

Europe Could Not Fool Mother Nature

Those of a certain age will recall the 1970s-era commercial for a margarine using the “you can’t fool Mother Nature” tagline; along with the kindred-spirit, “you can’t cheat an honest man,” it forms the basis for one of the great struggles in financial markets of our day, the battle between reality and government attempts to postpone reckoning with that reality.

Put your money on reality. If governments manage to push the inevitable back in time somewhat, as they have been trying to do since at least the December 1994 Mexican peso devaluation and on through all of the responses to the 2007-2009 financial panic, put a little more money on reality. Each time you sweep a problem under the rug and as everyone reading this can attest, trade by hope, you make the problem bigger and worse. Your first loss is your best loss.

Let’s take a case in point, the sovereign debt problems of various European Monetary Union members such as Greece, Spain and Portugal that first bubbled up to the surface in October 2009 and then re-emerged with the predictable vengeance in May 2010. On the surface, the problem was simple enough and had been understood by all parties in human commerce since the first loan was made sometime in our distant past: The governments involved had borrowed too much money in an attempt to maintain their citizens’ lifestyles after the 2008 financial panic had depleted financial institutions’ capital (see “Wall Street Armageddon,” January 2009). Then, *mirabile dictu*, they could not repay those debts and, unlike in their merry old days prior to the adoption of the euro, they could not depreciate their currency as a form of debt repudiation.

One Or The Other, Not Both

What to do, what to do? Governments may like to have their cake and eat it, too, but reality asserts itself early and irrefutably on occasion. A government or central bank can fix an exchange rate or it can fix a short-term interest rate, but it cannot fix both simultaneously. As the fundamental equation for currencies has the forward currency level as a function of the spot rate and the short-term interest rates of the two countries involved, you are left with a single equation and three unknowns. Even the people who had to go to law school because they were poor algebra students have to grasp this. As an aside, this is why currencies can move around so much; there is no one single price that clears the system but rather a large number of spot rate and interest rate combinations.

If a government pegs the exchange rate in a currency board system as Argentina and Bulgaria tried for much of the 1990s, they have to raise or lower their short-term interest rates fairly actively to maintain that peg. This becomes annoying for both borrowers and lenders, to say the least. If a country fixes a short-term interest rate, as the U.S. did in December 2008 or as Japan first did in March 2001, the currency will have to swing about as external interest rates change. This also becomes annoying, in this case for importers and exporters. As everyone in the economy is either a borrower or lender and is involved in international trade via the purchase of imported goods if nothing else, it is easy to see how schemes to manage currencies becomes everyone’s business rather quickly.

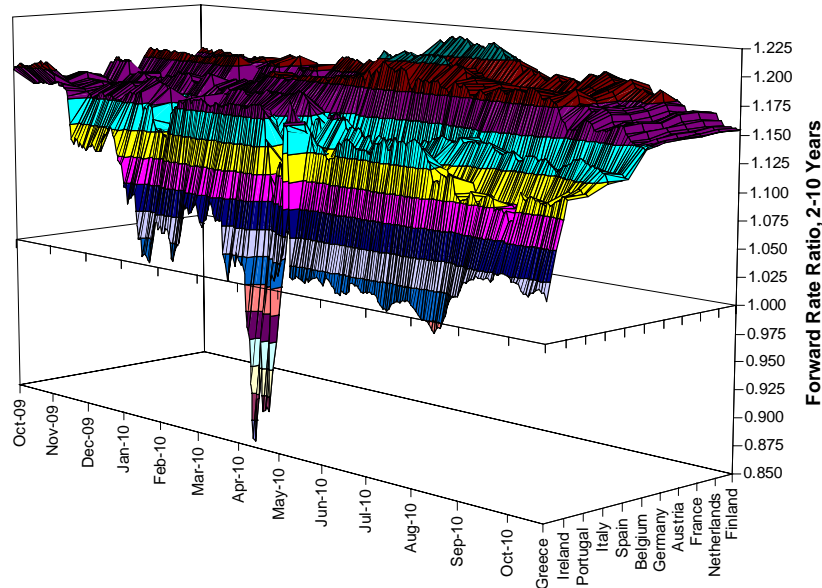
The Eurozone Case

The euro can be thought of as a fixed exchange rate amongst the European Monetary Union’s member countries. Once we accept this, it follows from the above each member country’s short-term interest rates, yield curves and fixed-income volatilities have to swing about to absorb the stresses resulting from perceived changes in credit quality. One of the Eurozone’s central battles with reality, alluded to in the founding Maastricht Treaty of 1992 but then ignored in practice, is the fiction all of its members could be forced into having the same credit quality if only they adhered to some arbitrary standards of budget deficits, debt-to-GDP ratios and the like. In reality, of course, different countries have different credit ratings and different cultural attitudes toward debt, official corruption, tax collection, etc. This is not meant to disparage anyone or any country; it is almost the definition of a different national culture and why the geographic expression of “Europe” has so many small countries instead of one large one. Much of the cultural history of Western Europe has been a longing for the single political entity lost with the collapse of the Roman Empire in the West in 476 A.D. Get over it, already.

Returning to the short-term interest rate differentials, we found prior to the European Central Bank’s May 2010 extension of a credit backstop to Greece and others (really to the private commercial banks who would have been rendered functionally insolvent had Greece and others defaulted, but that is a different story) short-term rates and yield curves between nations varied quite widely. If we map in Chart 1 the forward rate ratios ($FRR_{2,10}$, the rate at which we can lock in borrowing for eight years starting two years from now, divided by the ten-year rate itself)

between 2 and 10 years for eleven Eurozone members going back to the recognized beginnings of the problem in October 2009, we see how a fairly uniform set of yield curve shapes split apart as the situation developed.

Chart 1: Only Greek Yield Curve Inverted



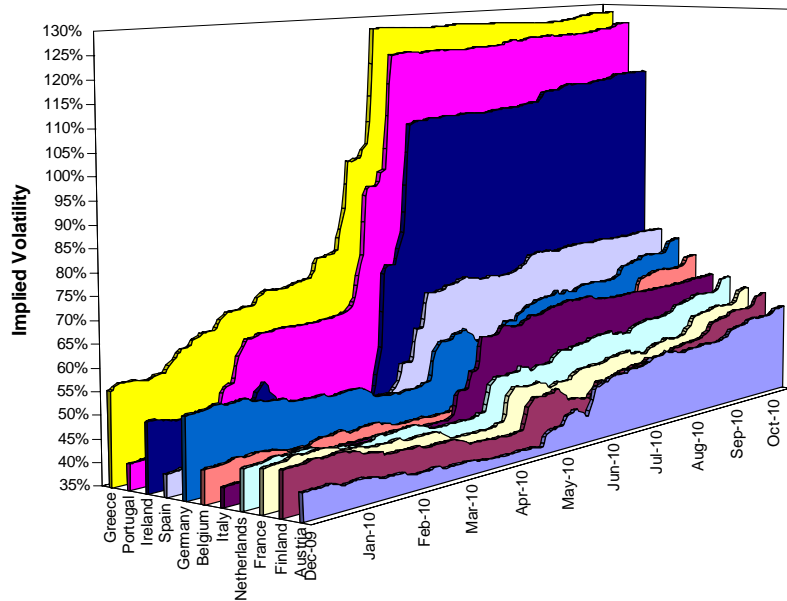
What should we expect to see here? The normal response for a country faced with a capital outflow and a weakening currency would be a rise in short-term interest rates relative to long-term interest rates; the yield curve does not actually have to invert, but we should expect to see it flatten considerably.

What did happen? At the risk of sounding as if there were a morality play involved, we can split the Eurozone's members into the virtuous and, um, not-so-virtuous credits. On the virtuous side, $FRR_{2,10}$ s for Finland, the Netherlands and Germany actually steepened as money flowed into their short-term notes. At the non-virtuous end, the Greek yield curve inverted and the Portuguese, Irish, Spanish and Italian yield curves flattened as their short-term interest rates had to rise to compensate investors for the increased credit risk. We will return to the implications of this point below.

The Volatility Dimension

We can illustrate this in another way through two-year zero-coupon volatility. As the credit crisis unfolded, implied volatility levels shot higher for the lower-quality credits. Normally, fixed-income volatility rises when rates fall and the yield curve steepens as both situations are seen as unstable by bond traders. However, when deteriorating credit quality overwhelms normal interest rate considerations, implied volatility can rise. This occurs in corporate bonds during times of credit stress as well.

Chart 2: Two-Year Volatility Shot Higher In Weaker Credits



Three implications are clear for the Eurozone and for the integrity of the euro going forward. The first is non-European investors are going to have to be plied with higher short-term interest rates for them to accept the currency risk of holding the euro. Second, higher volatility raises hedging costs and therefore the costs of doing business. This is never bullish for risky assets.

The third and final implication is the more virtuous members of the Eurozone are going to be faced with steeper yield curves with higher long-term interest rates than they would have faced otherwise. The burden of adjustment for the Eurozone has been shifted from a weaker currency and higher short-term interest rates in its weaker members to higher long-term interest rates in its stronger members. This would hardly be the first time in human history the innocent were punished to save the guilty, but none of it was necessary. The original sin here, the attempt to fool Mother Nature, came about with the willingness to look the other way after the Maastricht Treaty was signed in 1992. Traders and investors will be coping with the consequences of this unwillingness to face reality for years to come.