

# ANALYSIS OF SURVEY RESULTS

## CONSUMER BAROMETER

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*Various information sources may be used in making predictions of future economic development. One of the groups of information instruments comprises “soft indicators”, the most universal of which is the indicator of economic sentiment. This is a complex indicator having the aim of depicting the current state of expectations of all participants in the macroeconomic environment. It is composed of aggregate data from the results of business tendency survey in industry, construction and retail and from survey results of consumer opinion on the current economic situation. These soft indicators are also used in analyses by the NBS, where from the aspect of monitoring the main aim of the NBS’s monetary policy, price stability, great attention is paid to the consumer barometer.*

### 1. Description of the Consumer Barometer Survey

The Public Opinion Research Institute at the Statistics Office of the Slovak Republic conducts the consumer barometer survey, which is a part of the harmonised survey of economic and consumer polls conducted in member states of the enlarged European Union. The survey is conducted on a standard basis four times a year, and since 1999 for the needs of the NBS also on a monthly basis. By means of the same questions put at the same time, data is gained on consumer moods, which when aggregated, serve to forecast further economic development.

In the consumer barometer respondents evaluate on the basis of 15 standard, repetitive questions the economic situation in the country, the development of inflation and unemployment, conditions for saving and large purchases. A part of the questions ascertains what the financial situation of households is, or what their possibilities are to invest in long-term consumption goods, a vehicle, adjustments to their housing and constructions, or, as the case may be, purchasing a house or cottage. Questions are divided into evaluating the development for the past 12 months and into expectations in the coming 12 months.

From the Consumer Barometer survey the Statistics Office of the SR calculates on a monthly basis the Consumer Confidence Indicator, which is derived from four questions with regard to the expectations of the financial situation of households, economic development, the development of unemployment and household savings in the coming 12 months. It is however necessary to emphasise that the opinions of respondents presented by the Consumer Confidence Indicator have a high degree of volatility and sensitivity. The answers

are sensitive both to economic measures in the process of a country’s real and nominal convergence, as well as to political events (e.g. parliamentary elections, relations between the coalition and the opposition, the situation within the coalition, etc).

This article focuses primarily on the analysis of those answers of respondents that are connected with an evaluation of the current and expected development of prices in the economy and with an assessment of current as well as future final consumption of households.

### 2. Analysis of Inflationary Expectations

The content of the following analysis is an evaluation of the answers of respondents to the question from the Consumer Barometer regarding expected price development in the following twelve months (this question is not a part of the Consumer Confidence Indicator).

The question put to consumers regarding their opinion on the future development of prices was until recently of a qualitative nature<sup>1</sup>. This meant that respondents did not give their opinion directly as to what degree of price growth they expected in the future, but rather expressed their opinion on price development trends. The precise wording of the question is as follows: How do you expect consumer prices to develop in the coming 12 months in Slovakia? (1) prices will increase faster

<sup>1</sup> Since May 2003 in estimating the development of consumer prices respondents have been asked to give not only a qualitative, but also quantitative response. This means that those who have stated in their questionnaire that consumer prices will increase faster in the coming 12 months than previously, at the same rate as previously, or that they will increase at a slower rate than previously, are asked in the next part to specify by what percent they will increase.



than previously, to (2) prices will increase at the same rate as previously, (3) prices will increase slower than previously, (4) prices will stay at the same level, (5) prices will fall, (6) I can't judge. In evaluating the answers we work from the assumption that respondents in formulating their inflationary expectations are inclined to take into consideration the current level of prices, meaning that the current price development at the time of the research forms a reference value of the stated predictions. On the basis of the above, in part 2.1. we will first look more closely at current price development assessed by respondents at the time of the research, and subsequently in part 2.2. at the analysis of answers regarding inflationary expectations.

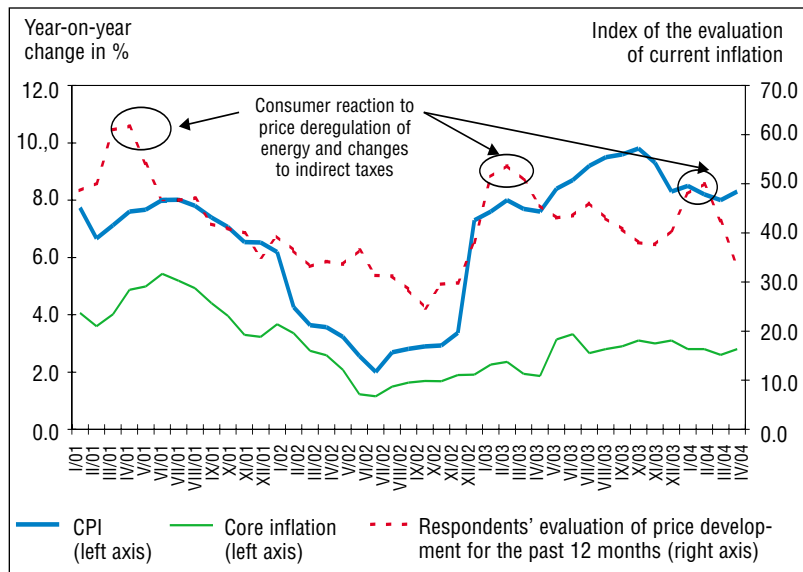
### 2.1. Comparison of consumer evaluation of the movement in the prices of goods and services for the past twelve months with the current rate of inflation

Graph 1 depicts the mutual relationship of the current development of overall and core inflation in the SR and the evaluation of the development of consumer prices by respondents<sup>2</sup>. The results of the evaluation of inflation by consumers are presented in the form of an index, the calculation of which is based on a weighted comparison of positive and negative statements and is comparable with the methodology used by the European Commission. Values of the index take the form of a positive value.

The graph above shows that in evaluating the development of inflation for the past 12 months consumers reacted relatively sensitively to each change in price trends. This could be seen most clearly at the start of years 2001 and 2003, when respondents reacted to extensive deregulation of energy prices and changes to indirect taxes by overestimating their perception of price development. The trend of the consumer evaluation of price development is therefore more comparable with overall, rather than core, inflation (core inflation does not include regulated prices and the effect of indirect taxes).

In comparing the situation at the start of 2001 and 2003 however, certain differences exist. In 2001 the evaluation by respondents was in accordance with the programme of increasing regulated prices, meaning that

**Graph 1 Comparison of CPI and core inflation with respondents' evaluation of price movement for the past 12 months**

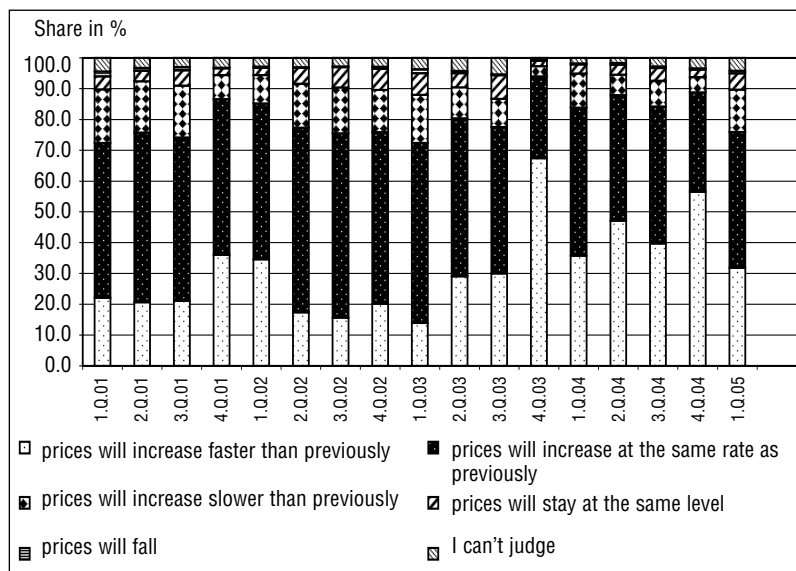


they expected a growth in prices. The actual rate of inflation however in the first two months fell and only accelerated slightly in the following period (up until mid-2001). This slower initial growth in prices against consumer expectations was connected with the fact that in the same period of the previous year (January to March 2000) a more significant deregulation of prices was made, meaning that when in 2001 the growth in regulated prices slowed down, then the overall price level was also growing at a slower rate. This explains the different trend in the inflation evaluation by respondents and actual inflation at the start of 2001. In the first months of 2003 respondents' evaluation of the price movements tracked the same course as the actual rate of inflation (and acceleration in the rate of growth), since the increase in regulated prices in 2003 was significantly higher than in 2002 (or, rather in 2002 only minimal adjustments to regulated energy prices were made).

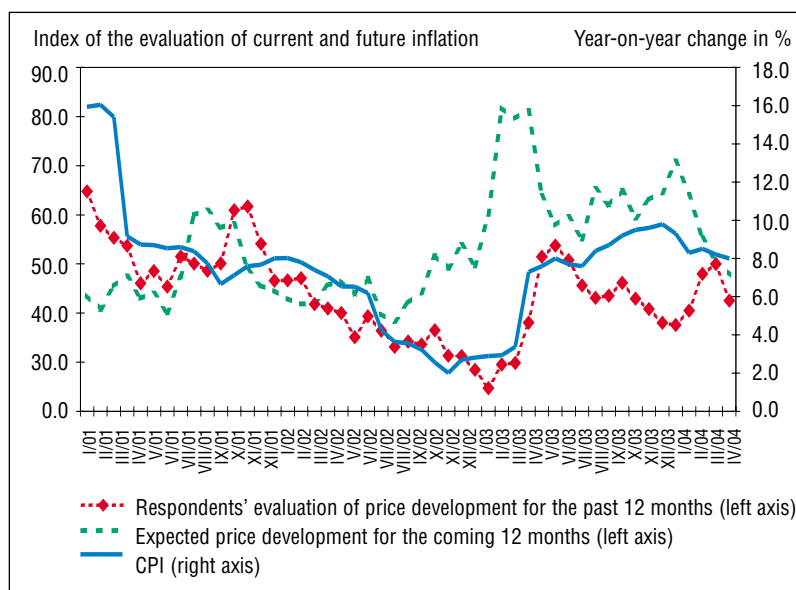
In almost the whole of the following period from June 2001 until May 2003 consumers' opinions reported a trend of development comparable with overall inflation. From mid-2003 for various reasons a divergence began to appear between the evaluation of the growth in prices from the side of respondents and actual inflation. In June vendors of tobacco products began to increase their prices due to the expected increase in excise duty on tobacco in August, causing an increase in the rate of inflation in this month. Consumers reacted to this fact only at the time when the information on the increase in cigarette prices began to appear more frequently in the media, i.e. two months later. An acceleration in the rate of inflation, the reason for which was a seasonal increase in food prices, however occurred also in the following months up until November 2003. The fact that respon-

<sup>2</sup> The precise wording of the question in the Consumer Barometer poll is: How, in your opinion, have the prices of goods and services in Slovakia changed in comparison with the situation 12 months ago?

**Graph 2 Structure of answers to the question regarding inflationary expectations** (on the basis of data in the last month of the quarter)



**Graph 3 Evaluation of current and future inflation by consumers**



dents' evaluation in the given period developed in the opposite direction may be explained by the fact that consumers perceived the seasonal growth in food prices less sensitively compared to the increase in regulated energy prices, which received greater media attention.

<sup>3</sup> In compiling the graphs in part 2.2. the answers from specific monthly polls were shifted 10 months forwards. The shift forwards itself ensues from the fact that respondents expressed their opinions on the development of consumer prices for the year ahead. The first reason why these opinions were shifted 10 months ahead (and not 12 months, as ensues from the poll) is the fact that the consumer research is conducted in the first days of a month, meaning that if, for example, the research took place in April 2004, then the respondents are expressing their expectations for the period 1 April 2004 – 31 March 2005, i.e. for the year-on-year inflation in March 2005 (this would explain a shift in

## 2.2. Analysis of answers regarding inflationary expectations

As we have already mentioned, the results of the evaluation of inflation (whether current or expected) by consumers are presented in the form of an index, the calculation of which is based on a weighted comparison of positive and negative statements. If for example the percentage share of consumers "expecting faster price growth than previously" increases, and in accordance with this the share of respondents "predicting slower price growth than previously" falls, then in the period of the following year an increase in the rate of inflation is expected.

As can be seen in graph 2, depicting the structure of respondents' individual answers to the question regarding their inflationary expectations<sup>3</sup>, so far the most positive estimates of price development relate to the period 2002, when Slovakia recorded its lowest rate of inflation. In the given year the share of consumers predicting the same price growth as hitherto was on average around 58%, the share of the most pessimistic answers (those expecting faster price growth than hitherto) was 20%.

The year 2003 saw a development in inflation opinions when the share of the greatest pessimists (38.5%) increased significantly, where the share of respondents expecting the same price growth as hitherto fell to less than 45%. These expectations were formulated in particular in the 3rd and 4th quarter of 2002, when parliamentary elections

were held, and subsequently the new adjustment to regulated energy prices for 2003 was announced, as well as the changes to excise duty under preparation.

An identical trend in the current development of inflation and consumer predictions from 10 months ago may

the value by 11 months). The reason for the shift by another month is the implicit assumption that in formulating inflationary expectations respondents guide themselves according to the last known value of inflation (published by the Statistics Office of the SR), this means that if in April 2004 the last known data on inflation was for February (the data for March was published on 13.4.2004), then their expectations will be formed with regard to the data for the given month. If we summarise this, then, for example, respondents' individual answers from May 2000 concerning their future expectations are shown in the graph in the column for the first quarter of 2001 (i.e. in March 2001).

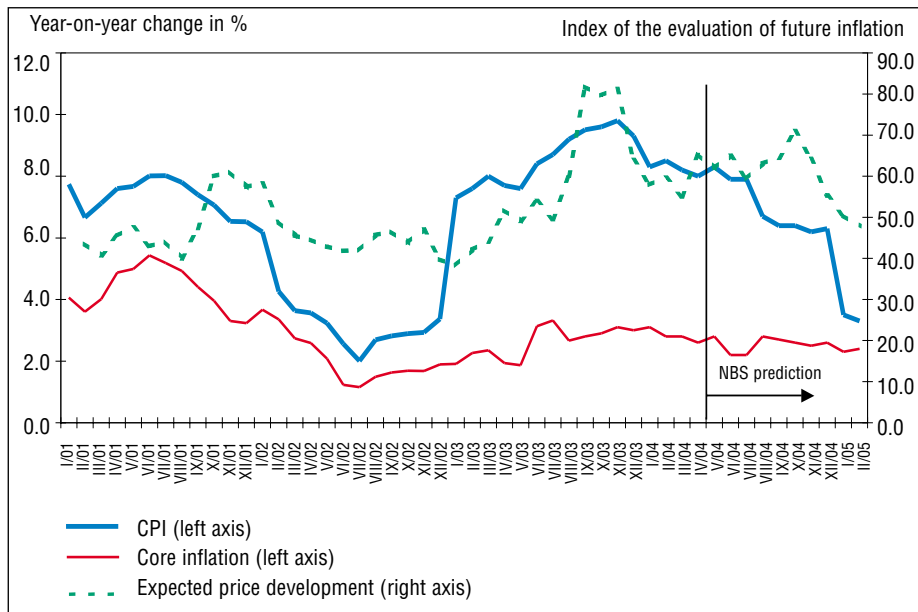
be seen also in 2004, when the deregulation process in energy prices was renewed (even if to a lower extent than in comparison with the previous year). The fact that the proportion of the most pessimistic answers in 2004 is found at approximately the same level as in 2003 is connected also with the process of the SR's accession to the EU in May 2004, when most consumers expected the food prices in particular to increase.

As yet only the expectations for the first months are available for 2005, these however indicate a positive reversal in the development of inflation. The ratio of respondents expecting the same price growth as hitherto has so far remained at the level for 2004, a positive fact however is a more significant growth in the share of consumers predicting slower price growth than hitherto and at the same time a fall in the share of the most pessimistic respondents. According to this, respondents thus expect (at least in the first months of the year) a gradual decline in a price growth in 2005, which corresponds to the prognoses

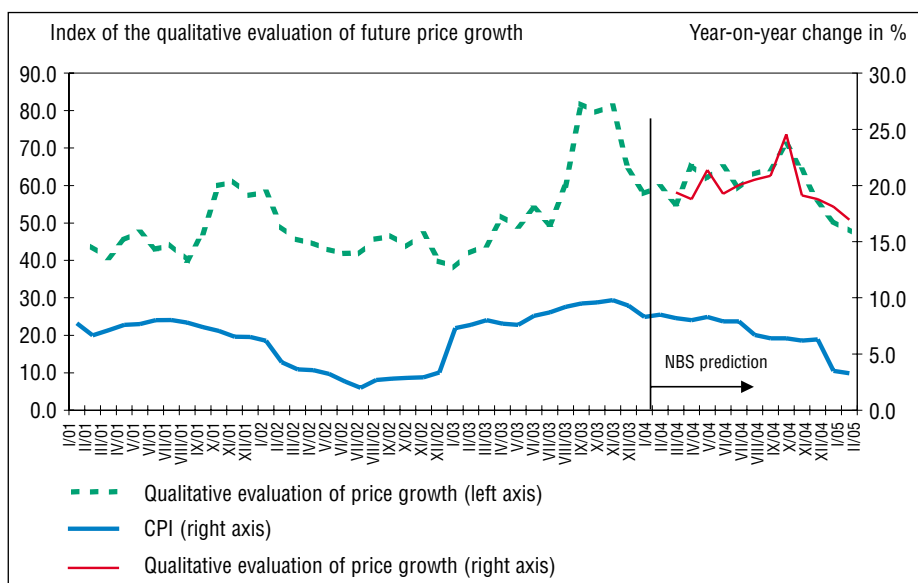
of the NBS. Noteworthy, from the aspect of the formation of consumers' inflationary expectations is also graph 3, depicting the mutual relationship between the overall values of hitherto and future inflation.

As can be seen from the graph above, respondents' expectations for the future development of consumer prices were at a lower level in comparison with the assessment of hitherto inflation over the course of 2000 and almost during the whole of 2001. This means that in 2001 and 2002 a fall in inflation over the course of 12 months was generally expected, which was confirmed also by actual development. Over the

**Graph 4 Comparison of CPI and core inflation with respondents' opinions on price development from 12 months before**



**Graph 5 Comparison of CPI with respondents' opinions on price development from 12 months before**



course of 2002 (in particular in the second half of that year) and also in 2003 expectations began to more significantly exceed evaluations of hitherto inflation, which was probably connected with the parliamentary elections in 2002 (and the economic reforms under preparation for 2003) and the expected increase in food prices following Slovakia's accession to the EU.

The concluding assessment of the analysis of consumers' inflationary expectations from the findings of the Consumer Barometer is provided by graphs 4 and 5. In these graphs, too, it can be seen that consumers manage to relatively reliably estimate the future deve-



lopment of inflation. This is proven not only by the hitherto common trend of the development of prices and inflationary expectations, but also the comparison of predictions by respondents and the expert estimate of inflation from the monetary programmes of the NBS for the period of the coming 10 months. At the same time it is necessary to point out the fact that in periods of adopting cardinal economic measures, consumers' evaluations deviate for a short time from current deve-

lopment, whereby a dissimilar trend in the development of current inflation and consumer expectations arises. The results of the analysis confirm the relative reliability of data from the Consumer Barometer on consumers' inflationary expectations (in particular in a period of stable economic development).

***To be continued in issue 11/2004***