

Viewing The Yuan From A Grassier Knoll

Rivalry makes the world go round (actually, the conservation of angular momentum within orbital mechanics does, but why quibble?). For every yin there is a yang, for every Muhammad Ali there had to be a Joe Frazier, for every Larry Bird a Magic Johnson. As an aside, would Tiger Woods have collapsed as quickly as he did after his dalliances came to light had he ever been humanized by losing every now and then to a bona fide rival?

Future historians will marvel at the strange mutualism between the U.S. and China in the early 21st century. China kept its people employed and the cash flowing in by selling the U.S. all manner of cheap goods, but then was forced to keep buying dollar-denominated assets with the proceeds. This was the Ricardian theory of competitive advantage in international trade run amok and invited all manner of suspicions about what deals were reached on both sides to keep the game going. China's competitive advantage was earning money; the U.S.' competitive advantage was borrowing and spending what others had earned.

Some 'Splainin' To Do

As one of the original arguments made during the late 1960s and early 1970s for floating exchange rates was they would lead to self-correcting trade balances by the mechanism of the currencies of net exporters strengthening and making their exports less competitive, a theory proven consistently wrong for more than four decades and yet still permitted within polite circles (see "Currencies And Federal Reserve Trade Weights," July 2007), we should have expected the Chinese yuan to have appreciated and appreciated substantially a long time ago. It did not.

A second failed theory held as gospel in too many places is a country in massive fiscal disarray and whose currency has been weakening irregularly for decades should see higher long-term interest rate. By this token, long-term interest rates in the highly profligate U.S. should have increased a long time ago. They did not.

One explanation for these two puzzling non-developments was offered here in February 2011: China would deploy its massive foreign exchange reserves to buy dollar-denominated assets as a way of keeping the CNY undervalued, of financing its largest customer and of shipping excess funds out of the country to cool domestic inflation (see "Viewing The Yuan From The Grassy Knoll").

If both China and Japan (see "Yen And Treasuries: Back To The Future," November 2011) use their purchases of dollar-denominated assets to manage their currencies and domestic monetary policies, they certainly have had company in this regard since the financial crisis began in 2007. The Federal Reserve expanded its balance sheet enormously in 2008, went to quantitative easing in March 2009 and then re-entered quantitative easing in November 2010. As these measures predictably did not succeed in stimulating output and employment, they will be tried again and again until they do.

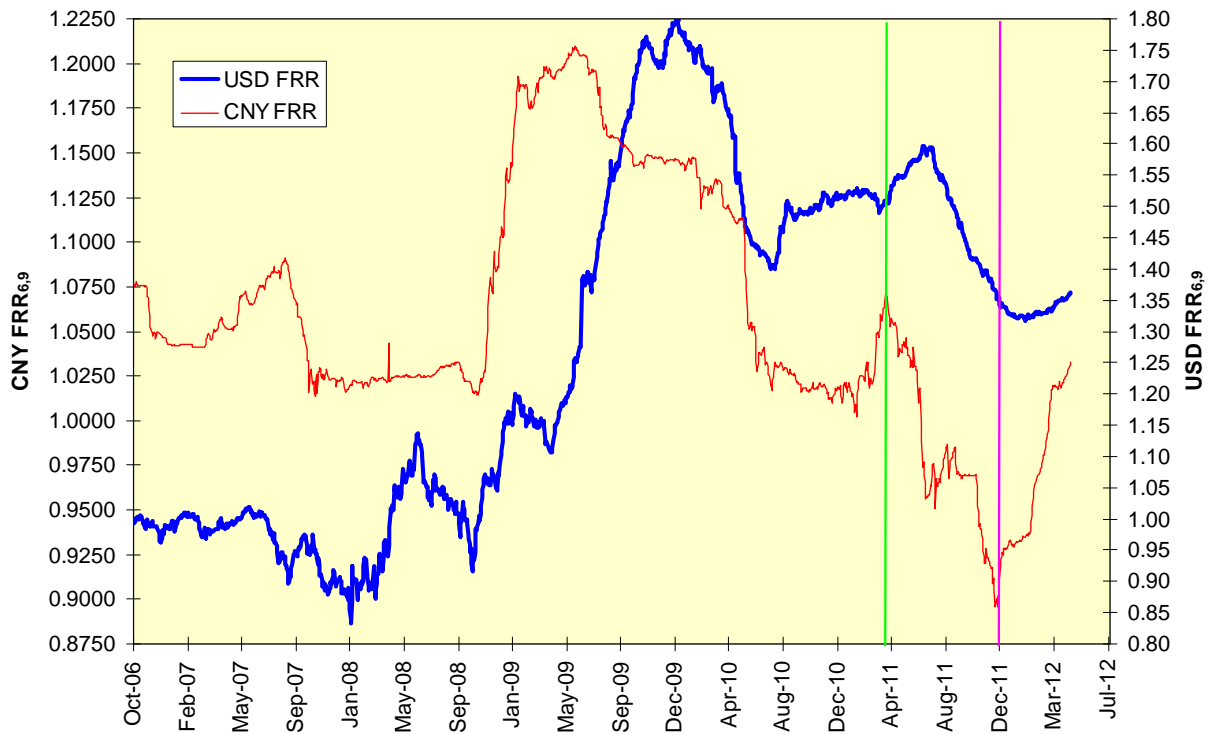
Revaluation And Quantitative Easing

Has there been a link between China's on-again / off-again yuan revaluation and quantitative easing? The evidence is compelling for the following chain:

1. China purchases large quantities of dollar-denominated assets to suppress the CNY, finance its customer and drain excess CNY from its banking system. These markets are characterized by a relative slow or even non-existent pace of CNY revaluation, a flat CNY money-market curve, declining long-term rates and TIPS breakeven rates of inflation in the U.S.;
2. Once China stops this process, CNY revaluation accelerates, the CNY money-market curve stops flattening and both long-term interest rates and TIPS breakevens start to rise in the U.S.;
3. The Federal Reserve then steps into the asset-buying breach abandoned by China and begins quantitative easing

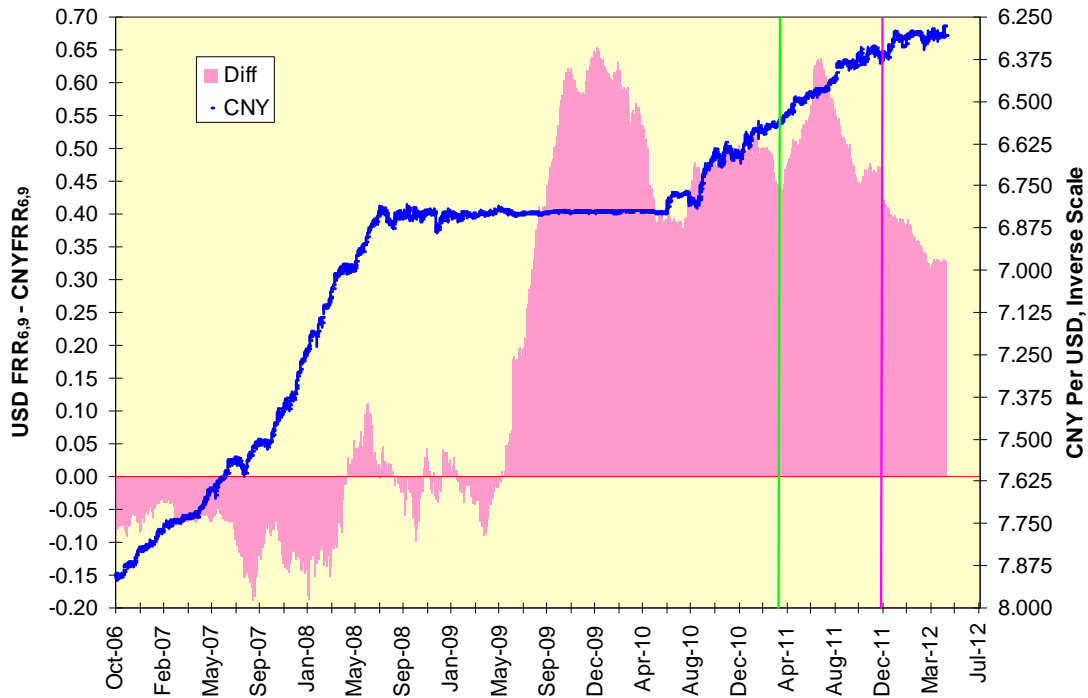
Let's trace these developments through the spring of 2012. The shapes of the USD and CNY money-market yield curves are measured by the forward rate ratios between six and nine months ($FRR_{6,9}$) for the two currencies. This is the rate at which we can lock in borrowing for three months starting six months from now, divided by the nine-month rate itself. The more this ratio exceeds 1.00, the steeper the yield curve is. The April and November 2011 dates at which the CNY $FRR_{6,9}$ began to flatten and then re-steepen are marked with green and magenta vertical lines, respectively. The November 2011 move corresponded to the expansion of currency swap lines by a consortium of central banks; every move made by China always appears linked to a deal made behind closed doors.

Money Market Yield Curves Now Reconverging



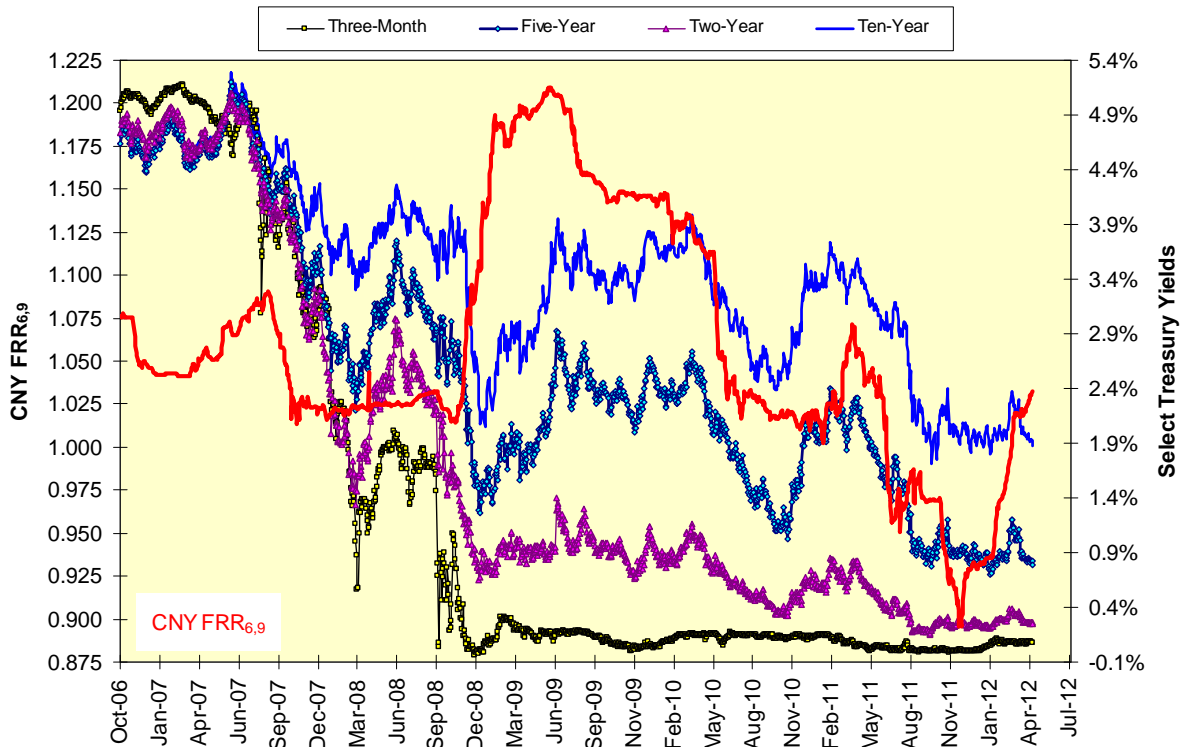
Now let's look at the different interest rate expectations implied in these two yield curves relate them to changes in the CNY itself. Both currencies have been managed for years; China has been more successful at maintaining the CNY in an undervalued state by virtue of its tight control over the state banks, while the USD has had several periods of revaluation during periods of dollar-scarcity or simple fear of embracing its principal alternative, the euro. The net result, alas, is no one should try to trade the CNY-USD rate off of relative interest rate expectations; it simply will not work.

USD Money Market Curve In Relative Flattening



Now let's add the Treasury rate map to that of the CNY FRR_{6,9}. The mechanism involved in this bullish flattening of the Treasury yield curve is capital exports from China associated with credit-tightening moves there find their way into the U.S. Treasury market. This is far cheaper for the Chinese authorities than tightening domestic credit by issuing bonds to soak up the cash. That would involve paying interest; shipping money to the U.S. involves receiving interest. In addition, please note how the rapid re-steepening of the CNY FRR_{6,9} between December 2011 and March 2012 led an upturn in five- and ten-year Treasury rates.

Treasury Yields And Chinese Money Market Yield Curve



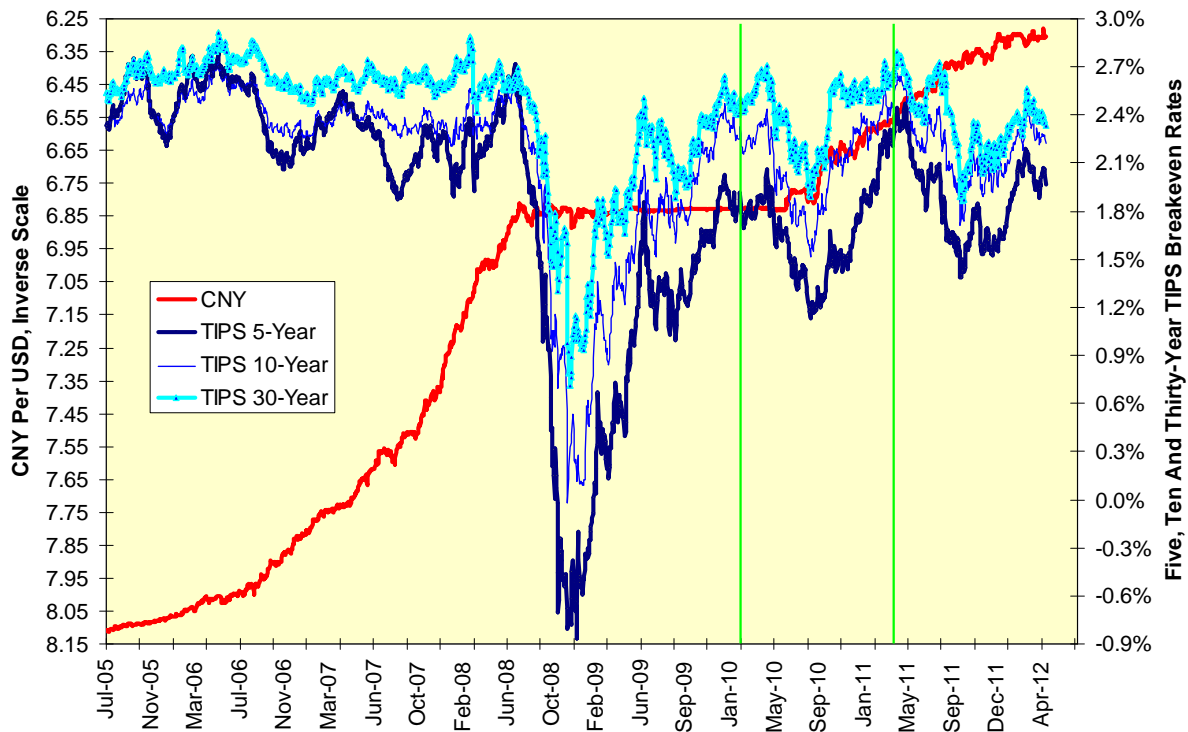
The Yuan And U.S. Inflation

Any discussion of inflation in the U.S. should be split into reported inflation as measured by indices such as the Consumer Price index and the Producer Price index and all of their major subindices and expected inflation, as measured by the breakevens rates implied in the TIPS market... with all of the TIPS market's faults acknowledged in advance (see "TIPS, Treasuries And Insurance," Active Trader, May 2008, or "Trading Inflation Impossible In A Deflationary World," Active Trader, August 2009).

One of the fears expressed in the U.S. about yuan revaluation is it would force the prices of Chinese imports higher and therefore would constitute an inflationary impulse all by itself. This does not appear to be the case in the TIPS market. If we map the CNY itself against TIPS breakevens over a range of maturities, we see a very large degree of independence. The first revaluation, between July 2005 and July 2008, preceded the 2008 financial crisis and its collapse in inflation expectations. The second revaluation, beginning in June 2010, occurred after the end of QE1 and within the period of declining inflation expectations that ended with Bernanke's August 2010 Jackson Hole speech. Inflation expectations turned lower very shortly after the CNY FRR_{6,9} began to flatten in April 2011; this also coincided with the impending end of QE2. Finally, TIPS breakevens rebounded following the expansion of currency swap lines as liquidity poured into global markets.

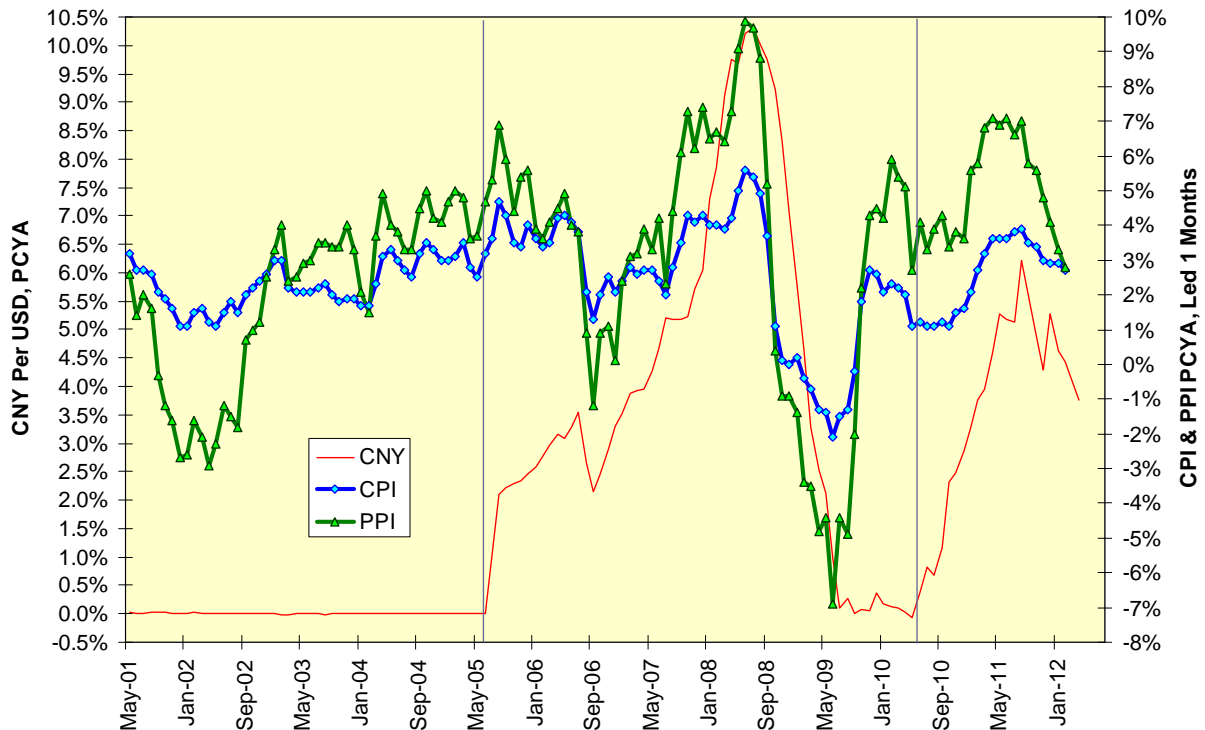
What should be expected here? The answer seems linked to a perception the CNY has found some measure of natural equilibrium. Its stall near 6.30 was followed quickly by a downturn in TIPS breakevens as Chinese capital exports fell and the Federal Reserve was hesitant to launch QE3 in an election year wherein the central bank's policies were themselves an issue.

The Yuan And Inflation Expectations

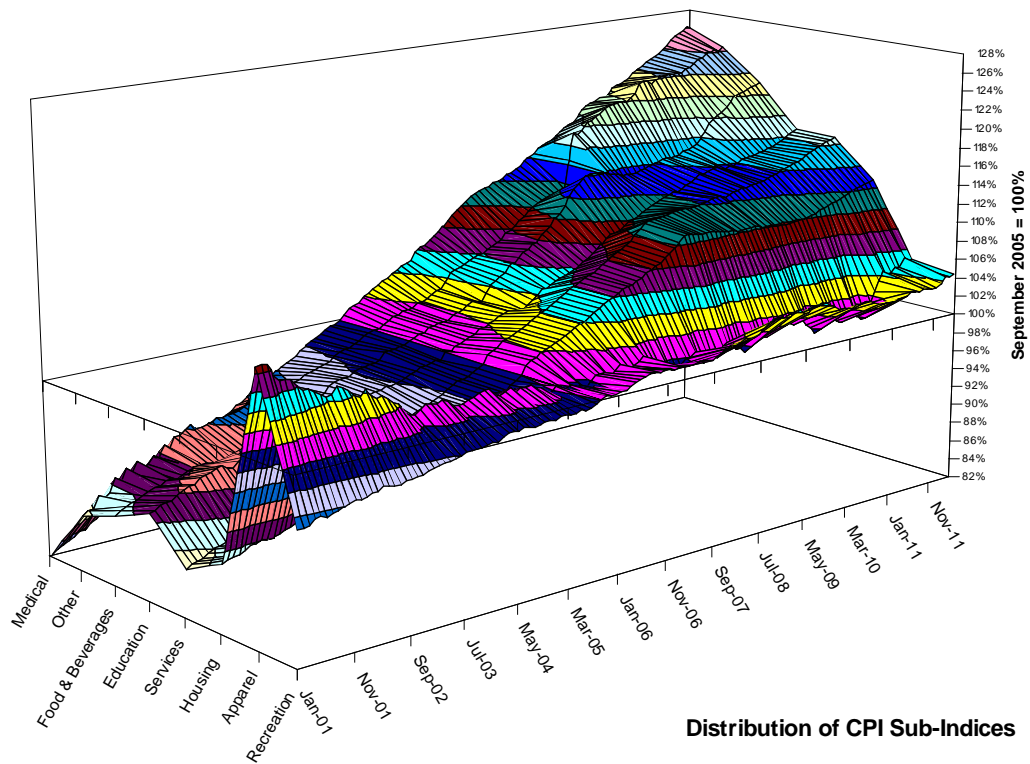


If we now turn our attention to the yuan and measured inflation, we see year-over-year changes in both the CPI and PPI led one month led year-over-year changes in the CNY. Nothing here suggests any opposite causation; a stronger CNY does not lead to changes in U.S. reported inflation.

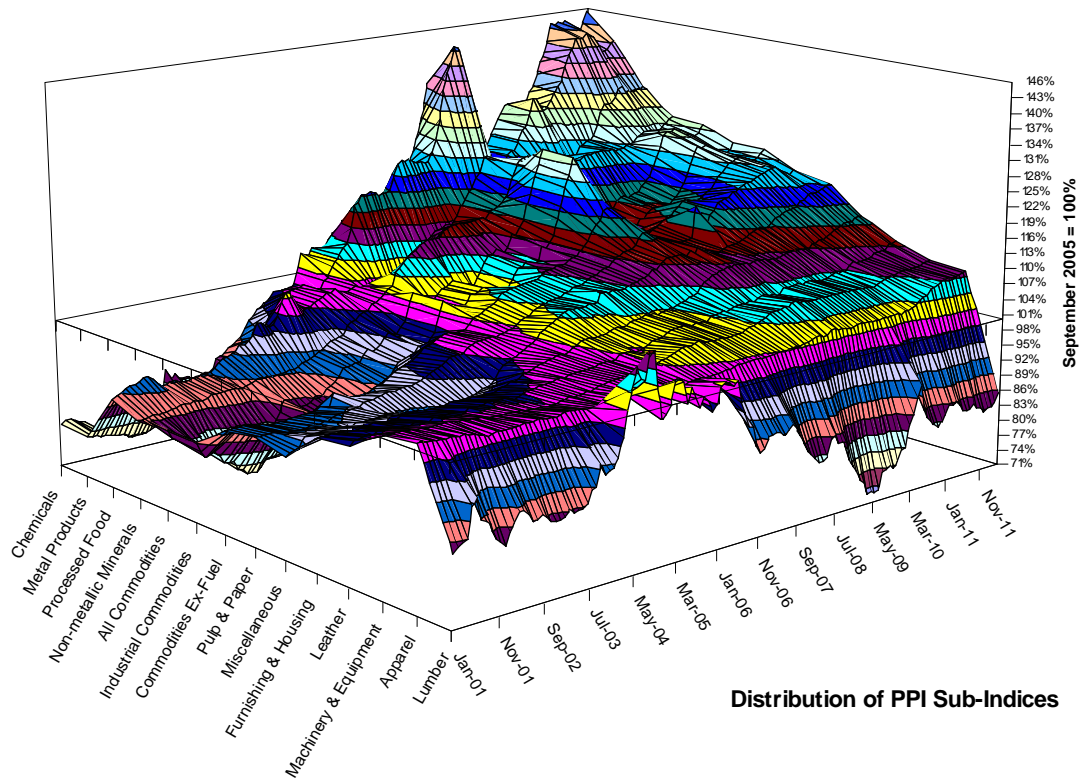
Measured Inflation Rose Before Yuan's Second Revaluation



Finally, let's take a look at the changes over time for the CPI and PPI subindices; these will be re-based to September 2005, the first month where the first yuan revaluation could have any effect whatsoever. In the case of the CPI, we still see evidence of the old phenomenon of Chinese exports pushing prices lower in the apparel category. The highest gainers, the subindices of "other," medical, food & beverages and education, have almost no international exposure or international competition capable of suppressing price increases.



The producer price map is a little more telling if for no other reason it has greater detail. Here the most rapid price increases are occurring in categories where China is a major importer, such as metal products and chemicals. The lowest price increases include apparel and the housing-related category of lumber. On balance, though, it is very difficult to explain the U.S. reported price picture in terms of the yuan.



The strongest linkages between the yuan and the U.S. appear to occur in the switchover between who gets to finance the U.S., China via its massive foreign reserves or the Federal Reserve via the printing press. Economic theory favors China assuming that role, but China is recalcitrant to do this too much and is equally recalcitrant about yuan revaluation. The result, therefore, starts to be a switchoff between periods of slow yuan revaluation and high Chinese purchases of dollar-denominated assets and periods of more rapid yuan revaluation and U.S. money-printing. Future economic historians are going to love explaining this.