

Section 2: Uses and Applications of PPPs

Module 3: Global Applications of PPPs

Training Workshop on Price Statistics for the Production of Purchasing Power Parities and the Integration between CPI and PPPs in the Arab Region

07-08 June 2021

Objectives of Section 2: Uses and Applications of PPPs

Users & Main Uses of PPPs



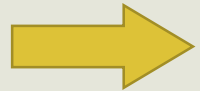
Global Applications of PPPs

National Applications of PPPs

Objectives of Module 3: Global Applications of PPPs



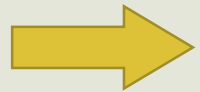
How the Results are published



What kind of analyses can be done with the results



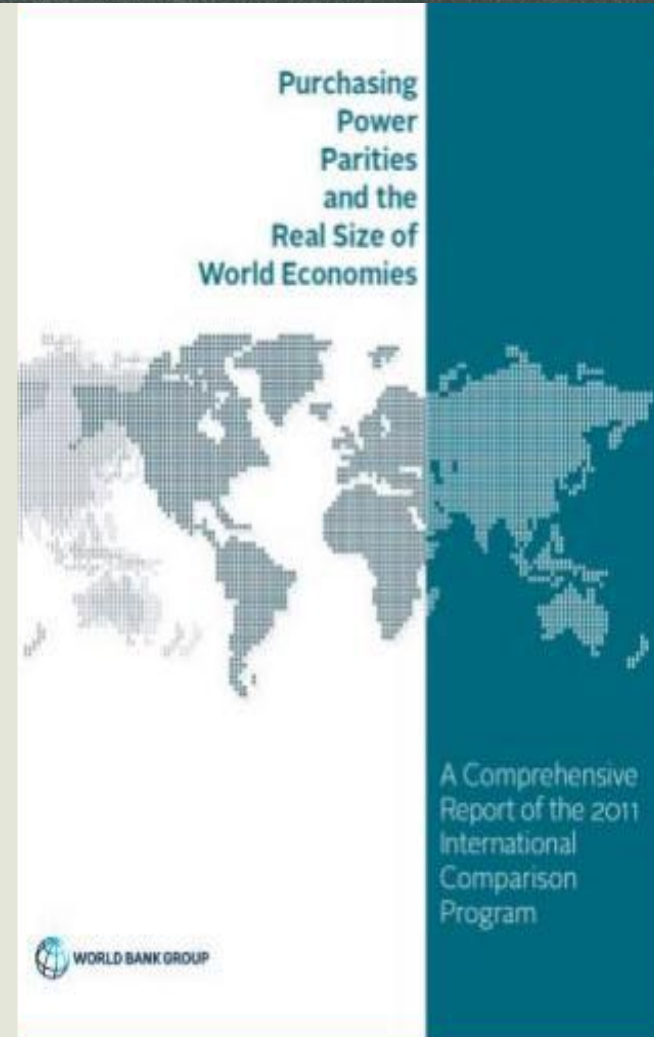
How important and useful the results are in understanding the world economy



How PPPs are used to set the World Bank's international poverty line

➔ Brief Look at the 2011 Results

- **The Final Report of the ICP 2011**, was published in 2014 as “Purchasing Power Parities and the Real Size of World Economies.”
- **The report includes** the full set of 2011 results and presents an in-depth analysis of volume and per capita measures with detailed information on methodology.



Full set of ICP 2011 results

Analysis of results

Information on methodology

- Expenditures (local currency units)
- Expenditure shares (GDP = 100)
- PPPs (US\$ = 1)
- Real expenditures (U.S. dollars)
- Real expenditures: country and regional shares (world = 100)
- Real expenditures per capita (U.S. dollars)
- Index of real expenditures per capita (world = 100)
- Price level index (world = 100)
- Nominal expenditures (U.S. dollars)
- Nominal expenditures per capita (U.S. dollars)

26 Expenditure categories

199 Economies from various regions

Size of Economies

- Here we can see the 12 largest economies by share of world GDP for 2011.
- The table indicates that the 12 largest economies accounted for two-thirds of the world's economy.
- In other words, a small number of economies held the greatest shares of the global GDP.**

- However, the share of global GDP of these economies changed between 2005 and 2011.

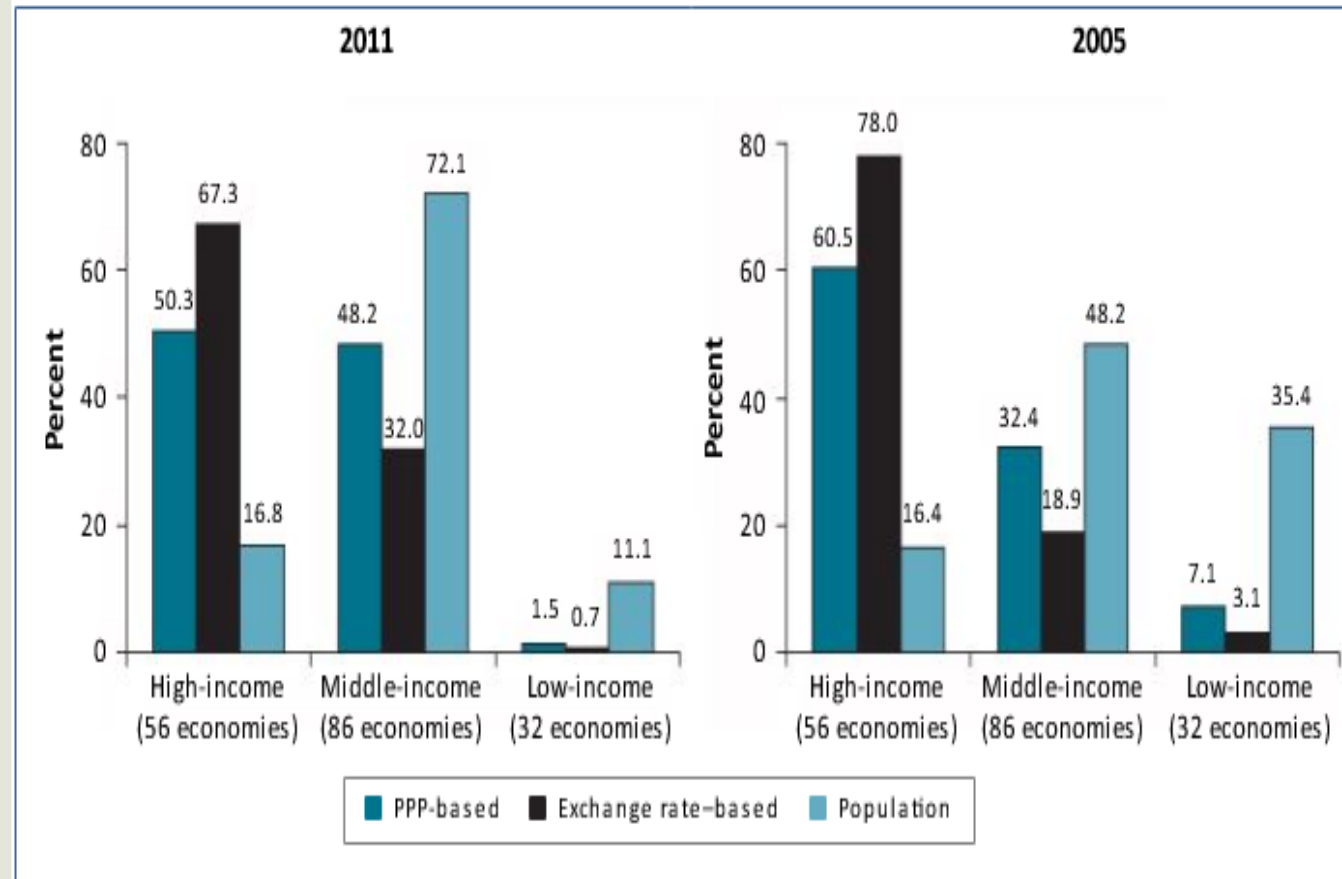
- For example, *China* and *India's* shares of global GDP ***more than doubled*** compared to that of the *United States* between 2005 and 2011.

| Twelve Largest Economies by Share of World GDP, ICP 2011 | | | | | Percentage of GDP to U.S. GDP (PPP-Based) for 12 Largest Economies, ICP 2011 and ICP 2005 | | |
|--|--------------------|---|---|---------------------------------------|---|-------|-------|
| Ranking by GDP (PPP-based) | Economy | Share of world GDP (PPP-based, world = 100) | Share of world GDP (exchange rate-based, world = 100) | Ranking by GDP per capita (PPP-based) | Economy | 2011 | 2005 |
| 1 | United States | 17.1 | 22.1 | 12 | United States | 100.0 | 100.0 |
| 2 | China | 14.9 | 10.4 | 99 | China | 86.9 | 43.1 |
| 3 | India | 6.4 | 2.7 | 127 | India | 37.1 | 18.9 |
| 4 | Japan | 4.8 | 8.4 | 33 | Japan | 28.2 | 31.3 |
| 5 | Germany | 3.7 | 5.2 | 24 | Germany | 21.6 | 20.3 |
| 6 | Russian Federation | 3.5 | 2.7 | 55 | Russian Federation | 20.7 | 13.7 |
| 7 | Brazil | 3.1 | 3.5 | 80 | Brazil | 18.1 | 12.8 |
| 8 | France | 2.6 | 4.0 | 30 | France | 15.3 | 15.0 |
| 9 | United Kingdom | 2.4 | 3.5 | 32 | United Kingdom | 14.2 | 15.4 |
| 10 | Indonesia | 2.3 | 1.2 | 107 | Indonesia | 13.2 | 5.7 |
| 11 | Italy | 2.3 | 3.1 | 34 | Italy | 13.2 | 13.1 |
| 12 | Mexico | 2.1 | 1.7 | 72 | Mexico | 12.2 | 9.5 |

Size of Economies by Income Groups

- Here we can see the relative sizes of economies based on the World Bank's income classification.
- The results suggest that the relative income gap between countries has narrowed. This apparent reduction in the income spread must be interpreted with some caution.
- Methodological differences should be carefully considered when comparing results from different rounds of ICP.

Percentage of PPP-Based and Exchange Rate-Based GDP and Population by Income Group, ICP 2011 and ICP 2005



Poverty & PPPs

- Before understanding how PPPs are used for global poverty measurements, we must first understand how poverty is measured.

Measuring poverty requires *2 things*:

1. An Indicator of Welfare:
which is typically based on income or consumption
2. A Minimum acceptable standard of the chosen welfare indicator:
to act as a cut-off point that separates the poor from the non-poor

A person is then considered poor if his or her income or consumption falls below some minimum level. This minimum level is referred to as the “Poverty Line”.

Poverty & PPPs *(cont'd)*

More on Poverty Line:

- People living below a poverty line don't have enough money to meet their basic food, clothing and shelter needs.
- Poverty lines are national, and richer countries have higher poverty lines than poorer ones.
- We use the national lines of a group of the poorest countries to set an international poverty line. This one-dollar-ninety a day international poverty line is used to measure progress globally.

Poverty & PPPs *(cont'd)*

- PPPs allow us to analyze a country's income or consumption data in globally-comparable terms by taking account of the purchasing power differences between countries.
- Measuring and accounting for these differences is critical in accurately measuring global poverty and monitoring the effectiveness of poverty alleviation policies.

Without PPPs, comparisons of income and consumption levels would typically rely on market exchange rates, which generally underestimate the purchasing power of consumers in poorer countries, making them appear too poor relative to those in richer countries, compared with the real differences in their living standards.

Poverty & PPPs (cont'd)

- It is not surprising that PPPs play a major role in monitoring the *UN-led SDGs* and the *World Bank Group's* twin goals of:

Ending Poverty by 2030 and Promoting Shared Prosperity.



Poverty & PPPs *(cont'd)*

When the interest of study is a particular country, poverty is generally measured using a ***National Poverty Line***.

A Country's ***National Poverty Line*** is:

1. Expressed in the country's local currency
2. Established based on the country's own level of development, societal norms and values.

In this way, richer countries tend to have higher ***National Poverty Lines*** than poorer countries.

Poverty & PPPs *(cont'd)*

A person who is considered poor based on a country's national poverty line may not necessarily be considered poor based on another country's national poverty line.

➔ **Therefore, *National Poverty Lines* are not interchangeable between countries since they are expressed in each country's local currency and are based on a given country's measures to identify who is poor in that country.**

- For these reasons, estimating and comparing poverty across countries, or at the *global* level, requires a common ***International Poverty Line***.
- ***International Poverty Line*** must be expressed in a common currency unit and must also apply the same measures across *all* countries to identify who is poor in each country.

Poverty & PPPs *(cont'd)*

PPPs play a key role in establishing a common ***International Poverty Line***

- In setting its latest ***International Poverty Line***, the World Bank used ICP PPPs for *Household Consumption*:
 - They used PPPs to convert the ***National Poverty Lines*** of some of the world's poorest countries to a common currency.
 - Then, they averaged these poverty lines to generate the World Bank's ***International Poverty Line***.
 - To assess poverty in each country using the same global measure, PPPs are again required. PPPs are used to convert the ***International Poverty Line*** back into the respective *local currencies*.

International Poverty Line

Previously, the *International Poverty Line* was set at **\$1.25/day** using ICP 2005 PPPs for Household Consumption.

In October 2015, the World Bank *International Poverty Line* was updated and set at a **\$1.90/day**, using ICP 2011 PPPs for Household Consumption.

- By using the most recent ICP data, the new World Bank *International Poverty Line* paints a more accurate picture of the costs of basic food, clothing, and shelter needs around the world.

International Poverty Line *(cont'd)*

Why change the *International Poverty Line*?

- *International Poverty Line* has been updated to **\$1.90/day** because of new data on the prices of goods and services.
- These data show both an *increase in prices* and a *difference in the relative prices* between countries.
- **\$1.25/day** no longer buys what it previously did.
- Therefore, the poverty line has been raised to **\$1.90/day** to better reflect the real costs of living in poor countries.

The background is a dark green chalkboard with various white chalk sketches. On the left, there is a globe on a stand. Above it are several circular diagrams, possibly representing orbits or data points. In the center, there are several rectangular shapes, some with arrows, possibly representing diagrams or flowcharts. On the right, there is a detailed drawing of a microscope. The overall theme is educational and scientific.

Thank You