



EUROPEAN COMMISSION
EUROSTAT

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

HICP Compliance Monitoring Report

Cyprus

March 2020

1. Introduction

In October 2018 Eurostat reviewed the compilation of the harmonised index of consumer prices (HICP) for Cyprus. The review was done against the existing legal framework, established HICP recommendations and other guidelines and good practices in the field of consumer price indices (CPIs).

The current report is based on:

- A document with the inventory of the sources and methods used for the Cypriot HICP. The document was provided to Eurostat in May 2018.
- The discussion at the compliance monitoring visit that took place on 31 October at the Statistical Service of Cyprus (CYSTAT) in Nicosia.
- The report on the previous compliance monitoring exercise, published in November 2006.

For all main methodological topics related to the HICP, this report briefly summarises the Cypriot practice, followed by Eurostat's appraisal of compliance and recommendations and requirements for improvement. The report concludes with Eurostat's overall assessment of compliance of the Cypriot HICP.

2. Coverage and classification

The definition of the economic territory is in line with the Framework Regulation (Regulation 2016/792).

All monetary consumption expenditure by private households on the economic territory of Cyprus, as accounted for in the national accounts, is covered independently of their nationality and residence status. Tourists' expenditure is included based on balance of payments statistics and classified on the basis of a special survey carried out by CYSTAT at the airport.

All groups and classes of household final monetary consumption expenditure, broken down by the European Classification of Individual Consumption by Purpose (ECOICOP), which account for more than one part in a thousand of the total, are included in the HICP. Additionally, the HICP covers expenditures on road tax that do not form part of consumption expenditure.

The 5-digit level ECOICOP was implemented with the publication of the January 2016 HICP. The same classification has been implemented also in the national CPI, and there is back-data available since 2010. Only a few items belonging to food and beverages, equipment for the house and medical appliances have been reclassified and some codes for education were adapted. However, some items in food and beverages (birthday cakes and energy drinks) appear to be still misclassified. Eurostat welcomes the plans of CYSTAT to reclassify these items as agreed with Eurostat. At the same time, errors in the classification of general practitioners will be corrected by adaptation to the new general health system that will enter into force in June 2019.

Compliance

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

Recommendation

CYSTAT should review the classification of all items and reclassify them if necessary.

3. Sampling and representativity

The product sample is drawn using cut-off sampling (most sold principle) in the central office mainly using household budget survey data. In addition to this data source, national accounts data and information from price collectors are also exploited. The central office defines the items' descriptions. Both tight and loose product descriptions are used. In general, the variety of certain brands, models and, in certain cases, package sizes/type, are defined. Loose product descriptions are used in cases where the selection of a wider range of representative items is aimed at, such as for clothing and technology products. The list of representative items is thoroughly reviewed every 5 years based on the latest household budget survey. The latest review happened in 2018.

Price collectors are responsible for closely monitoring the market and reporting new products that are introduced to the market. Between the 5-yearly comprehensive reviews, the product sample is updated based on the information obtained from price collectors on new products or new models entering the market.

The sample of outlets is taken by using quota sampling based on retail trade survey. The outlets are chosen to represent the structure of retail trade as closely as possible. Not only all chain stores, but also different kinds of small specialised shops, are included in the sample. Petrol stations are included only for products related to fuels and motor cars. Mail order and internet purchases are not included in the sample, since household budget survey data indicates that their value is very low. It is assumed that the relevant expenditures are underreported, however, no alternative data source is currently available. The retail trade survey only covers domestic retailers' participation in e-commerce. Booking of airfares via internet is however included. The sample of outlets is generally reviewed annually.

Compliance

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

Recommendations

CYSTAT should carry out research for alternative data sources in order to correctly reflect purchases via the internet in the HICP.

To better take into account the changing in consumption patterns and the dynamism in products consumed, CYSTAT should carry out comprehensive product sample reviews in between the 5-yearly reviews, which are presently done in the Cypriot HICP.

4. Weights

The main source for sub-index weights down to the 5-digit level of ECOICOP is the national accounts. The weights are reviewed annually and price-updated to the previous year's December at the 5-digit ECOICOP level. At the more detailed level, household budget survey data are used

that is no more than 7 years old. Further reliable sources are exploited in order to keep weights more accurate and up-to-date such as administrative data from the telecommunications and electricity authorities and car registry.

In cases where the expenditure falls below one part of a thousand, it is on a case-by-case basis redistributed proportionally to other sub-classes or credited to another sub-class within the same product class.

Compliance

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

5. Price collection

Price collection is done in four cities (or five, as in the case of accommodation services). Price collection is carried out only in urban areas. CYSTAT considers that the population in rural areas mainly do their shopping in the urban areas and thus the coverage error is negligible.

Prices are collected on paper and entered manually by each district directly to the server in Nicosia. Internet collection is also carried out manually. CYSTAT intends to introduce electronic devices for price collection in order to reduce the number of errors. CYSTAT is also planning to investigate the implementation of web scraping.

Most prices are collected at monthly frequency. However, a few prices – other than prices of seasonal products during their out-of-season periods –, which are unlikely to change every month, are surveyed less frequently. The price collection period is set on the basis of previous experience. Prices of used cars, telephone and internet services and rental contracts are collected bimonthly, water supply and sewerage collection – which are fully administered – are collected quarterly and educational services are collected once at the beginning of the academic year. In case a price change is expected, such as due to tax change or preannounced change of charges, a full price collection is carried out in that month.

During the months when no price is collected, the last observed price is carried forward until a new price is collected.

While unexpected changes are found to be very limited, they lead to the reflection of the price change in the HICP with a delay of at least a month. Additionally, price changes for used cars can be expected to change more frequently. If this occurs, these price changes are registered with a delay of at least one month on a regular basis. The impact on the index of using less than monthly price collection, and of using the last observed price as an estimate when no observed price is available, is not known. Eurostat welcomes the plans of CYSTAT to calculate and transmit impact estimates in future.

The prices of energy products, airfares, fresh fruit and vegetables, which are known to show price changes within the month, are surveyed weekly.

The prices of airfares are collected in different advance periods, starting 8 weeks before the flight.

Requirement

CYSTAT should ensure that price changes are reflected in the HICP without unnecessary delay.

Compliance

The price collection is not fully in line with the legal requirements. In case the price collection is carried out less frequently than monthly, no estimate is available to prove the fulfilment of the comparability requirement defined by Article 4 of Regulation 2016/792, as required by Article 6 of the same regulation. Furthermore, last observed prices are used instead of estimated prices without justification, as required in Article 2 of Regulation No 1749/96. This applies especially for used cars, where prices are collected every two months.

Recommendations

CYSTAT should regularly monitor the assumption that certain prices do not change from month to month.

CYSTAT should investigate into alternative data sources to obtain prices for used cars on a monthly basis.

6. Discounts

The legal requirements for price reductions are applied in the Cypriot HICP. Discounts available to all consumers with no special conditions attached (non-discriminatory) are taken into account.

Compliance

The treatment of discounts is in line with the legal requirements.

7. Replacement and quality adjustment

In case a product is not available and no price can be collected for two consecutive months, the product will be replaced by the most popular variety of the same product. In case it is known earlier that the product will not be available again, the replacement is carried out immediately.

Price collectors are responsible for identifying quality changes. The method of the quality adjustment is decided by the central office on a case-by-case basis.

The prices of replacement products are directly compared to the last price of the replaced product in case the quality difference is not significant. This method is used in most of the cases.

Overlap replacement is only applied for products for which the price in the previous period is known. In the case of products that show frequent changes and therefore require replacements on a regular basis such as consumer electronics, prices of potential replacement products are being collected on reserve so as to enable an immediate replacement.

Explicit quality adjustment methods used are quantity adjustment, option pricing and expert judgement. In case of option pricing, the added option's price is taken into account to 50% in most of the cases. In the case of new cars, however, the added option's price is taken into account to 100%.

Compliance

The application of quality adjustment methods is in line with the legal requirements.

Recommendations

CYSTAT should investigate if the application of the option cost method with the factor of 100% to the price of optional features can be justified for new cars.

CYSTAT should review the application of overlap methods in cases of products that enter the market with a high price and the price drops afterwards – such as consumer electronics – in order to limit a downward trend of the index. In such cases, explicit quality adjustment methods should be preferred.

8. Treatment of seasonal products

The standards of Regulation No 330/2009 on the treatment of seasonal products are applied to fresh fruit and vegetables, clothing and footwear and package international holidays.

In the case of clothing and footwear, the regular price without end-of-season sales' discounts is applied in the first out-of-season month. As from the second month, all-seasonal estimation is used to estimate the price development until the product enters again into season. Test calculations provided by CYSTAT have shown that the application of the all-seasonal estimation does not result in significantly different price developments as compared to the counter-seasonal estimation that is preferred by Article 4(4) of the Regulation No 330/2009.

For fresh fruit and vegetables, a seasonal weights method is applied. Weights of products during the in-season period vary from month to month according to the changes in monthly expenditure on the concerned product. Therefore, monthly weights vary to a larger extent than would be necessary to allow for month-on-month changes in the composition of the basket. This approach increases the risk of index fluctuations without actual changes in prices. Eurostat welcomes the plans of CYSTAT to implement a strict annual weights method for seasonal fruit and vegetables.

In the case of package international holidays, out-of-season prices are estimated by applying the price changes of the available package domestic holidays to the typical price used for the first out-of-season month. The typical price is defined by the price that was recorded at the beginning of the in-season period.

Requirement

CYSTAT should bring the treatment of seasonal fruit and vegetables in line with the rules of the Regulation No 330/2009.

Compliance

The treatment of seasonal products is not fully in line with the Regulation No 330/2009. Monthly weights of fruit and vegetables can vary to a higher extent than defined in Article 2(6) of the regulation.

Recommendation

CYSTAT should examine the feasibility to implement counter-seasonal estimations for out-of-season periods for clothing and footwear.

9. Index calculation

The Cypriot HICP is a Laspeyres-type index. Jevons price index (ratio of geometric means) is used for the elementary aggregate formula. Products (8-digit classification) are aggregated directly to the 5-digit ECOICOP.

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

Compliance

The index calculation is in line with the legal requirements.

10. Administered prices and constant tax rates

Changes to the list of administered prices (AP) are introduced regularly to the beginning of the reference year. The list for the compilation of the HICP-AP is transmitted each year to Eurostat in line with the good practice established for the HICP.

CYSTAT provides the HICP at constant tax rates (HICP-CT) to Eurostat mainly following the methodology defined by Eurostat. However, in case a tax change enters into force after the 1st day of the month, it has been taken into account proportionally to the number of remaining days in that month. This approach may signalise tax changes in two consecutive months. Since January 2019, CYSTAT has taken steps to adapt the methodology to the reference methodology as regards the treatment of tax changes after the 1st day of the month.

Compliance

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

11. Follow-up from previous compliance report

The previous compliance monitoring report was published in [November 2006](#). The recommendations made in that report have been followed up by CYSTAT. The quality of telecommunication weights have been based on national accounts data, which resulted in a reduction of the volatility of the weight. Additionally, the minimum standards for the quality of HICP weights set up in Regulation No 1114/2010 have been implemented. However, the plans to introduce hedonic quality adjustment methods could not be followed due to resource constraints.

12. Overall assessment

Based on the information listed in section 1, Eurostat assesses the Cypriot HICP to be in line with most legal requirements. If CYSTAT follows up on the requirements given in sections 5 and 8 and the recommendations given in sections 2, 3, 5, 7 and 8, the comparability of the Cypriot HICP will improve further. Notwithstanding these issues, Eurostat assesses the Cypriot HICP to be comparable to that of the other EU Member States.