

Economic and Social Council

Distr.: General 30 April 2020 English only

Economic Commission for Europe

Conference of European Statisticians

Sixty-seventh plenary session

Paris, 26-28 June 2019

Item 11(a) of the provisional agenda

Programme of work of the Statistics subprogramme of the

United Nations Economic Commission for Europe

Reports on the work of the Conference of European Statisticians, its Bureau and Teams of Specialists

Implementation of the United Nations Economic Commission for Europe Statistical Programme 2020

Addendum

Report of the Regional Workshop on Consumer Price Indices

Note by the secretariat

Summary

The document presents the key outcomes of the Regional Workshop on Consumer Price Indices for countries of East Europe, Caucasus and Central Asia, which took place on 11-13 September 2019 in Minsk, Belarus. This report is provided to inform the Conference of European Statisticians of the organization and outcomes of the Workshop.

The Workshop was organised following a decision of the Conference of European Statisticians in June 2019 (ECE/CES/2019/13) and the recommendation of the Consumer Price Indices meeting in 2018 (ECE/CES/GE.22/2018/2).





I. Introduction

- 1. The Regional Workshop on Consumer Price Indices was held in Minsk, Belarus, from 11-13 September 2019. The workshop was organised in cooperation with the European Free Trade Association and the Interstate Statistical Committee of the Commonwealth of Independent States (CIS-STAT) and with the support of the National Statistical Committee of the Republic of Belarus. The workshop was organised as a part of the programme to support statistical capacity building in Eastern Europe and the Commonwealth of Independent States countries.
- 2. The Workshop was attended by representatives from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Norway, Republic of Moldova, Russian Federation, Switzerland, Tajikistan, Ukraine and Uzbekistan. The meeting was also attended by representatives from the Interstate Statistical Committee of the Commonwealth of Independent States and UNECE.
- 3. Input for topics and organisation of the Workshop was collected during the Special Session for countries of East Europe, Caucasus and Central Asia (EECCA) at the meeting of the Group of Experts on Consumer Price Indices, that took place on 7-9 May 2018 in Geneva, Switzerland.

II. Organisation of the Workshop

- 4. The Workshop was organised based on presentations provided by participating countries as well as presentations and training material provided by two invited experts, Ms. R. Johannessen from Statistics Norway and Ms. C. Becker Vermeulen from the Swiss Federal Statistics Office.
- 5. The Workshop was divided into the following sessions:
 - (a) Session 1: Data collection and data sources
 - (b) Session 2: Seasonal items and missing items
 - (c) Session 3: Index calculation and weighting
 - (d) Session 4: Alternative aggregates
 - (e) Session 5: Rented dwellings and owner-occupied housing
 - (f) Session 6: Special topics
 - (g) Session 7: Meeting user needs: publication, dissemination and user relations.

III. Summary of discussion and the main conclusions reached at the meeting

A. Session 1: Data collection and data sources

- 6. The session included presentations by Russian Federation, Switzerland and Norway.
- 7. Russian Federation provided an overview of the organisation of collection and processing of price information in the Russian Federal State Statistics Service (Rosstat). Most of the prices are collected by price collectors. Various websites and phone interviews are also used. Rosstat is working towards modernizing the collection of price information by improving paperless technology to collect price data using mobile data. In 2014 Rosstat transitioned to third generation mobile devices to collect data on prices.
- 8. The presentation by Switzerland on data collection and data sources highlighted the variety of price collection methods that are already available and the basic principles for price collection. The most important aspects of data collection in the field was examined. Switzerland demonstrated how such a system might work, the necessary measures and

importance of quality assurance and the advantages and limitation of using price collectors in the field.

- 9. Switzerland provided recommendations on how to use scanner data and where to start. The different ways of using scanner data, advantages and disadvantages, main challenges and general recommendation were discussed.
- 10. On data collection methods, Norway presented internet purchase and web scraping. Using web scrapping as a tool to collect price information from the internet has many benefits, such as more prices are collected in less time and it can serve as alternative to scanner data. However, there are many challenges in working with web scraping, e. g. websites can change frequently, and it requires resources.
- 11. Norway also provided an introduction to as well as a training on how to do web scraping using R software.

B. Session 2: Seasonal items and missing items

- 12. The session included presentations by Georgia, Ukraine, Kazakhstan, Norway.
- 13. Georgia reported on the main principles of price collection for package holidays. The National Statistics Office of Georgia collects prices 3 times a month from the 10 largest tourist agencies in the country.
- 14. The presentation by Ukraine explained the approach to seasonal products and missing observations used in the State Statistics Service in Ukraine. The different methods used for price computation and the specifics of monitoring changes in prices for clothing and footwear were discussed.
- 15. An example of the inclusion of seasonal products in the CPI was also presented by Kazakhstan. In Kazakhstan more than 120 thousand price quotes for 510 goods and services are collected monthly. The constant weights method is used; price changes of out-of-season products are imputed by the price changes of in-season products.
- 16. In the presentation from Norway on missing items and seasonality, main approaches on how to handle temporary and permanent missing items were explained, including imputation methods and treatment of items with strong seasonality.

C. Session 3: Index calculation and weighting

- 17. The session included presentations by Tajikistan, Switzerland, Norway, Georgia and CIS-STAT.
- 18. In their presentation on the formation of the weighting system for calculating the CPI, Tajikistan highlighted the importance of expanding the size and geographical coverage of the Household Budget Survey (HBS). The importance of COICOP implementation in the HBS at the national and regional level, as well as use of alternative sources of information was also noted.
- 19. Switzerland provided two presentations in this session. One on practical experiences with calculating elementary and higher-level indices where several examples of lower level and upper level aggregation methods were explained. In the second presentation on weighting issues, the possible data sources for weights, weight reference period and frequency for updating weights were discussed.
- 20. Georgia shared their experience in treating outliers in the CPI of Georgia and discussed difficulties related to outlier analysis. Outliers are detected as price ratios that are more than 2 times standard deviation from the median. The outliers are checked and those that are not validated are excluded from the calculations.
- 21. CIS-STAT presented the outcomes from a recent consultation with the Commonwealth of Independent States (CIS) countries on how to improve the methodology

and structure of the Harmonized consumer price indices (HCPI). The majority of CIS countries supported the idea of establishing a working group to work jointly on the methodological issues of the CIS HCPI calculation as well as to develop a special regulation.

22. Norway provided an introduction to the main index calculation methods to calculate elementary indices, aggregate indices (Laspeyres, Young, Lowe) and fixed based and chained indices.

D. Session 4: Alternative aggregates

23. The session included a presentation by Norway on alternative aggregates. During the presentation the following alternative aggregates were examined: core inflation, constant tax index, analytical aggregation and regional indices.

E. Session 5: Rented dwellings and owner-occupied housing

- 24. This session included presentations from Switzerland and Norway.
- 25. Switzerland presented the methodology for the inclusion of rented dwellings in CPIs. Stratification and hedonic regressions for quality adjustment were examined.
- 26. Including owner occupied housing in CPIs is a difficult task, e. g. CPI's are mostly restricted to consumer goods and services acquired in monetary transactions. The different approaches on how to include owner occupied housing in the CPIs were discussed and presented by Norway.

F. Session 6: Special topics

- 27. This session included presentations by Norway and CIS-STAT.
- 28. Under the session on special topics, Norway provided an overview and examples of how the financial services and different insurances contribute to the formation of CPI.
- 29. CIS-STAT presented the theory and practice of formation of the weighting system when calculating the CPI and the issues with harmonizing CPI calculations with household survey data and SNA. CIS-STAT noted that national accounts should not be considered as an independent data source alternative to the household consumption expenditures (HCE). The HCEs are one of the main sources of data on household consumption expenditures used to compile national accounts.

G. Session 7: Meeting user needs: publication, dissemination and user relations

- 30. The session included presentations by Belarus, Switzerland and UNECE.
- 31. In the presentation on how to meet user need, Switzerland presented the basic principles of publication and dissemination of data, how to identify user needs and treat data and metadata. The basic principles for dissemination of CPIs usually include the timely release of data, making data available to all users at the same time, data to be published according to pre-announced schedule, making data convenient and adding methodological explanation.
- 32. Belarus shared their experience on the documentation and communication of CPIs in Belarus. Methodology as well as the latest CPI figure are publicly available on Belstat website. Personal inflation calculator and statistical database are also accessible to the public. Information is further disseminated via press releases, statistical bulletins and in public media.

33. UNECE presented the Principles of official statistics, the Generic Statistical Business Process Model (GSBPM) and the Generic Statistical Law. The Principles of Official Statistics were adopted by the UN General Assembly in 2014 and they include several standards for documentation and communication of data. The GSBPM helps organisations to define statistical processes and make better decisions for distribution of resources within their organisation. The Generic Statistical Law was endorsed by the CES in 2016 and it provides recommendations and best practices for national statistical legislation.