

Big Macs And Broken Clocks

If you are like me, and you are not, you wake up in the morning and through half-closed eyes mutter to yourself, “They had better not be screwing things up out there.” However, if the topic is the evolution of the \$4 trillion per day currency market, the chances are becoming excellent the whole affair is becoming disconnected from reality.

The currency market always has had a little problem with reality. Its central equation involves three variables, the spot rate and the short-term interest rates of the pair involved, and as the 2% of American high school students who stayed awake in algebra class know, that means the equation has an infinite number of solutions unless you fix two of the variables or one variable and the relationship between the other two. Restated, any spot currency rate can clear the market regardless of underlying trade flows as long as interest rates move in accommodation.

What happens, though, when “financial repression,” which quite possibly will win the coveted 2011 Trite Phrase of The Year Award, prevents short-term interest rates from accommodating currency movements? Currencies are forced to flop about in a more exaggerated fashion than they would otherwise, as noted recently in the case of the [euro](#).

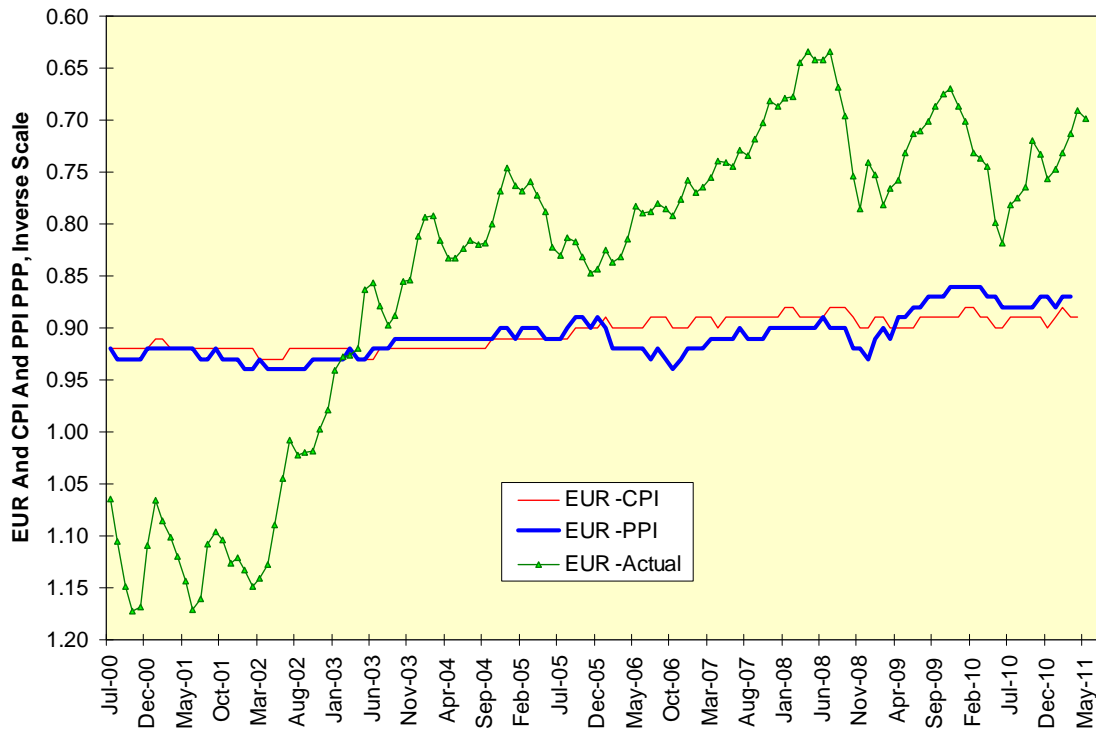
Purchasing Power Parity

Some never have been able to accept the simple truth currencies lack a market-clearing value. If the above interest rate parity (IRP) model is being repressed, can the more fundamental purchasing power parity (PPP) model come to the fore? The PPP model often is referred to as the “Big Mac” model on the notion a common good should have a common real price worldwide. I call it the Broken Clock model as in “a broken clock is right twice a day; PPP does not manage even that much.”

The reasons are simple: With deference to the fine folks at McDonald’s, does a Big Mac have the same economic utility globally? Do relative inflation rates as measured by either a consumer or a producer price index really reflect changes in bilateral purchasing power? How can PPP account for the effects of carry trades, liquidity shortfalls, flights to quality, relative prospective returns on assets, interventions and deliberate pegging of a bilateral rate? The whole enterprise should be deemed irredeemably flawed before it starts, but let’s take two currencies as an example before we drive the proverbial wooden stake through the equally proverbial heart.

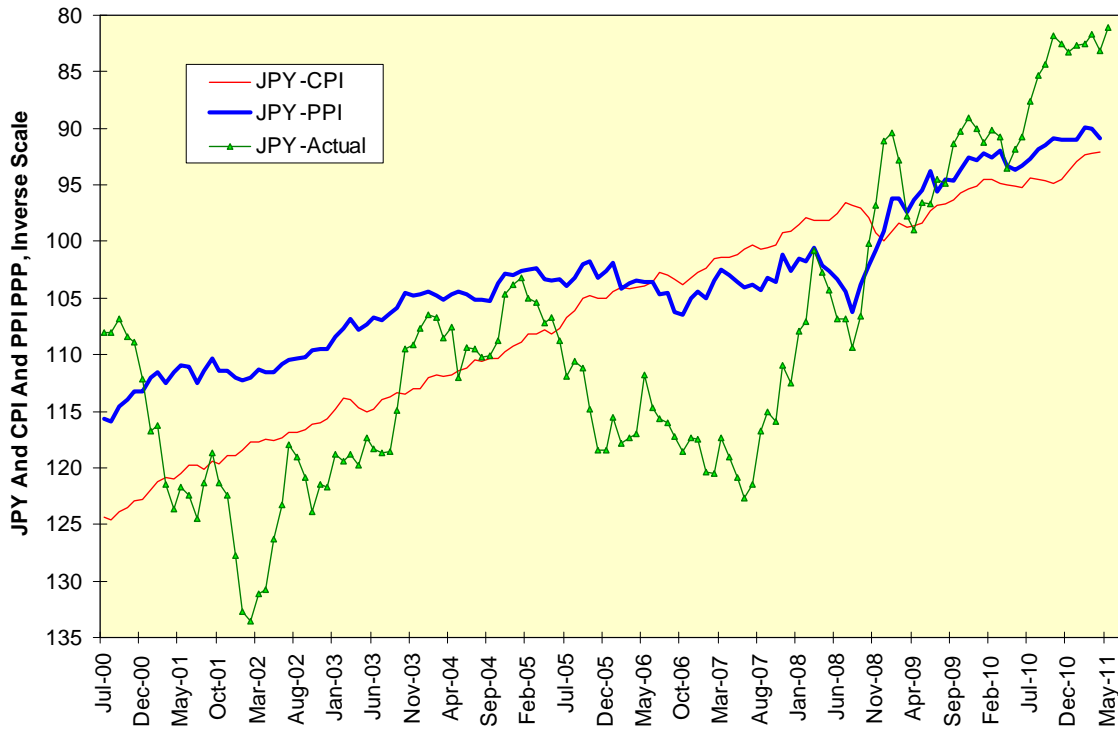
First, let’s map the actual monthly average of the euro against the values calculated from PPP models based on consumer and producer prices. The actual euro, as you well know, moves about quite a bit. The PPP versions of the euro barely have fluctuated since 2000.

Monthly Average, EUR Per USD, Vs. PPP Models



Now let's repeat the exercise for the Japanese yen. The yen has had some pronounced downturns over the past decade associated with its first bout of quantitative easing in 2001 and then the heyday of the yen carry trade in 2005-2007. It then embarked on a strong rally as deflationary expectations made its real interest rates high. Did either PPP model handle this actual history? No; but at least both PPP models have an uptrend in their output, which is more than can be said in the case of the euro.

Monthly Average, JPY Per USD, Vs. PPP Models



The next time some pundit tells you such-and-such currency is over- or undervalued, hand him a Big Mac. Unlike the PPP model, it has an actual use. In full disclosure, I prefer the Quarter-Pounder with cheese myself.