

Equal Notional 3s5s Flatteners

Adding cautious longs by selling forward protection

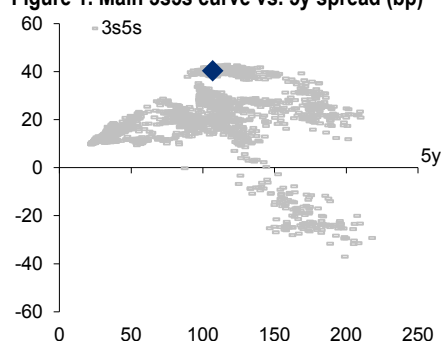
- **Cautiously long** – Spreads are tight but the market remains technically well supported, with investors not fully invested and with central banks' liquidity still inundating the market. We recommend longs, but combined with low-cost tail hedges, of which 3s5s flatteners still look one of the most attractive.
- **Curves remain at record steep levels and continue to provide attractive hedges** – Unlike 5s10s, 3s5s curves have failed to steepen this year given that investors had squeezed out all of their time value by the end of 2012. We continue seeing very little room for 3s5s to steepen going forward; however, they will likely flatten if we either tighten or widen substantially, and stay at current levels if spreads remain range-bound.
- **Trade: 3s5s Equal Notional Flatteners (i.e. Selling Forward Protection) – Combine a long with a cheap tail-hedge.** Spreads are tight and curves are steep (Figure 1), making forward spreads wide relative to outright spread levels (Figure 2). Compared to an outright long risk trade, selling forward protection will outperform if curves flatten – which is what we expect (and what it has happened historically) if spreads sell-off aggressively.
- **Trade it via indices and single name CDS**
 - **iTraxx Main 3s5s equal notional flatteners @ 40bp** (forward spread of ~175bp, 1.65x the 5y spread).
 - **Single name opportunities:** We identify names with (i) wide forwards vs. 5y spreads (i.e. steep curves) and (ii) that have recently underperformed iTraxx Main: **St Gobain, Tesco, Pernod, PPR, Lufthansa, Imperial Tob., Heidelbergcement, Holcim, Anglo American, Glencore, Alstom, Rexam.**

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Figure 1. Main 3s5s curve vs. 5y spread (bp)



Source: Citi Research, Markit. Daily data since 2005.

Figure 2. Main 3s5s forward to 5y spread



Source: Citi Research, Markit.

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

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View: Cautiously long

Looking for longs but still not convinced?

Although investment grade spreads are close to their 5y tight, market sentiment is still very cautious. Most investors find it hard to justify adding too much risk given the low compensation currently offered by the market and the many uncertainties looming (from Fed tapering to EM outflows). We recently moved our short term view to Neutral, although we maintain a more positive view over the medium term (mainly based on central bank liquidity still providing enough support to the market, and on investors' current defensive positioning).

As we highlighted in a recent [European Credit Weekly](#) (H. Lorenzen, 30-Aug), we continue to believe that the European credit market remains well supported technically. In our central scenario, we do not expect much wider spreads from here. But **the market provides precious little compensation for tail risk scenarios. So we would remain no more than neutral here, revisiting low-cost tail-risk hedges.**

Investors who, like us, remain cautiously positive over the medium term but still very much concerned about tail risks should find 3s5 equal notional flatteners, i.e. selling forward protection, an attractive "safe long" to hold in the current uncertain times.

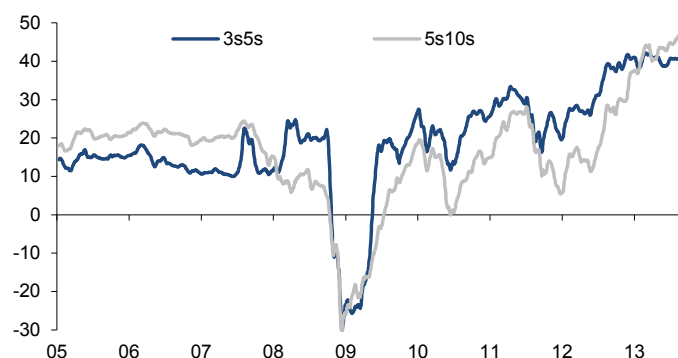
Curves: Steep

What have they been up to?

CDS curves have reached record steep levels, as Figure 3 shows for iTraxx Main. In an environment where spreads are very volatile within very well defined ranges (e.g. 90-130bp in Main), investors seem to have given up on trying to time the market or trade relative value, and exploited the only conviction they have left: low risk of defaults. In order to take exposure to default risk, limiting the exposure to market (i.e. overall spread) risk, investors have relied on, among other things, curve steepeners. Duration-weighted steepeners (generally¹) offer positive time value (carry + slide) at the expense of default risk exposure.

Figure 3. iTraxx Main Curves

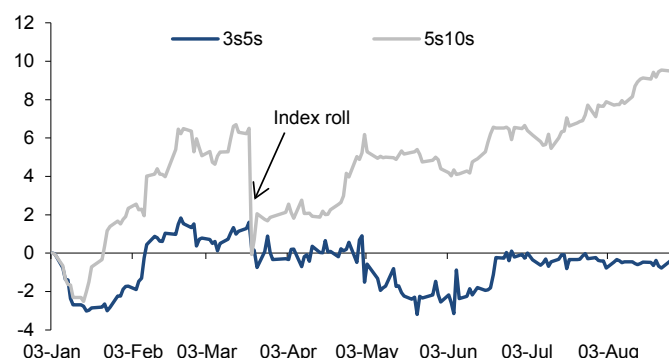
Curve, in bp spread difference. 10d moving average.



Source: Citi Research, Markit.

Figure 4. iTraxx Main Curves – Changes in 2013

Curve change, in bp spread difference. On-the-run index.



Source: Citi Research, Markit.

Investors started their steepening operations after Draghi's famous "whatever it takes" speech in July 2012. The market squeezed the time value out of 3s5s curves until it was gone by the end of 2012 – from then on, 3s5s curves have barely moved. The back end of the curve (5s10s) has kept steepening given that it still provides positive time value to investors entering steepeners.

¹ This is not the case any more in 3s5s steepeners for most single names and indices.

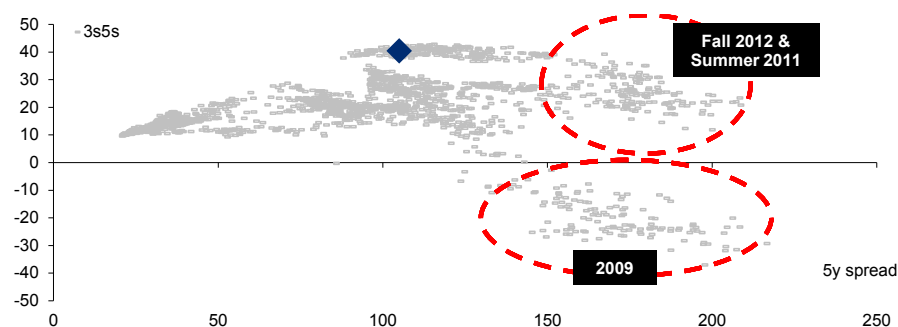
3s5s duration weighted flatteners have been (and still are) one of our core recommendations for investors looking for tail hedges² given that they provide default protection at virtually no cost in terms of time value. The cost of holding a 3s5s duration-weighted flattener in Main since the beginning of the year would have been 0.15%,³ with more than half of that coming from the cost of rolling the position when the indices rolled in March.

How do we expect them to move?

The dynamics which have driven curves steeper over the past 15 months (i.e. preference for default exposure over spread exposure) are likely to continue going forward. That should continue steepening the back end of CDS curves (5s10s) since duration-weighted steepeners on that part of the curve still provide positive time value. However, this doesn't apply to 3s5s curves, where duration weighted steepeners offer literally no time value; in fact, they currently generate negative time value (and negative default exposure). Thus, while we wouldn't be surprised to see 5s10s curves steepening further, we reiterate our view that there is very little upside on 3s5s steepeners. Figure 5 shows a scatterplot of iTraxx Main 3s5s curve vs. the 5y spread level.

Figure 5. iTraxx Main 3s5s vs. 5y index spread

Y-axis: curve, in bp spread difference; X-axis: 5y index spread, bp. Historical daily data since 2005.



Source: Citi Research, Markit.

We expect 3s5s curves to:

- **Flatten if we either tighten or widen a lot** – because investors get very comfortable with “spread or market” risk in the first scenario (and reach for longer dated longs) or because they rush to buy jump-to-default protection in the second.
- **Stay at current levels or marginally steepen if spreads remain range-bound with plenty of volatility** – i.e. the scenario we've experienced over the past 9 months. However, the steepening will likely be moderate and short lived, given that we do not expect investors to hold to trades (steepeners) which involve paying money for taking default exposure.

Thus, **we continue recommending 3s5s flatteners:**

- Investors with long risk portfolios should add **duration weighted** flatteners as cheap tail hedges.
- Investors who want to add risk should **enter equal notional** flatteners (i.e. sell forward protection), which is what we analyse in more detail in the next pages.

² See [European Credit Outlook 2013](#), H. Lorenzen, 3-Jan-13, and [A hedge for all seasons](#), A. Elizalde & M. King, 28-Mar-13.

³ As a % of the 5y notional.

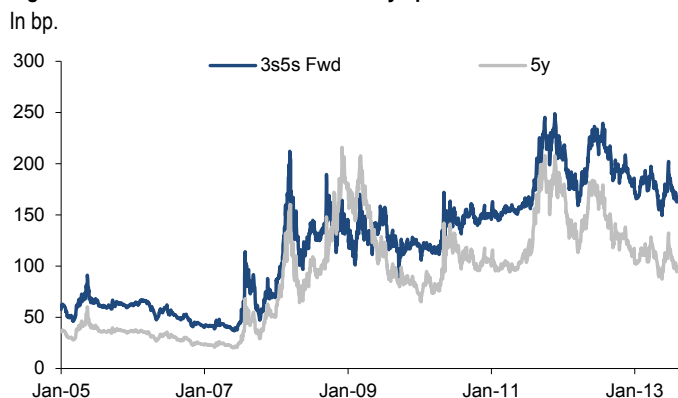
Trade: 3s5s Equal Notional Flatteners

We first illustrate the merits of 3s5s equal notional flatteners using iTraxx Main, and then highlight single name CDS which offer attractive opportunities.

iTraxx Main

Spreads are tight and curves are steep. As a consequence, forward spreads look wide when compared with outright spread levels (see Figure 6 and Figure 7). In iTraxx Main for example, with the 5y spread at 105bp and the 3y curve at 40bp, the 3s5s forward spread would be trading at ~175bp, around 1.65x higher than the 5y spread. As Figure 7, the ratio of forward to 5y spreads is trading at very high levels – i.e. forward spreads are wide.

Figure 6. iTraxx Main 3s5s forward and 5y spread



Source: Citi Research, Markit.

Figure 7. Ratio of 3s5s forward and 5y spread



Source: Citi Research, Markit.

Figure 8 shows the trade details of a €100m 3s5s equal notional flattener in iTraxx Main. The trade provides positive time value (€460k in 6m time) if the spread curve remains unchanged (with the 3y and 5y spreads rolling to 65 and 99bp respectively). Figure 9 shows the trade P&L for different spread levels in 6m time and Figure 10 shows, for different spreads for the 3y leg in 6m time, the level of the 3s5s curve at which the investor would breakeven. For example, if the 3y spread rolls down to 65bp, the trade could afford a 5bp steepening and still breakeven.

Figure 8. iTraxx Main Series 19 3s5s Equal Notional Flattener

Tenor	Maturity	Spread (bp)	Coupon (bp)	Upfront (%)	Notional (€m)	Upfront (€m)	Carry (€m)	Slide (€m)	Time (€m)
3y	20-Jun-16	65	100	-0.97%	-100	0.97	-0.50	0.16	-0.34
5y	20-Jun-18	105	100	0.24%	100	0.24	0.50	0.29	0.79
3s5s Flattener		40		Total	0.00	1.21	0.00	0.46	0.46

Source: Citi Research.

Figure 9. Trade P&L in 6m time for different spread levels

Spreads in bp. P&L in €m, using the traded notionals in Figure 8. Spreads along the shaded diagonal cells involve no changes in the current spread curve.

	70	59	79	5y 99	119	139	159
30	0.84	1.32	0.48	-0.36	-1.18	-1.99	-2.79
25	0.72	1.20	0.36	-0.48	-1.30	-2.11	-2.91
45	1.19	1.67	0.83	-0.01	-0.83	-1.64	-2.44
3y 65	1.65	2.14	1.29	0.46	-0.37	-1.18	-1.98
85	2.12	2.60	1.75	0.92	0.10	-0.71	-1.51
105	2.57	3.06	2.21	1.38	0.56	-0.26	-1.06
125	3.03	3.51	2.67	1.83	1.01	0.20	-0.60

Source: Citi Research, Markit.

Figure 10. Curve breakeven spreads

Spreads in bp. B/E = Breakeven.

3y Spread	5y B/E	Curve B/E	Curve chg. B/E
30	90	60	20.0
25	87	63	22.1
45	98	54	13.4
65	110	45	4.7
85	121	36	-4.0
105	132	28	-12.7
125	144	19	-21.5

Source: Citi Research, Markit.

When sizing an equal notional flattener, investors need to take into account the trade duration relative to the duration of a 5y outright long. With 3 and 5y index durations at around 2.9 and 4.6 respectively, a 3s5s equal notional flattener would have a spread duration of 1.71 vs. a 4.6 duration of a 5y outright long (i.e. the duration of the flattener is just 37% of the 5y duration).

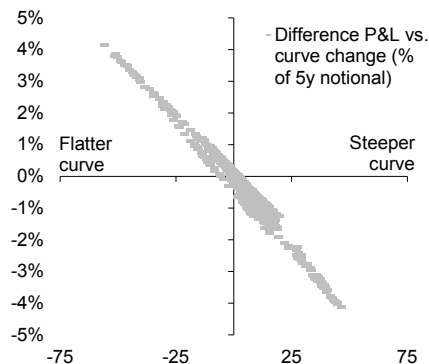
We are recommending a 3s5s equal notional flattener as a “safe long”, which should outperform a 5y outright long in a tail-event. This ties up with our view that curves will flatten if we widen substantially; however, is this what has happened historically? We look at this next.

Historical performance: 3s5s equal notional flattener vs. 5y long

Historically, and compared to a 5y outright long, **selling forward protection has outperformed whenever curves flatten**. Using data since 2005, we compute the rolling 3m P&L of a 5y index long and a 3-5y forward long, and compare those two P&Ls (adjusting for the fact that the 5y outright long has a higher duration if done on the same notional).⁴ Figure 11 shows the P&L differential (flattener minus outright index long) against the change in the spread curve: the equal notional flattener outperforms whenever curves flatten.

Figure 11. P&L of a 3s5s equal notional flattener minus P&L of a 5y outright long vs. change in curve

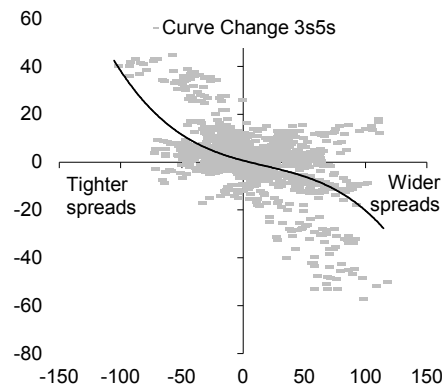
Y-axis: 3m P&L diff. as % of 5y notional; X-axis: 3m change in spread curve, bp.



Source: Citi Research, Markit. Using iTraxx Main data since 2005. Assuming a trade is opened every day and kept for 3m.

Figure 12. 3m change in 3s5s curve vs. 3m change in 5y spread

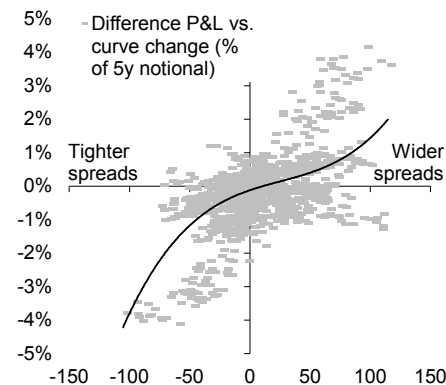
In bp.



Source: Citi Research, Markit.

Figure 13. P&L of a 3s5s equal notional flattener minus P&L of a 5y outright long vs. change in 5y spread

Y-axis: 3m P&L diff. as % of 5y notional; X-axis: 3m change in spread 5y, bp.



Source: Citi Research, Markit. Using iTraxx Main data since 2005. Assuming a trade is opened every day and kept for 3m.

As a consequence, and given that, as Figure 12 shows, **curves tend to flatten as spreads widen**, selling forward protection has historically outperformed (a 5y outright long) when spreads widened (Figure 13). That is the reason why we think of 3s5s **selling forward protection** as a “safe long” trade: it makes less money when spreads tighten and loses less money when they widen.

⁴ The spread duration of a 3s5s equal notional flattener is the difference between the 5y and 3y durations, which will be lower than the spreads duration of an outright 5y long. Thus, in order to make the spread duration similar in both trades, we use a higher notional for the 3s5s equal notional flattener: for each unit of notional on the 5y outright long we use a notional on the flattener equal to 5y duration / (5y duration – 3y duration).

Interestingly, moving from an outright 5y index long to a 3s5s equal notional flattener, keeping the net spread duration constant,⁵ essentially involves something very similar to adding a bearish risk reversal to the original long risk position, as Figure 13 shows. **Investors holding long risk positions who want to gain protection against a large movement wider can either add bearish risk reversals** (as we recommend in our latest presentation)⁶ **or switch into forward longs** (by adding 3s5s flatteners).

Single name CDS

In order to identify which single name CDS offer attractive opportunities for 3s5s equal notional flatteners, we screen for names which:

- **Have steep curves:** Trade with a 3s5s forward to 5y spread ratio above 1.65x (i.e. above the index one).
- **Have recently underperformed:** Their spread ratio to iTraxx Main is currently above 60% of the trading range over the past 6 months.
- Trade between 75 and 250bp (5y spreads).

Figure 14 shows the single name CDS satisfying the characteristics above. In our view, they all provide attractive opportunities to enter 3s5s equal notional trades from a technical point of view and would recommend them to investors with positive views on these credits. The figures in the next pages show, for each name, the 2 year historical 3s5s spread curves, ratio of forward spread to 5y spread and ratio of 5y spread to iTraxx Main spread.

Figure 14. Attractive single name 3s5s equal notional flatteners - Indicative MID spread levels as of COB yesterday.

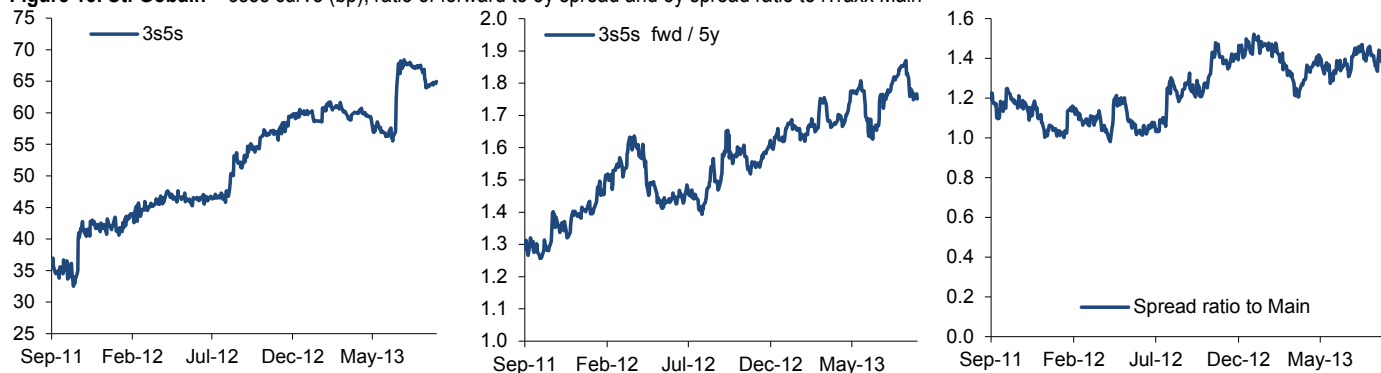
	Name	5y	3y	3s5s (bp)	3s5s Fwd (bp)	Ratio 3s5s Fwd / 5y	Spread to	index ratio
							Current	6m range
1	Cie De St Gobain	153	88	65	263	1.72	1.41	79%
2	Tesco Plc	85	48	37	146	1.72	0.81	65%
3	Pernod Ricard	96	55	41	164	1.70	0.91	60%
4	Ppr	94	54	40	160	1.70	0.89	70%
5	Deutsche Lufthansa Ag	158	94	64	267	1.69	1.45	84%
6	Imperial Tob Gp Plc	87	51	37	148	1.69	0.83	62%
7	Heidelbergcement Ag	233	143	90	393	1.68	2.15	88%
8	Holcim Ltd	155	93	62	260	1.68	1.42	91%
9	Anglo Amern Plc	192	117	75	321	1.67	1.80	72%
10	Glencore Intl Ag	242	150	92	404	1.67	2.22	63%
11	Alstom	191	118	73	318	1.66	1.79	82%
12	Rexam Plc	99	59	40	164	1.66	0.94	64%

Source: Citi Research, Markit.

⁵ Assuming (i) an investor holds a 100m 5y index long (risk) position and (ii) 3 and 5y durations are 4.75 and 2.75 for example, the investor would need an equal notional flattener of 237.5m (on each leg) in order to keep the net duration of the position constant. The duration of the 100m index long would be $100m \times 4.5 / 10.000 = 47.5k$, and the duration of the 237.5m equal notional flattener would be $237.5 \times (4.75 - 2.75) / 10.000 = 47.5k$. The 237.5m notional is computed as $100m \times 4.75 / (4.75 - 2.75)$.

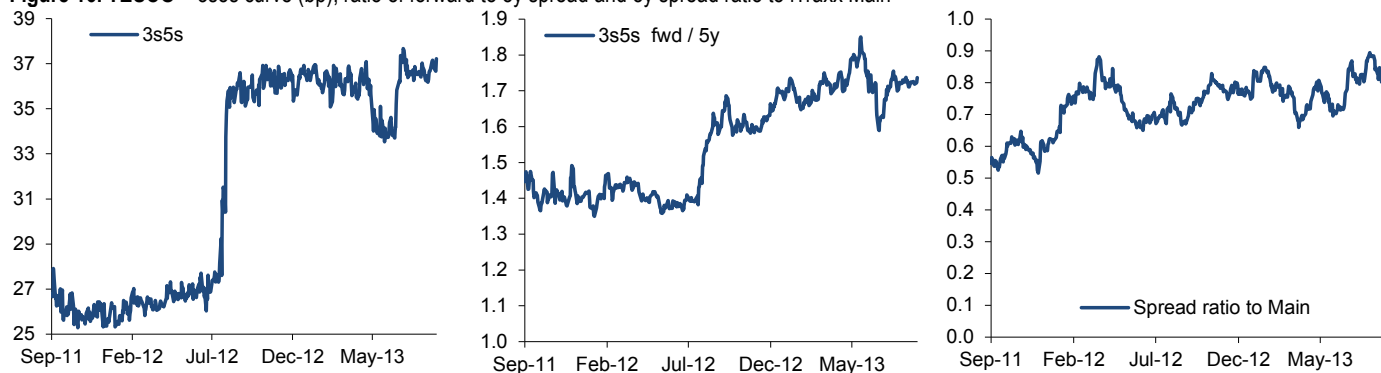
⁶ See [Degustation gourmande: How to make credit a little tastier](#), H. Lorenzen, 29-Aug.

Figure 15. St. Gobain – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 16. TESCO – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 17. Pernod – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



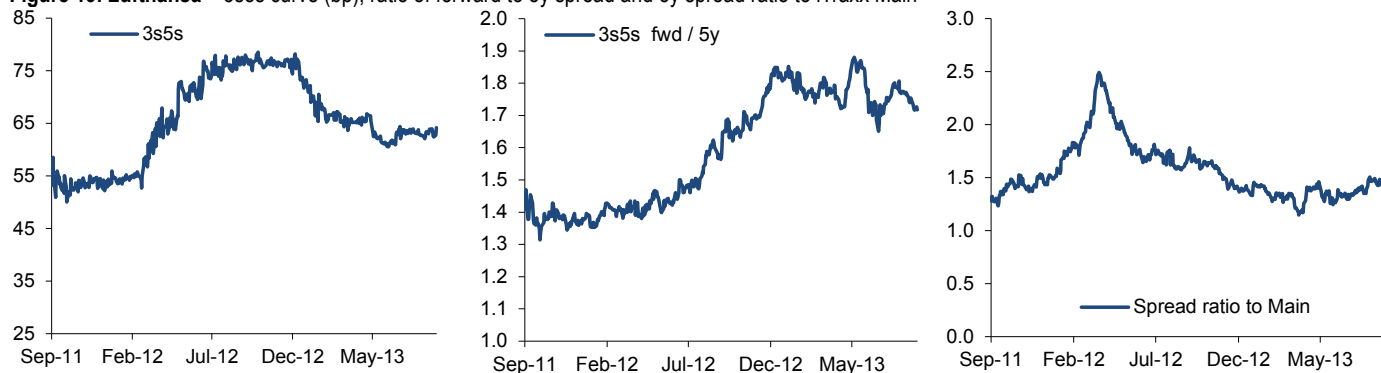
Source: Citi Research, Markit.

Figure 18. PPR – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 19. Lufthansa – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 20. Imp. Tobacco – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 21. Heidelberg – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 22. Holcim – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 23. Anglo American – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 24. Glencore – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



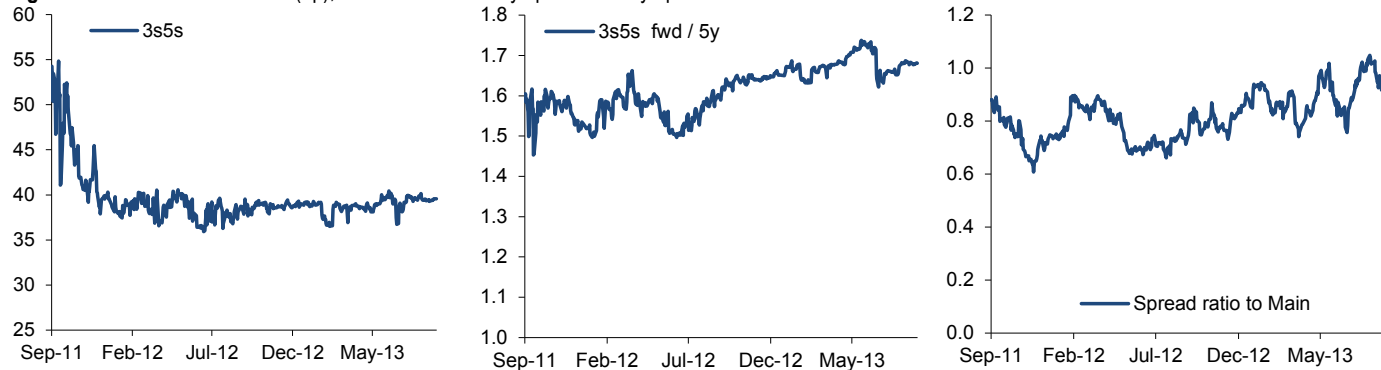
Source: Citi Research, Markit.

Figure 25. Alstom – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Figure 26. Rexam – 3s5s curve (bp), ratio of forward to 5y spread and 5y spread ratio to iTraxx Main



Source: Citi Research, Markit.

Trade Recommendations Summary

This section provides details of the trade ideas recommended in our published research.

We are opening an iTraxx Main 3s5s equal notional flattener.

Figure 27. Open trades – Summary and P&L

Trade Description	Leg	Format	Direct.	Notnl.	Entry Upfront	Entry Spread	Entry Coupon	Current Upf.	Current Spread	P&L* Total	P&L* Month**
Series 9 vs. Series 19 equity 05-Jun-13	iTraxx Main S9 0-3% Jun-18 (10y)	Prot.	Buy	1	46.25%	1,720	500	45.93%	1,948	-1.58%	-4.69%
	iTraxx Main S9 Index Jun-18 (10y)	Prot.	Sell	5	-2.1%	132	175	-1.9%	133	1.54%	3.12%
	iTraxx Main S19 0-3% Jun-18 (5y)	Prot.	Sell	1	31.75%	1,227	500	31.8%	1,420	1.17%	3.60%
	iTraxx Main S19 Index Jun-18 (5y)	Prot.	Buy	6.2	0.4%	108	100	0.2%	105	-2.50%	-4.55%
Total										-1.37%	-2.52%
S19 Jun-16 3-6% vs. S9 Jun-18 Index 09-Jul-13	iTraxx Main S19 3-6% Jun-16 (13y)	Prot.	Sell	1	-3.59%	375	500	-4.62%	327	1.82%	2.99%
	iTraxx Main S9 Index Jun-18 (10y)	Prot.	Buy	2.5	-1.58%	138	175	-1.9%	133	-1.54%	-2.34%
Total										0.28%	0.66%
Commerzbank sub/senior compr. 13-Aug-13	Sub CDS	Prot.	Sell	1	-5.65%	375	500	-5.23%	382	-0.12%	
	Senior CDS	Prot.	Buy	2.51	2.37%	150	100	3.0%	165	1.50%	
Total										1.38%	
RBS sub/senior compr. 13-Aug-13	Sub CDS	Prot.	Sell	1	-3.06%	339	500	-3.06%	326	0.31%	
	Senior CDS	Prot.	Buy	2.02	7.11%	168	100	7.1%	164	-0.12%	
Total										0.18%	
BNP sub/senior ompr. 13-Aug-13	Sub CDS	Prot.	Sell	1	-14.42%	198	500	-14.41%	194	0.30%	
	Senior CDS	Prot.	Buy	1.68	0.86%	118	100	1.0%	122	0.20%	
Total										0.50%	
iTraxx Main Eq. Notional Flattener 05-Sep-13	Main S19 3y	Prot.	Buy	1	-0.97%	65	100	-0.97%	65		
	Main S19 5y	Prot.	Sell	1.00	0.24%	105	100	0.2%	105		
Total										0.00%	

Source: Citi Research. Spreads and coupons in bp. * P&L expressed as % of the leg with notional equal to 1. ** Over the last month. Prices as of COB yesterday.

Figure 28. Open and closed trades summary statistics

Number	Open	Closed*	Percentage	Open	Closed*
In profit	4	2	In profit	80%	100%
In loss	1	0	In loss	20%	0%
	5	2			

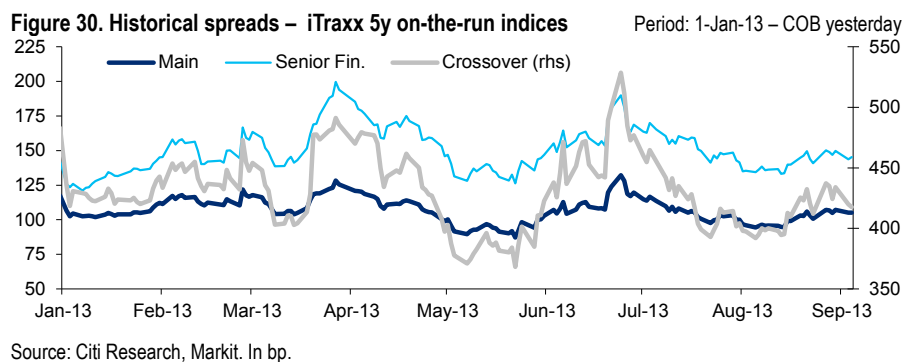
Source: Citi Research. * Since 1-Jun-13. Excluding the trade ideas opened in the current publication.

Figure 29. Closed trades since Jun-13 – Summary and P&L

Trade Description	Leg	Format	Direct.	Notnl.	Entry Upfront	Entry Spread	Entry Coupon	Current Upfront	Current Spread	P&L* Total
Main July Receiver Fly	105bp Receiver	Price	Buy	1	0.25%			0.23%		-0.01%
Opened: 18-Jun-13	90bp Receiver	Price	Sell	2	0.0%			0.0%		0.07%
Closed: Expiry	75bp Receiver	Price	Buy	1	0.00%			0.0%		0.00%
Total										0.06%
Senior Fin vs. CDX IG Receivers	SenFin October 140bp receiver	Price	Buy	1	0.53%			0.69%		0.17%
Opened: 26-Jun-13	CDX IG October 75bp receiver	Price	Sell	2	0.19%			0.2%		0.02%
Closed: 13-Aug-13										
Total										0.19%

Source: Citi Research. Spreads and coupons in bp. * P&L expressed as % of the leg with notional equal to 1.

Representative Market Conditions



Notes: The list of open trades reflects our current views; we have no plans to provide regular coverage or updates to these trades. P&L on trade ideas includes carry and roll costs but not trading commissions/costs. Results should not, and cannot, be viewed as an indicator of future performance.

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

Analytics, Recent Trade Ideas & Publications

Figure 31. Analytics – Available at Citi Velocity

iTraxx Volatility Report	iTraxx Series 9 Tranche Report
CDS Indices Positioning Report	iTraxx Series 19 Tranche Report

Source: Citi Research.

Figure 32. Recent Trade Ideas – reverse chronological order.

Sub/Senior compression trades in European banks	13 Aug 2013
iTraxx Senior Financials vs. CDX IG via Receivers	7 Aug 2013
Sell Jun-16 3-6% Series 19 protection vs. Buy Jun-18 Series 9 index protection	9 Jul 2013
Option trades ahead of the FOMC	18 Jun 2013
iTraxx Series 9 vs. Series 19 Jun-18 equity tranches	5 Jun 2013
Hedging via Crossover Bearish Ladders	16 May 2013
Buy Main straddles; sell CDX IG straddles	1 May 2013
Views & Trades on iTraxx Series 9 Tranches	18 April 2013
Beware of retail and food releveraging – short risk retailers & food vs. Main Non-Financials	18 April 2013
Receiver 1x2s – Mind the tail if going long	2 Apr 2013
Hedging menu: payer spreads, 3s5s flatteners and Jun 15/18 equity tranche flatteners	28 Mar 2013
Long insurers vs. short premium autos	19 Mar 2013
Flatteners in iTraxx Equity Tranches	6 Mar 2013
Long risk 3-6% vs. short risk 0-3% - Jun-15 iTraxx Series 9 tranches	12 Feb 2013
Long risk Main vs. Crossover via indices and receiver options	12 Feb 2013
iTraxx Main payer ladders	3 Jan 2013
iTraxx Main 3s5s duration weighted flatteners	3 Jan 2013
Long risk iTraxx Main vs. short risk iTraxx Crossover	3 Jan 2013
Long risk CDX IG vs. short risk iTraxx Main	3 Jan 2013

Source: Citi Research.

Figure 33. Other publications – reverse chronological order.

iTraxx Roll – Potential Name Changes	23 Aug 2013
Financial CDS to get a re-vamp	7 Aug 2013
What bail-in means for CDS	11 Feb 2013

Source: Citi Research.

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