## The Yen Stands Alone

It is fair to note, as the Japanese themselves do, Japan is one of the more group-oriented societies in the world. An old Japanese proverb notes, "The nail that sticks up will be hammered down." How odd, then, that the Japanese yen, $13.6 \%$ of the benchmark dollar index (DXY), is a currency with its own rhythm and truly marches to the beat of a different drummer.

To an extent casual observers have difficulty believing, most currencies are more or less disconnected from their country's external trade balance (see "What Drives the Dollar Index?" January 2006). They tend to rise and fall as a function of interest rate differentials, yield curve shapes and returns on assets denominated in that currency.

Japan and the yen (JPY) are an exception for several reasons. First, Japan has a near-permanent trade surplus with the world in general and with the United States in particular. This means importers of Japanese goods must buy JPY to settle their purchases regardless of the return on holding the yen. Second, and as we shall see in detail below, Japan's long experience with deflation and its failed attempts to resuscitate its economy with near- $0 \%$ nominal interest rates made normal covered interest arbitrage impossible and have produced some odd effects.

Third, while all governments have meddled in foreign exchange markets, none have done so quite as openly and blatantly as Japan. The country fears, and rightly so, its export markets are going to be captured in large measure by other Asian exporters, China in particular. Fourth, Japan reacted to trade protectionism in the United States and elsewhere with a combination of bloated public works spending at home in a vain attempt to increase consumption, with occasional policies favoring a strong yen and with foreign direct investment in its customer countries. The automobiles that used to be exported from Yokohama are now made in Tennessee and Ohio. Finally, even as currencies worldwide and the DXY itself are increasingly linked to both the long end of respective national yield curves and to relative national stock index performance, the JPY appears unrelated to both capital market considerations.

## The Yen And Trade

The original theory advanced on behalf of floating exchange rates (see "The Dollar Index and "Firm" Exchange Rates, December 2005) held they would produce self-correcting trade balances. A trade-deficit nation's currency would depreciate and therefore be less able to purchase goods and services in the world market, and a trade-surplus nation's currency would appreciate with the opposite effect. Were this only true for the U.S. dollar (USD) and nearly every other currency of significance; the U.S. trade deficit has been uncorrelated with the DXY for more than 30 years.

However, Japan's merchandise trade surplus does appear to bear a relationship with the JPY. If we map 12-month rolling average of the trade surplus against a 12 -month rolling average of the JPY, we find a stronger yen does in fact appear to lead a reduced trade surplus by about 18 months, and the opposite is true for a weaker yen. The abrupt strengthening of the yen in the mid-1990s reduced the monthly trade surplus on the order of $¥ 650$ billion from peak to trough.


A second way of looking at the same phenomenon is to map Japan's exports as a percentage of its GDP against the JPY. The two series align closely between 1985 and 2001, and then diverge sharply afterwards. Prior to March 2001, the time when the Bank of Japan began its program of "quantitative easing," a technical term for shoving money down commercial banks' throats, a stronger JPY reduced exports as a percentage of GDP. After quantitative easing began, the export percentage rose without the JPY weakening at all.

Japan Adjusts To A Strong Yen


The Yen Carry Trade
This demands explanation. Logic would dictate the manic creation of JPY would make each one worth less. What in fact happened during this period is global borrowers, not Japanese borrowers, swooped in to take advantage of the cheap JPY. The colossal purchases of U.S. Treasury securities by official Japanese institutions - read the Bank of Japan - during this period is but one example of what became known as the yen carry trade. A non-Japanese borrower would borrow JPY at near-0\% rates, swap the JPY for their
currency and then lend at the higher rate available in their currency. The risk of this trade was JPY appreciation, but as the Bank of Japan's policy appeared to be to keep the JPY from appreciating, hedgers simply bought barrier call options and other capping devices on the JPY for a relatively cheap hedge. The yen carry trade was a form of vendor financing; the Bank of Japan was able to maintain Japan's export industries in the face of the Chinese onslaught by financing Japan's customers.

There are several ways to illustrate the extent of the yen carry trade. One is to compare the annualized growth of Japan's monetary base, its currency circulation plus reserve deposits at central banks, against M2 plus certificates of deposit. The former can grow by central bank action; the latter grows by extension of credit domestically. Once quantitative easing began, monetary base grew as rapidly as $31 \%$ on a year-overyear basis. M2 growth never exceeded 4\% over this period. Someone other than Japanese banks had to be taking advantage of the cheap JPY.

M2 Never Grew During Quantitative Easing


## How Cheap Is Cheap?

The extent of Japan's monetary ease is difficult to comprehend even in hindsight. Let's compare the yields on 3-month JPY and USD LIBOR on logarithmic scales; JPY LIBOR would be difficult to depict otherwise. The historic easing and subsequent tightening engineered by the Federal Reserve is highly visible in this chart. The USD scale goes down to $1 \%$. The JPY scale has to go down another two cycles, to $.01 \%$. JPY LIBOR went under 5 basis points in 2003, an absolute level more than 20 times lower than the USD low-point.

Adventures In Monetary Policy


It is not the level of JPY or USD rates that determine how the non-deliverable forwards will be priced, but rather the reinvestment rates three months from the time of the spot transaction. The best metric for these is the forward rate ratio (FRR) between 6 and 9 months. This is calculated by taking the forward rate between 6 and 9 months, the rate at which you can lock in 3-month borrowing starting 6 months from now, and dividing it by the 9 -month rate itself. The more the FRR exceeds 1.00 , the looser the money policy is. A FRR less than 1.00 indicates an inversion of the money market curve.

The JPY FRR was less than its USD counterpart for long stretches of time in the first half of the 1990s, and predictably the JPY soared against the USD in reflection of Japan's tighter money policies. This changed abruptly after the JPY peaked in March 1995, and the JPY predictably weakened. However, the long stretch after quantitative easing began saw the JPY rise until late 2004, at which point the Federal Reserve's rate-hike campaign began to firm the USD.

Made In Japan: Yen Driven By Japanese Money Curve


Can we assume a simple trading strategy, one of going short the JPY so long as the JPY FRR exceeds its USD counterpart? Absolutely not: Not only is the impending end of the Bank of Japan's quantitative easing program going to put an end to the massive borrowing-and-selling of the JPY, but Japan's customers will need to buy JPY to pay their bills. The JPY may drift lower over time but be interrupted by violent short-covering rallies. Sell-and-hold will not work.

## No Capital Connection

While currencies such as the Canadian dollar (CAD, see "Remember the Forgotten Currency," February 2006) appear driven to a large extent by relative capital market flows, the JPY increasingly has ignored these effects in recent years. Prior to the onset of quantitative easing, the JPY had a modest correlation with the FRR from 1 to 10 years in the Japanese market and no relationship with the USD FRR from 1 to 10 years. After quantitative easing began, the JPY FRR remained largely frozen at steep levels while the USD FRR both steepened and flattened at this horizon. The JPY ignored both curves.

The Yen And The Yield Curves


The disconnection between the JPY and relative stock index movement is even more pronounced. Prior to the failure of Long Term Capital Management in the Fall of 1998, an event which triggered a sudden and massive - 11 JPY per USD in one night - revaluation of the JPY, the relative performance of the Nikkei 225 to the broad-based Russell 3000 index declined regardless of the JPY's course. After 1998, and to an extent largely unappreciated by many investors, the Nikkei re-coupled with the world's major stock indices while the JPY remained in a wide trading range largely between 105 and 125. The Nikkei's rally in 2005 occurred while the JPY weakened, true, but as the opposite relationship of a weakening Nikkei combined with a strengthening JPY never occurred, we cannot posit any causal relationship.


Where Next?
The long-term track record of competitive currency devaluation and export-led growth has not been a happy one wherever it has been tried. Unfortunately for Japan and for the other major East Asian economies of China, South Korea and Taiwan, this region appears wedded culturally to the mercantilist model.

As Japan emerges slowly from the deflationary recession cycle it has faced since 1990 and grapples with what is thought to be the oldest society in human history, we can expect them to hew to their export-led model. Consumption in an aged society with government debt in excess of $130 \%$ of GDP is not the way to grow, so they probably have no choice but to maintain export growth. This means protecting their markets from Chinese and other competition.

As much as Japan might like to end the easy money era, they have not availed themselves so far of the opportunity to do so. The yen carry trade is likely to persist as a form of vendor financing, one that has yet to weaken the JPY. We can expect the JPY to continue its unique path of slow declines and violent rallies as these policies remain in place. The JPY will continue to look like no other currency on a chart basis and will exert a significant source of volatility into the DXY. Japan will continue to be the currency nail everyone else will try to hammer down.

