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Masaru Hamasaki
Senior Strategist

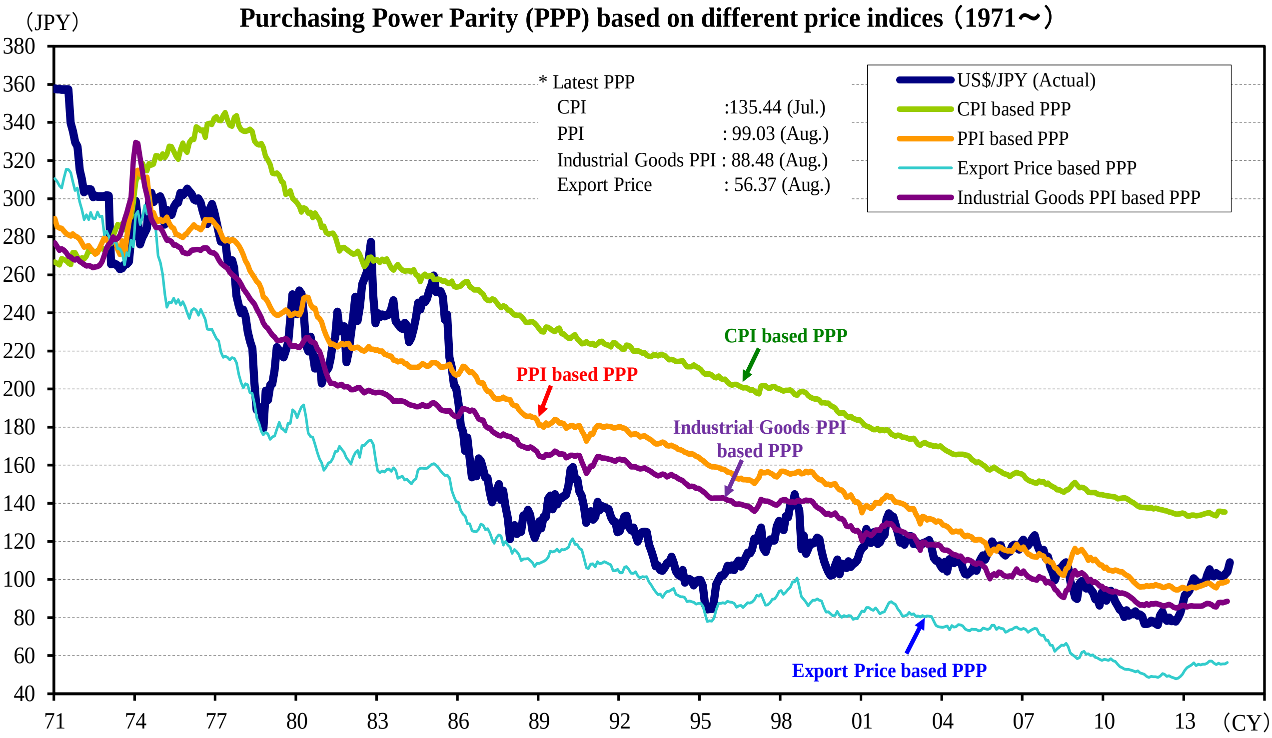
# "Is further JPY depreciation unfavorable for Japanese economy?"

## Purchasing Power Parity (PPP)

After JPY depreciated to around 110 yen against US$ in September, we hear opinion pointing out disadvantageous effects of sharp JPY depreciation rather than advantages for the Japanese economy as was originally thought. To measure whether current forex rate is favourable or not, there is a useful index called "Purchsing Power Parity (PPP)". The theory is a thought that forex rate level is determined on the law of "There is one price for one article". Actually, the PPP is not unique nor constant, and always changing. In the case of US$ vs. JPY, the parity is determined by the forex rate adjusted by the difference in price movement pace of US and Japan.

The chart below illustrates a trend of the PPP of US$ vs. JPY. If you calculate the PPP using different price indices, you will have different PPP numbers. The forex market tends to focus more on a Producer Price Index (PPI) from the trade perspective rather than a Consumer Price Index (CPI) as actual forex rate is determined almost identical to the PPP based on PPI especially after 1990's, since when any dramatic forex policies have not been implemented by the authorities.

**Purchasing Power Parity (PPP) based on different price indices (1971～)**




(Notes) 1. Data is from Jan. 1971 to Sep. 2014 (CPI based PPP till Aug. 2014).
2. Month end average of Jan. - Mar. 1973 is set as initial point because the floating exchange rate system was introduced in Feb. 1973 and the Balance of Payments was almost neutral at that time.

(Source) SMAM, based on United States Department of Labor, Bloomberg and Datastream data.

Sumitomo Mitsui Asset Management
SMAM

## Phase where production cost hike gradually affecting the Japanese economy

As the PPP rate changes depending on the relative price movement of two nations, the rate level to bring advantage or disadvantage for the relevant economies would be diffrerent on times. However, the PPP can be useful to make a rough estimate of a forex rate for short term. You can see current level of US$/JPY 105-110 is weaker compared to the PPP rate based on PPI (99.03 yen as of August end, 2014). Manufacturing companies relying on imports for the procurement of their row materials and selling their products primarily in Japanese domestic market will face a margin squeeze unless they can pass their increased cost to the final products. I think we can define the "unacceptably depreciated JPY rate against US$ from Japan's perspective" as the rate that would produce more disadvantages than advantages in the nation's economy by the extreme progress of JPY depreciation. I think the rate level with which Japanese economic activities cannot absorb the import cost increase is close to the PPP rate which is based on Consumer Price Index (CPI), currently 135.44 yen (as of July end, 2014). If the JPY depreciates further beyond 130 yen against US$ in a short term, it will generate a pressure that will bring about down-grading of living standard through the import price increase, which will eventually make bad impacts on the Japanese economy.

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