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**Subject:** Portfolio Protection Idea - SPX Puts Contingent on 10y USD Swap Rates [C]

**Date:** Mon, 13 Apr 2015 19:58:17 +0000

**Attachments:** US\_Fixed\_Income\_Weekly\_3.27.15.pdf

**Inline-Images:** image003.jpg; image005.jpg; image007.jpg

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Classification: **Confidential**

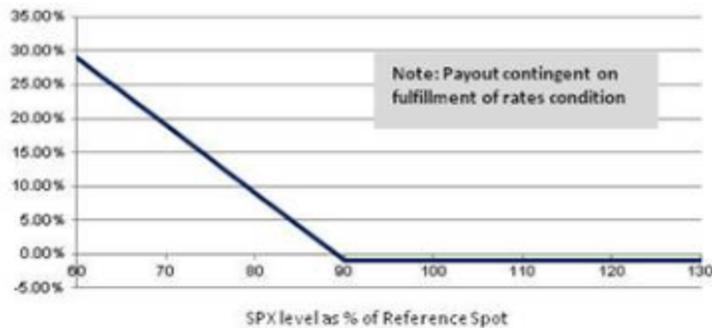
Jeffrey – we wanted to highlight this transaction. I particularly like the a 1y 105%/95% SPX Put Spread contingent on 10y constant maturity swap > 3% at expiry explained below.

**Transaction rationale:**

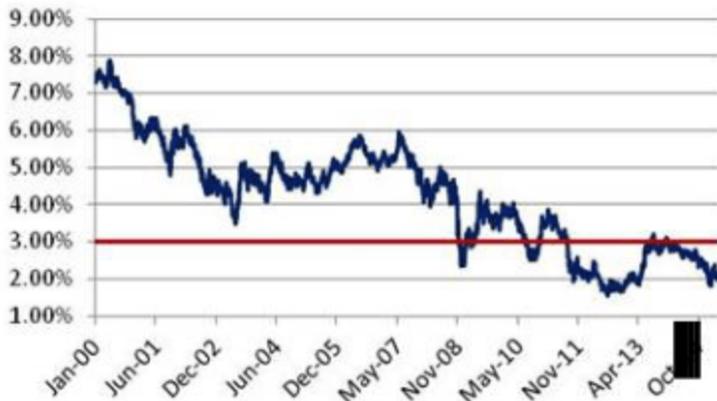
- Many investors have benefited of the secular bull market for bonds started in 1981 to construct US equity/bond portfolio allocations that have yielded high risk adjusted returns. Investors have become reliant on what has often happened over the past three decades: a rally in bonds follows a sell-off in stocks, and vice versa.
- As tightening by the FOMC is perceived by the market as the next step, many investors have expressed concerns their asset allocation choices might no longer offer them the portfolio protection experienced in the past.
- This uncertainty was aggravated on the March 18<sup>th</sup> FOMC meeting, which didn't yield any directional cues, resulting in the "swelling of the tails" – both the probabilities of a rising rate scenario, and a falling rate scenario, have increased.
- The hybrids market allows participants to articulate an exposure to both equities and rates positions. An investor can purchase a 1y 90% put on SPX contingent on 10y constant maturity swap higher than 2.65% for 1% premium. The vanilla version of this transaction would be offered indicatively at 4%. This cheapening can be attributed to the attractive implied correlation between equities and rates.

**A variation we particularly like:** a 1y 105%/95% SPX Put Spread contingent on 10y constant maturity swap > 3% at expiry, which can be offered for 1.10% (the vanilla equivalent is offered at 4.3%). A terminal scenario of flat equities and 10y rates higher than 3% would yield a payout of over 4.5x, while a 5% sell-off in equities could bring payout ratios to over 9x.

**Hypothetical Terminal Payout:**



**Historical 10y Swap Rates:**



Source: Bloomberg

**Indicative Transaction Terms:**

Notional: USD 10mm  
 Expiry: 1 Year  
 Payout: SPX 90% Put subject to 10y USD CMS rate > ATMF + 40bps at expiry (ISDAFIX3)  
 Offer: 1.00%  
 Vanilla ref: 4.00%  
 Ref SPc1: 2069  
 Ref 10y ATMF: 2.265% (this is vanilla swap forward reference)

**Market to market analysis and terminal payout scenarios:**

		SPX level as % of Reference Spot									
		50%	60%	70%	80%	90%	100%	110%	120%	130%	140%
-1.0%		3.28%	2.27%	1.33%	0.66%	0.29%	0.13%	0.06%	0.04%	0.03%	0.02%
-0.5%		8.00%	5.65%	3.45%	1.81%	0.84%	0.38%	0.20%	0.12%	0.07%	0.05%
0.0%		15.98%	11.56%	7.38%	4.10%	2.00%	1.00%	0.52%	0.33%	0.22%	0.14%
0.5%		25.80%	18.95%	12.44%	7.19%	3.70%	1.83%	1.04%	0.68%	0.47%	0.32%
1.0%		33.95%	24.14%	16.76%	9.86%	5.23%	2.67%	1.55%	1.01%	0.70%	0.48%

The table shows the option prices for corresponding changes in the equity and rates level immediately after buying the option. For example if the SPX drops by 20% and the 10y USD CMS rate increases by 50bps immediately after the trade, the option value would move from 1.00% to 7.19%.

Source: Deutsche Bank Hybrid Desk. Scenarios run with same parameters.

**DB research report:**

DB Global Markets Research believes risk assets are at a bifurcation point – their future path depends on the way the economy and stimulus unwind and interact with one another. This research report addresses this market scenario as well as the transaction (slide 22). Attached as "US Fixed Income Weekly 3.27.15.pdf"

Looking forward to discussing further.

Regards,  
 Daniel

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