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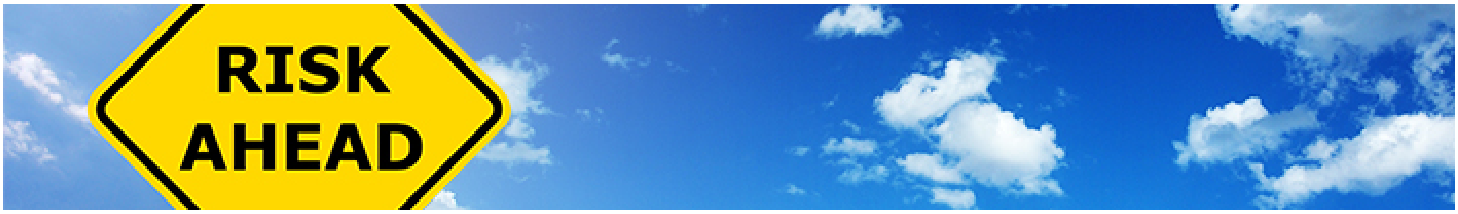

Managing Event Risk in 2017: From Politics to Weather and More

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Event risk provided some abrupt market turnarounds in 2016, emanating from political processes such as the “Brexit” referendum and U.S. elections. This year is shaping up with the potential for even more turbulence from event risk – and not just from politics, but possibly from changing patterns in economic data and even the weather.

Characterizing Event Risk

We like to categorize event risk into three distinct types. First, there are “binary dates,” such as elections with near-certain potential for a divergent outcome. Second, there are “information dates,” which are typically data releases, which have the ability to surprise with an unexpectedly extreme data point. Finally, we have “Surprise!”, where neither the date nor the event/outcome is anticipated. Surprises can come from political statements, military actions, natural disasters, etc.

We look at each category and provide some commentary around potential dates to watch in 2017. Then, we will explore a few different approaches to managing event risk which highlights sophisticated options.

(1) Binary Dates. Brexit and the U.S. elections were the poster child for these events in 2016. There are known dates for binary outcomes (i.e., on/off, yes/no, Liberal/Conservative, this/that, etc.) but the probabilities for the divergent scenarios continue to shift right up until the actual event. Elections with highly polarized choices or central bank policy meetings to shift policy or not fit into this category. From a statistical perspective, the key point is that prior to these known dates with binary outcome types, bimodal return expectation distributions may develop, which converge to single mode expectations as soon as the outcome is known. Put another way, the pre-event market activity is definitely not characterized by anything resembling a normal or single-mode bell-shaped probability distribution. Historical volatility provides little information. Market moves are driven by factors that may influence the probability of one outcome versus the other, which can be quite a different set of market drivers than might be observed in more typical times.

Election Dates in 2017

The election calendar of importance to global markets in 2017 moves to Europe to see if the rise of anti-immigration, anti-trade, and nationalist parties continue to ride the wave of 2016 as seen with Brexit and the U.S. elections. If nationalist parties gain material ground, it is expected to complicate European Union (EU) negotiations with the UK on Brexit, as well as potentially destabilize the euro versus the U.S. dollar, as some market participants worry about the lack of unification within the EU, especially at a time when the United States is stepping back from global leadership.

March 15 Parliamentary Elections in The Netherlands. All 150 members of the House of Representatives are up for election. We are monitoring the rise of the Freedom party (Partij voor de Vrijheid or PVV). The PVV was founded in 2006 and won 9 seats in its first general election. In 2010, it won 24 seats and became the third-largest party in parliament. Opinion polls show the PVV has gained strength and has a chance to win more seats than any other party, although not close to a majority.

April 23 and May 7 France Presidential Election. If no candidate wins an outright majority in the first round, then two weeks later there is a run-off between the top two candidates from round one. The anti-EU, anti-immigration National Front Party, headed by Marine Le Pen, has everyone's attention. The National Front is currently polling around 25% - 27%, which puts it in first or second place, depending on the opinion poll. Five other parties have the potential to garner 10% of the vote or more, and one of the more traditional parties could even take first place in round one. The saying goes that "the French vote with their heart in round one and their pocketbook in round two." According to this maxim, if Marine Le Pen makes it into round two, then whoever she faces may be the next President of France. Opinion polls, as well as established rules of thumb, have not been good predictors of elections in the recent past.

September 24 German Bundestag Election. There are 598 seats in the Bundestag. The voting process is complex. Half of the seats go to constituencies electing a single member, where the candidate with the most votes wins. The other half of the seats are allocated by party voting. That is, a German voter has two votes – one for the member of the election district and one for the party. If a party fails to get 5% of the vote, the votes are re-allocated to the number two choice listed on each ballot.

Chancellor Angela Merkel's Christian Democratic Union and its sister party in Bavaria, the Christian Social Union, came very close to an absolute majority of the seats in 2013. They are expected to lose a little ground in 2017 due to the unease in Germany over the stances taken by Merkel on immigration and the Greek bailout. The anti-immigration nationalist party to watch is the Alternative for Germany (AfD). The AfD was polling around 5% through 2015, and then rode the wave of anti-EU sentiment to rise to 15% in the latest polls. The most likely outcome remains a coalition government, with the CDU/CSU working with the Social Democratic Party (SDU) to govern.

Federal Reserve's (Fed) Federal Open Market Committee (FOMC) Meeting Dates

The Fed's FOMC meets eight times a year. The Fed has repeatedly discussed raising rates incrementally, depending on how the unemployment and inflation data develop through the year. Based on CME's Fed Watch Tool, current expectations are for only two rate rises in 2017, putting the June and December FOMC meetings in the spotlight. Our own research suggests the pace of consumer price inflation may surprise and increase at a faster pace than expected, so as many as four rate rises might occur under this scenario. This would put the March and September FOMC meetings as possibilities. However, any meeting is a decision point. The March, June, September and December FOMC meetings include economic projections from FOMC members, so these meetings get a slight nod for rate hike action compared to the other meetings.

We note that the Fed appears committed to 25 basis point increments in rate rises, and also prefers to raise rates only at regularly scheduled meetings. Rate cuts are typically messier. Rate cuts are often triggered by negative surprises or financial market disruptions, and the FOMC may call an emergency meeting and lower rates by 50 basis points or more in one go.

Finally, we observe that many market participants have taken the view that the Fed is not truly serious about rate rises so long as it is keeping its $4.5 trillion balance sheet stable by re-investing all interest, coupons, and principal received. If inflation rises faster than currently anticipated, our research suggests the Fed might consider ending its policy of reinvestment and allow its balance sheet to shrink. A shrinking balance sheet is equivalent to draining some of the $2 trillion in excess reserves, and a move to end reinvestment would send a very powerful signal that more rate rises are coming.

Upcoming FOMC scheduled meeting dates in 2017:

- March 14-15
- May 2-3
- June 13-14
- July 25-26
- September 19-20
- Oct/Nov 31-1
- December 12-13

European Central Bank (ECB) and Bank of Japan (BoJ) policy meetings can be critical examples of event risk, especially for foreign exchange markets. These meetings typically occur right at the end of a month or beginning of the next, with regularly published schedules.

The big decision for the ECB in 2017 will be how fast to exit negative rates and pull back from asset purchases. While the ECB claims these policies have encouraged growth and inflation, there are many dissenters who argue that growth would have been higher without them. As eurozone inflation creeps into the 2% area in 2017, the ECB can ignore the debate about the efficacy of their policies and simply exit them. Dollar bulls should be wary because if the ECB exits negative rates and ends asset purchases sooner than expected, it could send a signal to markets and send the euro higher against the dollar despite all of the political risk highlighted above.

The BoJ seems most committed to maintaining its pace of asset purchases, which is quite impressive. Still, there is a small risk that the equity buying program, in particular, might be cut back later in 2017.

Finally, in the binary dates category, we note that the Organization of Petroleum Exporting Countries (OPEC) meetings can also be important, as OPEC is in a battle with U.S. shale oil producers for the mantle of swing producer. The next OPEC meeting is May 25.

(2) Information Dates. There are known dates for information releases where the probabilities for extreme outcomes are small, yet very important given the potentially large impacts. Here we are often talking about economic data releases where there are market expectations centered around an expected mean. However, there are non-trivial probabilities in the tails of the distribution.

The Fed is driven mostly by the employment situation and, secondarily, by inflation data. Employment data is typically released on the first Friday of the month (except for March and December in 2017). Employment data is more important than inflation data because many FOMC members believe that strong and robust jobs growth is a necessary condition for rising inflation. The statistical evidence is not so clear, especially during the stagflation of the 1970s, yet the "employment drives inflation" theory still dominates Fed thinking. Inflation data typically is released mid-month for the producer and consumer price levels, and personal consumption expenditure data comes out at the end of the month. Wage inflation is included in the employment reports. So, there is not one key date each month for inflation data, which also explains why it gets a little less attention from market participants.

Employment Situation Data Releases in 2017:

- March 10
- April 7
- May 5
- June 2
- July 7
- August 4
- September 1
- October 6
- November 3
- December 8

There are also a number of data releases in the commodity world that fall into the "information dates" category. These would include oil and natural gas inventory reports, crop planting and export reports, etc. There are too many of these dates to cover here. However, industry research makes these dates easily available for specific products.

(3) Surprise! Then, there are the outright surprises where neither the date nor the scenario was known in advance. A volcano erupts, an earthquake hits with or without a tsunami, a hurricane makes landfall in a populous area, etc. One should not think just natural disasters fall into this category. A big M&A deal is announced that rewrites the script for a whole industry. A political coup or military action hits the news. Something in social media affecting a company, industry, country or region, simply goes unexpectedly viral. By definition, for the "Surprise!" category neither dates nor outcomes are known or well-anticipated.

Managing Event Risk

Typical descriptions of hedging activities are much too simplistic for event risk. In a classical hedging example, a farmer plants his crop in the spring, estimates the output for the fall, and hedges a portion of the expected output in the futures market. This is a directional hedge, as the farmer will produce a crop (long the commodity) and want to assure a portion of the expected profit (short the futures). The same type of trade happens in the oil market, where a shale oil producer might see an attractive price, sells the futures along the maturity curve in relation to anticipated output stream, and then puts the rigs in place and extracts the oil to deliver against the futures hedges. These are directional hedges and in most typical circumstances they are extremely useful and effective for managing directional risks.

Event risk, though, is a more complicated scenario. When not only direction but also future volatility is uncertain, there is the possibility of large price gaps, and extreme outcomes with large impacts need to be considered. The simplest approach is to purchase a deep out of the money put option, similar to an insurance policy with a very high deductible. Even with deep out of the money puts, though, this approach can appear expensive, so more complex risk management approaches are sometimes worth a look, depending on the magnitude of the risks being taken.

Unfortunately, there is no one right way to manage event risk. Nevertheless, complex, multi-leg approaches are worth considering, as advocated by risk management experts. Some call the multi-leg approach “hedging the hedge,” a term made popular by Dave Hightower of the Hightower Report. Whatever one decides to call it, these multi-leg event risk management approaches generally involve at least three (or more) components – selling a close to the money option to earn a premium, spending part of the premium on buying a deep out of the money option to provide insurance with a high deductible, and often adding a small futures position to assist management of the directional component in the event risk. Moreover, these multi-leg event risk approaches are intended to be dynamic – meaning that as probabilities of outcomes change and prices move, one can decide to lift one or more of the legs, though generally keeping the deep out of the money insurance options. Unfortunately, the complexity of these dynamic multi-leg risk management approaches is merely a reflection of the complexity of our three difference types of event risk.

In closing, we note that fear of extreme events can lead to bleeding to death (too much insurance) versus the sudden death potential if the event actually occurs (no insurance at all). As such, the rise of event risk corresponds to a rise in options trading, as complex scenario analysis leads to more dynamic and probabilistic approaches to risk management.

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