

From: "Ens, Amanda" <[REDACTED]>

To: "jeffrey E." <jeevacation@gmail.com>, "[REDACTED]" <[REDACTED]>

Subject: A lot more bonds than equities in risk parity portfolios. It is not too late to hedge

Date: Mon, 12 Sep 2016 12:43:26 +0000

Attachments: Vol_lull_breaks_badly;_bond_driven_sell-off_indicates_quant_flows_bigger....pdf

Inline-Images: image001.jpg; image002.png; image003.png; image004.jpg; image005.jpg; image006.jpg; image007.jpg; image008.jpg; image009.png; image010.jpg; image011.jpg; image012.jpg; image014.jpg

Jeffrey,

- In a world being driven by fixed income, it is important to note that risk parity portfolios own a lot more bonds than equities – perhaps 3 or 4 times more - including govies, IG and TIPs.
- In European credit we see very few clients adding to credit risk in the secondary market, so spreads are re-pricing wider in a vacuum.
- Japan no longer the marginal buyer of US credit. Weekly Japanese fixed income flow data from MoF last week showed flows reversed back to Japan. Tomorrow's ¥1.1tr 20yr auction is now shaping up to be a potential tipping point given 21st BoJ meeting and Monday 19th is a Japan holiday. If the auction goes poorly, given the limited timing to clear inventory, people will be very quick to cover risk which could see large swings in the long-end.
- It is not too late to hedge.

Buy a best-of-put on PFF (Pfd Stock ETF), LQD (iBoxx IG ETF) and HYG (iBoxx HY ETF)

- **Jan 20, 2017 expiry: ATM strike costs 1.45% premium (compares to ~3.3% average on the vanilla ATM put)**

Three-month correlation between the S&P500 and 10-Year US Treasury bond prices set its YTD low on the Monday post-Brexit at -0.66. In the almost three months since then, the correlation of daily moves between the two increased to -0.08 and over the last month alone, **the correlation has turned positive to 0.27.** Increasing correlation implies less diversification for risk parity-style portfolios and could be a precursor to higher vol. We estimate multi-asset vol controlled may be subject to \$12bn in global equity selling pressure in the coming days ahead and about \$40bn in global equity selling pressure via CTAs. Between the two, **we could see ~\$52bn in near-term global equity selling pressure, half of which may be through US markets. We also estimate ~\$50 billion in fixed income selling.**

Investment Grade Credit ETF (LQD) over the last 5 years & growth in Shares Outstanding.

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Source: Bloomberg

CTA's Extended Positioning in Equities Likely to De-lever into Next Week



The Volatility Shock In Risk Parity Portfolios To Result in A Decrease in Leverage

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From: Ens, Amanda

Sent: Thursday, September 08, 2016 2:36 PM

To: 'Richard Kahn'

Subject: RE: Trade ideas: fixed income, energy, vol, Europe

Rich, I continue to like hedging fixed income. Would also look at downside on bond-like equity sectors – utilities (XLU) and consumer staples (XLP), which pair cheaply with a bullish energy view (XLE).

Buy a best-of-put on PFF (Pfd Stock ETF), LQD (iBoxx IG ETF) and HYG (iBoxx HY ETF)

- **Jan 20, 2017 expiry: ATM strike costs 1.4% premium (compares to 3.3% average on the vanilla ATM put)**

Buy a worst-of option: put on XLU / call on XLE

- March 17, 2017 expiry: ATM strike costs 1.85% (compares to 6.1% average on the vanilla ATM)

Japan weekly outbound Fixed Income Flow data shows bringing money home – a big surprise for the market. This is a negative for US credit product at a time when supply is increasing.

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Japan's Ministry of Finance today released July international balance of payment and a preliminary portfolio investment report for August. The seasonally-adjusted current account stood at a ¥1.45tn surplus (versus a ¥1.65tn surplus in June). Most of the portfolio outflows appear to be directed toward hedged foreign bonds so currency rates have probably not been impacted much; rather, it could even be said that by adding downward pressures to USD yields the moves could even be negative for USD. But there is a possibility that the JGB curve could steepen depending on the outcome of the BoJ's comprehensive assessment this month (see BoJ plans for September 'comprehensive assessment' create uncertainty 05 August 2016) and this could alter investor behavior.

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Japan: Deputy Gov Nakaso's comments in the afternoon sparked a reversal with rates backing up and the curve 10s30s steepening:

http://www.boj.or.jp/en/announcements/press/koen_2016/data/ko160908a1.pdf

"...from the inception of the negative interest rate policy, the single most important issue has been that the policy should avoid having an excessively negative impact on financial institutions' profits, thus impairing the financial intermediation"

Amanda Ens

Director

Bank of America Merrill Lynch



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From: Ens, Amanda

Sent: Thursday, September 01, 2016 10:57 AM

To: 'Richard Kahn'

Cc: Jaye, Matthew W

Subject: Trade ideas: fixed income, energy, vol, Europe

Rich,

EFTA00818581

I'll call you to discuss.

1. Hedge fixed income

- Concerns about a fixed income bubble have been on our radar for a while now; investors acknowledge the risks but have been delaying hedging. We expect to see hedging costs increase in September; now is the time to start buying protection.
 - **Buy a best-of-put on PFF (Pfd Stock ETF), LQD (iBoxx IG ETF) and HYG (iBoxx HY ETF)**
 - **Jan 20, 2017 expiry: ATM strike costs 1.4% premium (compares to 3.3% average on the vanilla ATM put)**

2. Position for higher oil / higher yields / rotation from defensives to cyclicals

- The rhetoric out of the various OPEC members will continue to cause volatility for now, but the issues still remain, before looking better into year end. Beyond the near term seasonal pressures, we see upside into year end and 2017, as the actions the industry has taken narrow the supply/demand balance
- XLE (Energy sector ETF) has levered upside to our forecast for higher oil in the next year (\$55 year-end, \$70 mid-2017)
- XLU (Utilities ETF) should weaken on higher yields or our forecast for a continued rotation from defensives into cyclicals
 - **Buy a worst-of-put on XLU / best-of-call on XLE**
 - **March 17, 2017 expiry: ATM strike costs 1.85% (compares to 6.1% average on the vanilla ATM)**

3. Buy volatility as a hedge of equity longs

- Markets are fragile; likelihood of a vol shock is quickly rising & complacency is a risk. Markets remain fragile due to their hyper-dependence on central bank policy, CBs continued manipulation of risk, and extremely poor trading liquidity during times of stress. Today's near 80-year low equity volatility is more concerning than normal, as 1) the ability for volatility to stay this low through a catalyst-heavy autumn is historically almost unprecedented 2) low volatility and rising equities are drawing leverage and long positioning back into the market and 3) equity volatility is under-pricing macro risk by record amounts. However, depressed volatility also means hedging costs are low.
 - **Buy a put on AAPL, monetizing skew to cheapen the cost**
 - **Jan 20, 2017 expiry: AAPL ATM put with a 85% at-expiry knock-in costs 4.0% (compares to vanilla at 5.9%)**

4. Buy cheap downside on Europe

- Negative correlation between SX5E and EURUSD makes contingent options price well
 - **Buy a SX5E put option contingent on EUR/USD below 1.00 at expiry**
 - 1 year maturity at 95% strike costs 0.8% (90% savings vs vanilla at 7.9%)
 - 1 year maturity at 90% strike costs 0.6% (90% savings vs vanilla at 6.0%)

Why Hedge Fixed Income?

We are in hurricane season. The increase in US Treasury volatility around [comments from Jackson Hole](#) has US fixed income markets at dangerous technical levels. Both investment grade credit and more importantly the 10 & 30y US Treasuries (7-10y ETF IEF below) completed big outside range days to the downside.

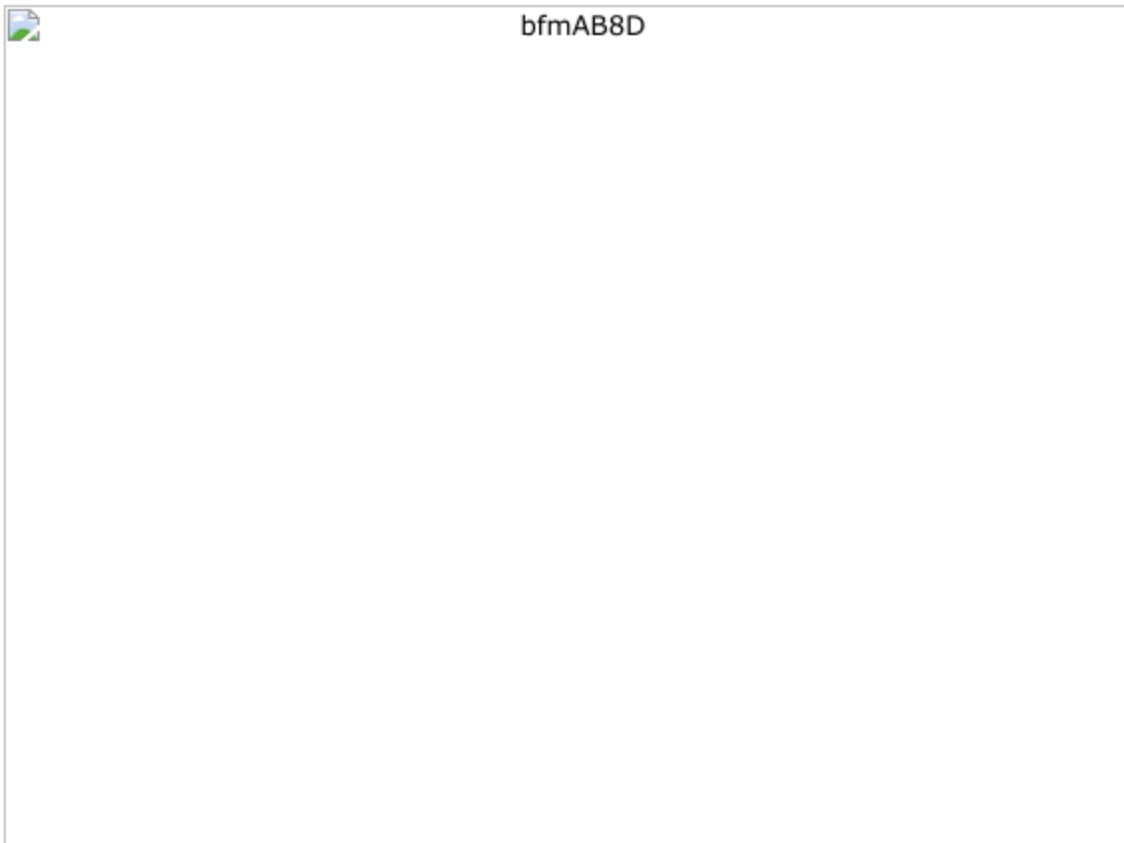


Source: Bloomberg

SPX / Bond Correlation Moving Higher as Hourly SPX-IEF Correlation Ticks Positive

More importantly the correlation between US equities and US fixed income is increasing rapidly. Should fixed income continue to weaken like it did on Friday, and correlation remain positive, then this becomes the perfect storm for risk parity. This is because fixed income weakness creates equity selling to rebalance to volatility targets - noting there would be more notional of fixed income to sell than equity. The correlation shift between bonds and equities can be seen in the chart below, which show hourly correlation btwn SPX & IEF (the bond etf 7-10y proxy) ... over the past year, positive hourly bond-equity correlation has rarely occurred ... currently it is +68

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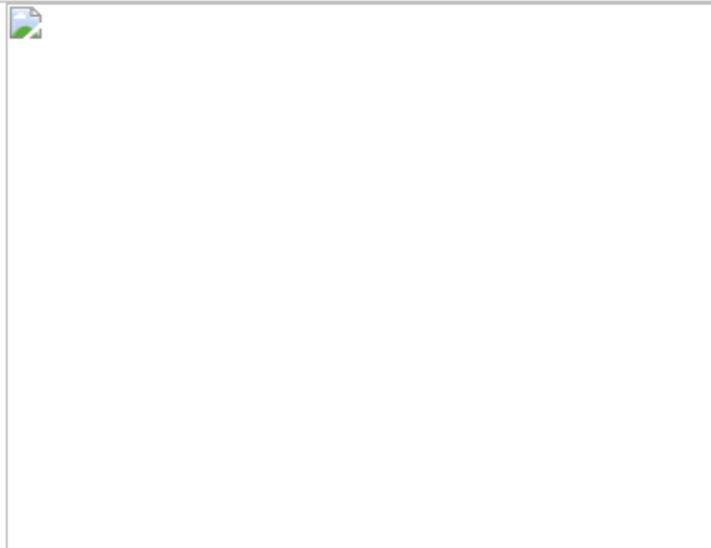
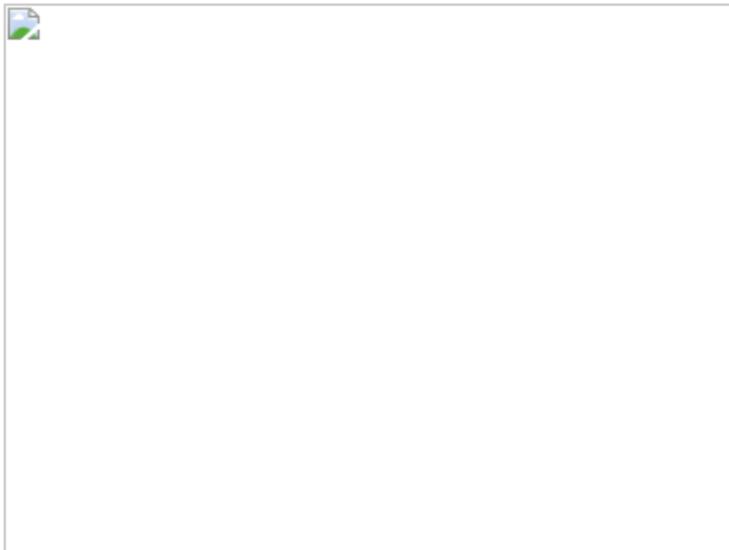
Source: Bloomberg

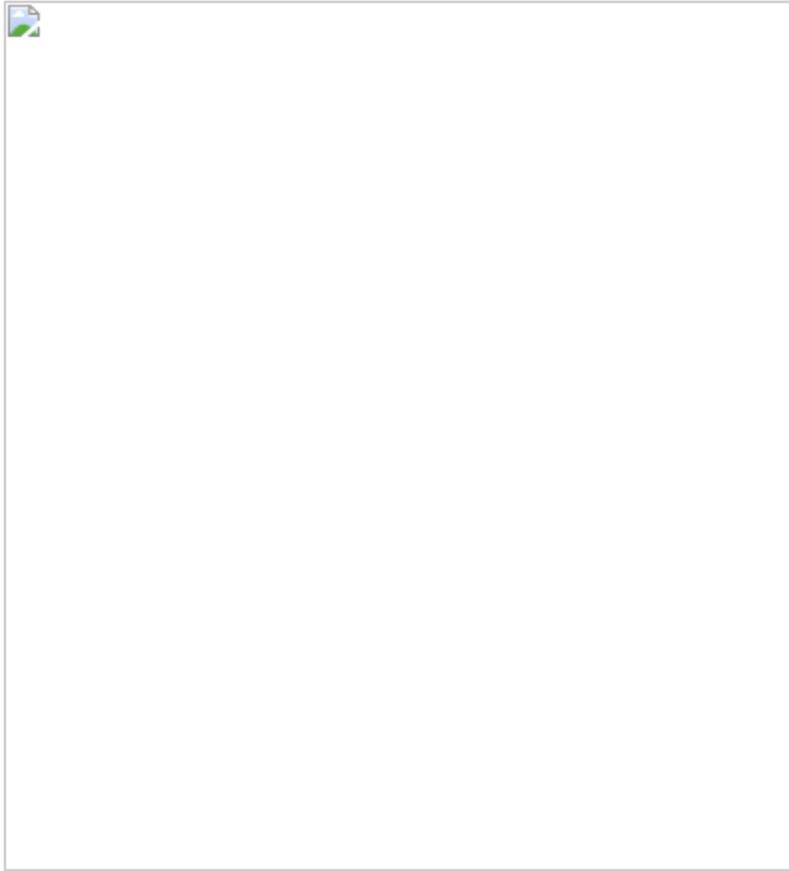
Potential Forced Selling from Risk Parity (and profit taking from others)

David Woo in his latest "[Cause & Effect](#)" suggests CFTC data shows that the speculative community has built up sizeable risk parity portfolios. Spikes in volatility can trigger unwinding of risk parity that becomes self-fulfilling. Michael Hartnett in his latest "[Thundering Word](#)" also contends a "bond shock" remains the key autumn risk for markets – though technically it could be in the process of beginning now.

Market Positioning Remains Extended in SPX and Bonds; Risk Parity Portfolios are at Highs, Fully Levered

- As a reminder, risk parity vol-targeted funds remain at max leverage, with weightings heavily tilted towards bonds vs. equities (+75% bonds). As a result, deleveraging is much more a function of an uptick in bond realized vol
 - **Below chart shows "danger zones" for de-leveraging in vol-targeted risk parity funds for given bond/equity moves.** Deleveraging begins with ~0.90% move lower in bond prices / ~10bp move higher in 10y yields (SPX unchg). Positive equity / bond price correlation will cause the deleveraging to begin sooner on the downside
 - **Size of Risk Parity:** Assume 200bn unlevered AUM in Risk Parity Vol targeted funds (400Bn Risk parity universe; 50% in vol target funds levered 1.5-3x at ard 78% / 22% bond/equity allocation – see attached research note).

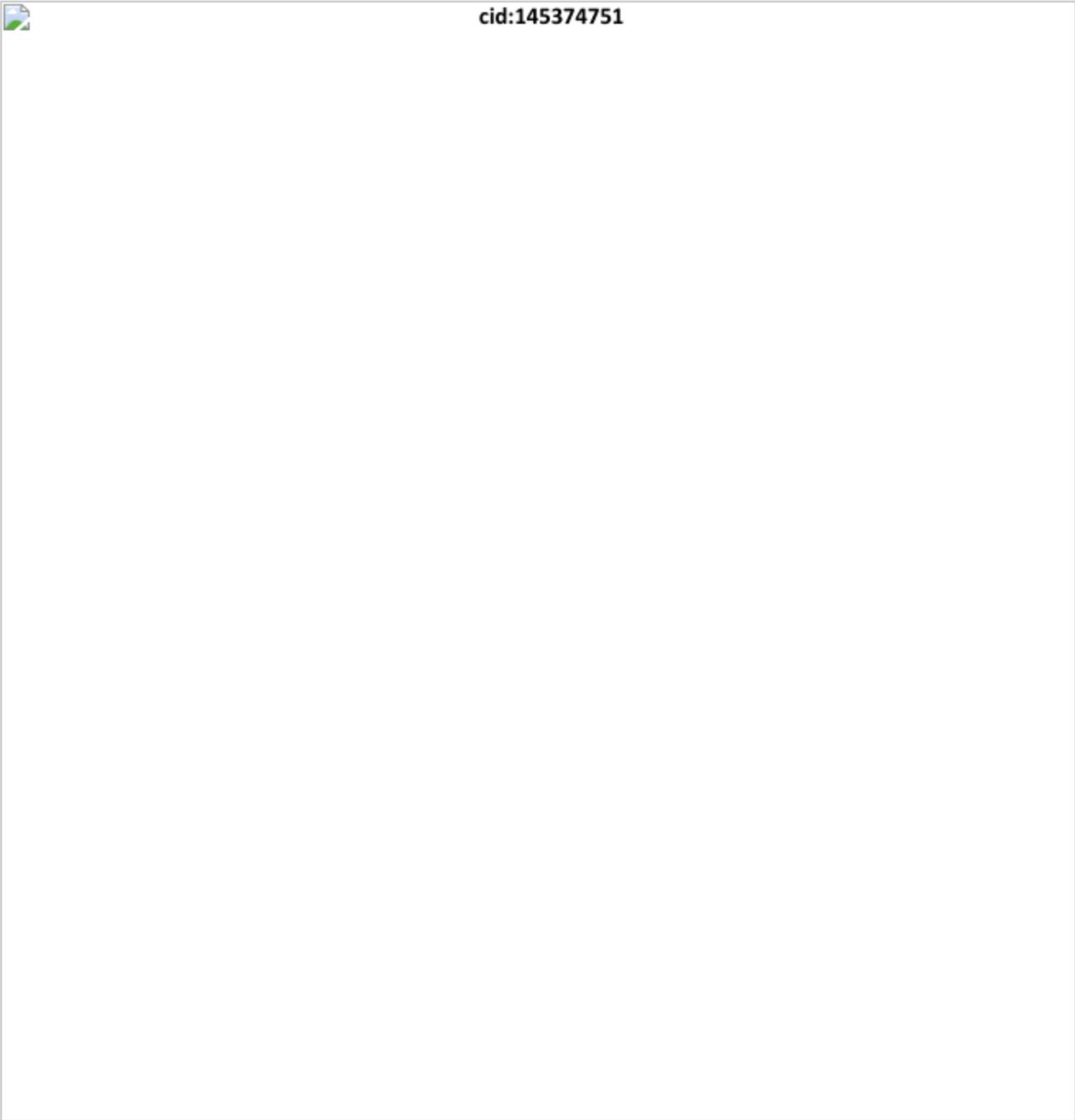




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Theoretical Deleveraging Amount for Given Equity/Bond Moves



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Amanda Ens

Director

Bank of America Merrill Lynch



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