# Mexican Peso: Who's Your Padre?

If currency markets could be solved by a single modeling approach, none of us could make any money whatsoever trading them. After all, each of us could solve a single equation exactly and we would all be on the winning side of every trade. This would be like trying to trade the law of gravity or some other system with an exact solution.

This leaves us with the uneasy and often unpopular conclusion that losing traders are the bottom of the food chain each and every day. These losers pay the winners, and like Las Vegas, the winners pay the house. Without an endless supply of grim suckers ready, willing and able to keep the game going, it would collapse.

But fear not; not only is everyone reading this an above-average trader, we can be rest assured there never will be a single modeling approach to the currency markets. Mathematically, the system lacks what is called a closed-form solution. Not only does the basic interest rate arbitrage equation have three unknowns – two interest rates and a spot exchange rate – that preclude a single solution, but numerous other factors enter into the mix as well. These include capital flows, global yield curves, commodity prices, political risks and returns on assets. These non-interest rate factors often are more visible in the minor currencies, which by definition can be buffeted about more readily than the majors. Let's use the Mexican peso (MXN) as a case study.

# Inflation

Just as successful parasites are careful not to kill their hosts, governments often are successful at anesthetizing their citizens against the ongoing pain of inflation. For example, the U.S. Consumer Price Index now stands at over 200 from its 1982-1984 = 100 base. This means, indisputably, the dollar has lost more than 50% of its purchasing power since the end of the first Reagan administration in an era often termed disinflationary. And yet you will hear Federal Reserve officials congratulating themselves on their monetary mastery.

Still, Americans have much to be grateful for in this regard in comparison to their Mexican brethren. If we compare the purchasing power of a January 1973 USD and a January 1973 MXN, both adjusted by their respective consumer price indices, we find the MXN has lost so much purchasing power that we must use a semi-logarithmic scale traversing four cycles. It has lost 99.977% of its purchasing power in the floating exchange rate era. The USD's loss, which requires only a single logarithmic cycle, looks like the gold standard in comparison.

# Purchasing Power of A Jan. 1973 Dollar Purchasing Power of A Jan. 1973 Dollar Purchasing Power of A Jan. 1973 Dollar

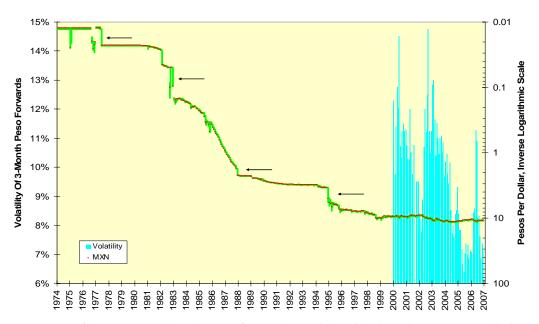
MXN Losses Three Orders Of Magnitude Greater Than USD Losses

If runaway inflation such as this is prima facie evidence of too many pesos chasing too few goods and services within Mexico, then it should stand to reason each MXN must exert a proportionately weaker claim on goods and services outside of Mexico. All else held equal, we should expect the MXN to have weakened against all other currencies whose inflation was less than Mexico's over this period.

# **Catastrophic Pattern**

This decline has occurred, but it has not been a smooth and continuous one. The MXN's history has been one of sudden and catastrophic declines often occurring in Mexico's sexennial presidential election cycle as noted with arrows on the chart below. We see this in the 1976, 1982, 1988 and 1994 elections, all of which were won by the long-ruling Institutional Party of the Revolution (PRI). The 2000 victory by the National Action Party's (PAN) Vicente Fox and his succession by the PAN's Felipe Calderón in 2006 proved exceptions to this rule. We will have to wait until 2012 to see if this in fact is a new reality for the MXN.

## A History Of Catastrophic Declines



The long-term chart of the MXN requires the same four-cycle semi-logarithmic scale necessary to depict Mexican inflation. Pesos became worthless both internally within Mexico and externally on the foreign exchange market at about the same percentage rate.

We can overlay the history of three-month MXN forwards on this long-term chart; unfortunately, the data for volatility begin only in 2000. This volatility, which represents the cost of insuring a MXN position, remained high during the latter stages of the global bear market in equities. Investors feared a repeat of the 1997 Asian experience wherein capital fled emerging markets and produced simultaneous major declines in currencies and equities.

Volatility remained high during 2002-2004 for another reason. As major central banks, led by the Federal Reserve in the U.S. and the Bank of Japan, flooded the world with cheap money, investors began to move out the risk curve in search of yield. They could borrow cheaply in developed markets, from Japan in particular, and lend in markets such as Mexico. As the Asian crisis was only a few years in the rearview mirror, the more prudent of them purchased options as protection from a catastrophic devaluation.

Volatility often is a contrary indicator. As more investors buy put options on the MXN, the potential selling pressure on the currency is reduced in proportion. The option holders no longer feel as if their only recourse is to sell and sell quickly at the first whiff of distress. If we saw volatility on the MXN decline substantially, the contrarian response would be to start to get short the MXN in a complacent market.

# Rate Gap

Where is this carry trade headed now? If we plot the MXN's course against the rate gap between 91-day Mexican bills (Cetes) and U.S. Treasury bills, (this graph also requires a logarithmic chart) we find the nominal rate premium of the MXN over the USD is the lowest it has been since comparable data became available in 1991. In case you are wondering, those 70% rates seen in 1995 were real; they were imposed by the Bank of Mexico after the December 1994 collapse of the MXN.

### Rate Gap Threatens Peso At Low End Of Range

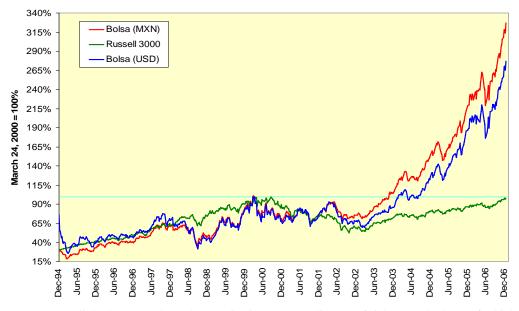


That aforementioned December 1994 collapse occurred just before the end of the last major U.S. rate-hike cycle and just before the inauguration of incoming Mexican president Ernesto Zedillo. The rate gap between the U.S. and Mexico narrowed to the point where international investors felt insufficiently compensated for their time and trouble. The steady and pronounced decline of the rate gap in 2006 just before an incoming Mexican administration creates an eerily similar risk.

# **Returns On Assets**

But as noted at the outset, currencies are more than a simple interest rate arbitrage. One of the reasons for the MXN's stability in recent years has been the strength of its stock market, the Bolsa. If we measure the relative performance of the Bolsa to the U.S. market as measured by the Russell 3000 index, since the March 2000 bull market peak, we find Mexican stocks have left their American counterparts in the dust. This is irrespective of whether we measure the Mexican market in USD or MXN terms. This high return on assets has kept international capital in Mexico and put bid under the MXN.

# Whose Market Has Remained South Of The Border?



Of course, a currency linked to a stock market carries its own peculiar set of risks, not the least of which is that stock market sinking under its own weight in a bear market. And here we have to add another special risk factor. The

strong relative performance of the Bolsa in USD terms had been linked closely and inextricably with the price of crude oil, here measured by Mexico's export price of its benchmark Maya Blend to the U.S., through August 2006.

# A Dangerous One-Commodity Dependency



As the bull market in crude oil accelerated, so did the relative performance of Mexican equities. And as noted above, it was this strong relative return on assets that allowed the MXN to remain stable in the face of a declining rate gap.

Restated, the MXN's course is linked, dangerously, to the price of a single and famously volatile commodity. While nothing has derailed since August 2006, perhaps on the widespread belief the downturn in crude oil prices has been temporary, the connection should give MXN holders some pause.