

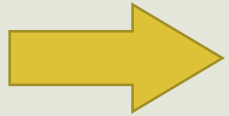
Section 1: Introduction to PPPs

Module 1: Concepts and Requirements 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

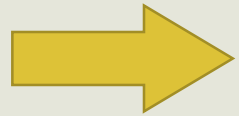
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Objectives of Section 1: Introduction to PPPs

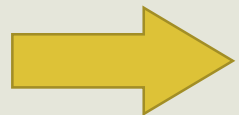


Concepts and Requirements of PPPs

Objectives of Module 1: Concepts and Requirements of PPPs



What are PPPs



Why use PPPs



Data Requirements for PPP estimation



What are PPPs?

Purchasing Power Parities (PPPs) measure the amount of currency needed in a certain country to buy the same basket of goods and services that a single unit of another country's currency can buy.

PPPs make it possible to compare the output of economies and the welfare of their inhabitants in real terms, thus controlling for price level differences across countries



What are PPPs? *(cont'd)*

For example:

The PPP between Kuwait and Bahrain measures the number of units of Kuwaiti Dinar (KWD) required to purchase a basket of goods or services in Kuwait when compared to one unit of Bahraini Dinar (BHD) to purchase a similar basket of goods or services in Bahrain.

In this way, PPPs can be used to convert the cost of a basket of goods and services into a common currency while eliminating price level differences across economies.

Simply put, PPPs equalize the purchasing power of currencies.



What are PPPs? *(cont'd)*

Suppose we are in the United States and have just spent 10 US dollars on a meal. Some components of the meal, like the ingredients are **goods** and the local labor needed to cook and serve the meal are **services**.

So how much would it cost to eat a similar meal in South Africa?

One way to estimate that cost would be to use a market exchange rate. If we use a market exchange rate of 7.26, 10 US dollars would be equivalent to 72.6 South African rand. But, since the cost of living in South Africa is lower than that of the United States, 72.6 rand would allow us to buy more goods and services in South Africa, or in this example, a larger meal.



What are PPPs? *(cont'd)*

Another way to estimate that cost would be to use PPPs.

Using this example, **how many rand would we need to buy a meal in South Africa that is similar to the one in the United States?**

In this case, we would only need 47.7 rand to purchase a meal in South Africa that is equivalent to the one in United States. So, the PPP of South Africa to the United States would be 47.7 South African rand divided by 10 US dollars, which equals 4.77.

➔ What are PPPs? *(cont'd)*



A: USA

10 USD

10 USD



B: South Africa

72.6 ZAR

47.7 ZAR

XR 7.26

Market Exchange Rate

PPP 4.77

Purchasing Power Parity

$$\frac{47.7}{10}$$

Discussion

- State goods/services that if compared with other goods/services in another country using exchange rates, may give false information.

Goods

- Food
- Electronics
- Furniture
- Cars
- Clothes

Services

- Medical Consultation
- Cleaning Services
- Car Repairs
- Plumbing Services

Why use PPPs?

Due to significant differences in price levels across countries, market exchange rate-converted GDP (*Nominal GDP*) does not accurately measure the relative sizes of economies or the levels of material well-being.

As a result, **GDP comparisons using market exchange rates tend to underestimate the purchasing power of consumers in countries with low price levels, making them appear poorer than countries with high price levels.**

PPPs make it possible to compare the output of countries and the welfare of their inhabitants *in real terms* by considering the differences in price levels in both goods and services across countries.

➔ What are PPPs? (cont'd)

For example, the **Share of World GDP** attributed to **India** changes whether we use **Market Exchange Rates** or **PPPs**:

- If we use market exchange rates in converting GDP, India's **Share Of World GDP** is **2.7%**.
- If we use **PPPs**, India's share increases to **6.4%**.

The opposite is true for countries with higher price levels, such as USA, Germany or Japan.

Twelve Largest Economies by Share of World Gross Domestic Product (GDP), 2011

Ranking by GDP (PPP-based)	Economy	Share of world GDP (PPP-based, world = 100)	Share of world GDP (exchange rate-based, world = 100)
1	United States	17.1	22.1
2	China	14.9	10.4
3	India	6.4	2.7
4	Japan	4.8	8.4
5	Germany	3.7	5.2
6	Russian Federation	3.5	2.7
7	Brazil	3.1	3.5
8	France	2.6	4.0
9	United kingdom	2.4	3.5
10	Indonesia	2.3	1.2
11	Italy	2.3	3.1
12	Mexico	2.1	1.7



Data Requirements for PPP Estimation

PPPs are calculated from the expenditure side of the *National Accounts*.

This data includes:

1. **Detailed breakdown of the final expenditures on GDP** that covers the whole range of goods and services included in the GDP.
2. Set of annual national purchasers' prices for a selection of goods and services included in the GDP.

Both expenditures and prices need to refer to the same comparison year

*(These concepts will be discussed in detail later)



Data Requirements for PPP Estimation

In addition, the following are also used:

- 1. Annual Average Market Exchange Rates to calculate Price Level measures.**
- 2. Mid-year population figures to calculate Per Capita measures.**

Quiz Time

✓ What are PPPs?

- Purchasing Power Parities (PPP) *measure the amount of currency needed in a certain country to buy the same basket of goods and services that a single unit of another country's currency can buy.*
- PPPs are different from market exchange rates.

currency

same as

services

different from

single

expenditures

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 a pair of scissors and a ruler. In the center, there are several arrows pointing in different directions. On the right, there is a detailed drawing of a microscope. At the bottom, there are sketches of books and other educational items.

Thank You