Clipping Premiums

SELL DEC CDX IG19 PAYER SPREADS (NO DELTA)

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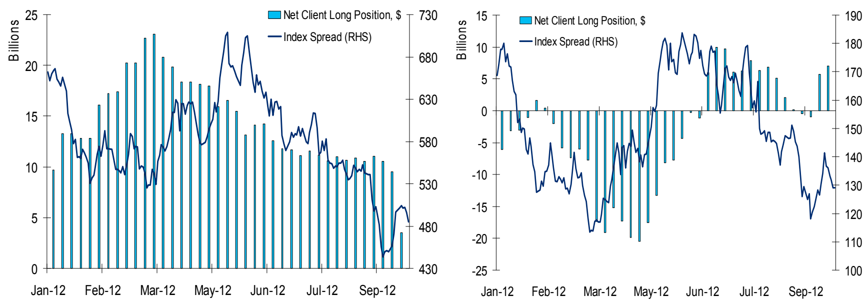
Credit
Investment Overview
Global
Derivatives

Market Outlook

As investors prepare for the last quarter of a tumultuous year, the news from the macro front has been decidedly mixed. Bulls have been cheered by the positive news out of the US labor market where the unemployment rate unexpectedly dropped below 8% and a rise in ISM manufacturing numbers from August. On the other hand, bears continue to fret about deteriorating fundamentals, especially now that the earnings season has started and is expected to surprise mostly to the downside, the US fiscal cliff, low Chinese PMI numbers, and the lack of progress in Spain. Central bank induced liquidity continues to push credit spreads tighter for the most part as the universe of safe investable assets shrinks, and our European Credit Strategists expect spreads to tighten further, decoupling from fundamental fair value in the absence of negative catalysts (see European Credit Outlook - Caught in a liquidity lure).

Fig 1. Client Positioning in Credit Indices, CDX HY (left), iTraxx Main (right)



Source: DTCC, Markit

Post the September roll in the major credit indices, there are a few interesting features in investor positioning that are worth mentioning. The sizeable investor long positions in CDX HY have not been rolled into the new CDX HY19 index (see Fig 1) even though spreads have continued to tighten. A possible reason could be the substitution of higher quality credits such as Pioneer Natural Resources and Ford Motor (which were upgraded and are no longer HY) with CIT, Charter Communications and Calpine. In fact, the net investor positioning in CDX HY 19 is a small net short, to the tune of 850MM. However, it has only been a week since the roll, and we will continue to follow the roll dynamics to see if there is a ramp up in CDX HY 19 longs.

The case with iTraxx Main in Europe is exactly the opposite (see Fig 1), where investor positioning has moved significantly to the long side, driven mainly by longs on the new iTraxx 18 index (currently 9B), whereas positioning continues to

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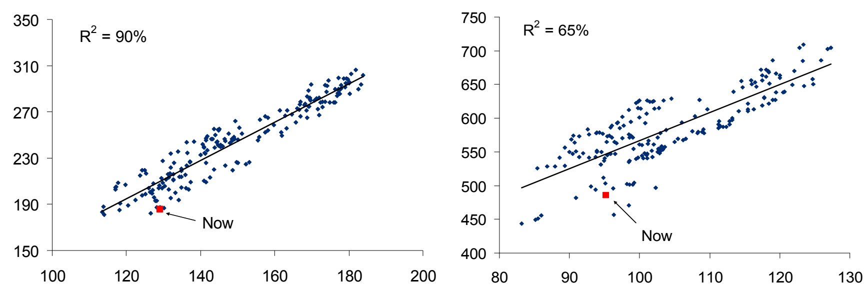
be balanced in the previous two off-the-run versions. A net long position (approx. 1B) in the new Xover 18 index has also helped reduce the overall investor short position in the iTraxx Xover index, where investors had accumulated shorts going into the roll while spreads tightened on the Xover 17 post ECB announcements. On the two remaining indices, positioning in CDX IG remained steady at an 18B net long and positioning in iTraxx SnrFin, at a 2B net short.

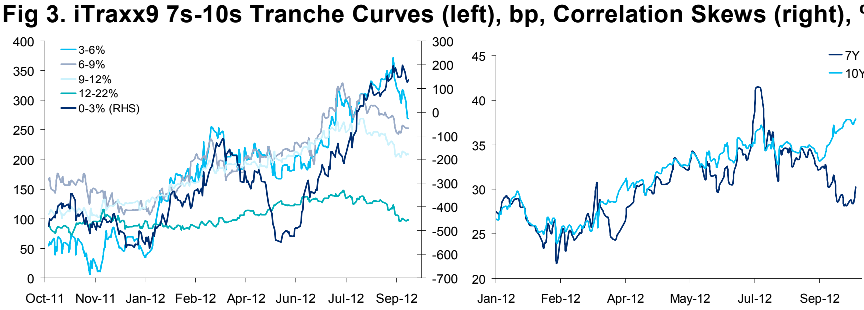
Fig 2. YTD SnrFin (Y) vs Main (X) (left), CDX HY (Y) vs CDX IG (X) (right), bp



Source: Markit, Citi Research

The move in SnrFin has generally been tighter over the past week, outperforming both Main and Xover (see Fig 2) and the short bias in investor positioning continues to have the potential to make it gap tighter if the news flow remains mildly positive. In the US, CDX HY has continued to outperform CDX IG as investor demand for shorts using CDX HY wanes on the back of strong performance in the high yield cash space. **We believe this could be a good opportunity to express decompression trades in the CDX IG/ CDX HY space given how strongly CDX HY has outperformed CDX IG this year (see Fig 2).**

Fig 3. iTraxx9 7s-10s Tranche Curves (left), bp, Correlation Skews (right), %



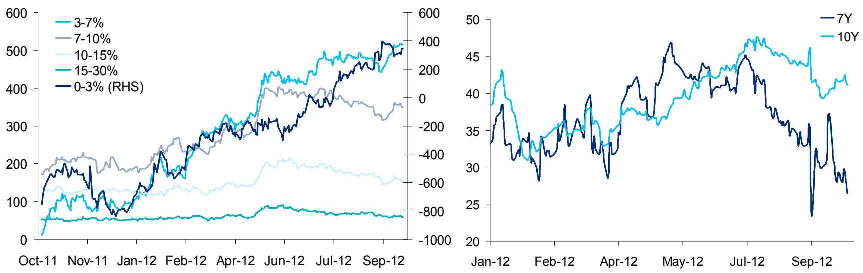
Source: Markit, Citi Research

Spreads in tranche markets (across maturities) have begun to tick up, especially in Europe. The 7s-10s curves for iTraxx9 in the 3-12% part of the capital structure have flattened significantly (see Fig 3) mainly due to the underperformance at the short end of the curve. Looking at the iTraxx9 correlation skews (see Fig 3), we see that the correlation skew is rising for the 10Y tranches but coming down for the 7Y as systemic risk gets pushed farther down the curve in light of ECB liquidity operations. This actually provides for interesting opportunities in iTraxx mezzanine tranches – **we believe that investors can take advantage of the recent curve flattening to put on steepeners in mezzanine tranches, especially in the 3-6% or 6-9% tranches.** Outright longs in the 7Y (especially given the imminent maturity of the 5Y tranches, thereby providing for attractive roll downs) or outright shorts in the 10Y using the 3-9% part of the capital structure also look attractive.

In the US, the moves in correlation skew have been similar, but less stark (see Fig 4). In particular, both 7Y and 10Y have exhibited a downward trend till very recently when the 10Y correlation skew has diverged upwards. However, in contrast to Europe, the 7s-10s curves for the mezzanine tranches (especially in the 3-10% of

the capital structure) are beginning to steepen (see Fig 4) as risk averse investors are beginning to hedge against the tail risks associated with the US fiscal cliff going into year end. **We continue to like the 10Y 7-10% short trade in CDX IG9 tranches (see The Credit Index Call - Time to Go Short Again?) given how much the 7s-10s curve had flattened earlier in the year due to outperformance at the long end of the curve.**

Fig 4. IG9 7s-10s Tranche Curves (left), bp, Correlation Skews (right), %



Source: Markit, Citi Research

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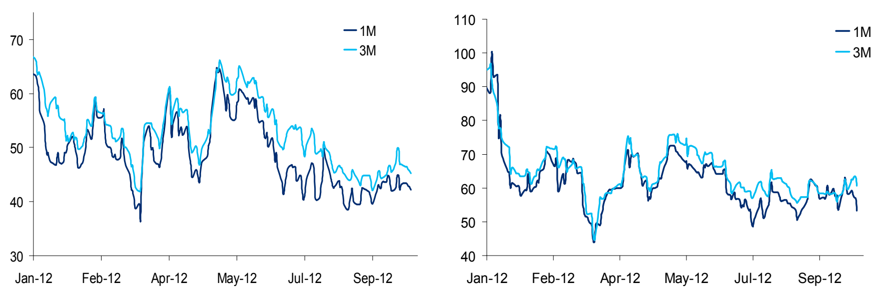
Fig 5. ATM Volatility, CDX IG (left), iTraxx Main (right), %



Source: Citi Research

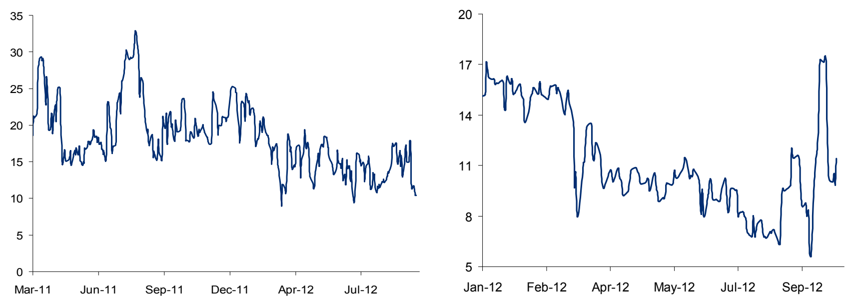
In option markets, at-the-money (ATM) volatility has been coming down in all major indices in the US and Europe (see Fig 5). In all cases, the recent fall in ATM volatility has occurred post index roll which we mainly attribute to the wider spreads on the new on-the-run indices. As we have explained before (see The Credit Index Call - Time to Go Short Again?), as underlying spreads widen after an index roll, implied volatility must fall in order to maintain the same level of daily absolute index spread moves implied by the volatility. Indices with tighter rolls (e.g. iTraxx Main) have experienced smaller falls in ATM implied volatility.

Fig 6. 20 Delta 3M Volatility Skews, iTraxx SnrFin (left), iTraxx Xover (right),

Source: Citi Research

Volatility skews in the different indices have shown similar behavior – all the European indices (Main, Xover, SnrFin) have shown steepening volatility skew (see Fig 6) as investors use cheaper volatility levels to execute low cost shorts (instead of the underlying index itself) in order to preserve year to date gains on cash portfolios. The one major exception to this technical has been the CDX IG index (see Fig 7) where the volatility skew has been on a downward trend in recent weeks. This is related to an interesting technical where investors have been selling CDX IG options to fund short positions using CDX HY options. This can be partly attributed to macro risks receding into the background post Fed and ECB policy actions, and idiosyncratic risks coming into focus, which usually causes investors to prefer CDX HY for shorts. This is also evident in the CDX HY volatility skew moves – prior to the roll, there was a sharp spike in volatility skew as investors rotated shorts into out-of-the-money (OTM) puts which subsided as volatility sellers showed up once the new OTR index started trading (see Fig 7).

Fig 7. 20 Delta 3M Volatility Skews, CDX IG (left), CDX HY (right), %

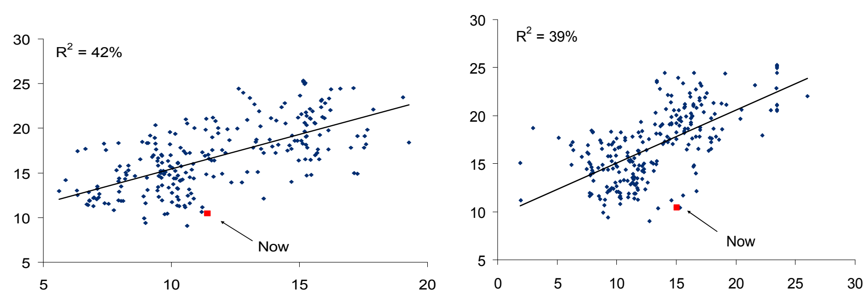


Source: Citi Research

The relatively steep volatility skews for the European indices make them particularly attractive for low cost hedging – investors looking to protect year to date profits should consider buying payer spreads (no delta) in these indices. In particular, we prefer 20 delta payer spreads (buy lows strike payer, sell high strike payer) in the iTraxx Main index compared to the other indices. Our view is mainly driven by the net long investor positioning in Main (as opposed to net short positions in Xover and SnrFin, see earlier discussion) which make it particularly susceptible to gapping wider on the back of negative catalysts.

Trade Idea: Sell Dec CDX IG19 Payer Spreads (No Delta)

Fig 8. 20 Delta 3M Volatility Skews, IG (Y) vs HY (X), left, IG (Y) vs Main (X), right, %



Source: Citi Research

The recent flattening of the CDX IG volatility skew has created an interesting opportunity for investors looking to enhance yield. As markets continue to move in response to the continued tussle between bearish fundamentals and central bank policy actions, we expect spreads to remain range bound in the short to

medium term going into year end. Under such circumstances, selling payer spreads (sell low strike payer, buy high strike payer) provides an attractive option to monetize the relatively flat volatility skews. In particular, as we have observed earlier, the CDX IG volatility skew has been flattening recently, and is significantly flatter than some of the other indices such as CDX HY and iTraxx Main (see Fig 8).

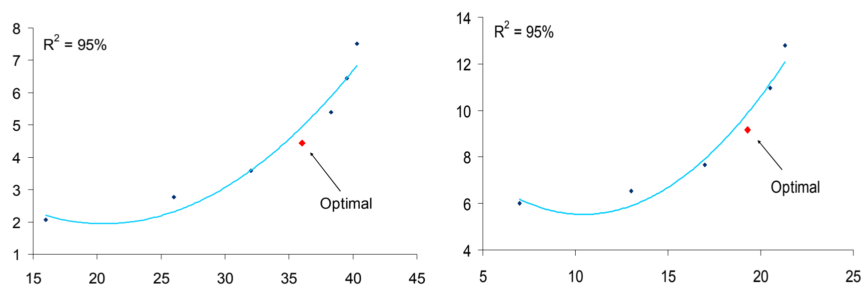
Fig 9. Payer Spreads, Premiums shown are in bp

Payer Spread	Sell Strike	Buy Strike	Index	Expiry	Premium	Payout Ratio
100-110	100	110	IG19	12/19/2012	16.0	2.06
100-120	100	120	IG19	12/19/2012	26.0	2.77
100-130	100	130	IG19	12/19/2012	32.0	3.59
100-140	100	140	IG19	12/19/2012	36.0	4.44
100-150	100	150	IG19	12/19/2012	38.3	5.40
100-160	100	160	IG19	12/19/2012	39.5	6.44
100-170	100	170	IG19	12/19/2012	40.3	7.51
110-120	110	120	IG19	12/19/2012	7.0	6.00
110-130	110	130	IG19	12/19/2012	13.0	6.54
110-140	110	140	IG19	12/19/2012	17.0	7.65
110-150	110	150	IG19	12/19/2012	19.3	9.16
110-160	110	160	IG19	12/19/2012	20.5	10.95
110-170	110	170	IG19	12/19/2012	21.3	12.80

Source: Citi Research
Note: Results as illustrated above are not guaranteed. This scenario assumes the options expired unexercised. Payout ratios do not take into account transaction fees and other costs.

We display two sets of payer spreads expiring in December 2012, whose payout ratios ([maximum payout – premium] / premium) are summarized in Fig 9. In the first set, we sell low strike payers at 100, and in the second set, the low strike payers are at 110. Note that from a seller's perspective, we would like to choose the payer spreads with a low payout ratio, i.e. where the premium per unit of payout is maximized. In Fig 10, we show the relationship between premiums and payout ratios for the two sets of payer spreads – the points below the fitted curve are more optimal from a seller's point of view. The relevant trades are highlighted in Fig 9. We recommend doing the trades without delta hedging.

Fig 10. Payout Ratio versus Cost (bp), 100-X Payer Spreads (left), 110-X Payer Spreads (right)



Source: Citi Research

The 100-140 payer spread has a higher premium and a lower payout ratio, but it is possible that the seller may have to give up some of the upside if spreads widen from current levels. In contrast, the 110-150 payer spread provides some cushion against spread widening from current levels but has a lower net premium and higher payout ratio. In order to wipe out the entire premium, the 100-140 trade requires a 9bp widening from current index levels while the 110-150 trade requires a 16bp widening from current levels. **An empirical distribution of daily**

index spread moves over the past 2 years suggests that the 100-140 trade has a 70% chance of being in the money whereas the 110-150 trade has an 80% chance of being in the money.

A possible alternative to a payer spread trade would be selling CDX IG OTM receivers which are attractive once again because of the relatively flat skew. For investors who are long credit (particularly in cash), such a trade would be the equivalent of writing a covered call that would generate additional income through the upfront premium. However, we prefer the payer spread trade given that its downside is capped, which makes it more suitable as a standalone trade.

The main risk to this trade is, of course, a large downward move in CDX IG spreads going into December – in particular, if the markets perceive a sustained dive off the US fiscal cliff as the base scenario. However, our economists currently predict that the most likely scenario is an initial failure to avoid the cliff followed by stopgap actions that would most likely ameliorate some of the impacts (see U.S. Macro Focus - The Fiscal Cliff: Assessing the Policy Risks). Overall, we are comfortable with the risk-reward for the trade.

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When buying calls and puts (or receivers and payers) the maximum loss is the premium paid. When selling calls (or receivers), the maximum potential loss would occur as the index spread decreases but is limited by the index spread being floored at zero. For puts (or payers), the maximum potential loss (amount below the strike) would eventuate should the index price fall to zero. Sector index options are cash settled. The above calculations do not include any additional fees or transaction costs.

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