no change in prices, and 2.7% anticipate a fall, while 5.3% of respondents said they did not know. The share of respondents anticipating prices to increase considerably in the coming twelve months touched a new low of 12.5% in February.

In the prior period, the number of respondents anticipating a considerable increase in prices trended down in favour of respondents anticipating prices to rise moderately, increase somewhat or remain unchanged. Such trend contributes to the creation of a predictable and stable economic environment, and facilitates the achievement of the main goal of the monetary policy in the mid run.



**Chart 4** Distribution of household responses by perceived (recorded) and expected inflation

Source: Ninamedia.

Following in the footsteps of the EU countries, where the EC gathers data on indicators of perceived and expected inflation using its Business and Consumer Survey, since January 2016 the NBS calculates indicators of perceived and expected inflation of the household sector. Indicators are constructed using the qualitative assessment of price changes in the past and next twelve months. Respondents are asked to assess how consumer prices moved in the past twelve months and how they expect them to move in the coming twelve months. Six responses are offered:

- 1) increase considerably (AA);
- 2) increase moderately (A);
- 3) increase somewhat (O);
- 4) remain unchanged (B);
- 5) decrease (BB);
- 6) don't know (N).

To obtain aggregate measures (the indicators of perceived and expected inflation), household responses are quantified as follows:

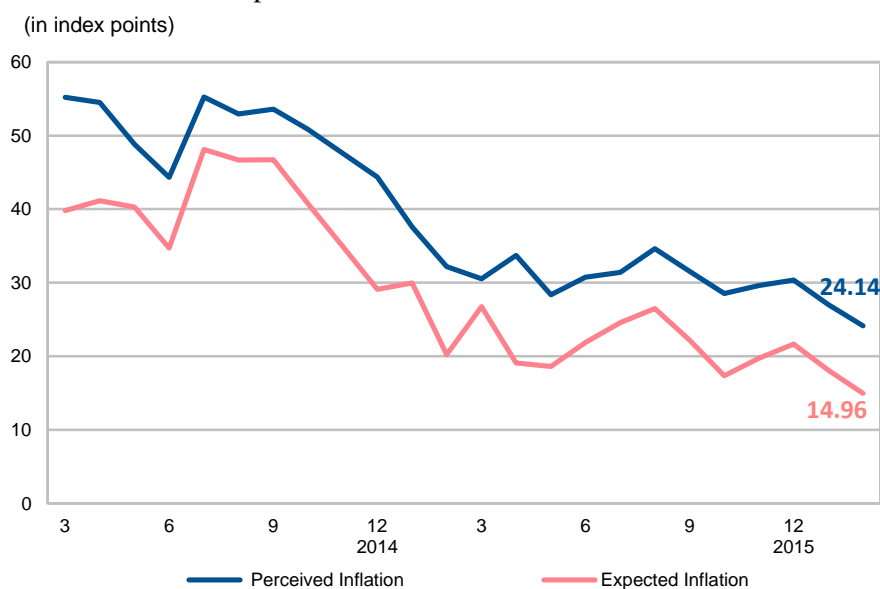
$$I = (AA + 0.5A) - (0.5B + BB)$$

A difference is made in terms of the intensity of responses – extreme and moderate responses are assigned numerical values of 1 and 0.5 respectively. Theoretically, the indicator may move from 100

(if everybody expects prices to increase considerably) to -100 (if everybody expects prices to decrease). At the same time, the indicator of perceived inflation (previous 12 months) represents the difference between the weighted share of respondents who assess that prices increased more than somewhat and those assessing that prices did not increase (but remained unchanged or decreased). The similar goes for the indicator of expected inflation, which represents the difference between the weighted share of respondents expecting one-year ahead prices to be more than somewhat higher and those expecting prices to remain unchanged or to decrease. Based on these two indicators and their comparison, it is possible to assess if the number of households expecting higher inflation is rising.

Perceived inflation was higher than the expected inflation in February as well, **which signals that one part of the population, who feel that prices increased in the past twelve months, do not expect the trend to last over the next 12 months.** Both indicators declined from mid-2014 to mid-2015.

**Chart 5** Perceived and expected inflation of households



Source: Ninamedia.