From: Ben Hunt
Sent: Thursday, November 08, 2012 5:15 PM
To: Ben Hunt
Subject: Don't Mess With Mister In-Between

This email will focus on what I see as the broad investment implications of the post-election political dynamics concerning the US fiscal cliff, particularly portfolio time horizons, and I'll try to put everything in the context of the global debt crisis. Future notes will focus on more specific exposure opportunities.

A successful outcome to the forthcoming negotiations around the US fiscal cliff depend on solving an Agency Problem. I think it's reasonable to assume that the two chief negotiators – President Obama and Speaker Boehner – would each like to achieve a deal. They got pretty close to a compromise a year ago, and each man's efforts to create a personal legacy would be enormously furthered by an agreement. The problem, however, is whether either leader can deliver the votes of his rank and file. For Boehner, it's the Tea Party members of the Republican Caucus. For Obama, it's the House Democrats and, more crucially, the Senate Leadership. Boehner's crew gets all of the negative press, but in truth the Congressional Democrats are at least as, if not more, obstructionist when it comes to a Grand Compromise along the general lines of the Simpson-Bowles formula.

Unfortunately, solving this Agency Problem becomes much more complex given the timing of the lame duck session and the automatic nature of both the Bush tax cut rescission and the defense/entitlement funding sequestration. There are fairly simple procedural ways to kick the can into 2013, but even this effort requires some level of House/Senate cooperation. Although I think the odds ultimately favor overcoming the Agency Problem and achieving a meaningful fiscal compromise sometime next year, the path to that happy day will inevitably be fraught with brinksmanship and petty politics, with the constant non-trivial chance of either side snatching defeat from the jaws of victory.

This is a binary event of the first magnitude, and investing in its wake poses an immense challenge. To make matters worse, there are similar first-magnitude binary political events at hand all around the world.

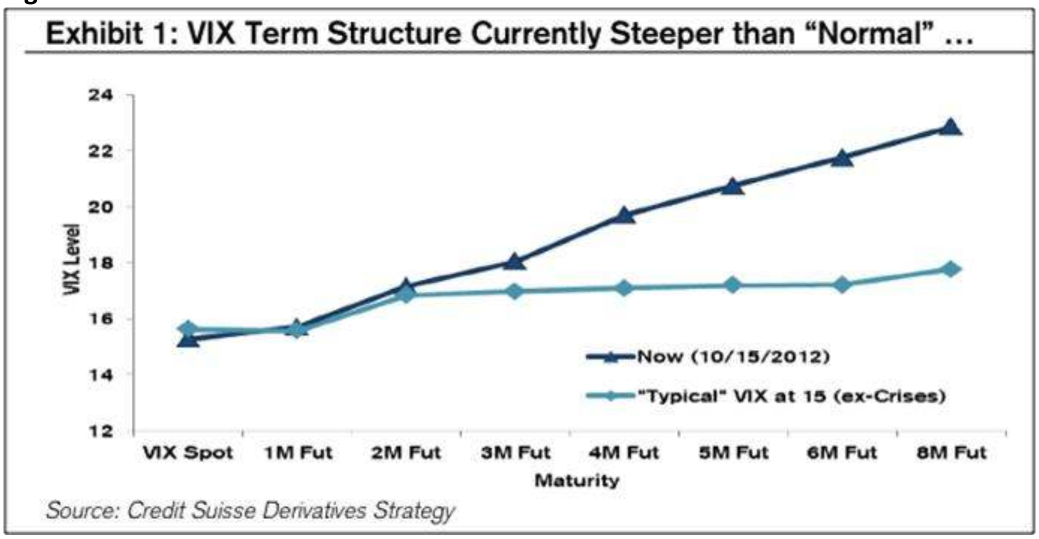
- In the Euro Zone, it matters a great deal when or if Spain requests a sovereign bail-out through the OMT program. It matters a great deal whether or not the Samaras coalition hangs together for another week, another month, or another 6 months.
- In China, it matters a great deal whether the new party leadership launches a major stimulus program.
- In the Middle East, it matters a great deal whether Iran turns on the centrifuges at Fordo.

Over the next six months these events will mean <u>everything</u> for whether or not the prices of <u>all</u> securities go up or down. Any one of these events is enough to dominate market direction for an extended period of time. They are each investable events … if you consider binary events to be investable.

I am willing to take a directional view on markets in anticipation of a binary event if and only if there is a severe asymmetric reward/risk on one outcome or the other. That is, I'm perfectly willing to wager on a coin toss if I'm getting 3:1 odds on heads. Unfortunately, a close look at market exposures and price levels today indicates a reward/risk compression on each of these binary events, not expansion. Far from getting 3:1 odds on a coin toss, the market is offering something like 2:3 odds.

Figures 1 and 2 below, courtesy of Ed Tom and the Credit Suisse derivatives strategy group, show the market structure around the VIX index, a measure of S&P 500 index volatility over the next two to three months, as of October 15th. Figure 1 shows the term structure, which is a graphical depiction of the implied VIX level at some future point based on the prices paid for options on the index. This term structure is much steeper than is typical for the VIX, indicating that the market is anticipating S&P 500 volatility to be progressively higher to an unusual degree from January 2013 onwards.

Figure 1: 8-Month Forward VIX Term Structure



So far, so good. It appears as if the market is seeing the world as I do, with a powerful dynamic at work to make the world an increasingly uncertain place 3 to 8 months from now. But a closer look at the composition of that term structure reveals a difficult investment environment.

Figure 2: January 31, 2013 Forward Estimated VIX Exposures

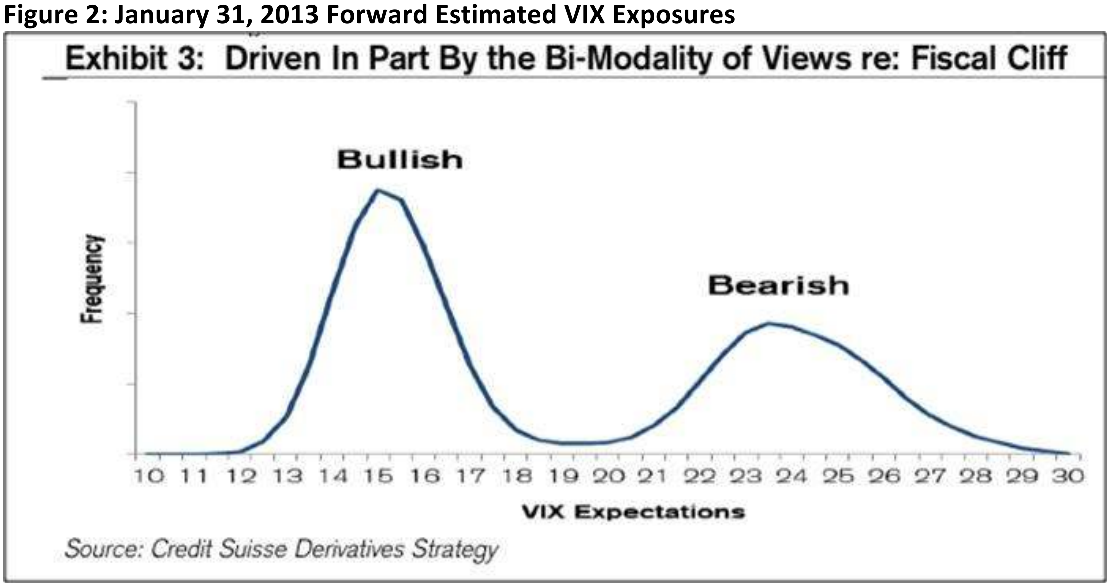


Figure 2 shows the estimated distribution of VIX exposures for January 31, 2013. In Figure 1 this would correspond to a price of 19, halfway between the 3-month and 4-month forward VIX levels. Now usually the average implied price of a security is also the most likely estimated price outcome of the security. That is, if options on a security imply an average price of 19 a few months from now, exposures will generally form some sort of bell curve centered on the price of 19. The most common estimation of the price would be 19, with fewer people estimating a higher price and fewer people estimating a lower price.

But as Figure 2 shows, this is not the case for estimated VIX price outcomes today. While 19 might be the average price, it is – if you believe in the wisdom of crowds – essentially the least likely outcome. What the market exposures are telling you is that a lot of people think the outcome will be quite benign, say 15 or thereabouts, and a lot of people think the outcome will be terrible, say 24 or thereabouts. Almost no one believes that the outcome will end up in the middle at a price of 19, even if that is the average price of all the exposures.

What this means in practice is that the benign view of the binary event associated with the US fiscal cliff is a very crowded trade and the harsh view of the binary event is a very crowded trade. As a result, both views are relatively expensive to put on, and one or the other is likely to be completely wrong and valueless at expiration. Unless you have a view that either the bullish outcome or the bearish outcome is far more likely than the other (in which case it's not a binary event at all), the expected value of either the bull or the bear position is less than the cost of establishing the position! If you believe, as I do, that the outcome of each of the events listed above is essentially a flip of a coin, then establishing directional exposures of any sort, long or short, is the equivalent of getting less than even odds to bet on a coin toss … and taking this bet multiple times.

Is it possible to set up some exotic combination of options, a "condor" in the case above, that has a positive expected return from this term and exposure structure? Sure. But given the overlapping nature of the many binary events at hand over the next six months, where, for example, you might see a bearish outcome on the fiscal cliff but a bullish outcome on the Spanish sovereign bail-out, it's entirely possible that we could end up at a VIX level of 19 after all, in which case the condor position would fail miserably. Just because market exposures suggest a least likely outcome at a VIX level of 19 does not mean that this won't occur. It just means that there is no directional opinion on what the world will look like on January 31st that clearly corresponds to a VIX level of 19. The world will inevitably be a mash-up of multiple binary events of unknown market-moving power, which makes it extremely difficult to have a point estimate (a best guess on future security price levels) that is meaningful and actionable (enough certainty to have a positive expected return profile).

So not only is the world becoming more volatile and explosive, with market-moving binary events at every turn over the next 3 to 6 months, but any directional market exposure in anticipation of these events is overwhelmingly likely to have an asymmetric reward/risk profile skewed towards risk, not reward. Regardless of strategy or investment horizon, this is an extremely challenging environment for an investor who must maintain a portfolio of exposures during this period. Whatever idiosyncratic catalysts you are expecting to move your portfolio positions up or down over this period will be swamped by the big binary events listed above. And if you are taking positions on the big binary events, it is extremely difficult to establish these positions with an asymmetric reward/risk ratio that is in your favor.

This is the central dilemma for any investor today – *inadequate reward/risk compensation for directional exposure to any security,* particularly on a medium-term time horizon, as both political risk and central bank activism escalates. It's very hard to be long anything given the cold winds blown in by this global debt storm, but it's even more difficult to be short anything given potentially positive binary event outcomes and, more critically, the extreme negative carry associated with shorts today as central banks expand their balance sheets.

So what to do? I think that the most viable opportunity sets for exposures today are either short-term in nature (as in daily or intra-day) or indeterminate/long-term in nature (as in whenever they work even if it's two years from now). In both cases, what makes them work … i.e., what allows me to have a future point estimate and enough confidence around that point estimate to generate a positive expected return profile … is a <u>framework</u> for interpreting the impact of policy-related events on security prices.

For daily or intra-day opportunities, that framework is the Common Knowledge (CK) game, something I've written at length about in prior notes. The CK game understands market behavior as follows:

It's not what you think that matters.
It's not what everyone thinks that matters.
What matters is what everyone thinks that everyone thinks.

Public messages or announcements, whether it's a Merkel press conference or the weekly release of initial jobless claims by the BLS, are the primary drivers of what everyone thinks that everyone thinks. CK game theory was designed specifically to understand this dynamic, by illuminating the type and scope of messages that encourage a population within a system to believe that everyone else believes some behaviorally-influencing piece of information.

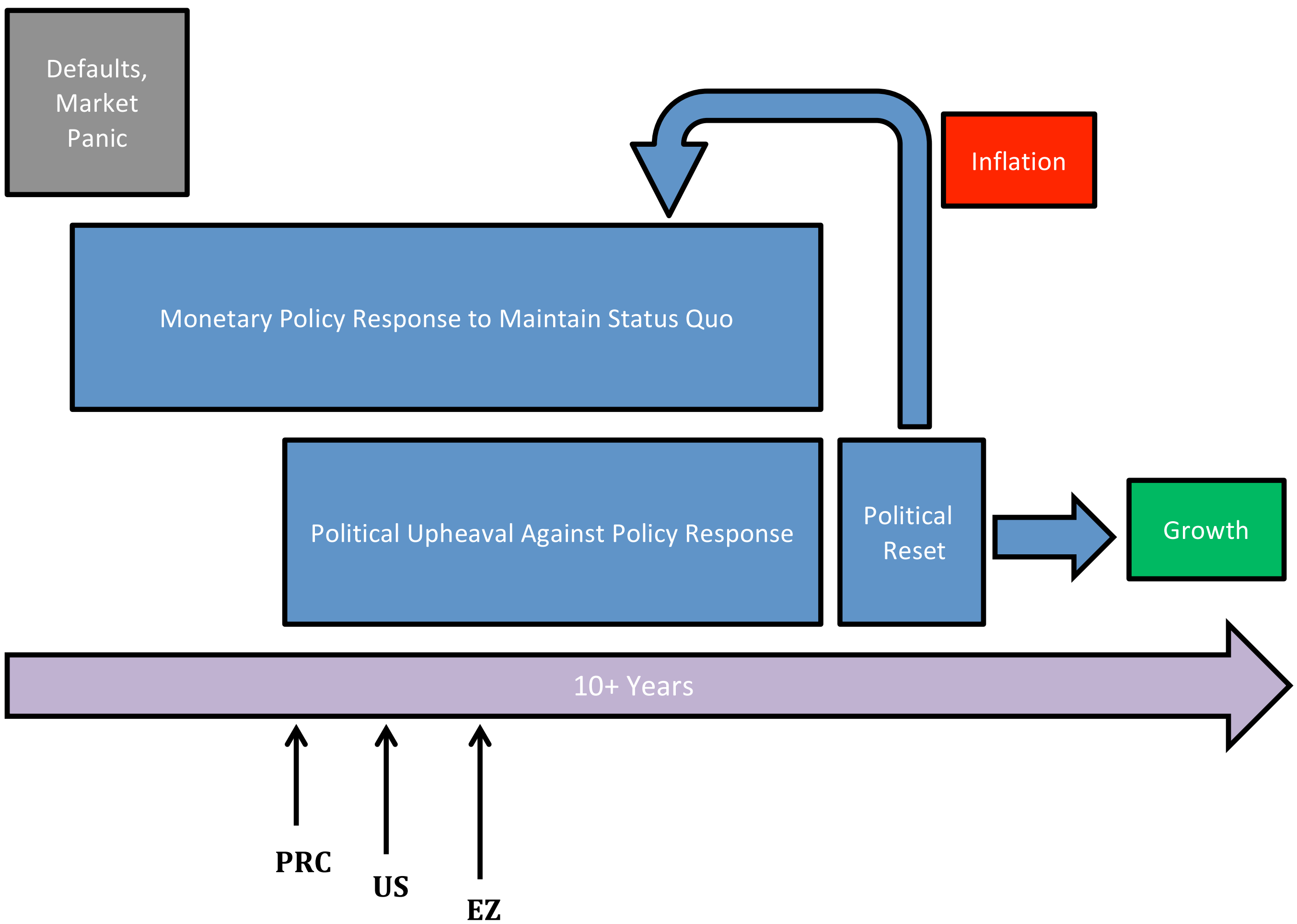
Over the past two months I've been developing a work-flow process that takes in every policy-oriented or macro data message that enters the Thomson/Reuters network in real-time. This amounts to several million messages per year, and I'm not sure that the system required to source and process this data effectively would have been available even two years ago. But it's possible now, creating a "time-line" of all the public messages (human or otherwise) that hit the market. The content of each message can then be scored within a CK framework for its potential impact, and the scores, times, market data, etc. can be plugged into the CK framework and associated Information Theory functions to generate a real-time evaluation of what will move the market that day.

Importantly, this interpretation of the message content requires a deep understanding of the context in which the messages are made. For example, on October 19th Merkel said all sorts of generically nice things about what Spain is doing to reform its economy, but when she said "there will be no back-dated recapitalization of banks" all of the gentle fluff blew away to yield a very negative message within the context of what everyone thought that everyone thought about how the Spanish banking system bail-out would proceed. Understanding context and recognizing coded phrases like "back-dated recapitalization" are not functions that computers or a roomful of human readers in Bangalore are very good at, but it's something that I can do quickly and accurately because I've spent 25 years analyzing political messages. The S&P 500 was down 1.67% on October 19th, by the way.

For policy-driven opportunities that play out over a long or indeterminate period of time , I believe that the correct interpretative framework must be drawn from historical patterns. That is, these global storms of overwhelming public and private debt are blessedly infrequent, occurring about once a century or so, and as a result they are not familiar to us from personal experience. Our only visibility into their cause and course comes from a careful reading of history, with all the usual caveats regarding the difficulties inherent in applying lessons from the past to present experience. Mark Twain got it right when he wrote that history rhymes rather than repeats itself, and we should take great pains not to mistake a pattern for rote repetition, but the larger mistake would be to ignore what history has to teach us or to apply "lessons" from the more recent, storm-free past.

The two prior global storms of more recent vintage are the Great Depression of the 1930's and the Long Depression of the 1870's (also known as the Great Depression until the 1930's rolled around). In both of these prior global storms, I believe that there is a common pattern which informs our experience today, as illustrated in Fig. 3.

Figure 3: Common Pattern to Global Crises of 1870's, 1930's, and Today



Then as now, massive private debts create a bubble which, when popped, spur market panic and concerns over equally massive levels of public debt. For example, the story of Jay Cooke and his failed effort to borrow $100,000,000 (a truly enormous sum in 1870) to complete the construction of the Northern Pacific Railroad has an eerie rhyme to the construction of vast infrastructure projects in China today. Just because we have suffered through the popping of the US mortgage debt bubble and are currently suffering the popping of the European peripheral sovereign debt bubble does not mean that still more bubbles are not lurking in the wings.

Then as now, monetary policy is at the heart of regime efforts to survive the revolutionary impact of financial collapse and to preserve the status quo. The specifics of that policy may differ widely – a refusal to purchase silver in the 1870's, a slavish adherence to the gold standard in the 1930's, quantitative easing today – but in each case monetary policy is the primary policy vehicle used by governments to cope with the dislocations created by failing private debt markets, as well as the existential risks created by failing public debt markets. Monetary policy is the most powerful economic weapon a government can wield, and in both the 1870's and the 1930's these status quo maintenance policies sparked a firestorm of controversy that defined the domestic political debate in every Western nation for a generation, and ultimately led to fundamental political realignments or reorganizations in each of these countries. My strong belief is that the same dynamic is taking place today.

Then as now, domestic political imperatives trump mutual economic gains. In the 1870's everyone knew that the reparations imposed on France by Bismarck's Germany after the Franco-Prussian war risked a deflationary spiral in Europe and the global economy, just as in the 1920's everyone knew that the reparations forced on Germany by France in the Treaty of Versailles risked the same, just as today everyone knows that the public deleveraging (austerity) forced on the European periphery by Germany risks the same. But reparations served Bismarck's domestic political goals in the 1870's just as surely as austerity serves Merkel's domestic political goals today, and my strong belief is that Merkel will waver in her demands no less than Bismarck did with his.

History provides no easy path out of a global storm. Sometimes the inevitable political realignment rewrites the rules and writes off debt in such a way that real growth can occur; sometimes the political realignment results in large inflationary pressures which spark a political response of their own and start the whole cycle over again. Sometimes the political realignment process occurs peacefully; more often it does not. There are only two obvious historical conclusions. First, this process takes a very long time. Second, once the storm begins, once the world begins to suffer a rolling series of solvency and liquidity crises at the sovereign level, global economic conditions never just "get better" on their own.

Ultimately there are only three ways to reduce the public and private debt overhang – inflation, default, and growth – and while growth is everyone's preferred solution, it is very difficult to achieve with monetary policy designed to maintain the status quo. That is, policy designed to buy time or kick the can down the road may work perfectly well during a business cycle recession, but faces a completely different set of problems during a balance sheet recession. Moreover, because the sovereign itself is at risk during a global debt crisis, monetary policy inevitably becomes a political tool for sovereign survival. Supposedly "politically independent" monetary institutions become anything but in a global storm, and as a result monetary policy becomes a critical point of domestic political conflict. This domestic conflict does not dissipate with time; on the contrary, it gets worse. It is marked by a dynamic of fragmentation within (and between) countries. This fragmentation dynamic is a centrifugal force with the power to rip apart stable societies and alliances. Put simply, the center does not hold.

My belief is that we are on the cusp of a significant acceleration in this fragmentation dynamic, both within and between countries, over the next six months, and that this heightened level of centrifugal political pressures will persist for several years. In the past 2 months we have seen a dramatic acceleration of the monetary policy activism in both Europe and the US, with the OMT announcement on September 6th and the open-ended QE announcement on September 13th. The political reactions to these monetary policies are beginning to manifest themselves, with a global scope.

The three largest economies in the world today are at different points in the domestic conflict stage of the global storm pattern, but they are all beginning to suffer this fragmentation dynamic. The EuroZone is clearly the farthest down this path, as anti-austerity protests are met with tear gas in Athens and police batons in Madrid, as secession efforts gather steam in Spain and the UK, and as Italy faces a North/South divide and a crisis of political legitimacy. And these are just the domestic political divisions. The tensions and fracture lines between the EuroZone countries are obvious to everyone reading this letter, and those fractures have now spread to the banking system itself, forcing Draghi to take his "whatever it takes" position on July 26th. The US is only moderately behind Europe, with a domestic political polarization that is greater than any period since the 1930's. Both the Tea Party and the Occupy Movement should be seen as part of this dynamic, as two sides of the same coin. In the same way that the National Front and the Communists split 30% of the most recent French vote, so have fringe groups taken on a political significance in the US unheard of since … again … the 1930's. China is the relative newcomer to this party. To be sure, our visibility into internal Chinese political dynamics is limited at best, but I think it is difficult to explain the Bo Xilai "incident" and its aftermath as anything but a fracture line within traditional modes of domestic political legitimacy and representation.

The critical challenge for investing in any market environment is to identify an opportunity set of exposures that has a positive reward/risk profile and to apply the correct explanatory framework to that opportunity set. In today's market environment, I believe that opportunity set exists in very short-term and relatively long-term exposures, not in the middle where binary events reign. As for explanatory frameworks, a Common Knowledge game augmented by Information Theory provides a very effective tool-kit for implementing short-term exposures, and a close historical analysis of the past two global debt crises provides a useful time-line for anticipating the typology of events that guide longer-term exposures. Over the next few weeks I'll be describing specific examples of both opportunity sets within the Procella portfolio.

As always, thanks for taking the time to read my work. Please don't hesitate to call or email with any comments, questions, or insights.

All the best,
Ben

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