



## SG MORNING NOTE: TRADE IDEA

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# Buy RTY Vol/Sell HY Vol

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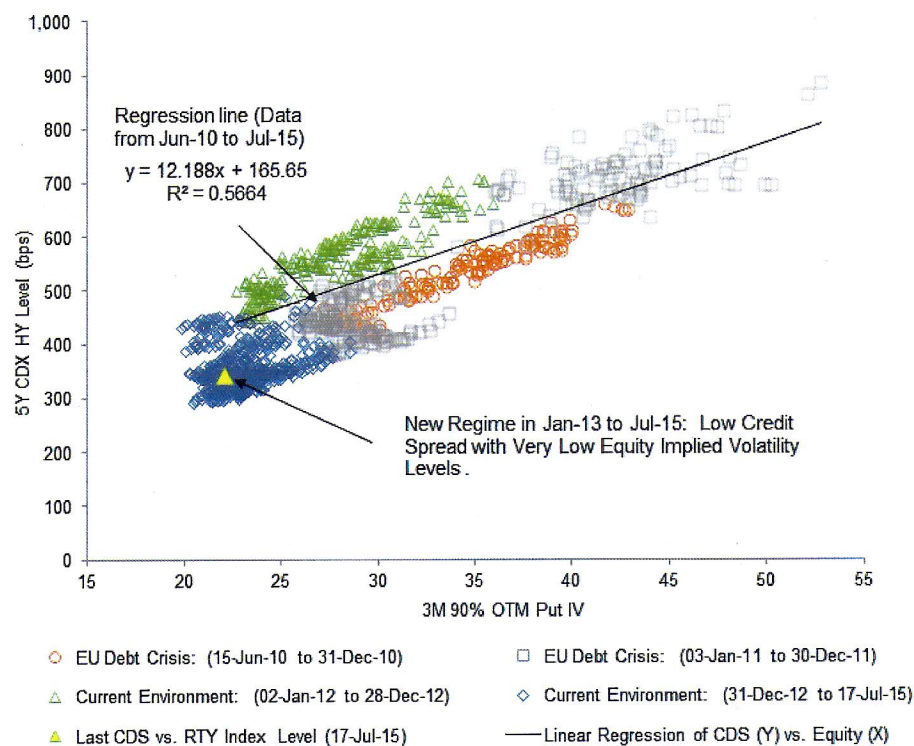
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### RTY volatility cheap relative to 5Y CDX HY protection.

- We coordinated with US credit trading on this trade idea with both Thomas Schreck and Ruben Marciano. The volatility compression in the Russell 2000 combined with low credit spreads in CDX HY has made relative value trades around the credit versus equity indices attractive.
- **Figure 1** shows that both the 5Y CDX HY credit spread and Russell 2000 (RTY) 3M 90% OTM put implied volatility (IV) are currently at lows.
- **RTY as a Hedge:** With uncertainty around a permanent Greek deal; uncertainty around the Chinese government program to protect their equity market; and uncertainty around when the Fed "lift-off" will occur, RTY can act as a low cost hedge at these low implied volatility levels and provide a higher beta if the US market has a significant drop, especially going into September and October of 2015.

**Figure 1: RTY 3M 90% OTM IV vs. 5Y CDX HY at Low Levels (15-Jun-10 to 17-Jul-15)**



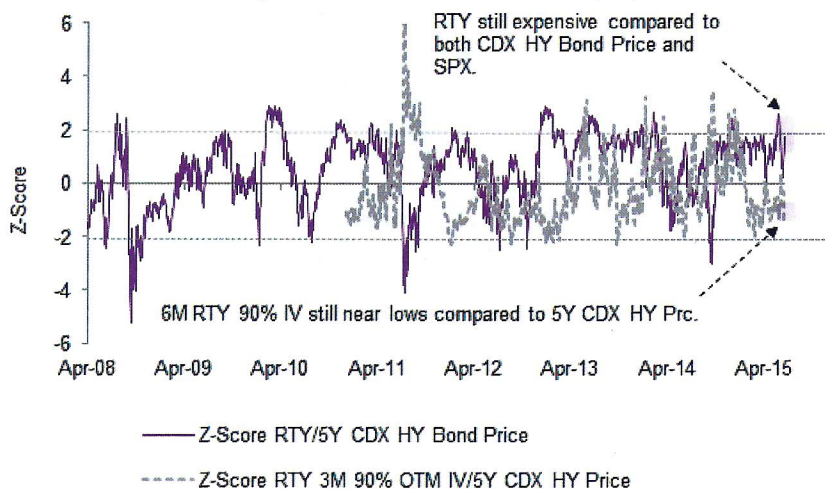
Source: SG Flow Strategy & Solutions, Bloomberg

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### MARKET PARAMETERS:

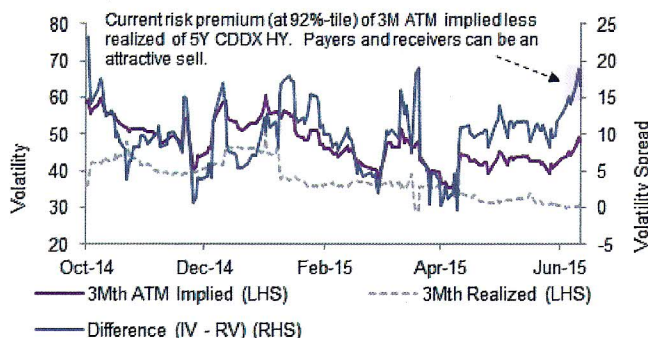
- **Figure 2** shows that 6M trailing price ratio Z-Score shows that spot Russell 2000 (RTY) is rich compared to both 5Y CDX HY (also rich compared to S&P 500). Therefore, we could expect the RTY to sell-off. In addition, **Figure 2** shows that the RTY 3M 90% OTM put implied volatility (IV) is low versus 5Y CDX HY level making buying volatility on RTY attractive. The current 3M 90% OTM Put IV level of 21.1% is at the 40%-tile range from Jun 2012 to Jun 2015.
- **Figure 3** shows that the current 3M risk premium (implied – realized) is high, indicating it can be an attractive sell of call and puts on CDX HY Price index.

**Figure 2: 6M Rolling Z-Score of RTY Spot is Expensive Relative to 5Y CDX HY Level while 3M 90% OTM IV is Inexpensive Relative the 5Y CDX HY (2-Apr-08 to 17-Jul-15)**



Source: SG Flow Strategy & Solutions, Bloomberg

**Figure 3: Current Risk Premium in ATM Payers & Receivers is High so Sell Them (7-Oct-14 to 17-Jul-15)**



Source: SG Flow Strategy & Solutions, Bloomberg



## MARKET PARAMETERS:

- **Table 1** breaks-out the difference between the weights in the CDX HY vs. Russell 2000. The Russell has more Financials and Health Care and less Consumer Discretionary and Staples than the CDX HY.
- Finally, **Table 2** shows the summary of RTY and 5Y CDX HY levels and current statistics. **Table 2** shows that the spread between 3M ATM implied volatility for CDX HY vs. 3M realized volatility is much higher than for RTY.
- ATM implied volatility is 15.8% for the RTY and 49% for ATM 5Y CDX HY, making the current IV ratio 3.1 (near its highs at the 95%-tile historically). Current CDX HY IV is much higher RTY IV due to strong bids for Oct 2015 CDX HY protection. However, as shown in the **Figure 4**, the historical ratio has been closer to 2.5 for 5Y CDX HY ATM IV / RTY ATM IV.

**Table 1: Breakout of Index Sector Weighting for CDX HY vs. Russell 2000 (Jul 2015)**

Sector	5Y CDX HY	Russell 2000 (RTY)	Diff RTY - HY
Information Technology & Telecommunication Svc	14.0%	14.0%	0.0%
Materials	10.0%	5.9%	-4.1%
Financials	13.0%	25.5%	12.5%
Consumer Discretionary	32.0%	15.4%	-16.6%
Industrials	8.0%	12.2%	4.2%
Consumer Staples	10.0%	2.8%	-7.2%
Utilities	4.0%	4.4%	0.4%
Energy	5.0%	3.0%	-2.0%
Health Care	4.0%	16.7%	12.7%

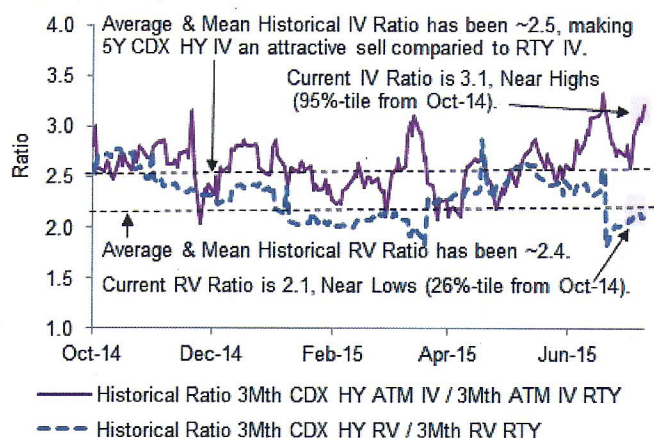
Source: SG Flow Strategy & Solutions, Bloomberg

**Table 2: Summary of RTY and C5Y CDX HY Statistics (29-Jun-10 to 16-Jul-15)**

Summary of 3Mth RTY and CDX HY Stats (29-Jun-10 to 17-Jul-15)					
Field	Spot 5Y CDX HY Price (USD) Jun-10 to Jul-15	5Y CDX HY 3M ATM IV (%) Oct-14 to Jul-15	5Y CDX HY 3M RV (%) Jun-10 to Jul-15	RTY 3M ATM IV (%) Jun-10 to Jul-15	3M RTY RV (%) Jun-10 to Jul-15
Current	106.7	50.2	28.0	15.6	13.2
%-tile	75.3%	63.7%	7.9%	2.1%	10.3%
2W Chg	0.5	-1.8	2.9	-2.75	0.75
1M Chg	0.9	3.3	-2.2	-0.94	0.88

Source: SG Flow Strategy & Solutions, Bloomberg

**Figure 4: Historical Ratio of ATM Implied Volatility and Realized Volatility of 5Y CDX HY / RTY (7-Oct-15 to 17-Jun-15)**



Source: SG Flow Strategy & Solutions, Bloomberg

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### **TRADES IMPLEMENTATIONS:**

- **Vega Neutral: Buy straddle on RTY and sell straddle on 5Y CDX HY vega neutral.**
  - **Credit:** We sell \$100 million 5Y CDX HY 16-Oct-15 (3Mth) 105 strike straddle at 311 cents (generating \$3.11 million) and we buy 305 contracts of RTY 16-Oct-15 1270 straddle at \$81.5 for at total cost of \$2.4857 million. Net credit is \$624.25K (0.624% credit on \$100 million notional CDX HY straddles or 1.61% credit on the notional amount of RTY straddles with RTY ref. 1267.1). We assume 1 year of receiving the CDS coupon in this analysis.
  - See **Appendix** for details on the calculation used in sizing this trade.
- **Premium Neutral 5Y CDX HY vs. RTY:** Higher vega exposure on RTY.
  - **Sell \$100 mill notional of the 5Y CDX HY 16-Oct-15 (3Mth) 105 put at 120 cents (generating \$1.20 million) & buy 262 contracts of the RTY 16-Oct-15 1270 put (premium \$45.8 with RTY ref. 1267.1).**
  - **Sell \$100 mill notional of the 5Y CDX HY 16-Oct-15 (3Mth) 102 put at 64 cents (generating \$0.64 million) & buy 229 contracts of the RTY 16-Oct-15 1220 put (~4% OTM put with premium of \$27.9 and RTY ref. 1267.1).**

#### **APPENDIX:**

- As shown in the **Figure 4**, the historical ratio has been 2.5 for 5Y CDX HY ATM IV / RTY ATM IV.
- Combined vega for 5Y CDX HY 16-Oct-15 straddle is 6.2 cents, which is \$62K on \$100 million notional. Therefore, we need 2.5 times the amount of the combined vega for the RTY straddle or \$155.0K where the vega of the RTY 16-Oct-15 1270 straddle is \$5.07, requiring buying 305 RTY straddle contracts.

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