



EUROPEAN COMMISSION  
EUROSTAT

Directorate C: National Accounts, Prices and Key Indicators  
Unit C-5: Price statistics; Purchasing Power Parities; Housing Statistics



## **HICP COMPLIANCE MONITORING**

### **INFORMATION NOTE**

### **ON THE HARMONISED INDICES OF CONSUMER PRICES FOR LATVIA**

**September 2013**

In the context of compliance monitoring and quality assurance, Eurostat reviewed the HICP for Latvia. The statistical practices used to compile the HICP for Latvia have been reviewed against HICP methodology 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 Latvia, and additional information collected by Eurostat prior to, during and after a mission to the Central Statistical Bureau (CSB) of Latvia on 5 March 2013.

## **1. INTRODUCTION**

HICP compliance for Latvia was assessed positively by Eurostat in 2004 and 2007. In the context of compliance monitoring and quality assurance, Eurostat has been reviewing the statistical practices used to compile the HICP in Latvia against HICP methodology and other guidelines and good practices in the field of consumer price indices. Additionally to general compliance with HICP regulations and in particular with regulations adopted since 2007, the focus of Eurostat's assessment of 2013 was on the follow-up of Eurostat's recommendations from the last compliance report, on data collection, the structure of the index, weightings, coverage and handling of particular product groups. Eurostat had also a preliminary discussion on the preparation of the euro changeover foreseen for 1 January 2014.

## **2. DATA COLLECTION AND VALIDATION**

### **2.1. Organisation**

In Latvia, data is collected de-centrally by price collectors in shops and via internet or telephone. Each price collector is equipped with a PC, a mobile phone and an internet connection. Presently, the possibilities for the introduction of mobile devices for price collection are being investigated.

For most goods and services loose specifications of items are provided to price collectors with instructions to select the most popular variety within the specifications defined by the CSB. Detailed information is available for each product. The brand, size and distinguishing features of the selected variety are recorded by the price collectors for subsequent price collections.

Internet price collection is carried out to cover the part of the market for purchases via internet and control of price information. Data on the structure of services in telecommunications are provided directly to CSB by the service providers.

Price collectors regularly contact the administration of the city or town where they work to detect changes in administered prices (decentralised price collection); this information is communicated to CBS. Prices for district heating are collected by the price collectors in the sampled regions. Usually there is one single tariff per town. Information on the regulatory framework for prices, regulated prices and taxes as well as information on reimbursed medical products is obtained from administrative sources.

Price collection is carried out in Riga and 11 regional centres (cities). The price survey cities are to varying degrees market centres of the respective region, also serving their surroundings. Rural people are considered to make their purchases in larger towns. The weight of Riga's region in price collection was correlated to the share in population (around 41%) in recent years, following recommendation of Eurostat. In 2008, price collection from 2 cities was reallocated to Riga while keeping the number of price observations on the optimum level.

## **2.2. Frequency**

In principle, all prices are collected monthly. There are only few exceptions such as rents for old contracts which are collected via quarterly LFS and entered into the HICP with a certain delay. More frequent price collections, 4 times per month, are carried out in the case of fuel. Administered prices are also checked at monthly frequency if changes have occurred.

Taking into account all circumstances, the current price collection practice is acceptable as regards its frequency.

## **2.3. Data validation**

Data validation is based on a multi-stage system. The first stage is carried out via automatic warnings by the data entry software during the entering of price observations by the price collectors. In case of high price variation, the software asks the price collector for confirmation, which in some cases means a second collection of the same prices. There is an additional check by the central office via internet. Price variations above a predefined threshold value are validated again in consultation with the price collectors.

There is an exhaustive guide book for price collectors. Biannual meetings with price collectors are held. These meetings follow an interactive approach, reinforcing understanding regarding price collection, organisation, and computer literacy.

Eurostat acknowledges the efforts made by CSB to ensure the quality of the micro data.

## **3. PRICES**

For most products actual transaction prices are collected as required. Rents corresponding to old contracts have been collected from LFS since 2011, after the survey had undergone major improvements in 2010. Data obtained from the survey can be considered to reflect the actual rental payments. However, for some products, transaction price developments are estimated using list or offer prices, in particular for new and used cars and for new rentals. Rents corresponding to new contracts are collected from internet databases of offer prices. The weakness of this price collection method is that there is no information on if and how many transactions take place at offer prices, but based on results of market research it is estimated that developments in actual transaction prices correspond to those of the offers.

Reduced prices are taken into account in the index calculation as normal price change if discounts are non-discriminatory. Fidelity cards are not taken into account as the discounts connected to them often are not linked to a particular product.

In case a product disappears during the year, standard replacement procedures are applied. Missing prices are imputed up to two months in case of temporary unavailability. After this period, they are replaced.

## **4. PRICE ADMINISTRATION AND TAXES**

Latvia regularly transmits to Eurostat a list of administered prices for the calculation of the HICP Administered Prices (HICP-AP). Prices of a wide range of products do not follow market developments but are either directly set or significantly influenced by the government:

energy, services related to the dwelling, health, passenger transport, postal services, fixed telecom services and social protection. Latvia plans to take out electricity prices from administered prices starting in 2014.

Changes in administered prices are mainly effective from January each year. Increase of administered prices has slowed down since 2009 after substantial upward adjustments in precedent years.

The CSB transmits to Eurostat HICPs at constant tax rates according to the requirements. The impact of tax changes have been confirmed by the CSB.

In recent years, Latvia recorded many changes in taxes. For example the VAT rate decreased in 2012. Discussion about further tax changes is on-going.

## **5. WEIGHTS**

The main source for the item weights is the Household Budget Survey (HBS) which is carried out continuously all through the year. The data is supplemented by data from the National Accounts and Balance of Payments (BoP) as well as from the Surveys on Border Crossings (SBC) for ensuring a better coverage of the expenditure of rich households, for the correction of the data for underestimated consumption groups in the HBS, as well as for the expenditure weights of institutional households and non-resident households. Adjustments may be spread over several years in case of big differences between figures obtained from the HBS and National Accounts.

The reference period of the weights is linked to the quarterly availability of the HBS (October t-2 – September t-1 in each year t).

The introduction of the regulation on minimum standards for weights in 2012 did not require changes to existing practices.

Weights based on regional expenditures are not used. Price observations are aggregated to the national level using as weights population shares based on census data and updated every 10 years. Changes in national average prices can incur due to population changes with the same frequency.

Outlet weights are used for some items based on the turnover of the enterprises.

The expenditure structure differs from European averages. This is particularly true for some product groups. Differences have been validated. However, due to lacking available information it is not always possible to obtain the appropriate expenditure distribution namely to COICOP 04.1 Actual rentals or COICOP 04.4.4 Services related to the dwelling. Because of the low weight of tenancy in housing and the low weight of actual rentals in total expenditure, this fact is not likely to result in a significant bias in the estimated all-items inflation rate.

## **6. SAMPLE DESIGN**

### **6.1. Product sample**

The product sample is designed using purposive sampling as well as calculations based on price variations in order to optimize the sample size and ensure representativity. The sample is divided into consumption segments which are considered as fixed objects in the HICP basket related to representative items. Replacements are carried out within the consumption segments.

According to the requirements, all COICOP classes with a share in total expenditure of at least one part of a thousand are covered in the Latvian HICP. COICOP classes that are excluded have a weight of less than one part of a thousand in total expenditure.

The target sample and the reference product offers are reviewed and updated annually based on data from HBS and National Accounts. Price collectors are asked to send their proposals in September each year. The update is carried out from October to December each year. This systematic approach ensures that newly significant products are included into the sample within 12 months.

### **6.2. Outlet sample**

The outlet sample is designed using purposive sampling based on 3 main criteria: popularity among consumers, significance of sales and availability of a range of goods and services included in the consumption basket. If an outlet disappears during the year, it is immediately replaced, by the price collectors working in the area, with a similar outlet selling similar products. Additionally, the outlet sample is reviewed at yearly frequency.

Internet purchases from national sales points were included in 2009 in the HICP calculation. Internet purchases of passenger transport by air are collected for flights from and to Latvia, including those operated by international airlines.

## **7. INDEX STRUCTURE AND AGGREGATION METHOD**

The Latvian HICP relies on loose product specifications. The price collector chooses the representative item to be collected within the specifications. Each price collector may choose a different item. Therefore, it is not possible to obtain a list of items below the elementary aggregate level. In some cases, the number of representative items can even correspond to the number of price observations collected monthly. Consumption segments correspond to the elementary aggregates in the Latvian HICP.

Bundled products are treated in line with the guidelines that have been agreed by the Price Statistics Working Group.

Arithmetic means are used to calculate the elementary aggregates. As a result of the loose specification of the items, substitution effects are likely to be an issue and it may appear advisable to apply the geometric mean formula for the elementary aggregation for most product groups even if there is no legal requirement to change the current praxis.

## **8. QUALITY ADJUSTMENT**

Decision about the quality adjustment is always based on the specific conditions reported by the price collectors. Where there are agreed European standards, mainly methods that can be classified as B-methods (in accordance with Article 5 of Regulation no 1334/2007) are applied.

Option pricing is applied for new and used cars and desktop computers. In other cases bridged overlap, quantity adjustment, judgemental (expert) adjustment and, in most cases, direct comparison (equivalent replacement) is applied.

## **9. TREATMENT OF SPECIAL PRODUCT GROUPS**

### **9.1. Seasonal items**

Latvia implemented the new standards on the treatment of seasonal items in 2011. The main change that was introduced relates to the price used to calculate the index in the first out-of-season month. Before the implementation of the new standards, this price was imputed from the last available price using the price development of all items in the same class. Presently, the price in the first out-of-season month is calculated as the average price of the last in-season period, disregarding the seasonal sales prices. Starting with the second out-of-season month, prices of out-of-season products are imputed using all-seasonal estimation or counter-seasonal estimation method. Counter-seasonal estimation is applied for clothing and footwear and spare parts for vehicles.

### **9.2. Cars**

The sample includes both new and used cars. The sample for used cars has been extended to newer models following Eurostat recommendations.

Quality adjustments are carried out for changes between generations of cars models using option pricing. Minor changes of the quality of the car cannot be separated from price changes.

### **9.3. Passenger transport by air**

Prices are collected via internet for return flights for the month of the flight or 3 months in advance for a list of popular destinations operated from Latvia. Low cost carriers' offers are included.

### **9.4. Telecommunications**

A consumer profiles approach is followed for telecommunication services. To each profile the cheapest tariff plan is attached assuming that a change is possible at any time. This assumption may show some weaknesses and does not take into account other factors such as inertia in changing tariff plans. Therefore, efforts are made to take a second tariff plan into account which can be regarded as dominant for the respective profiles. The two tariff plans are weighed together according to their relevance. In order to ensure the choice of the representative tariff plans for each profile, information on market structure is obtained directly from service providers who themselves frequently introduce changes into their tariff

plans. They provide information on the distribution and movements of the consumers between contracts.

### **9.5. Package holidays**

Prices of package holidays are collected via internet from tour operators' web catalogues. The coverage of the index has been extended; this extension leads to an increase in the volatility of the index. Last minute offers have been added, too.

## **10. PLANNED CHANGES**

Latvia has recently been evaluated to be ready to introduce the euro on 1 January 2014. A price observatory was put in place already one year before the expected introduction of the euro. The mandate of the observatory will end one year after the date of introduction, presumably end of December 2014.

The CSB is currently building up deeper cooperation with the department responsible for carrying out the Household Budget Survey in order to obtain more information on the relevance of internet purchases. The CSB is willing to implement new guidelines on the treatment of internet purchases as soon as they are agreed by the Price Statistics Working Group.

The CSB is planning to introduce the COICOP level 5 in accordance with the roadmap agreed at EU level.

The CSB is also planning to modernise the price collection via usage of electronic devices. The possibilities are currently being investigated.

## **11. OVERALL ASSESSMENT**

Eurostat considers that the methods used for producing the Latvian HICP are of a good standard. The recommendations of Eurostat associated to the previous reports have been followed and the quality of the consumer price statistics for Latvia improved during recent years. The representativity of the Latvian HICP in terms of accuracy and reliability is adequate.

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

While the representativity of the HICP, in terms of accuracy and reliability, is generally adequate, the Latvian HICP would benefit from further analysis to support the current methods in some fields.

Eurostat recommends that:

- The CSB studies the possibilities and the potential impact of changing the elementary aggregation formula from arithmetic to geometric mean.
- The CSB continues to make efforts to increase the share of actual transaction prices.

- The CSB investigates the possibilities to apply more explicit quality adjustment methods.
- The CSB continues to elaborate on the methodology used to calculate the index for actual rentals.
- The CSB continues to closely monitor the price developments of electricity in particular as regards the possible liberalisation of the market eventually in 2014.