

How Long Can Low Rates Last?

The question whether instability can be a stable state of affairs is a lot more than just the sort of conversation you might find in a sophomore dormitory. Many unstable states, such as the geopolitics of the Middle East, can in fact be surprisingly stable judging from their persistence over the lifetime of nearly everyone reading this. Step back and consider the orbits of the planets around the sun; I am told by astronomers their gravitational interplay should have flung them all out of the solar system at one point or another. But a good friend of mine who follows the stars says Venus and Mars are alright tonight.

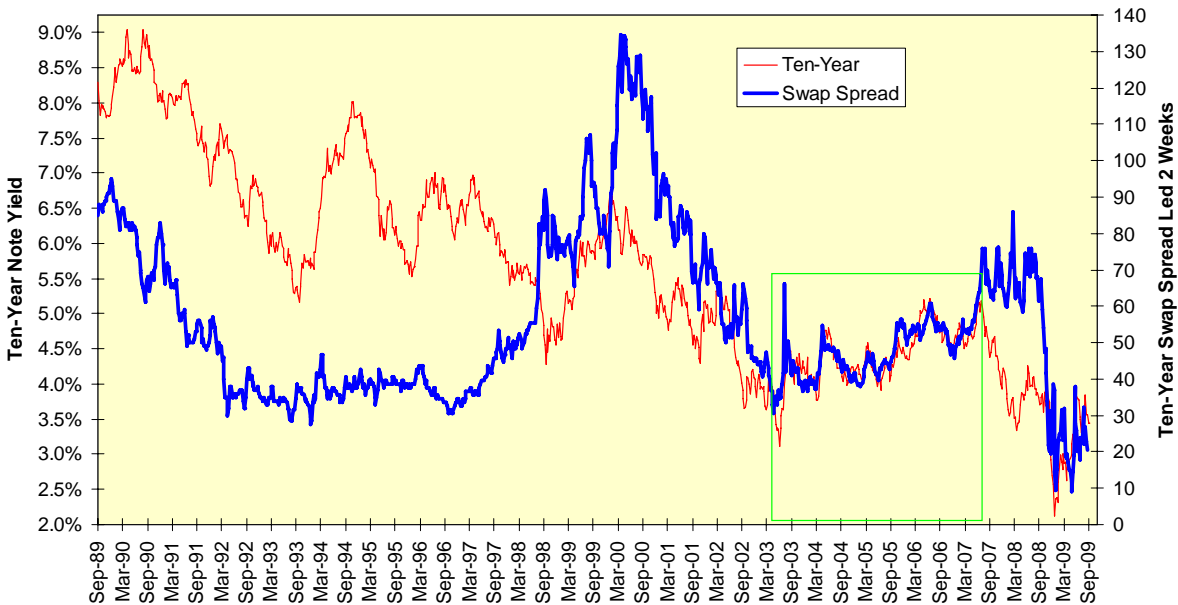
We addressed the issue whether the U.S. yield curve or for that matter the dominant yield curves of Europe were in fact dangerously unstable in [July](#). The argument then was simple and still applicable today. The forward rate structure of short-term interest rates had built in 4% rates by 2012 and three-month Treasury bills had triple-digit implied volatility. As more and more borrowers shortened the maturity of their borrowings to take advantage of the lower short-term rates, all would be at risk to a sudden shift higher if and when short-term interest rates rose.

The Effect Of Swap Spreads

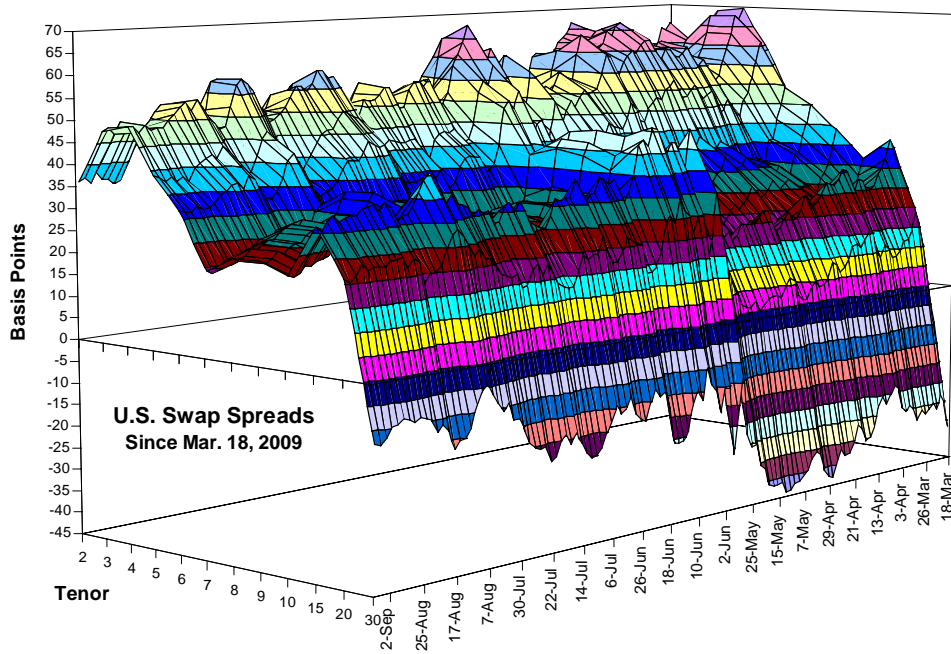
Let's return to an analysis last visited in [December 2007](#), the interplay between the level of interest rates, swap spreads and longer-term interest rate volatilities for zero-coupon Treasury securities. As a refresher, a swap spread is the payment in basis point a floating-rate borrower must pay to fix borrowing costs. Generally speaking, the more borrowers fear rising rates, the more swap spreads rise. Rising swap spreads generally are associated with expanding credit spreads and therefore are negative for corporate bonds.

For nearly all of the most recent recovery between 2003 and 2007, a period highlighted with a green rectangle on the chart below, ten-year Treasury yields led ten-year swap spreads by about two weeks. That relationship broke during the financial crisis, but has reestablished itself since. This realignment is one sign of stability in the long-term interest rate outlook.

Swap Spreads Realigning With Ten-Year Treasury



What about the movement of swap spreads over a wide range of maturities (tenors)? We can map spreads from one year out to thirty years since the March 18, 2009 quantitative easing of monetary policy. The resulting outlook is one of moderation: The short-tenor swap spreads declined toward zero while the longest-dated swap spreads became less negative. Those negative long-term swap spreads are the last of three anomalies since last winter to remain; the other two were negative TIPS breakeven rates of inflation and negative Treasury bill yields. The net conclusion from the swap spread surface is a weak move toward a bearish steepening of the yield curve.

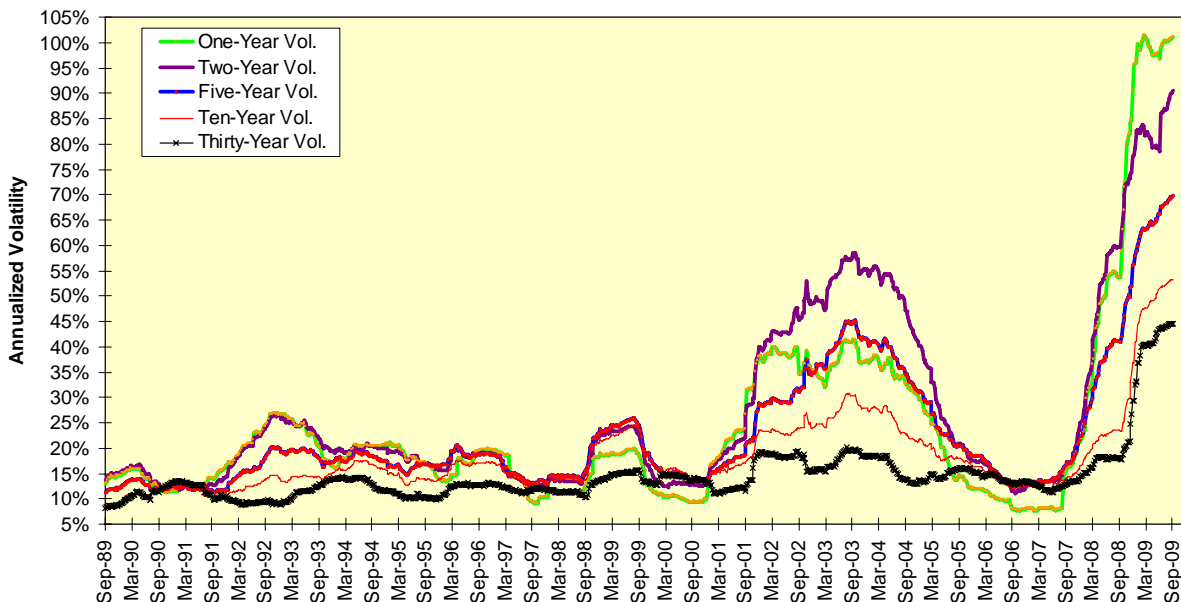


The Volatility Contribution

The Treasury market remains highly nervous about the level and direction of interest rates, with the highest volatility reading remaining at the shortest maturities. Contrast the present level of zero-coupon implied volatilities with those from the last time the Federal Reserve tried to resuscitate the economy with low interest rates only to inflate both an asset and ultimately a credit bubble.

The highest reading seen in October 2003 was for the two-year zero-coupon at 58.6%. Current readings for the two-year zero-coupon are 90.6%; they have been over the October 2003 level continuously since July 2008. One-year zero-coupon volatility appears to be peaking at triple-digit levels. Paradoxically, the very nervousness of the market about the unnaturally low level of short-term interest rates is contributing to the overall stability of the situation. Potential sellers of these notes have bought insurance against higher yields and therefore have no further incentive to exit their position in a panic. Restated, unstable levels of volatility for an unstably steep yield curve have turned into a stable stalemate. Military historians recognize this as the prelude to a bloody siege.

The Term Structure Of Interest Rate Volatility

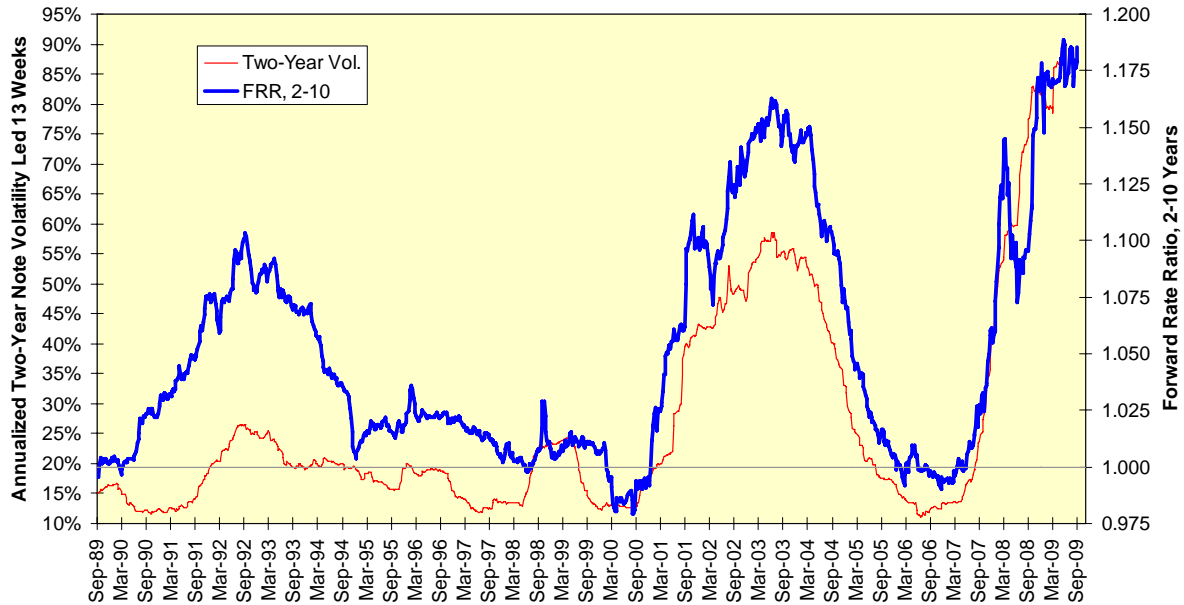


Linking Volatility And The Yield Curve

The key to whether the siege is lifted lies with the Federal Reserve and its sister central banks. So long as they force the short-end of the yield curve down they force volatility higher, which in turn locks both swap spreads and the ordinal level of interest rates in place.

If we map the shape of the yield curve as measured by the forward rate ratio between two and ten years, the rate at which we can lock in borrowing for eight years beginning two years from now divided by the ten-year rate itself, we see it leads the volatility of the two-year zero-coupon note by thirteen weeks, on average. The forward rate ratio has been locked in this range for all of 2009. As it is unlikely to steepen by the two-year note's yield falling, anyone playing the yield curve is forced into a never-ending and so far unsuccessful bet it will flatten by this rate rising.

The Yield Curve Leads Volatility



Of course, the yield curve could steepen by the long end rising, but one thing we have seen for the better part of 28 years, all the way back to September 1981, is long-term rates keep failing at a series of lower highs. The more leveraged the economy is, the less it can handle higher interest rates and the more dependent it becomes on artificially low rates until we reach the present *reductio ad absurdum*.

Stable does not mean "good." The trench warfare of World War I was stable for more than three years, and no one speaks of it fondly. Stable may simply be another term for trapped in a bad situation. The central banks are afraid to exit what they have created and the markets, fearing the consequences of an exit, have precluded a stampede out of a situation it fears must end. Just as a market never crashes when it is expected to do so, an unstable situation can persist for a long time.