

Additional Currencies And Inflation Expectations

The principal conclusion reached last month (see “Major Currencies And Inflation Expectations,” June 2014) regarding currency movements and inflation expectations is what should be a simple and straightforward rule, countries with inflation expectations higher than those of a base country such as the U.S. should have a weaker currency, is honored far more often in the breach than in practice. The relationship is surprisingly anecdotal and defies the simple precepts of both the interest rate parity model and Fisher’s Law.

To refresh, the fundamental equation for calculating a currency forward against the U.S. dollar is:

$$Forward = Spot * \left[\frac{1 + r_{for} * \left(\frac{90}{360}\right)}{1 + r_{U.S.} * \left(\frac{90}{360}\right)} \right]$$

As there can be only one real interest rate globally for any maturity, the difference in the two nominal interest rates has to be the difference in expected inflation. All other considerations and caveats are the same as used last month.

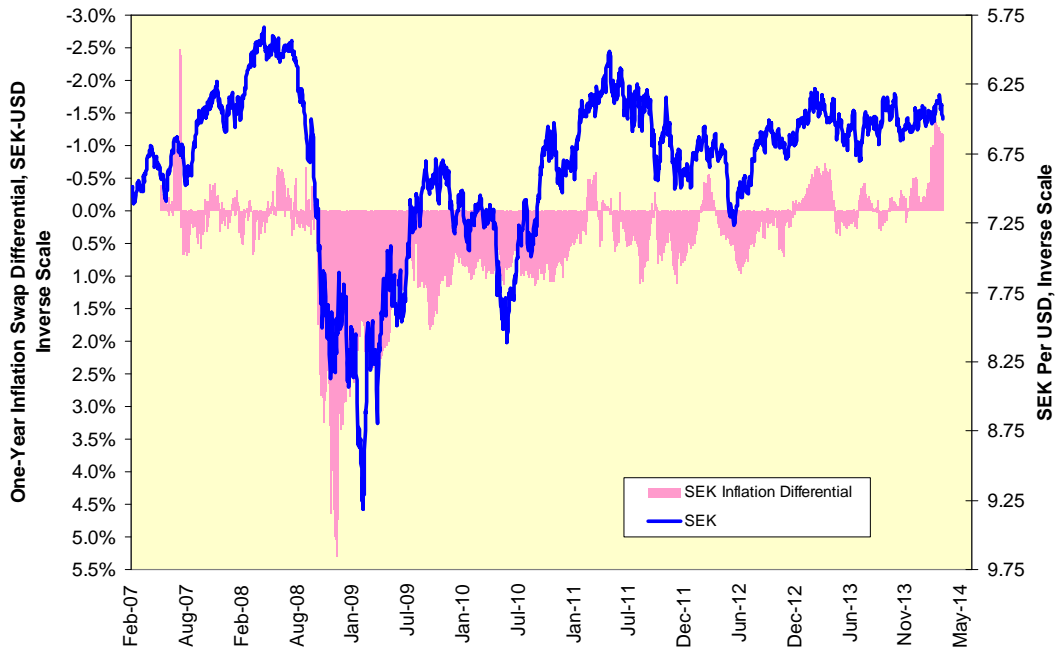
A set of five national inflation swap markets and their associated currencies will be examined here. Two of these inflation swap markets belong to euro-bloc members France and Spain; the others are the Swedish krona, Israeli shekel and South African rand. In each case the one-year inflation swap differential to the USD will be mapped against the currency itself along with a correlelogram extending backward and forward nine months to see whether the changes in expected inflation lead the currency movement or vice-versa. The correlations when the currency leads the inflation swap differential are depicted in magenta; the correlations when the inflation swap leads the currency are depicted in cyan. The correlelograms are calculated with the currency expressed in “USD per” terms so that a higher value is associated with a stronger currency against the USD.

A strong prior expectation here should be the inflation swap differential leading the currency with a negative correlation value by 126-189 days, or the six-nine month timeframe often seen in relative short-term interest rate differentials. If the opposite, the currency leading the inflation swap differential, occurs we have evidence changes in currency levels affect expected relative inflation differentials.

Individual Currency Analyses

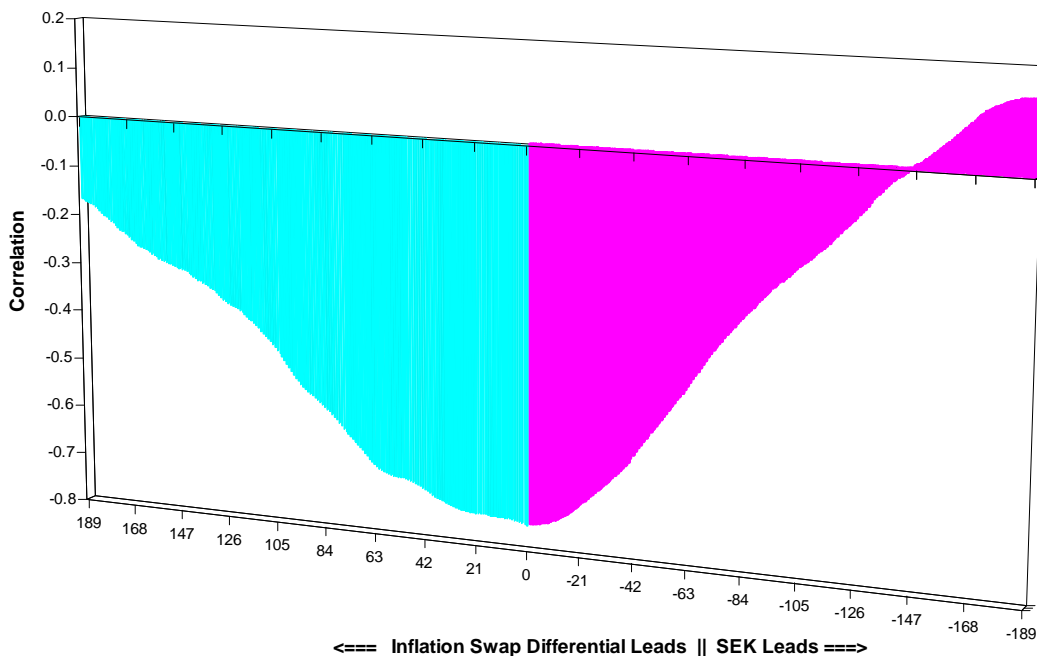
The SEK-USD inflation swap differential appears to have a general relationship of a wider differential being associated with a weaker SEK and vice-versa.

The Swedish Krona And Inflation Swap Differential To The USD



The relationship is a strange one, however. The SEK has a positive leading relationship to the [SEK-USD] inflation differential at a 7-9 month lag, but this relationship becomes negative as it approaches contemporaneous lags; this is equivalent to saying a stronger krona leads to narrower inflation swap differentials. The opposite occurs for the inflation swap differential. Here wider differentials lead the currency strongly at contemporaneous lead-times, which then start to dissipate rapidly after a three-month lead. The Riksbank apparently has trained the market to believe it will react very quickly to falling inflationary pressures with lower short-term interest rates, but that its memory is short. Neither are admirable attributes for a central bank.

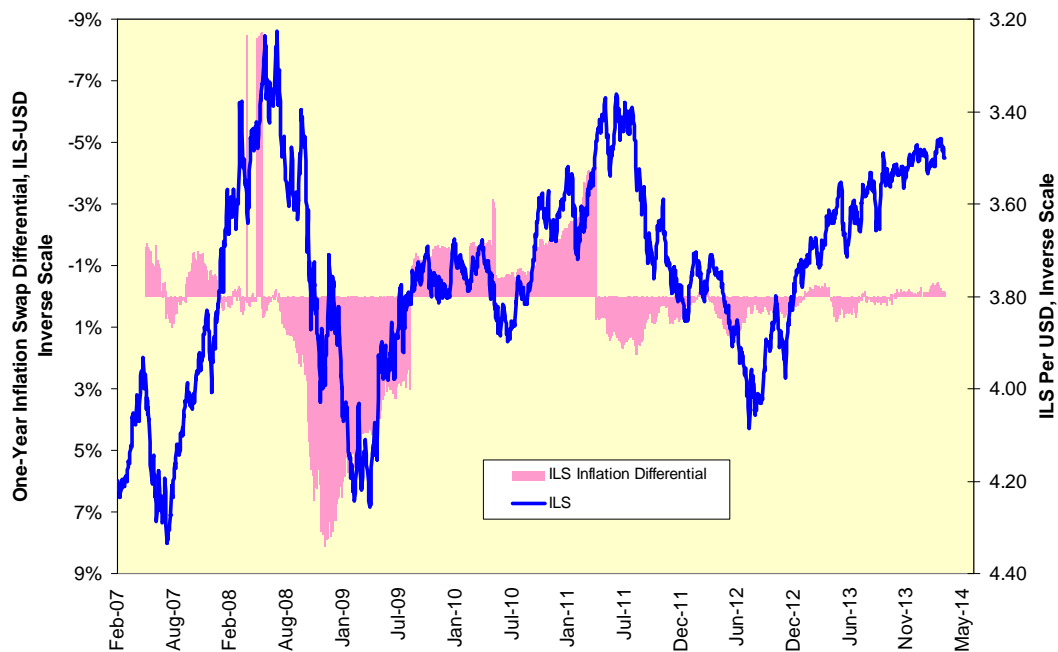
Mixed Relationship Between Inflation Swap Differential And Swedish Krona



The Israeli shekel continues the anecdotal parade. Just as in the case of the *Star Wars*' planet Tatooine and actual discoveries made by NASA's Kepler satellite of planets orbiting two stars, the ILS trades against the EUR just as

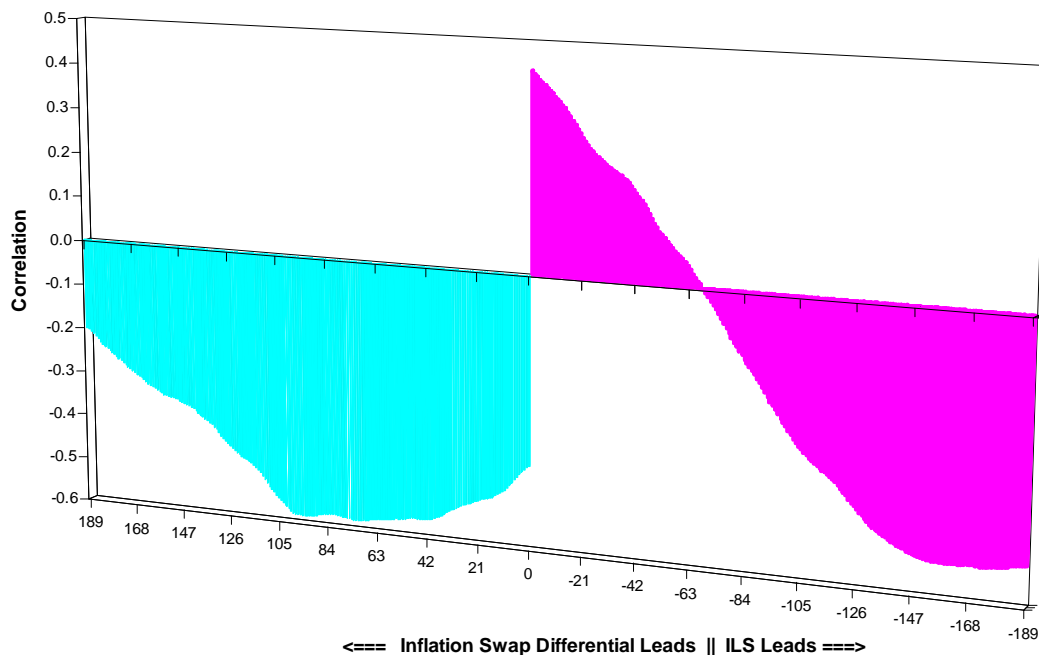
much as it does against the USD (see “A Currency Of Biblical Proportions,” May 2012). A map of the ILS against the [ILS-USD] inflation swap differential shows how a weak but discernible relationship between mid-2008 and mid-2011 broke down entirely after mid-2011 as the inflation swap differential collapsed toward zero.

The Israeli Shekel And Inflation Swap Differential To The USD



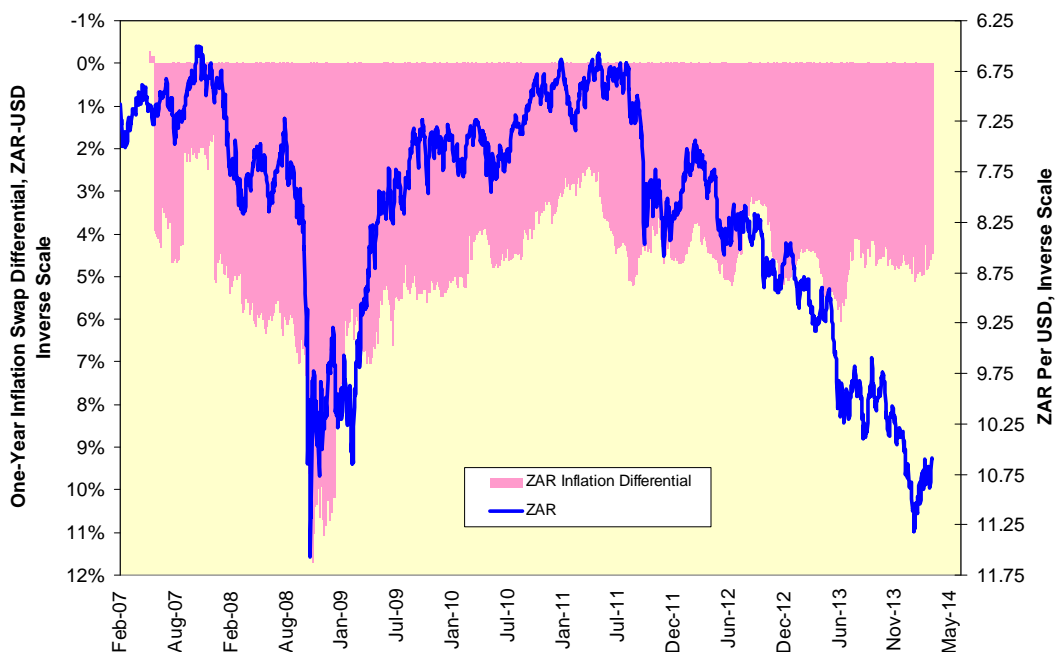
Simple visual inspection tells us the lead/lag relationship between the ILS and the inflation swap differential should be an odd one, and we are not to be disappointed. As is the SEK case, the currency shifts from a negative correlation at lags of 7-9 months to a positive one. The [ILS-USD] inflation swap level leads the ILS negatively out to lags of five months, at which point the correlation starts to rise toward zero. This, too, appears to describe a situation in which the Bank of Israel has trained the market to expect a credit-relaxing response to narrower inflation expectations.

Reversing Relationship Between Inflation Swap Differential And Israeli Shekel



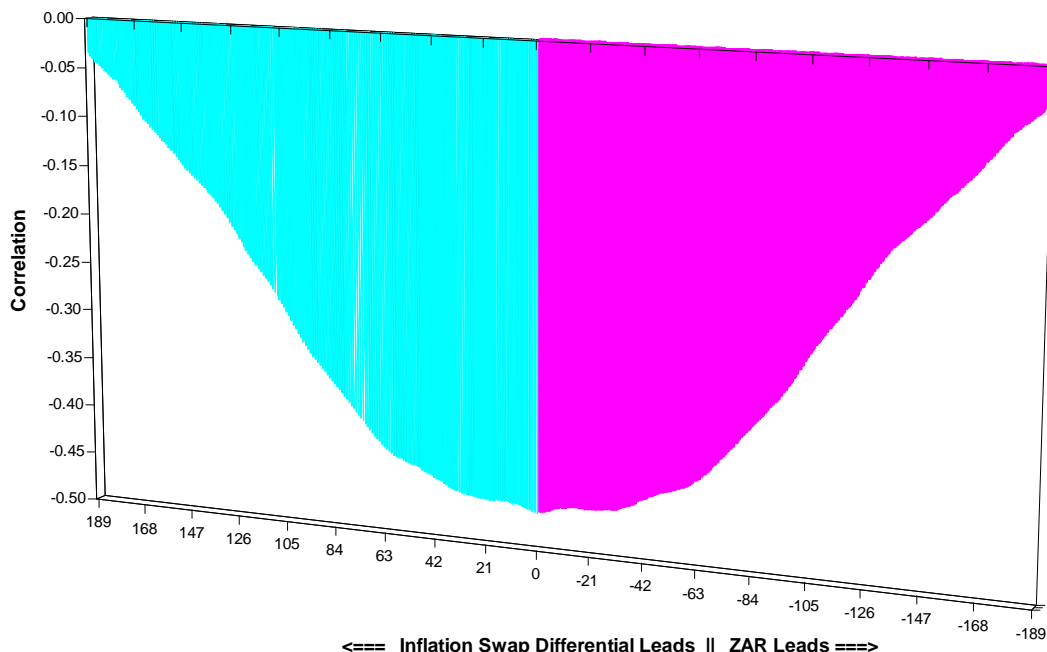
Visually, the South African rand had a strong coincident relationship to the [ZAR-USD] inflation swap differential through mid-2013. This is something of a surprise given the ZAR's susceptibility to news events such as miners' strikes and internal political problems. The ZAR fell sharply during the second half of 2013 and during the emerging market downturn of early 2014 irrespective of the relative inflation outlook.

The South African Rand And Inflation Swap Differential To The USD



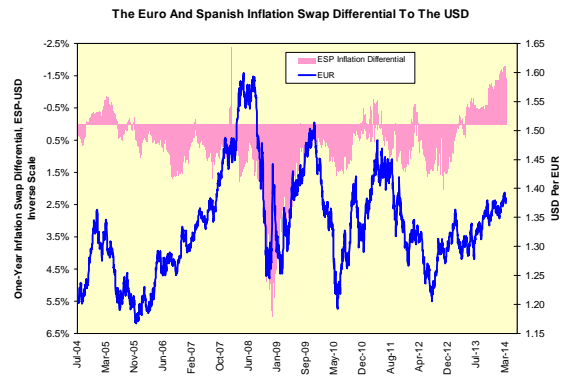
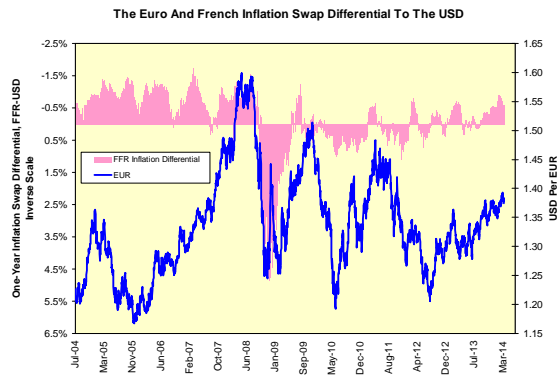
We should expect this visual relationship to produce a negative and relatively symmetric lead/lag relationship between the ZAR and the inflation swap differential. This is the case, although the leading relationship of the ZAR starts to rise more slowly after a four-month lag. The strong negative correlations near lag zero in both directions are indicative of the same phenomenon observed for both the Riksbank and the Bank of Israel: The South African Reserve Bank has created expectations it will react swiftly to any change in inflation expectations.

Relatively Symmetric Relationship Between Inflation Swap Differential And South African Rand

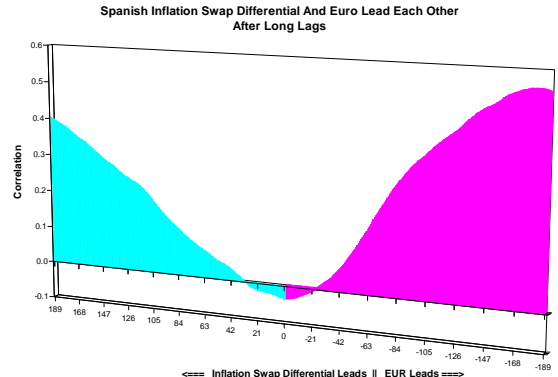
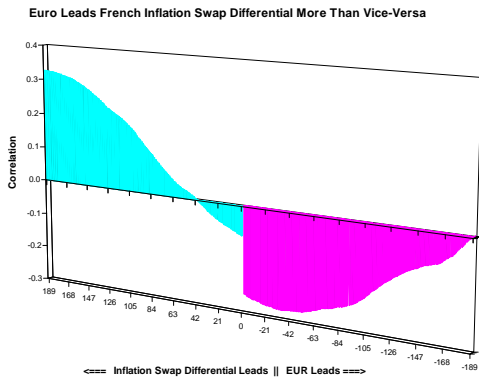


Now let's move to the two Eurozone members whose inflation swaps exist separately from a national currency. Neither the French nor Spanish inflation swap differentials bear little resemblance to the EUR, nor should we expect

either of them to do so. Countries without direct control of their own monetary policy and fettered to partners with widely divergent fiscal policies and growth trajectories have limited capacity to affect their own inflation expectations.



In consideration of the above, our prior expectation should be the euro leads both sets of inflation swap differentials more than vice-versa. This is the case, with the French case being the more direct in this regard. The Spanish case is rather odd in that higher inflation swap differentials' correlations to the euro become increasingly positive with a longer lead-time. This can be interpreted as saying troubles in Spain affect European Central Bank policy, but only after a delay worthy of the ECB's committee nature.



The overwhelming conclusion from this set of currencies is both the interest rate parity theorem and Fisher's Law are trumped by the expectation of central bank policy responses. This is the downside of living in a world where central bankers have become central planners first and foremost and try to respond to every development with a tool, monetary policy, whose outcomes are anything but deterministic and that operates with those famous long and variable lags. Is it any wonder we live in a world of rolling financial crises, bubbles and busts?