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Credit Derivatives
**Western Europe**

# European Credit Derivatives– Views and Trades

## Slow grind tighter from here – What are the best carry trades?

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- **Medium term reluctant bulls - Tighter!** — Spreads tightening 10-15% in 2014.
- **More appetite to lever up, less to spend precious money on hedges** — Winners & losers:
  – Synthetics vs. Cash; Investment grade vs. high yield (in synthetics); Junior vs. senior tranches.
- **Lower vol** — Expect widening episodes where spreads realize high vol, but they should be infrequent and short lived.
- **Short term? "Stress tested" after the mini EM sell-off** — Unlikely to see aggressive tightening, position for low vol and slow grind tighter, exploiting more attractive carry trades than outright longs.
- **Trades we like**:
  – Flatteners (3s5s): alone or vs. selling OTM payers to play tail risk relative value
  – Selling straddles: get carry by positioning for a range-bound market.
  – Junior over senior tranches. Sell equity protection & monetize the gamma by selling straddles: pay for carry with default risk.
  – Xover vs. Main decompression, SenFin vs. Main compression.
  – Payer spreads to hedge (vs. index shorts)

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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<br>CDX Volatility Report<br>European Cross-Asset Volatility Report<br>Volatility P&L Report – Credit Indices | **Tranches** | iTraxx Series 9 Tranche Report<br>iTraxx Series 19 Tranche Report |
| **Curves** | iTraxx Curve P&L Report | **Indices** | CDS Indices Positioning Report<br>CDS Indices Trading Volumes Report |

# Pricing Tools and Databases

| | | | |
|---|---|---|---|
| **Options** | Online option pricing tool | **Historical database** | Single name CDS<br>CDS Indices<br>Options<br>Tranches |

# Model Portfolio

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

# Medium Term Views

## Strategy

- **Reluctant bulls – Tighter!**

  We see spreads ending the year 10-15% tighter than currently with balance of risks probably to the tighter side of that forecast.

- The Year of the Greater Fool's Game?
  - Strategy
  - Positioning and trades

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, inflows have dropped dramatically and positions seem very long by recent standards.

- **Too much money…** – Yet central bank policies are keeping supply-demand across financial markets severely imbalanced.

- **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.

# 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

## Slowly grinding tighter – Best ways to get carry?

- CDS indices have come a long way and we're seeing the **most aggressive clients positioning for spreads not to tighten much further by selling receiver options**; this is probably the most popular trade in options recently.
- **We're still constructive view-wise**, but tightening from here in indices is unlikely going to be aggressive**.**
- **Base case: we slowly grind tighter with very little vol.**
  - So we're happy to continue selling straddles to position for a range-bound market.
- To break the tights we need investors to be willing to **lever up** via synthetics and that requires a period of **low vol**.
- Expect **renewed interest in tranches** … we saw it in early Jan.
- We're anticipating a good **new issue** calendar but we also realise that investors are waiting for it, so not necessarily something that worries us spread-wise.

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- **Best ways to generate carry**:
  - <u>3s5s flatteners</u>: easiest carry trade.
  - <u>Sell equity tranches</u>: **take default risk**.
  - <u>Sell no-delta straddles</u>: **range-bound market**.
  - <u>Sell OTM payers</u>:
    - Not a trade on which we get any traction though …
- **Into the roll**:
  - Xover-Main decompression to have a hard time
- **After the roll**:
  - Sell protection on new Xover names after the roll is bid up substantially:
    - Real money shorts to roll
    - Dealers to widen single names, especially the new names

.

# Positioning & Trade Ideas Menu

## Indices

- **Xover / Main** Decompression
- **Senior Fins** to trade inside **Main**
- Still like **3s5s flatteners**
  - Spend the carry … buying puts if you are bearish.
  - 5s10s flatteners getting there, but we would wait

## Tranches

- **Equity – Constructive**. Lower return but faithful client base. No change, it should continue doing well.
- **Mezz – Highest conviction long**. It is in mezz where the new marginal investor in the tranche market is landing; plus, we expect hedge funds to do a bit less equity and more mezz.
- **Seniors - Bearish**. We see no investor interest now or in the near future.

  RV trades:
  - Long 6-9% vs. Xover
  - Long 3-6% vs. super senior

## Options

- **Sell short dated straddles** – More attractive way of earning carry than going outright long.

  Main 70bp Mar example: ~63/77bp breakevens.
- **Sell OTM puts** – **against 3s5s flatteners**.
  - Hard trade to pitch though.
- 2014 systematic trades:
  - Sell the range via 1m no-delta straddles
  - Use payer spreads to hedge.
  - Sell Xover vs. buy SenFin receivers.

## 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

## 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.

## 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.

# Investor Positioning

## CDS Indices

- Non-dealers remain very long risk CDX, and short European indices.
- In Europe, shorts are much more pronounced in Crossover.
- Weekly CDS Indices Positioning Report

Figure 2. iTraxx Main vs. Crossover

Non-dealer positioning, in $bn. +ve/-ve: non-dealers long/short risk.

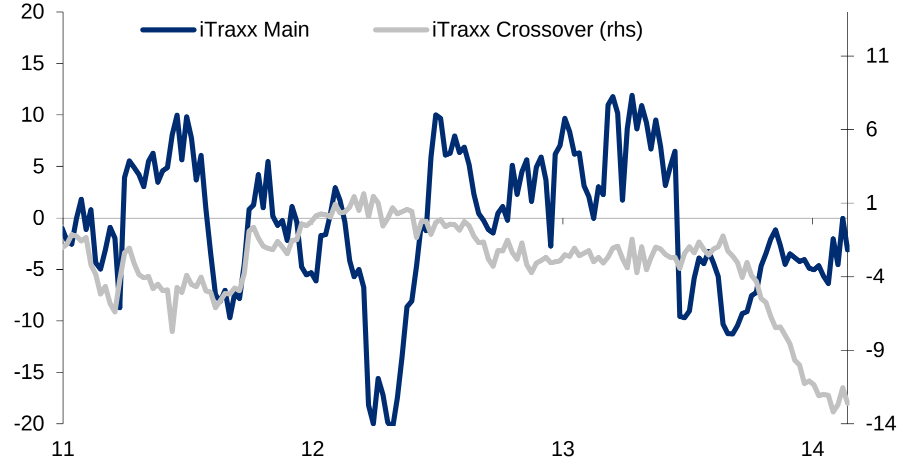



Figure 3. iTraxx Main vs. CDX IG

Non-dealer positioning, in $bn. +ve/-ve: non-dealers long/short risk.

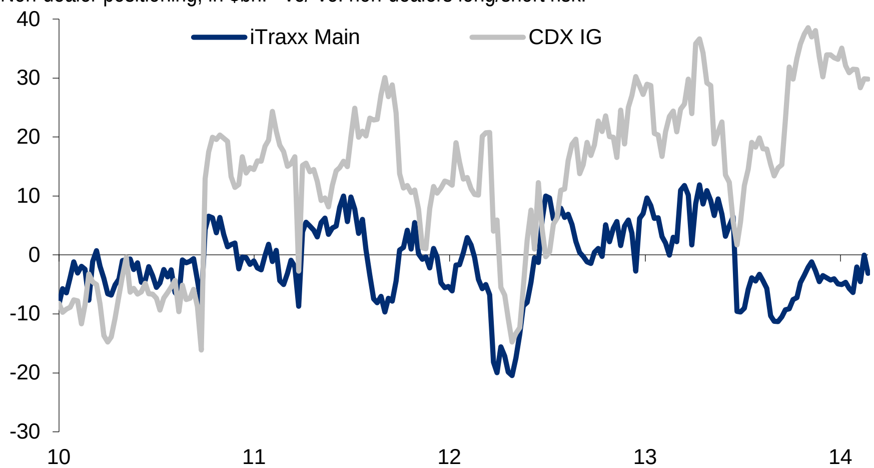



Figure 4. iTraxx Senior vs. Sub Financials

Non-dealer positioning, in $bn. +ve/-ve: non-dealers long/short risk.


Source: Citi Research, DTCC.

# European Credit Survey

- **The aggregate long in credit** declined slightly this month, although it remains elevated relative to history. It still **went up in €**.
- **Inflows** came down on aggregate: this was attributable to $ and £ accounts, whilst those **in € increased slightly**.
- Positions in most non-financial sectors were cut considerably, with the short in Non-Cyclicals now at its largest since June 2008.
- **Positions in the highest beta sectors**, on the other hand, **stayed high relative to history**, with longs in Insurers reaching a new record.
- Only 13% of respondents reported cash balances above normal levels.
- While the small aggregate cut in positions is encouraging, we're increasingly worried about just how vulnerable the crowded longs in the riskiest sectors are likely to be if the recent volatility continues.
- Latest Global Credit Survey:

  Cut, but still vulnerable, 30-Jan-14.

Figure 5. EUR positions in credit vs. cash inflows

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

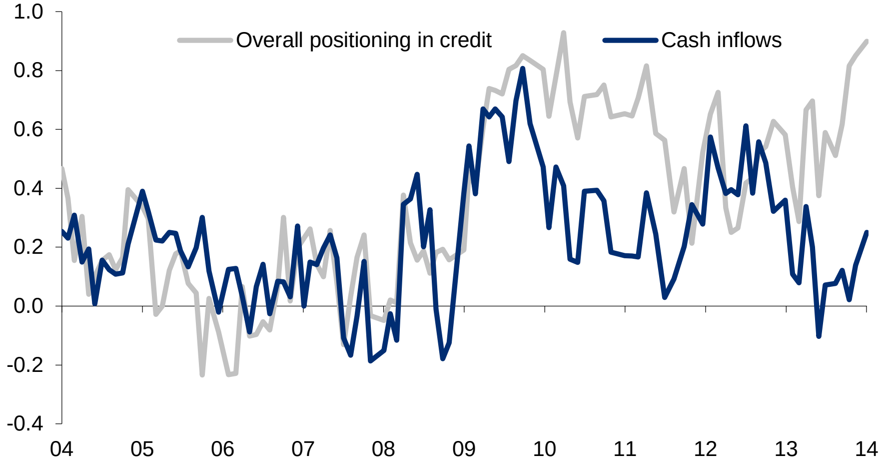
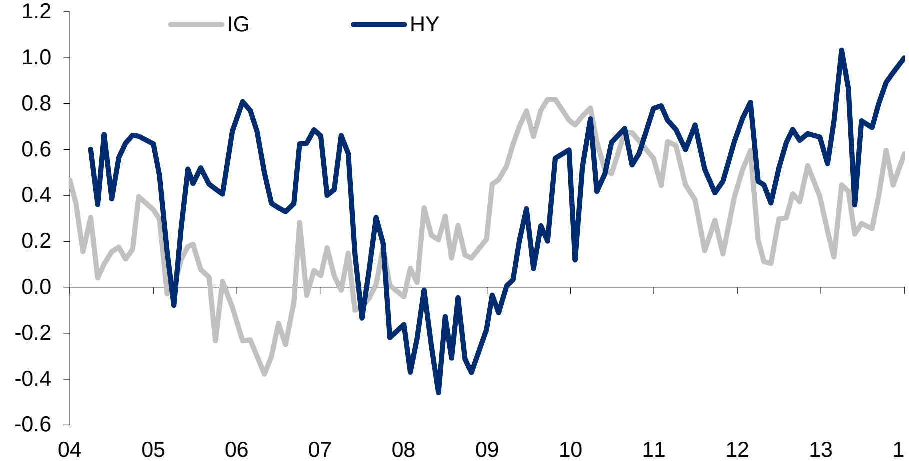



Figure 6. EUR Positions in IG vs. HY

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




Source: Citi Research.

# Indices Relative Value

## Xover / Main Decompression

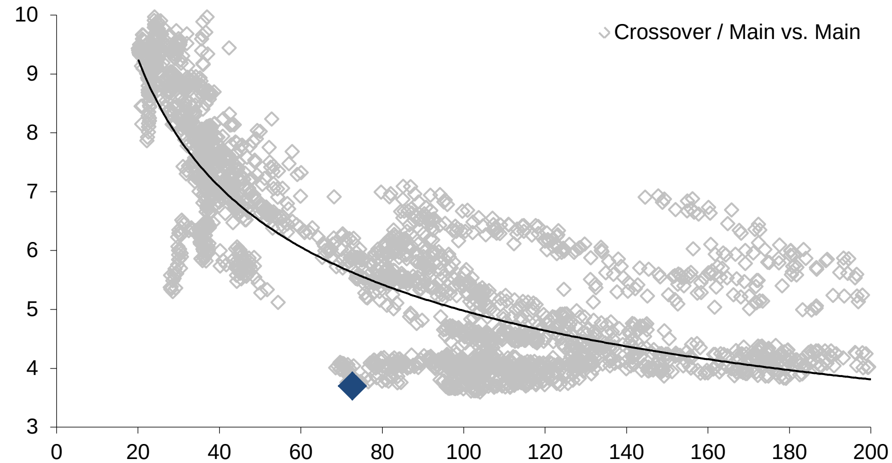
- Over the last few years the ratio between Main and Crossover has been comparatively stable at a much lower multiple that we saw from 2005-07.
- The ratio of Crossover to Main spreads has spent most of the past two years at around 4x, a level which in a historical context looks too low when compared 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 7. Ratio of Xover to Main spreads

5y on-the-run indices.


Figure 8. Ratio of Xover to Main spreads vs. Main spreads

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




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, albeit at a slower pace.
- **We expect to see Senior Financial spreads trading inside Main in 2014**.

Figure 9. Ratio of Senior Fins to Main spreads

5y on-the-run indices.

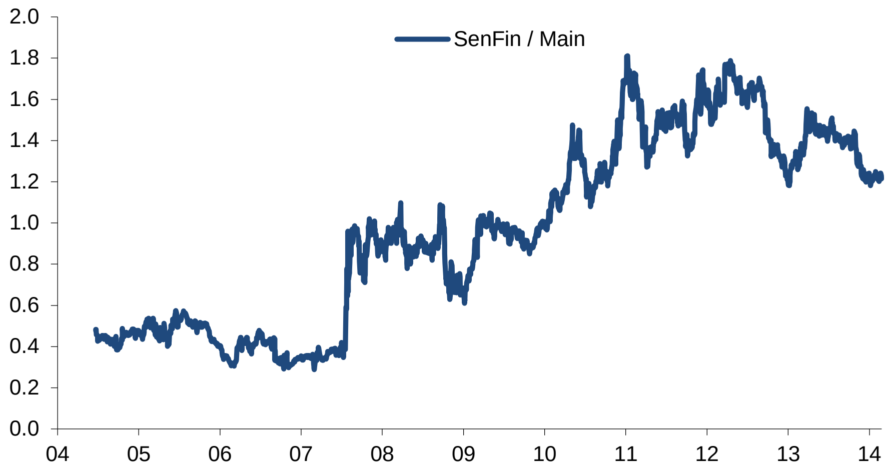
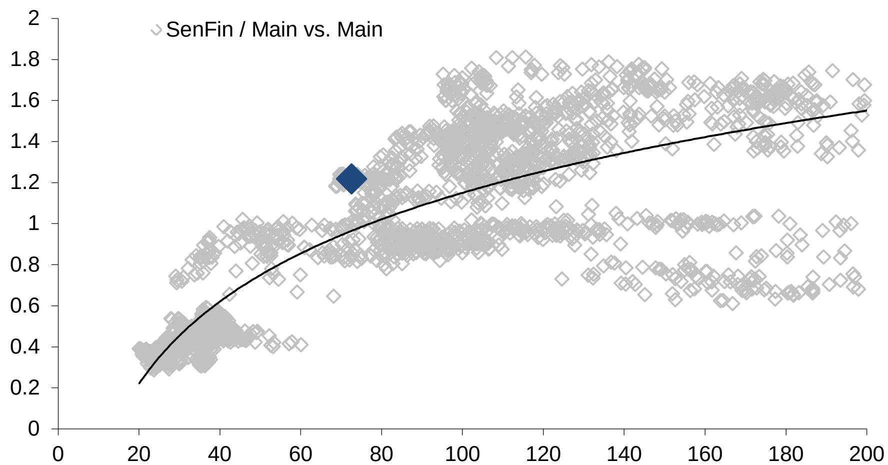



Figure 10. Ratio of Senior Fins to Main spreads vs. Main spreads

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.
- Not a clear trade to us.
- EM angle?

Figure 11. Xover – CDX HY spread difference

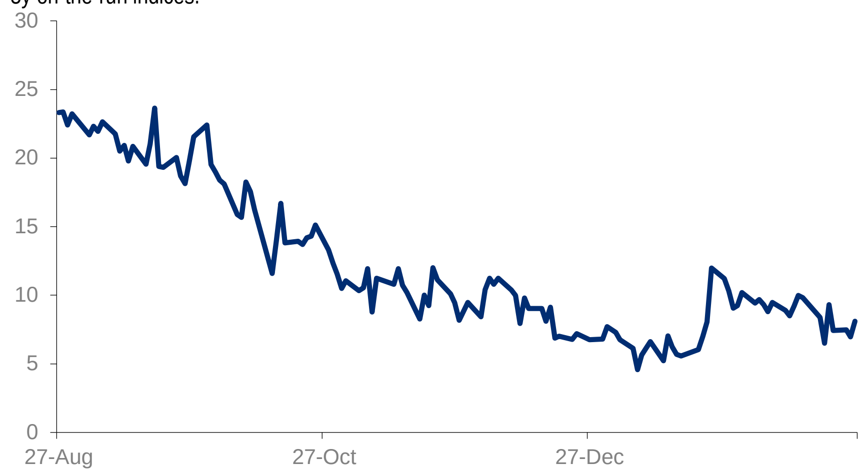
5y on-the-run indices.


Figure 12. Main – CDX IG spread difference

5y on-the-run indices.


Figure 13. Main – CDX IG spread difference

5y on-the-run indices.




Source: Citi Research, Markit.

# Index Skews

- **Staying positive in Crossover**.
  - Plenty of “arb” activity going through.
- **Turning negative in Main**
  - Index leading the tightening, not very bullish.
- **Positive in Fins**
  - Good entry point for a long risk Fins vs. short Main trade.

Figure 14. iTraxx Main and Crossover

5y on-the-run indices, bp.

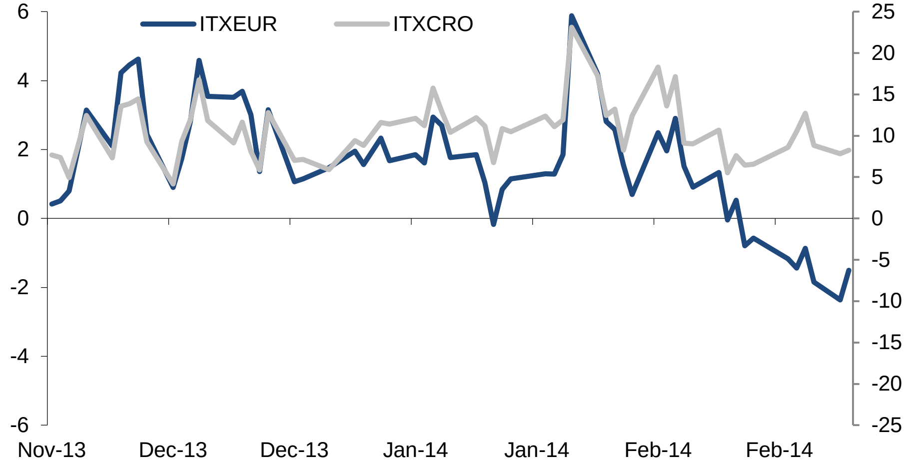



Figure 15. iTraxx Main and CDX IG

5y on-the-run indices, bp.

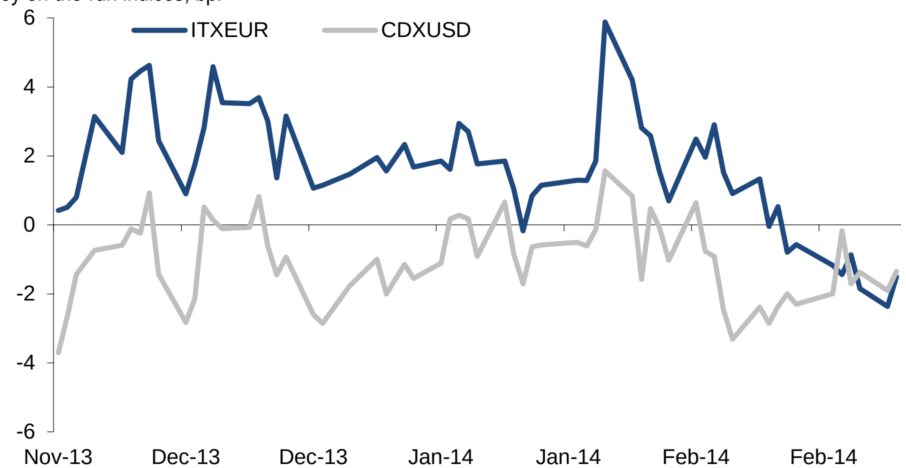
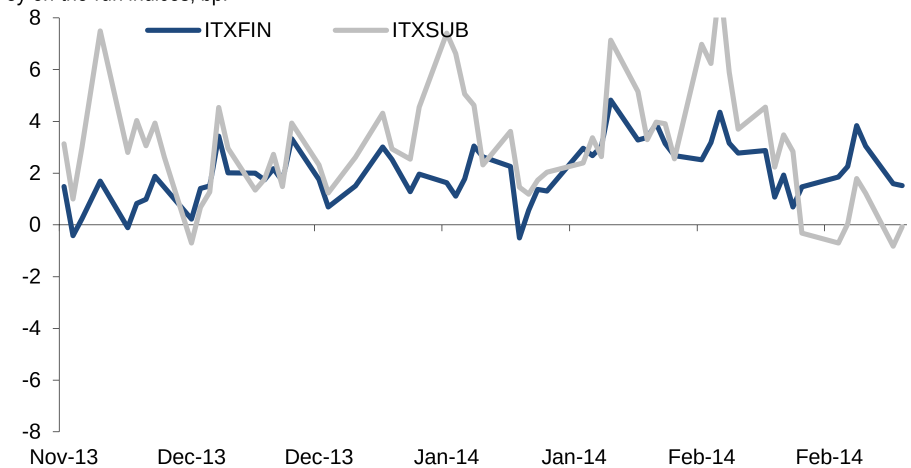



Figure 16. iTraxx Fins.

5y on-the-run indices, bp.




Source: Citi Research, Markit.

# Curves

- **The case for 3s5s flatteners still looks strong**, with:
  - Positive carry + roll down.
  - Investors moving from 3 to 5y longs to pick up carry.
- **The case for 5s10s flatteners is increasingly compelling**, but we'd wait:
  - Carry + roll down not yet positive.
  - We likely need a more bullish environment for investors to move above 5y.

Figure 17. iTraxx Main Curves

On-the-run indices, bp.

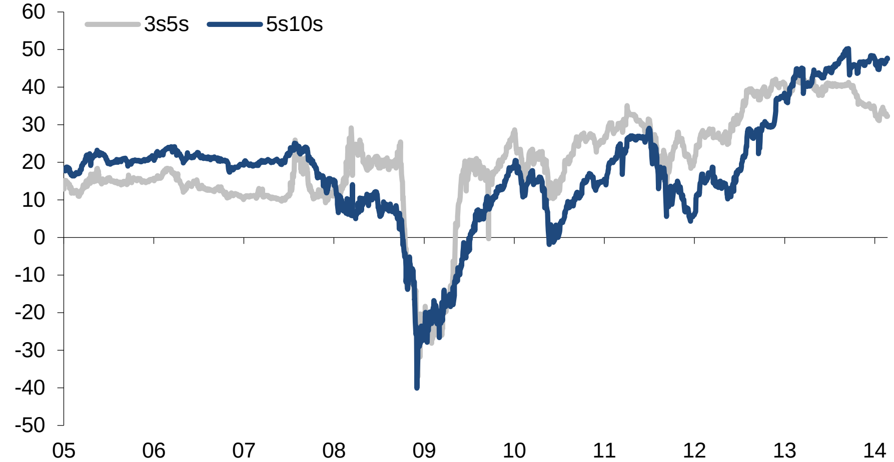



Figure 18. iTraxx Crossover Curves

On-the-run indices, bp.

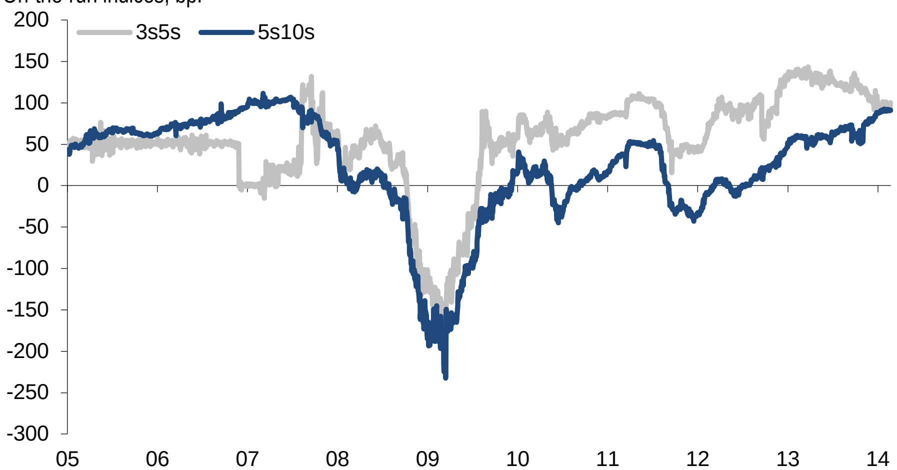
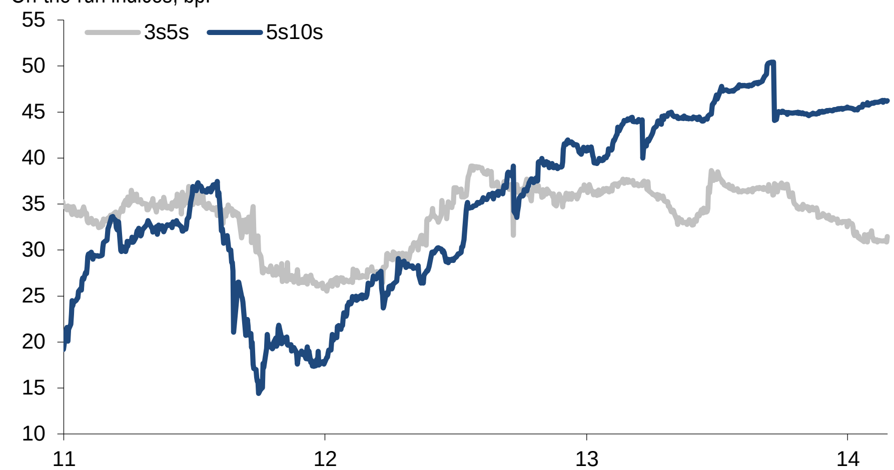



Figure 19. CDX IG Curves

On-the-run indices, bp.




Source: Citi Research, Markit.

# iTraxx Main

Figure 20. Spread curves

On-the-run indices, bp.

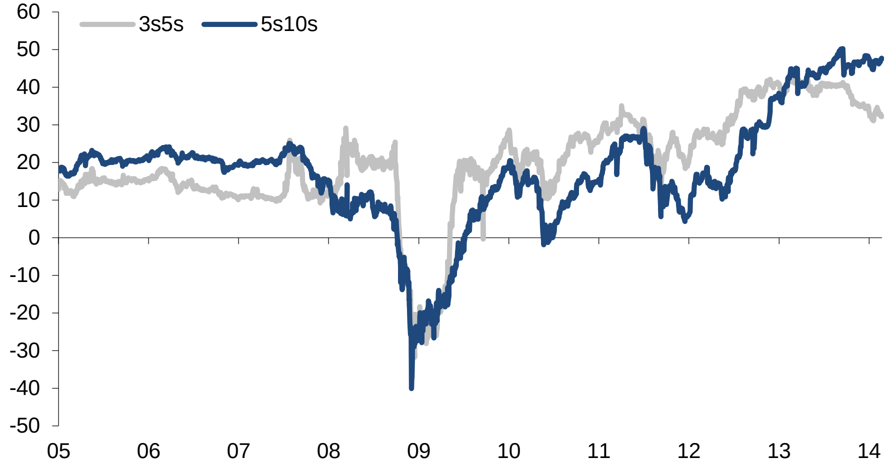



Figure 21. Annual carry (exc. roll down) of DVO1 neutral flatteners

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

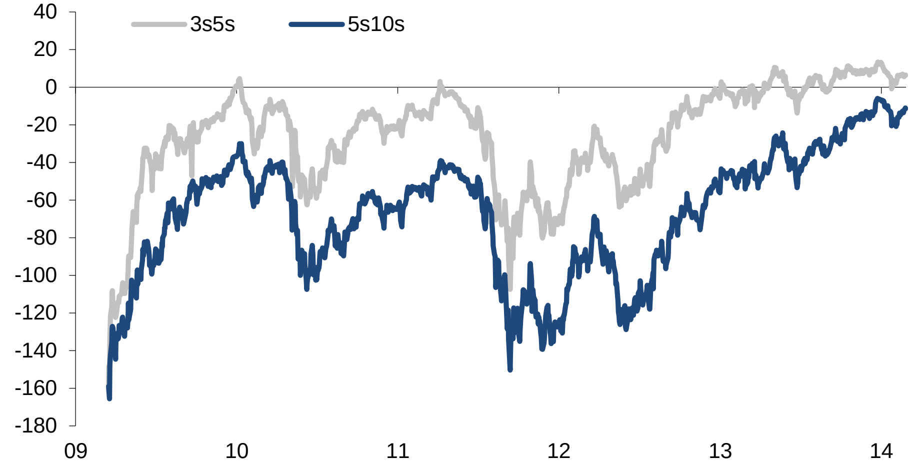



Figure 22. 3s5s vs. 5y spread

On-the-run indices, in bp.

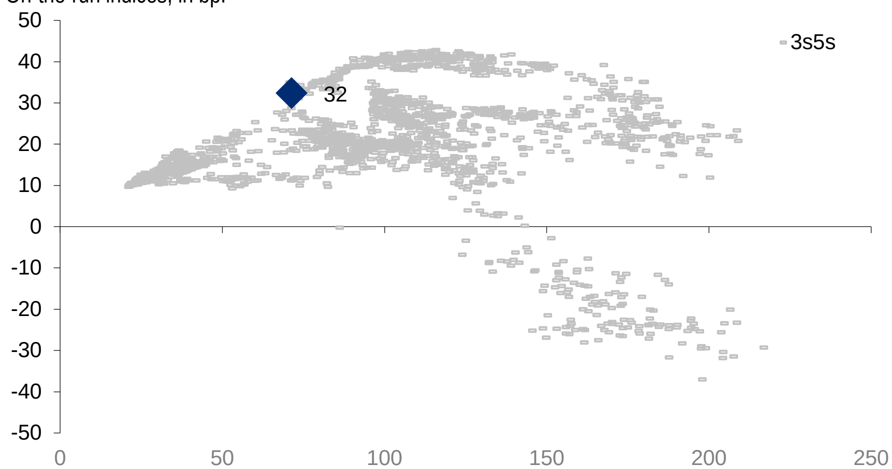
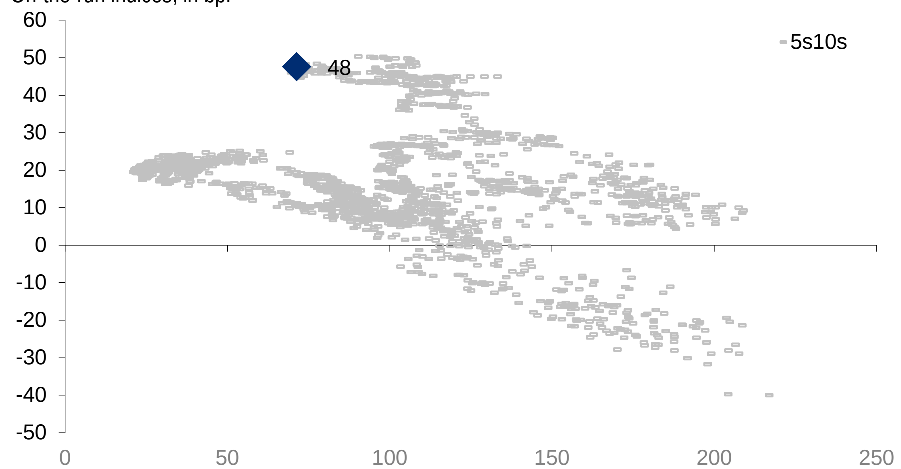



Figure 23. 5s10s vs. 5y spread

On-the-run indices, in bp.




Source: Citi Research, Markit.

# iTraxx Main DV01 Weighted Flatteners

Figure 24. iTraxx Main 3s5s Duration Weighted Flattener

| Tenor | Maturity | Spread (bp) | Coupon (bp) | Upfront (%) | Notional (€) | Annual Coupon (€) | Annual Upfront (€) | 12m Carry (€) | 12m Slide (€) | 12m Time (€) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3y | 20-Dec-16 | 40 | 100 | -1.68% | -16,544 | -165 | 278 | -165 | 80 | -86 |
| 5y | 20-Dec-18 | 73 | 100 | -1.27% | 10,000 | 100 | -127 | 100 | 20 | 120 |
| 26-Feb-14 | | 33 | | Total | -6,544 | -65 | 151 | -65 | 99 | 34 |

Source: Citi Research.

Figure 25. iTraxx Main 5s10s Duration Weighted Flattener

| Tenor | Maturity | Spread (bp) | Coupon (bp) | Upfront (%) | Notional (€) | Annual Coupon (€) | Annual Upfront (€) | 12m Carry (€) | 12m Slide (€) | 12m Time (€) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5y | 20-Dec-18 | 73 | 100 | -1.27% | -17,709 | -177 | 226 | -177 | -35 | -212 |
| 10y | 20-Dec-23 | 120 | 100 | 1.73% | 10,000 | 100 | 173 | 100 | 54 | 154 |
| 26-Feb-14 | | 48 | | Total | -7,709 | -77 | 399 | -77 | 19 | -58 |

Source: Citi Research.

# iTraxx Crossover

Figure 26. Spread curves

On-the-run indices, bp.

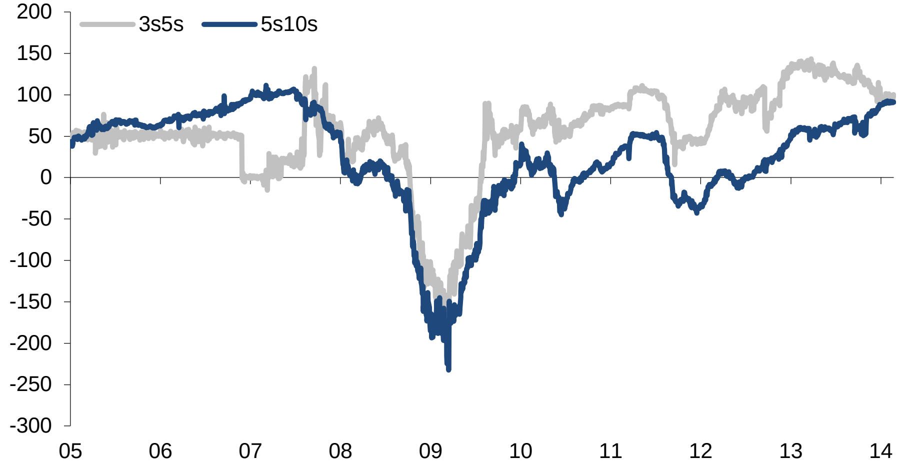



Figure 27. Annual carry (exc. roll down) of DVO1 neutral flatteners

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

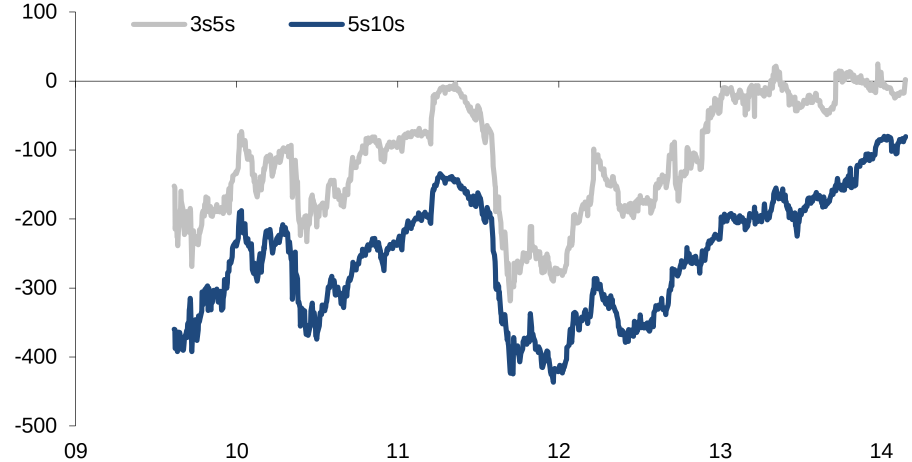



Figure 28. 3s5s vs. 5y spread

On-the-run indices, in bp.

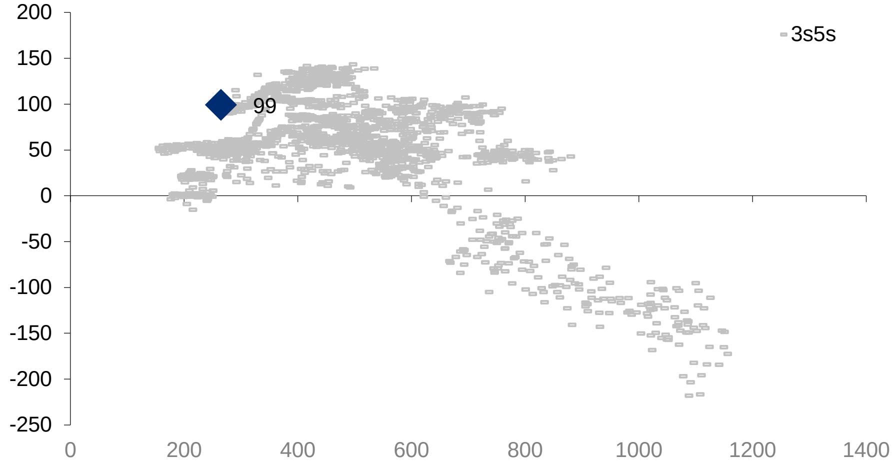
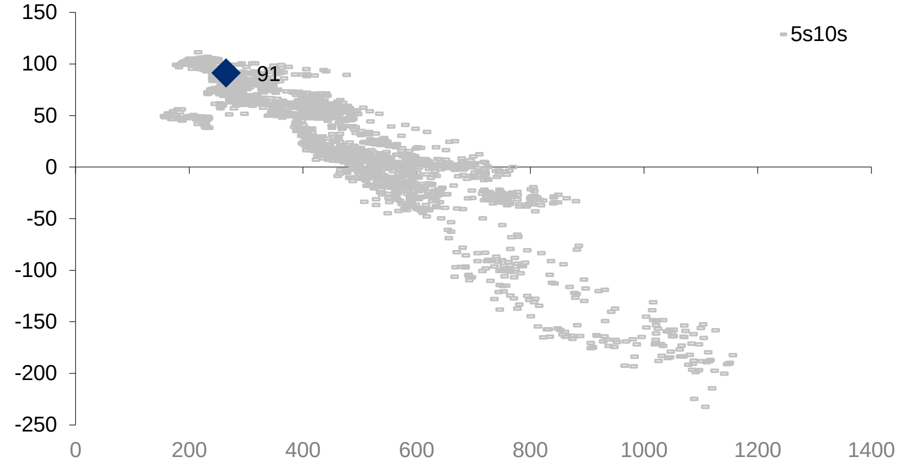



Figure 29. 5s10s vs. 5y spread

On-the-run indices, in bp.




Source: Citi Research, Markit.

# iTraxx Financials

Figure 30. Spread curves

On-the-run indices, bp.

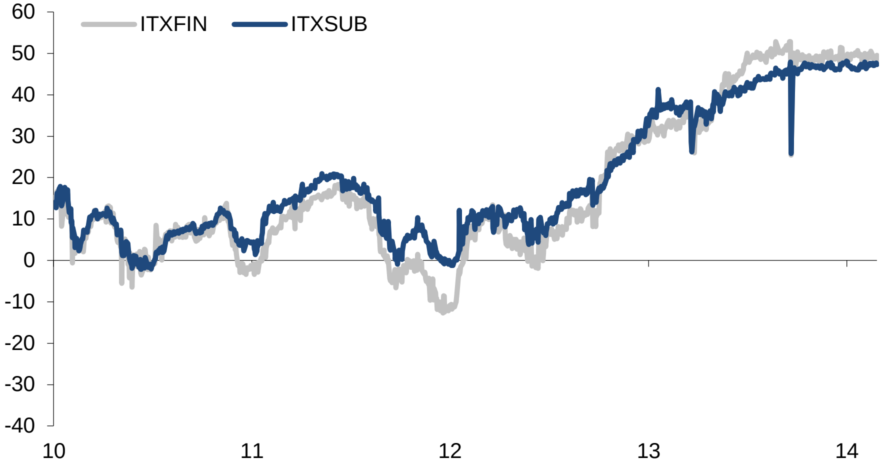



Figure 31. Annual carry (exc. roll down) of DVO1 neutral flatteners

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

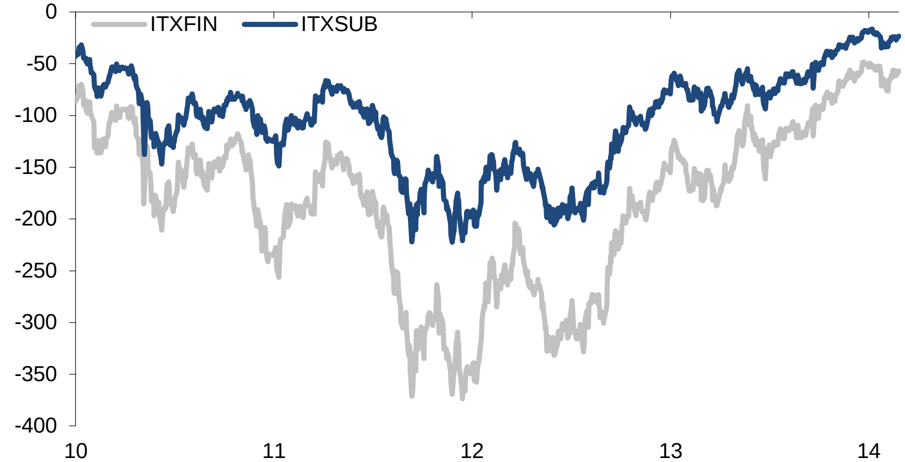



Figure 32. Senior Fin. – 5s10s vs. 5y spread

On-the-run indices, in bp.

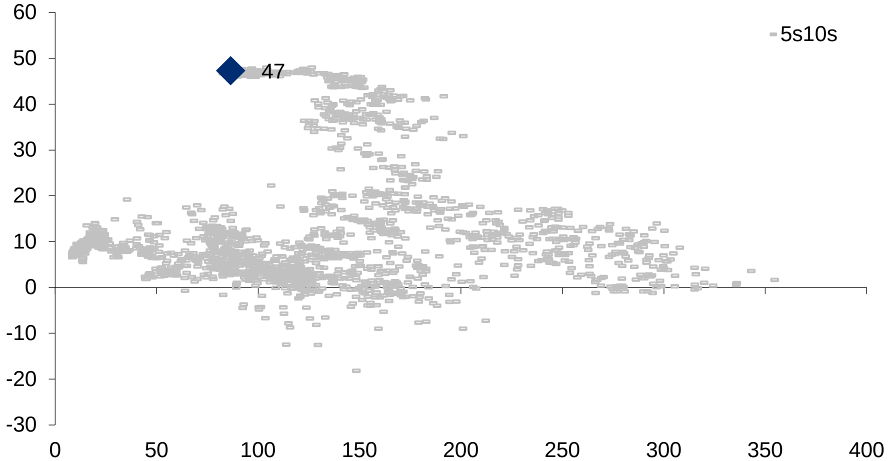
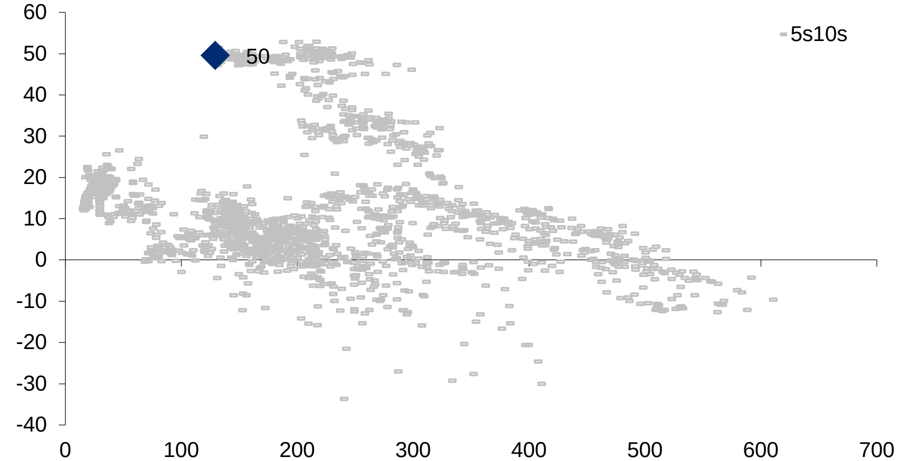



Figure 33. Sub. Fin. – 5s10s vs. 5y spread

On-the-run indices, in bp.




Source: Citi Research, Markit.

# Cash-CDS Basis

- **Tailwinds for synthetics in a stable/tightening market**
  - Easier to lever up, higher liquidity.
  - Cash inflows to slow down as liquidity provision recedes.
- **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).
- **Expect synthetics to underperform in moderate widenings, but outperform otherwise**

Figure 34. iBoxx IG vs. iTraxx* Spreads

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

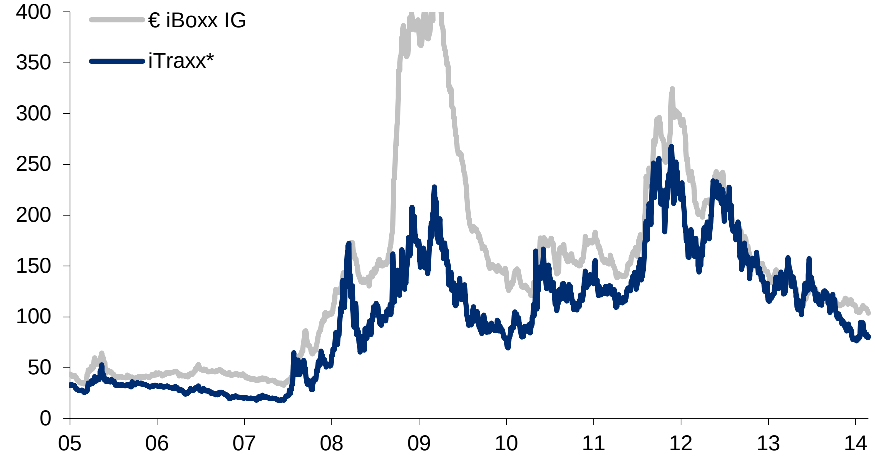



Figure 35. iBoxx IG vs. iTraxx* Spreads

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

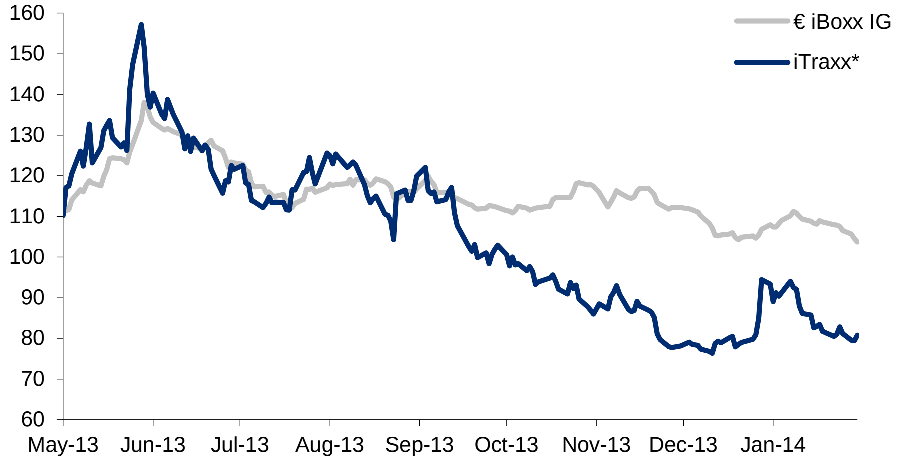
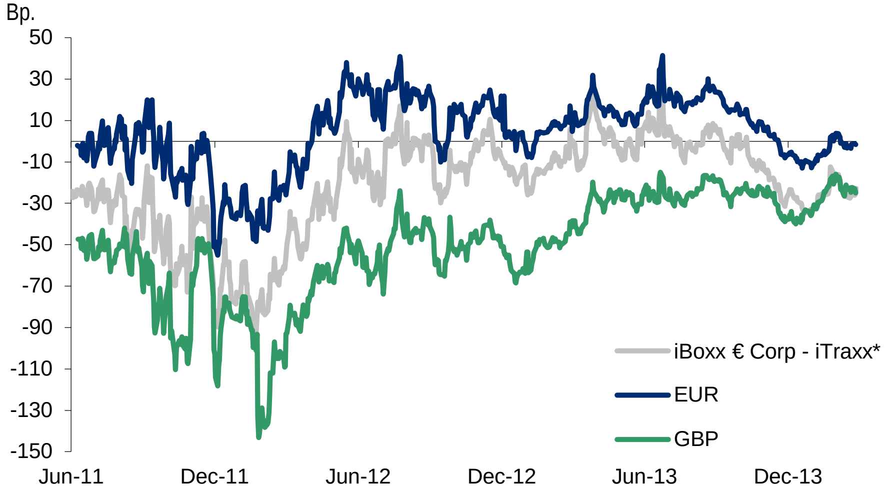



Figure 36. Bond-CDS Basis

Bp.




Source: Citi Research, Markit.

# Options

- **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 37. Implied vol in Credit and Equities

3m.

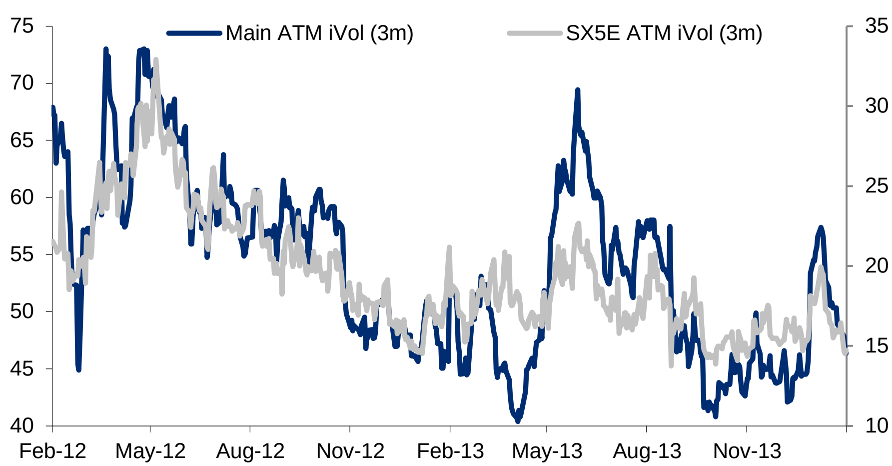
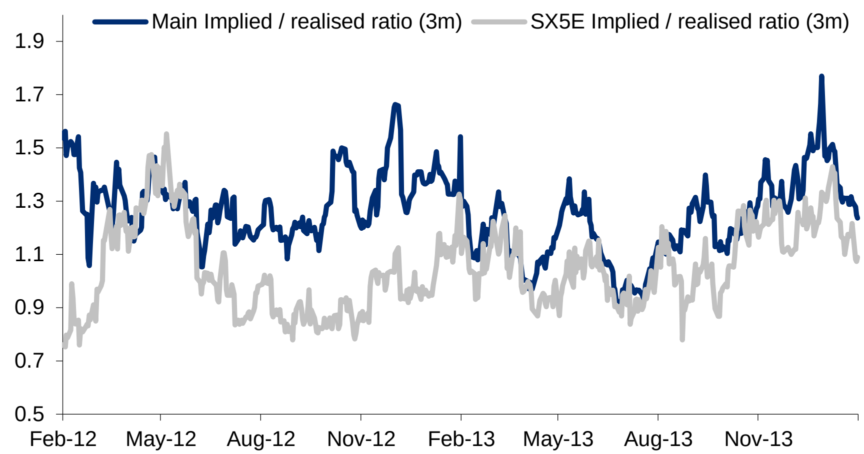



Figure 38. Implied to realised ratio in Credit and Equities

3m.




Source: Citi Research, Markit, Bloomberg.

# Options – Short term

- Bearish price action in options during the **EM mini-selloff** – **negative gamma option flows** having a large impact on the index market, triggering high intra-day vol.
- Back to business as usual in options after the first bump + normalisation of the year.
- Pricing-wise, the receiver skew is slowly starting to steepen as **investors sell receivers** to fade the tightening.
- Still think **selling vol will be a much more reliable and stable way to make carry this year.**
- Latest iTraxx Options Views & Trades

Figure 39. Main vol vs. spreads

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

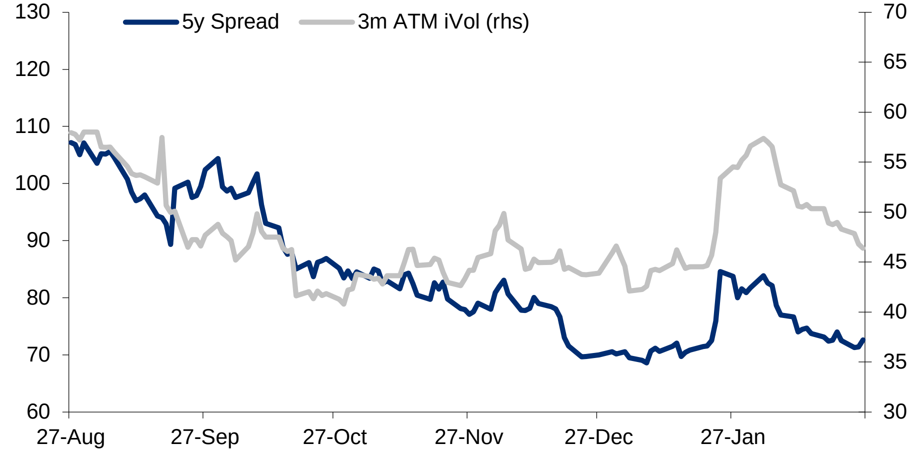



Figure 40. Vol term structure (1-3m)

ATM vol.

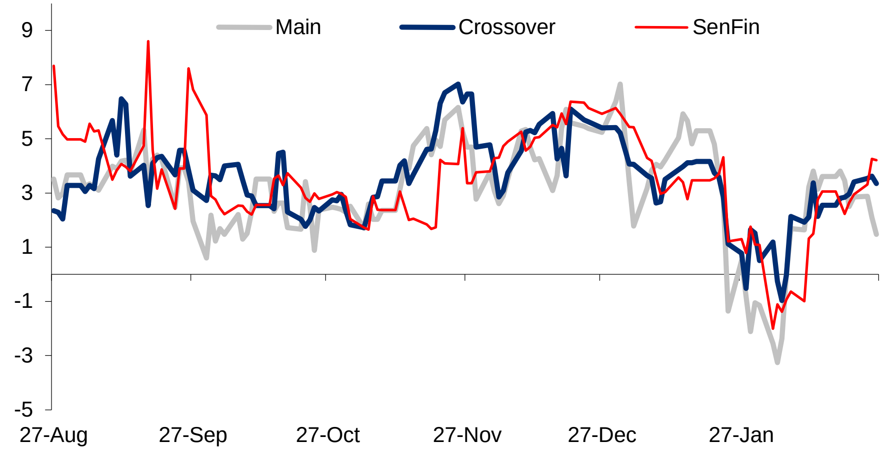
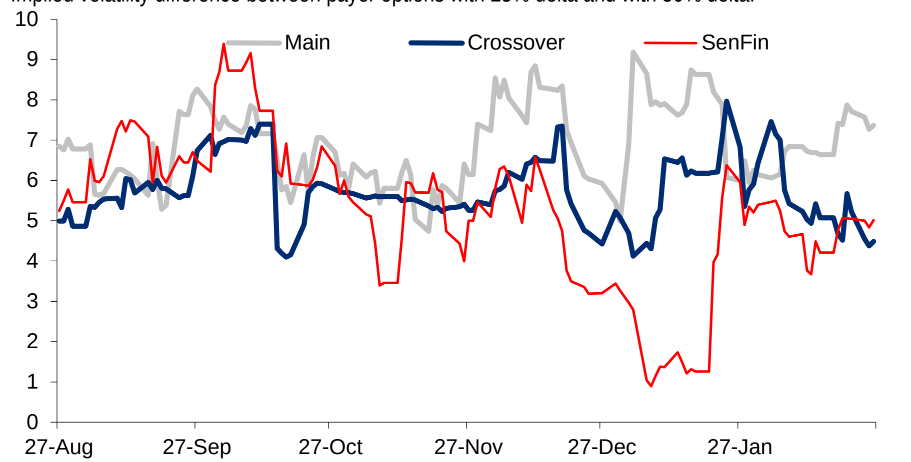



Figure 41. Payer Skews (3m)

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




Source: Citi Research, Markit, Bloomberg.

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

Figure 42. Main – delta hedged

P&L in cents of notional traded.

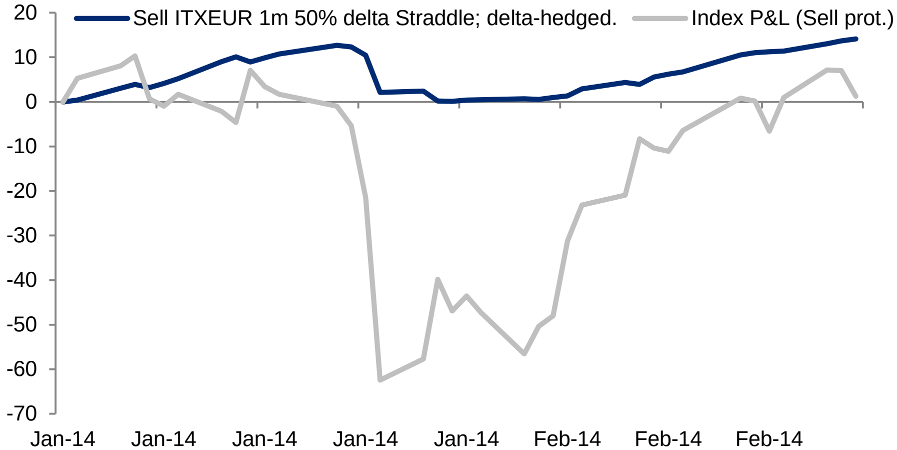



Figure 43. Main – NO delta hedged

P&L in cents of notional traded.

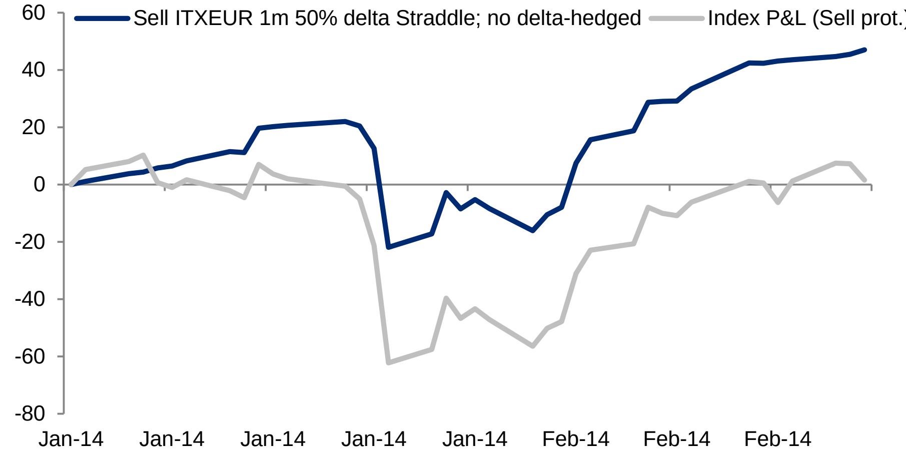



Figure 44. Crossover – delta-hedged

P&L in cents of notional traded.

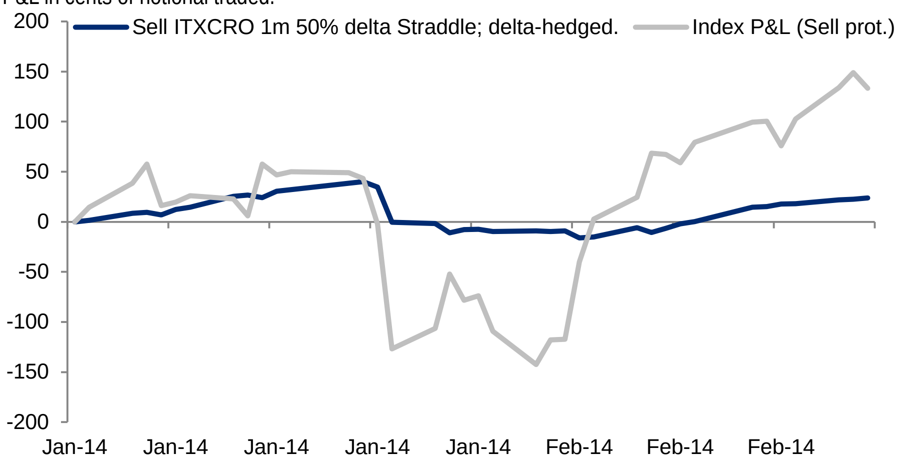
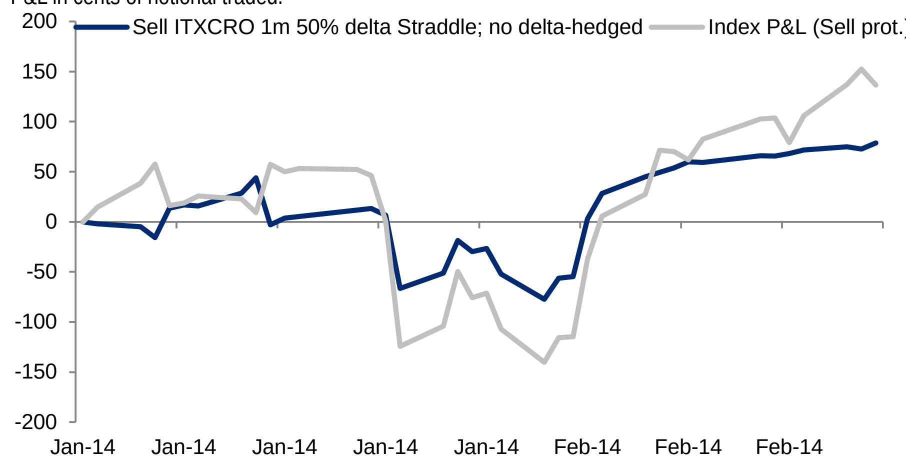



Figure 45. Crossover – NO delta-hedged

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

# Options vs. Curves: Playing with Tail Risk

- Sell it where it's expensive **(OTM payers)** & buy it where it's cheap **(3s5s flatteners)**
- **The credit index options market continues to be dominated by hedging flows**. Investors remain better buyers of options, especially OTM payer options for tail-hedging.
- **Curve flatteners proved to be an effective tail hedge in the last tail event** (Lehman's default in October 2008). **Pricing-wise, front-end curves are currently so steep that 3s5s flatteners have been positive carry and roll down** for a while. So one can buy tail risk via flatteners, getting paid for it.
- The trade is positive time value in both legs.

Figure 46. 3s5s vs. 5y spread

On-the-run indices, in bp.

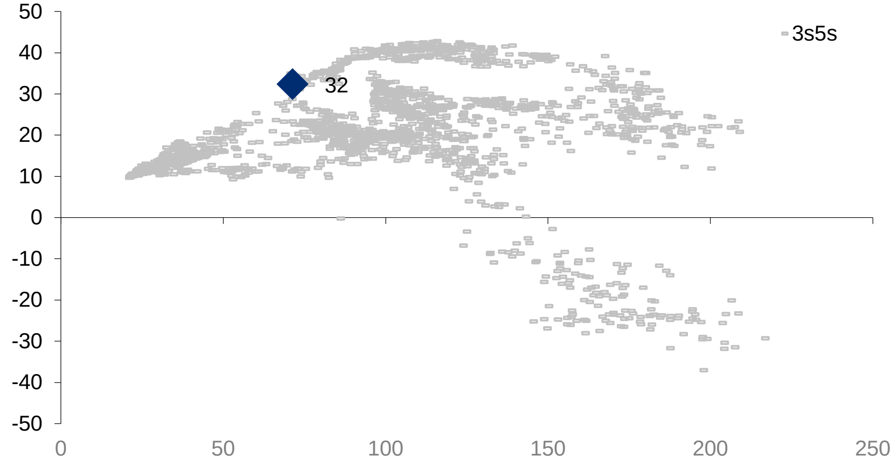



Figure 47. Main vs. SX5E skew

Main: 25-50% delta payer. SX5E: 10% put skew. 5d MA.

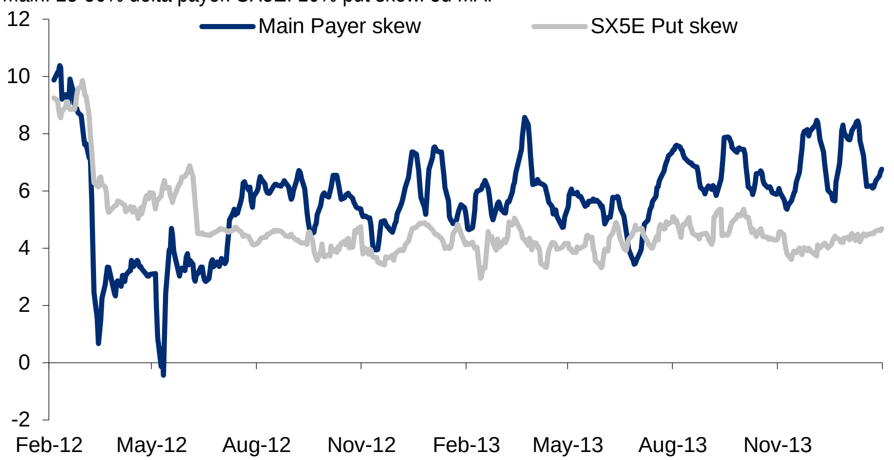
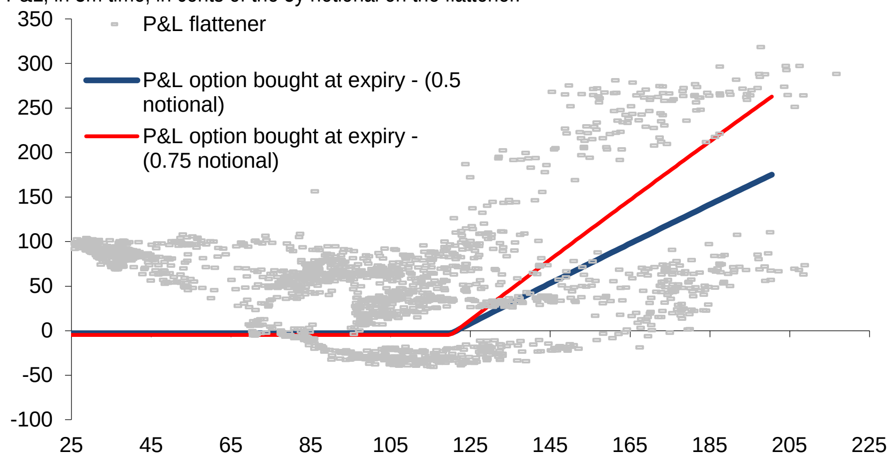



Figure 48. P&L vs. 5y spread – 3m 120bp payer bought vs. 3s5s flattener

P&L, in 3m time, in cents of the 5y notional on the flattener.




Source: Citi Research, Markit, Bloomberg.

# Tranches

- **Investors are concerned** when finding out how bullish we are on leverage in general and on mezz tranches in particular.
- 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).
- **Equity was the stellar performer of 2013, we think Mezz will take that spot in 2014; it is playing out already**.
- Latest iTraxx Options Views & Trades, More mezz, less seniors.
- **Equity – Constructive**. Lower return but faithful client base. No change, it should continue doing well.
- **Mezz – Highest conviction long**. It is in mezz where the new marginal investor in the tranche market is landing; plus, we expect hedge funds to do a bit less equity and more mezz.
- **Seniors - Bearish**. We see no investor interest now or in the near future.
- RV trades:
  – Long 6-9% vs. Xover
  – Long 3-6% vs. super senior

Figure 49. Correlations keep going up

Jun-18 S9 equity correlation.

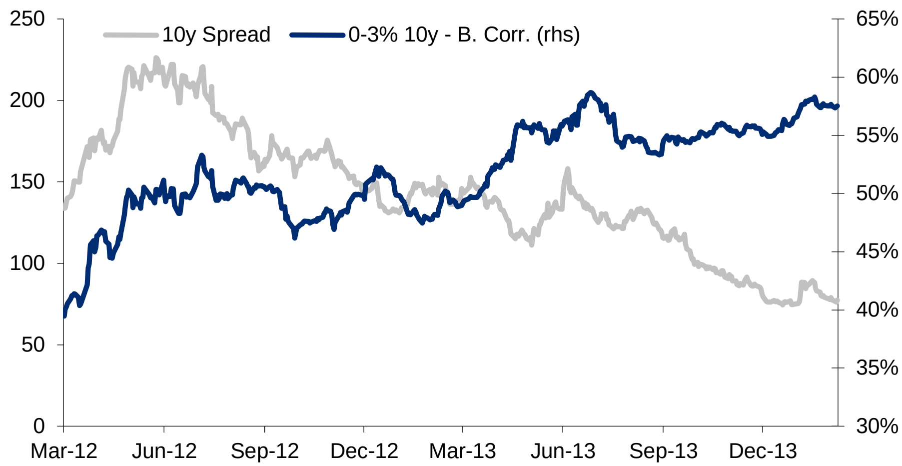
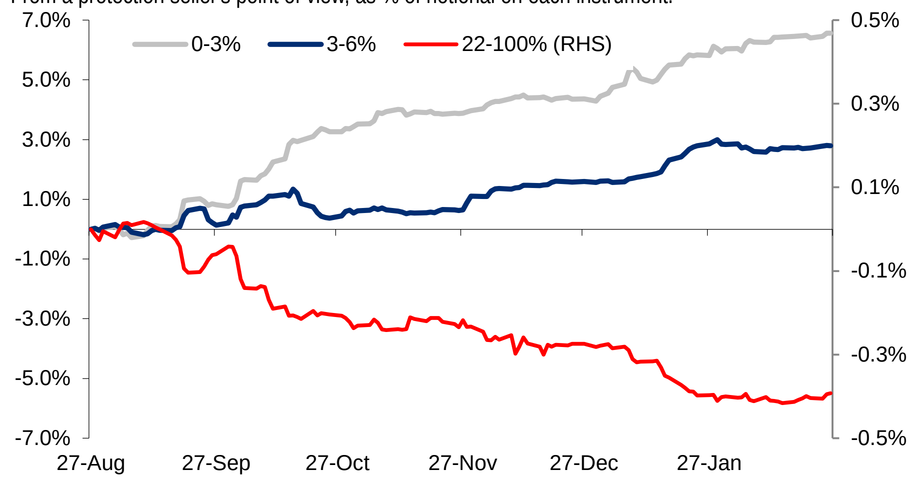



Figure 50. Delta-hedged tranche performance

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




Source: Citi Research, Markit.

# Why are we so bullish in junior tranches, and so bearish on senior tranches?

- **Default risk is still the best risk to take**
  - The tranche market didn't re-price at all during the recent volatile market.
  - If investors add junior longs when spreads grind boringly tighter and don't unwind them when we have bouts of volatility, the only reason to change our views (long juniors, short seniors) would be fear of default risk and idiosyncratic single name stories resurfacing. We don't think that happens anytime soon.
- The main push-back we get on the view above is the historically high level of correlation.
  - **It is true that correlations are high, we just don't see what's going to take them lower anytime soon.**
- **Junior tranches are held as "medium term longs", and won't be easily unwound**.
  - We feel that investors are using the tranche market to source "medium term longs" (in juniors only thus far), and they are not going to easily unwind them when we hit a bump.
  - In this respect, the tranche market is behaving like the cash bond market, where investors are happy to add longs in the primary market but not to unwind positions in volatile periods.
  - Cash bond and tranche positions feel "sticky" and it may take a large and sustained sell-off for investors to unwind them.
- **Senior tranches continue having a hard time finding protection sellers**, and the truth is that when compared with other "stable" longs, like the tightest names in the index, **they don't look particularly attractive**.

# Sell equity tranche protection & sell straddles

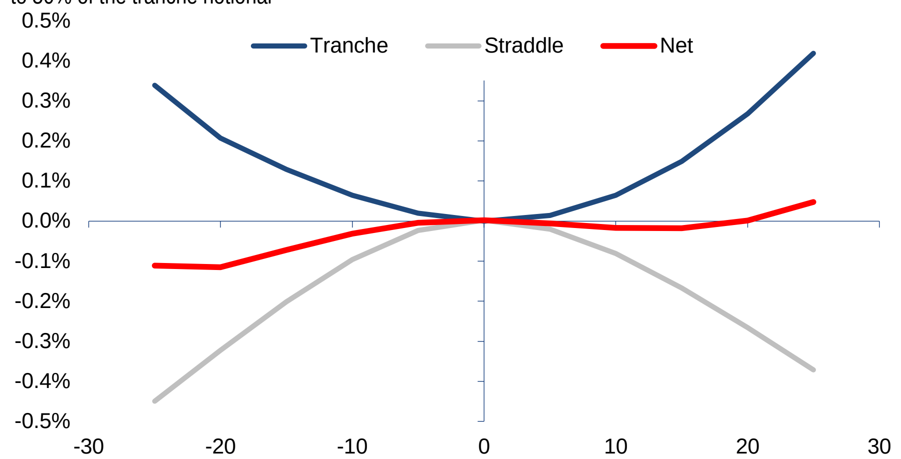
- **We believe equity tranches will continue to outperform** as fast money and the most sophisticated real money investors continue adding longs to position for their large roll down.
  - **Default risk is the best risk to take for your carry.**
- **We also like selling front dated straddles** to exploit 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 51. 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 52. 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%.

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