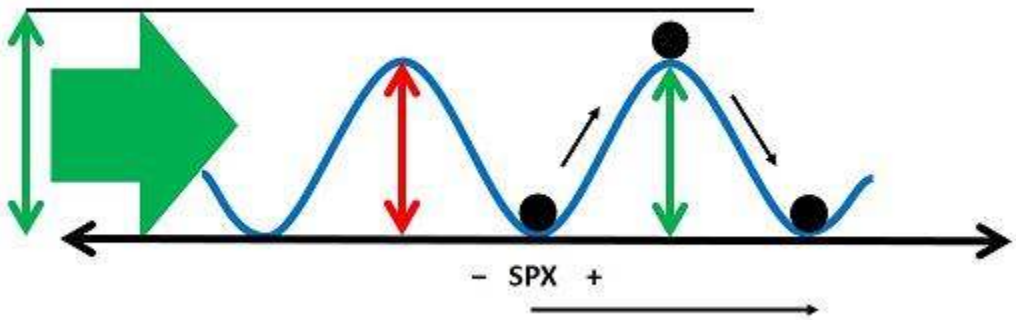
From: Ben Hunt [mailto:ben.hunt@epsilontheory.com]
Sent: Thursday, June 27, 2013 10:44 AM
To: 'ben.hunt@epsilontheory.com'
Subject: Epsilon Theory: The Matrix Reloaded -- Seeing Markets as Informational Structures

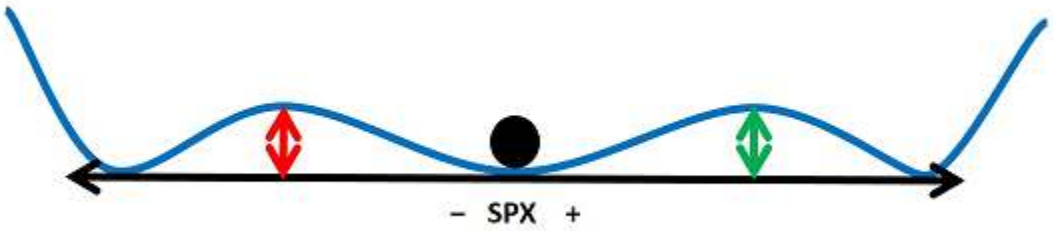
So what are the longer-term consequences of the FOMC announcement last Weds? Is this a summer squall that will just blow over? Is the market going down from here? How bad could it get? These are the questions that anyone engaged with the markets on a day-to-day basis is wrestling with right now, and here's what an Epsilon Theory perspective suggests for answers …

Seeing the market through a game theoretic lens will NOT tell you whether the market is going up or down. It shows you the informational structure of the market from a Common Knowledge game perspective, which in turn shows you how the market is likely to react to new information.

Here's a simplified "normal" informational structure for a broad market, say the S&P 500, with the black ball representing the current equilibrium price level for that market and the height of the trough walls representing the strength of the current equilibrium level. To make the ball "roll" to a new higher equilibrium level requires a strong enough signal to get over the right-hand trough wall, and vice versa for the market to go down.



As I wrote in a recent Epsilon Theory letter ("Through the Looking Glass") the current informational structure for the S&P 500 looks more like this.

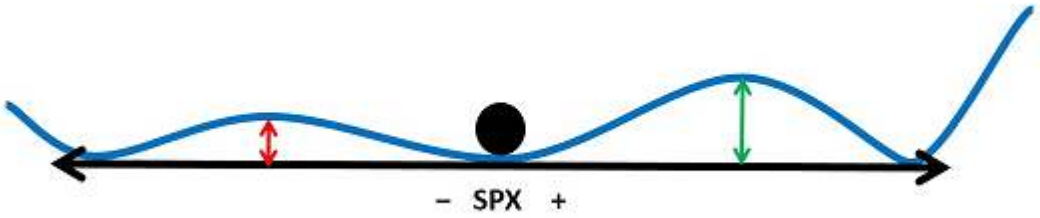


The much lower trough walls means that whatever the current price level might be for the S&P 500, it is an extremely unstable equilibrium, meaning that it takes relatively little new signal information to make the market roll to a much lower level or a much higher level.

Note that there is a fractal nature to informational structures, which means (among other things) that the same pattern occurs on different time frames. So when I say "a much lower level" that means one thing on a daily time frame (say, a 1% move) and another thing on a quarterly time frame (say, a 10% move). But the underlying behavioral dynamics and pattern are the same.

Instability is not the same thing as volatility! If you bought "volatility protection" for your portfolio in reaction to last week's events, which in today's parlance is some form of downside hedge, you almost certainly overpaid for that insurance because the concept of "volatility" overstates the downside risks versus the concept of "instability". You also failed to buy protection against the other side of the instability risk, a sharp up-side move. Now most portfolios have a long bias, so they participate in that sharp up-side move, but it doesn't take an advanced degree in mathematics to understand that you're leaving money on the table with this misspecification of the market risks. If you think it's important to call things by their proper names – and this is a good example of why it is important – then you should keep reading Epsilon Theory.

The longer-term (structural) impact of the FOMC announcement last Weds is to lower the left-hand trough barrier still further, creating still more instability for the market overall and reducing the size of the new signal required to push the market to a lower equilibrium price level. The right-hand trough barrier is also raised a bit, although that has come down almost to prior levels given the concerted media effort to say that the market is "wrong" in its interpretation of Bernanke's message.

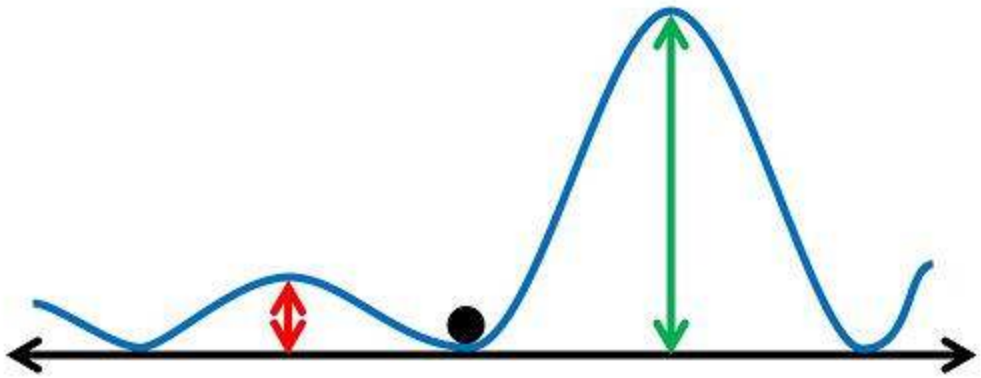


This informational structure does NOT mean that the market is definitely going down. It means that the market CAN go down and WILL go down on bad news. But if there is a raft of good news (non-Bernanke FOMC members jawboning, strong US consumer confidence, PBOC providing liquidity, etc.) then the market can go up, and it can go up pretty significantly. So if you believe that the distribution of policy and macro news going forward will be heavily skewed towards good news … then you should buy this market. In particular, you should "Buy the Dip" after any big move downwards.

That wouldn't be my strategy, because I think that the distribution of future market-moving news is unlikely to be skewed positively, and that the probability of an "accident" (i.e., a really shocking piece of bad news, say a big bond player caught long duration and highly levered, resulting in a disorderly unwind) is, as economists are fond of saying, non-trivial. It also wouldn't be my strategy because a major piece of future good news – a declining US unemployment rate – has been embedded in Common Knowledge as an inverse indicator of Fed monetary accommodation. Good news here will make the market go down, not up, and good news here is on its way. The next big signal on this front will be the next Jobs Friday, with announcements before the market opens on Friday, July 5th after US markets are closed and Draghi has a press conference on July 4th. I wouldn't want to be levered and long at the close on July 3rd. Just sayin' …

The point here, though, is not to convince you that my opinion of the future distribution of market-moving signals is correct. I'm pretty bearish in my fundamental view of the world, and I could well be wrong. But where I am confident that I'm right – and what I am trying to convince you of – is that it is extremely useful to assess the market through an informational, game theoretic perspective. Whatever your opinion of the world and what's coming down the pike … whatever your investment goals might be … you will be a more effective investor if you can frame that opinion and those goals within this perspective.

As a final note, not all aspects of the market today are informationally unstable. Here's a market with a very stable structure, but unfortunately it's very stable with a huge downwards Common Knowledge asymmetry. In other words, very small negative signals will make the price equilibrium for this market go down, and it would require an enormously positive new signal to make the price equilibrium go up from here.



This is the informational structure for the market in Gold. Caveat Emptor.

As always, thanks for your time and attention,
Ben