

European Credit Derivatives– Views and Trades

Be long, but in non-crowded places

- **Fundamentals don't matter:** it's all about Central Banks.
- Our only concern are **crowded “off benchmark” longs** (periphery, high yield, AT1s, equity tranches) which have the risk of creating a disorderly unwind – although we don't think they are a risk to the overall market.
- **Investors are unhedged:** Path of least resistance tighter, but any widening can be gappy.
- **Longs:** Senior Financials, Main receiver 1x2s, 1y equity protection, equal notional 5s10s flatteners, 5y super senior tranches.
- **Shorts:** Bearish risk reversals.
- **RV:**
 - SenFin vs. Main, Main vs. Xover (sell Xover vs. buy SenFin receivers)
 - Flatteners
- **More appetite to lever up, less to spend precious money on hedges** — Winners & losers:
 - Synthetics vs. Cash; Investment grade vs. high yield (in synthetics).
- **Lower vol** — Expect widening episodes where spreads realize high vol, but they should be infrequent and short lived.

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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The portion of this research report regarding non-OCC issued options is not intended for US clients other than Qualified Institutional Buyers. Investing in options is not suitable for all investors. Please see the disclosures concerning the risks of investing in options below and discuss with your Financial Advisor whether this particular options strategy is suitable for you. Interested investors should contact our trading desk for updated price and liquidity information. Also, complex option strategies may entail higher commissions costs. Please contact us for more details on the trades discussed.

Analytic Reports @ Citi Velocity

Options	iTraxx Volatility Report	Tranches	iTraxx Series 9 Tranche Report
	CDX Volatility Report		iTraxx Series 19 Tranche Report
	European Cross-Asset Volatility Report		iTraxx Series 21 Tranche Report
	Volatility P&L Report – Credit Indices		
Curves	iTraxx Curve P&L Report	Indices	CDS Indices Positioning Report
			CDS Indices Trading Volumes Report
			Main Report / Crossover Report
Returns	European Credit Derivatives Returns		

Pricing Tools and Databases

Options	Online option pricing tool	Historical database	Single name CDS
	Options overview page		CDS Indices
			Options
			Tranches

Teach-in presentations

[Indices](#) / [Options](#) / [Tranches](#)

Model Portfolio

Found at the back of all of our trade idea publications.

Medium-Term Views

Strategy: Fundamentals don't matter

Bullish: it's all about Central Bank support.

- For the wrong reasons?

Lots not to like: Valuations appear rich, [leverage is rising](#) and positions seem very long by recent standards.

- Too much money... – Yet central bank policies are keeping supply-demand across financial markets severely imbalanced.
- Not enough supply to compensate inflows and redemptions.
- Visible triggers look rather tame.

- Next visible catalyst in Europe, QE, looks very bullish – especially for Senior Financials

Risks on “Crowded” Trades

- In their search for yield, investors have built sizable “off-benchmark” positions which are at risk of sudden unwinds:

- Periphery
- High yield
- Bank sub debt (inc. AT1)
- Equity tranches

- All these trades tend to be “wide” instruments, which have outperformed as dispersion and spread compression collapsed.

- Be long, but avoid the crowded spots.

- Systemic? No. We don't believe a potential unwind of any of the trades above, even if happens in a disorderly fashion, would be seen as a systemic event.

Derivatives

■ Game Changer

2015 to be very different from what we've been used to

Think 2005-07 ...

Not like that in terms of volumes, just direction

- At current or tighter levels, we think relative value relationships will be much closer to the ones back in 2005-2008 than the ones over the past three years.

■ Tighter spreads, lower vol

- We do expect widening episodes where spreads realize high vol, but we think they will be:
 - Less frequent than we've grown used to, and
 - Relatively short lived as investors are quick to take the other side in a market where timing will be one of the very few ways to make any alpha.

■ Much harder to reach spread targets

■ Lower propensity to spend money on synthetic hedges

- Derivs conversations from: *"how do I hedge"* to *"how do I get Xbp"*.

■ More synthetic leverage to make target returns

Main beneficiaries:

- Synthetics vs. cash
- Main vs. Xover
 - In synthetics, investment grade spreads should be the main beneficiaries on the back of investors looking for leverage.
 - In a low volatility environment we believe investors will be more inclined (than in the recent past) to look for high spread longs by leveraging up investment grade spreads than by venturing into high yield.
- Mezz & Senior vs. Equity tranches

■ Using options to make money, not only to hedge

- Expect the premium of implied to realised vol to continue compressing.
 - Continue to sell short dated no-delta straddles to add carry.
 - Sell vol when the implied to realised ratio gets high.
 - Real money to sell receivers when not bullish.
-

Short-Term Views

Bullishness all around – And unhedged investors

- Investors are so bullish that only the ones forced to do so are hedged.
 - The options market, the hedging market per-excellence, has the most bullish pricing we've seen in a long time.
 - Implied to realised ratios in credit, generally quite high, are now lower than in any other asset class.
 - Receiver skews are flat and inverting, with investors not only not hedging with options, but also using them to add outright longs ... something unheard of.
- That means the **path of least resistance is tighter**, but also that **any widening can be gappy** as investors will have to chase hedges.
- If we do go tighter, we think the main beneficiaries, at least in synthetics should continue being:
 - **Fins over Main**, and **Main over Xover**.
 - Options, receiver skew can continue flattening / inverting.
 - In curves, expect **flattening** across the board.
 - Hopefully that'll also mean a pick up on **tranche volumes**.
- **Best short-term longs?**
 - Senior Financials
 - Receiver 1x2s
 - Short dated equity tranches
 - Equal notional flatteners (long risk forward)
- **Best short-term hedges?**
 - Bearish risk reversals; not payer spreads
- **Best short term RVs?**
 - Long SenFin vs. Main
 - “Roll” trades

Positioning & Trade Ideas Menu

■ Indices

- **Xover / Main** Decompression
- **Senior Fins** to trade inside **Main** on European QE
- Still like [3s5s flatteners, but like 5s10s better](#) ...
- **Equal notional flatteners** as a long risk trade.

■ Tranches

- **Equity** – **We like longs in short dated tranches** ([S9 Jun-15](#)); would avoid long dated equity longs.
- **Mezz** – **Most attractive long in the short term**. We need tighter spreads for real money investors to be willing to lever up via mezz tranches. Will perform in the second leg of the tightening. E.g. [3-6% vs. Xover](#).
- **Seniors** – **Constructive long term**; **can struggle in the near term**. Surprisingly to us, we are finding investors willing to sell super senior protection in size, taking advantage of the very high correlations. However, we still see others using it as a hedge.

■ Options

- Receiver 1x2s
- [Sell Xover vs. buy SenFin receivers](#).
- **Sell OTM puts** – [against 3s5s flatteners](#). Hard trade to pitch though.

■ Hedges?

- [Bearish risk reversals](#). Skew is flat and investors are not hedged at all – a widening can pick up momentum

■ “Roll trades”

- **Sell protection on new Xover names**
- **Sell SubFin protection vs. buy SenFin / Main protection just after the roll**

See: [We love the roll](#)

Positioning & Trade Ideas Menu (cont.)

■ Cash vs. Synthetics

- Outperformance of CDS over cash
 - Structural negative basis
- Keep spread duration short in cash and long in CDS
 - Flat curves in cash bonds, steep in CDS

■ Trading Volumes in European Credit

Large decline in CDS indices and bonds vs. large increase in options & a resurgence of the bespoke tranche market.

- The drop in CDS index volumes is surprisingly large (30-50%). We believe the “extra” reduction in index volumes comes from the **success of the options market in “stealing” a substantial amount of hedging activity from the index market.**
- In cash bonds, the higher than usual reliance on primary markets has probably contributed to lower secondary trading volumes.
- Single name CDS volumes have managed to stay constant/slightly increase this year.

■ Cash Bonds

- Preferred way to get the carry:

Subordination > credit risk > duration risk
- Financials to outperform non-financials further
- Cash investors with flexibility to do CDS should:
 - Hold less bonds and higher cash balances
 - Make up the lost carry by adding index longs

We expect CDS to do better in a tightening (as investors reach out for leverage) and in a capitulation scenario (as investors force-sell bonds), but worse in moderate widenings (as investors rush for synthetic hedges).

Liquidity in indices is much higher, at the cost of higher vol.

Credit Derivatives Returns

Figure 1. Cumulative returns

Unfunded CDS indices, options and tranches

Return of a long risk position as % of notional traded. Daily delta-hedged for options/tranches.

CDS Indices

	1m	3m	12m
Main	0.15%	0.5%	4.0%
Sen. Fin.	0.42%	0.8%	6.4%
Xover	0.59%	1.5%	16.2%

iTraxx Main Steepeners (DVO1-weighted)

	1m	3m	12m
3s5s	0.05%	-0.1%	-0.9%
5s10s	0.09%	0.3%	1.1%

Main S9 10y tranches Delta-hedged

	1m	3m	12m
0-3%	0.9%	-0.5%	5.7%
3-6%	0.2%	0.7%	2.9%
6-9%	0.3%	0.7%	1.8%
9-12%	0.2%	0.4%	0.2%
12-22%	0.1%	0.2%	-0.9%
22-100%	-0.04%	-0.03%	-0.36%

Sell Main Straddle Delta-hedged

	1m	3m	12m
1m	0.1%	0.2%	0.9%
3m	0.0%	0.0%	0.4%

The index position is rolled at roll dates.

Curves: Using on-the-run indices and rolling the curve position at roll dates and/or when the trade DVO1 ratio differs more than 5% from the current ratio. P&L as % of the long dated leg notional.

Options: Rolling the options every month to maintain the indicated expiry.

Funding for CDS indices: 5y swaps.

iTraxx IG*: 60% NonFin, 30% SenFin, 10% SubFin.

Funded CDS indices, cash bond indices and equities

Return of a long risk position as % of notional traded.

CDS Indices (funded)

	1m	3m	12m
Main	0.8%	1.9%	9.6%
Sen. Fin.	1.1%	2.2%	12.0%
Xover	1.3%	2.9%	21.8%
iTraxx IG*	0.9%	2.1%	10.7%

iBoxx indices

	1m	3m	12m
€ iBoxx IG Corp.	1.04%	2.2%	8.2%
€ iBoxx Senior Fins	0.93%	1.9%	7.0%
€ iBoxx HY Corp.	0.43%	0.9%	9.5%

Equity indices

	1m	3m	12m
SX5E	-0.4%	-1.6%	17.6%
SX7E	-0.6%	-3.9%	26.4%

Data as of COB: 29 Aug 14

Source: Citi Research, Markit, Bloomberg, iBoxx.

Credit Derivatives Returns: Long risk CDS index vs. Cash and vs. Stocks

Figure 2. Long risk iTraxx IG* vs. short risk € iBoxx IG Corp.

Return as % of Funded iTraxx IG* notional. Using a rolling 3m beta-weighted notional for the € iBoxx IG Corp.

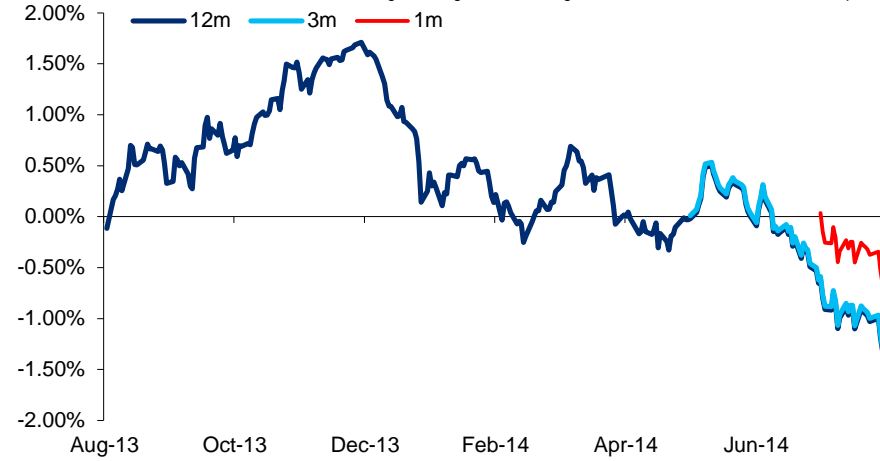


Figure 3. Long risk Sen. Fin. vs. short risk € iBoxx Senior Fins

Return as % of Funded Sen. Fin. notional. Using a rolling 3m beta-weighted notional for the € iBoxx Sen. Fins.

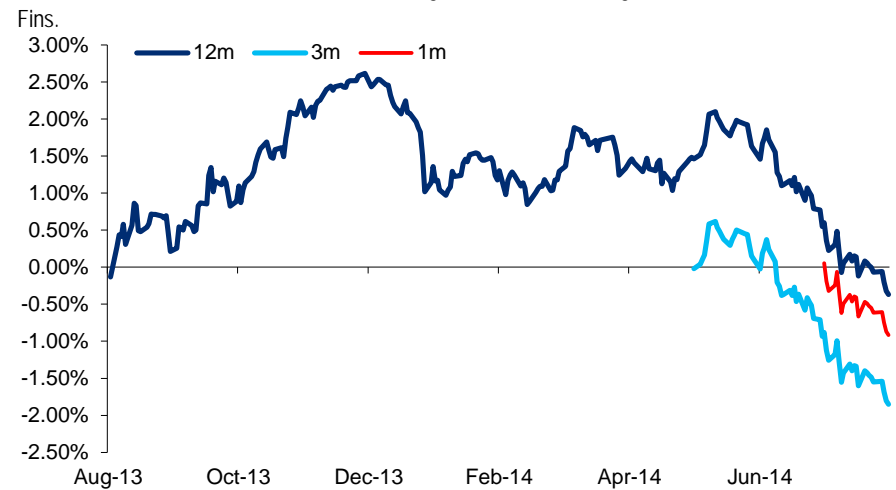


Figure 4. Long risk Main vs. short risk SX5E

Return as % of Unfunded Main notional. Using a rolling 3m beta-weighted notional for the SX5E.

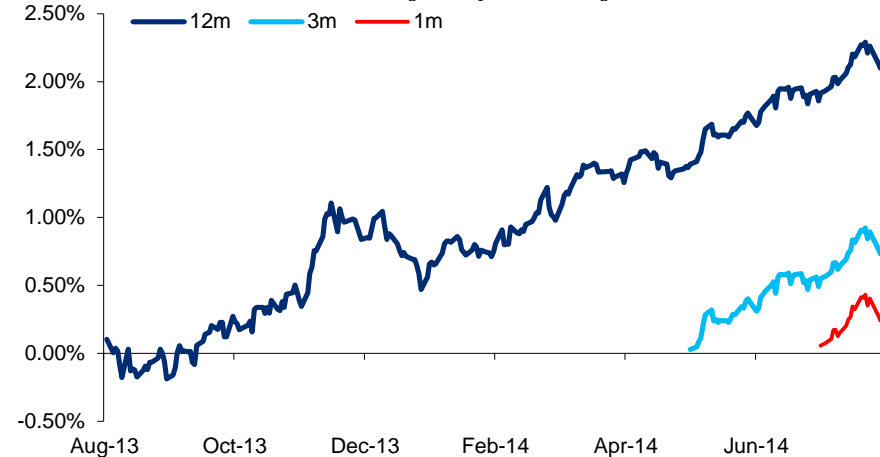
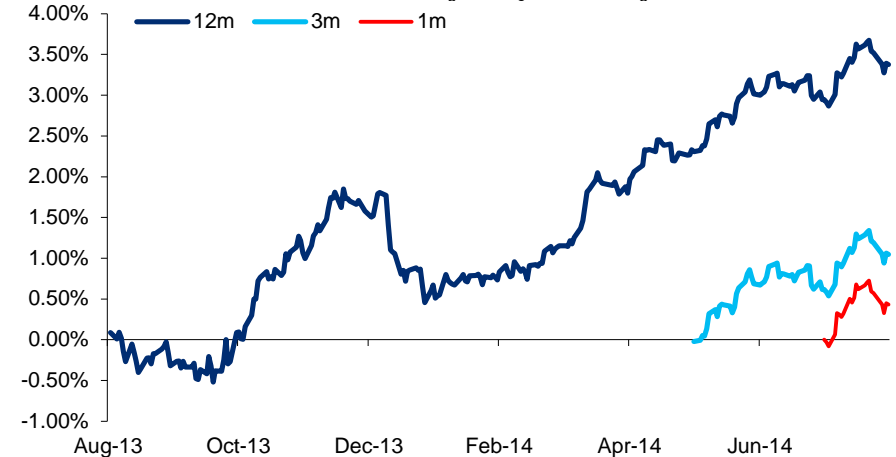


Figure 5. Long risk Sen. Fin. vs. short risk SX7E

Return as % of Unfunded Sen. Fin. notional. Using a rolling 3m beta-weighted notional for the SX7E.



Source: Citi Research, Markit, Bloomberg, iBoxx. iTraxx IG*: 60% NonFin, 30% SenFin, 10% SubFin.

Investor Positioning

CDS Indices

- **Non-dealers long risk iTraxx Main and very long CDX IG.**
- In Europe, shorts pronounced in Crossover.
- In iTraxx Fins investors remain short, as usual.
- Weekly [CDS Indices Positioning Report](#)

Figure 7. iTraxx Main vs. CDX IG

Non-dealer positioning, in \$bn. +ve/-ve: non-dealers long/short risk. On-the-run + 2 predecessor series.

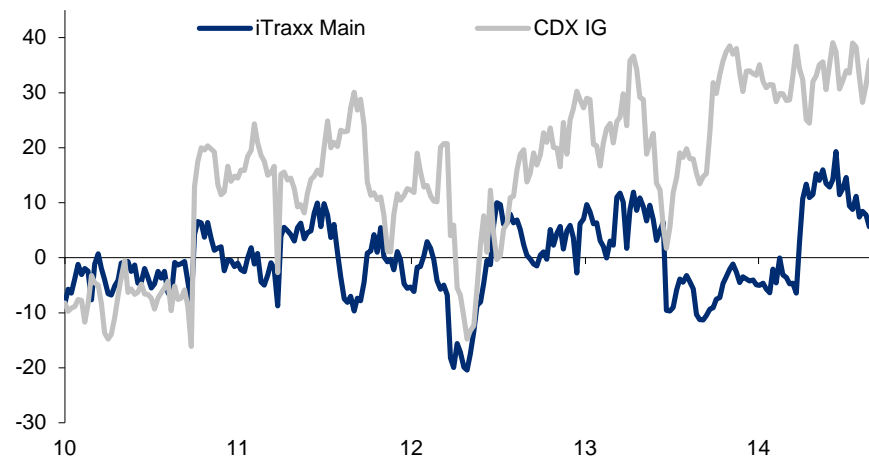


Figure 6. iTraxx Main vs. Crossover

Non-dealer positioning, in \$bn. +ve/-ve: non-dealers long/short risk. On-the-run + 2 predecessor series.

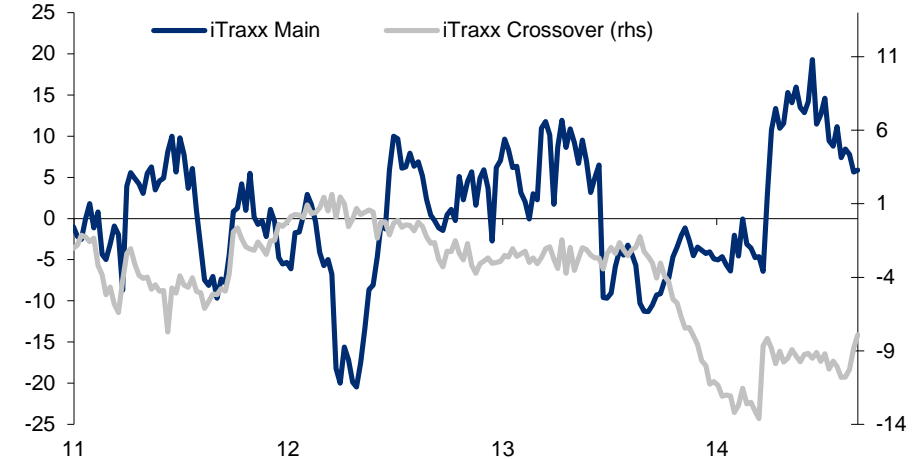
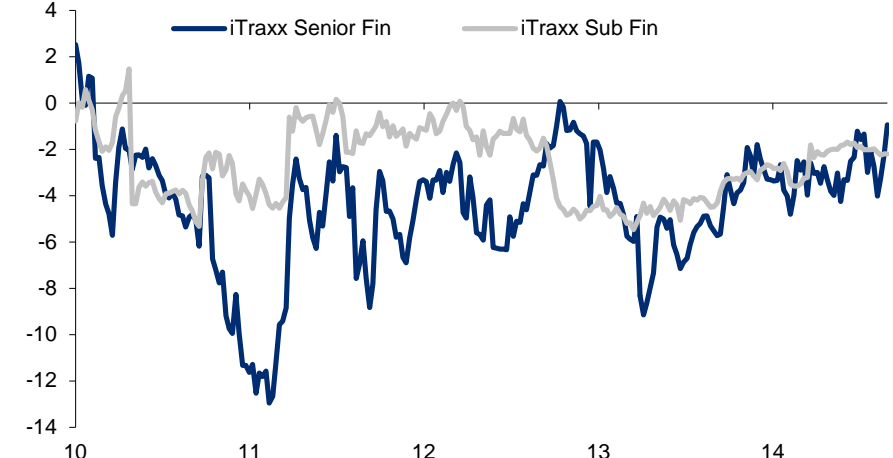


Figure 8. iTraxx Senior vs. Sub Financials

Non-dealer positioning, in \$bn. +ve/-ve: non-dealers long/short risk. On-the-run + 2 predecessor series.



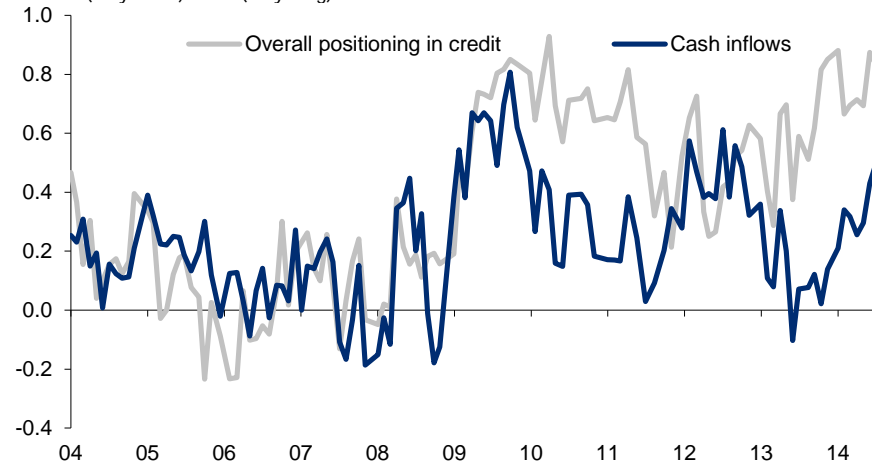
Source: Citi Research, DTCC.

European Credit Survey

- **The aggregate long in credit declined slightly from its June high.** It was the highest beta sectors where the cutting was most evident: the long in HY declined to its lowest level in over a year, and positions in bank sub debt were substantially reduced.
- Conversely, the long in non-financial hybrids reached a new record while moves in non-financial sectors were mixed.
- **Inflows remained relatively resilient**, as a decline from sterling and dollar accounts was partially offset by an increase in euros.
- **On balance, we are left less concerned than we were last month.** While the aggregate long is still extended, the resilient inflows and high beta cutting leave the technical looking less vulnerable than it did a few weeks ago.
- Latest Global Credit Survey:
[A little less stretched](#), 30-Jul, J. Faith.

Figure 9. EUR positions in credit vs. cash inflows

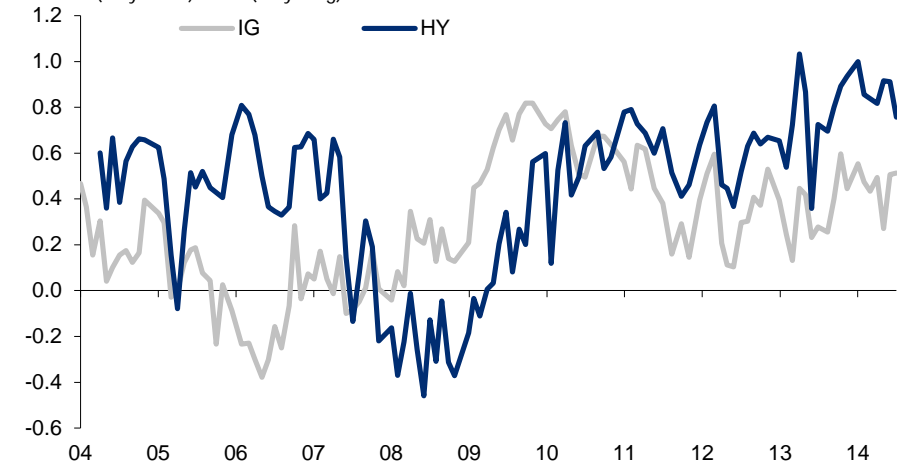
From -2 (very short) to +2 (very long).



Source: Citi Research.

Figure 10. EUR Positions in IG vs. HY

From -2 (very short) to +2 (very long).

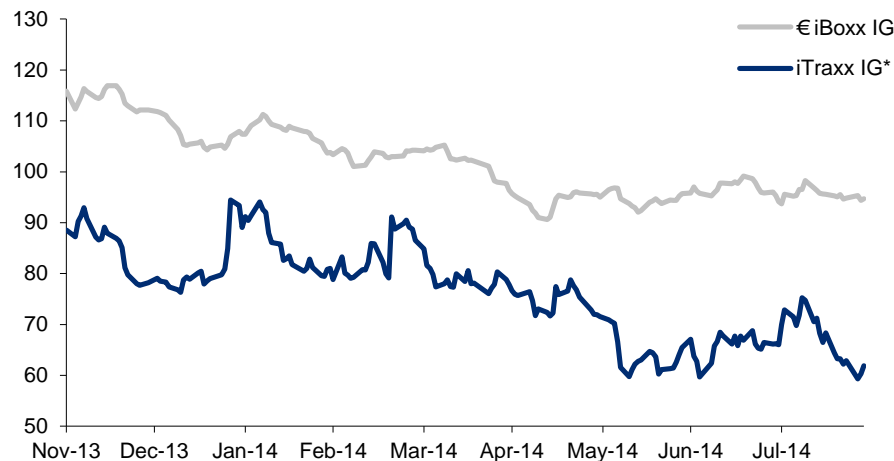


Synthetics vs. Cash

- **Short term – We could see a near term underperformance of synthetics, after the large recent outperformance.**
- **Medium term – still see most upside in synthetics.**
 - Tailwinds for synthetics in a stable/tightening market. Easier to lever up, higher liquidity.
 - More volatility in synthetics. Higher use of synthetics by real money, as short term trades, to hedge (e.g. options) and to add risk (e.g. indices and tranches).

Figure 12. iBoxx IG vs. iTraxx* Spreads

On-the-run indices, bp.* 60% NonFin, 30% SenFin, 10% SubFin.



Source: Citi Research, Markit.

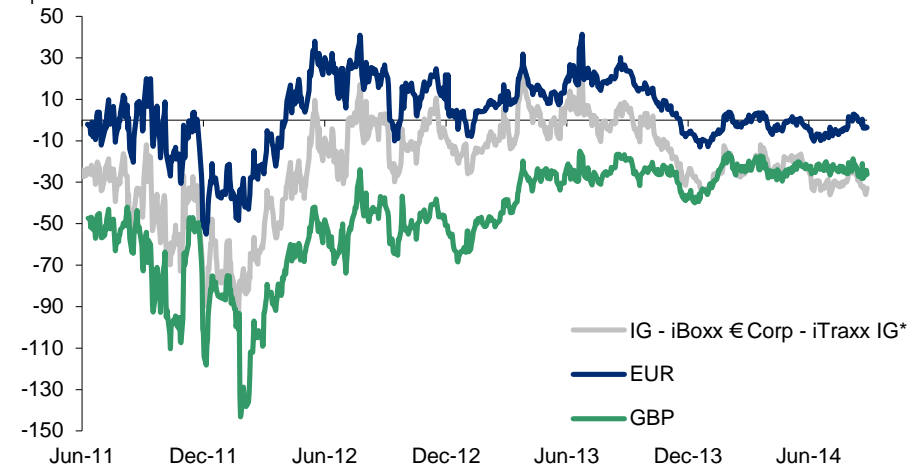
Figure 11. iBoxx IG vs. iTraxx* Spreads

On-the-run indices, bp.* 60% NonFin, 30% SenFin, 10% SubFin.



Figure 13. Bond-CDS Basis

Bp.



Credit Derivatives Returns: Long risk iTraxx vs. iBoxx

Figure 14. Funded iTraxx IG* vs. € iBoxx IG Corp. - Cum. Return

Using a 3m beta-weighted notional for the € iBoxx IG Corp.. Return of a long risk position, % of notional.

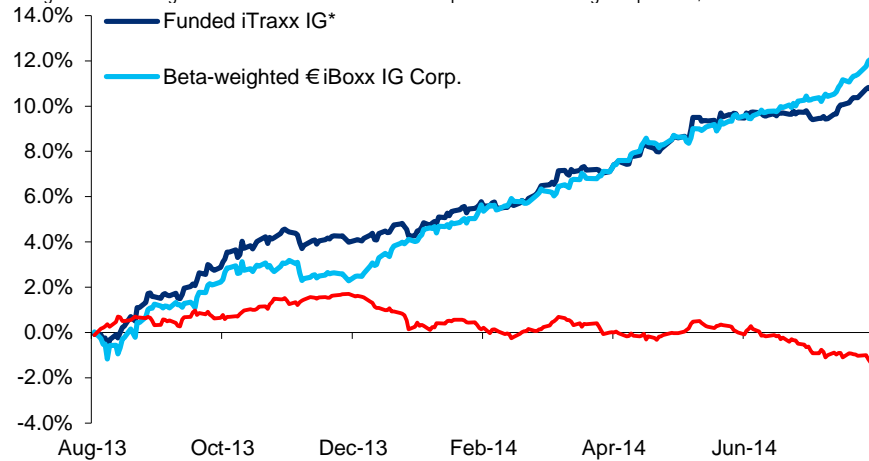


Figure 15. Funded Sen. Fin. vs. € iBoxx Senior Fins - Cum. Return

Using a 3m beta-weighted notional for the € iBoxx Senior Fins. Return of a long risk position, % of not.

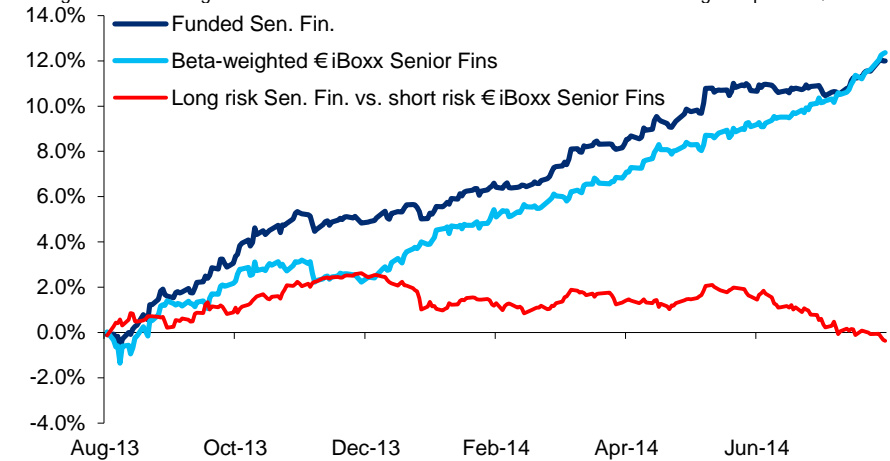


Figure 16. Long risk iTraxx IG* vs. short risk € iBoxx IG Corp.

Return as % of Funded iTraxx IG* notional. Using a rolling 3m beta-weighted notional for the € iBoxx IG Corp.



Figure 17. Long risk Sen. Fin. vs. short risk € iBoxx Senior Fins

Return as % of Funded Sen. Fin. not. Using a rolling 3m beta-weighted notional for the € iBoxx Sen. Fins.



Source: Citi Research, Markit, Bloomberg, iBoxx. iTraxx IG*: 60% NonFin, 30% SenFin, 10% SubFin.

Index Skews

- **Still flattish/positive**, no signs of indices overdoing the movement tighter yet.

Figure 19. iTraxx Main and CDX IG

5y on-the-run indices, bp.

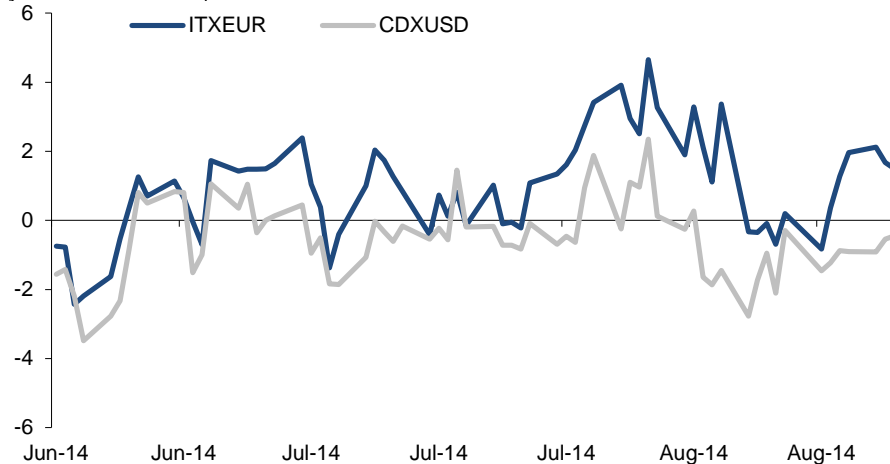


Figure 18. iTraxx Main and Crossover

5y on-the-run indices, bp.

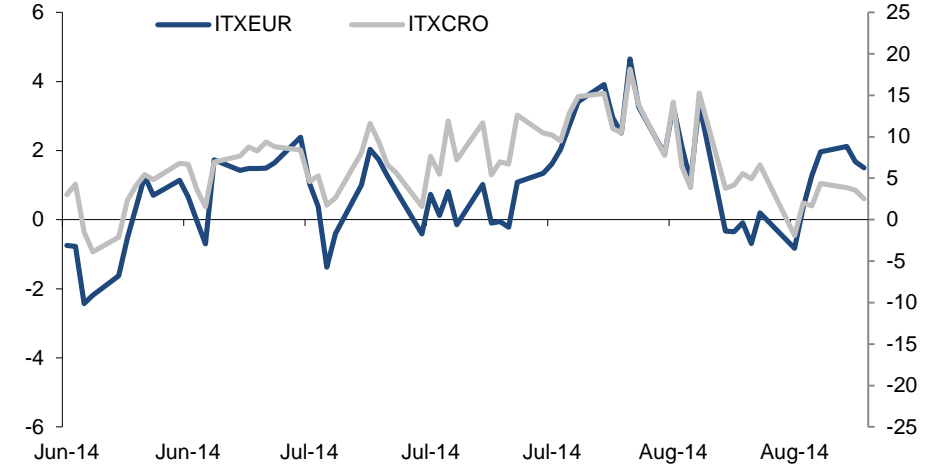
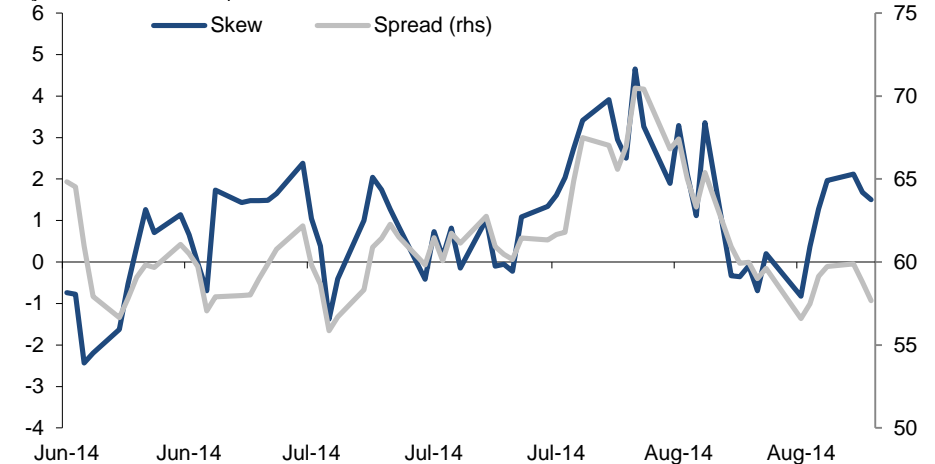


Figure 20. iTraxx Main spreads vs. skew

5y on-the-run indices, bp.



Source: Citi Research, Markit.

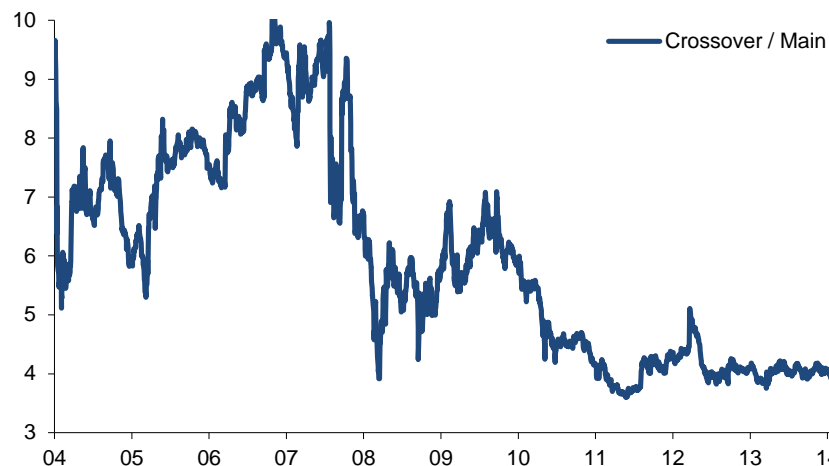
Indices Relative Value

Xover / Main Decompression

- Over the last few years the ratio between Main and Crossover has been comparatively stable at a much lower multiple that we saw from 2005-07.
- The ratio of Crossover to Main spreads has spent most of the past two years at around 4x, a level which in a historical context looks too low when compared to the currently tight spread levels.
- European Credit Outlook 2014 - [Positioning and trades](#)
- Assuming spreads tighten further or stabilize this year, we reckon that the market dynamics will gradually revert to something more similar to that which we saw before the crisis. Granted, the quality of the Crossover index has improved, but **in a low volatility environment we believe investors will be more inclined to look for carry by levering up IG spreads than by venturing further into high yield**, where valuations look increasingly stretched.
- We believe the downside on this trade is limited** if we widen and the upside is significant if we continue tightening.

Figure 21. Ratio of Xover to Main spreads

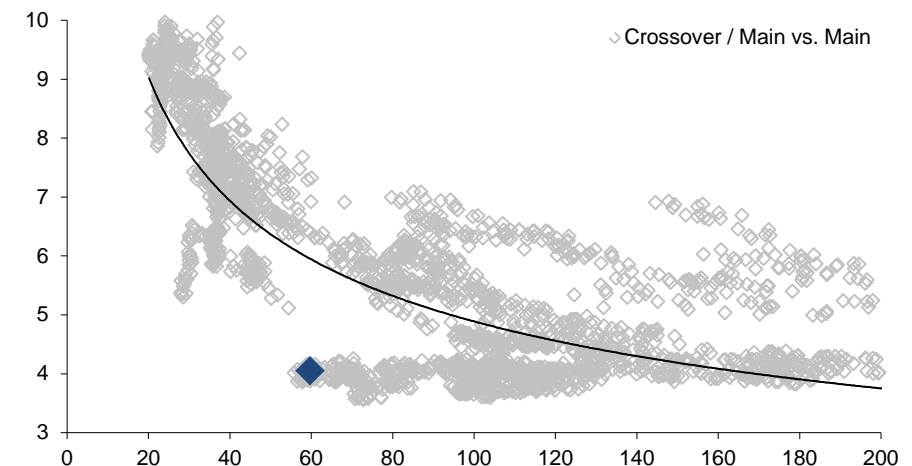
5y on-the-run indices.



Source: Citi Research, Markit.

Figure 22. Ratio of Xover to Main spreads vs. Main spreads

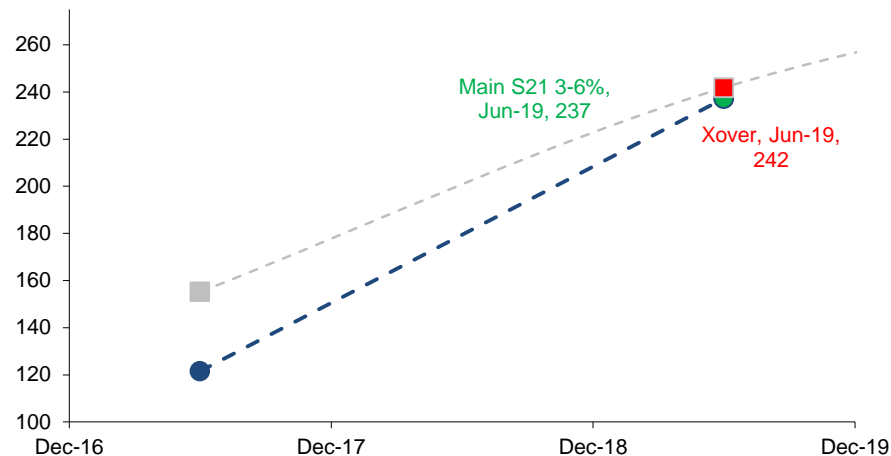
Y-axis: spread ratio. X-axis: Main 5y spreads, in bp..



Play it via 3-6% vs. Xover

- If our view is correct, i.e. that the HY to IG synthetic decompression will be driven by investors adding IG levered products, we think the 3-6% tranche has more upside than the Main index given that it provides leverage with default subordination – a potentially more palatable way to start adding leverage.

Figure 24. Current spread curves for Main S21 3-6% and Xover S21
In bp.



Source: Citi Research, Markit.

Figure 23. Ratio of Xover to 3-6% spreads vs. Xover spreads

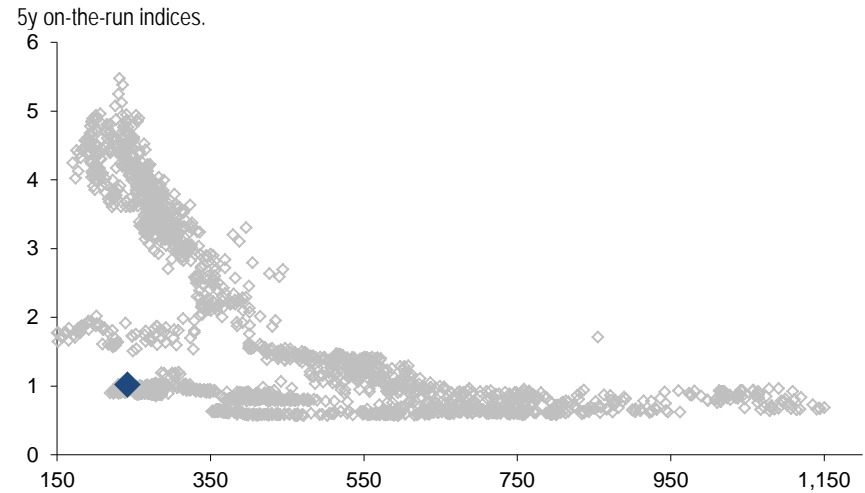


Figure 25. Historical spreads for Crossover and Main 3-6% tranche



Long Senior Financials vs. Main

- The outperformance of financials is another trend we expect to continue playing out in 2014 as investors adjust to a new world of tight spreads, where every basis point counts.
- European Credit Outlook 2014 - [Positioning and trades:](#)
- **We expect to see Senior Financial spreads trading inside Main in 2014.**
- Although the trade has started to play out, we still believe it has room to run further, especially if the ECB ends up implementing QE.
- **We would not take profits yet.**

Figure 26. Ratio of Senior Fins to Main spreads

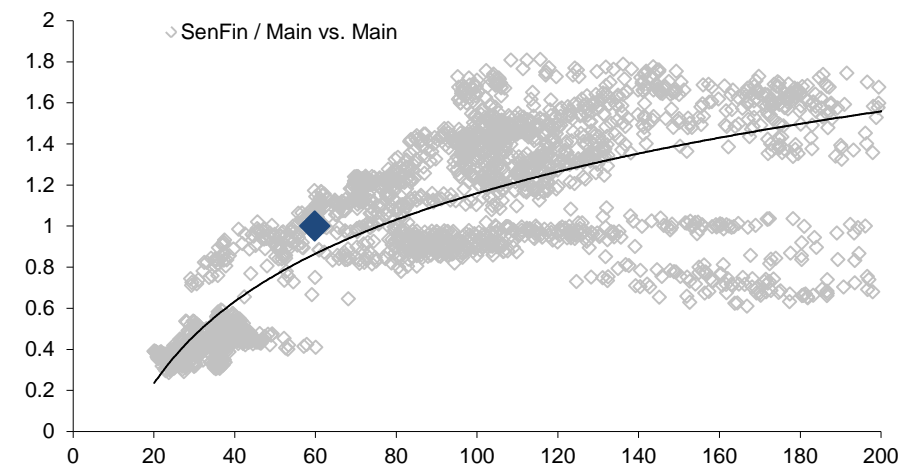
5y on-the-run indices.



Source: Citi Research, Markit.

Figure 27. Ratio of Senior Fins to Main spreads vs. Main spreads

Y-axis: spread ratio. X-axis: Main 5y spreads, in bp.



Europe vs. US?

■ Consensus view is long Europe vs. US.

- We would expect Europe to outperform in a movement tighter (ECB QE)
- But likely underperform in an EM-led widening

■ Best to participate via options:

- Buy Main or SenFin straddles
- Sell CDX IG straddles

Figure 29. Main – CDX IG spread difference

5y on-the-run indices.



Source: Citi Research, Markit.

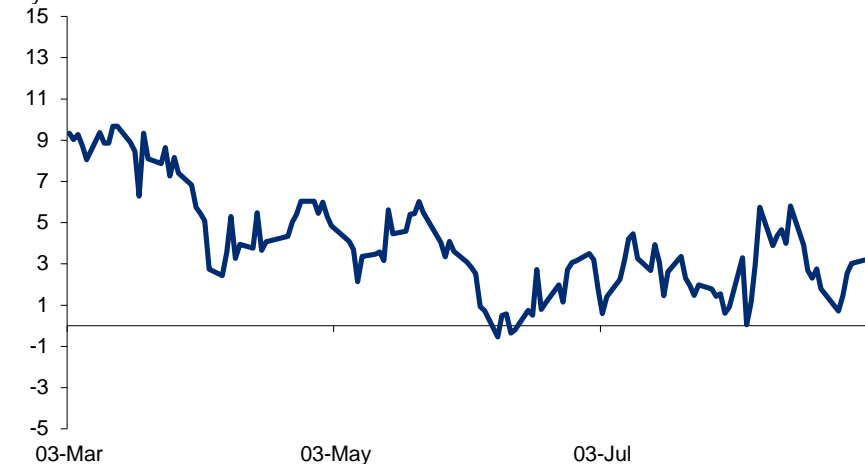
Figure 28. Xover – CDX HY spread difference

5y on-the-run indices.



Figure 30. Main – CDX IG spread difference

5y on-the-run indices.

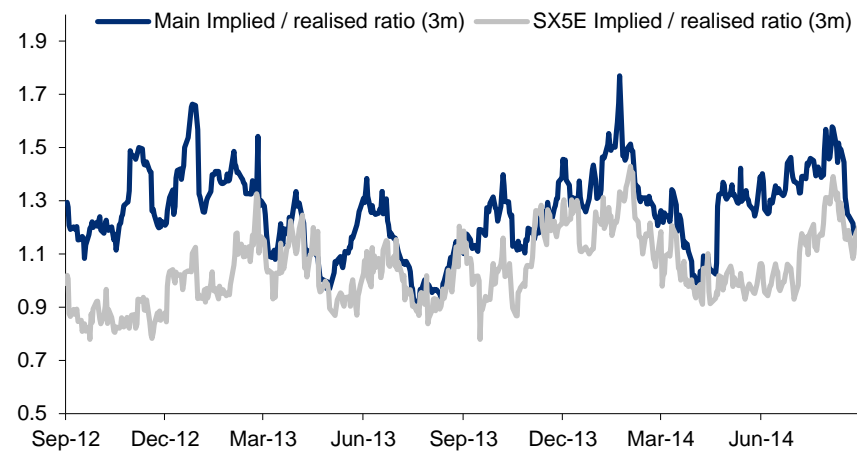


Credit vs. Equities

- The (large) outperformance of credit vs. equities continues.
- Vol-wise, credit vol **CHEAP** to equity vol.

Figure 32. Implied / realised vol (3m)

In %.



Source: Citi Research, Markit, Bloomberg.

Figure 31. iTraxx Main vs. SX5E - Level

LHS: Main (bp); RHS: SX5E.

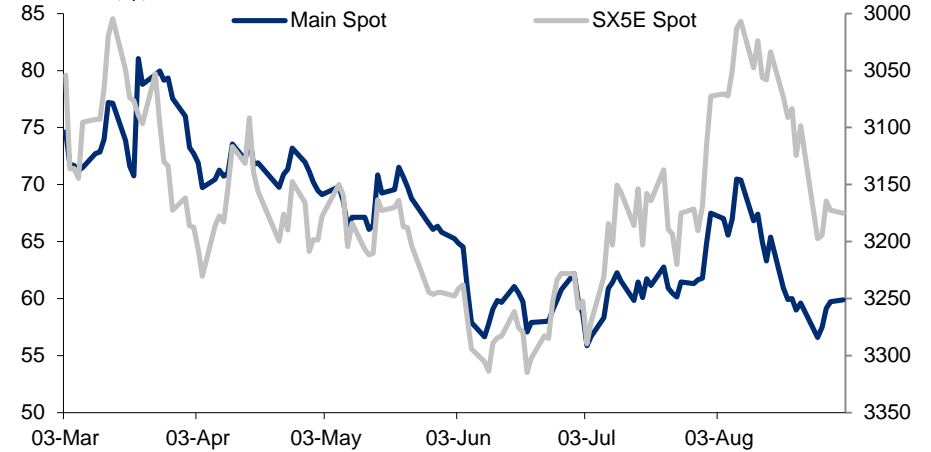
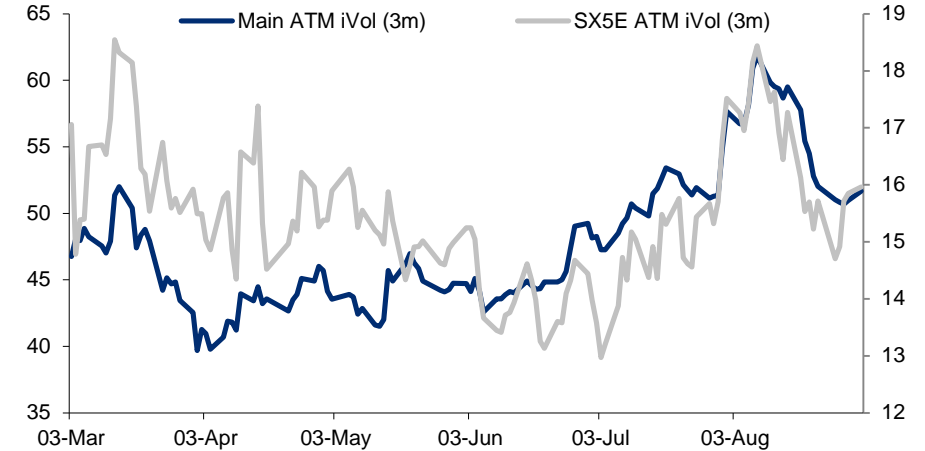


Figure 33. Implied vol (ATM, 3m)

LHS: Main; RHS: SX5E. In %.



Credit vs. Equity Returns: Long risk credit vs. Equities

Figure 34. Unfunded Main vs. beta-weighted SX5E - Cum. Return

Using a rolling 3m beta-weighted notional for the SX5E. Return of a long risk position, % of notional.

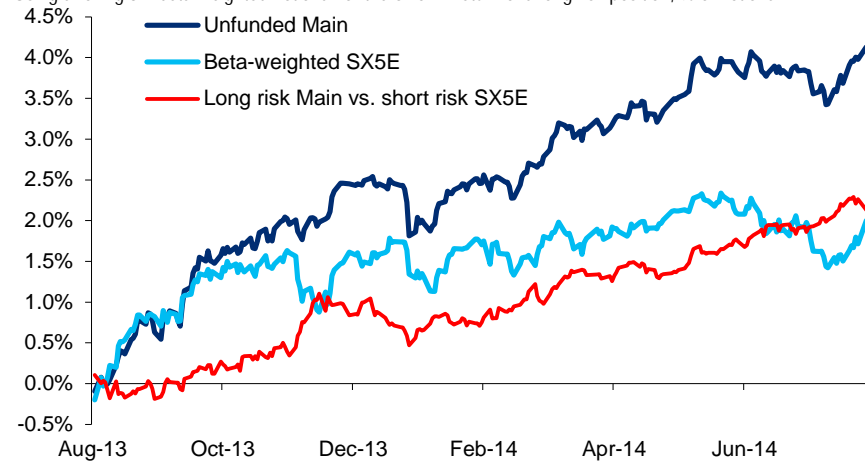


Figure 35. Unfunded Sen. Fin. vs. beta-weighted SX7E - Cum. Return

Using a 3m beta-weighted notional for the SX7E. Return of a long risk position, % of notional.

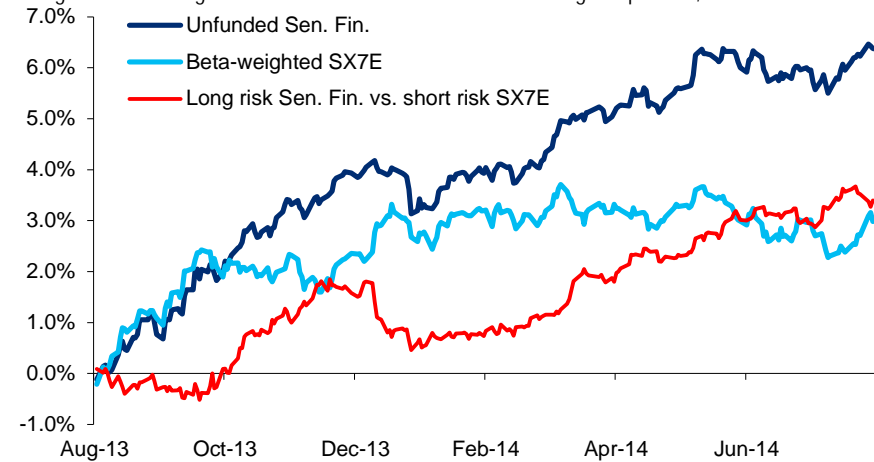


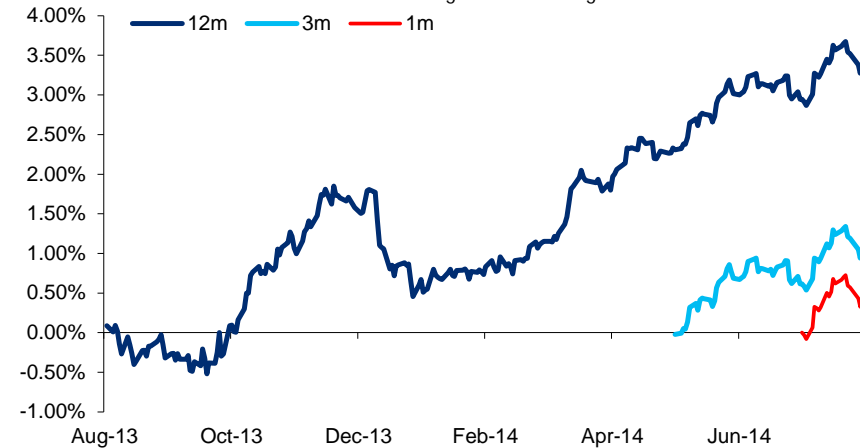
Figure 36. Long risk Main vs. short risk SX5E - Cum. Return

Return as % of Unfunded Main notional. Using a rolling 3m beta-weighted notional for the SX5E.



Figure 37. Long risk Sen. Fin. vs. short risk SX7E - Cum. Return

Return as % of Unfunded Sen. Fin. notional. Using a 3m beta-weighted notional for the SX7E.



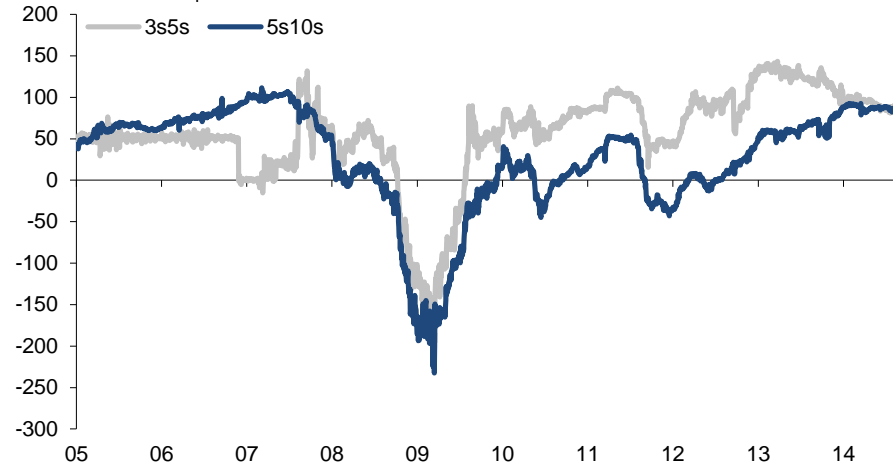
Source: Citi Research, Markit, Bloomberg.

Curves

- **There still may be some P&L left in 3s5s flatteners, but they are not as attractive as they were earlier this year – we would scale back.** 3s5s flatteners still positive carry + roll down, but crowded and directional.
- **We favour 5s10s flatteners.** Carry + roll down not yet positive, but not crowded and less directional.
- **Trade: Main duration weighted 5s10s flatteners,** funding their running cost by reducing the amount of the 5y short risk leg.
- **Equal notional flatteners are very attractive longs.**

Figure 39. iTraxx Crossover Curves

On-the-run indices, bp.



Source: Citi Research, Markit.

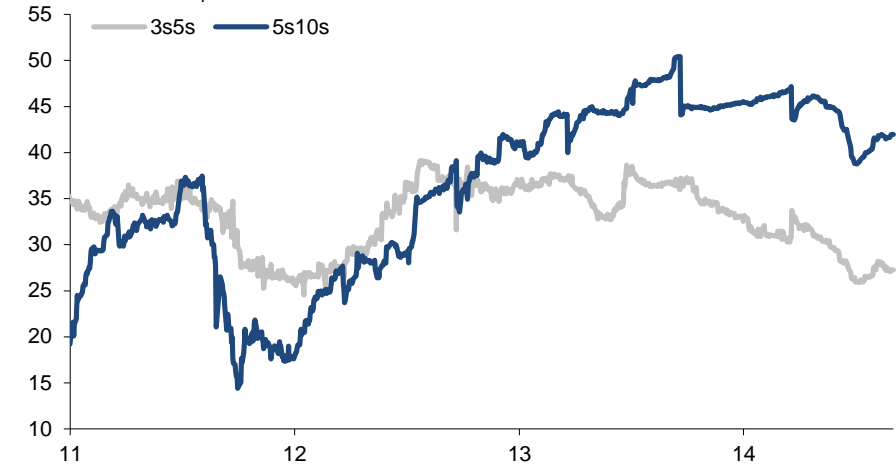
Figure 38. iTraxx Main Curves

On-the-run indices, bp.



Figure 40. CDX IG Curves

On-the-run indices, bp.



iTraxx Main

Figure 41. Spread curves

On-the-run indices, bp.



Figure 42. Annual carry (exc. roll down) of DVO1 neutral flatteners

On-the-run indices, bp. Assuming full running spread trading (i.e. no upfront, coupon = spread).

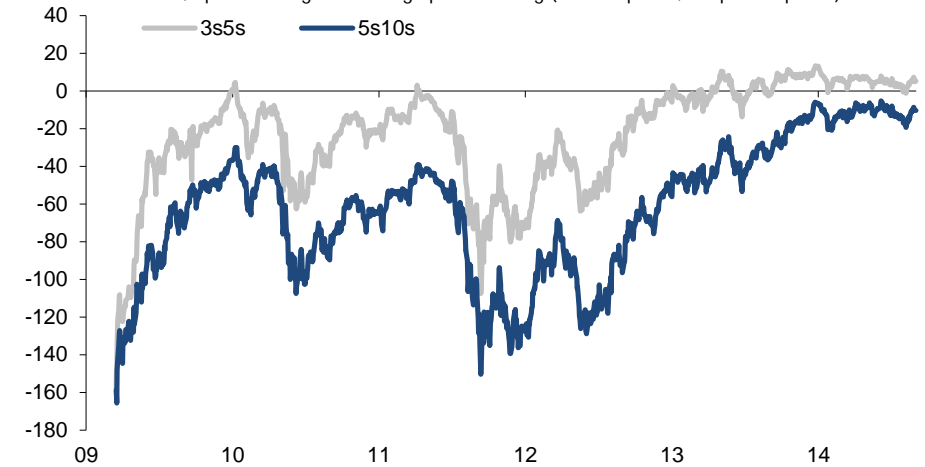


Figure 43. 3s5s vs. 5y spread

On-the-run indices, in bp.

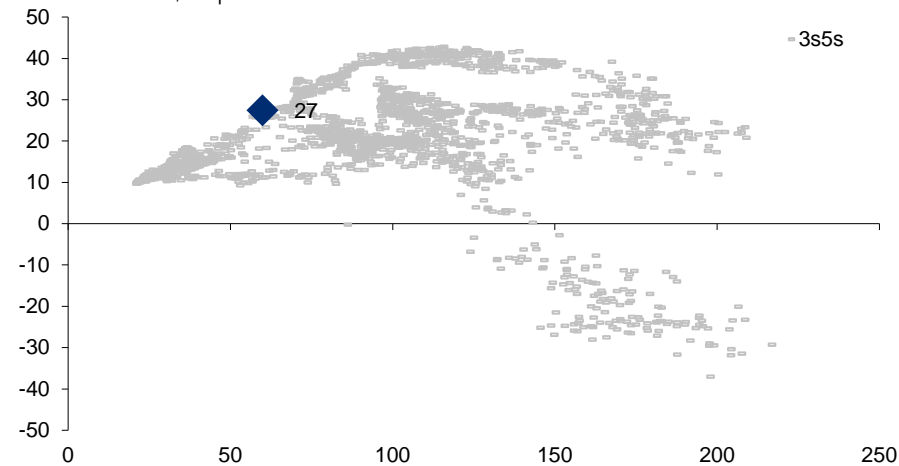
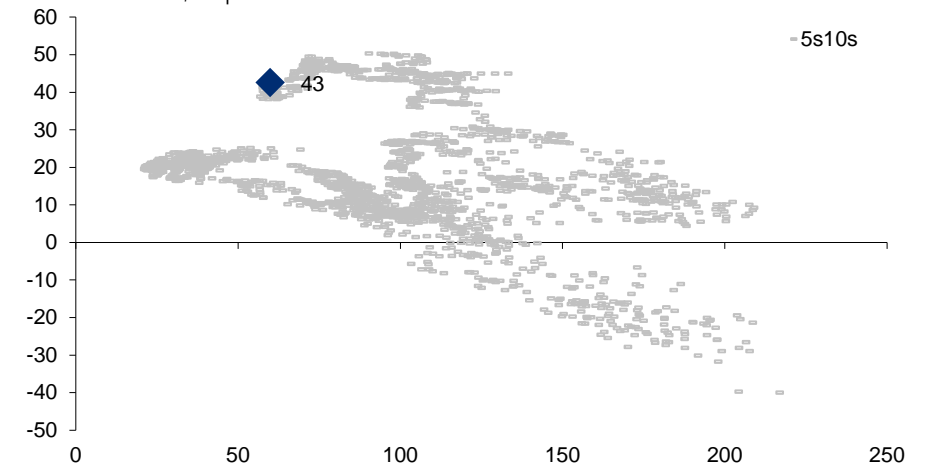


Figure 44. 5s10s vs. 5y spread

On-the-run indices, in bp.



Source: Citi Research, Markit.

iTraxx Main DV01 Weighted Flatteners

Figure 45. iTraxx Main 3s5s Duration Weighted Flatteners – Assumes full running trading (i.e. coupon = spread, upfront = 0%).

Tenor	Maturity	Spread (bp)	Notional (€)	12m Carry (€)	12m Slide (€)	12m Time (€)
3y	20-Jun-17	31	-16,788	-53	-28	-81
5y	20-Jun-19	59	10,000	59	38	96
02-Sep-14		27	-6,788	6	9	15

Source: Citi Research. Indicative mid prices shown.

Figure 46. iTraxx Main 5s10s Duration Weighted Flatteners – Assumes full running trading (i.e. coupon = spread, upfront = 0%).

Tenor	Maturity	Spread (bp)	Notional (€)	12m Carry (€)	12m Slide (€)	12m Time (€)
5y	20-Jun-19	59	-18,785	-110	-70	-181
10y	20-Jun-24	101	10,000	101	39	140
02-Sep-14		42	-8,785	-9	-31	-40

Source: Citi Research. Indicative mid prices shown.

iTraxx Crossover

Figure 47. Spread curves

On-the-run indices, bp.

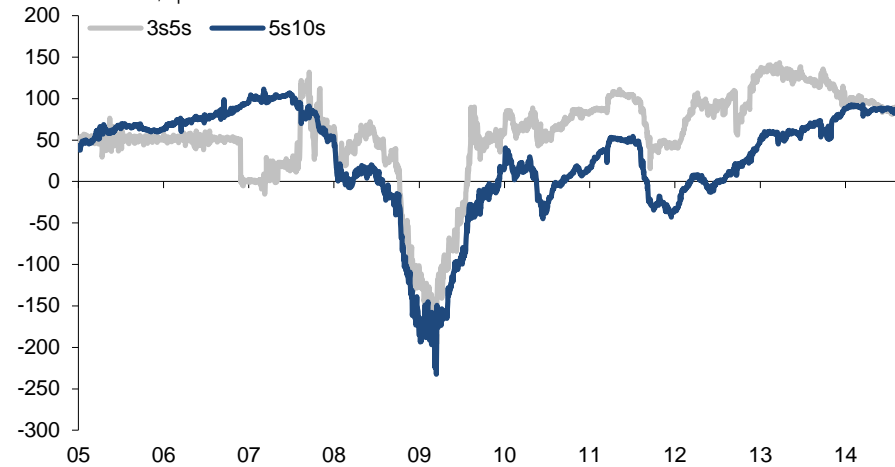


Figure 48. Annual carry (exc. roll down) of DVO1 neutral flatteners

On-the-run indices, bp. Assuming full running spread trading (i.e. no upfront, coupon = spread).

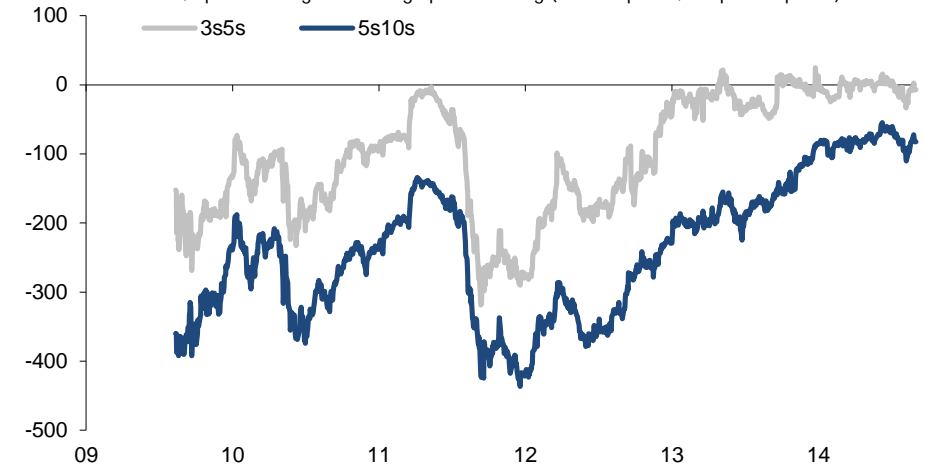


Figure 49. 3s5s vs. 5y spread

On-the-run indices, in bp.

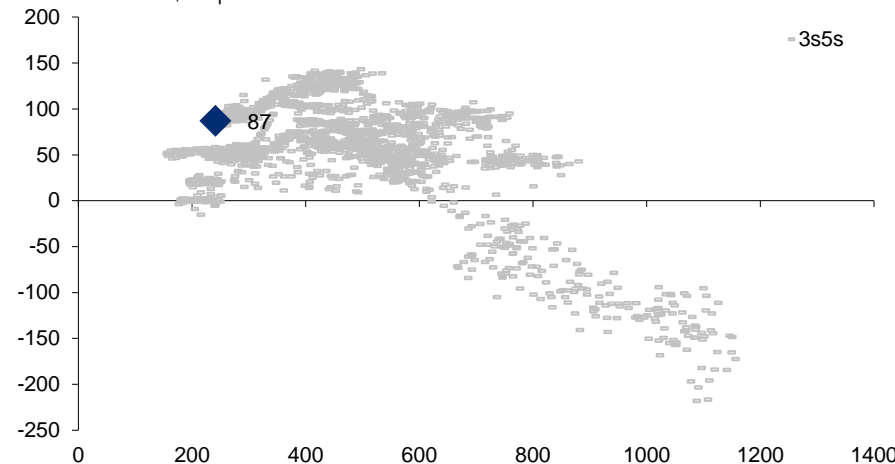
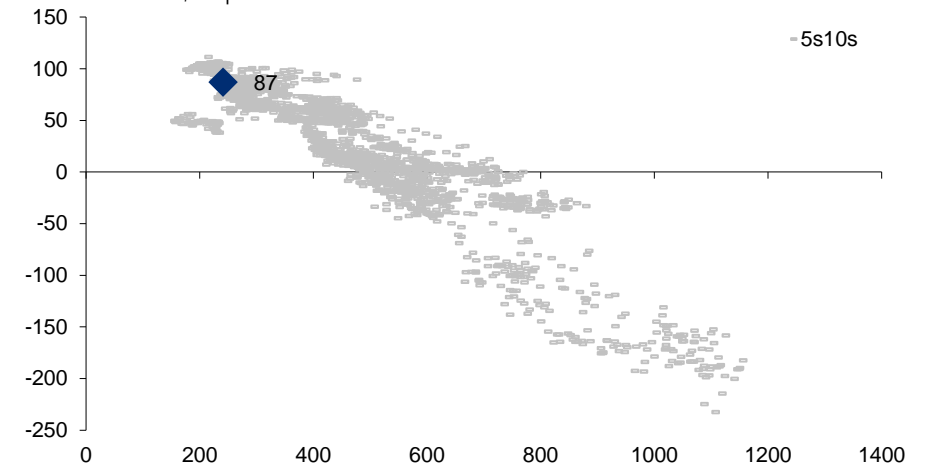


Figure 50. 5s10s vs. 5y spread

On-the-run indices, in bp.



Source: Citi Research, Markit.

iTraxx Financials 5s10s

Figure 51. Spread curves

On-the-run indices, bp.

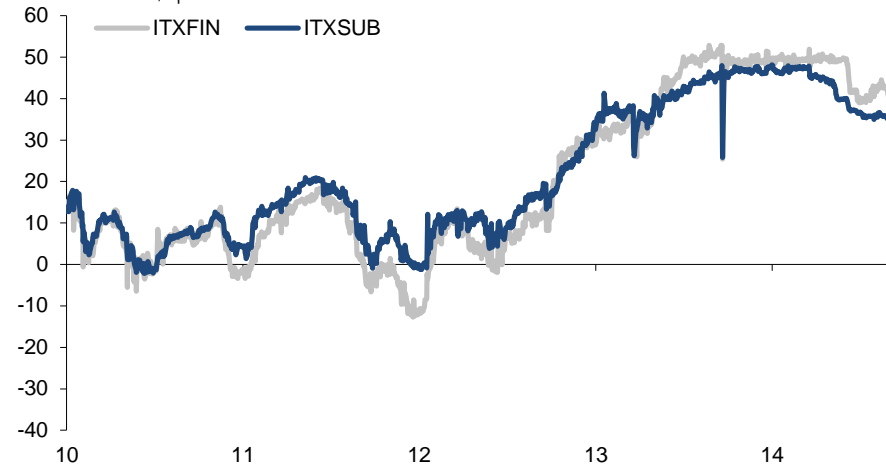


Figure 52. Annual carry (exc. roll down) of DVO1 neutral flatteners

On-the-run indices, bp. Assuming full running spread trading (i.e. no upfront, coupon = spread).

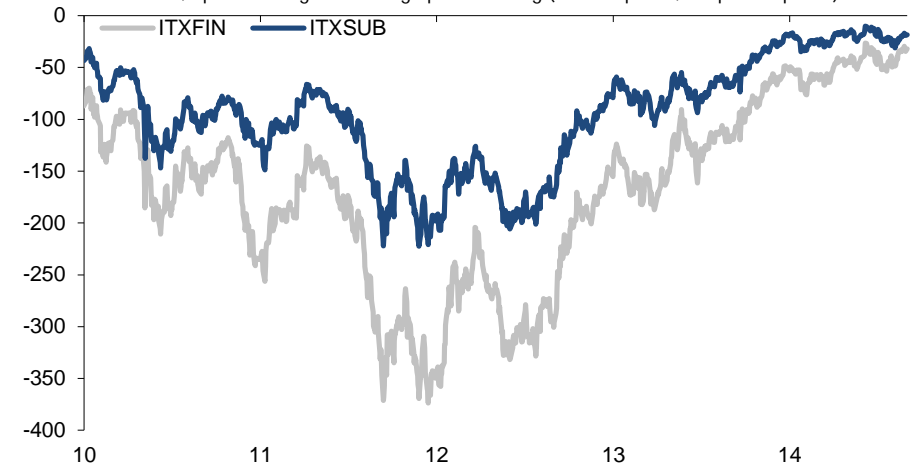


Figure 53. Senior Fin. – 5s10s vs. 5y spread

On-the-run indices, in bp.

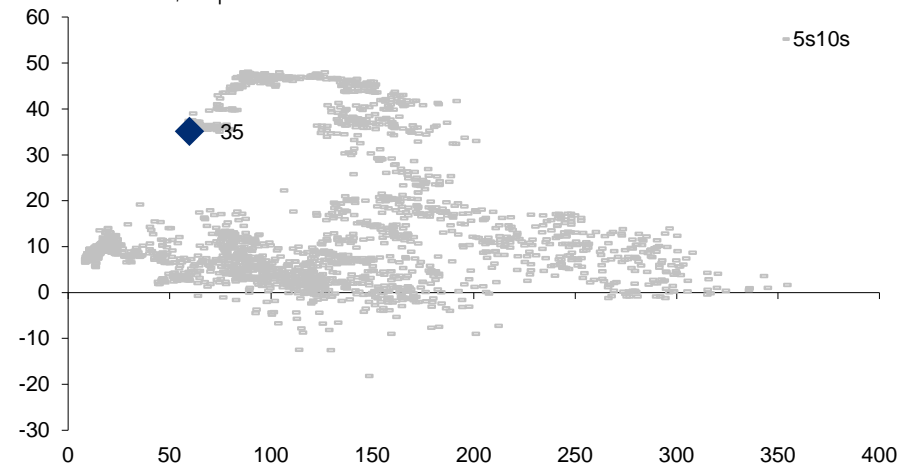
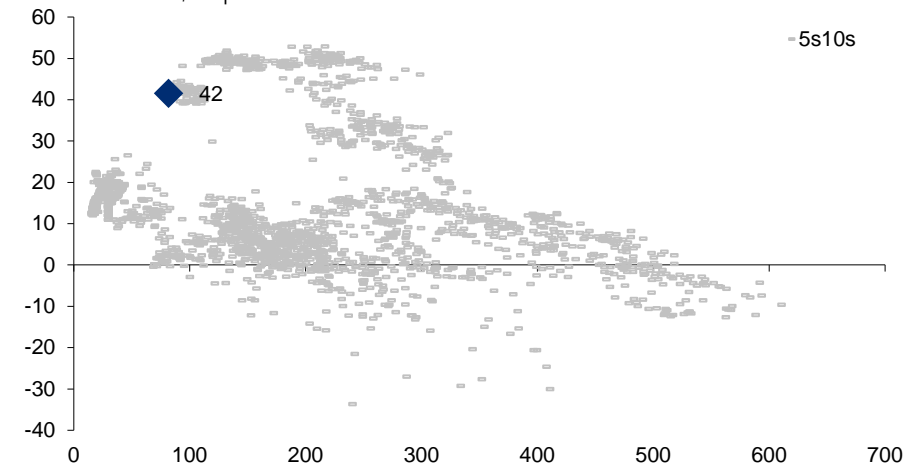


Figure 54. Sub. Fin. – 5s10s vs. 5y spread

On-the-run indices, in bp.



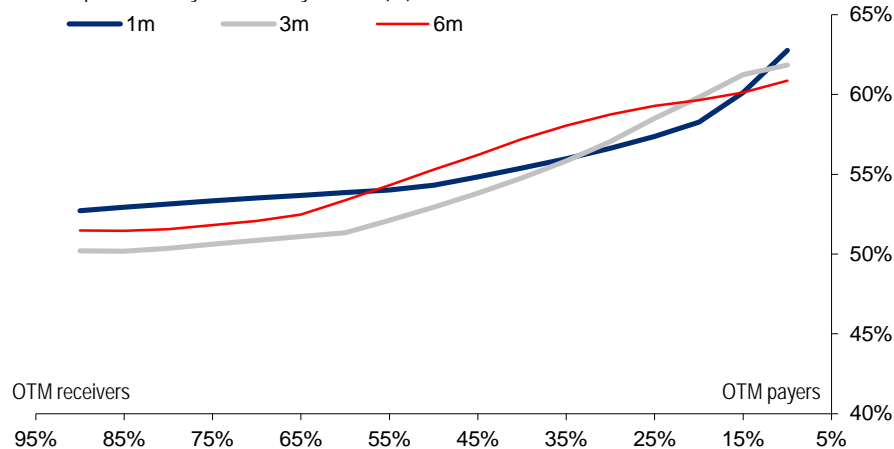
Source: Citi Research, Markit.

Options

- **We leave the summer with very bullish pricing.** This is the market which everyone uses for hedging; so pricing tends to be always bearish – in different degrees.
- **Implied vol has been falling even as realised was going up.** As a consequence, the **implied to realised ratio** has fallen a lot – and it is now **below** the implied to realised ratio for all other **asset classes**, including equities, rates and FX. Moreover, the **receiver skew keeps flattening** as investors buy OTM receivers.
- What does that tell us? **Everyone is bullish and not hedging** – so expect spreads to tighten. If people are not hedging they'll probably be adding risk. But, **if we widen we can gap** wider as people will rush for hedges.

Figure 56. Current volatility SKEW for different option expiries - Main

Y-axis: Implied volatility; X-axis: Payer delta (%).



Source: Citi Research, Markit, Bloomberg.

Figure 55. Main implied to realised vol

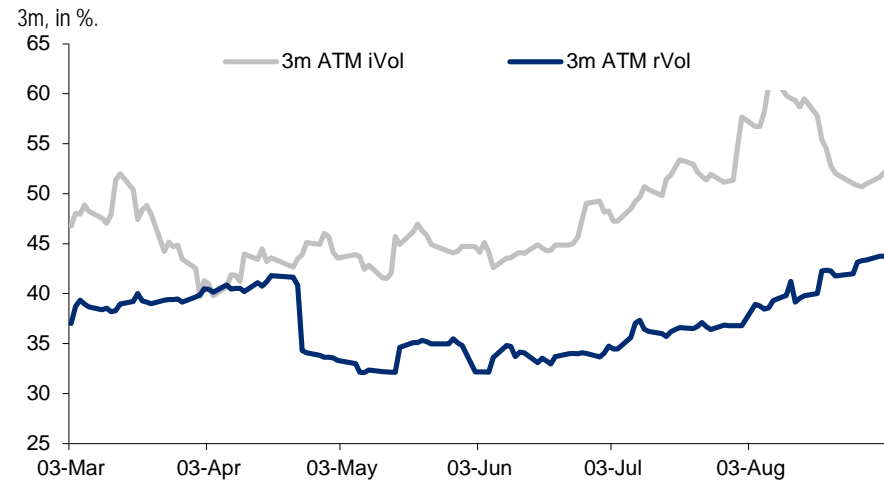
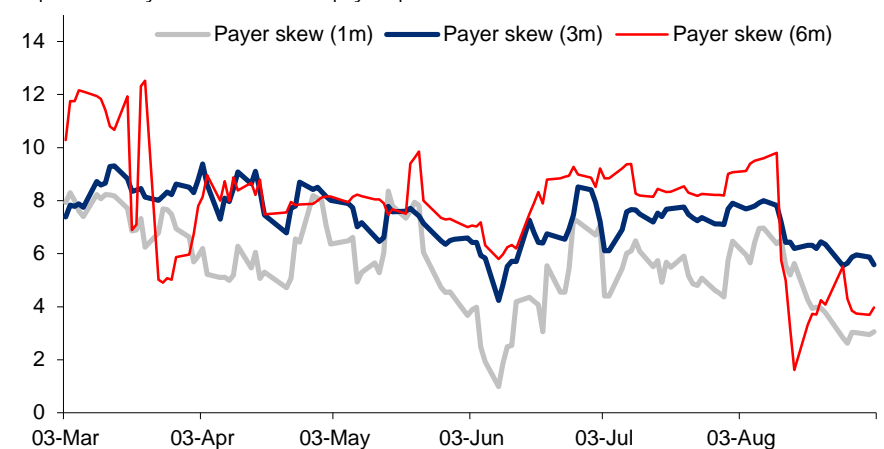


Figure 57. Main Payer Skews

Implied volatility difference between payer options with 25% delta and with 50% delta.



Options – Short term (cont.)

■ Trades?

– No point buying payer spreads to hedge; **Bearish risk reversals** are more attractive, in our view

– Receiver 1x2s to get long.

■ **The good thing is that dislocations come and go often and quickly:** August saw plenty of distress hedging on the first half and a quick reversal in the second half.

■ **Volumes so far ... STRONG.** On track to double this year, with very pronounced growth in Senior Financials and among Real Money investors.

Figure 58. Main vol vs. spreads

Spread in bp (lhs), vol in % (rhs).

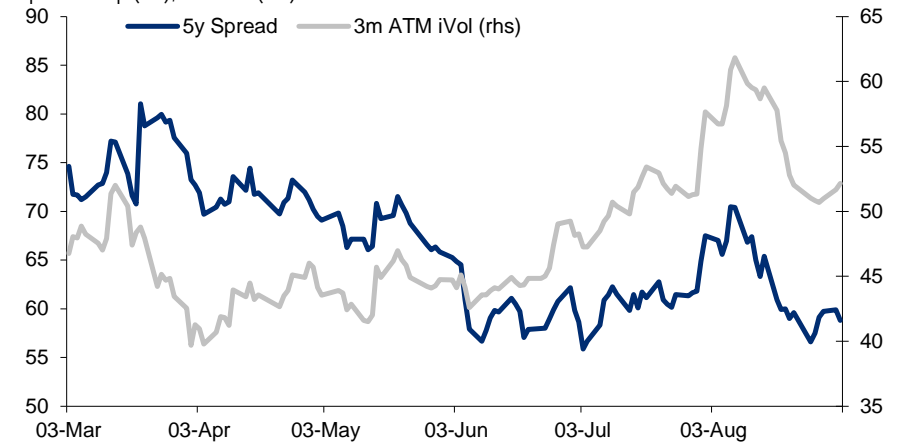


Figure 59. Receiver Skews (3m)

Implied volatility difference between payer options with 50% delta and with 25% delta.

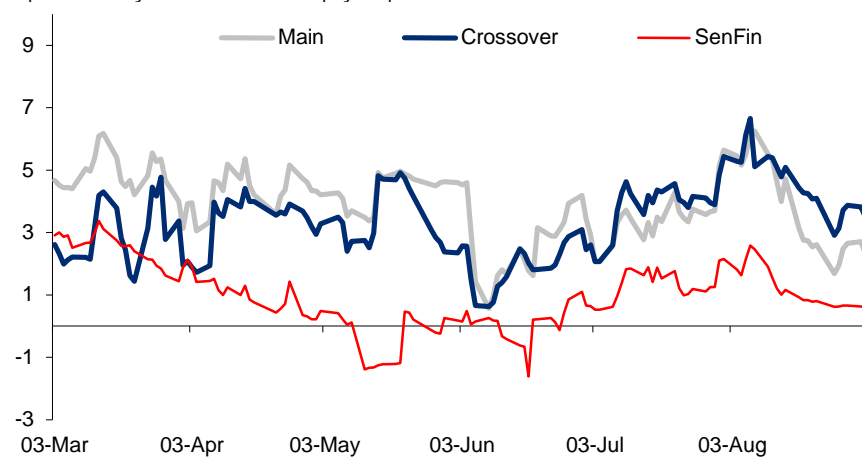
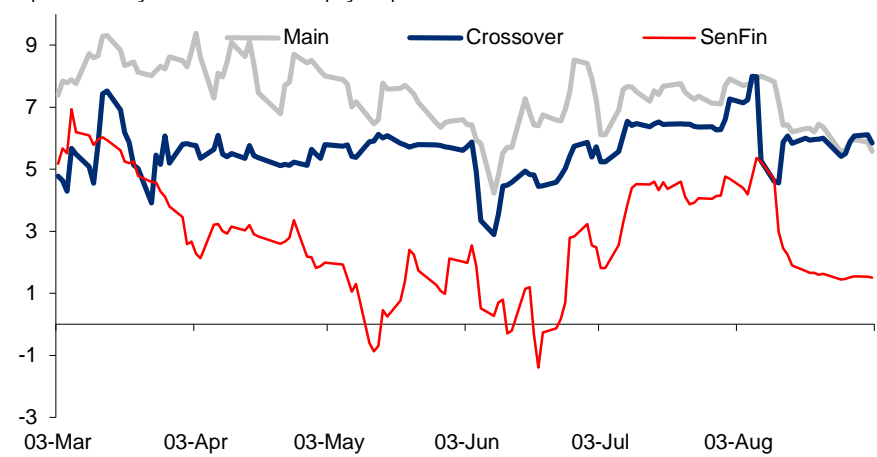


Figure 60. Payer Skews (3m)

Implied volatility difference between payer options with 25% delta and with 50% delta.



Source: Citi Research, Markit, Bloomberg.

Options – Medium term

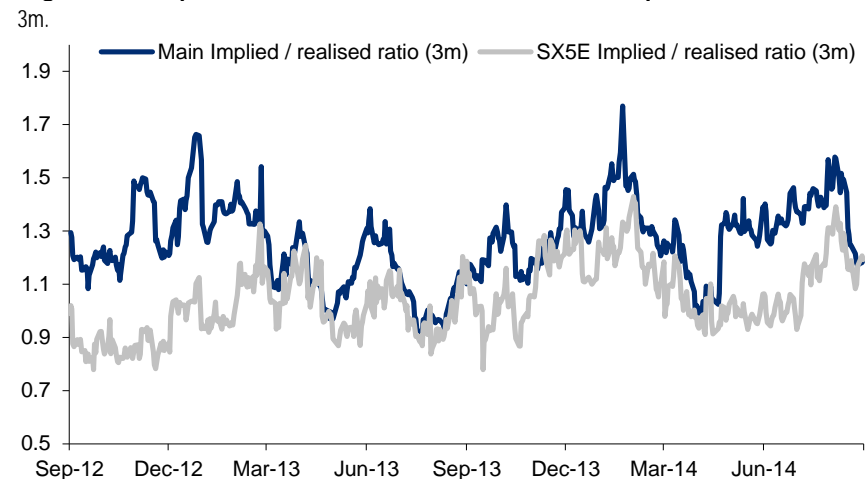
- Medium term, implied vol to drift tighter with spreads – although % vol will lag; not bp vol.
- P&L of selling vol to probably still be positive but to continue falling.
- Still a “hedging” market, with investors rushing for hedges on any weakness. Large driver of index flows.
- Expect more focus on “carry” trades from real money and fast money (e.g. selling vol, selling receivers).
- [What did investors do in 2013? What will they do in 2014?](#)
- “Systematic” trade ideas for 2014:
 - Sell Main 1m no-delta straddles to position for a range-bound market.
 - Payer spreads to continue outperforming index shorts as hedges, in our view. We are not bearish, just want to take exposure to the fact that we believe payer spreads should beat index shorts as hedges; thus we are, at the same time, entering into an outright index long (with the same notional).
 - Sell Crossover receivers to buy Senior Financial receivers, i.e. expecting Crossover to underperform Senior Financials as spreads stabilize/tighten.

Figure 61. Implied vol in Credit and Equities



Source: Citi Research, Markit, Bloomberg.

Figure 62. Implied to realised ratio in Credit and Equities



P&L of selling 1m ATM straddles this year – Still a good carry trade to us ...

Figure 63. Main – delta hedged (daily, at the close)

P&L in cents of notional traded.

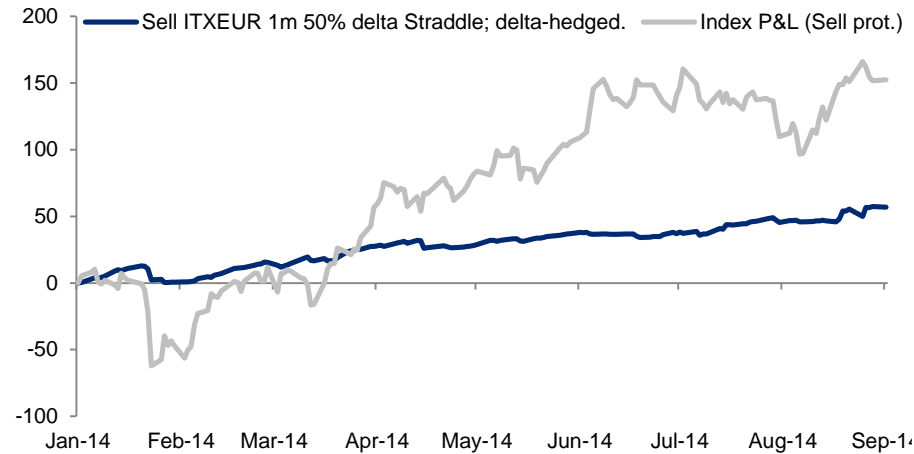


Figure 64. Main – NO delta hedged

P&L in cents of notional traded.

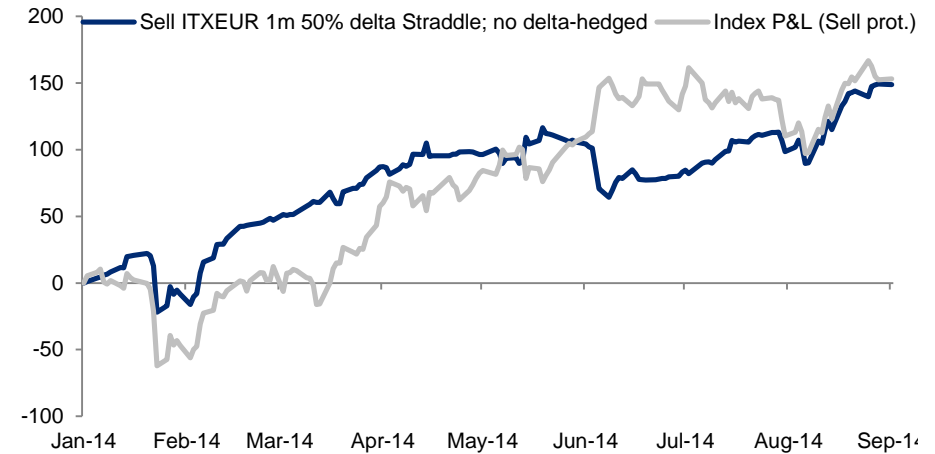


Figure 65. Crossover – delta-hedged (daily, at the close)

P&L in cents of notional traded.

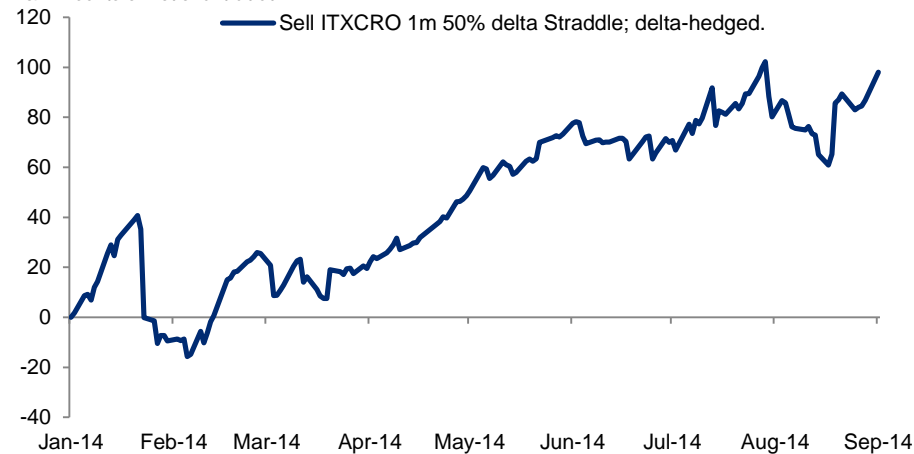
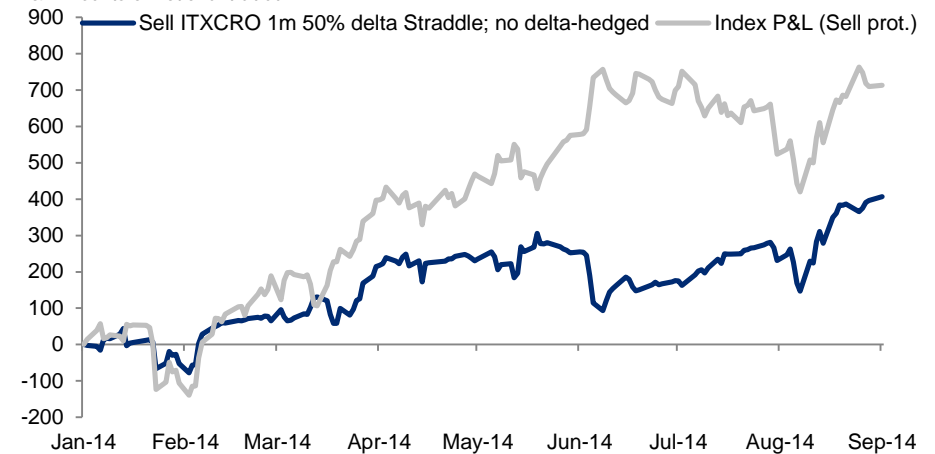


Figure 66. Crossover – NO delta-hedged

P&L in cents of notional traded.



Source: Citi Research, Markit. We sell front month ATM straddles (50% delta strikes) and leave them until expiry; daily delta-hedging assumed for delta-hedged trades. Gross of bid-ask.

Past performance is no indicator of future results. Does not include transaction costs or fees. For full details see: <https://ir.citi.com/LYVYA5oRuWmMDTj5S2uZaPd0Xkso2JJucpsqqlSSxmKxUZQ6PnLENZ2FEz06ipvE>

Long? Main Rec 1x2s

- 1x2 receiver spreads to position for synthetic index spreads drifting, but not gapping, tighter in the near term.
- By selling OTM receivers, this trade takes advantage of the extremely flat (when not inverted) receiver skew which has resulted from investors' rush to buy receivers last week.

Hedge? Bearish risk reversals

- Although not massive fans of hedging anything right now, we think investors looking for near-term synthetic hedges should look at bearish risk reversals (buying an OTM payer and selling an OTM receiver).
- The near-term synthetic tightening potential is not huge in our view; moreover, as real money investors are running little or no hedges, they might be forced to put on hedges if spreads were to widen.

Figure 67. Main Oct. 50-60bp - Trade spread exposure – [Link to pricing tool](#)

In cents of notional traded (100c = 1%).

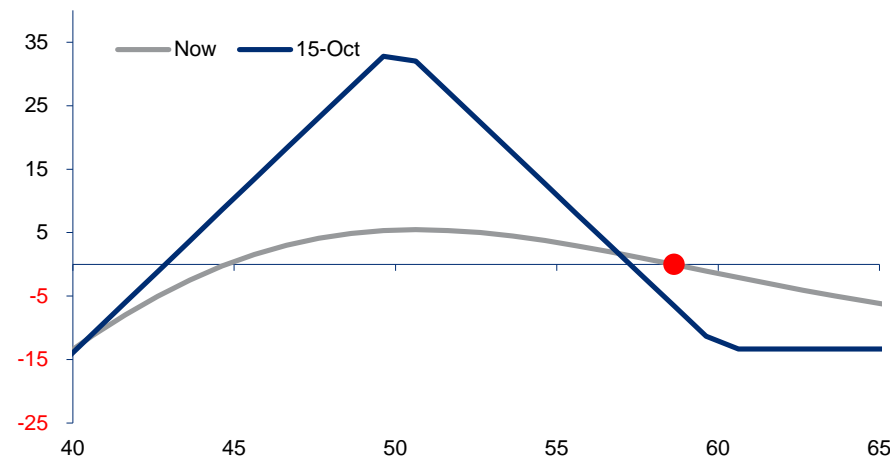
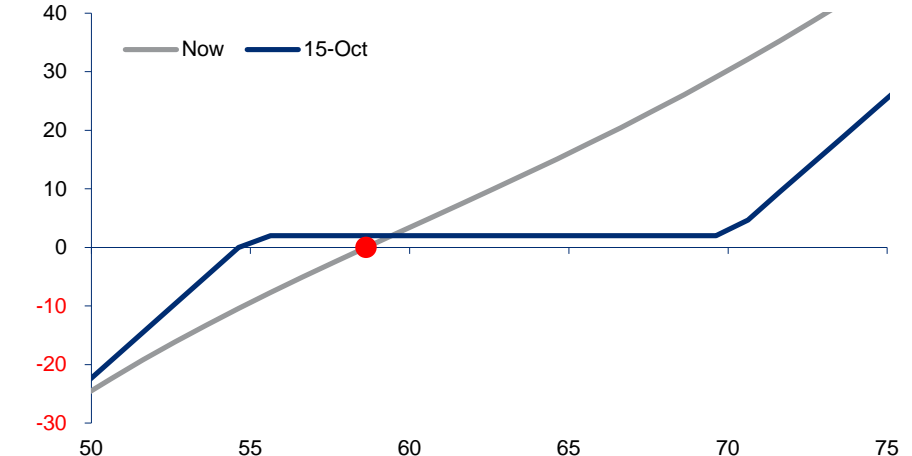


Figure 68. Main Oct. 55-70 - Trade spread exposure – [Link to pricing tool](#)

In cents of notional traded (100c = 1%).



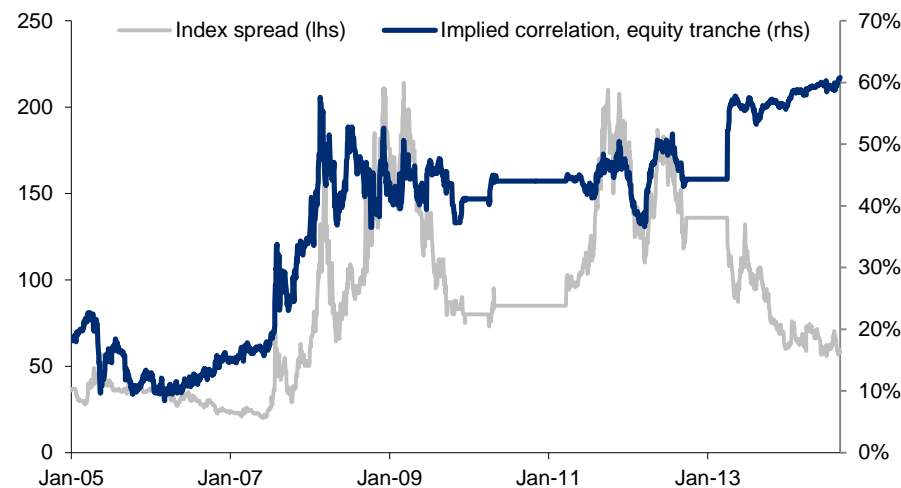
Source: Citi Research, Markit, Bloomberg. Charts as of 2-Apr-14 (trade publication date).

Tranches

- **Investors are concerned when finding out how bullish we are on the eventual return of levered products.**
- Levering up investment grade returns should be, once again, seen by real money investors as an attractive (or the only?) way to add risk with high enough spread; in particular if it doesn't generate exposure to first losses (i.e. mezzanine tranches in investment grade portfolios).
- Latest: [Last squeeze to Jun-15 Series 9 Main equity, Long risk 3-6% vs. Xover](#), [Senior tranches – The best long out there?](#)
- **Equity** – We like longs in short dated tranches ([S9 Jun-15](#)); would avoid long dated equity longs.
- **Mezz** – **Most attractive long in the short term.** We need tighter spreads for real money investors to be willing to lever up via mezz tranches. Will perform in the second leg of the tightening. E.g. [3-6% vs. Xover](#).
- **Seniors** – **Constructive long term**; can struggle in the near term. Surprisingly to us, we are finding investors willing to sell super senior protection in size, taking advantage of the very high correlations. However, we still see others using it as a hedge.

Figure 69. Correlations & index spreads

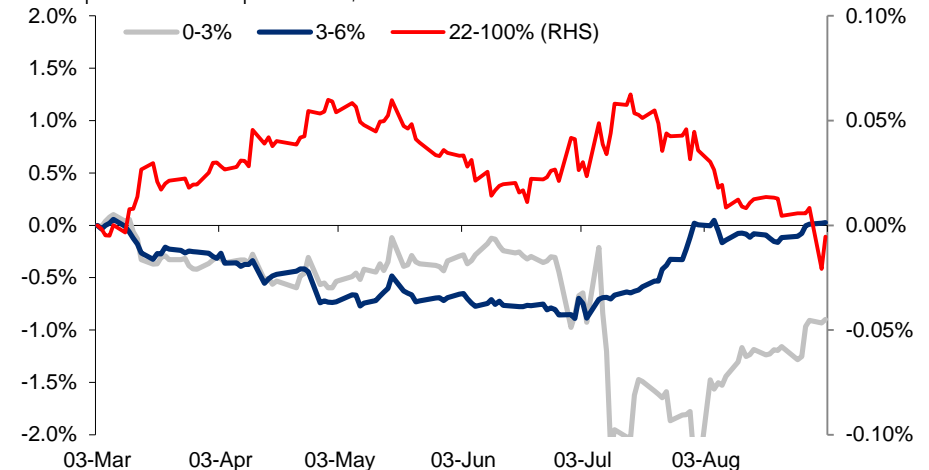
5y on-the-run.



Source: Citi Research, Markit.

Figure 70. Delta-hedged tranche performance

From a protection seller's point of view, as % of notional on each instrument.



Sell Jun-15 S9 Equity Protection

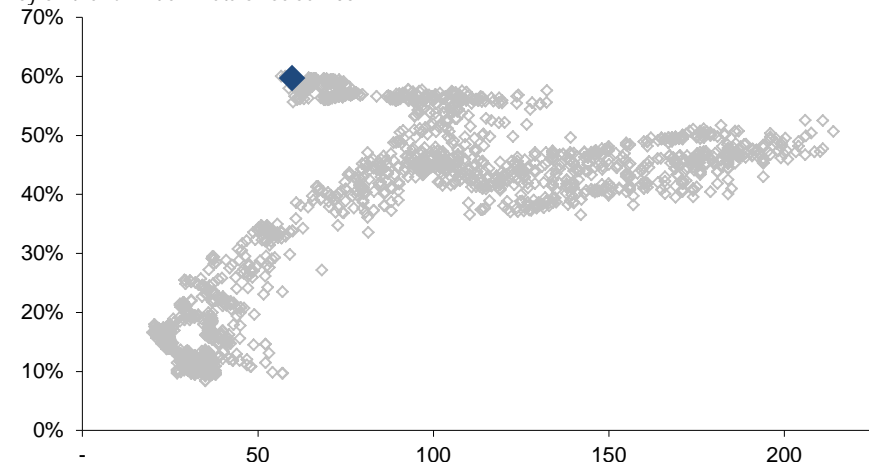
- **Last squeeze to Jun-15 Series 9 Main equity @ 280bp** (COB 3-Sep)
- We still think selling equity protection is a comfortable strategy in an environment – at least in Europe – where excess liquidity is not going to disappear – keeping investment grade default risk at the top of our preferred risks to take. However, given how high correlations remain, we would only express this view in very short dated tranches, where default risk will be the largest P&L driver.

Sell 5y super senior protection

- **Long dated super senior risk should be, in the medium term, one of the main beneficiaries of the recent tightening as tight spreads slowly remove investors' reluctance to use tranches.**
- If there is anything which is “**dislocated**” pricing-wise in the derivatives space then it is super senior spreads, with correlations at all-time highs.
- Moreover, if the ECB eventually buys senior financial bonds, we think that'll help the more systemic (i.e. senior) part of the tranche market to outperform.

Figure 71. Correlations & index spreads

5y on-the-run index. Data since Jan-05.

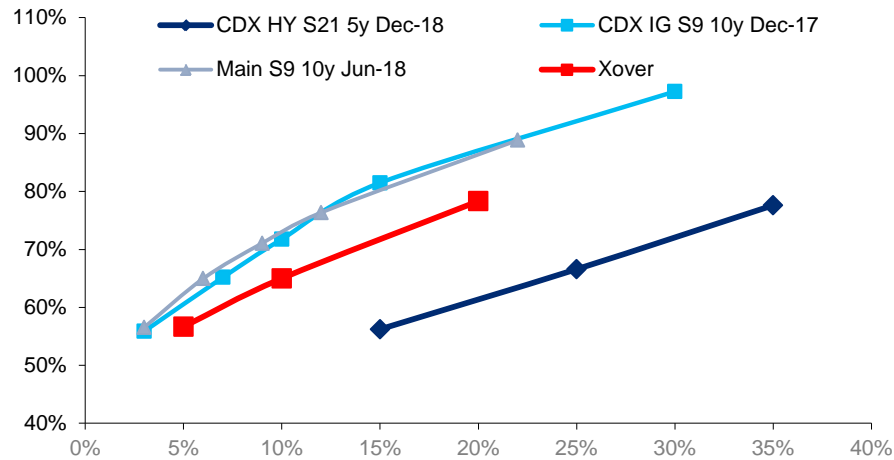


Source: Citi Research, Markit.

Warming up for Xover tranches in Sept.

Figure 72. Correlation skew – Where will Xover be?

Base correlation vs. tranche attachment.



Source: Citi Research, Markit.

Figure 73. Expected Crossover Tranche Pricing

As of 29-Aug.

Tranche	Spread	Upfront*	Delta
0-5%	2554	63.3%	1.7
5-10%	1110	26.6%	2.3
10-20%	572	3.5%	1.9
20-100%	147	-17.6%	0.8
Index	310	-9.2%	

Source: Citi Research, Markit. * 500bp coupon. Using our expected constituents for Series 22 and Dec-19 maturity.

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http://www.theocc.com/components/docs/March_2011_ODD_Definitive_Supplement.pdf, and
http://www.theocc.com/components/docs/January_2012_ODD_Definitive_Supplement.pdf

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Notes

Appendix A-1

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