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Credit Derivatives
Western Europe

European Credit Derivatives– Views and Trades

Still constructive … waiting for investors to start levering up

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- **Short term – synthetic spreads to remain very range-bound, realizing little vol, and cash spreads to slowly catch up**. We again like selling short dated straddles or, probably better receiver 1x2s. The enquiries we are getting on hedges are a lot lower than they've generally been this year. We think the pressure here is for real money investors to add cash as they probably found themselves, again, underinvested post the ECB. Although we are bullish, we reckon that investors are under-hedged, compared to the hedges they've been running all this year.

- **Medium term reluctant bulls - Tighter**.

- **Trades we like**:
  - Lazy longs: Receiver 1x2s, Selling 1y equity protection & equal notional 5s10s flatteners
  - 5s10s Flatteners (from 3s5s to 5s10s)
  - SenFin to outperform Main, Main to outperform Xover
  - Selling straddles (get carry by positioning for a range-bound market)
  - Selling 5y super senior protection

- **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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Analytic Reports @ Citi Velocity

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

Pricing Tools and Databases

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

Model Portfolio

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

Medium Term Views

Strategy

- **Reluctant bulls – Tighter**
- **On the back of a potential ECB QE, we reviewed our YE spread targets** (25 Apr):
  - From 90 to 80bp in iBoxx IG
  - From 290 to 265bp in iBoxx HY
- When will the credit cycle turn? And would spreads actually widen?, Apr-14.

Figure 1. Citi 2014 Forecasts (As of 13-Jan-14)

	Current	14F target	Excess return	Total return
iBoxx € Corp	105bp	90bp	1.5%	3%
iBoxx € HY	320bp	290bp	2.5%	4%
iTraxx Main	72bp	60bp	1.3%	-
iTraxx Xover	285bp	240bp	5.0%	-

Source: Citi Research. Note: Targets have been revised slightly tighter from the previous forecast from 3 December 2013.

- **For the wrong reasons?**

  Lots not to like: Valuations are 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 for 2014 look rather tame.**
- **"Must make money"** – Like it or not, credit investors are getting dragged into the old game of leveraging up exposures. Few can afford to wait for a trigger to bring about better valuations, fewer still can make sufficient returns through alpha alone.
- **EM worries?** As long as they trigger EM outflows and European credit inflows … not to be too much concerned.

Derivatives

- **Game Changer**

  2014 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 levering up investment grade spreads than by venturing into high yield.

  – Equity and (especially) Mezz vs. Senior 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

Are investors ever going to lever up?

- **We remain bullish, although near term the upside for cash is probably higher than for synthetics**.
- **Most of the themes we've been recommending recently have played out well since the ECB**: synthetics outperformed cash, fins outperformed corporates, curves flattened, Europe outperformed US**. However, only on a few of our recommendations would we take profits**. The rest remain intact as we think they've got further to run: the ECB announcements just helped, but not exhausted, many of those trades.
- **We'll keep all of our medium term trades and open a receiver 1x2 for the near term.**
- **If we do go tighter, we think the main beneficiaries, at least in synthetics should continue being**:
  - **Fins over Main, and Main over Xover (?)**.
  - In options, implied vol should catch up vs. realised.
  - In curves, we would expect the 3s5s flattening to stop and the **5s10s to start flattening**.
  - Hopefully that'll also mean a pick up on **tranche volumes (?)**.

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Positioning & Trade Ideas Menu

Indices

- **Xover / Main** Decompression
- **Senior Fins** to trade inside **Main**
- Still like **3s5s flatteners, but like 5s10s better** **…**

Tranches

- **Equity – Positive/Neutral**. Lower return but faithful client base. No change, it should continue doing ok, but not stellar returns like previous years. **Particularly like very short dated to take pure IG default risk** (S9 Jun-15).
- **Mezz – Bearish until we tighten a bit more.** 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.
- **Seniors – Getting constructive**. Surprisingly to us, we are finding investors willing to sell super senior protection in size, taking advantage of the very high correlations.

Options

- **Sell short dated straddles** – More attractive way of earning carry than going outright long. Main 57.5bp Jul straddle: ~51/63bp breakevens.
- **Receiver 1x2s** – Aggressive tightening unlikely.
- **Buy SenFin straddles vs. CDX IG straddles** – Beta of European Financials to US corporates under-priced.
- **Sell longer dated Main vs. CDX IG vol**.
- **Sell OTM puts – against 3s5s flatteners**. Hard trade to pitch though.
- **Sell Xover vs. buy SenFin receivers**.

Hedges? **Bearish risk reversals**. Skew is flat and investors are not hedged at all – a widening can pick up momentum.

Options vs. Tranches

- **Sell equity protection & monetise convexity selling options**.

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

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.

2013 Trading Volumes in European Credit: CDS Indices, Single Name CDS and IG Bonds

European IG investors trade more CDS indices (Main) and fewer bonds. The 13% increase in iTraxx Main (on-the-run) trading volumes in 2013 (vs. 2012) together with the 15% decrease in cash bond volumes (€ iBoxx IG universe) is a reflection of this year's high uncertainty and low conviction among European investors.

- More hedging via index products.
- Fears of outflows and lower liquidity in bonds have pushed many investors to (i) maintain higher than usual cash balances and (ii) use CDS index longs to make up the lost carry.

Credit Derivatives Returns

Figure 2. 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	0.6%	1.3%	4.2%
Sen. Fin.	0.9%	2.1%	6.9%
Xover	2.3%	5.0%	17.7%

iTraxx Main Steepeners (DVO1-weighted)

	1m	3m	12m
3s5s	-0.2%	-0.4%	-0.9%
5s10s	0.1%	0.4%	1.2%

Main S9 10y tranches Delta-hedged

	1m	3m	12m
0-3%	0.1%	0.1%	5.8%
3-6%	-0.1%	-0.5%	3.9%
6-9%	0.0%	-0.1%	2.6%
9-12%	0.0%	-0.3%	0.2%
12-22%	0.0%	-0.2%	-1.1%
22-100%	-0.03%	0.00%	-0.45%

Sell Main Straddle Delta-hedged

	1m	3m	12m
1m	0.0%	0.2%	0.9%
3m	0.1%	0.2%	0.5%

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	1.0%	3.1%	7.6%
Sen. Fin.	1.4%	4.0%	10.3%
Xover	2.8%	6.8%	21.0%
iTraxx IG*	1.2%	3.5%	8.7%

iBoxx indices

	1m	3m	12m
€ iBoxx IG Corp.	0.5%	2.4%	6.0%
€ iBoxx Senior Fins	0.4%	2.1%	5.2%
€ iBoxx HY Corp.	1.0%	2.5%	10.5%

Equity indices

	1m	3m	12m
SX5E	3.7%	8.0%	23.2%
SX7E	7.7%	4.3%	40.4%

Data as of COB: 18 Jun 14

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.

Source: Citi Research, Markit, Bloomberg, iBoxx.

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

Figure 3. 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 4. 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.

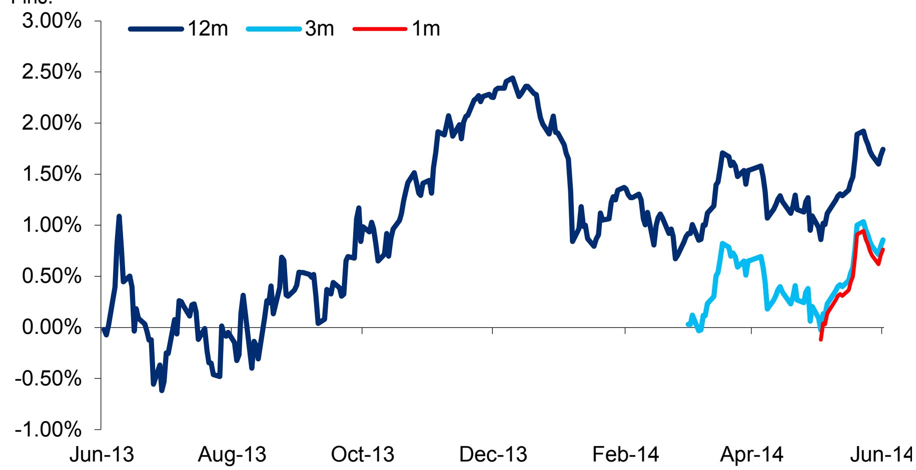


Figure 5. Long risk Main vs. short risk SX5E

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

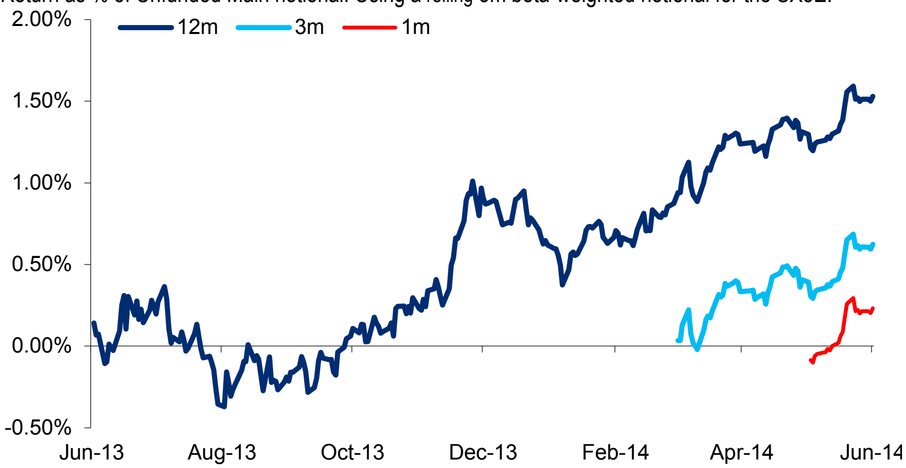
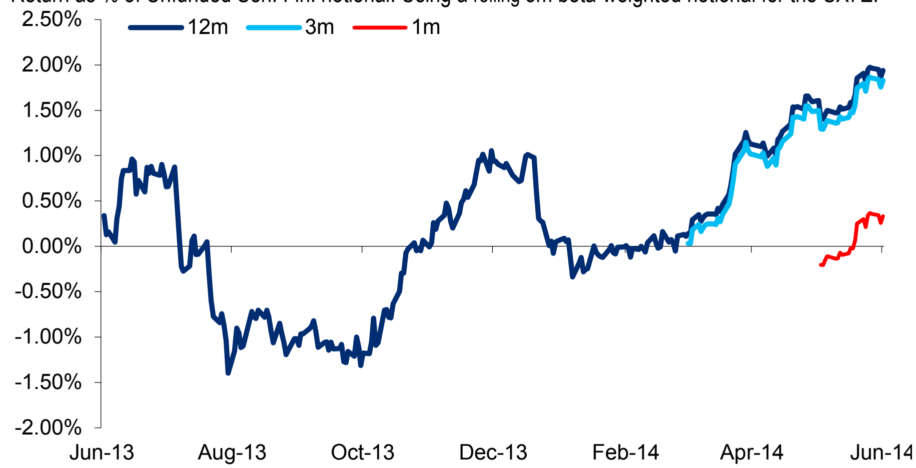


Figure 6. Long risk Sen. Fin. vs. short risk SX7E

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 are very long risk iTraxx Main, CDX IG** and HY.
  - Not a concern to us. We believe this is mostly due to investors going long indices as they cannot put to work inflows in the cash market.
- In Europe, shorts very pronounced in Crossover (esp. S20).
- In iTraxx Fins investors remain short, as usual.
- Weekly CDS Indices Positioning Report

Figure 7. iTraxx Main vs. Crossover

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

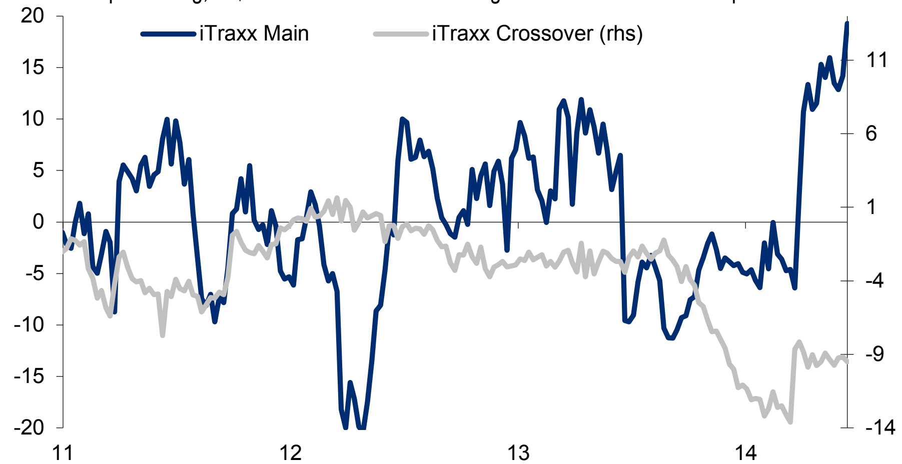


Figure 8. iTraxx Main vs. CDX IG

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

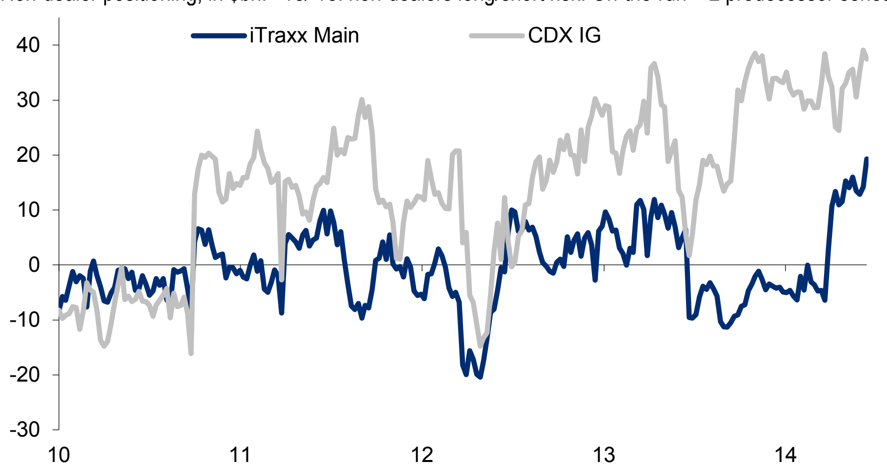


Figure 9. iTraxx Senior vs. Sub Financials

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 was unchanged in May**
- **Inflows increased on aggregate, with a decline in dollars more than offset by an increase from euro and sterling accounts**
- The absence of movement in the aggregate long masks notable sector-level shifts. Positions in Telcos, Utils and Non-fin Hybrids were cut significantly, while the long in Tier II bank debt, insurers and HY increased
- We think these shifts resulted from investors moving some of their exposure from the European periphery towards other high-beta sectors
- **The survey results give us little reason to depart from our recent bullishness: while positions remain elevated relative to history, the uptick in inflows leaves us hopeful**
- Latest Global Credit Survey:

  Technically unchallenged, 2-Jun, J. Faith.

Figure 10. EUR positions in credit vs. cash inflows

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

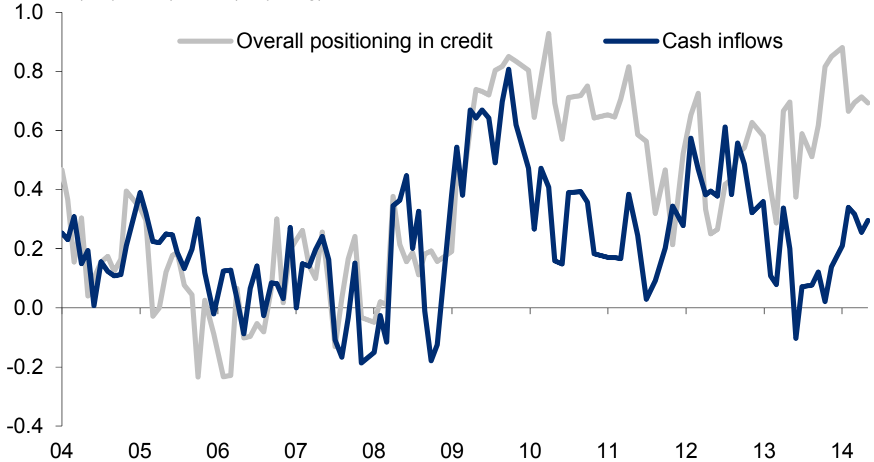
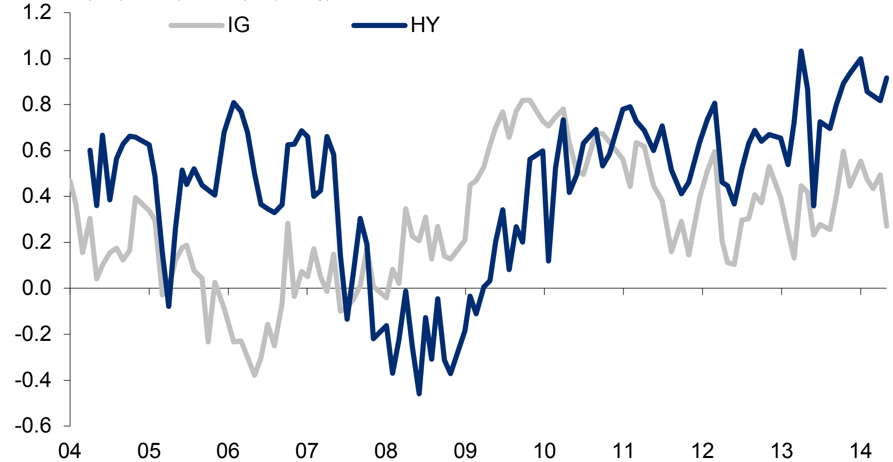


Figure 11. EUR Positions in IG vs. HY

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



Source: Citi Research.

Synthetics vs. Cash

- **Short term – Expect 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.

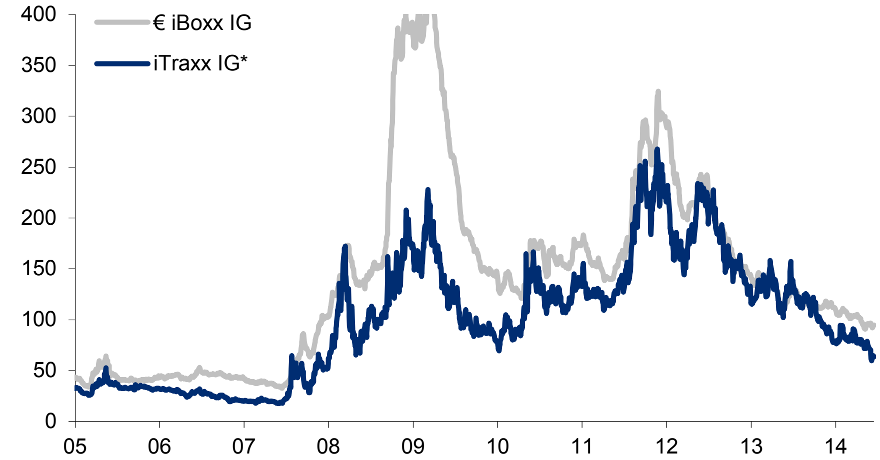


Figure 13. iBoxx IG vs. iTraxx* Spreads

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

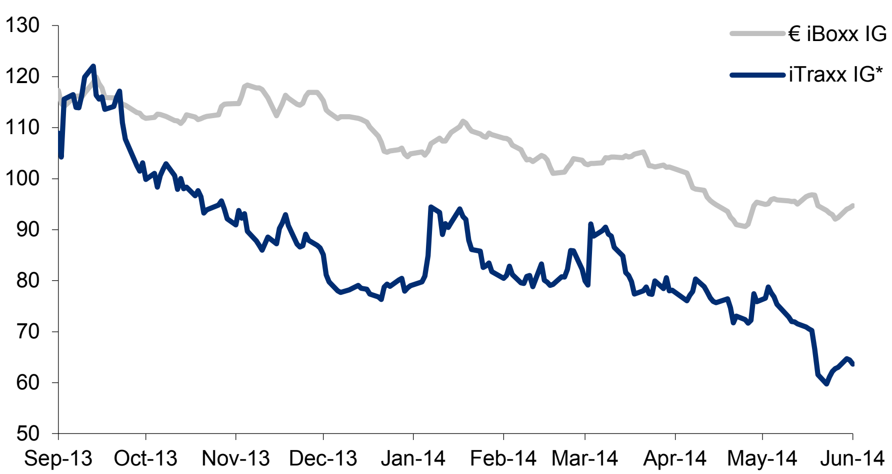
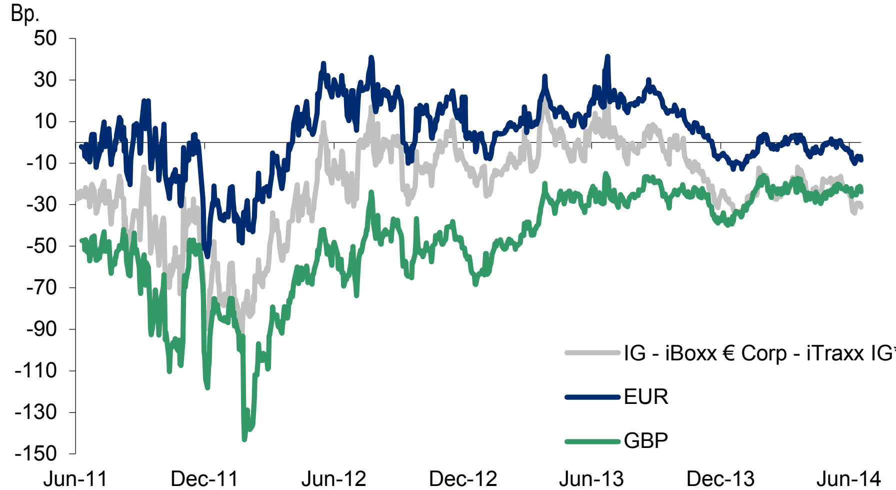


Figure 14. Bond-CDS Basis

Bp.



Source: Citi Research, Markit.

Credit Derivatives Returns: Long risk iTraxx vs. iBoxx

Figure 15. 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.

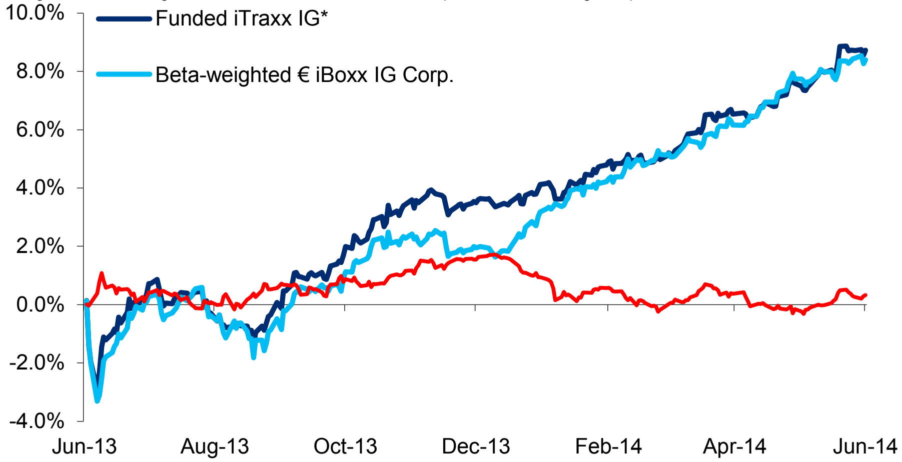


Figure 16. Funded Sen. Fin. vs. € iBoxx Senior Fins - Cum. Return

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

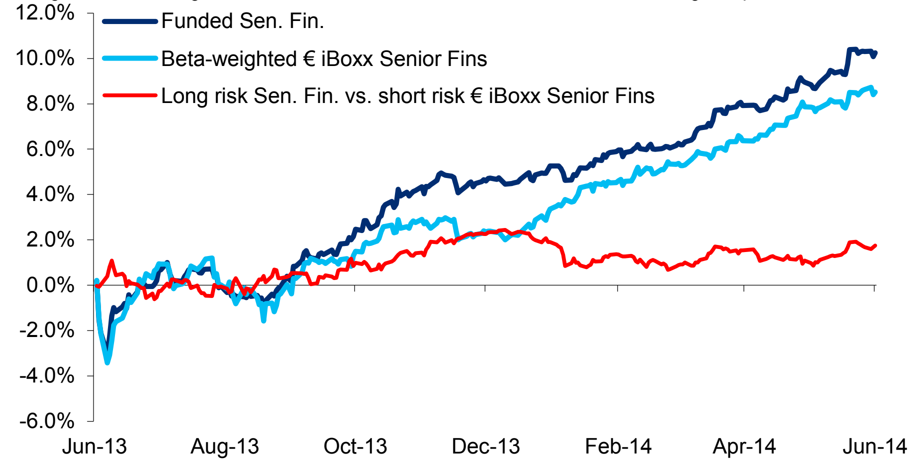


Figure 17. Long risk iTraxx IG* vs. short risk € iBoxx IG Corp.

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

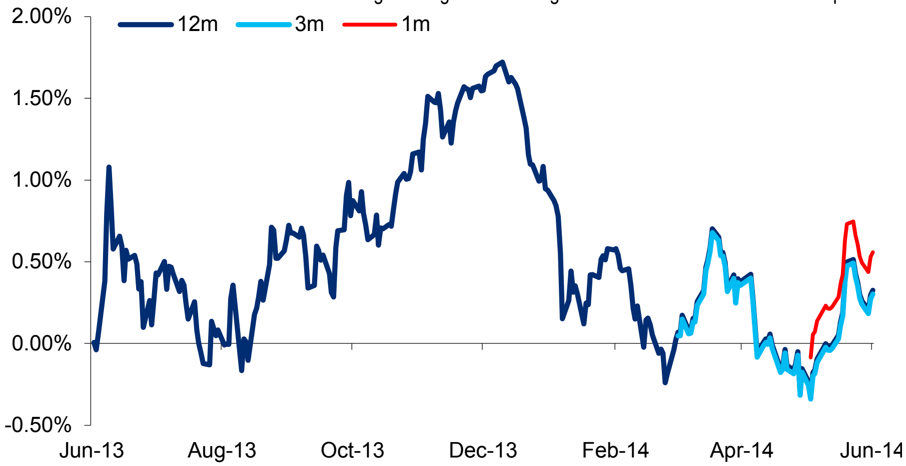
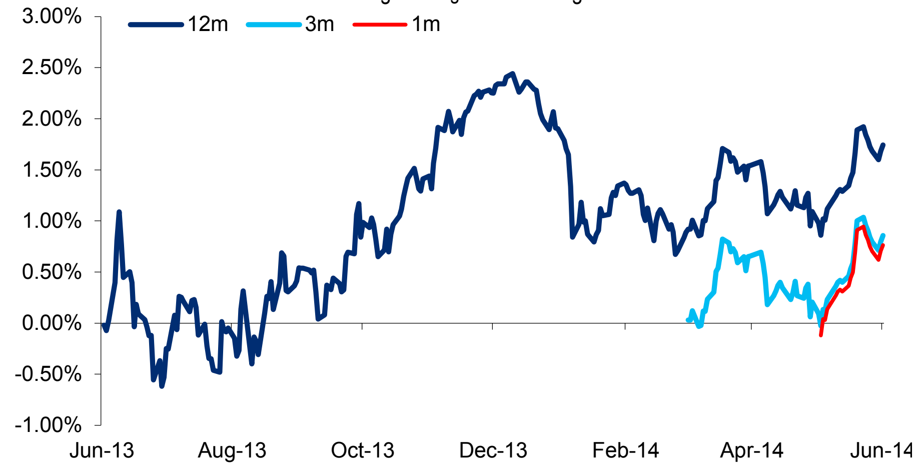


Figure 18. Long risk Sen. Fin. vs. short risk € iBoxx Senior Fins

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

- **Close to flat**, no signs of indices overdoing the movement tighter.

Figure 19. iTraxx Main and Crossover

5y on-the-run indices, bp.

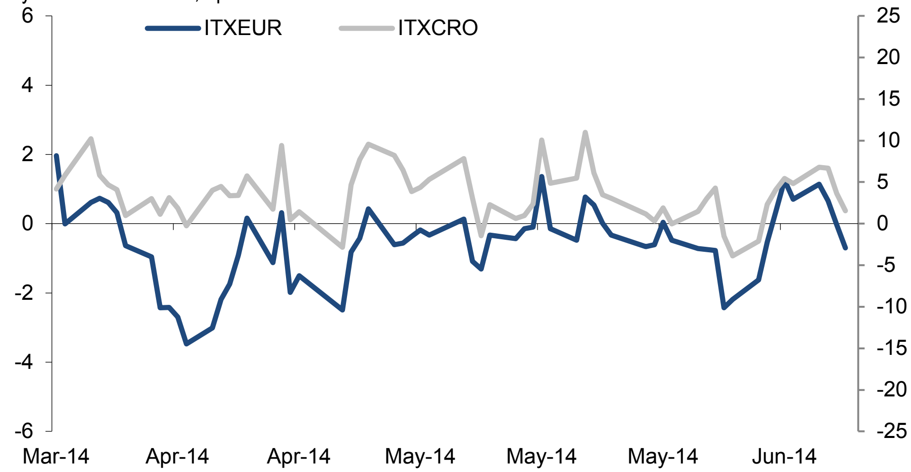


Figure 20. iTraxx Main and CDX IG

5y on-the-run indices, bp.

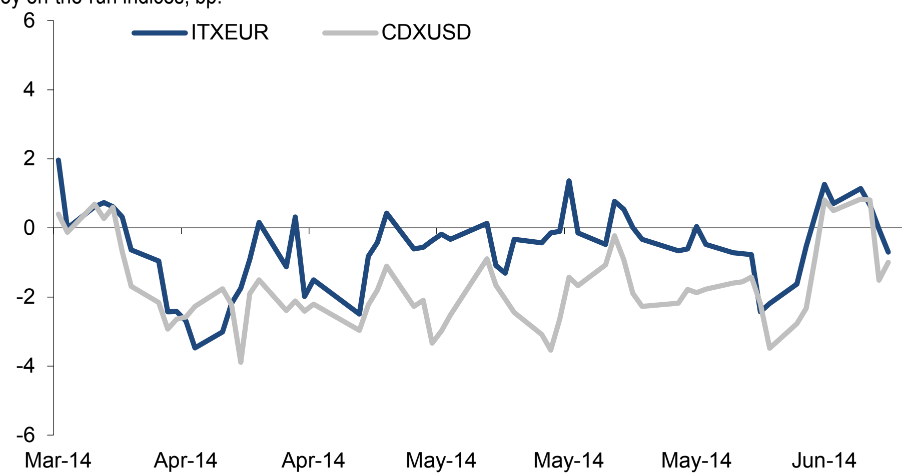
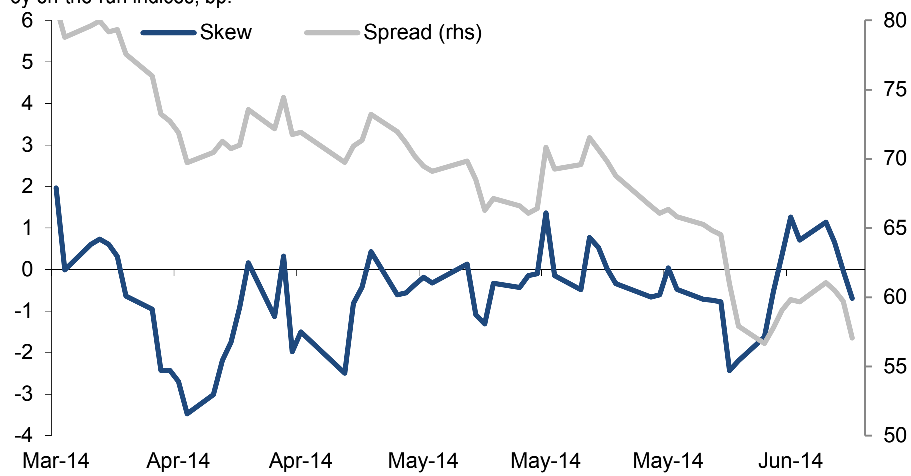


Figure 21. iTraxx Main spreads vs. skew

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 22. Ratio of Xover to Main spreads

5y on-the-run indices.

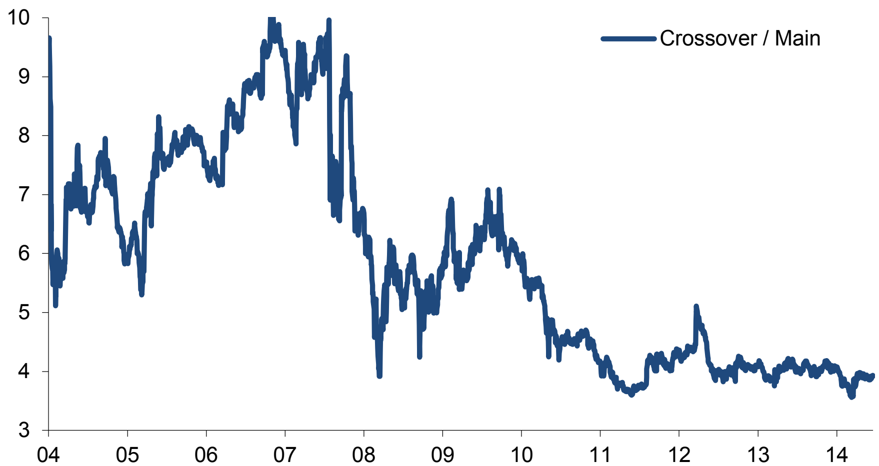
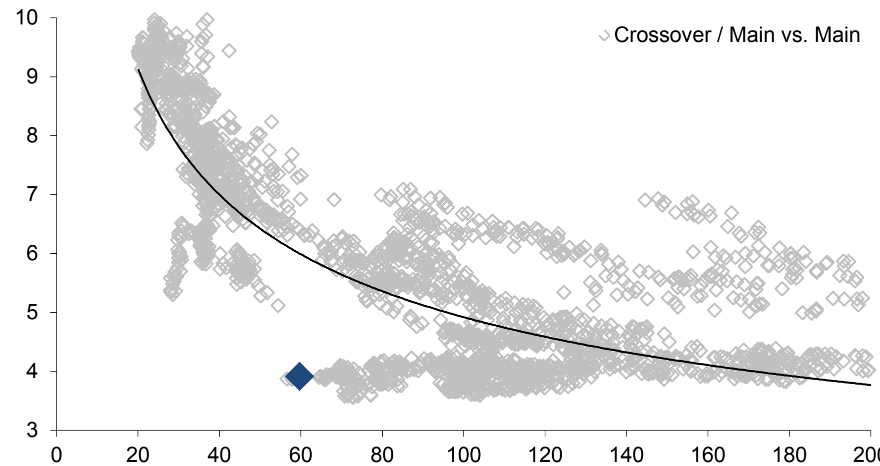


Figure 23. Ratio of Xover to Main spreads vs. Main spreads

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



Source: Citi Research, Markit.

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

5y on-the-run indices.

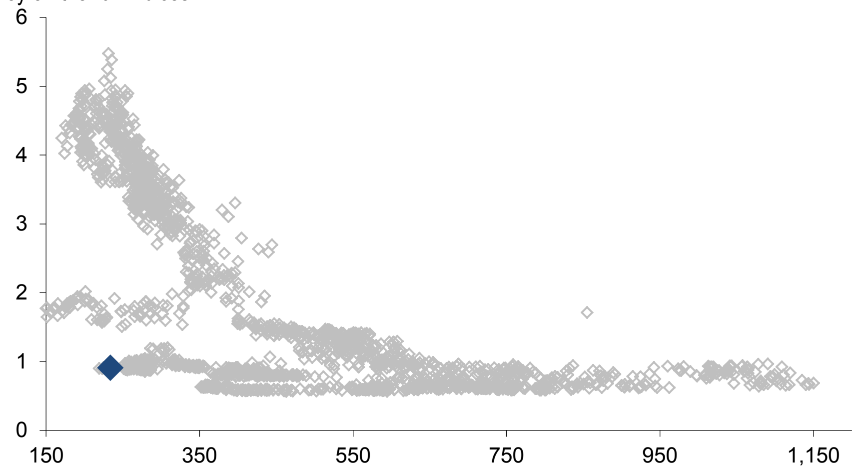


Figure 25. Current spread curves for Main S21 3-6% and Xover S21

In bp.

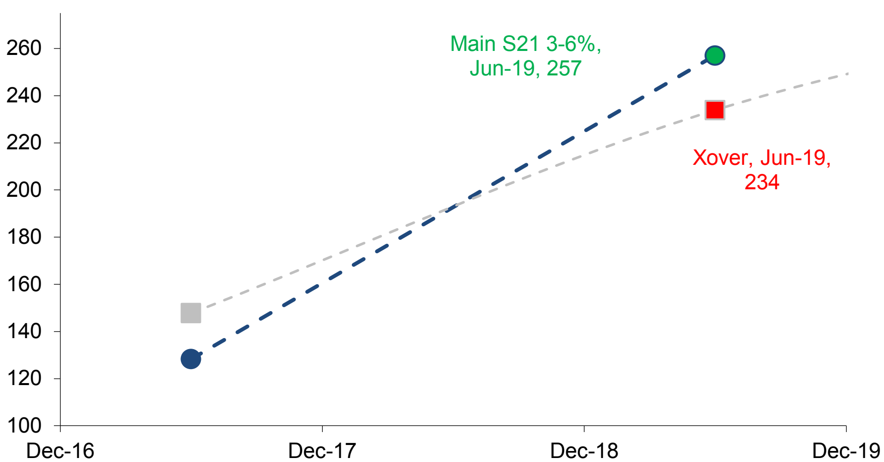


Figure 26. Historical spreads for Crossover and Main 3-6% tranche

5y on-the-run indices.

Source: Citi Research, Markit.

Long Senior Financials vs. Main

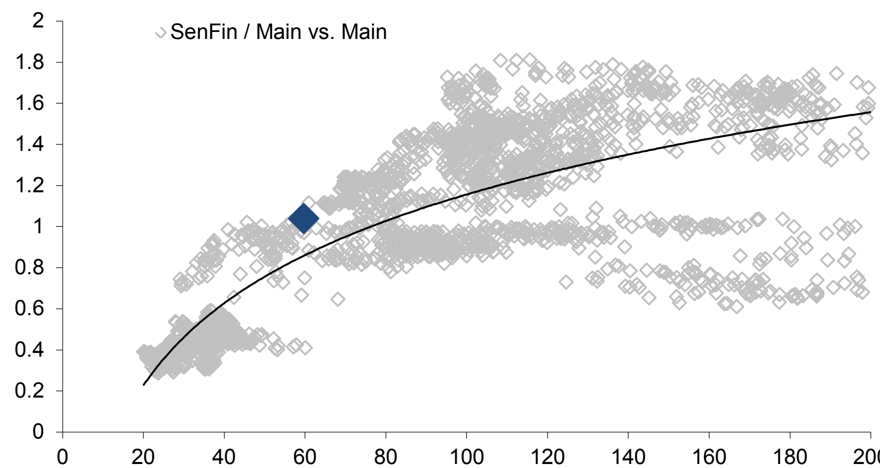
- The outperformance of financials is another trend we expect to continue playing out in 2014 as investors adjust to a new world of tight spreads, where every basis point counts.
- As we highlighted in early November, the comparatively high ratio between financials and non-financials, proxied by Senior Fins to Main, has been tempting investors into compression trades.
- European Credit Outlook 2014 - Positioning and trades
- 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 expect to see Senior Financial spreads trading inside Main in 2014**.

Figure 27. Ratio of Senior Fins to Main spreads

5y on-the-run indices.

Figure 28. Ratio of Senior Fins to Main spreads vs. Main spreads

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



Source: Citi Research, Markit.

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 play it via options**:
  - Buy Main or SenFin straddles
  - Sell CDX IG straddles

Figure 29. Xover – CDX HY spread difference

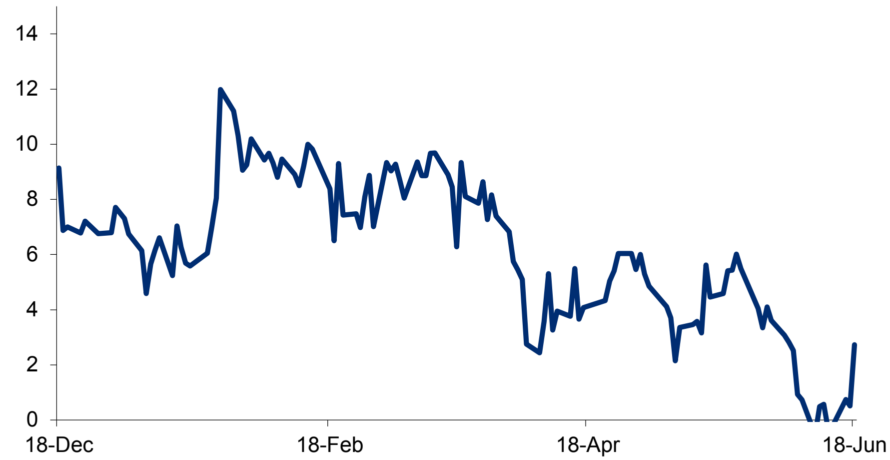
5y on-the-run indices.

Figure 30. Main – CDX IG spread difference

5y on-the-run indices.

Figure 31. Main – CDX IG spread difference

5y on-the-run indices.



Source: Citi Research, Markit.

Credit vs. Equities

- **The (large) outperformance of credit vs. equities continues.**
- **Vol-wise, credit vol still expensive to equity vol.**
- **Expect both of those to continue.**

Figure 32. iTraxx Main vs. SX5E - Level

LHS: Main (bp); RHS: SX5E.

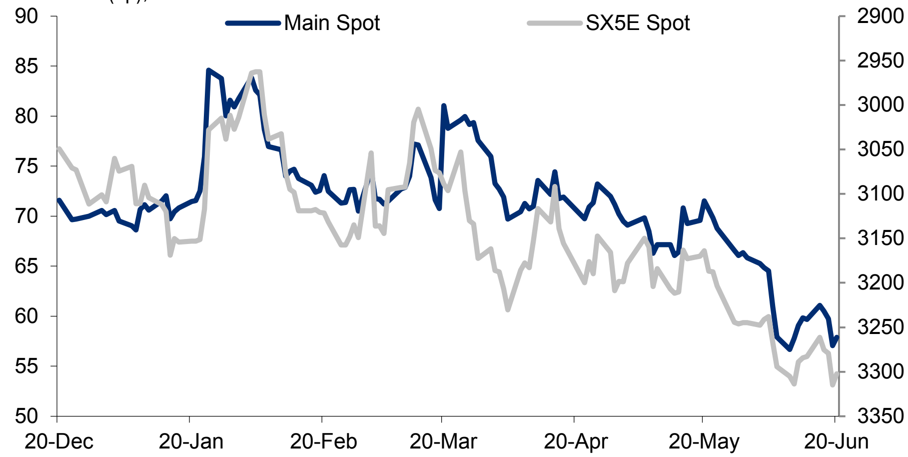


Figure 33. Implied / realised vol (3m)

In %.

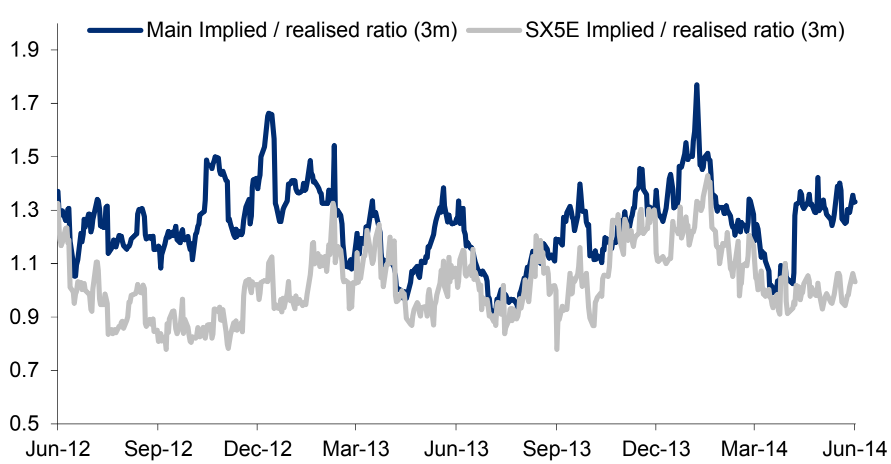
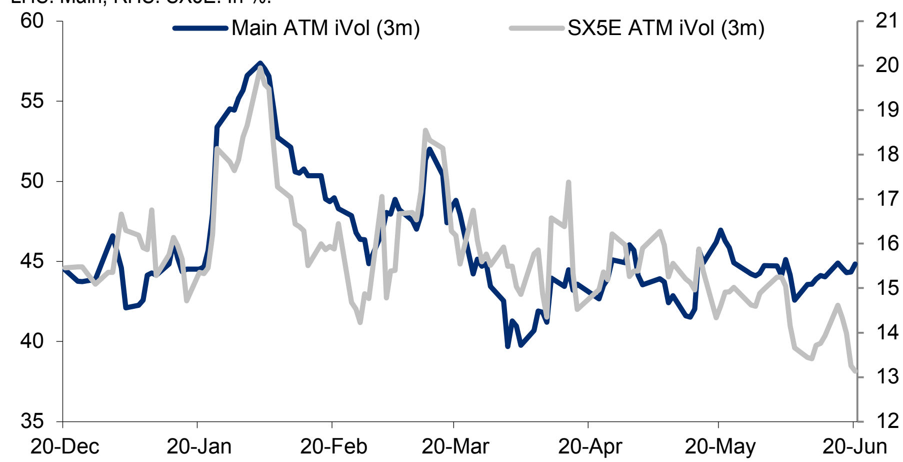


Figure 34. Implied vol (ATM, 3m)

LHS: Main; RHS: SX5E. In %.



Source: Citi Research, Markit, Bloomberg.

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

Figure 35. 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.

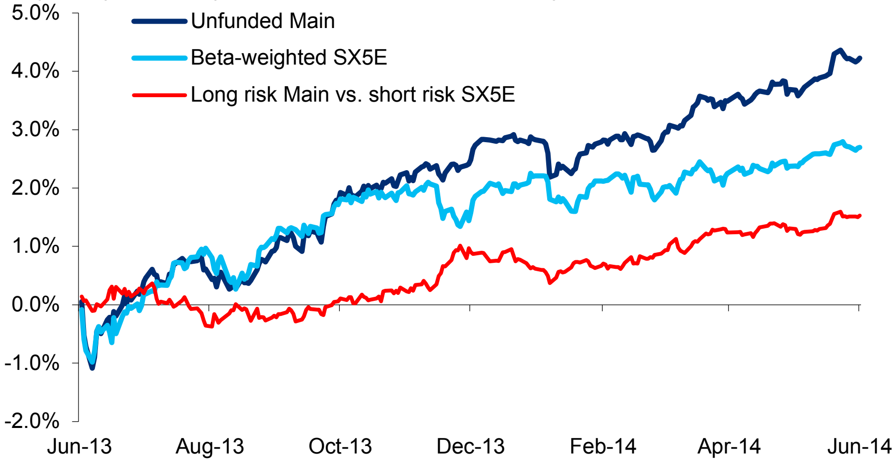


Figure 36. Unfunded Sen. Fin. vs. beta-weighted SX7E - Cum. Return

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

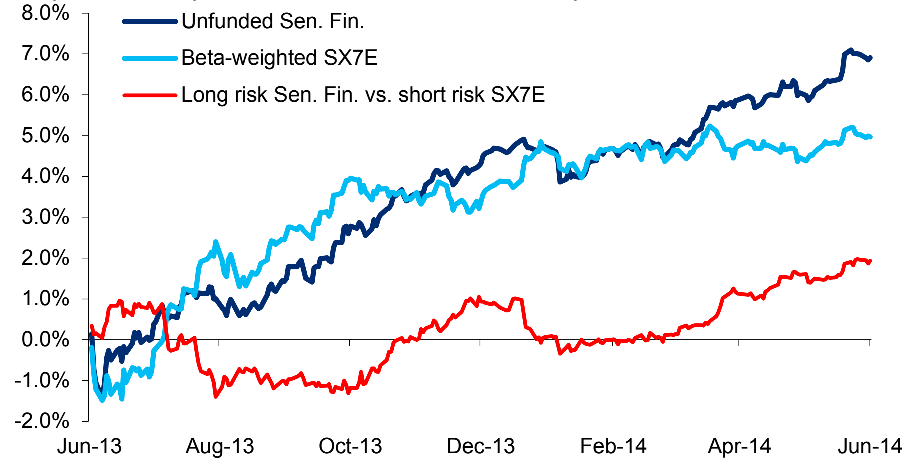


Figure 37. Long risk Main vs. short risk SX5E - Cum. Return

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

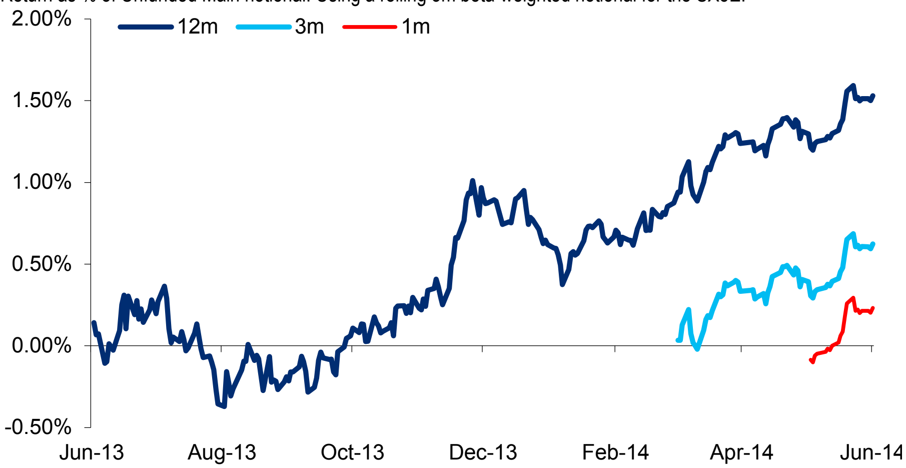
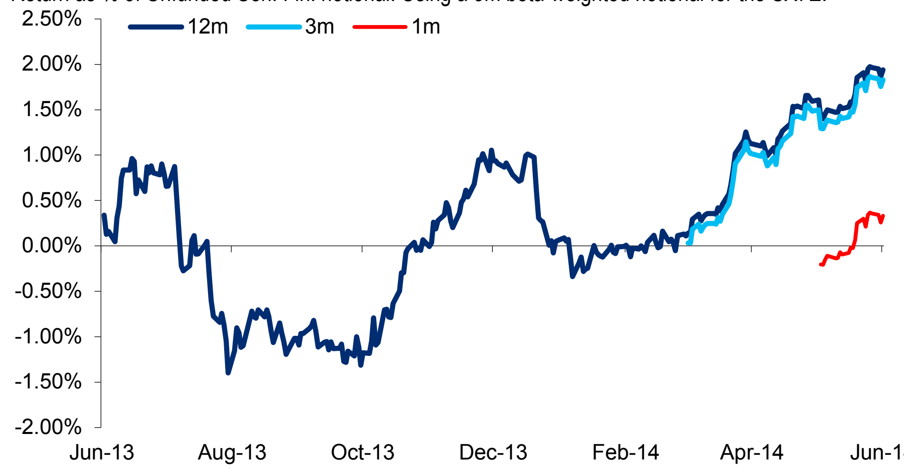


Figure 38. Long risk Sen. Fin. vs. short risk SX7E - Cum. Return

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.
- **As 3s5s flatteners become less attractive, 5s10s become more so after their recent steepening – we would start adding them**. 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

Figure 39. iTraxx Main Curves

On-the-run indices, bp.

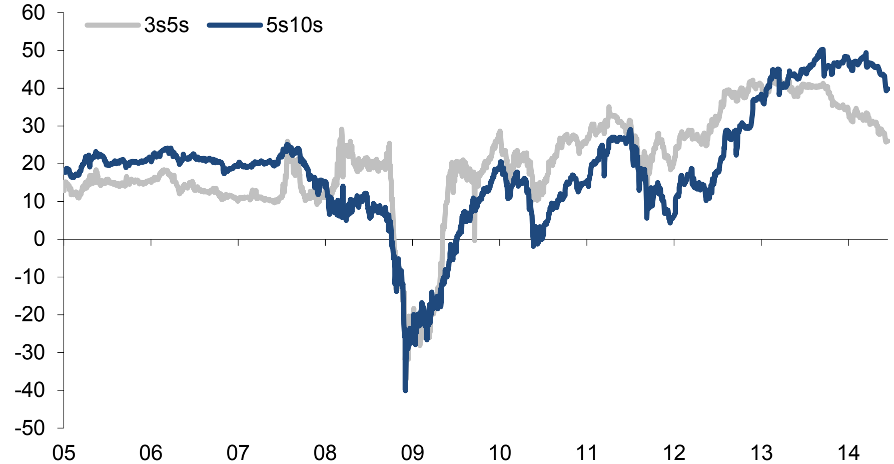


Figure 40. iTraxx Crossover Curves

On-the-run indices, bp.

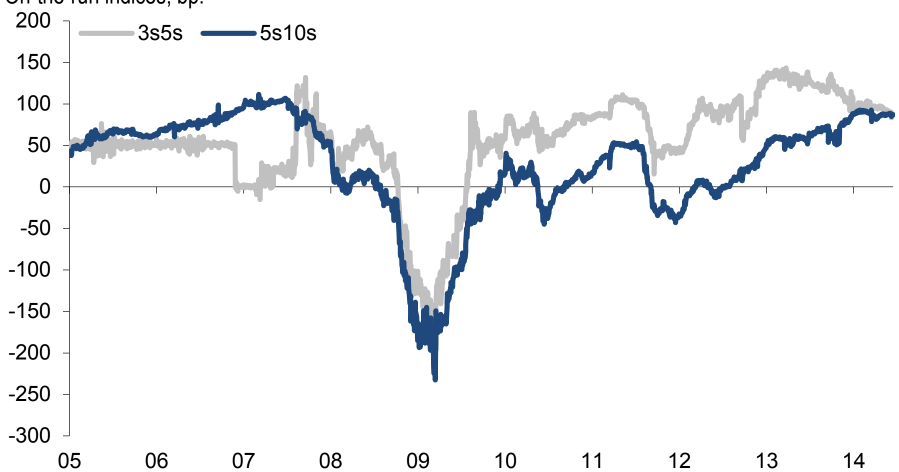
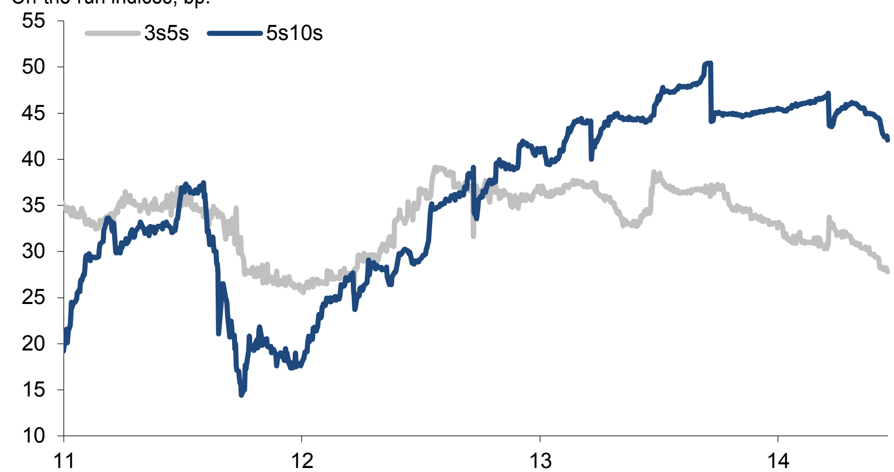


Figure 41. CDX IG Curves

On-the-run indices, bp.



Source: Citi Research, Markit.

iTraxx Main

Figure 42. Spread curves

On-the-run indices, bp.

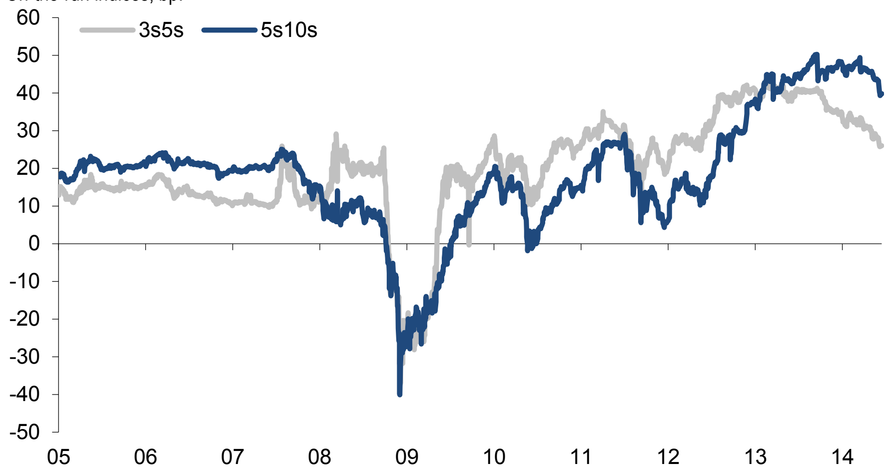


Figure 43. Annual carry (exc. roll down) of DVO1 neutral flatteners

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

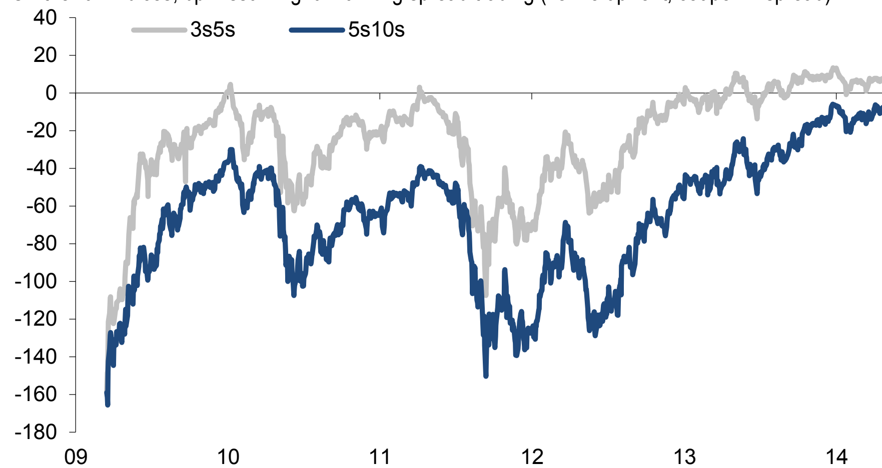


Figure 44. 3s5s vs. 5y spread

On-the-run indices, in bp.

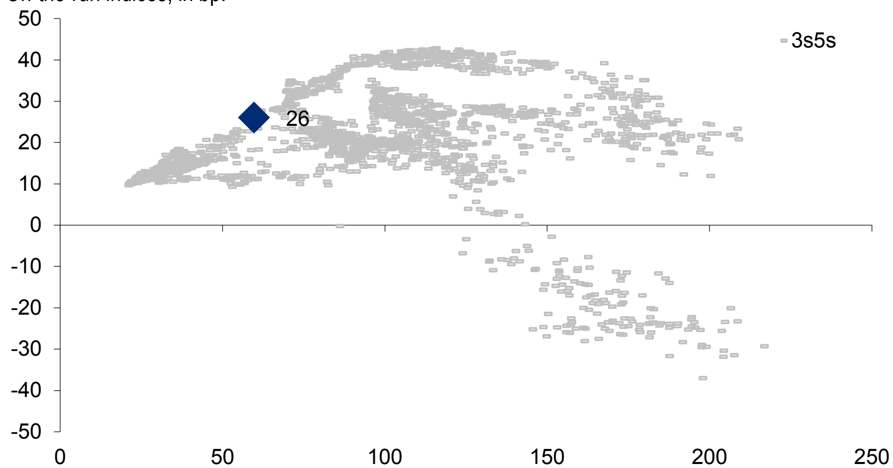
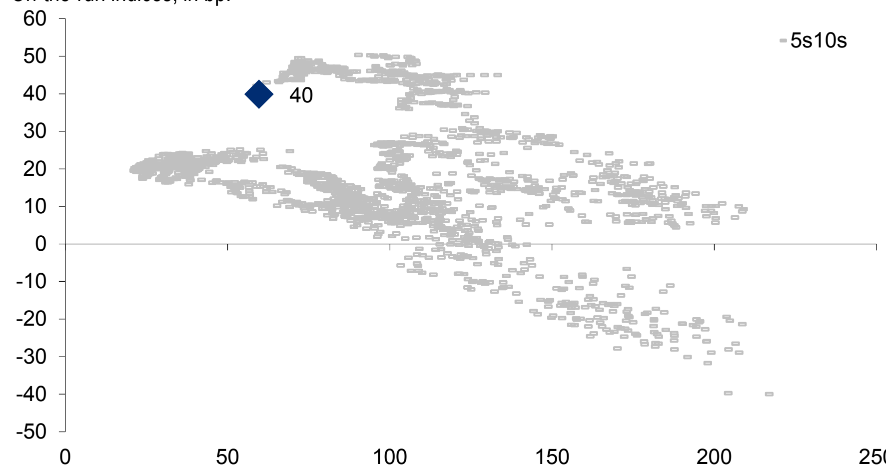


Figure 45. 5s10s vs. 5y spread

On-the-run indices, in bp.



Source: Citi Research, Markit.

iTraxx Main DV01 Weighted Flatteners

Figure 46. iTraxx Main 3s5s Duration Weighted Flattener – 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	32	-16,283	-52	-36	-89
5y	20-Jun-19	58	10,000	58	38	95
20-Jun-14		**26**	**-6,283**	**5**	**1**	**7**

Source: Citi Research.

Figure 47. iTraxx Main 5s10s Duration Weighted Flattener – 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	58	-18,231	-106	-69	-174
10y	20-Jun-24	97	10,000	97	35	133
20-Jun-14		**40**	**-8,231**	**-8**	**-33**	**-41**

Source: Citi Research.

iTraxx Crossover

Figure 48. Spread curves

On-the-run indices, bp.

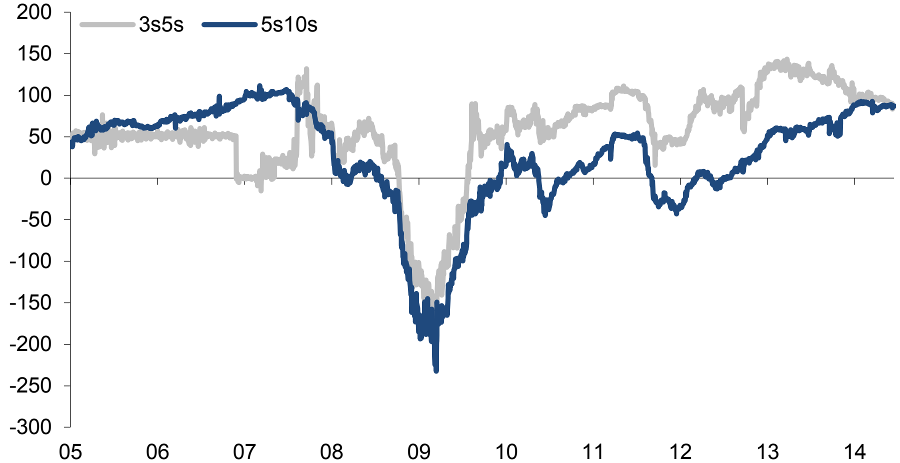


Figure 49. Annual carry (exc. roll down) of DVO1 neutral flatteners

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

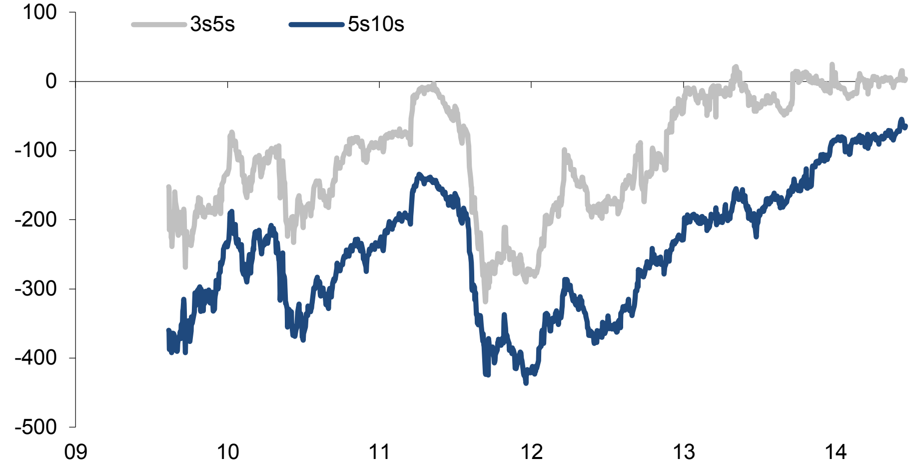


Figure 50. 3s5s vs. 5y spread

On-the-run indices, in bp.

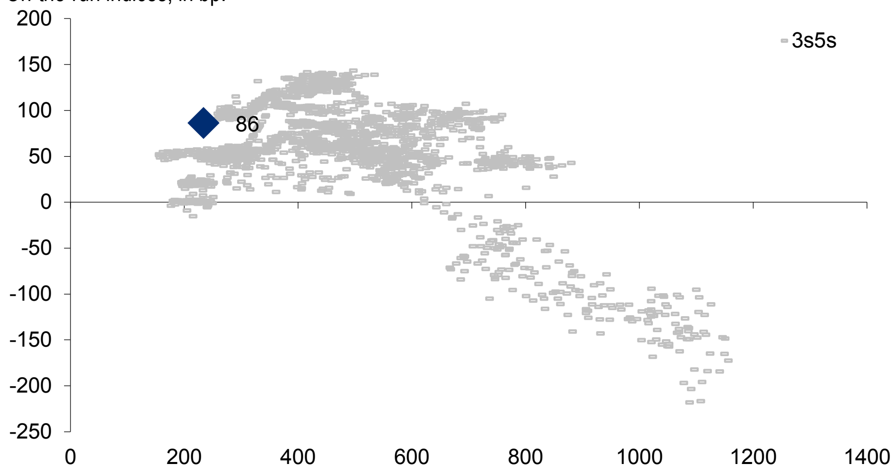
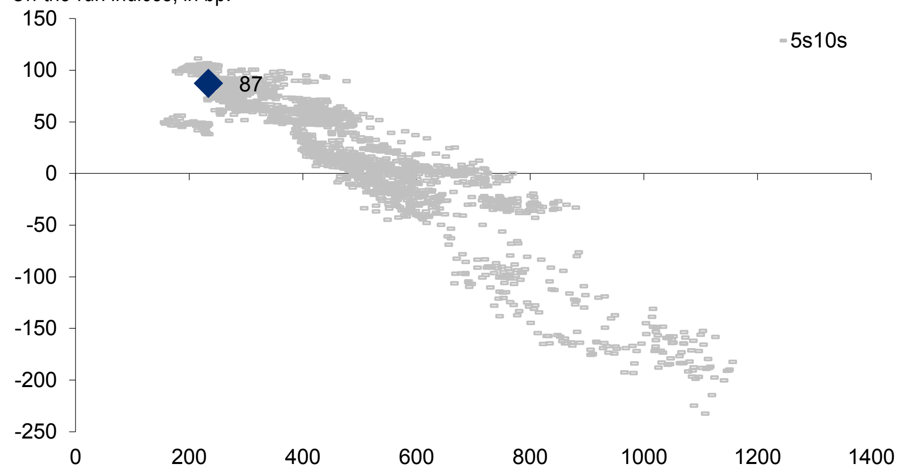


Figure 51. 5s10s vs. 5y spread

On-the-run indices, in bp.



Source: Citi Research, Markit.

iTraxx Financials

Figure 52. Spread curves

On-the-run indices, bp.

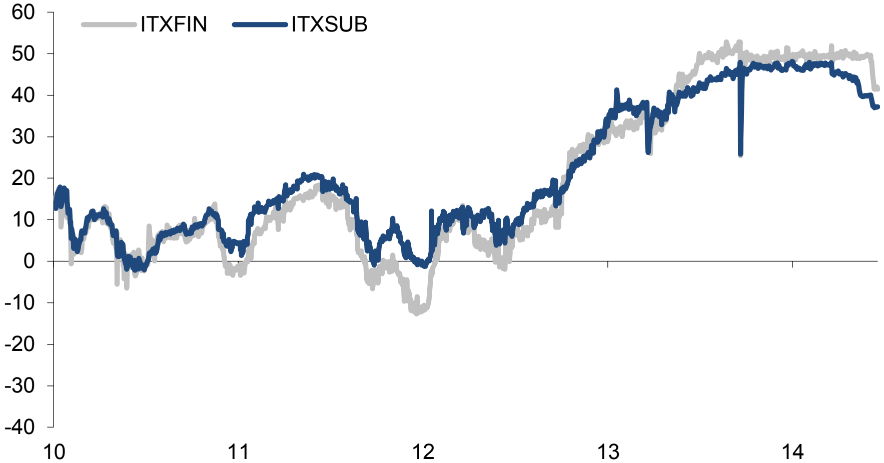


Figure 53. Annual carry (exc. roll down) of DVO1 neutral flatteners

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

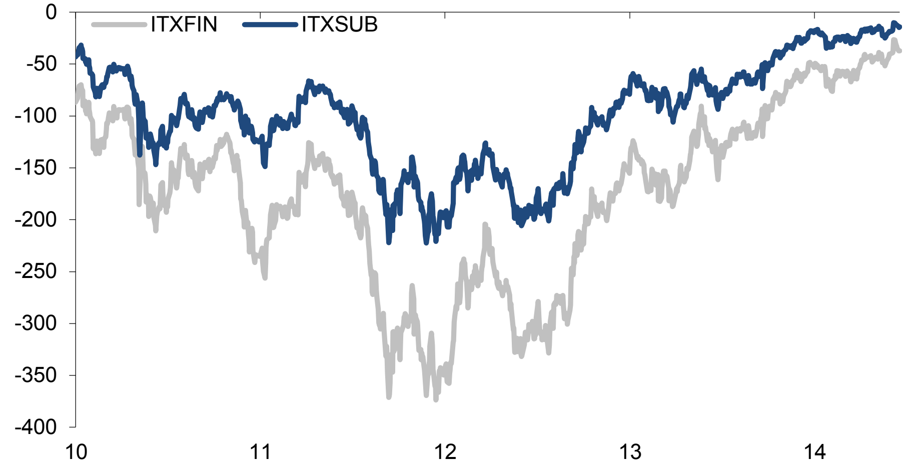


Figure 54. Senior Fin. – 5s10s vs. 5y spread

On-the-run indices, in bp.

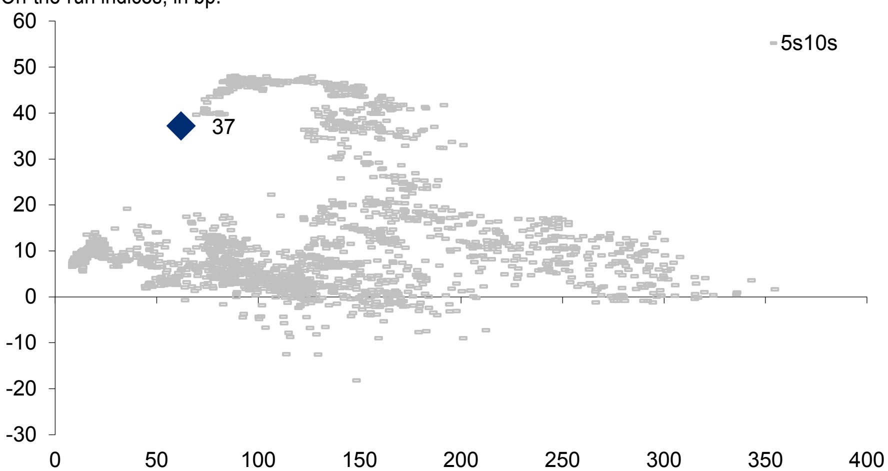
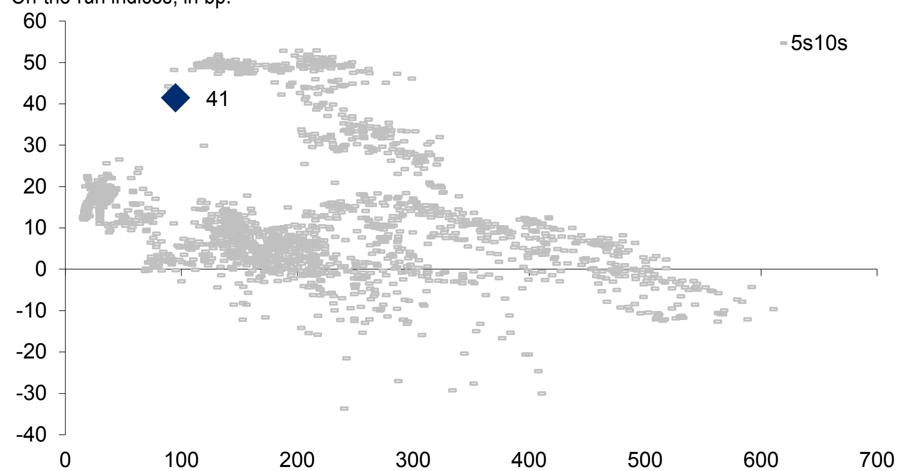


Figure 55. Sub. Fin. – 5s10s vs. 5y spread

On-the-run indices, in bp.



Source: Citi Research, Markit.

Options

- **Absence of hedging is the most relevant recent development in credit options** – investors have historically rushed for hedges whenever we've tightened this much, providing strong resistance to a further tightening.
- **European implied credit vol has remained surprisingly high**
- **Most popular trades recently have been bullish risk reversals (buying receivers and selling payers)**.
- **Very bullish price action in Senior Financials** with both payer and receiver skews extremely flat.

Figure 56. Main implied to realised vol

3m, in %.

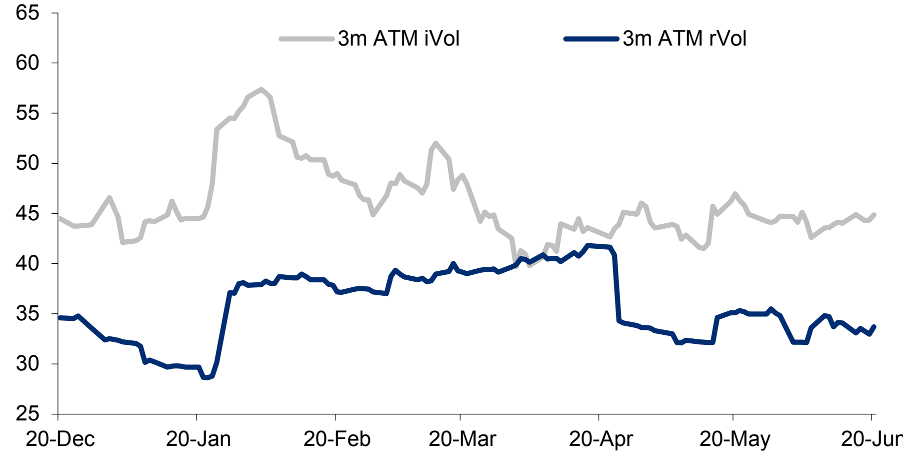


Figure 57. Current volatility SKEW for different option expiries - Main

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

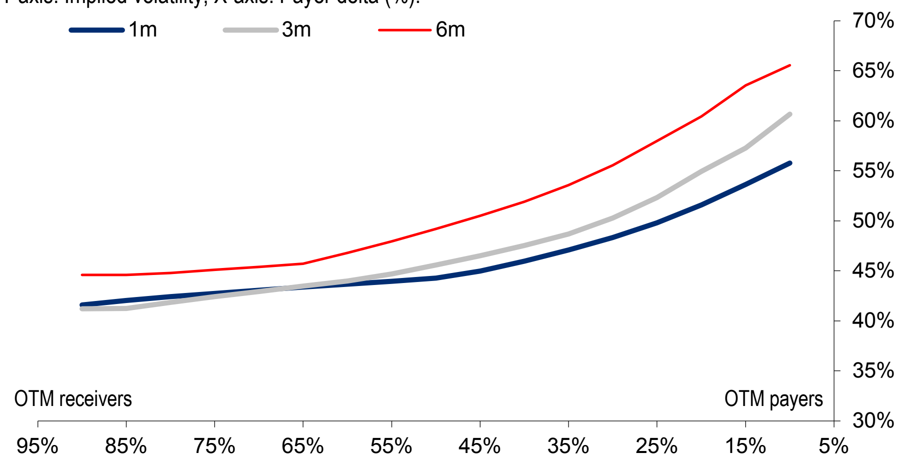
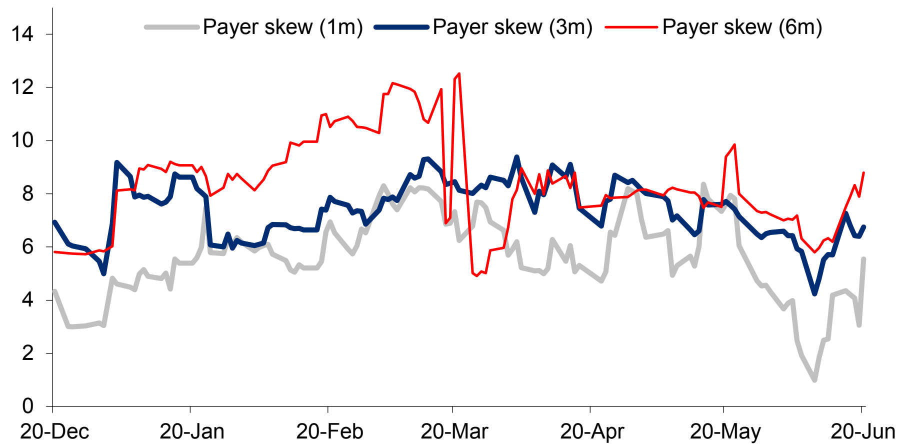


Figure 58. Main Payer Skews

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



Source: Citi Research, Markit, Bloomberg.

Options – Short term (cont.)

- **Relative-value wise, Main vol trades high to other asset classes (inc. US credit vol).**
- **Willingness to pay for option hedges is decreasing considerably.**
- **Volumes so far … STRONG**. On track to double this year, with very pronounced growth in Senior Financials and among Real Money investors.
- Latest iTraxx Options Views & Trades

Figure 59. Main vol vs. spreads

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

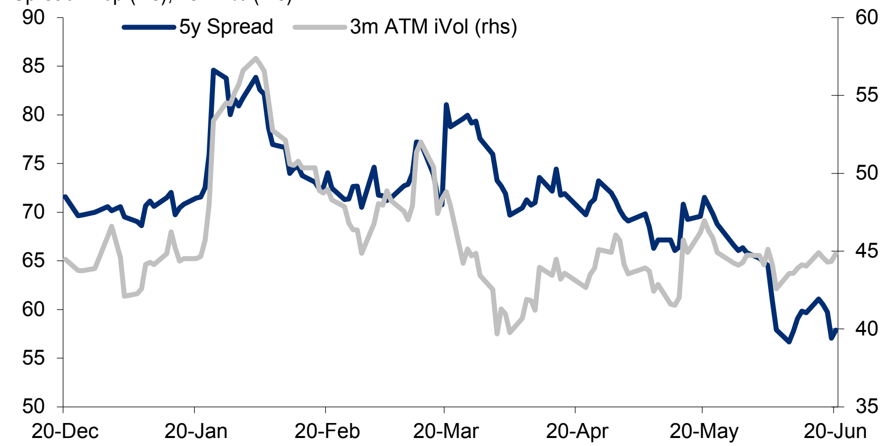


Figure 60. Vol term structure (1-3m)

ATM vol.

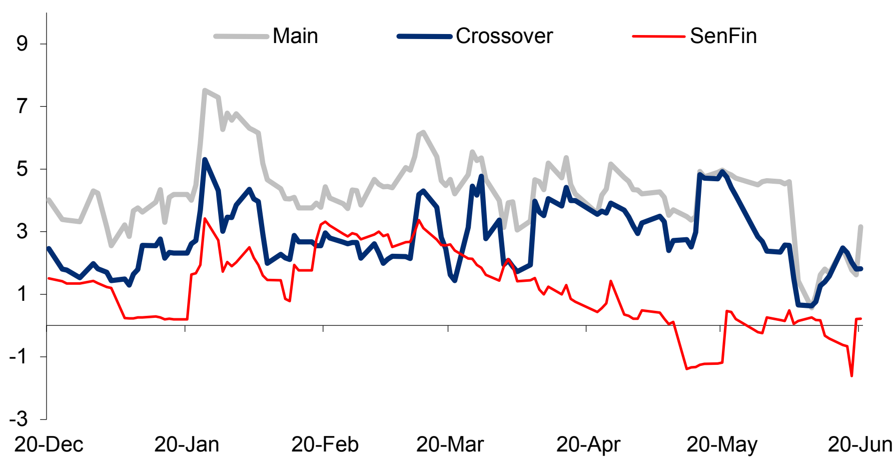
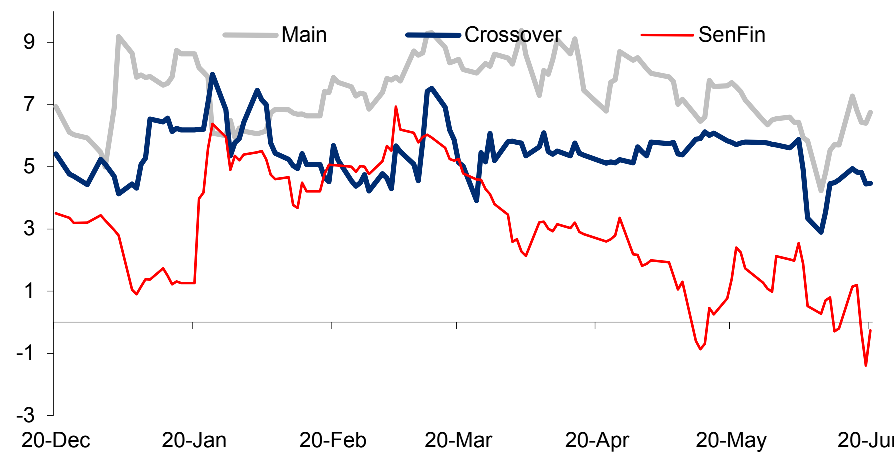


Figure 61. Payer Skews (3m)

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**
- **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**. We are not bearish, just want to take exposure to the fact that 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 62. Implied vol in Credit and Equities

3m.

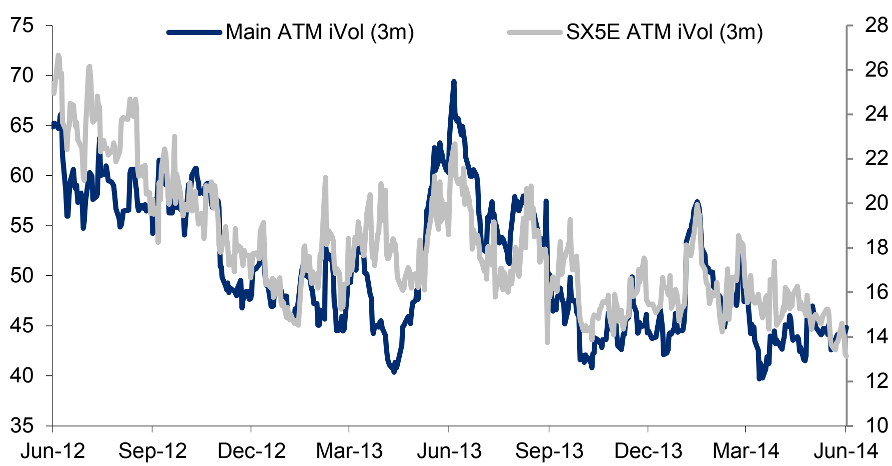
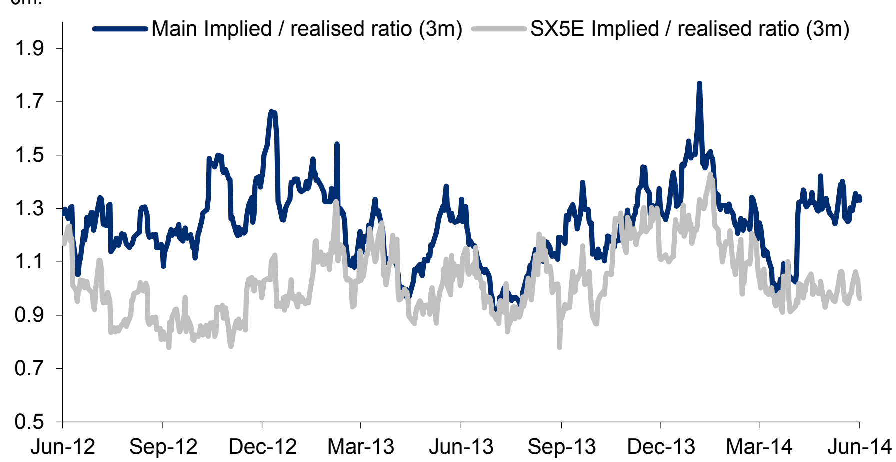


Figure 63. Implied to realised ratio in Credit and Equities

3m.



Source: Citi Research, Markit, Bloomberg.

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

Figure 64. Main – delta hedged (daily, at the close)

P&L in cents of notional traded.

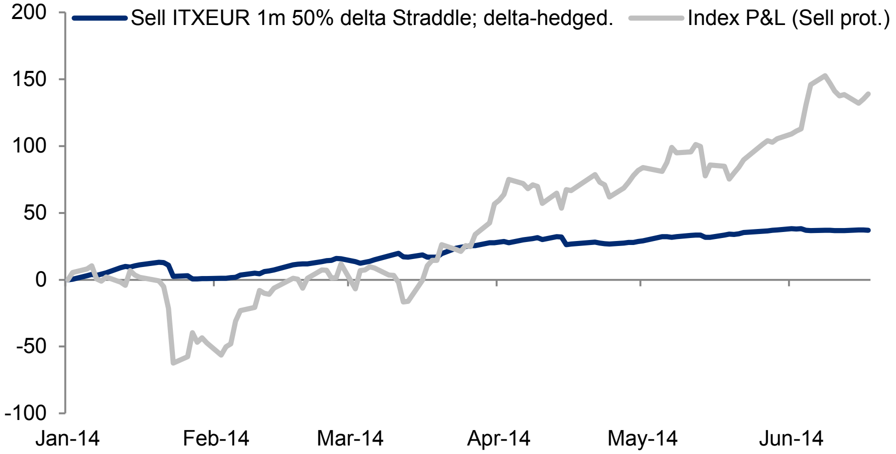


Figure 65. Main – NO delta hedged

P&L in cents of notional traded.

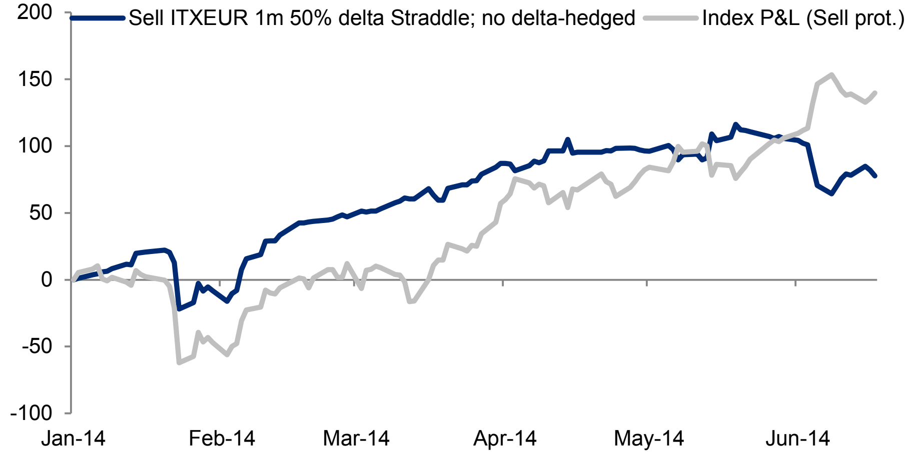


Figure 66. Crossover – delta-hedged (daily, at the close)

P&L in cents of notional traded.

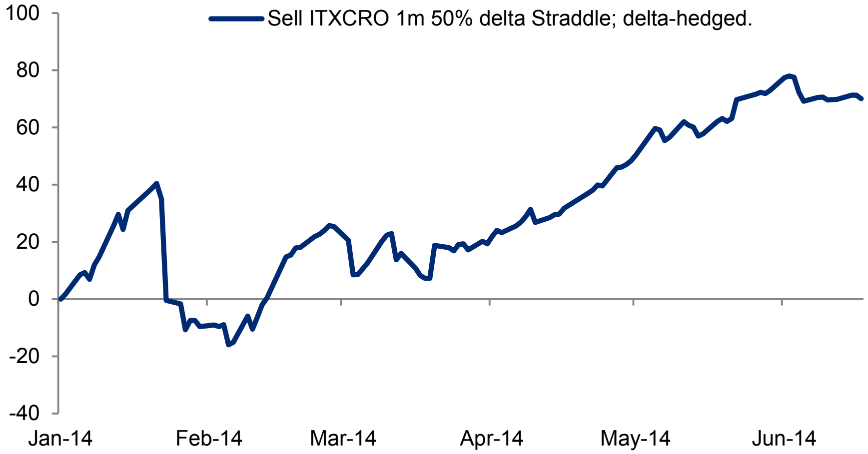
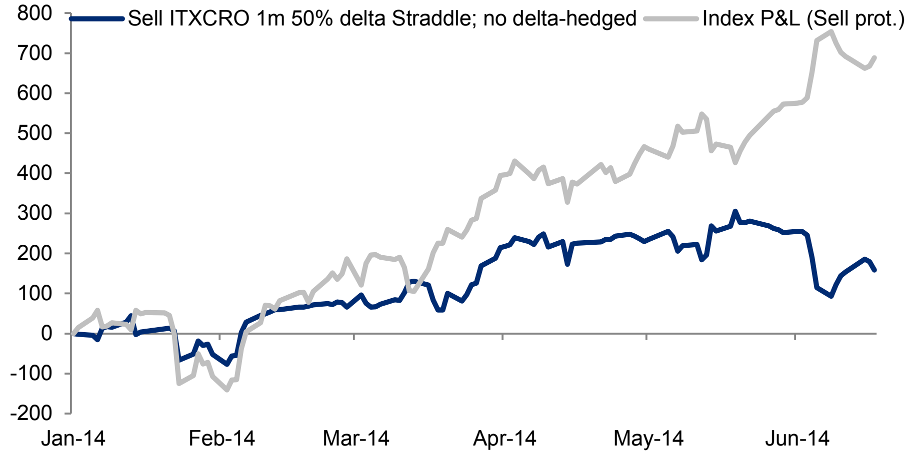


Figure 67. Crossover – NO delta-hedged

P&L in cents of notional traded.



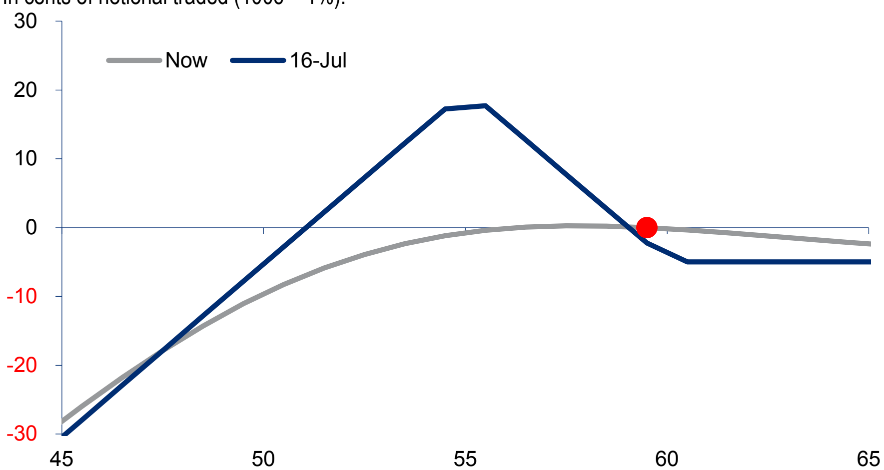
Source: Citi Research, Markit. We sell front month ATM straddles (50% delta strikes) and leave them until expiry; daily delta-hedging assumed for delta-hedged trades. Gross of bid-ask.

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.

Figure 68. Main July 55-60 - Trade spread exposure – Link to pricing tool

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

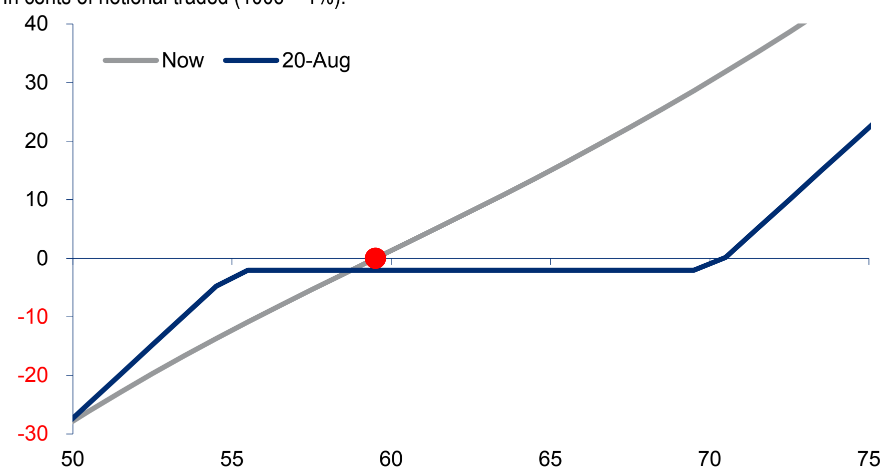


Hedge? Bearish risk reversals

- **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 (Iraq?); i.e. a gap wider in synthetics is probably more likely than a gap tighter (although our base view is a grind tighter …). Technically, the very flat/inverted vol skews provide a very attractive entry point to this trade.

Figure 69. Main Aug 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 iTraxx Tranches Views & Trades, More mezz, less seniors.
- **Equity – Positive/Neutral**. Lower return but faithful client base. No change, it should continue doing ok, but not stellar returns like previous years.
- **Mezz – Bearish until we tighten a bit more**. 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.
- **Seniors – Getting constructing**. Surprisingly to us, we are finding investors willing to sell super senior protection in size, taking advantage of the very high correlations.

Figure 70. Correlations & index spreads

5y on-the-run.

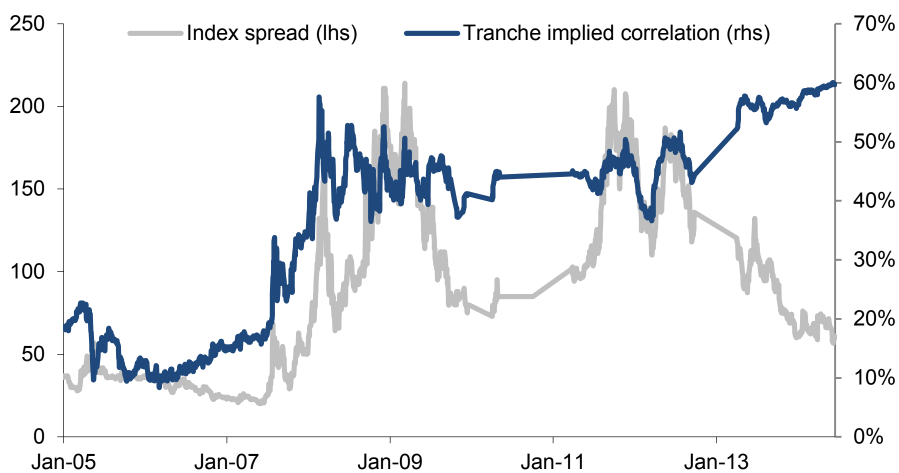
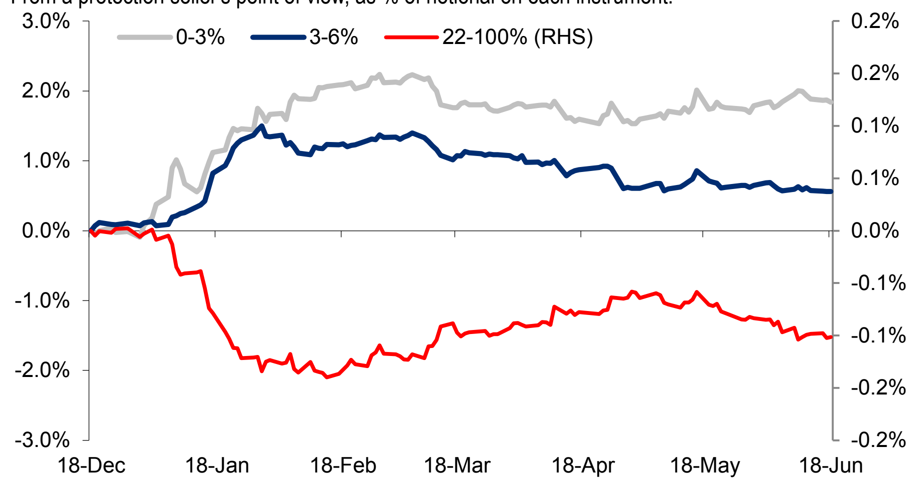


Figure 71. Delta-hedged tranche performance

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



Source: Citi Research, Markit.

Sell Jun-15 S9 Equity Protection

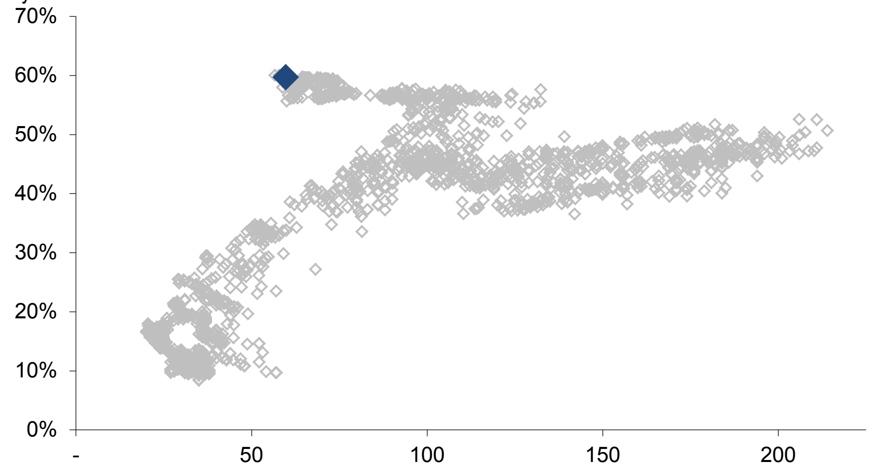
- **Last squeeze to Jun-15 Series 9 Main equity** @ 350bp (COB 18-Jun)
- We still think selling equity protection is a comfortable strategy in an environment – at least in Europe – where excess liquidity is not going to disappear – keeping investment grade default risk at the top of our preferred risks 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 al-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 72. Correlations & index spreads

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



Source: Citi Research, Markit.

Sell equity tranche protection & sell straddles

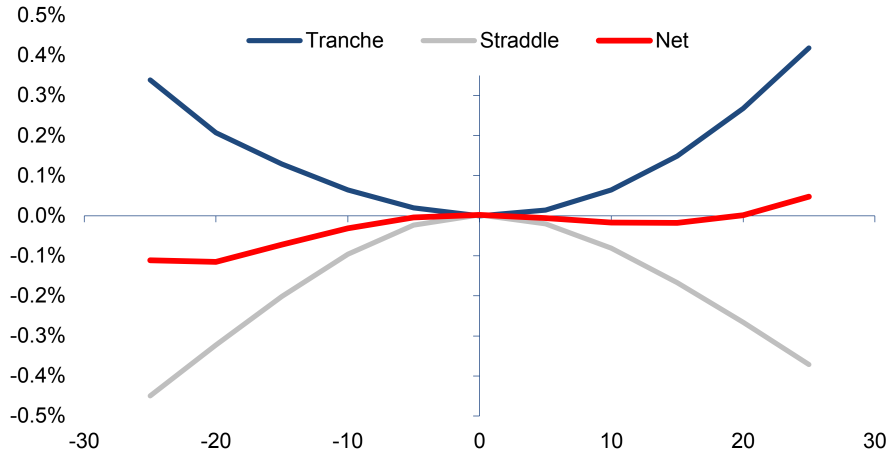
- **We believe equity tranches will continue to outperform** as fast money and the most sophisticated real money investors continue adding longs to position for their large roll down.
  - **Default risk is the best risk to take for your carry.**
- **We also like selling front dated straddles** to exploit the premium between implied and realised vol: i.e. we expect, on average, realised vol to be below implied; 1m Main options are currently implying above 2bp per day.
- **Equity tranche longs**, delta-hedged, provide positive time value and positive convexity (gamma) at the expense of a **large default exposure**.
- **The positive gamma is not needed in our view**; selling front-month ATM delta-hedged straddles is a good way of monetizing it: selling straddles provides negative gamma and positive theta (time value).
- **The trade offers positive time value on both legs at the expense of negative jump-to-default.**

Figure 73. Trade exposure

	Sell equity tranche prot. (delta-hedged)	**Sell straddle** (delta-hedged)	**Total**
Gamma	Positive	Negative	**Neutral**
Time value	Positive	Positive	**Positive**
Jump-to-Default	Very negative		**Very negative**
Correlation	Long		**Long**
Implied vol		Short	**Short**

Figure 74. Spread exposure

X-axis: spread shock, in bp. Y-axis: trade MtM as % of tranche notional, using a straddle notional equal to 50% of the tranche notional



Source: Citi Research, Markit. As of 20-Feb: **Positive time value**: The 1m time value on the equity tranche leg is ~22c, and the short straddle adds an additional ~14c. **Negative jump-to-default**: The jump-to-default on the equity tranche is ~1087c of its notional (negative), and the short ATM straddle adds an additional 6c to the negative default exposure. **Long correlation**: If equity implied correlation falls 1% the trade will lose ~64c.**Short implied vol**: the trade will lose ~0.4c if implied vol goes up 1%.

S21 Main tranches just launched … warming up for Xover tranches in Sept.

- **4 tranches: 0-3%, 3-6%, 6-12%, 12-100%.**

Figure 75. Equity correlations across iTraxx Series

In %.

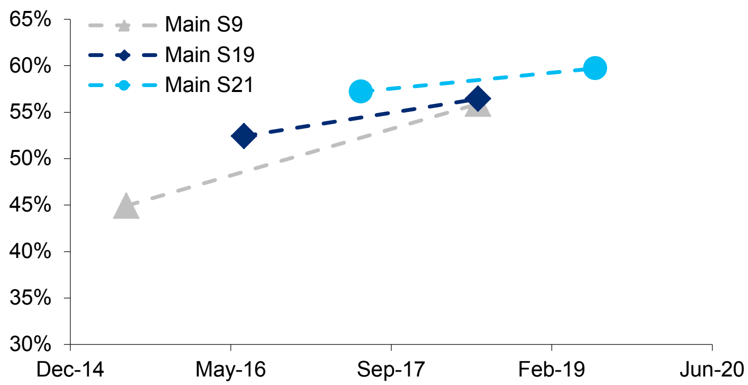


Figure 76. S21 tranches

Upfront for the equity (100bp coupon), flat spreads for the rest.

Series 21	Jun-17	Jun-19
0-3%	589	804
3-6%	128	257
6-12%	53	139
12-100%	12	27
Ref	34	60
	Data as of COB:	18-Jun-14

Source: Citi Research, Markit.

Options Risk Disclosure - Please Read Carefully

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Appendix A-1

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