

# Purchasing power parities and GDP per capita - flash estimate

Statistics Explained

*Data from 23 March 2022*

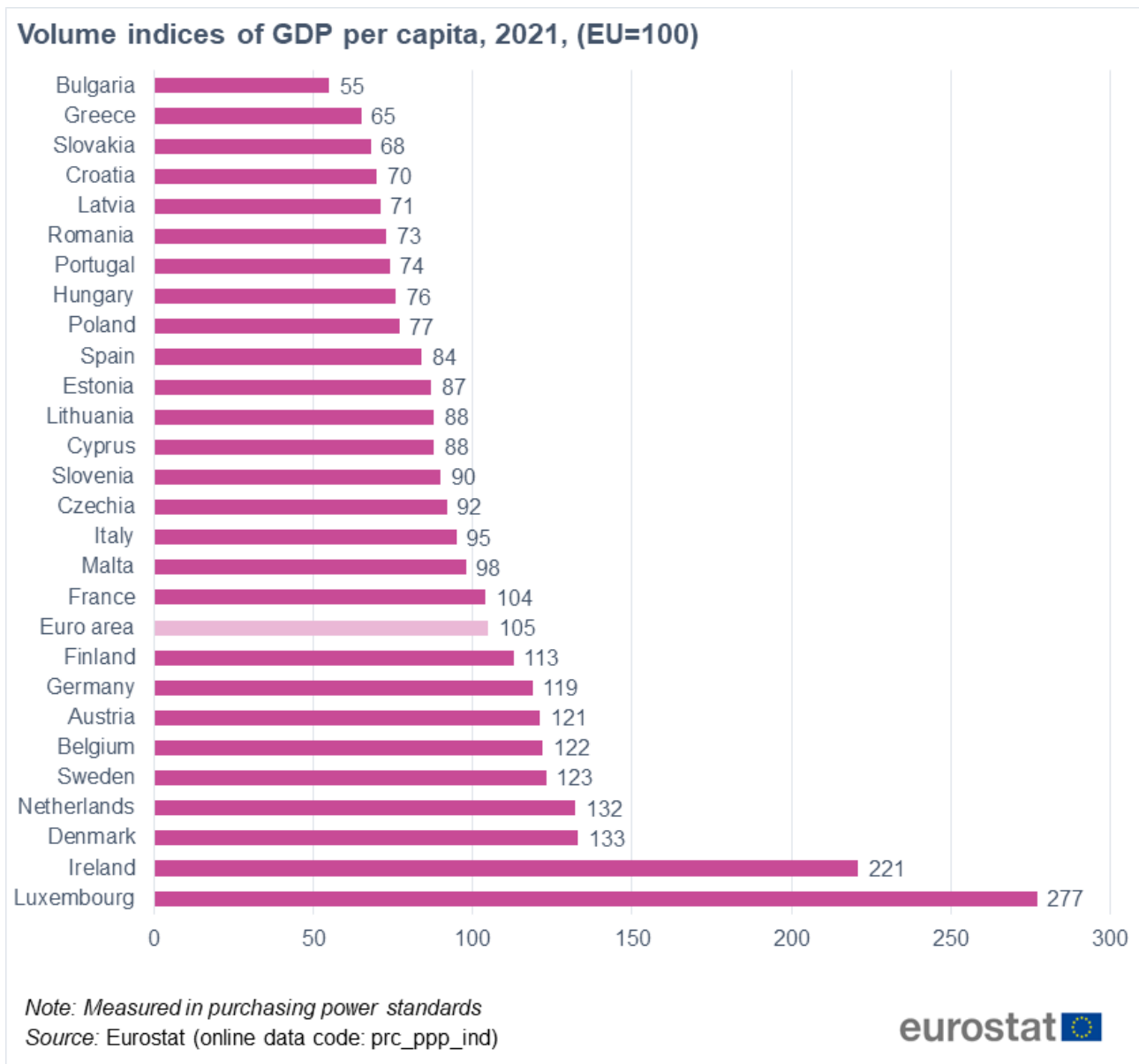
*Planned article update: March 2023*

This article presents the new flash estimates of [purchasing power parities](#) and [gross domestic product \(GDP\) per capita](#) in the [European Union \(EU\)](#) for the year 2021. The countries included are the 27 EU Member States.

The main reason for introducing a PPP flash [estimate](#) is the need to have PPPs available at the time of the first estimates of annual GDP for the previous year. First estimates covering 36 European countries and with a more detailed breakdown, not only GDP, will be available in June and December.

## Overview

In 2021, Luxembourg and Ireland recorded the highest level of GDP per capita in the [EU](#), at 177% and 121% above the EU average. Bulgaria was the Member State with the lowest GDP per capita, at 45% below the EU average.



**Figure 1: Volume indices of GDP per capita, 2021, (EU=100) Source: Eurostat (prc\_ppp\_ind)**

### Relative volumes of GDP per capita

In international comparisons of national accounts data, like GDP per capita, it is desirable not only to express the figures in a common currency, but also to adjust for differences in price levels. Failing to do so would result in an overestimation of GDP levels for countries with high price levels, relative to countries with low price levels.

Countries' volume indices of GDP per capita are shown in the graph above. The dispersion in GDP per capita across the EU Member States is quite remarkable. Luxembourg has by far the highest GDP per capita among all the 27 countries included in this comparison, at 177% above the EU average. This is to some extent explained by the fact that a large number of foreign residents are employed in the country and thus contribute to its GDP, while they are not part of Luxembourg's resident population. Their consumption expenditure is recorded in the national accounts of their country of residence.

Ireland comes out second among the EU Member States, at 121% above the EU average, followed by Denmark, the Netherlands, Sweden, Belgium and Austria, each with a GDP per capita more than 20% above the average. The high level of GDP per capita in Ireland can be partly explained by the presence of large multinational companies holding intellectual property. The associated contract manufacturing with these assets contribute to GDP, while a large part of the income earned from this production is returned to the companies' ultimate owners abroad.

Germany, Finland and France are the other EU Member States with a GDP per capita above the EU average. Malta, Italy and Czechia are less than 10% below that average, followed by Slovenia, Cyprus, Lithuania, Estonia and Spain at 10% to 20% below. The GDP per capita of Poland, Hungary, Portugal, Romania and Latvia is less than 30% lower than the EU average, while Croatia, Slovakia and Greece are less than 40% below. Bulgaria records a GDP per capita at 45% below the EU average.

## Data sources

Within the framework of the [Eurostat - OECD Purchasing power parities](#) programme, price surveys covering [actual individual consumption](#), collective consumption and gross fixed capital formation are carried out on an annual basis. The resulting PPPs are applied to GDP and national accounts aggregates in order to eliminate the effect of different price levels across countries.

The comparisons cover the 27 EU Member States and 9 further European countries. The detailed results are disseminated through Eurostat's public database (Eurobase), while selected summary results are published in Eurostat's News Items and in Statistics Explained articles on the Eurostat website.

## Context

The main use of PPPs is to convert national accounts aggregates, like the gross domestic product (GDP) of different countries, into comparable volume aggregates. Applying nominal exchange rates in this process would overestimate the GDP of countries with high price levels relative to countries with low price levels. The use of PPPs ensures that the GDP of all countries is valued at a uniform price level and thus reflects only differences in the actual volume of the economy.

GDP per capita volume indices (on a regional basis - see GDP at regional level) are used in the allocation of [Structural Funds](#) within the EU. Regions where real GDP per capita is less than 75% of the EU average (taken over a period of three years) are eligible for support from the Structural Funds.

The first PPP estimates for year  $t$  are released at  $t+6$  months (also known as the "nowcast"). The data release is accompanied by two news items presenting the first estimates of Actual Individual Consumption (AIC) per capita and volume indices of AIC and GDP, and the price levels for a selection of analytical categories comprising household expenditure.

At  $t+12$  months, the first estimates of PPPs are recalculated with updated price and expenditure data to provide provisional PPPs for year  $t$ . In year  $t+2$ , the provisional PPPs are recalculated, with updated data to obtain intermediate PPPs for year  $t$ . The intermediate PPPs are released in December of  $t+2$ . They, in their turn, are recalculated with updated data in year  $t+3$  to produce the final PPPs for year  $t$ . The final PPPs are released in December of year  $t+3$ . They are not recalculated even when the data on which they are based have been revised.

In 2022 Eurostat has introduced the PPP flash estimates, which will be regularly released in March year  $t+1$ . Given the availability of the data sources and the possibility of applying a similar method to that used for the first estimates at  $t+6$ , Eurostat calculates GDP PPPs for the EU 27 Member States at the most detailed level possible and using the latest available prices and national accounts data.

The main differences in the compilation process between the PPP flash estimates and the first PPP estimates released at  $t+6$  months are:

- in terms of geographical coverage – the first estimates will include all 36 countries, not just the EU 27 Member States
- in terms of level of detail – the first estimates will be available for all analytical categories, not just for GDP

- in terms of information available - the first estimates include more complete and more final price data from the countries than the PPP flash estimates. Also the first estimates are based on the national accounts data available at the end of May of year t.

## See also

- [National accounts and GDP](#)

## Main tables

- [Purchasing power parities \(PPPs\)](#) , see:

Comparative price levels (tec00120)

Price and volume convergence between EU Member States (tec00121)

GDP per capita in PPS (tec00114)

## Database

- [Purchasing power parities \(prc\\_ppp\)](#) , see:

Purchasing power parities (PPPs), price level indices and real expenditures for ESA2010 aggregates (prc\_ppp\_ind)

Convergence indicators (prc\_ppp\_conv)

## Dedicated section

- [Purchasing power parities \(PPPs\)](#)

## Publications

- [Eurostat-OECD Methodological manual on purchasing power parities](#)

## Methodology

- [Eurostat-OECD Methodological manual on purchasing power parities](#)
- [Purchasing power parities](#) (ESMS metadata file — prc\_ppp\_esms)

## Legislation

- [Regulation \(EC\) No 1445/2007](#) of 11 December 2007 establishing common rules for the provision of basic information on Purchasing Power Parities and for their calculation and dissemination
- [Summaries of EU Legislation: Purchasing power parities](#)
- [Regulation \(EU\) No 549/2013](#) (ESA 2010 Regulation) of 21 May 2013 on the European system of national and regional accounts in the European Union
- [Summaries of EU Legislation: European Union system of national and regional accounts](#)

## External links

- [OECD - Purchasing Power Parities \(PPP\)](#)
- [World Bank - International Comparison Program \(ICP\)](#)