

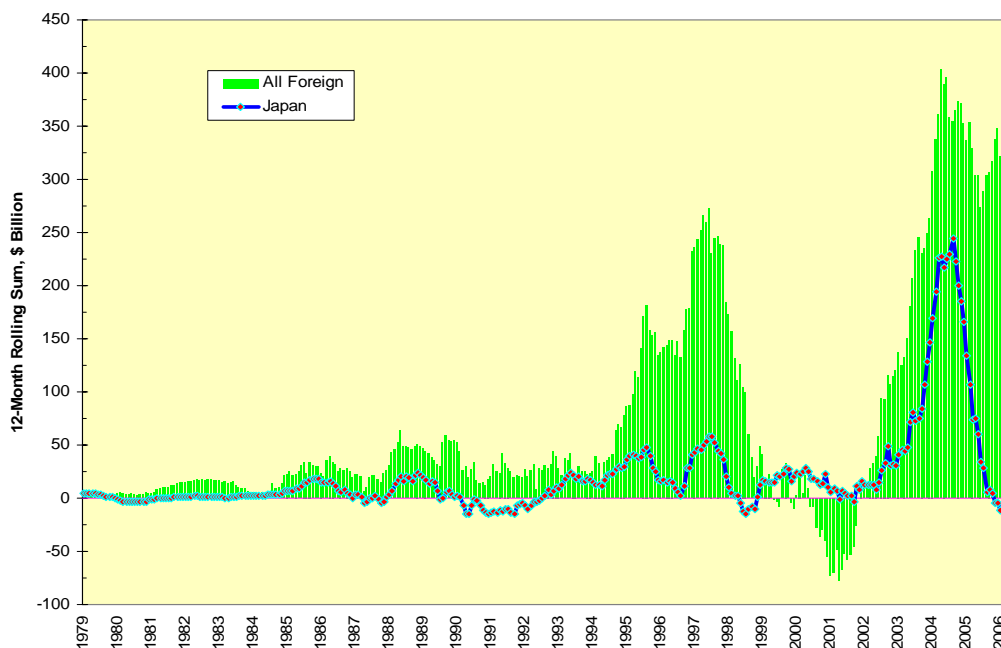
The Yen Carry Trade, Currencies And U.S. Bonds

Bond traders are congenitally anxious people. This derives from the very nature of bond investing itself; once you lend someone money, the only acceptable outcome is you will get paid in full on both the coupons and the principal. Anything else is bad. In addition to outright default in the corporate and municipal markets, you have currency risks for international bonds, inflation risk everywhere, interest rate risk and the gnawing sense someone, somewhere, is going to wake up in the morning and say, "Sell!"

Never mind the old joke that if you owe someone \$10 and cannot pay, you have a problem, but if you owe them \$10 million and cannot pay, they have a problem. A rational person understands some simple verities of international finance. These include the equivalence between the U.S. current account deficit and the U.S. capital account surplus; the dollars being paid by Americans to overseas suppliers are claims on U.S. goods and services and therefore have to be reinvested in the U.S. eventually. And they include the role of the U.S. capital surplus in maintaining the export industries of our suppliers. Bluntly, if someone in Tokyo or Beijing or Taipei woke up on morning and decided to liquidate their country's portfolio of U.S. Treasuries, who would be hurt more, them or the U.S.?

But answering irrational fears with rational arguments is a losing proposition. For more than 30 years, bond traders have searched the skies for an incoming wave of Japanese bond sellers attacking out of the rising sun. How foolish: Even if the Japanese sell, other holders of dollars are forced to buy because of the current account – capital account identity cited above. Indeed, the Japanese have been net sellers of U.S. Treasuries several times, including early 2006, without consequence. With some minor exceptions in late 2001 and early 2002, other foreign investors have been net buyers each time this happened.

Japanese Share Of Foreign U.S. Treasury Purchases



The Yen Carry Trade

The latest source of anxiety for bond traders has some surprising currency linkages. The yen carry trade, wherein the cheap-to-borrow yen created by Japan's post-2002 program of quantitative easing of its money supply (see "The Yen Stands Alone," March 2006) are lent elsewhere in risky assets may be coming to an end. Carry essentially is the spread between the cost of borrowing and the returns on lending. Certainly the Bank of Japan has signaled this to be the case; Governor Toshihiko Fukui first indicated quantitative easing would end in December 2005 and then signaled Japan's 0% short-term interest rates would end on February 3, 2006. We will highlight these dates in the charts below.

Carry essentially is the spread between the cost of borrowing and the returns on lending. Before we continue, let's debunk the notion the health of the bond market depends on high carry. The Federal Reserve has been raising the

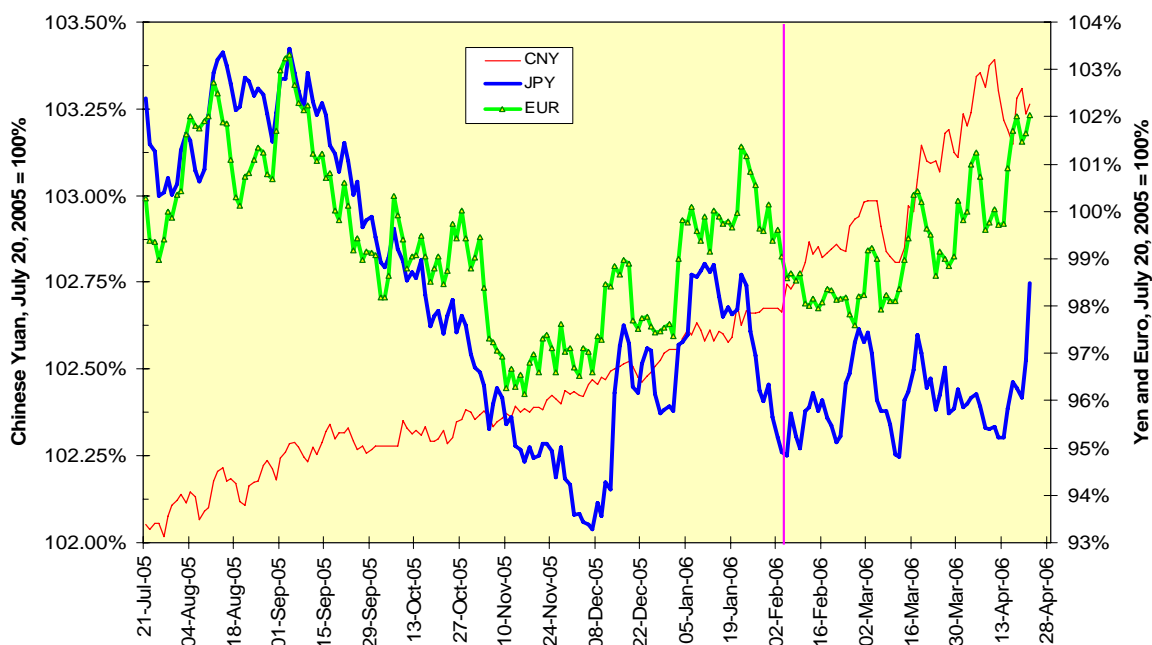
federal funds rate like clockwork since June 2004, and the ten-year note's yield barely has budged. Long-term interest rates are set by the supply and demand for credit, by inflation expectations, and as we shall see, by the volatility of the currency market. If the supposition long-term rates and the price of risky assets such as stocks were determined by carry was true, then the yield curve would have a constant shape and stock prices would be discounted off the federal funds rate, not the long-term capital markets rate. Neither is the case, but once again we are responding to irrational fears with facts, a losing trade.

The Yen And The Yuan

Japanese purchases of Treasuries can be viewed as an instrument of national policy. Not only are they financing their customer with these purchases, they are suppressing the exchange value of the yen (JPY) relative to both the dollar and to the Chinese yuan (CNY).

The CNY had remained in a tight peg against the U.S. dollar (USD), protests of American protectionists notwithstanding, up until July 20, 2005, at which point a confused and confusing statement was issued about letting the CNY appreciate against an undesignated basket of currencies. As seen below, the CNY has strengthened against the USD since last July, but the JPY has weakened. The chart truncates the 100% index base date of July 20, 2005 to emphasize the yuan's path. While the yuan's rise prior to February 3, 2006 was gradual, it accelerated after this critical date, highlighted on the chart.

Comparative Currency Strength After Yuan Peg Loosened



Carry Trade Risk

The risk of the yen carry trade is a stronger JPY when the loan needs to be repaid. Fortunately for carry traders after the CNY began to float in July 2005, the JPY weakened against the USD into late 2005 as the interest rate differential between the U.S. and Japan expanded.

This changed suddenly on November 23, 2005. Volatility on three-month JPY forwards jumped higher and continued moving strongly higher into mid-January. The spot JPY bottomed on December 7th. Both measures continued to firm on December 15th when the Bank of Japan first warned it might have to end its quantitative easing program.

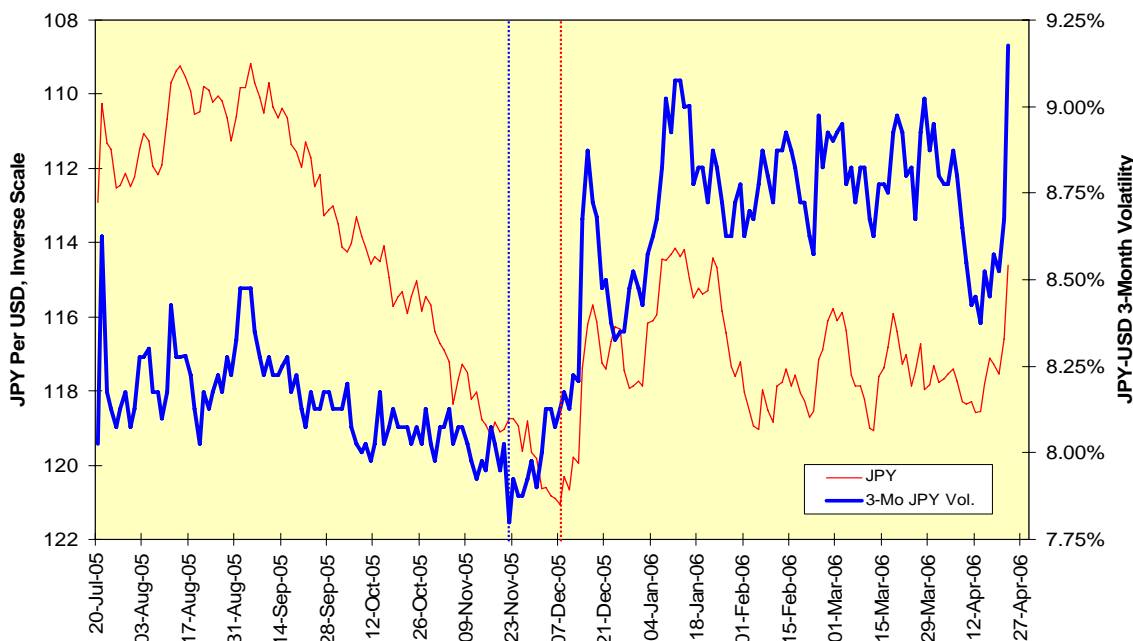
The timing of the respective market bottoms, noted in dotted vertical lines, well prior to the news might seem a little suspicious, but that is a story for another time and place. It is called Japan, Inc., for a reason.

If the market was short the JPY, as it must have been given the obvious trend, then the rise in option volatility should be interpreted as currency traders buying insurance against a stronger JPY.

Option volatilities in February and March fell below their January highs but surged in April as the market began to speculate the Chinese would move to revalue the CNY at a faster rate. Volatilities surged in the aftermath of

Chinese Premier Hu Jintao's visit to the U.S. This suggests those short the JPY suddenly became more fearful of greater strength in the currency. The purchase of option protection on the JPY rather than exiting the carry trade outright makes sense as the yen carry trades are still highly profitable.

When Were Speculators Trapped Short On The Yen?

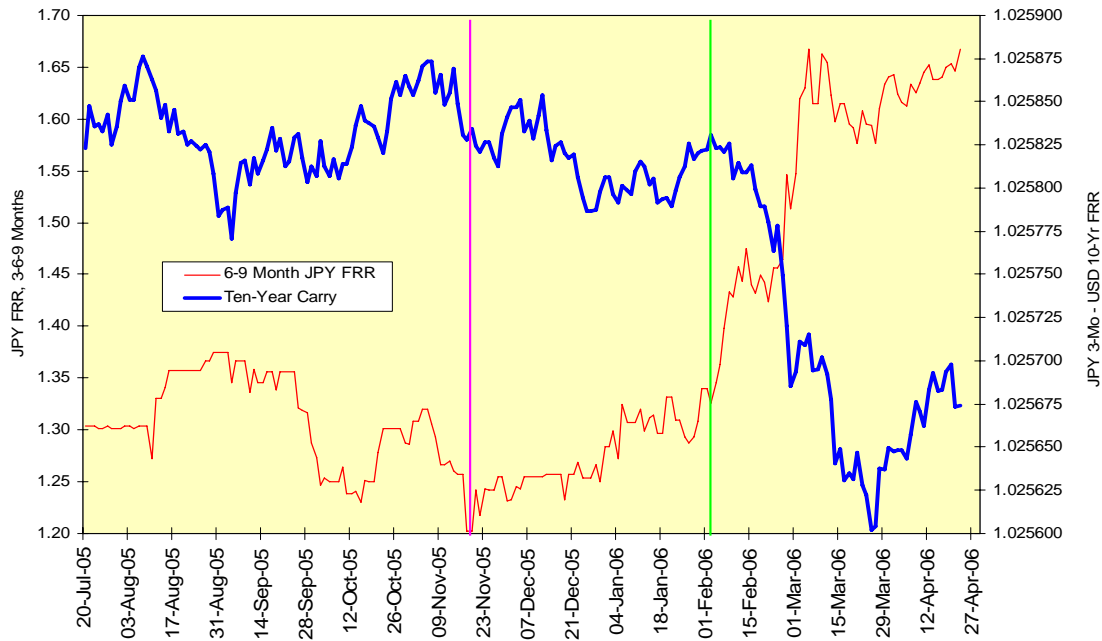


Divergent Yield Curves

We can compare the movements of different yield curves across different maturity segments via the forward rate ratio (FRR) between 6 and 9 months. This is the rate at which we can borrow for 3 months starting 6 months from now, divided by the 9-month rate. Any threat to end quantitative easing in Japan should affect the FRR along the money market curve, especially the 6-9 month segment. This indeed occurred in November at the time yen option volatility began to rise.

This FRR began a climb which accelerated on Feb. 3rd, the same date at which the yuan's climb against the dollar began to accelerate. This steepening was accompanied by a flattening of the FRR between 3-month yen LIBOR and 10-year U.S. Treasury yields. As the JPY 6-9 month yield curve steepened, indicating expectations for short-term rate hikes in Japan, the yen carry curve flattened even as U.S. rates rose. The carry curve between 3-month yen LIBOR and ten-year U.S. Treasuries is still greater than 1.00, confirming this trade is still profitable. The high JPY option volatility confirms traders are buying insurance against the trade's principal risk, future JPY strength.

As JPY LIBOR Curve Steepens, Carry Flattens But Remains Positive

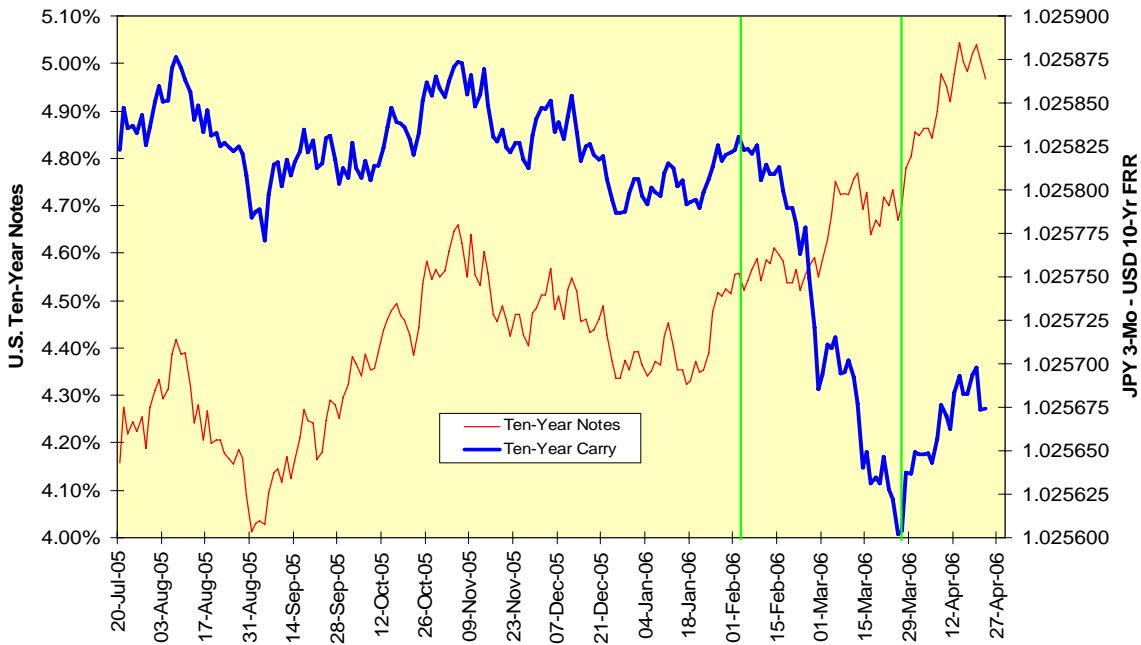


It is critical to note just how little the yen carry trade affects the course of U.S. ten-year notes. The yen carry trade's FRR flattened rapidly after February 3rd, and while ten-year note yields rose after that point, it is important to note they had been rising irregularly for some time. It would be difficult to ascribe causality to the yen carry trade in the short-term.

More important, however, is a correlation reversal around the February 3rd date. Prior to this date a wider FRR and 10-year note yields were correlated positively. Between February 3rd and March 24th, also marked on the chart, the correlation became negative. The period after February 3rd, as we have seen, is associated with both an acceleration in the CNY's strength and with a rapidly declining yen carry. As the CNY strengthened, Japanese short-term rates rose faster than did U.S. long-term rates.

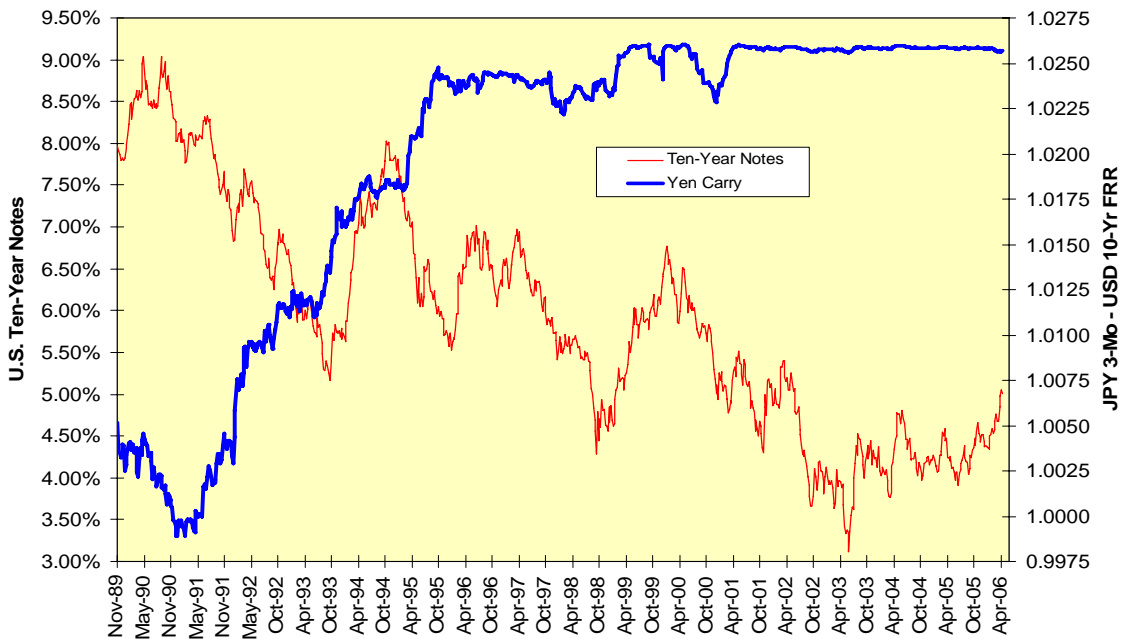
Fundamental economic relationships do not reverse on a whim. Which side of February 3rd is the correct one? The answer, as we shall see shortly, depends on the outlook for the JPY-CNY exchange rate.

Does The Yen Carry Lead Ten-Year Note Yields?



Before we delve off into this important cross-rate, let's take one final parting shot at the yen carry trade's importance to U.S. Treasury yields. In the long-term, connections between the yen carry trade and ten-year note yields collapse altogether. We can extend the analysis back to 1989 and observe how very low levels of carry in the late 1980s and early 1990s corresponded with rapidly falling U.S. yields and how very high levels of carry did not prevent a general increase in yields after September 2003. The two series are virtually unrelated.

Did The Carry Trade Matter In The Long-Term?



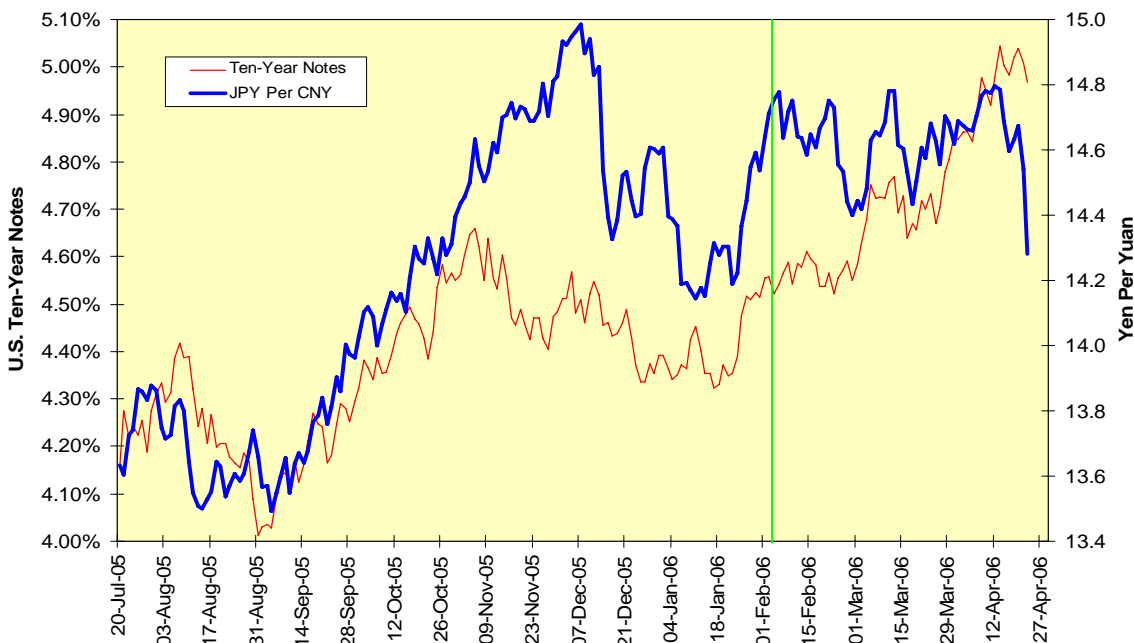
The Chinese Connection Revisited

If we overlay the JPY-CNY exchange rate on U.S. ten-year note rates, we see a fairly strong directional correlation between the beginning of the CNY's controlled float in July 2005 and February 3rd. The more the JPY weakened against the CNY, the higher U.S. note rates rose. A cynic might assume the Japanese were content with this

competitive devaluation and therefore felt less need to intervene in the currency market by buying U.S. Treasuries. And if the JPY firmed, as it did after December 7th, the interventions resumed.

The JPY is no longer weakening against the CNY. With the USD cheaper in JPY terms and with the yen carry trade still profitable, why would the Bank of Japan not start buying U.S. Treasuries again? It serves the interests of all three countries. Japan finances its and China's customer, the U.S. gets lower interest rates, and the Chinese can take their time in allowing the CNY to appreciate further.

The Yen-Yuan Rate And U.S. Notes



Traders in general and Treasury traders in particular find simple explanations and bilateral relationships comfortable. They focus on simple things such as the Bank of Japan raising short-term rates by a meaningless handful of basis points or on the JPY-USD rate. Currencies and bonds form a unified and multilateral system across all segments of the yield curve. We need to focus on as many relationships simultaneously as we can and consider how the bilateral relationship between China and Japan affects the U.S. Treasury market. As China and surely India increase their role in international trade and finance, this need will grow, not shrink.

A simple focus has led many toward the knee-jerk trade of selling U.S. Treasuries on the yen carry story. We suggest the yen carry trade will remain and unless Japan is willing to accept a stronger JPY vis-à-vis the CNY, Japanese purchases of U.S. Treasuries will accelerate.

Currency traders, in turn, can focus on the JPY-CNY cross-rate and its relationship to the U.S. Treasury market. The more this arbitrage relationship is understood, the greater the potential to profit.