HICP COMPLIANCE MONITORING

INFORMATION NOTE

ON THE HARMONISED INDICES OF CONSUMER PRICES

FOR BULGARIA

April 2015

In the context of compliance monitoring and quality assurance, Eurostat reviewed the HICP for Bulgaria. The practices used to compile the HICP for Bulgaria have been reviewed against HICP legislation and other guidelines and good practices in the field of consumer price indices.

This report takes account of publicly available information on the CPI and HICP for Bulgaria and additional information collected by Eurostat prior to, during and after a visit to the National Statistical Institute of Bulgaria on 28 October 2013.

1. INTRODUCTION

HICP compliance for Bulgaria was last assessed by Eurostat in 2007. In 2013, Eurostat reviewed again the practices used to compile the HICP in Bulgaria against the HICP legislation and other guidelines and good practices in the field of consumer price indices.

HICPs/CPIs are regularly disseminated by NSI of Bulgaria in a press release (also in English) and HICP data are available on the NSI's website.

2. DATA COLLECTION AND VALIDATION

2.1. Organisation

In Bulgaria, prices are collected both centrally and de-centrally by price collectors in shops. Local price collection is carried out using handheld computers or paper collection forms by the staff of the 27 regional statistical offices in the district centres. Central price collection is carried out via the internet or by taking relevant information from governmental acts. The information is supplemented by direct contacts.

No price collection is carried out in rural areas. However, the NSI Bulgaria considers that price movements between smaller towns and bigger cities are similar. Eurostat recommends that the Bulgarian NSI continues to verify from time to time that price developments in rural areas are duly represented by price developments in bigger cities.

2.2. Frequency

Prices are collected monthly except for waste collection, package holidays and education, which are collected annually or biannually. The regional price collection schedules for rapidly changing prices are set up in the way that outlets are visited every week.

The Bulgarian price collection practice is, with the exception of package holidays, in line with HICP requirements as regards its frequency. Eurostat considers necessary to increase the frequency of price collection for package holidays.

2.3. Data validation

Data validation is based on a multi-stage system. The first two stages relate to data processing by the regional offices while entering the collected prices into the computer system and after the data has been processed. At the central office data are checked and validated after the first index calculation.

3. PRICES

For most products prices are collected from shelf price labels and price-tags, which are generally considered as best approximation of transaction prices. For desktop computers, new and used cars, railway tickets, airfares, insurance connected with transport and with dwelling, list prices are used. Price collection practices in Bulgaria follow internationally accepted standards.

Prices collected on the internet for electricity, urban transport services, telecommunications, recording media and electronic games, books and financial services are regarded as identical to prices in physical outlets. Prices collected on the internet for cars, information processing

equipment, package holidays, air transport and hotels are regarded as a best estimate for transaction prices. Prices collected for low cost airlines represent products purchased via the internet.

Reduced prices enter into the index calculation if they are available to all potential consumers. Discounts for owners of fidelity cards are not taken into account. Inducements such as 2 for 1 are not taken into account as long as the original product quantity defined in the price collection instructions is available, too. However, this type of inducement can be regarded as significant so that it should be taken into account.

Some prices for health services are linked to the official minimum monthly salary. Changes in the minimum salary are translated into price changes of these services and reflected in the HICP as required.

In case a product disappears during the year, standard replacement procedures are applied. Missing prices are imputed for two months if temporarily unavailable. In the third month, they are replaced.

4. TAXES AND ADMINISTERED PRICES

The NSI of Bulgaria compiles and transmits to Eurostat HICPs at constant tax rates according to the requirements.

Bulgaria regularly transmits to Eurostat a list of sub-indices that are fully or partially administered for the calculation of the HICP Administered Prices (HICP-AP).

Prices of a wide range of products are either directly set or significantly influenced by the government: energy, social rents, services related to the dwelling, education, social protection, passenger transport and communication services.

5. WEIGHTS

The main source for the item weights is National Accounts data from the year t-2 price-updated to December of the previous year. The data are supplemented by Household Budget Survey (HBS) data from the year t-1 as well as data obtained from other reliable sources used to compile weights up to the most detailed level.

This approach is fully in line with Commission Regulation (EU) No 1114/2010. The NSI of Bulgaria annually reviews and updates the weights up to the lowest aggregation levels, which is beyond the minimum requirements as set out by the regulation.

Regional expenditure weights are not used due to lack of reliable information at this level. Regional differences are implicitly covered in the sample by the number of price observations.

6. SAMPLE DESIGN

6.1. Product sample

The products are selected using purposive sampling. Selection and specification of the products is done jointly by staff in the central office and by price collectors in regional

statistical offices (RSO) on the basis of HBS data, administrative data, data from privately owned databases, and the field experience of price collectors.

The specific variety of the sampled product (reference product-offer) is selected by price collectors. They are instructed to choose the most sold product-offer which meets the product specification as close as possible.

In line with the legal requirements, all COICOP classes with a share in total expenditure of at least one part of a thousand are covered in the Bulgarian HICP. COICOP classes with a weight of less than one part of a thousand in total expenditure are excluded.

The list of representative items is reviewed annually.

New goods and services are identified on the basis of HBS data, information from price collectors as well as further research and consultation with suppliers. New products are introduced during the annual revision of the sample. Thus, new goods and services, if their expenditure share is estimated to be significant, can be included in the index within 12 months as required.

6.2. Outlet sample

The sample of outlets is drawn using non-probability sampling techniques ('purposive'/'judgmental' sampling) and is defined jointly by the central office and the RSOs.

The main goal is to have the number of price observations in each district centre proportional to the population and to the volume of retail sales. The district centres are stratified into three groups: (1) capital, (2) 'big' and (3) 'small' centres.

The selection of particular outlets is made at the local level by price collectors in the RSOs based on their knowledge and experience. They are instructed to select the outlets which:

- have a large volume of retail sales;
- supply a variety of products, representative of the relevant elementary product groups.

The main types of outlets are covered, including supermarkets, hypermarkets, general and specialized stores, and market stalls. Mail order and internet purchases are not covered. Eurostat welcomes the efforts of the NSI of Bulgaria to further monitor the relevance of internet purchases via the inclusion of relevant questions into the Household Budget Survey starting from the second quarter of 2015 in order to ensure the correct representation of the internet as retail channel.

7. INDEX STRUCTURE AND AGGREGATION METHOD

The list of products for which prices are collected includes tight specifications for most products. These product descriptions are detailed and include up to six (but at least one) characteristics. Loose specifications are used for non-harmonised products such as fresh fruit and vegetables.

The concept of consumption segments (CS) has been implemented since 2010 at the level of elementary aggregates. The CSs were identified and respective weights were defined for these subgroups. Each CS is represented by at least one product.

The elementary aggregates are calculated using geometric means. This practice is in line with the HICP requirements.

8. QUALITY ADJUSTMENT

Quality adjustment is usually done for prices of food and beverages, clothing and footwear, household appliances, cars, books, audio and video recordings, personal computers and electronic games. Where there are agreed European standards, methods that can be classified as B-methods (in accordance with Article 5 of Regulation no 1334/2007) are applied. An A-method is only applied in the case of recorded media, where the long-selling market approach is implemented.

Quality adjustment decisions are made on a case by case basis. The most used methods are direct comparison and bridged overlap. Option pricing or bridged overlap is applied for new cars; direct comparison or bridged overlap is applied for second-hand cars. Direct comparison is used for minor quality differences for clothing, while bridged overlap or class mean imputation is used for significant quality differences. The expert judgement method is applied for household appliances: The percentage of the price change that is attributed to quality change is decided case by case on the basis of comparison of characteristics between the replaced and the replacement product. For books, audio and video recordings, as well as electronic games the bestseller approach in combination with direct comparison is used. Option pricing is applied for desktop computers and bridged overlap for notebooks.

9. TREATMENT OF SPECIAL PRODUCT GROUPS

9.1. Seasonal items

Bulgaria's NSI implemented the new standards on the treatment of seasonal items in 2011. The changes were introduced to the method of defining the in- and out-of-season periods, to the price used to calculate the index in the first out-of-season month and to the estimation method of the price development, starting with the second out-of-season month.

Previously, the last observed price was carried forward until the price could be observed again. Now, the price in the first out-of-season month is calculated as the average price of the last in-season period. Starting with the second out-of-season month, the price development is estimated using counter-seasonal estimation or all-seasonal estimation, if the counter-seasonal estimation is not feasible.

9.2. Cars

The market for cars in Bulgaria has been divided into three consumption segments according to size (small, middle and large). The most sold sub-models are sampled from the list of all primary models belonging to each segment. The sample covers petrol and diesel cars. The sample for used cars is further stratified into two age classes.

List prices for new cars and offer prices for used cars are collected from the internet monthly as an estimate for transaction prices. The price information for new cars is supplemented by regular contacts with dealers by mail or phone.

The NSI is negotiating with the car register authority in order to obtain more detailed information about purchased cars. The new source of information shall help in the definition of more consumption segments and improvements in the sampling and calculation procedure.

9.3. Telecommunications

For telecommunication services, the unit value approach is applied in Bulgaria.

For fixed line telecommunication services only the biggest provider, which holds a market share of close to 90 percent, is observed. The average price for one standardised minute is calculated for six different subscription plans and a weighted average price by market shares entered into the index calculations.

For mobile telecommunication services all three providers on the Bulgarian market are observed. Average prices are calculated by type of service and provider.

For internet services, one price in each district is collected from the main service provider.

Bundled telecommunication services and other information transmission services are also covered.

The coverage of the telecommunication services appears appropriate. Eurostat recommends that the NSI follow methodological development in the field in order to possibly implement a consumer profile approach.

Prices for telecommunication equipment have undergone a significant decrease in recent years, while the weight of the class has increased. According to Bulgaria's NSI, prices have fallen due to technological improvements and higher penetration with low-cost smart-phones. The parallel increase of purchased quantities compensated the fall in prices.

9.4. Medical products

Prices are those actually paid by consumers, i.e. net of reimbursements.

The representativity of the sample has been improved according to Eurostat's recommendation from the last compliance exercise to include reimbursed medicines. Data from the National Health Insurance Fund are used for the calculation of detailed weights and sampling.

The sample and the weights are updated at yearly frequency.

9.5. Package holidays

The sample for package holidays was reviewed and extended following Eurostat's recommendations from the last compliance exercise. The sample and the weights have been reviewed annually since then.

The NSI has investigated the issue of last minute prices and concluded that they are limited in quantity and not popular in Bulgaria. Eurostat considers that the NSI should follow the market and, if the situation changes, adjust the product sample accordingly.

Prices for package holidays are collected from the internet twice a year when new prices are uploaded by the tour operators. All prices are collected for the relevant season and entered in the index when the consumption commences. During the rest of the year, the price is carried

forward. Eurostat considers necessary to move to a more frequent observation of prices for package holidays.

9.6. Financial services

The sample of financial services includes one single elementary aggregate: the fee for money withdrawal at an ATM. This service has been selected using the 'most sold' approach. The fee is independent of the transaction value. Following Eurostat's recommendation from the last compliance exercise, the sample was extended to include more banks. The sample does not include service charges that are proportional to the transaction value.

Eurostat recommends investigating if movements of the price for money withdrawal at ATM correctly represent the changes in service charges for all financial services.

10. PLANNED CHANGES

The NSI of Bulgaria has been compiling indices at COICOP level 5 since 2013. Dissemination of the indices is planned only after adoption of new HICP legal framework.

11. OVERALL ASSESSMENT

Eurostat considers that the methods used for producing the Bulgarian HICP are of a satisfactory standard. Eurostat's recommendations in the previous reports have been followed, and the quality of the consumer price indices has improved during recent years. The representativity of the Bulgarian HICP is generally appropriate.

Bulgarian data pass all standard HICP validation tests – they are internally consistent. There were no apparent instances of non-compliance with the HICP methodology. Bulgarian HICP data are therefore considered comparable to the HICPs of other EU countries.

While the representativity of the HICP is generally appropriate, the Bulgarian HICP would benefit from further improvement efforts

Eurostat recommends:

- The NSI of Bulgaria should move to monthly collection of prices for package holidays,

- The NSI of Bulgaria should elaborate on the treatment of telecom services with focus on possible implementation of a consumer profile approach,

- The NSI of Bulgaria should investigate if price movements for financial services are accurately represented in the sample.