

Eurodollars And Macro Turning Points

Forecasting is difficult, especially when the future is involved. And despite investors' fondest hopes and delusions to the contrary, futures markets do not forecast. That is not their role. They measure expectations instead and provide valuable information to current traders on what price or yield levels can be accepted by sellers and lenders as a floor or by buyers and borrowers as a ceiling before they are forced out of business.

As an aside, *credible* market expectations have an odd habit of leading to their own failure. Let's say you are a bond king, whatever that is, and you roll out of bed one morning and announce to the world you think interest rates are going to be higher in six months. There are business-oriented television networks aplenty to carry your ruminations to the masses. What will the masses do?

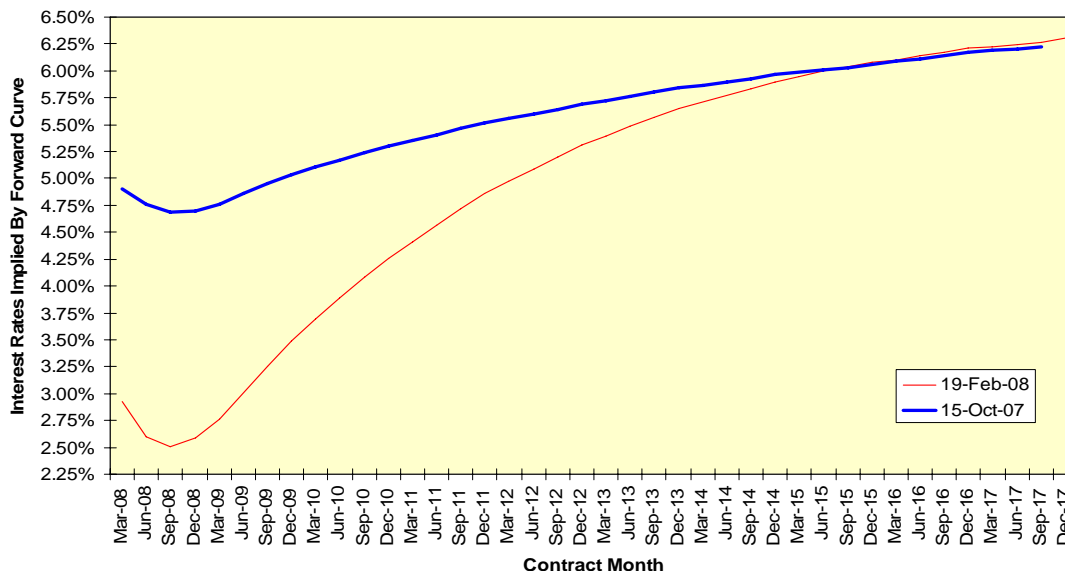
If they believe the bond king they will accelerate their borrowing from the future into today to avoid those higher rates. They will shift their lending from the present into the future for the same reason. The net result of all this will be higher demand and lower supply of credit today and higher supply and lower demand for credit six months from now. The markets will capitalize the *credible* forecast with the odd result of making our fictional bond king wrong.

Moral of the story? Once they call you a guru, you are dead. The only question is how soon. And the corollary to this moral is only the crank in the wilderness or blogosphere or wherever has a fighting chance of being right so long as no one is listening. We live in a cruel world.

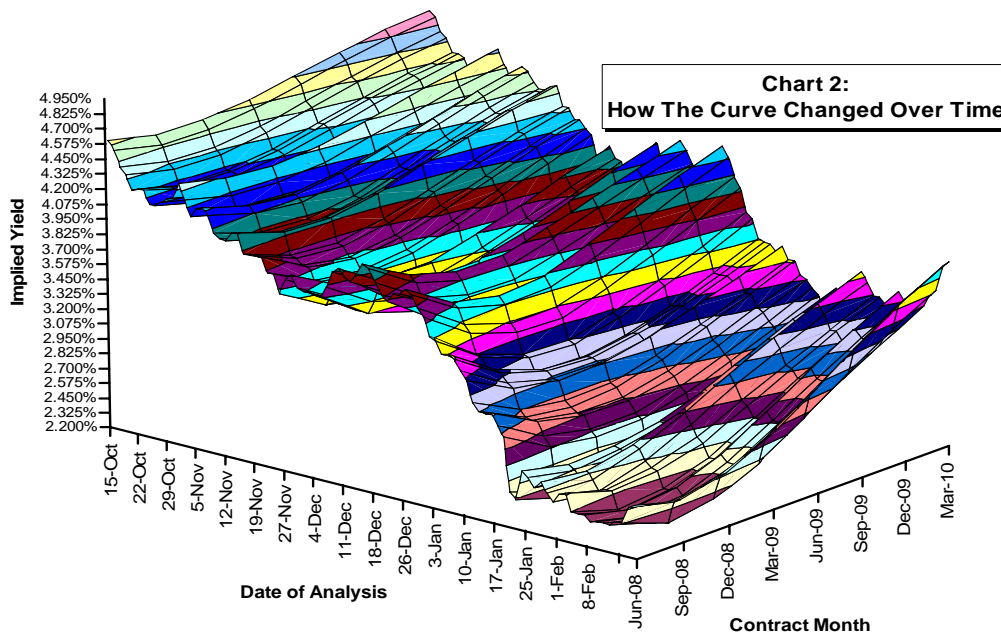
Enter The Eurodollar Market

Let's play a little experiment with the Eurodollar using data from February of this year; you will know as you read this how well its expectational structure conformed to reality. First, where was the forward curve of the market in comparison to a happier time, the October 2007 high in global equity markets? The answer, seen in Chart 1, was far more complex than, "Lower." While March 2008 yields fell, the real buying occurred in the June, September and December 2008 contracts. By the time we get to 2016 maturities, yields in February were the same as or even higher than they were in October 2007. The time-dependent deformation of the forward curve clearly expressed a conditional outlook on credit demands and economic conditions in general.

Chart 1: Eurodollar Curve Kinked At Lower Yields



We can restate the data in Chart 1 in greater detail by exploring the day-by-day changes for each contract month out to March 2010. Each color band striation in Chart 2 corresponds to a 12.5 basis point change in the implied yield of the Eurodollar market. This provides us with a glimpse into how the market absorbs new information each day and how the forward curve is adjusted accordingly.



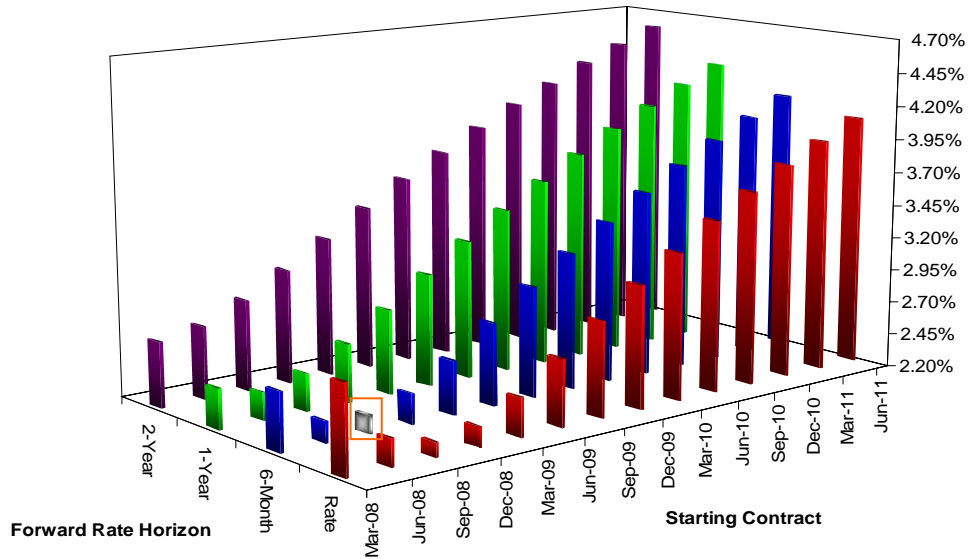
The Forward Rate Map

Whenever we have a forward curve in the interest rate markets, we have a set of implied forward rates to match. One of the most important uses of interest rate markets is forward rate agreements, or FRAs. A simple example is a construction contractor who knows he is going to need funds for one year starting one year from now. He can borrow money for two years and then lend it back for one, leaving him with a net borrowing of one year starting one year from now. This forward rate will be greater than the two-year rate if the yield curve is positively sloped and less than the two-year rate if the yield curve is negatively sloped.

As these FRAs are entered into along all maturities of the yield curve, they change the shape of the yield curve itself by simple supply and demand. The net result is the yield curve starts to reflect the market's time structure of funds supplied and demand, which in turn are affected by the forward rates implied by the yield curve in an endless feedback loop.

We can construct a matrix of forward rates for a set of Eurodollar contracts extending from their implied spot rate through six-months, one-year and two-years. The lowest forward rate on the map from February 2008 is for the six-month forward rate starting in September 2008 and extending into March 2009. This is marked in Chart 3 with a gray column bordered with an orange rectangle. If the Eurodollar market is correct – and remember, its role is not to issue a macroeconomic forecast but simply to measure the supply and demand for funds in a forward interest rate market – we will be remaining in a low interest rate environment until March 2009 at least.

Chart 3: Eurodollar Synthetic Forward Rates

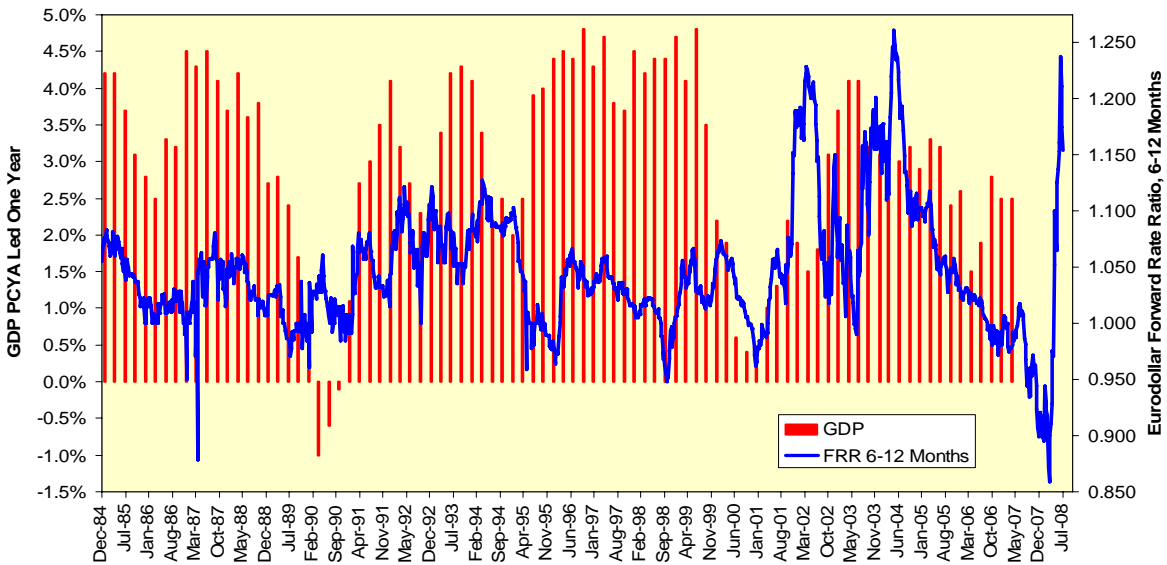


But If It Did Forecast

Even though we can say one hundred times markets do not forecast, all that will accomplish is one hundred instances of no one believing it. Let's state our curiosity, then, and see whether the forward curve between six months and one year of the LIBOR market leads changes in GDP in any way. LIBOR underlies the Eurodollar market, and we can measure its shape by the forward rate ratio across this horizon. This is the rate at which we can lock in borrowing for six months starting six months from now, divided by the one-year rate itself. The greater this FRR, the steeper the yield curve; values less than 1.00 indicate an inverted yield curve.

The answer, seen in Chart 4, is the FRR does lead year-over-year changes in chain-weighted GDP by one year on average. The inverted forward rate ratio seen from mid-2007 into early 2008 presages a weak economy into the first quarter of 2009, at least. This is wholly consistent with the answer drawn from Chart 3. It also forecasts a quick and sharp economic recovery in 2010.

Chart 4: Short-Term Interest Rates Lead GDP



Now what should we conclude if this measurement or implied forecast turns out to be totally inaccurate? The answer is nothing. New information comes into markets all the time and in the most unpredictable ways. Who really foresaw the depth and magnitude of the 2007-2008 credit crunch and all of its various manifestations? Once

this new information comes into the market and is digested – recall all the variegations in Chart 2 – a new conclusion can be reached.

The standard for market analysis is not whether the conclusion reached today will be correct tomorrow, although that certainly is a laudable goal. The standard is intellectual honesty and letting the data speak. It is the duty of the trader to convert the analysis into useable results and to minimize the damage from the inevitable calls made along the way that will be judged right or wrong only in retrospect.