



EUROPEAN COMMISSION
EUROSTAT

Directorate C: Macro-economic statistics

Unit C-4: Price statistics. Purchasing Power Parities. Housing statistics

HICP Compliance Monitoring Report

Hungary

March 2020

1. Introduction

In March 2019 Eurostat reviewed the compilation of the harmonised index of consumer prices (HICP) for Hungary. The review was done against the legal framework, HICP recommendations and other guidelines and good practices in the field of consumer price indices.

This report is based on:

- A document with the inventory of the sources and methods of the Hungarian HICP. This information was submitted to Eurostat in February 2019.
- The discussions at the compliance monitoring visit that took place at the Hungarian Central Statistical Office (HCSO) in Budapest in March 2019.
- The previous compliance monitoring report, published in January 2009.

This report summarises the Hungarian practices on main methodological aspects of the HICP. Each section is followed by Eurostat's appraisal of compliance and recommendations for improvement. Eurostat's overall assessment of compliance of the Hungarian HICP is available at the end of this report.

2. Coverage and classification

The Hungarian HICP includes all monetary consumption expenditure by both resident and non-resident households on the economic territory of Hungary (domestic concept). Consumption expenditures of institutional households are included (their share is 2.4% of the population).

All categories of the European Classification of Individual Consumption by Purpose (ECOICOP), which account for more than one part in a thousand of the total of household final monetary consumption expenditure, are included in the HICP.

Sub-indices at the 5-digit level ECOICOP are available from December 2014. The 4-digit level HICP sub-indices are available from December 2000 (all-items and 2-digit level HICP sub-indices are available from January 1996).

Compliance

The coverage of household final monetary consumption expenditure and the classification used for the Hungarian HICP are in line with the legal requirements.

3. Sampling and representativity

The 19 counties of the country and the capital city are included in the sample and prices are collected in 104 localities. First, the capital city and the main cities at county level were selected, then another 70 random localities were added. The number of small towns in the sample is decreasing over time. The sample of localities is kept up-to-date in case many outlets shut down in the same locality via substitution by another locality.

The outlets included in the sample are selected taking into account the share of the turnover of the outlets. No outlet weights are used in index compilation since the different retail channels are supposed to be represented in the sample according to their market shares. However, in some cases (e.g. consumer electronics and drugstore chains) there is no correspondence between

turnover of the chains and number of collected prices. Thus in those cases the implicit weighting does not fully correspond to the turnover of the chains. Additionally, some chains with a non-negligible share of the turnover are not surveyed.

The outlet sample is reviewed regularly. The last reviews took place in 2012 and 2016.

Internet purchases are included for booking of air fares. Mail order is not included in the sample. The share of mail order and internet purchases in total domestic retail sales is about 4.5% of the expenditure.

A number of products relating to maintenance and repair of the dwelling (e.g. installation of washbasins) are included in the sample for which it is not always clear whether they are typically paid by tenants. According to the HCSO, the expenditures for these items are usually shared between tenants and owners and are therefore eligible to be included in the HICP.

Compliance

The sampling and representativity are in line with the legal requirements.

Recommendations

The HCSO should ensure that the number of prices collected in outlets of the same chain, thus the implicit weighting, reflects the turnover of that chain.

The HCSO should verify the importance of internet purchases and mail orders and, if necessary, include them in the sample.

4. Weights

The main source for weights down to the 4-digit level of ECOICOP is the national accounts. The weights are updated annually and data from year t-2 are used (price updated to December t-1). In case of big changes from the values from the previous year or between the national accounts and Household Budget Survey (HBS) data, additional sources are analysed.

There are different sources for 5-digit level and elementary aggregates. These include the HBS, retail trade data, Chamber of Commerce data, and other. In case there are no sources, equal weighting or judgemental criteria are used as well. Equal weighting is applied in a few cases (clothing, repair of household appliances, plants, flowers, etc).

At the 5-digit level, data from year t-2 are used unless there are already data from year t-1. At that level, the weights are not price-updated. There is neither regional nor outlet weighting.

Compliance

The compilation of weights is in line with the legal requirements.

Recommendations

The HCSO should apply price-updating to December t-1 at least at the subclass level (5-digit), or below.

The HCSO should investigate the feasibility of subdividing the elementary aggregates by region and by outlet or outlet-type in order to obtain a more detailed lower-level weighting structure.

5. Price collection

The Hungarian HICP encompasses about 1,000 representative products, 11,000 outlets, and 80,000 monthly collected prices. The price data are collected by 113 surveyors (4 to 8 per county).

The central office selects the products and sets the number of prices to be collected in each county (depending on its population). Price collectors are instructed to focus on type of products but not on specific ones (loose product specification), in order to make it easier for them to find representative products. Some specific products are collected centrally via internet (tobacco, vehicles, electricity, postal services, railway transportation, etc).

Prices are generally collected monthly. However, a few products - other than seasonal products during their out-of-season periods -, whose prices are unlikely to change every month, are surveyed less frequently. For example, prices for education and school books are collected only in September, since prices stay unchanged during the school year and carried forward until the following September.

The observation period covers the first 14 working days of every month (usually between the 1st and 21st day of the month) for most products. There is no price collection from the 22nd to 31th day of the month. Fruit and vegetables are surveyed twice a month (the observation separated by 10 days). The price collection of fuels is evenly distributed over the price collection period.

Since 2014, the price collection has been carried out using electronic devices. The price collectors upload the data directly to the central database, which enables continuous monitoring of the data. There are several validation procedures in order to avoid errors. One of them consists in checking prices if the monthly rate of change is outside a +/- 30% interval.

List prices are collected in the case of cars, motor cycles, electricity and rentals for housing.

Compliance

The price collection in the Hungarian HICP is in line with the legal requirements.

6. Replacement and quality adjustment

If the observed product-offer is not available and it is expected to reappear, its price is estimated during the first and second month of absence. Its estimated monthly rate will coincide with the monthly rate of its corresponding elementary aggregate. If the product-offer is absent for a third month in a row, it is replaced by another well-sold product (price collectors ask shop assistant or use their knowledge). If it is known that the product-offer will not become available again, a replacement product is chosen immediately.

In case a product or outlet is replaced, the changes between the old and new products or outlets are recorded. If the replacement leads to a considerable price change, a quality adjustment is made. The thresholds range from ± 20 to 30% price change, depending on the type of product and whether the product, the outlet or both are replaced. If the price change lies within the defined range, it is considered that the products are similar, and therefore direct price comparison is applied.

The most affected products by replacements are consumer durables, clothing and footwear.

In addition to direct price comparison, other quality adjustment methods applied are explicit quality adjustment methods (such as package-size adjustment or option pricing) and bridged overlap. The latter one is applied to most products.

Compliance

The replacement and quality adjustment practice is in line with the legal requirements.

Recommendation

The decision on whether replaced and replacement product-offers are comparable should not be based on pre-defined price change thresholds but rather on a comparison of the products' and outlets' price-determining characteristics. The HCSO should develop its price collection survey so that sounder replacement and quality adjustment decisions can be made.

The HCSO should carry out research with a view to reduce the systematic application of bridged overlap and increase the use of explicit methods.

7. Treatment of seasonal products

The minimum standards of the Regulation No 330/2009 on the treatment of seasonal products are applied to fruits, vegetables, clothing and footwear. Fish is not treated as seasonal because the products selected to represent fish are available throughout the whole year.

The strict annual weights method is implemented in the Hungarian HICP. For clothing and footwear, the last observed price before the sales period is used as an estimate for the typical price in the first out-of-season month. In the case of fruits and vegetables, the price observed in a typical month of the previous season is used as an estimate for the typical price in the first out-of-season month. The typical month corresponds to the month when most sales are made. From the second out-of-season month onwards, all-seasonal estimation is applied.

For other seasonal products, such as package holidays, garden tools, ice cream, and firewood, the last observed in-season price is carried forward until the start of the following season.

Compliance

The treatment of seasonal fruit, vegetables, clothing and footwear is in line with the legal requirements.

Recommendations

The HCSO should examine if counter-seasonal estimation instead of all-seasonal estimation could be applied to clothing and footwear.

The HCSO should examine if the minimum standards of the Regulation No 330/2009 could also be applied to seasonal products other than fruits, vegetables, clothing and footwear.

8. Index calculation

The Hungarian HICP is a Laspeyres-type index.

The ratio of the arithmetic average of prices is used to compute elementary aggregate indices, although for some products the geometric average is used (for example for air fares and package

holidays). These elementary aggregate indices are compiled one level below the 5-digit ECOICOP classification.

The price reference period in year t is December of year t-1. The resulting indices are chained, using December of year t-1 as the linking month.

Compliance

The index calculation is in line with the legal requirements.

Recommendation

The HCSO should carry out studies on extending the use of the geometric average of prices to more elementary aggregates.

9. Administered prices and constant tax rates

The HCSO compiles and transmits the HICP at constant tax rates (HICP-CT) and provides the list of sub-indices that are considered fully or mainly administered according to the agreed timetable.

Changes in the value added tax, in excises other than those applied to tobacco and in the motor vehicle registration duty are taken into account in the HICP-CT when the new tax rates enter into force. In the case of tobacco, as the prices with the new tax rate are not charged before the depletion of the stock, changes in the excise tax enter into the index gradually to the extent that they appear in the new prices.

The HCSO monitors government influence on prices constantly and in case of changes it consults the Hungarian National Bank. The changes are introduced to the list of sub-indices that are considered as administered in the beginning of each year.

Compliance

The HCSO regularly transmits HICP-CT in line with legal requirements and provides information on the administration of prices.

10. Follow-up from previous compliance report

The previous compliance monitoring report was published in [January 2009](#). The recommendations made in that report have been followed. The HCSO has increased the frequency of product sample reviews and updates and improved its approach for replacements and quality adjustments.

11. Overall assessment

On the basis of the information sources listed in Section 1, Eurostat assesses that the Hungarian HICP is in line with legal requirements and that it is comparable to those of the other EU Member States. When the HCSO follows the recommendations given in points 3, 4, 6, 7 and 8, the comparability will improve further.