Compilation of CPI in times of COVID-19

Many statistical offices are or will be faced with serious challenges in compiling the CPI because of the spread of the Coronavirus. Outlets may have been closed and there may be restrictions on the movement of people. Staff in many statistical offices may not be able or allowed to come to work or have been asked to telework. This imposes severe restrictions on the possibility to compile the CPI at usual quality and may make it difficult to adhere to release dates.

To assist countries in the production of the CPI during the pandemic, this website includes:

- Brief on general challenges and recommendations on how to ensure the production of the CPI
- Guidance notes by Eurostat and IMF that provide more detailed recommendations for continuing compilation of the CPI
- Discussion forum for experts to share questions, experiences and good practices

Brief on general challenges and recommendations

Data collection

Price collection may be restricted due to closed outlets or price collectors may not be allowed to work or enter outlets. It may also be that outlets do not provide the usual set of prices through other channels (e.g. on paper or via e-mail) and/or there may be shortage of staff in the main office to receive and process the prices that are received. Alternative modes of price collection include telephone, e-mail, online prices and scanner data. However, it may be difficult to ensure a minimum coverage of all products (goods and services). In particular, this may be the case for products for which price collectors usually collect prices. This could, for example, be the case for clothing and fresh food in many countries. In such cases the statistical office may have to rely on collecting a minimum of prices for the most important or the most representative products.

Compilation

For imputation of observations the general recommendation is to follow a bottom-up approach. This means that the first choice is to impute missing prices with observed price developments of similar products or products that are expected to have similar price developments. If such product prices are not available, the next choice will be to impute the missing prices with the average price development of the product group or the elementary aggregate to which the product belong. If these are not available, the closest available higher-level price index should be used for the imputation.

In some instances it may not be possible to collect prices for specific product groups or elementary aggregates or even indices above the elementary aggregate level. In such cases the price development of the product group or the elementary aggregate may be imputed by the price development of similar product groups or elementary aggregates. If this is not possible, the price development may be imputed by the higher-level index in which the product group or the elementary aggregate enters. However, imputation of a missing elementary aggregate by the overall CPI may also be justified. This corresponds to leaving the elementary aggregate out of the calculation of the CPI. This may be the preferred option if households’ expenditures on an elementary aggregate is assessed to be zero or close to zero. In some countries this may be the case for e.g. international travels, domestic airline travels, child care and sports and cultural events.

These are general recommendations. National circumstances and knowledge of the developments for particular markets and products must be considered. In all cases, it is important to apply imputation methods that ensure the index reaches the correct level when again it becomes possible to collect prices and include them in the index. Also, methods and procedures should be documented to assist continuing production of the CPI and for information of users.

Communication

It is important to be transparent to ensure the public trust in the CPI. To this end, good practices for dissemination and communication of official statistics should be followed. This implies that expected changes should be communicated to users in advance, including also information about possible delays of the publication of the CPI. Important changes should be documented and communicated to users when the CPI is released. For instance, if imputations are made or products are left out of the calculation, this should be documented. Impacts on the quality or reliability of the CPI may also be mentioned.

Guidance notes by Eurostat and IMF

- Guidance on the compilation of the HICP in the context of the COVID-19 crisis (Eurostat)
- Consumer Price Index Continuity (IMF)