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# CDX IG: Buy Oct Risk Reversal

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## CDX IG Credit will Rally: Buy the Oct-15 Risk Reversal

### TRADE IMPLEMENTATION: Buy Risk Reversal => Short Payer to Buy Receiver.

- On CDX IG S24, sell \$86.2 million 21-Oct-15 95 payer swaption for 14.5 cents and buy \$100 million 21-Oct-15 75 receiver swaption for 12.5 cents, at zero cost (IG ref. 81 bps). Both the payer and receiver are close to 25 delta options.
- Entry 79 bps; take profit at 65 or lower; stop loss at 87.5 (see next page for analysis).
- Since 17-Nov-14, %-tile rank of CDX IG is 97%; max 88/min 60; & mean 66.

### RATIONALE:

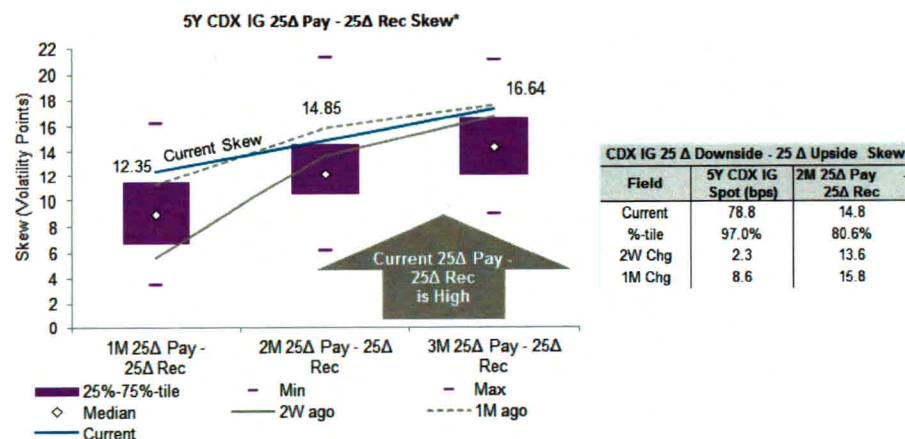
#### ► Upside vs. Downside Skew

- As shown in Figure 1, there is still good premium for payer downside skew (payer) to pay for upside skew (receiver) across maturities.
- A few days after the Renminbi devaluation, we saw credit spreads widen but not as much as equity index volatility increased. However, we then saw equity volatility compress and CDX IG tighten a bit.

#### ► SG's Research View

- **SG Economic Research:** Even with the market turmoil, we remain positive on the US economy, which should lead to the normalization of credit spreads ([SG US Economics, 24-Aug-15](#)).
- **SG Credit Research:** In addition, SG's credit research shows that the CDX IG remains wide compared to the benchmark index and wide using SG's cross-asset quant model ([SG Credit Strategy Weekly, 28-Aug-15](#)).

Figure 1: Downside (Pay) – Upside (Rec) Skew is Still Wide (17-Nov-14 to 28-Aug-15)



\* Skew is measured as upside 25Δ pay - 25Δ rec V, where strike corresponds to an delta  
 Note: Shown mid payer vol to mid receiver vol  
 Source: SG Trading, SG Flow Strategy & Solutions

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□ **SG Cross-Asset Quant Research in Credit:**

1. As shown in **Figure 2**, SG's credit quant research highlighted one month ago that the two US credit indices look wide compared to the US equity market and the European credit market ([SG Credit Strategy Weekly, 31-Jul-15](#)).
2. According to their cross-asset model, the CDX IG is still significantly too wide using a one-year time window for the regression ([SG Credit Strategy Weekly, 28-Aug-15](#) & [SG Quant Research: Credit Momentum Strategy, 20-May-14](#))

**Figure 2: Spreads open poorly but recover through the week (Jan-11 to Aug-15)**

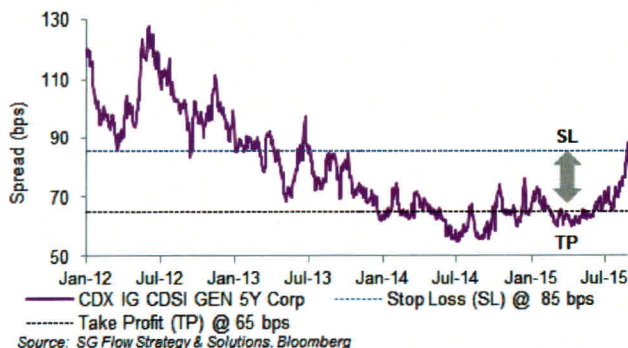


Source: Markit, SG Cross Asset Research/Credit

➤ **SG Technicals for Stop-Loss and Profit-Taking Levels:**

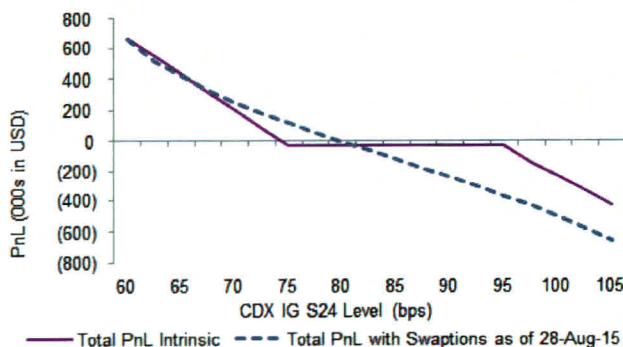
- As shown in **Figure 3** and based on technicals, we show a stop loss level of 87.5 bps and a profit taking level of 65 bps or lower for CDX IG.
- As shown in **Figure 4**, we provide a total PnL scenario analysis for different levels of the CDX IG 24. Total PnL => short \$86.2 Mill of CDX IG S24 Oct-15 95 payer + long \$100 Mill of CDX IG S24 Oct-15 75 receiver at different spot levels.

**Figure 3: Spreads open poorly but recover through the week (Jan-11 to Aug-15)**



Source: SG Flow Strategy & Solutions, Bloomberg

**Figure 4: PnL Payout of Risk Reversal (Intrinsic & Swaptions as of 28-Aug-15)**



Source: SG Flow Strategy & Solutions, SG Trading, Bloomberg

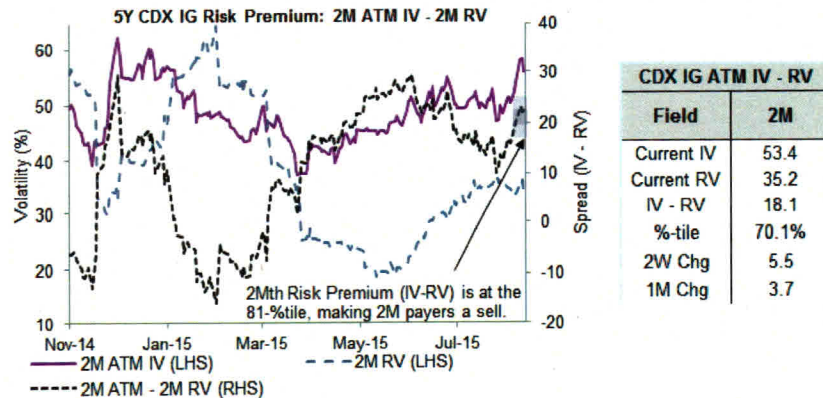
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➤ **Risk Premium is High to Sell Payers**

- As shown in **Figure 5**, we show the current risk premium is high for the implied volatility minus the realized volatility for the CDX IG Series 24 historically. This makes selling a payer at a higher volatility attractive.

**Figure 5: 2M Risk Premium is Near Wides (14-Nov-14 to 28-Aug-15)**



➤ **What is the right amount of payers to sell to achieve zero cost?**

- Finally as shown in **Figure 6**, we calculate the ratio of payer credit (bid) to receiver cost (offer) to determine the required notional amount of payers to achieve zero cost. We then use this matrix to select a risk reversal structure near to a 1 to 1 ratio, while still taking into account the delta (~25) and the liquidity of the swaption strike.

**Figure 5: Number of Payers to be Sold for one Receiver to be Bought at Zero Cost (31-Aug-15)**

	Strikes	Buy Receiver				
		65	67.5	70	72.5	75
Sell Payer	80	0.13	0.18	0.28	0.43	0.63
	85	0.09	0.13	0.20	0.31	0.46
	90	0.13	0.18	0.28	0.44	0.64
	95	0.17	0.24	0.38	0.59	0.86
	100	0.24	0.33	0.52	0.81	1.19

Source: SG Flow Strategy & Solutions

■ **RISKS TO THE TRADE:**

- China's lack of growth spills over into a global crisis. China continues to have slow growth and the Chinese government is forced to intervene several times.
- The Fed hikes rates successively due to inflation.

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