



## International Comparison Program

# Frequently Asked Questions (FAQ)

### **Governance and organization**

#### *What is the ICP?*

The International Comparison Program (ICP) is one of the world's largest statistical initiatives, coordinated by the World Bank under the auspices of the United Nations Statistical Commission (UNSC). It is implemented through a partnership of participating economies and multilateral agencies. Since its beginnings in 1968, the ICP has produced ten comparisons, with the latest one being for reference year 2021 – the ICP 2021 cycle – which covered 176 economies. At its forty-seventh session, in March 2016, the UNSC instituted the ICP as a permanent element of the global statistical programme, to be conducted on a three-year cycle.

#### *What does the ICP do?*

The main objective of the ICP is to produce comparable volume measures of GDP and its expenditure components based on purchasing power parities (PPPs). To meet this objective, the ICP coordinates the collection and reporting of comparable price data for a common basket of goods and services across the world. Detailed expenditure values in local currencies are also compiled from participating economies' national accounts. PPPs are estimated based on the collected price data and compiled expenditure values.

#### *Why should an economy participate in the ICP?*

The ICP provides essential global economic data that help economies compare their price levels, economic size, and material well-being with those of other economies. PPPs for each country are used in many indicators used to monitor development, including a number of Sustainable Development Goals. Furthermore, an economy that participates in the ICP benefits from a wide range of activities that help build national statistical capacity in the areas of price statistics and national accounts, as well as in data collection and quality assurance processes.

#### *How many economies participated in the latest ICP cycle?*

The ICP 2021 cycle covered [176 participating economies](#). A number of nonparticipating economies benefitted from ICP 2021 capacity-building activities, and some of these economies are aiming to subsequently participate in future ICP cycles.

### *Why was the ICP 2020 cycle postponed to 2021?*

The onset of the COVID-19 pandemic in early 2020 caused disruptions to statistical exercises across the world. National implementing agencies experienced lockdown and mobility-related challenges in conducting price surveys and compiling national accounts. The ICP Technical Advisory Group considered these challenges as possibly impacting the quality of results and advised the ICP Governing Board to move the benchmark year to 2021, which was subsequently enacted in April 2020.

### *Who oversees the ICP?*

The governance structure of the ICP provides an overall framework for coordinating the international, regional, and national efforts to produce reliable ICP results. The [ICP governance framework](#) (PDF) consists of the following bodies, each of which has distinct roles and responsibilities:

- The United Nations Statistical Commission (UNSC) decides the frequency and operational modality of the program.
- The ICP Governing Board sets the strategies and policies governing the production of ICP results.
- The ICP Technical Advisory Group (TAG) develops the program's methodology and assesses the overall quality of ICP results.
- The ICP Inter-Agency Coordination Group (IACG) coordinates activities across regions and develops common ICP standards, guidelines, and protocols for all participating economies in the program.
- The ICP Global Office at the World Bank undertakes the overall coordination and implementation of the ICP and calculates and disseminates global ICP results.
- Regional Implementing Agencies (RIAs) coordinate and implement the regional ICP comparisons and calculate and disseminate regional ICP results.
- National Implementing Agencies (NIAs) undertake the price surveys and compile the national accounts expenditure data required for producing PPPs.

### *Who carries out the survey and computation work for the ICP?*

ICP price collection surveys and compilation of national accounts expenditure data are carried out by national implementing agencies in participating economies. The regional implementing agencies compute regional results. The Global Office at the World Bank, together with independent experts, links the regional ICP results with Eurostat-OECD results to produce a global set of results.

### *How does the ICP ensure that the results are of high quality and free from political interference?*

The ICP follows best practices in official statistics and has a strong governance structure to ensure that estimates of PPPs and ICP results are calculated independently based on common, sound, and transparent methodology. ICP methods are developed and peer-reviewed by renowned experts, and the results are assessed for soundness by the ICP Technical Advisory Group prior to their release.

### *Who finances the ICP?*

The ICP is financed by a consortium of international, regional, and national development agencies. The global coordination of the 2021 cycle was funded by the International Monetary Fund, through the Global Data Facility, and the World Bank.

## **Concepts and definitions**

### *What are Purchasing Power Parities (PPPs)?*

PPPs are both *currency conversion factors* and *spatial price indexes*. They convert different currencies to a common currency and, in the process of conversion, equalize their purchasing power by eliminating the differences in price levels between economies. They show, with reference to a base economy, the relative price of a given basket of goods and services in each of the economies being compared.

### *What is the conceptual framework of the ICP?*

The conceptual framework for an ICP comparison is determined by the international definition of GDP. The most recent ICP cycles, ICP 2021 and ICP 2017, utilized the internationally agreed definition of GDP provided by the System of National Accounts (SNA) 2008 as its framework. The previous ICP 2005 and ICP 2011 cycles used the definition of GDP provided by SNA 1993. The SNA defines GDP from the expenditure side as the sum of expenditures on final consumption, gross capital formation, and net exports, and it is this approach to defining GDP that is used by the ICP.

### *What is the difference between a consumer price index (CPI) and the ICP?*

PPPs calculated by the ICP are *spatial* indexes in which each item priced by an economy must be matched to a corresponding item priced by another economy. A consumer price index (CPI), on the other hand, is a *temporal* index in which the same item is priced in each successive index period. The CPI basket of goods and services for an economy includes only those goods and services of importance to that economy. However, the ICP's basket of goods and services is more broadly based to include items that may be available in most of the economies. The ICP pricing is also more geographically representative than is usually the case for CPIs. In many economies, prices for the CPI are collected only in major cities or in capital cities, whereas the ICP encourages country-wide collection of prices in both rural and urban areas so that national annual average prices can be estimated. However, the ICP aims to work within an economy's CPI framework where possible: national statistical offices are encouraged to find [synergies between the two statistical exercises](#) to reduce costs and to simplify data collection and validation where possible, and to enhance statistical capacity.

### *What is the difference between PPPs and Price level indexes (PLIs)?*

PPPs are currency conversion factors that eliminate the differences in price levels between economies. However, from the PPPs alone it is not possible to determine which economy has a higher or lower price level. Thus, an important measure based on PPPs is the price level index (PLI), which can be calculated relative to a base economy (for example, the United States), or relative to a whole region (for example, the World). When indexed to the same reference economy or region, PLIs can be used to compare price levels across economies directly, unlike PPPs.

### *How are Price level indexes (PLIs) calculated?*

The PLI of any economy (country A) relative to the base economy (country B), is the ratio between the PPP of country A over the market exchange rate of country A relative to country B. Note that PPPs must

be based to “country B = 100”. The PLI of any economy (country A) relative to a base region (region B) follows the same calculation as long as PPPs are based on “region B = 100”. However, this is often not the case, as PPPs are typically provided with a base country, not a base region. Therefore, to calculate the PLIs based on a region, first it is necessary to calculate the expenditures both in PPP terms and market exchange rate terms, for all economies within that region. Secondly, it is necessary to calculate the ratio of the expenditures (for example, GDP) in market exchange rate to PPP terms, for all economies in the region, including the regional total. Lastly, the expenditure ratio of “country A” is divided by the expenditure ratio of “region B” to calculate the PLI.

### *How should Price level indexes (PLIs) be interpreted?*

If an economy’s PLI is lower than that of another economy, then its items or expenditure aggregates are less expensive than those in the other economy. Conversely, if an economy’s PLI is higher than that of another economy, then its items or expenditure aggregates are more expensive than those in the other economy.

### *What is the difference between the GDP implicit deflator and the PPP changes for GDP?*

Differences exist between GDP volume growth rates as measured by the national accounts time series and as implied by PPP benchmarks. The nature of these differences has been investigated since the initial phases of the ICP. Conceptually, it is impossible to maintain complete consistency in PPPs simultaneously across time and space, no matter which index number formulae are chosen for estimating both the time series price indexes and the PPPs in the selected years. The reason is that index number formulae are designed either to measure price changes over time (CPI) or to measure price levels between economies (PPPs), but they cannot measure both simultaneously. Apart from these conceptual problems, practical issues also affect the comparability of PPPs over time, including different baskets of goods and services used in estimating the national accounts deflators and PPPs, different computational methods, and different weighting patterns.

### *Can PPPs and ICP results for different reference years be directly compared?*

Comparisons of different economies' relative expenditure level levels for each reference year can be made. However, ICP results should not be used to analyze changes in any given economy’s GDP over time: the national accounts growth and constant measures of each individual economy provide the best data source for this purpose.

### *Is it appropriate to rank economies based on ICP results?*

Many users are interested in ranking economies, whether by PPP-based GDP or PPP-based GDP per capita. However, volume and price level indices are not intended to rank countries strictly. In fact, they only provide an indication of the order of magnitude of the volume or price level in one country in relation to others, particularly when countries are clustered around a very narrow range of outcomes. The level of uncertainty associated with the basic price and national accounts data, and the methods used for compiling PPPs imply that differences between countries that have indices within a close range should not be over-interpreted.

Overall, PPPs are statistical estimates and should be treated as approximations of true values, subject to sampling, measurement, and classification errors. They should not be used as indicators of currency under- or overvaluation.

ICP Results are based on data supplied by participating economies to the global and regional implementing agencies and produced in accordance with ICP methodology. Results are not deemed to be national official statistics.

## **ICP data and metadata**

### *What are the indicators produced by the ICP?*

The ICP produces, for each reference year, purchasing power parities (PPPs), price level indexes, and measures of PPP-based GDP and its expenditure components, such as total consumption, actual individual consumption, individual consumption expenditure by households, consumption expenditure by government, and gross fixed capital formation, for all participating economies. The ICP 2021 results are available through the [ICP website](#) and the World Bank's [Databank](#). Users can apply for access to more granular unpublished results and underlying data as set out in the [ICP Data Access and Archive Policy](#) (PDF).

### *Why were the 2017 results revised?*

Revisions are a common practice in official statistics. Revisions of national accounts methodology and data require PPP revisions. The ICP 2017 results were published in 2020. These results have now been revised in accordance with the [ICP Revision Policy](#) (PDF) using updated 2017 expenditures, regional PPPs, population, and market exchange rate data. Furthermore, a selected approach standardization was applied to both revised ICP 2017 and ICP 2021 results. These revised results were published as part of the ICP 2021 results' release.

### *Will the 2021 results be revised in the future?*

ICP 2021 results will be revised and published together with the ICP 2024 results. Prior to that, annual PPPs at the levels of GDP and private consumption for 2022 and 2023 will be extrapolated from 2021 PPPs using available interim deflators and price indices and published in the World Development Indicators (WDI).

### *Can ICP 2021 results be compared with ICP 2017 results?*

ICP 2021 used the same methodology as ICP 2017; however two methodological standardizations were implemented which are outlined in the FAQ section *What improvements were made in the ICP 2021 cycle?*. Furthermore, the set of participating economies differed slightly between the two cycles. The regional country composition changed with some economies dropping out of the ICP (for example, Myanmar, Haiti, the Bahamas, Barbados, Sint Maarten, and Turks and Caicos), or joining the Program (for example, Uzbekistan, Guatemala, Syria, and Lebanon). Thus, comparisons of the relative size of the economies and their price levels between 2021 and 2017 can be made, but with some caution.

### *Are annual PPPs calculated for the period between 2017 and 2021?*

Annual PPPs were calculated for 2018 to 2020 based on the interpolation of PPPs from the two reference years 2017 and 2021. These are available through the [ICP website](#) and the World Bank's [Databank](#) and [Data Catalog](#).

### *Are PPPs calculated beyond 2021?*

GDP level PPPs for 2022 and 2023 are published. The estimated PPPs for 2022 and 2023 are based on the latest GDP national accounts deflators and CPIs from World Development Indicators, and Eurostat and

OECD PPPs. As before, these extrapolations in the WDI and in the other international databases will be replaced with the actual PPP time series after the next cycle's results become available.

### *Are PPPs imputed for nonparticipating economies?*

In order to provide a complete view of the world economy in PPP terms, results are imputed for economies that do not participate in the benchmark exercise. In ICP 2021, as in previous ICP cycles, a regression method was used to impute PPPs for a selection of nonparticipating economies. Imputed PPPs are available at the level of GDP and household consumption and, for the first time, actual individual consumption for the ICP 2021 cycle, that is, for revised 2017 and 2021 reference years.

### *Why do the GDP, population, and market exchange rate data used by the ICP differ from those published in World Development Indicators (WDI)?*

The data for GDP, population, and market exchange rates used in the ICP were provided directly by national sources. For a few economies they differ from the data published in the WDI because of differences in vintage or statistical methods.

### *How do the ICP 2021 PPPs differ from 2021 PPPs extrapolated from 2017 PPPs in World Development Indicators (WDI)?*

The ICP 2021 PPPs do not converge with the extrapolated 2017 PPPs in the WDI for both conceptual and practical reasons (see [Chapter 18](#) (PDF) of the ICP book "[Measuring the Real Size of the World Economy](#)"). Experience has shown that discrepancies can arise between PPPs from a new cycle and extrapolated PPPs from a previous cycle, even when the cycles are only a couple of years apart. Thus, the four-year gap between the 2017 and 2021 ICP cycles resulted in some differences between the ICP 2021 PPPs and the 2021 PPPs extrapolated from 2017 PPPs for some economies.

WDI also extrapolates ICP PPPs, as necessary, for non-ICP benchmark years and for years not covered by the annual PPPs provided by the ICP. This [blog](#) notes how WDI-extrapolated PPPs can provide useful economic analysis.

For years before 2011 and after 2021, PPPs provided by the ICP are extrapolated to create a time series from 1990 to the latest year available. The [method](#) used is to apply the difference between the rate of inflation observed in the economy over each period from 2017 (for years before 2017) and from 2021 (for years after 2021), compared with inflation in the United States over the same period, to the benchmark PPP estimates. Extrapolation of PPPs at the GDP level uses the GDP implicit deflator and the consumer price index (CPI) for household, or private, consumption level PPPs.

For more information about the various sources of PPPs please see the knowledge brief "[A comparison of different sources of purchasing power parity \(PPPs\) estimates.](#)"

### *How do 2021 PPPs produced by the ICP differ from those in the Penn World Table?*

The Penn World Table (PWT) obtains its price input data from the ICP, but it processes the data using somewhat different methods. First, PWT does not use regional fixity, and second, the GDP is aggregated from its main expenditure components using an additive index number (a version of the Geary-Khamis index) in PWT. In addition, PWT sources its GDP and expenditure component data from the UN National Accounts Main Aggregates Database. For more detailed information on the concepts and methods used by the PWT, please refer to the [PWT website](#).

For more information about the various sources of PPPs please see the knowledge brief "[A comparison of different sources of purchasing power parity \(PPPs\) estimates.](#)"

## Methodology

### *What are the main components of the ICP methodology?*

Overall, the ICP methodology has three major components: (i) the conceptual framework that defines final expenditures on GDP from the System of National Accounts (SNA); (ii) the basket of goods and services from which items are selected for pricing, that are both representative of national consumption and comparable across economies; and (iii) the methodology used to compute PPPs, first within regions for the regional comparisons and then across regions for the global comparison.

### *What is the ICP expenditure classification?*

The ICP follows the SNA definition of GDP from the expenditure side as the sum of expenditures on final consumption, gross capital formation, and net exports. The [ICP Classification of Final Expenditure on GDP](#) (PDF) comprises six main aggregates, which are broken down into 28 expenditure categories, 63 expenditure groups, 126 expenditure classes, and 155 basic headings.

### *What is a 'basic heading' and what is its importance in the ICP?*

A basic heading is the lowest (or most detailed) level of aggregation for which expenditure values are provided by participating economies. The ICP divides expenditures on GDP into 155 mutually exclusive basic headings in accordance with the [ICP Classification of Final Expenditure on GDP](#) (PDF). These 155 basic headings cover all final expenditures on GDP, from food, clothing and footwear to hospital equipment and compensation of government employees, etc. Furthermore, it is at the basic heading level that items are selected for pricing, that prices are collected, and that PPPs are first estimated.

### *How are basic heading expenditures compiled?*

ICP data requirements require that all participating economies report expenditure estimates for 155 basic headings in accordance with the [ICP Classification of Final Expenditure on GDP](#) (PDF). In the absence of published or readily available estimates at that basic heading level, higher-level aggregates were required to be split using data and indicators available from household expenditure surveys, government accounts, and other most recent available data sources.

### *What goods and services does the ICP cover?*

Prices are collected for individual items within each basic heading to compute national annual average prices. The 2021 global core list for household final consumption expenditure included 651 items, including seven for education and 13 for housing rents, while consumption expenditure by government covered 34 government occupations, and gross fixed capital formation covered 165 construction items, including materials, labor wages and equipment hire, and 107 machinery and equipment items.

### *How does the ICP ensure the representativity and comparability of the items priced?*

At the *regional level*, each regional implementing agency works closely with the national implementing agencies to develop a list of regional items that are both representative of each economy's consumption pattern as well as comparable across economies within the region. At the *global level*, the Global Office works closely with the regional implementing agencies to develop a list of global core items that are comparable and representative across all regions and that are priced by all participating economies. Note that each ICP region selects which global items to incorporate on their regional item lists, based on their

relative importance within the region, thus ensuring the regional representativity of the global items priced. The comparability of all items priced, global and regional, is ensured by the standardization of product descriptions and the validation efforts at the national, regional, and global levels.

### *What is the geographical coverage of price collection?*

ICP data requirements stipulate that all average prices reported by countries and used in PPP calculations be nationally representative annual average prices. Brief information on the survey framework for price collection in each participating economy is available in the respective ICP cycle report, and additional details are available on the [ICP website](#).

### *What improvements were made in the ICP 2021 cycle?*

While the core methodology of the ICP 2021 cycle remained the same as the ICP 2017 cycle, three main developments were adopted in the estimation of the 2021 benchmark PPPs. These developments were aimed to further harmonize the computation process across all participating regions and economies by overcoming exceptions to the core methodology.

The Commonwealth of Independent States (CIS) region is now treated as the sixth core region in the global linking procedure. In previous ICP cycles, the CIS region was linked via the Russian Federation's dual participation in both the CIS and Eurostat-OECD ICP regions. In the ICP 2021 cycle, the CIS region was linked through the same global core list approach as all other ICP regions. For ICP 2017, the Russian Federation's results were based on the OECD comparison, and for ICP 2021, they were based on the CIS comparison.

Regional housing PPPs for economies in the Asia and the Pacific region were estimated using a hybrid approach, that is, the standard ICP method for estimating housing PPPs based on rental and volume data. This approach was used for the revised ICP 2017 results and ICP 2021 results, both at the regional and global levels, and replaced the previously utilized reference volume approach.

For economies that did not participate in the ICP 2021 cycle and, therefore, did not submit any data, PPPs are imputed based on a regression model using other official data sources. PPPs for Actual Individual Consumption were imputed for the first time in the ICP 2021 cycle, in addition to PPPs for GDP and household consumption imputed during the earlier ICP cycles.

### *How will the ICP continue to adapt to a changing economy?*

The ICP will continue to evolve and adapt to a changing economy, reflecting the rapid changes taking place across the world, not only in what people buy but in which outlets and platforms they make their purchases, and complementing traditional surveys with new data sources such as scanner data and web scraping. Country participation in the program will also increase to leave no country behind. This is especially true for countries that are fragile and those that are affected by conflict and violence.

### *Where can I find more information about the ICP methodology?*

The [ICP website](#) has a dedicated section on ICP methodology which is updated based on most recent ICP cycle. Additionally, details on methodology from previous ICP cycles can be found in the respective [ICP cycle reports](#). For a detailed account of the ICP theory and methods, please consult the [ICP Book \(2011\)](#). For a detailed description of the ICP operational work, please consult the [ICP Operational Guide \(2011\)](#).



## Uses and applications

### *What are PPPs and ICP data primarily used for?*

PPPs are primarily used to convert the national accounts data of economies, such as GDP and its expenditure components, into a common currency. PPP-based comparisons of economic output differ from market exchange rate-based comparisons as the latter do not distinguish between the relative price levels of different items in economies. PPP-based comparisons are also less impacted by the potential volatility of market exchange rates. PPPs are also used to derive price level indexes (PLIs) - the ratio of an economy's PPP to its market exchange rate. ICP data also encompass PPP-adjusted expenditures in both aggregate and per capita form, for nearly 200 economies. These data are essential to cross-country comparisons of GDP, consumption, and investment.

### *How do policy makers, researchers, analysts, and others use ICP data?*

ICP results are a global public good and are used for research and analysis, indicator compilation, policy making, and administrative purposes at the global, regional, and national levels. They are used in indicators to monitor progress towards achieving the Sustainable Development Goals (SDGs) and the World Bank's twin goals of ending extreme poverty and promoting shared prosperity. The United Nations' Human Development Index, the World Economic Forum's Global Competitiveness Index, the Gates Foundation's Goalkeepers Report, the International Labour Organization's Global Wage Report, and the World Bank's Worldwide Bureaucracy Indicators also rely on ICP PPPs. Both the International Monetary Fund (IMF) and the OECD use PPPs in estimates of regional and world output and growth in their respective publications, *World Economic Outlook* and *Economic Outlook*. The European Commission uses them for the allocation of structural and cohesion funds, while the International Bank for Reconstruction and Development and the IMF both rely on the PPP-based GDP of economies to determine their shareholding and drawing rights. An overview of all uses is provided in the 2021 publication "[Purchasing Power Parities for Policy Making a visual guide to using data from the International Comparison Program](#)".

### *How are PPPs used for the United Nations' 2030 Agenda for Sustainable Development?*

PPPs underly indicators used to monitor progress towards achieving the Sustainable Development Goals (SDGs). PPPs are used for monitoring how far the world has come in achieving no poverty (SDG 1), zero hunger (SDG 2), good health and well-being (SDG 3), quality education (SDG 4), affordable and clean energy (SDG 7), decent work and economic growth (SDG 8), better industry, innovation, and infrastructure (SDG 9), and sustainable cities and communities (SDG 11). For more information on how PPPs and ICP data, and the indicators they enable, help countries track their progress towards the UN's 2030 Agenda, Please refer to this [article](#).

### *Will the new 2021 PPPs be used to update the international poverty line?*

ICP PPPs are one of five data sources that are used to compute the incidence of poverty using international poverty line methodology. PPPs are used to convert national poverty lines as well as the value of households' income and consumption — the backbones of global poverty measurement — to a common currency across countries. In 2022, the World Bank started [using the 2017 PPPs](#) for its global poverty numbers.

### *How are ICP data used for diet cost and affordability metrics?*

ICP food price and expenditure data are used in a suite of globally-comparable indicators from [Food Prices for Nutrition](#), which measure the cost and affordability of healthy diets and related metrics. The indicators

use the least-cost combination of locally available foods to meet the needs of a representative adult at different dietary standards and draw on food price data collected by the ICP. National accounts data compiled by the ICP enable an affordability measure which compares the diet cost against food expenditures in each country.

### *When are PPPs preferable to market exchange rates?*

The major use of purchasing power parities (PPPs) is to make intercountry comparisons of GDP and its expenditure components. They refer to the entire range of goods and services that make up GDP and include items such as construction, housing, health, education, and government services that are not traded internationally. Moreover, PPPs are calculated using expenditure weights that reflect domestic demand. Market exchange rates are determined by the total demand for a particular currency and financing foreign trade and capital transfer are components of this demand. PPPs, therefore, should not be interpreted as equilibrium exchange rates and cannot be used to indicate an economy's "correct" exchange rate and therefore cannot serve as an indication as to whether the currency of an economy is under- or overvalued.

Market exchange rate-converted GDP and its component expenditures do not accurately measure the relative sizes of economies and their levels of material well-being. Large differences in price levels exist across economies and market exchange rates do not normally reflect the relative purchasing power of one currency in another economy. Overall price levels are normally higher in higher-income economies than they are in lower-income economies, mostly because of the large differences in price levels for non-traded products. If no account is taken of the larger price level differences for non-traded products when converting GDP to a common currency, the size of higher-income economies with high price levels will be overstated and the size of lower-income economies with low price levels will be understated. No distinction is made between traded products and non-traded products when market exchange rates are used to convert GDP to a common currency: the rate is the same for all products. PPP-converted GDP does not have this bias because PPPs account for the different price levels of traded products and non-traded products. Thus, PPPs are more appropriate for comparing the output of economies and the average material well-being of their inhabitants and are also less impacted by the potential volatility of market exchange rates. For more recommended uses of PPPs, please refer to this [reference](#).

### *What should PPPs not be used for?*

PPPs are designed specifically to make international comparisons of GDP and capture the differences between the cost of a given bundle of goods and services in different economies. They are not designed to compare investment flows, aid, international trade, foreign currency reserves, or migrants' remittances. These comparisons should be made using market exchange rates which balance the supply and demand of international currencies.

Note that many international comparisons require neither PPPs nor market exchange rates. For example, to compare real growth rates of GDP between economies, each economy's own published growth rate can be used. Similarly, a comparison of government debt as a ratio of GDP can be calculated in each economy's own currency.