

## **Note on annual estimates of Purchasing Power Parities (PPPs) for 2018, 2019 and 2020.**

(15 December 2021)

### **Introduction**

This note informs on the continued impact of the COVID-19 pandemic on the price collection for PPPs and on the production of the annual PPP results for 2018 (final), 2019 (semi-final) and 2020 (preliminary). In addition, the note informs on the increased use of transaction data for PPP and explains how the withdrawal of the United Kingdom from the European Union is taken into account in the calculation of the PPPs. It complements the [note](#) on COVID-19 and the first estimates of PPPs for 2020 released on 17 June 2021.

The COVID-19 pandemic had a significant impact on the PPP price collection in 2020 and in 2021, and on the level of GDP and the composition of household expenditures in 2020. This is resulting in larger changes than usual in the overall results between 2019 and 2020, and revisions between the first estimates for 2020 released in June 2021 and the preliminary estimates for 2020 released in December 2021.

### **Price collection**

Prices in the context of the Eurostat PPP program are collected through specific surveys conducted in each country participating in the comparison. Different surveys are used for collecting prices for consumer goods and services, capital goods (equipment goods and construction) and government services (individual and collective).

The consumer goods price surveys are organised following a rolling survey approach. This comprises a cycle of six surveys, which takes three years to complete. The approach involves continuous price collection with the product lists for around one third of household final consumption expenditure being priced each year.

With the outbreak of the COVID-19 pandemic in March 2020 and the following restrictions of movements, most countries faced some difficulties to collect prices for the PPP surveys carried out in 2020. In particular, for the two consumer goods surveys collecting prices for services, furniture and health products.

The continued COVID-19 pandemic has caused challenges for the price collection also in 2021 and, in particular, for the consumer goods surveys collecting prices for food, drinks, tobacco, clothing and footwear. Statistical institutes made significant efforts to collect the prices in alternative ways (e.g., by telephone, by e-mail, from websites or by using transaction data).

The use of transaction data from retailers also increased independently of the pandemic. For example, almost 40% of the countries used scanner data for the pricing of food, drinks and tobacco in 2021 compared to only 18% in 2018.

It should be noted that alternative data sources provide many benefits compared with the traditional price collection. Transaction data provide information on all products sold (by the retailer whose data is used) instead of from a sample, it includes data on the expenditures for these products that can be used for weighting, and it includes discounts more comprehensively than what is possible with traditional price collection methods. The transaction data is mostly received from major retailers in a country. Prices from specialized shops need to be collected in case these are considered representative for the market. Due to COVID-19, it was not always possible to visit the specialized shops.

As a result of the changes in data collection methods, the PPPs for food products for 2020 show some significant changes compared to previous years.

The survey that is used for collecting prices for hospital services was affected by the COVID-19 pandemic as the pandemic caused a substantial drop in hospitalization cases in most European countries, thereby impacting the sampling of cases.

#### Expenditures weights and national accounts data

National accounts expenditures are essential for the estimation of PPPs. They are used as weights to aggregate detailed PPPs up to GDP, and are deflated by these PPPs and expressed as real (PPP-based) expenditures.

The COVID-19 pandemic had in 2020 a significant impact on both level and structure of GDP and in particular of household consumption expenditures, see for example [this article](#).

The detailed GDP expenditure weights for the year 2020 received from the participating countries at the end of September 2021 were used for the calculation of the annual results. They show larger differences than usual from the estimates made for the first estimates disseminated in June 2021, when less information was available.

The above mentioned circumstances resulted, on the whole, in larger revisions to the first estimates of PPPs than in previous years. The effect is stronger for Actual Individual Consumption than for GDP.

In addition, the large differences in the composition of household expenditures between 2019 and 2020 contributed to bigger changes than usual in the aggregate PPPs for these two years.

#### The withdrawal of the United Kingdom from the European Union

A principle of the PPP calculation is that the PPPs established by Eurostat for the EU Member States remain unchanged, or fixed, when PPPs for a wider group of countries are calculated.

With the withdrawal of the United Kingdom (UK) from the European Union (EU) this “fixity” principle is applied at the level of EU28 (including UK) up to and including 2019, while for 2020 and onwards, the fixity principle is applied for EU27 (which excludes UK). This has a minor impact on the comparability of PPPs between 2019 and 2020.