

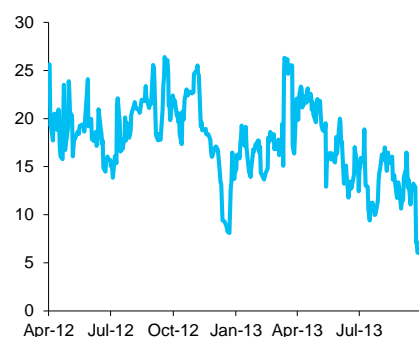
Buy SenFin straddles & Sell Xover straddles

SenFin vol is too low vs. other indices

- **Buy vol in Senior Financials and sell it in Crossover** – Implied volatility in Senior Financials has reached record lows vs. other indices (Figure 1). We expect this to reverse, irrespective of how the US political situation is resolved:
 - If the end-result of the current gridlock in US politics (government shut-down & debt ceiling) is not satisfactory, we expect spreads to widen in a systemic way, with a much higher volatility in financials than in high yield companies.
 - If the end-result of the current gridlock in US politics is satisfactory, we would expect investors to sell volatility across all indices heading to year-end, but favoring those indices where implied volatility has lagged the most, i.e. favoring Crossover and Main vs. Senior Financials.
- **Spread-wise, we expect Senior Financials to underperform Crossover if we widen, and outperform if we tighten** – We are happy to be short risk Senior Financials (vs. long risk Crossover) if we widen, and the other way around if we tighten; i.e. expect the spread ratio to decrease if we widen and increase if we tighten (Figure 2).

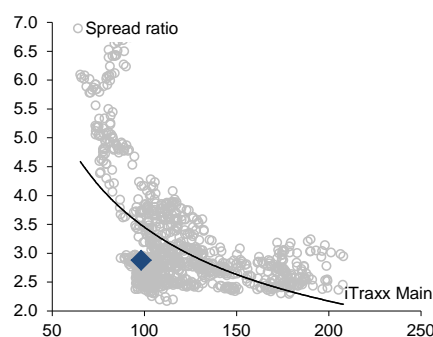
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Figure 1. SenFin minus Xover implied vol



Source: Citi Research, 3m expiry, in %.

Figure 2. Spread ratio vs. Main spread



Source: Citi Research, Markit. Y-axis: Xover/SenFin spread ratio. X-axis: Main spread. 5y, in bp. Daily data for past 4y.

- **Trade: Sell Senior Financials and buy Xover straddles; Dec-13, ATM, zero cost.**

Figure 3. Trade details

Index	Type	Strike	Expiry	Price	Position	Notional
Xover S20 5Y	Straddle	400	18-Dec	263.5c	Sell	100m
SenFin S20 5Y	Straddle	140	18-Dec	128.5c	Buy	205m

Source: Citi Research. Indicative prices shown; COB yesterday.

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

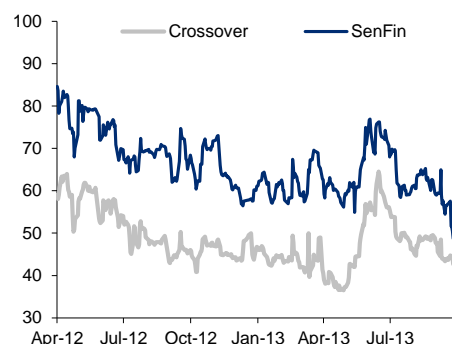
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Where are we (vol- and spread-wise)?

Implied volatility in Senior Financials has outperformed (i.e. fallen relative to) Crossover implied volatility through most of 2013, as Figure 4 and Figure 5 show. The current implied volatility difference is, at 6%, the lowest it has historically been; the average implied vol difference over the past 18m is 18%, i.e. 12% higher than the current difference.

Figure 4. Implied volatility

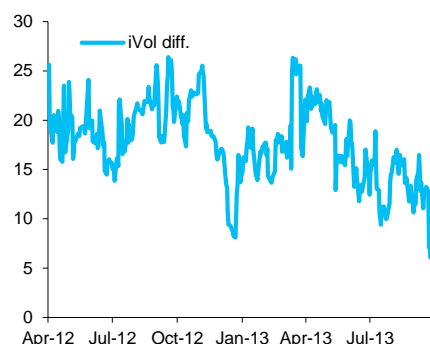
3m expiry, in %.



Source: Citi Research, Markit.

Figure 5. SenFin minus Xover implied vol

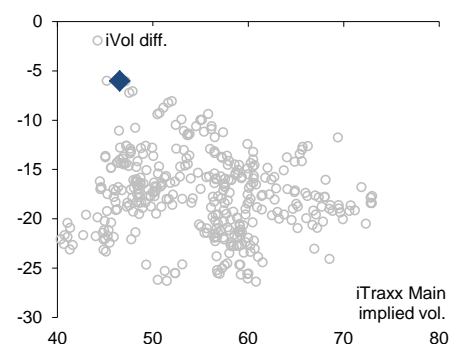
3m expiry, in %.



Source: Citi Research, Markit.

Figure 6. Implied vol difference vs. Main vol

Y-axis: Xover-SenFin vol diff. X-axis: Main vol. 3m, %.

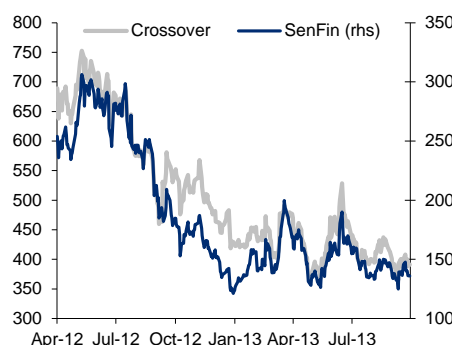


Source: Citi Research, Markit. Daily data for past 18 months.

Spread-wise, the ratio of Crossover to Senior Financials spreads, currently at ~3x, is close to the mid-level of the range over the past 18 months (Figure 7 and Figure 8).

Figure 7. Spreads

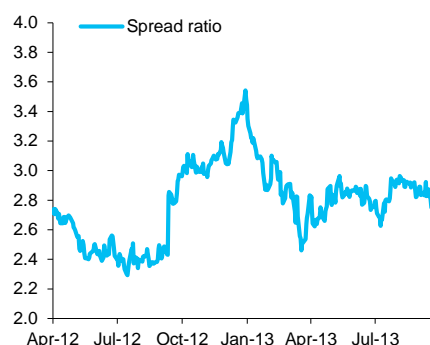
5y on-the-run, in bp.



Source: Citi Research, Markit.

Figure 8. Xover to SenFin spread ratio

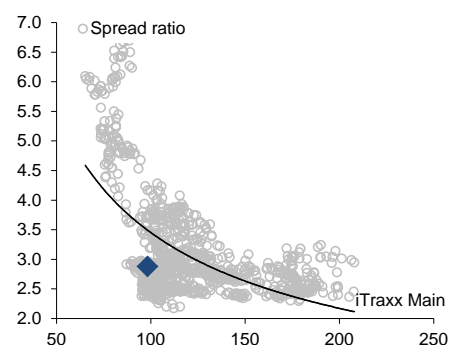
5y on-the-run.



Source: Citi Research, Markit.

Figure 9. Spread ratio vs. Main spread

Y-axis: Xover/SenFin spread ratio. X-axis: Main spread. 5y, in bp.



Source: Citi Research, Markit. Daily data for past 4y.

What do we expect (vol- and spread-wise)?

If the end-result of the current gridlock in US politics (government shut-down & debt ceiling) is not satisfactory, we expect spreads to widen in a systemic way, with a much higher volatility in financials than in high yield companies. In this scenario, we would also expect Senior Financial spreads to underperform Crossover, with the spread ratio decreasing from its current level.

If the end-result of the current gridlock in US politics is satisfactory and a reasonable solution is found before the debt-ceiling deadline next week (17th October), we would expect investors to sell volatility across all indices heading to year-end, but favoring those indices where implied volatility has lagged the most and is relatively high, i.e. favoring Crossover and Main vs. Senior Financials. Implied volatility in Senior Financials is low vs. other indices both from a historical point of view as well as when compared to recent realised volatility – as our [iTraxx](#)

[Volatility Analytics](#) report shows, the ratio of 1m implied to realised volatility in Senior Financials is 1.1x vs. 1.3x and 1.4x in Main and Crossover respectively.

Spread-wise, in the scenario where the US political situation is resolved smoothly, we would expect Senior Financials spreads to outperform Crossover spreads, with investors entering [spread compression trades](#). As we approach year-end, and upon a resolution of the US debt ceiling, our strategy view remains constructive¹ and we expect spreads to tighten. We believe the room for Senior Financials to tighten is higher than for Crossover – imagine Main tightens to 75bp (to use an “extreme” example), we believe that, in such situation, the chances of Senior Financials being close to 100bp are much higher than Crossover being close to 300bp – Senior Financials were at ~100bp in 2010, Crossover was at ~300bp in 2007. Thus, if we tighten from here, we would expect the current spread ratio between Crossover and Senior Financials to increase from its current level (~3x).

Thus, we expect:

- **Implied vol in Senior Financials to increase vs. Crossover vol**, irrespective of how the US situation is resolved.
- **Senior Financials to underperform, spread-wise, Crossover if we widen, and outperform if we tighten.**

How to position for this?

Buy straddles in SenFin vs. sell them in Xover

We use ATM straddles with December expiry in both indices, and size the trade to be zero cost (which involves trading a higher notional in the Senior Financials leg, ~2.2x), as Figure 11 shows. The sizing ratio we have used is close to the recent realized beta between the two indices.

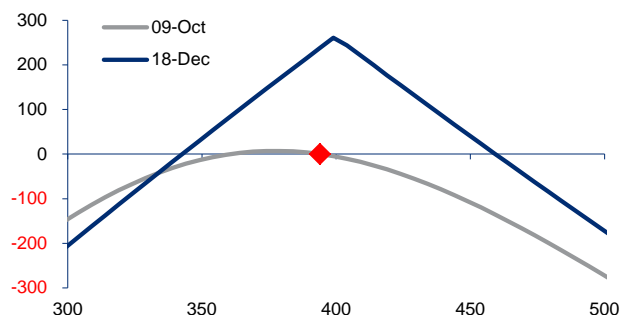
Figure 10. Trade Details

Index	Type	Strike	Expiry	Price	Position	Notional	Upfront	Delta	Gamma	Theta	Vega	Vol %	Vol (bp/day)
Xover S20 5Y	Straddle	400	18-Dec	263.5c	Sell	100m	2.635m	-8,324	-2,366	19,406	-58,384	42%	10.5
SenFin S20 5Y	Straddle	140	18-Dec	128.5c	Buy	205m	2.635m	12,698	4,944	-18,315	41,136	48%	4.2
Total							0	4,374	2,578	1,092	-17,248		

Source: Citi Research. Indicative prices shown; COB yesterday. Delta: MtM if index spreads widen 1bp // Change in delta if spreads widen 1bp // Theta: MtM if one day goes by // Vega: MtM if implied vol increases 1%.

Figure 11. Xover straddle bought – 343/459bp breakevens at expiry

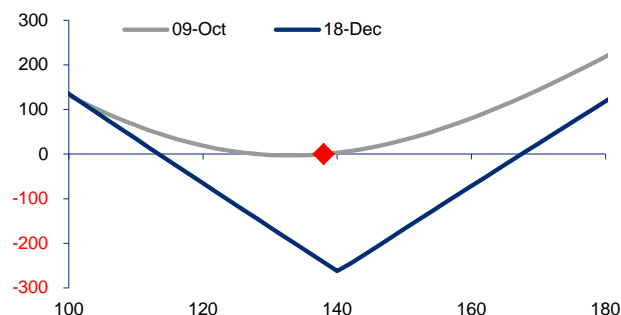
P&L in cents of the Xover straddle notional in Figure 11.



Source: Citi Research, Markit.

Figure 12. SenFin straddle sold – 113/167bp breakevens at expiry

P&L in cents of the Xover straddle notional in Figure 11.



Source: Citi Research, Markit.

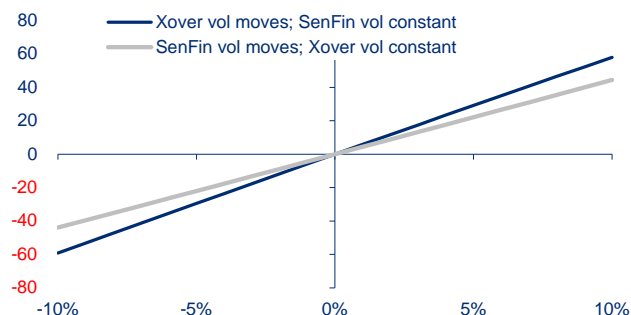
¹ See [European Credit Outlook](#), 6 Sept, [European Credit Weekly](#), 4 Oct, H. Lorenzen.

Volatility-wise, the trade profits from implied volatility in Senior Financials increasing relative to Crossover (see Figure 14). For each 1% that the difference increases, the trade makes ~5c (of the Crossover notional); thus, if the current difference of 6% goes back to the average difference over the past 18m (18%), we would expect the trade to make around 90c.

Figure 13. P&L for changes in the volatility difference

P&L in cents of the Xover straddle notional in Figure 11.

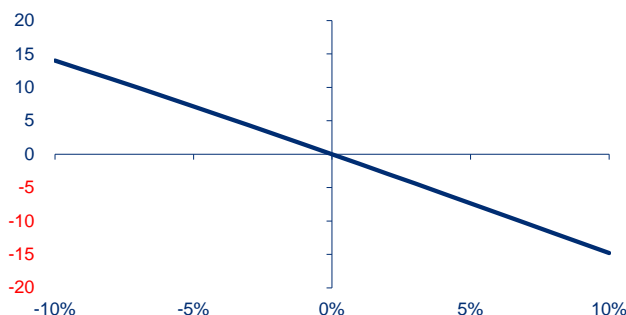
Positive change in the vol difference: SenFin vol increases vs. Xover vol.



Source: Citi Research, Markit.

Figure 14. P&L for volatility changes in both indices (same change)

P&L in cents of the Xover straddle notional in Figure 11.



Source: Citi Research, Markit.

Spread-wise, it can be shown (see Figure 16 and Figure 17) that, roughly, both instantaneously and at expiry, the trade has a positive P&L as long as:

- Senior Financials underperform Crossover if we widen (i.e. the spread ratio falls), and
- Senior Financials outperform Crossover if we tighten (i.e. the spread ratio increases).

We have constructed our spread grid by moving Senior Financials spreads 5bp at a time (rows) and by moving Crossover spreads 15bp at a time (columns). As a consequence, spread movements along the diagonal (top-left to bottom-right) of Figure 16 and Figure 17 would imply Senior Financials spreads move 3x more than Crossover. Figure 18 shows the spread ratio resulting from different movements in spreads.

Figure 15. Trade P&L for different INSTANTANEOUS spread movements

In cents of the Xover straddle notional. 100 cents = 1%.

		Xover											
Spread		319 bp	334 bp	349 bp	364 bp	379 bp	394 bp	409 bp	424 bp	439 bp	454 bp	469 bp	
	Change	-75 bp	-60 bp	-45 bp	-30 bp	-15 bp	0 bp	15 bp	30 bp	45 bp	60 bp	75 bp	
SenFin	113 bp	-25 bp	-33	7	35	51	55	48	31	4	-30	-71	-117
	118 bp	-20 bp	-55	-16	12	29	33	26	8	-18	-53	-94	-140
	123 bp	-15 bp	-71	-32	-4	13	17	10	-8	-34	-69	-110	-156
	128 bp	-10 bp	-81	-42	-14	3	7	-0	-18	-44	-79	-120	-166
	133 bp	-5 bp	-84	-45	-17	-0	4	-3	-21	-47	-82	-123	-169
	138 bp	0 bp	-81	-42	-14	3	7	0	-18	-44	-79	-120	-166
	143 bp	5 bp	-72	-32	-4	12	17	9	-8	-35	-69	-110	-156
	148 bp	10 bp	-57	-17	11	27	31	24	7	-20	-54	-95	-141
	153 bp	15 bp	-37	3	31	47	52	45	27	0	-34	-75	-121
	158 bp	20 bp	-12	28	56	72	76	69	52	25	-9	-50	-96
	163 bp	25 bp	17	56	85	101	105	98	81	54	20	-21	-67

Source: Citi Research, Markit.

Figure 16. Trade P&L for different spread movements AT EXPIRY

In cents of the Xover straddle notional. 100 cents = 1%.

		Xover										
Spread		319 bp	334 bp	349 bp	364 bp	379 bp	394 bp	409 bp	424 bp	439 bp	454 bp	469 bp
	Change	-75 bp	-60 bp	-45 bp	-30 bp	-15 bp	0 bp	15 bp	30 bp	45 bp	60 bp	75 bp
SenFin	113 bp -25 bp	-109	-37	34	104	174	242	226	159	93	27	-37
	118 bp -20 bp	-159	-87	-16	55	124	192	176	109	43	-22	-87
	123 bp -15 bp	-208	-136	-65	5	74	143	126	60	-7	-72	-136
	128 bp -10 bp	-258	-186	-115	-44	25	94	77	10	-56	-121	-186
	133 bp -5 bp	-307	-235	-164	-94	-24	44	28	-39	-105	-170	-235
	138 bp 0 bp	-356	-284	-213	-142	-73	-5	-21	-88	-154	-219	-284
	143 bp 5 bp	-349	-277	-206	-136	-66	2	-14	-81	-147	-213	-277
	148 bp 10 bp	-300	-228	-157	-87	-18	51	34	-33	-99	-164	-229
	153 bp 15 bp	-252	-180	-109	-39	30	99	82	16	-50	-116	-180
	158 bp 20 bp	-204	-132	-61	9	79	147	131	64	-2	-68	-132
	163 bp 25 bp	-156	-84	-13	57	126	195	179	112	46	-20	-84

Source: Citi Research, Markit.

Figure 17. Change in the Xover / SenFin spread ratio

		Xover										
Spread		319 bp	334 bp	349 bp	364 bp	379 bp	394 bp	409 bp	424 bp	439 bp	454 bp	469 bp
	Change	-75 bp	-60 bp	-45 bp	-30 bp	-15 bp	0 bp	15 bp	30 bp	45 bp	60 bp	75 bp
SenFin	113 bp -25 bp	-0.03	0.10	0.23	0.37	0.50	0.63	0.76	0.90	1.03	1.16	1.30
	118 bp -20 bp	-0.15	-0.02	0.10	0.23	0.36	0.48	0.61	0.74	0.87	0.99	1.12
	123 bp -15 bp	-0.26	-0.14	-0.02	0.10	0.23	0.35	0.47	0.59	0.71	0.84	0.96
	128 bp -10 bp	-0.36	-0.25	-0.13	-0.01	0.11	0.22	0.34	0.46	0.57	0.69	0.81
	133 bp -5 bp	-0.46	-0.34	-0.23	-0.12	-0.01	0.11	0.22	0.33	0.45	0.56	0.67
	138 bp 0 bp	-0.54	-0.43	-0.33	-0.22	-0.11	0.00	0.11	0.22	0.33	0.43	0.54
	143 bp 5 bp	-0.62	-0.52	-0.41	-0.31	-0.20	-0.10	0.01	0.11	0.21	0.32	0.42
	148 bp 10 bp	-0.70	-0.60	-0.50	-0.40	-0.29	-0.19	-0.09	0.01	0.11	0.21	0.31
	153 bp 15 bp	-0.77	-0.67	-0.57	-0.48	-0.38	-0.28	-0.18	-0.08	0.01	0.11	0.21
	158 bp 20 bp	-0.84	-0.74	-0.65	-0.55	-0.46	-0.36	-0.27	-0.17	-0.08	0.02	0.11
	163 bp 25 bp	-0.90	-0.81	-0.71	-0.62	-0.53	-0.44	-0.35	-0.25	-0.16	-0.07	0.02

Source: Citi Research, Markit.

Trade Recommendations Summary

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

We are opening the trade recommended in this report.

Figure 18. 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**
Commerzbank sub/senior compr. 13-Aug-13	Sub CDS	Prot.	Sell	1	-5.65%	375	500	-6.94%	350	2.06%	2.07%
	Senior CDS	Prot.	Buy	2.51	2.37%	150	100	2.4%	149	-0.33%	-1.65%
									Total	1.73%	0.41%
RBS sub/senior compr. 13-Aug-13	Sub CDS	Prot.	Sell	1	-7.71%	339	500	-10.56%	266	3.63%	2.58%
	Senior CDS	Prot.	Buy	2.02	2.80%	168	100	2.0%	145	-1.85%	-1.89%
									Total	1.78%	0.68%
BNP sub/senior compr. 13-Aug-13	Sub CDS	Prot.	Sell	1	-14.42%	198	500	-15.61%	175	1.97%	1.54%
	Senior CDS	Prot.	Buy	1.68	0.86%	118	100	0.7%	111	-0.57%	-0.57%
									Total	1.39%	0.97%
iTraxx Main Eq. Notional Flatteners 05-Sep-13	Main S19 3y	Prot.	Buy	1	-0.97%	65	100	-1.40%	50	-0.51%	-0.40%
	Main S19 5y	Prot.	Sell	1.00	0.24%	105	100	-0.5%	90	0.84%	0.73%
									Total	0.33%	0.33%
S19 Jun-16 0-3% vs. 3-6% 26-Sep-13	Main S19 0-3% Jun-16	Prot.	Sell	1	8.00%	839	500	8.88%	899	-0.71%	
	Main S19 3-6% Jun-16	Prot.	Buy	2.00	-7.00%	234	500	-7.1%	234	-0.58%	
									Total	-1.29%	
S19 3-6% vs. S20 Crossover 26-Sep-13	Main S19 3-6% Jun-18	Prot.	Sell	1	-3.25%	422	500	-2.47%	441	-0.61%	
	Crossover S20 Dec-18	Prot.	Buy	1.00	-5.18%	386	500	-4.8%	397	0.25%	
									Total	-0.36%	
iTraxx vs. CDX IG super senior 26-Sep-13	Main S9 22-100% Jun-18	Prot.	Sell	1	0.60%	37	25	0.71%	40	-0.10%	
	CDX IG S9 30-100% Dec-17	Prot.	Buy	1.00	-3.54%	13	100	-3.5%	17	0.04%	
									Total	-0.06%	
Senior Fin vs. Xover straddle 09-Oct-13	Xover Dec-13 140bp straddle	Price	Sell	1	2.64%						
	SenFin Dec-13 140bp straddle	Price	Buy	2.05	2.64%						

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.

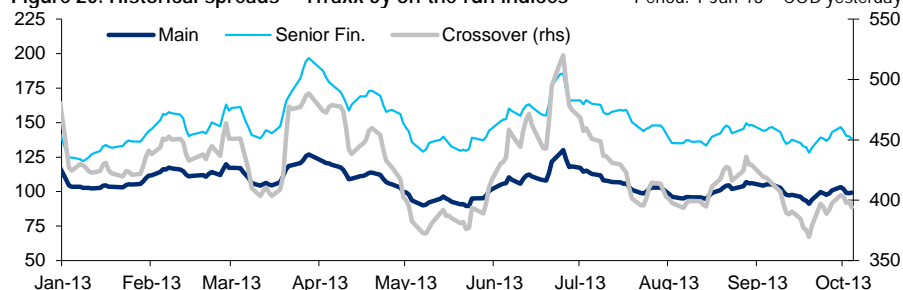
Figure 19. Open and closed trades summary statistics

Number	Open	Closed*	Percentage	Open	Closed*
In profit	4	3	In profit	57%	75%
In loss	3	1	In loss	43%	25%
	7	4			

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

Representative Market Conditions

Figure 20. Historical spreads – iTraxx 5y on-the-run indices



Source: Citi Research, Markit. In bp.

Figure 21. 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-Jul-13	CDX IG October 75bp receiver	Price	Sell	2	0.19%			0.2%		0.02%
Closed: 13-Aug-13									Total	0.19%
Series 9 vs. Series 19 equity	iTraxx Main S9 0-3% Jun-18 (10y)	Prot.	Buy	1	46.25%	1,720	500	39.82%	1,703	-7.98%
Opened: 5-Jun-13	iTraxx Main S9 Index Jun-18 (10y)	Prot.	Sell	5	-2.05%	132	175	-2.73%	114	6.12%
Closed: 25-Sep-13	iTraxx Main S19 0-3% Jun-18 (5y)	Prot.	Sell	1	31.75%	1,227	500	25.15%	1,188	8.15%
	iTraxx Main S19 Index Jun-18 (5y)	Prot.	Buy	6.2	0.39%	108	100	-0.53%	88	-7.63%
									Total	-1.34%
S19 Jun-16 3-6% vs. S9 Jun-18 Index	iTraxx Main S19 3-6% Jun-16 (3y)	Prot.	Sell	1	-3.59%	375	500	-7.23%	229	4.72%
Opened: 9-Jul-13	iTraxx Main S9 Index Jun-18 (10y)	Prot.	Buy	2.5	-1.58%	138	175	-2.7%	114	-3.83%
Closed: 25-Sep-13									Total	0.89%

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

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 22. Analytics – Available at Citi Velocity

Options	iTraxx Volatility Report CDX Volatility Report	Tranches	iTraxx Series 9 Tranche Report iTraxx Series 19 Tranche Report
Indices	CDS Indices Positioning Report CDS Indices Trading Volumes Report		

Source: Citi Research.

Figure 23. Recent Trade Ideas

Long risk equity vs. short risk 3-6% in S19 Jun-16 (3y)	26 Sep 2013
Long risk S19 Jun-18 (5y) 3-6% vs. 5y S20 Crossover	26 Sep 2013
Long risk iTraxx S9 Jun-18 (10y) super senior vs. short risk CDX IG S9 Dec-17 (10y) super senior	26 Sep 2013
Equal Notional 3s5s Flatteners: Adding cautious longs by selling forward protection	5 Sep 2013
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

Source: Citi Research.

Figure 24. Other publications

Financial CDS to get a re-vamp	7 Aug 2013
What bail-in means for CDS	11 Feb 2013

Source: Citi Research.

OPTIONS RISK DISCLOSURE — PLEASE READ CAREFULLY

This section discusses possible options strategies that you may choose to employ in conjunction with the company securities discussed herein. If you choose to engage in the options transactions discussed within this document, you must have an approved options account and will be subject to certain criteria which may ultimately prevent you from engaging in certain option strategies. It is important for you as an investor to know and understand that Options do involve risk and sometimes, significant risk, therefore may not be appropriate for all investors. If you buy options, the maximum loss is the premium. If you sell put options, the risk is the entire notional below the strike. If you sell call options, the risk is unlimited. The actual profit or loss from any trade will depend on the price at which the trades are executed. The prices used herein are historical and may not be available when you order is entered. Commissions and other transaction costs are not considered in these examples.

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Appendix A-1

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