

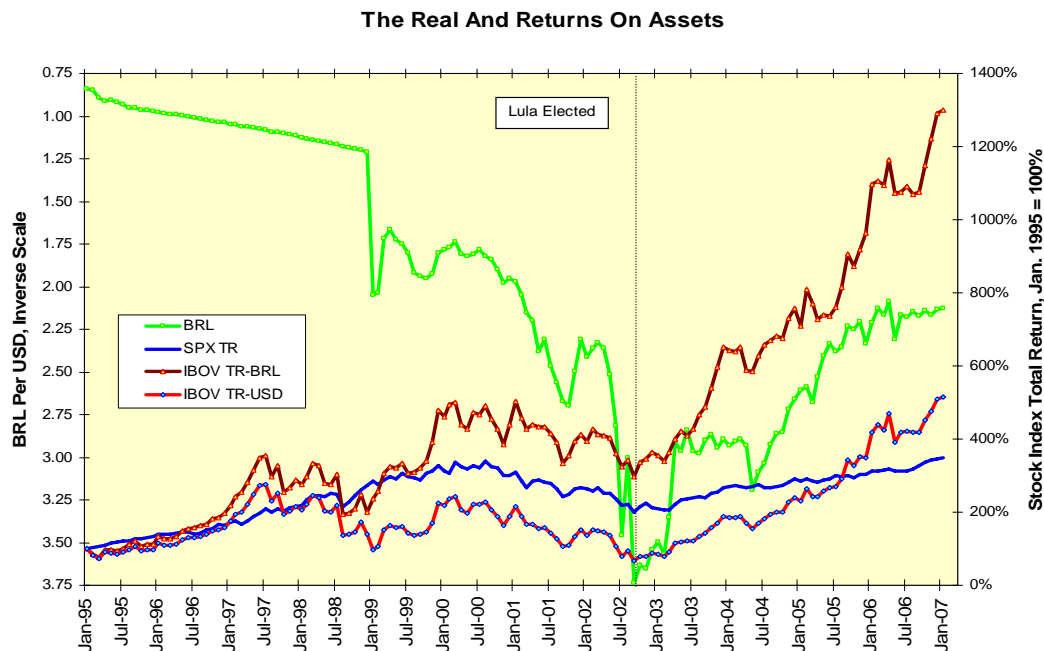
The Stronger Real: Don't Blame It On Rio

Those interested in anniversaries are sure to note the impending decennial of the Asian crisis, which started with the devaluation of the Thai baht on July 2, 1997. That little piece of financial contagion spread throughout the region, torching the currencies and bourses of Malaysia and Indonesia. As those economies held fire sales on assets to shore up their finances, downward pressure was placed on various commodities. That led, albeit indirectly, to the Russian default and collapse of Long Term Capital Management in 1998.

The culminating episode of this unhappy period was the massive break of the Brazilian real (BRL) in January 1999. Brazil had been engaging in a policy of controlled devaluation throughout the 1990s, but the dam broke on January 12, 1999, when the currency began an abrupt slide from 1.211 to the dollar to 2.16 on March 1. Given the recent unhappy experience with the Mexican peso in December 1994 and the damage wrought there, it was reasonable to suspect Latin America in general and Brazil in particular might be facing something on the order of what happened in Asia eighteen months earlier.

It was a buying opportunity.

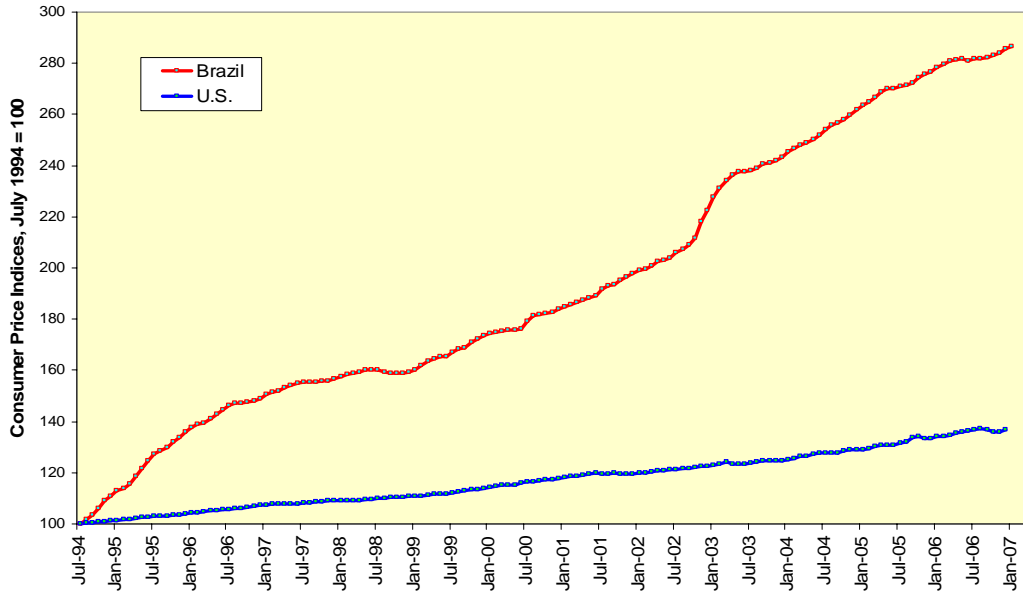
What makes this even more remarkable is how Brazil pulled itself together economically, politically and financially while still finding time to elect an avowedly leftist president, Luiz Inácio Lula da Silva, in October 2002. This date, coincidentally, marked the bottom of the global bear market in equities. Any dollar-domiciled investor who bought into the Brazilian stock market (the Bovespa, denoted here as IBOV) enjoyed both a turnaround in the BRL and a bull market in Brazilian equities that dwarfed the total return on the S&P 500 in both BRL and USD terms.



Comparative Inflation

Rampant inflation has been one of the banes of Latin American economies during the postwar era. Brazil was no exception; it went through a combination of cruzeiros, cruzeiros novo, cruzados and cruzados novo, with each succeeding currency being worth less than its predecessor before finally adopting the real in July 1994. The BRL has been managed better than its predecessors, but even with a monetary policy designed to check runaway inflation, Brazilian inflation has outpaced that of the U.S. over the BRL's life. The average annual rate of consumer inflation for Brazil, 8.73%, has been more than three times the 2.53% rate reported in the U.S. As the currencies of high-inflation countries often are chronically weak, we have to look behind the BRL's strength to see what has been driving it higher.

Comparative Consumer Inflation After Implementation Of Real

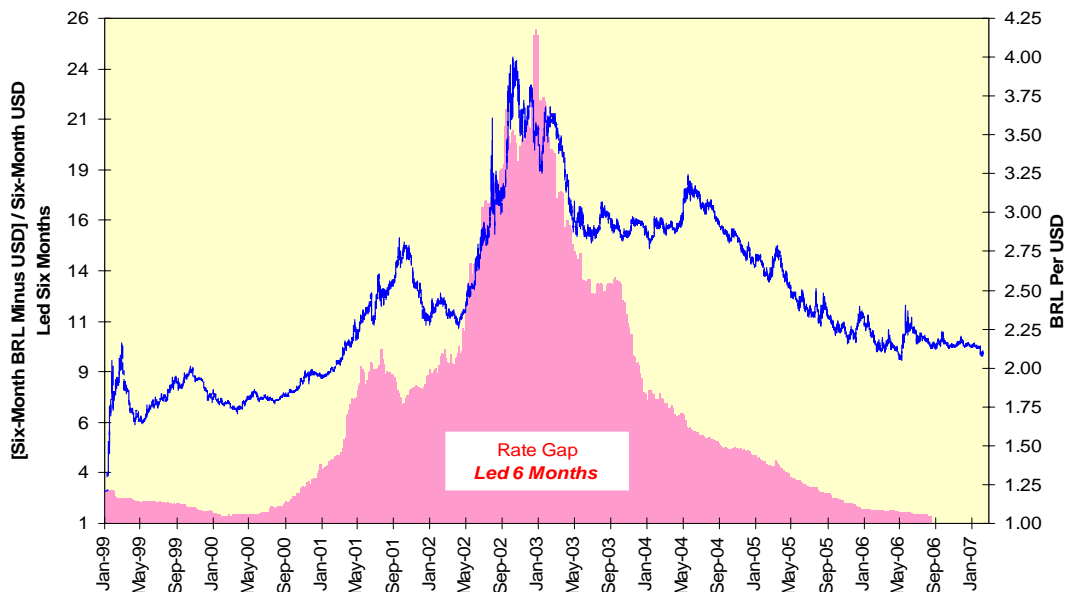


Rule Out Rate Gap

The short-term interest rate gap between two countries is a good place to start any currency analysis. Unfortunately, the simplistic approach of assuming the currency with the higher nominal rate will be the one to attract capital inflows often leads to the incorrect answer. Markets often assume, correctly, that high nominal interest rates are an unsustainable policy. Borrowing this currency even at the high nominal rate, and swapping it into a lower-yielding unit often proves profitable if the high-rate policy is ended. The most famous example of this is George Soros' breaking of the Bank of England in September 1992.

In the Brazilian case, BRL weakness between 2000 and 2002 led to ever-higher short-term interest rates. The market presumed the Committee on Monetary Policy (COPOM) would keep raising the SELIC, or target rate, to maintain the BRL. The opposite assumption held when the BRL started to firm; the presumption became the COPOM would relax its credit policies. The end result, somewhat odd to contemplate, is the BRL led changes in the spread between six-month Brazilian and U.S. swap rates by six months.

Short-Term Rate Gap Narrowed On Firming Real



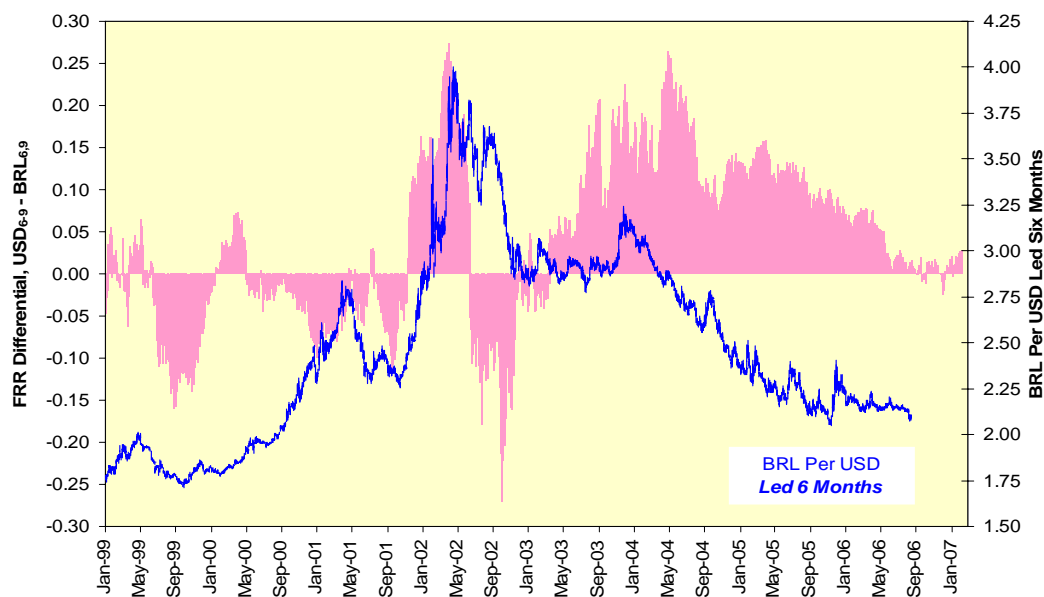
The more common pattern globally is for expected changes in interest rates to lead changes in the currency rate. If we take the interest rate analysis out of a static spread and move it into the expectational structure of the two money market curves, will we see the expected results? That answer is “yes.”

We can measure short-term interest rate expectations by the forward rate ratio (FRR) between six and nine months for both currencies. This is the rate at which we can borrow for three months starting six months from now, divided by the nine-month rate. This measure provides us with a measure of money market conditions expected to prevail when the standard three-month non-deliverable forward is unwound. A FRR in excess of 1.00 indicates a positively sloped money market curve; a FRR less than 1.00 indicates an inverted money market curve.

If we subtract the BRL $FRR_{6,9}$ from the USD $FRR_{6,9}$ we get a measure of relative money market expectations. This FRR gap was consistently in favor of the U.S. from March 2003 until September 2006. It led the strengthening of the BRL by six months on average over this period. This is hardly a rule, however, and we must caution against using it as any one-factor model for the BRL or for any other currency.

The BRL weakened sharply after 9/11 and into mid-2002; the thinking was the U.S. was headed into a recession and any monetary lassitude in the U.S. would be more than matched by looser credit in Brazil. The BRL strengthened sharply between mid-2002 and early 2003 even as the BRL $FRR_{6,9}$ grew relatively steep. This was a period of asset price uncertainty in the U.S. but a time of strong asset returns throughout emerging markets. The Federal Reserve may have meant only to stimulate the U.S. consumer, but it stimulated the Brazilian producer as well. We only need recall the course of the Bovespa during this period.

Flatter Money Market Curve Led Real Firming After Recession Threat Ended

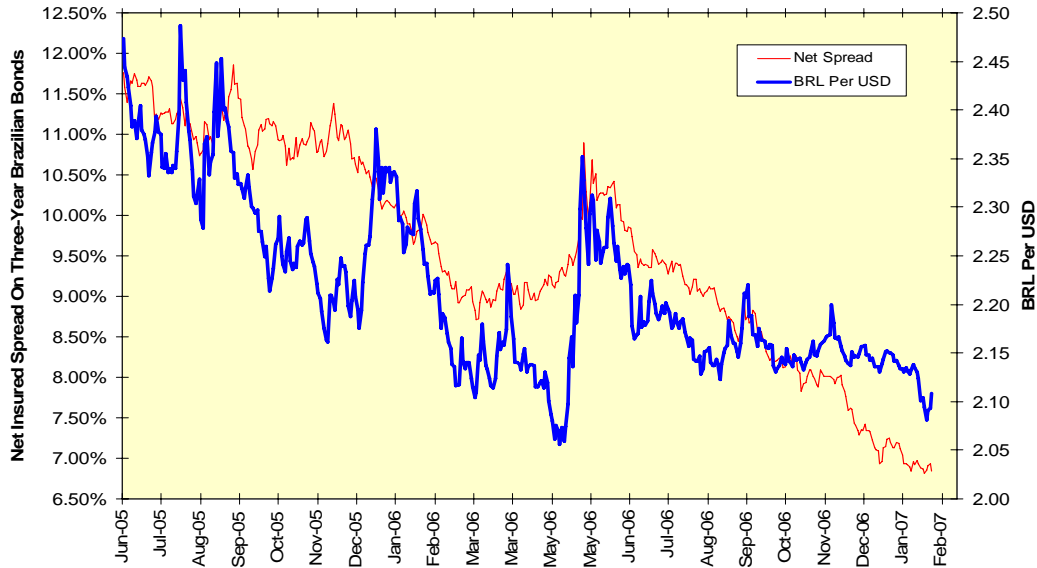


Risk And Return

While we are on the subject of asset returns, we must introduce two other measures into the BRL analysis. Both have only a short history, but both provide tantalizing clues to as to emerging market currencies. The first is a measure of the insured returns on Brazilian government debt. We can calculate this at the three-year horizon by taking the spread on Brazilian notes over U.S. notes and subtracting the cost of a three-year credit default swap (CDS) from this raw spread. A CDS acts like a put option on a bond; the buyer of a CDS surrenders basis points of yield to a CDS writer in exchange for a promise to deliver the underlying bond at par in the event of a default or other stipulated credit event such as a material downgrade. The riskier the bond, the greater the insurance cost.

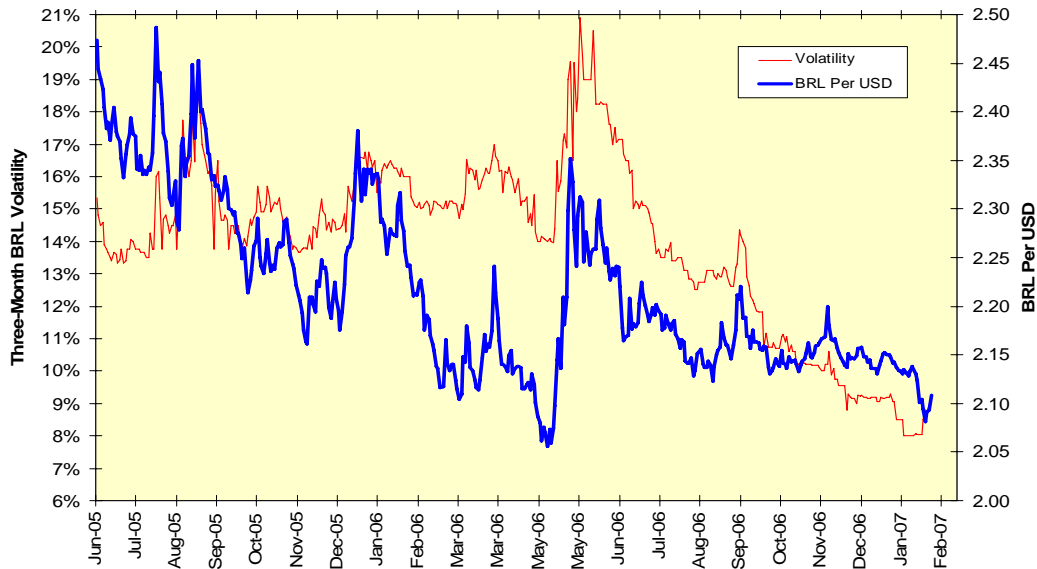
What we can see since mid-2005 is a distinct relationship between the BRL and the insured yield spread. As Brazilian bond yields fall and the insured yield spread falls apace, the BRL is seen as a less risky asset and rises in value. Once again, the simplistic approach of greater yield leading to a stronger currency fails, but not completely. By August 2006, the BRL decoupled from the insured yield spread as improvements in credit quality alone were insufficient to strengthen the currency. We should expect the opposite to occur if and when the BRL weakens: Both the nominal yield on Brazilian debt and CDS costs on that debt should rise.

Real Linked To Brazilian Sovereign Credit Risk



The second measure is volatility on BRL options. Just as CDS costs rise when government debt becomes riskier, option volatility should rise when demand for insuring a currency downturn rises. This appears to be the case, and the asymmetry noted for CDS costs applies here in a similar manner. Lower volatility alone cannot drive the currency higher, but a weaker currency can drive volatility higher.

Real Volatility Rises When Currency Weakens



The Final Link

The very term “emerging markets” should be used sparingly and with caution. Three decades ago, they were still called “developing markets.” We have every right to demand these markets emerge already at some point. The period since 2003 has been an unusual one in global markets. The Federal Reserve and its sister central banks relieved both real economies and financial markets at the expense of creating massive global imbalances such as the U.S. current account deficit. While China has been the most notable beneficiary of increased demand, all emerging markets have benefited as well.

History teaches us boom times do not last forever, our fondest wishes notwithstanding. If the 1997-1999 experiences are any guide, the next financial crisis will affect the most leveraged economies first and hardest. If this occurs, look for a weaker BRL, a lower Bovespa, higher BRL volatility, weaker Brazilian debt and higher Brazilian CDS costs, and in this combination.