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What Is Purchasing Power Parity?

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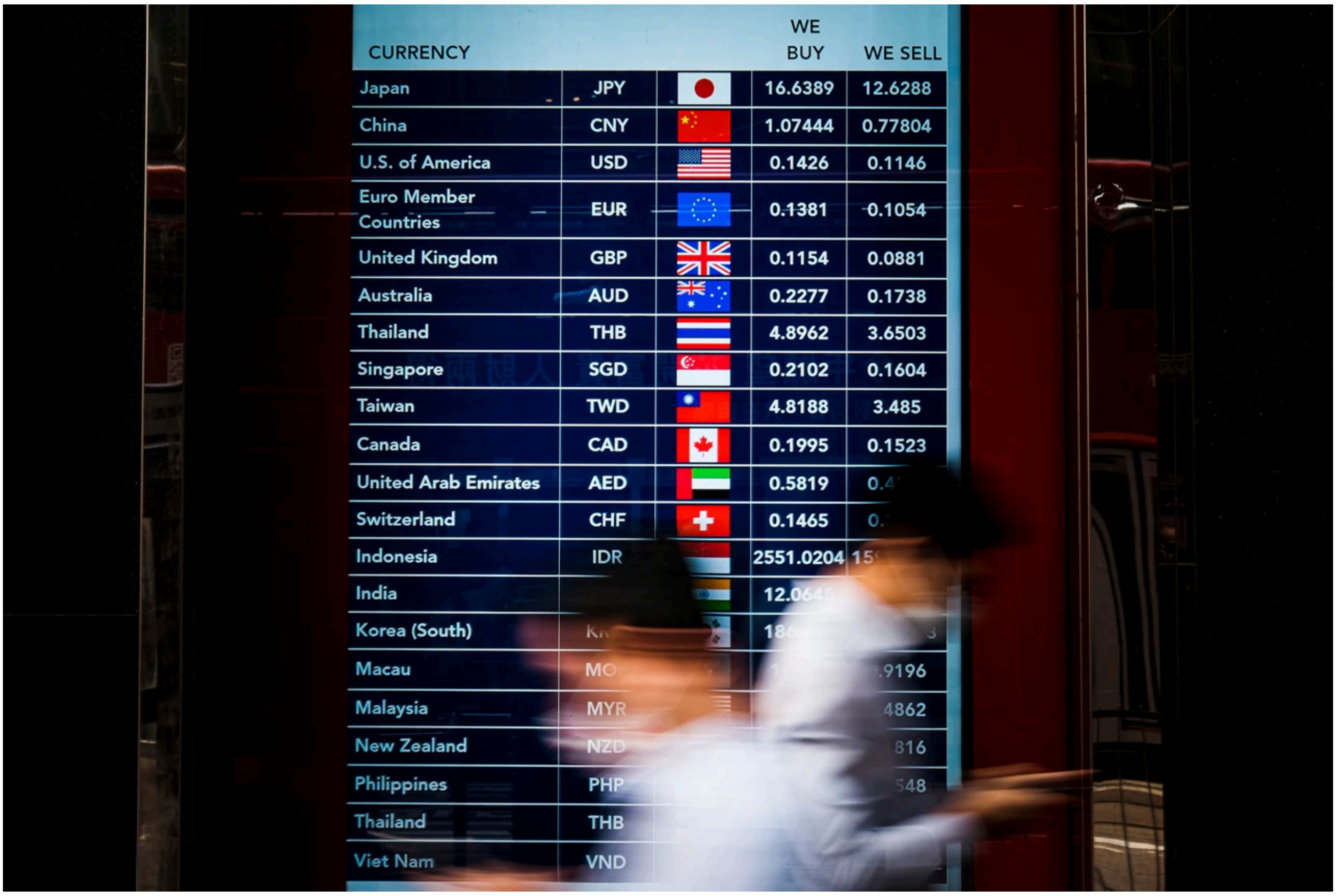
Purchasing power parity (PPP) is a concept found in macroeconomics. Using PPP, economists seek to calculate the cost of items across various different countries and currencies.



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What Is Purchasing Power Parity?

In academic terms, purchasing power parity is the rate of currency conversion which must occur between two economies to equalize the cost of a basket of goods between those two nations.

A purchasing power parity index gives the rate of currency conversion that equalizes the purchasing power of different currencies by adjusting for the difference in price levels between two countries. Economists can calculate the cost of a basket in goods across both countries and divide a country's GDP by that ratio to create an apples-to-apples comparison. PPP can be calculated on various levels, starting at individual items and on up to the entire GDP of a country.

Investors can use the PPP framework as part of a broader Forex trading strategy. It's also useful in analyzing investments in foreign countries and accounting for potential currency risk to forward earnings and cash flows for multinational enterprises.

What Is Absolute Purchasing Power Parity?

Absolute purchasing power parity was created with the idea of comparing price levels between two differing economies. It can be used to find an equivalent price level which would equalize purchasing power between the two entities under comparison.

What Is Relative Purchasing Power Parity?

By contrast, relative purchasing power parity incorporates the impact of inflation over time. Relative PPP seeks to identify how much prices should move across different economies while incorporating the effect of different inflation rates between economies. For example, countries with historically high inflation rates, such as Brazil or Turkey, may often appear cheap based on an absolute PPP basis, but the usage of relative PPP can help identify if the currency in question is genuinely undervalued after taking account the structural difference in inflation rates.

Understanding The Global Economy

Frequently, developed market economies tend to have higher prices and costs of living than emerging markets. That probably shouldn't be surprising, given the much higher average wages in those markets and often higher levels of infrastructure and capital market development.

As a result, however, emerging markets tend to punch above their weight when considering the global economy on a purchasing power parity-adjusted basis.

In fact, according to a report from the International Monetary Fund, China has already overtaken the United States as the world's largest economy on a PPP-adjusted basis. By 2050, that report suggests that India will become the world's second-largest economy on a PPP-adjusted basis, and that Indonesia and Brazil will also rise into the global top five, replacing several developed market countries.

Of course, those calculations are on a purchasing power adjusted basis. In traditional GDP calculated in dollar terms, things could turn out quite differently. However, thinking through a PPP lens could help investors consider the opportunities and growth in parts of the world that are often not in the spotlight.

Drivers Of Individual Country Economies

There are numerous factors which tend to lead to better or worse economic outcomes for a country. These are often thought to include:

- Education levels
- Quality of infrastructure
- Government competence
- Enforcement of contracts and rule of law
- Monetary policy
- Fiscal policy
- Deficits (trade & fiscal)
- Natural resources

That list is hardly exhaustive, but gives an overview into the various factors that come into play in determining economic outcomes.

As it pertains to currency strength and overall purchasing power, several of these factors are quite important. For example, a country's fiscal and trade balance are both crucial.

How Trade Impacts Currency Values

A country's fiscal balance is determined by whether a government runs a surplus or deficit. A government that chronically runs sizable deficits will have to borrow money from the private sector or bodies such as the International Monetary Fund to pay for its spending. If these funds come from foreign investors, this can serve to weaken the country's currency over time. This comes due to the government needing to fund interest expenses on the accumulating debt, which can lead to inflation, fiscal austerity, or other negative outcomes for the value of its currency over time.

Investors should also pay close attention to a country's trade surplus or deficit. A trade surplus is when a country sells more exports than it takes in via imports. Trade surpluses are generally favorable for a currency's strength, as it gives the country more savings and assets with which to bolster its economy and maintain fundamental economic strength. By contrast, a persistent trade deficit usually leads to a weaker currency; at some point foreign investors will seek to be repaid for the goods they've sold, and the foreign exchange rate often falls to a new equilibrium to meet this demand. While currency markets are notoriously fickle in the short-term, in the long run, surpluses tend to lead to a strong currency and vice versa.

It should be noted that a different set of factors apply to a country and its currency when they hold reserve currency status. Historically, imperial powers such as the French and British were able to run sizable trade deficits for long periods of time while their currencies retained their value due to the benefits of the country's military power projection and international prestige.

Some analysts argue that the United States has been able to run twin fiscal and trade deficits for as long as it has due to the U.S. Dollar being the world's primary reserve currency and the United States military's ability to project power around the world. The fact that major chunks of world trade, such as for crude oil, tends to occur in dollars further gives strength to the currency that would not normally be accounted for in economic models such as PPP indexes.

For countries that don't issue a reserve currency, however, they should expect their terms of trade to decline over time if they tend to run persistent fiscal and/or trade deficits.

What Is Currency Risk?

Currency risk, as it pertains to international trade and investing, is the worry that a seemingly good economic decision will turn into a bad one due to intervening fluctuations in exchange rates. For example, if a steelmaker anticipates earning a 10% profit when sending their goods overseas, but the currency rate changes 10% while the ship is delivering the steel to the end customer, the manufacturer could end up not making money on the deal. Similarly, an investor could put money to work in a foreign country's bonds, for example, and see currency depreciation offset the anticipated interest to be received, thus leaving the investor with no real gains or even an outright loss.

It's easy to assume currency risk is only a pressing concern in countries that have experienced hyperinflation, such as Zimbabwe or Argentina. Argentina's Peso went from a 1-to-1 peg against the U.S. Dollar in 2001 to a ratio of around 1,000 Argentine Pesos to the U.S. Dollar today. Needless to say, this sort of catastrophic decline makes it hard for both commercial enterprises and investors to make long-term plans and commit to binding contracts denominated in that currency.

However, currency risk has become an increasingly important factor in major developed economies in recent decades, especially since the end of the Bretton Woods system and ensuing surge in inflation in the 1970s. The recent spike in inflation globally and volatility in commodity prices could possibly trigger a much larger wave of foreign exchange instability as well.

PPP can be a useful metric in determining potential currency risk. If an economy has a low relative level of purchasing power -- particularly compared to other countries with a similar level of development -- it often indicates that the local currency could be considerably overvalued. Particularly in emerging markets, central banks may step in and devalue their currency to improve economic competitiveness and attempt to raise their country's standard of living. By watching relative PPP metrics, investors can potentially foresee growing currency risks before they turn into actual economic shocks.

Purchasing Power Parity In The Real Economy

The formula for purchasing power parity is at its core a simple one: The cost of a specific good in one currency divided by the cost of that same good in a second country. For example, suppose that a Big Mac sandwich cost 7 Euros in Germany and 5 Euros in France. In this case, the German Big Mac would have a 1.4x PPP ratio to the French one.

For PPP on an economy-wide basis, statisticians typically take a basket of goods -- such as the ones used in the calculation of the consumer price index -- and calculate its cost in various economies around the world. The price of buying that basket of items is converted into a common unit of account, often the U.S. Dollar, and measured accordingly.

GDP Purchasing Power Parity By Country

According to the *IMF's* 2024 estimates, the world's largest economies in the world as sorted by PPP adjusted GDP will be as follows:

- No. 1 China
- No. 2 United States
- No. 3 India
- No. 4 Japan
- No. 5 Germany
- No. 6 Russia
- No. 7 Indonesia
- No. 8 Brazil
- No. 9 France
- No. 10 United Kingdom

Countries such as China and Indonesia see their spot in the rankings rise, compared to a traditional GDP calculation, thanks to the adjustment for purchasing power parity, as a dollar typically buys significantly more goods and services in emerging markets as compared to the United States or developed market European countries.

Bottom Line

Purchasing power parity is not an all-encompassing statistic for measuring a country's wealth or income. But, it can provide a useful perspective in analyzing the real purchasing power of a country's economic activity. It can also be a great tool for comparing the value of salaries across different parts of the world.

Additionally, if a country's purchasing power parity per capita is much different from its reported GDP per capita, this could indicate that a currency may be mispriced. Investors could use this as a hint to hedge their portfolios, and similarly, companies may seek to protect themselves from currency volatility when a currency seems significantly over- or undervalued on a PPP basis.

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