

## Minor Trends Make Minor Friends

We concluded last month (See “Let The Trend Be Your Friend: The Majors,” January 2009) the major currencies have a nasty habit of their trends ending abruptly and taking away hard-earned trading profits at the last moment.

What should we expect from the minor currencies? First, while interest rate arbitrages are cheap and easy to do in the interbank market for the majors, we should not expect the minors to have low-cost and high-volume liquidity for their deposits. And by definition, we should not expect the market for their forwards to be as efficient, either. There is nothing derogatory in this statement; any smaller market is going to be tougher to trade than a large market.

Second, the central banks of the major currencies have gone out of their way, with varying degrees of success, to communicate their intentions to the markets. This is not the case for the minor currencies; can anyone recall a parallel to the FOMC Statement or the ECB press conference for any of the minor central banks? Maybe they should start the practice, out of mockery if nothing else.

Third, while a great deal of international commerce is denominated in the majors, very little is denominated in the minors. It is limited mostly to direct payment for goods and services, to the remittances of expatriates and to whatever international portfolio investment is done in that currency.

Finally, while there have been occasions of spectacular speculation ending badly in the minors – recall the Asian crisis of 1997 and its demolition of the Thai baht, Indonesian rupiah, Korean won, Malaysian ringgit and Philippine peso, those episodes have receded into the past. The downturns in various minor currencies in the second half of 2008 were a flight into dollars more than a flight away from minor currencies, and it was orderly by all historic standards.

Countries now either manage their currencies directly to avoid such catastrophic outflows or have imposed capital controls. This is not to say speculative attacks will not return in the future, for they almost certainly will, but that during the period we will be examining here, the January 1999 advent of the euro onwards, they have not been a factor.

Now just as we did last month, let’s address the question of which currencies are the trendiest. The set of six minor currencies we will examine include the Mexican peso, Indian rupee, Brazilian real, South African rand, Chilean peso and the Indonesian rupiah (MXN, INR, BRL, ZAR, CLP and IDR, respectively).

### The Trend Oscillator

Just as we did last month and for reasons discussed there, we will use the trend and volatility definitions from the Adaptive Moving Average (AMA) system. The remainder of this section is repeated verbatim for convenience. An optimal trend speed is derived by the number of days between 4 and 29 that minimizes the function

$$\frac{1}{N} * \sum_{i=1}^N \frac{N}{Vol^2} * |(P - MA)| * |\Delta MA|$$

where Vol is the N-day high/low/close volatility, defined as

$$\sum_{i=1}^N \left[ \frac{.5 * \left( \ln \left( \frac{\max(H, C_{t-1})}{\min(L, C_{t-1})} \right) \right)^2 - .39 * \left( \ln \left( \frac{C}{C_{t-1}} \right) \right)^2}{N} * 260 \right]^{1/2}$$

where H, L, and C are high, low, and close, respectively. Once the MA is calculated, the trend is defined as the volatility-adjusted oscillator around this central tendency. In the construction of the index, the trend’s “zero point” occurs when the price and the Adaptive Moving Average are equal.

$$Trend \equiv \frac{\left( \frac{(P - MA)}{Vol} \right)}{P}$$

Values of N in excess of 20 define a trending market, while those less than 11 define a sideways market and those between 11 and 20, inclusive, define markets in transition.

The charts below depict the daily high-low range for each of the six minor currencies selected over all days, but depict the trend oscillator in red columns only for trending days. The stronger the volatility-adjusted trend, the further away from zero the trend oscillator will be. In general, trend oscillators greater than 0.40 or less than -0.40, marked on the trend charts with grey lines, indicate a market is becoming overbought or oversold, respectively.

A second set of charts depict the excess volatility in green columns of each market for those days when the market is in a trending state. Excess volatility is the ratio of the implied volatility for three-month non-deliverable forwards to the high-low-close volatility measured above. In a small twist from past practice, we subtracted 1.00 from this ratio to depict it more intuitively as an oscillator around zero. Excess volatility indicates the market is uncomfortable with the existing trend and is buying insurance in the form of options against its reversal. The more negative this measure is, the more the market is comfortable with the trend and vice-versa.

### Ranking The Minors

First, let's take a look at the summary rankings. While the six majors examined all were in trending states 60% of the time or more, only the Mexican peso qualified amongst the minors. The Indonesian rupiah, by contrast, was in a trending state only 10.9% of the time.

In addition, while all of the majors had average positive excess volatility, two of the minors, the MXN and the ZAR had average negative excess volatility. Moreover, while the highest average positive excess volatility for the majors was the GBP's 1.0867, the INR had an average implied volatility of 2.3874, more than twice its underlying high-low-close volatility.

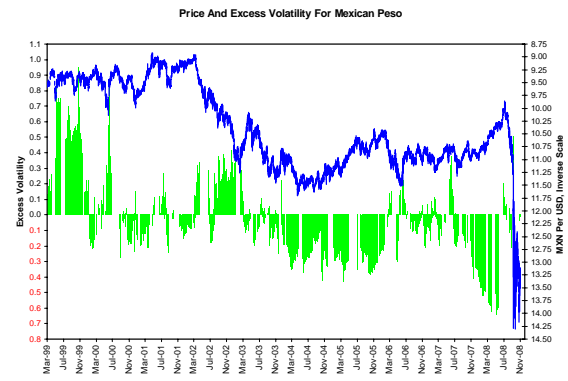
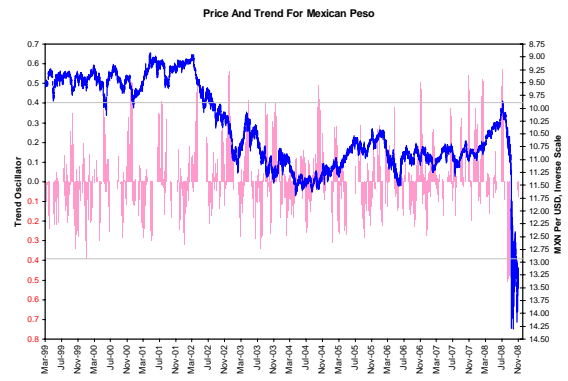
We can conclude from just these summary statistics the minor currencies are just not smaller versions of their major cousins. They are materially different markets, which in turn should indicate any one-size-fits-all trading approach to them is unlikely to be successful.

### Minor Currencies' Summary Trend Statistics

	Percent In Trending State	Average Absolute Trend Oscillator	Average Excess Volatility
IDR	10.9%	0.0841	0.9108
INR	48.9%	0.2035	1.3874
BRL	54.5%	0.2008	0.0811
ZAR	55.5%	0.1287	(0.0179)
CLP *	56.3%	0.1132	0.1691
MXN	64.6%	0.1311	(0.0453)

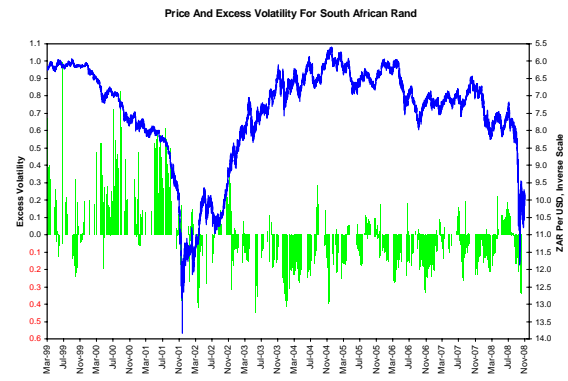
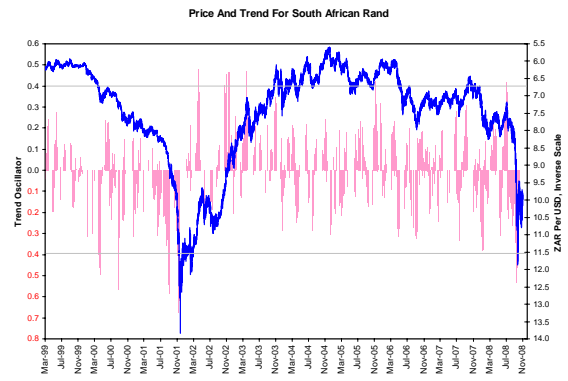
\* CLP statistics begin January 2, 2004

While most of us would not regard the MXN as a trending currency, this is not your *padre's* Mexican peso given to sudden collapses followed by months of doing nothing, the August-November 2008 orderly selloff notwithstanding. After a long and persistent downtrend from early 2002 to early 2004, the currency rebounded, stabilized and then moved higher. Once the stabilization began in 2004, excess volatility for the MXN fell to consistently negative levels. The idea was simple, and embarrassing from an American point of view: While Mexico did not have a policy of peso weakness, the U.S. had a policy of dollar weakness. And the MXN's 2008 selloff was not the result of a U.S. policy of dollar strength – the U.S. was busy lowering interest rates and creating all sorts of fiscal stimulus at the time – but rather of a global demand for dollars as risky assets were sold globally. This comment will apply to the remaining currencies as well.



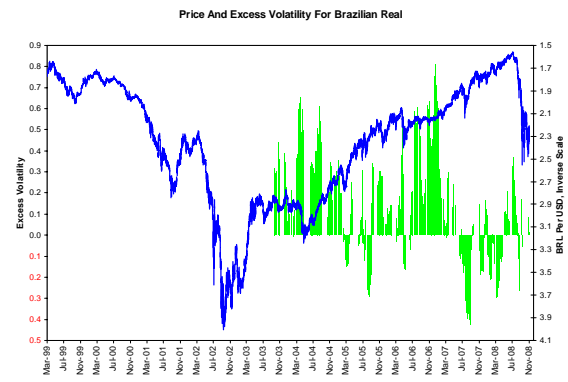
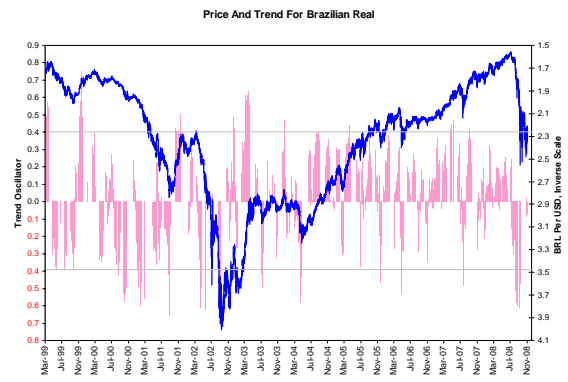
The South African rand collapsed with the prices of various minerals in 2000-2001, and then rebounded into a fairly narrow trading range under a combination of stronger export earnings and a more stable monetary policy. The ZAR held up relatively well during the commodity price collapse of late 2008 as the price of gold, one of South Africa's principal exports, fell far less than did prices of other metals.

The excess volatility pattern describes the market's state of mind well. It was at high levels during the selloff and at negative levels for most of the post-2002 era. The stabilization of the ZAR has great credibility in the eyes of global currency traders.

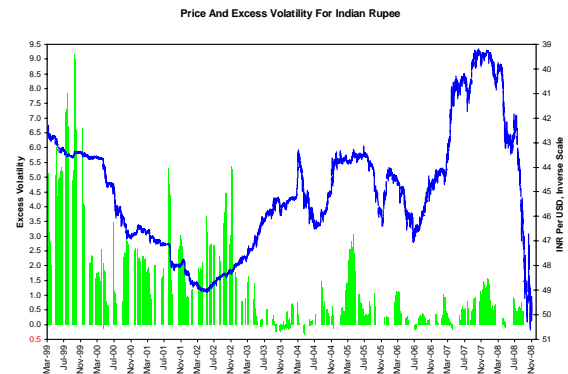
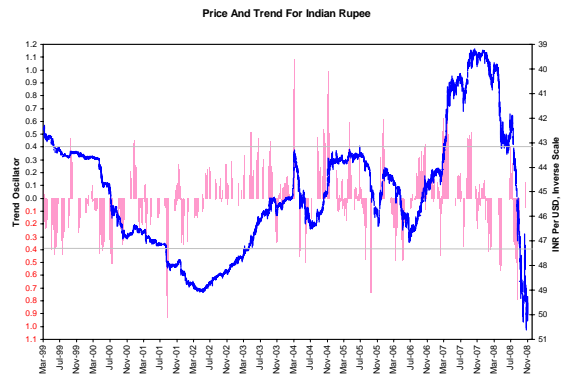


Anyone who looks at the larger picture of the Brazilian real can be forgiven for asking why it has not always in a trending state. Its pattern looks rather like one of the major's in its broad, persistent moves both lower into the 2002 election and then in a strong upwards trend between mid-2004 and mid-2008, followed by another strong trend lower in the second half of 2008. The answer is quite simple: Brazil always looks to outside investors as if their good luck is about to disappear in a flash. Each minor reversal prompts a quick run for the exits; here again, this is characteristic of how the major currencies annihilate trend-followers' profits.

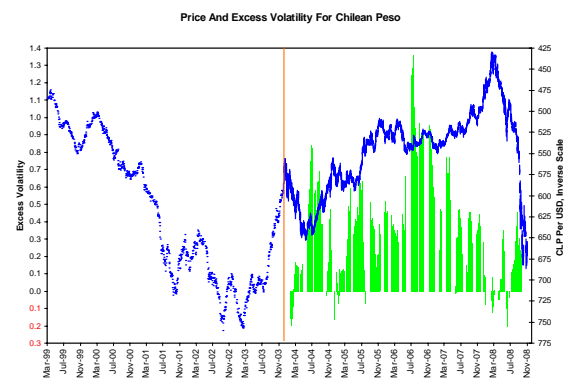
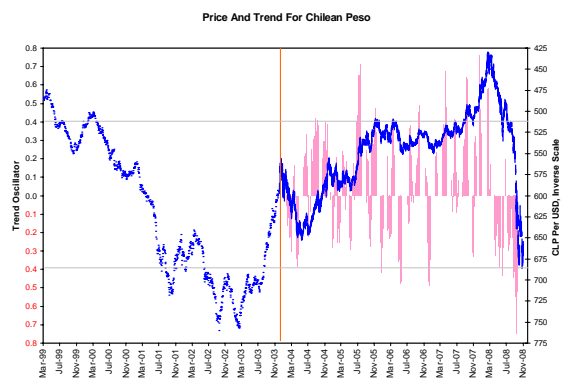
An active options market in the BRL did not develop until October 2003, but its pattern thereafter is telling: Excess volatility remained high during rallies until the credit crisis emerged in mid-2007. It was only then, when the market recognized the problem was not going to be a weak BRL but rather a weak USD that excess volatility fell. Excess volatility remained low during the downtrend of late 2008.



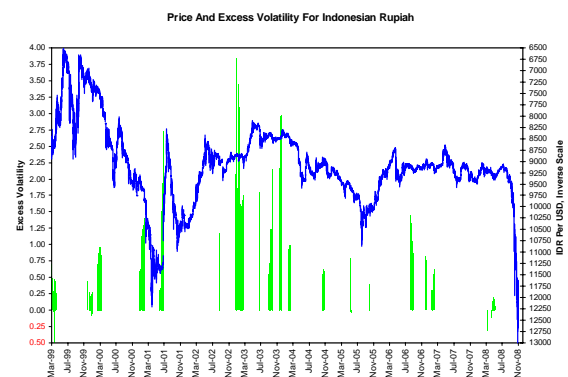
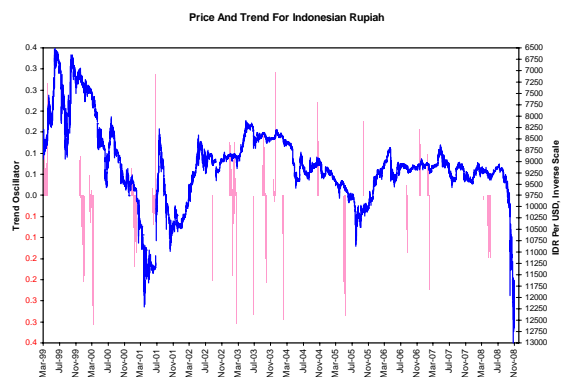
The Indian rupee (see “The Rupee And Emerging Markets,” December 2008) has had a large number of short-lived and strong trends, but their abrupt nature has made trading this market difficult for trend-followers. Note how many of the strong trends move quickly to overbought or oversold levels and how excess volatility in the market has tended to remain high during both up and down markets. Indian policy has been to allow the INR to trade relatively freely, but until the nature of the market changes, which it probably will over time, it will remain difficult to trade.



The Chilean peso presents an unusual outlook inasmuch as active trading in the CLP did not begin until 2004, marked with an orange vertical line. Once it did, the CLP entered a pattern of bursts higher and lower within trending states followed by interregnums of sideways consolidations. Prior to the selloff of late 2008, excess volatility tended to move higher for CLP during rallies and fall during selloffs. It appeared as if the market trusted the downtrends more, but the change in behavior during the second half of 2008 calls that supposition into question.



Finally we come to the Indonesian rupiah, the least trendy currency examined. Its erratic nature, sparse trends and exceptionally high excess volatility are a reminder of the bad old days of emerging markets trading. What more – or less? – can be said?



The laws of thermodynamics often are summed up by chemical engineers as “you can’t win, you can’t break even and you have to play the game.” In last month and this, we see a similar conundrum for currencies: The minor currencies are grudging at granting the trends traders crave, but the major currencies snatch profits from trend-followers with wicked regularity.

The conclusion we reached in May 2007 (see “Currency Traders Should Be Humbler”) was only the carry strategy really rewarded traders over time, and even then the strategy could backfire as it did for the British pound in September 1992. Carry traders play interest rate spreads and convergences over time, which is a boring way for many Type-A traders to live. They want to win and they want to win now. This is a personality disorder, not a trading strategy, and we have more than two decades of data to support that nasty conclusion.