The principle of inertia

Staying the course until hit by a force

Newton's first law of motion states that an object at rest or in uniform motion in a straight line will continue to remain in this state unless acted upon by an external force. Credit spreads have a tendency to behave in a similar manner; in the absence of unexpected news they tend to stay the course on the way lower. And we suspect that this is going to be the case over the next month. With Greece and Ukraine receding into the background, Yellen's dovish testimony, and the ECB expected to begin bond purchases, spreads are bound to grind tighter. However, we are a bit skeptical that we can reach the previous tights in the market again and view the upside as quite limited hereon, particularly in IG. Realised volatility continues to be reasonably high and trading volumes have barely recovered from the holiday lull late last year. Additionally, rates volatility continues to remain high, which doesn't argue for wider spreads, but limits the tights we can attain.

The economics of selling credit volatility

As a hedging tool credit volatility is often viewed as more expensive than volatility in other assets, say equities or rates. Consequently, selling credit volatility had been reasonably popular as an overlay strategy until recently. Despite the recent reversal, implied vol in CDX seems to be high relative to spread levels. We have argued in the past that this has been justified by the high level of volatility being realised by the index. In this report we set to identify the threshold for the implied-to-realised premium that would make selling credit volatility an attractive proposition. We back tested a strategy of selling 3m ATM straddles on CDX IG and HY and found that selling credit volatility could be profitable even over periods when the implied vol increases a little. For the trade to work, implied-to-realised premiums would have to be at least 10-12% for both indices. In breakeven spread terms, selling straddles is profitable on average when the implied daily move is 1bp or more above the average realized daily spread change. For HY, the number is around 5.5-6bp.

RV at a glance

Both US and European spreads tightened last week (CDX IG -2bp, CDX HY -19bp, iTraxx Main -7bp, iTraxx XO -35bp, FinSen -11bp, FinSub -10bp). The basis in IG became more positive while the basis in HY became more negative. Our COAS model indicates that credit looks slightly rich relative to equities in both US IG and US HY, though credit seems about fairly valued compared to equities in Europe.

Single name COAS dislocations

In our US COAS universe, Springleaf Holdings Inc screens as the richest name in credit relative to its equity, while DISH Network Corp screens as the cheapest. In Europe, Next PLC's credit is the richest while Tate & Lyle screens as the cheapest.

Credit Analysis

Relative Value Strategy | Global 26 February 2015

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Recent Publications

26 Feb 2015: Spring roll: CDX S24 preview

09 Feb 2015: No direction home 27 Jan 2015: Mine the gap

09 Jan 2015: The volatility trap

Debt-equity RV framework

Our COAS model factors in company leverage, equity volatility and current credit spreads to evaluate a forward-looking measure of Credit Risk. COAS is defined as the difference between market Credit Spread and model implied Credit Risk. For a more complete discussion on our COAS model, please see:

A debt-equity RV framework, 26 March 2013

For model data on a number of issuers, visit: www.baml.com/coas

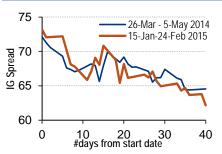
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Source: BofA Merrill Lynch Global Research, HY23 with CZR

Chart 2: Déjà vu: a glitch in the matrix?



Source: BofA Merrill Lynch Global Research

The principle of inertia

Newton's first law of motion states that an object at rest or in uniform motion in a straight line will continue to remain in this state unless acted upon by an external force. Credit spreads have a tendency to behave in a similar manner; in the absence of unexpected news they tend to stay the course on the way lower. And we suspect that this is going to be the case over the next month.

Greece has receded into the background for now and the ceasefire in Ukraine, albeit somewhat tenuous, seems to have placated US markets. Janet Yellen's Senate testimony was more dovish than expectations, as evidenced by lower treasury yields and tighter spreads/higher stocks. And the ECB is expected to start its bond purchases in a couple of weeks' time. All in all, that's a recipe for grinding tighter.

We've been here before...

In some ways it feels like spring last year when a similar environment prevailed, as spreads ground tighter and treasury yields remained low. We looked back at some of our research publications from back then and here's what we found in a piece from Mar-2014 called <u>A glitch in the matrix</u>:

"Spring 2014 seems eerily similar to spring 2013. Rates have declined since March, just like last year until the taper tantrum hit. Credit spreads and yields have compressed and the path followed by stocks has been uncannily similar to what we saw same time last year. Other common spring themes between 2013 and 2014 include declining trading volumes, HY/IG decompression and iTraxx outperformance over CDX. And as we all learned from the first movie, a déjà vu is usually a glitch in the Matrix; it happens when they change something."

So Spring 2014 itself felt like the same time in 2013. Maybe there's seasonality in credit behavior? It's interesting that all the factors we cited above can be repeated about this month – spreads are tighter, treasury yields are low, HY has been underperforming IG (decompression working again) and even Main has started outperforming IG over the last week.

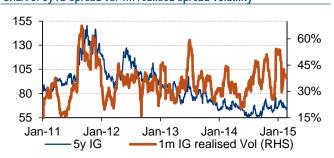
...but it ain't the same anymore

So what's the external force required to change course here? In 2013 we had the "taper-tantrum" in May; in 2014 it was the conflict in Ukraine in June. We wouldn't be so presumptuous as to predict what the event will be in 2015. There are enough sources of risk from Greece to Ukraine to further oil volatility and the speculation around rate hikes. Or it could be something that isn't part of our conversation yet, as these things often tend to be. But even without a major sell-off, we continue to think the current rally, particularly in CDX, is going to be limited. We are a bit skeptical that we can reach the previous tights in the market again.

Credit volatility hasn't subsided yet

We posited in a <u>recent piece</u> that the extent to which this spread tightening trend continues is limited by the degree of accompanying volatility. In other words, higher volatility raises the threshold below which it is unattractive to sell protection to benefit from carry and roll, without much conviction on overall market direction. And CDX continues to be relatively volatile, particularly IG (Chart 3 and Chart 4).

Chart 3: 5y IG spread vs. 1m realised spread volatility



Source: BofA Merrill Lynch Global Research

Chart 4: 5y HY spread vs. 1m realised spread volatility

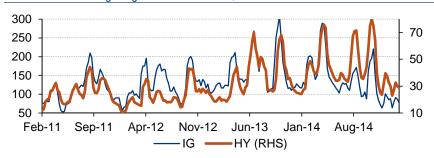


Source: BofA Merrill Lynch Global Research

Index trading volumes have been poor

If there ever was a 'convictionless' rally, this may very well be it. Index volumes have barely recovered from the holiday lull late last year and recent trading volumes have been quite measly (Chart 5). We saw a dip in volumes March of last year as well, but this time it seems particularly acute in IG. On a 4-week average basis, volumes are at lows not seen since December 2011 as the chart below shows.

Chart 5: 4-week average of gross traded notional, USD bn



Source: BofA Merrill Lynch Global Research, DTCC, for OnTheRun and the series immediately preceding OnTheRun

Chart 7: HY vs. rates volatility

Rates volatility continues to remain high

Rates have no doubt had a roller-coaster year so far. The ~40bp sell-off in 10y Treasury yield just this month is in large part a reversal of the sharp move lower that greeted the year. And UST yields have reversed course again heading lower over the last few days. These swings have meant that rates volatility has picked up to levels last seen in Jun-Aug 2013 (Chart 6 and Chart 7).



Source: BofA Merrill Lynch Global Research

60% 50% 40%

Apr-14

Sep-14

Source: BofA Merrill Lynch Global Research

Nov-13

3m5y Swaption Vol (Lognormal)

30%

Jun-13

280

Feb-15

5y HY (RHS)



<u>Liquid Insight: The Fed's single mandate</u> 25 February 2015 We've usually been in the camp that holds that credit is more sensitive to the volatility of rates and less so to the absolute level of rates. From that perspective the extent of the spread rally looks suspicious given the uncertainty around interest rates.

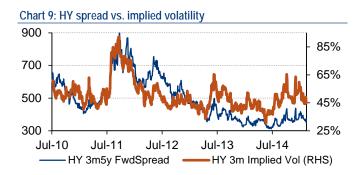
Also, the recent increase in rates volatility is an inkling of what's to come we think. Yellen's testimony on Tuesday, while taken as more dovish than expected by the market, didn't deviate much from the January FOMC statement and minutes. In fact, her assertion that dropping 'patient' from the statement wouldn't' mean that rate hikes were imminent but would be indicative that "conditions have improved where it soon will be the case that the change in target range could be warranted at *any* meeting" (emphasis ours), to us points to continued volatility. A June hike is still on the table, although perhaps lower probability, and lift-off and the pace after that are data-dependent. This doesn't argue for wider spreads, but limits the tights we can get to because of persistent volatility.

The economics of selling credit volatility

As a hedging tool credit volatility is often viewed as more expensive than volatility in other assets, say equities or rates. We've often been in that camp, preferring to fund hedges in rates or stocks by selling credit options. Consequently, selling credit volatility had until recently been a reasonably popular trade as an overlay strategy. As we've noted often in these pages, CDX option implied volatility these days appears to be high relative to the level of spreads; particularly in IG (Chart 8 and Chart 9). We've also argued that this is in part justified by the higher level of volatility being realised despite spreads near post-crisis tights. In this report we set to identify the threshold for the implied-to-realised premium that would make selling credit volatility an attractive proposition.



Source: BofA Merrill Lynch Global Research



Source: BofA Merrill Lynch Global Research

The method

To do so, we back tested a strategy of selling 3m ATM straddles on CDX IG and HY, delta-hedged daily until the next rebalance date¹. The position was rebalanced every month, at or close to the option expiry date for that month, based on availability of data, and the old position was exited and a new 3m/90d straddle for \$1000mn index notional was sold. The trade was done at the strike closest to the ATM forward. There were a few instances where data for 90d options wasn't available where we used 2m/60d options. A new trade was always

Back-testing is hypothetical in nature, reflects the application of strategies prior to their introduction, and is not intended to be indicative of future performance. The back-tested performance results are based on criteria applied retroactively with the benefit of hindsight and knowledge of factors that may have positively affected its performance, and cannot account for all financial risks that may affect the performance of the strategy going forward. This strategy is conducted purely for analytical purposes and does consist of a trade recommendation; it does not take into account any transaction costs.



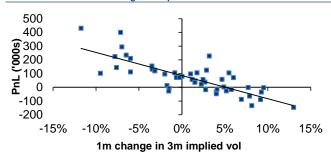
entered in the then OnTheRun index. For IG the back-test was run between December 2010 and January 2015, with the time period chosen on the basis of data quality, for HY it was shorter due to data quality constraints, from December 2012 to January 2015.

Charts 10-15 show the PnL of this strategy plotted against 1). The change in implied volatility over the month, 2). The difference between the implied volatility at which straddle was sold and the volatility realised over the subsequent month that the trade was delta hedged and 3). The implied daily breakeven spread that each option was sold at minus the average daily spread move realised over the subsequent month.

The comments Change in implied vol

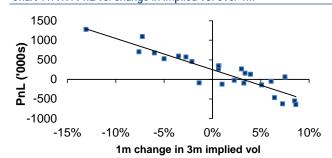
Chart 10 and Chart 11 indicate that selling credit volatility could be profitable even over periods when the implied vol increases a little.

Chart 10: IG: PnL vs. change in implied vol over 1m



Source: BofA Merrill Lynch Global Research, Back-tested between December 2010 and January 2015

Chart 11: HY: PnL vs. change in implied vol over 1m



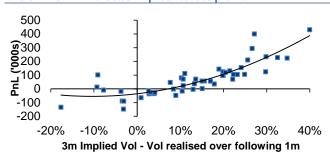
Source: BofA Merrill Lynch Global Research, Backtested between December 2012 and January 2015

Implied to realised premium

The more important consideration perhaps is the implied volatility relative to what the index actually realizes – the larger the premium the more profitable it is to sell vol. For both IG and HY the threshold for the implied-realised premium above which selling vol looks attractive appears to be around 10-12%, although our data for HY here is admittedly limited. Note that the premium shown in Chart 10 and Chart 11 is between the 3m implied vol on the date it was sold and the volatility realised over the holding period of the trade (typically 1m, until next rebalance date).

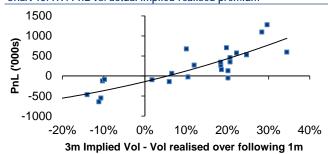


Chart 12: IG: PnL vs. actual implied-realised premium



Source: BofA Merrill Lynch Global Research, Back-tested between December 2010 and January 2015

Chart 13: HY: PnL vs. actual implied-realised premium

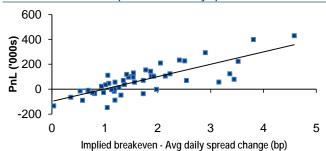


Source: BofA Merrill Lynch Global Research, Backtested between December 2012 and January 2015

Implied breakeven spread vs. realised spread change

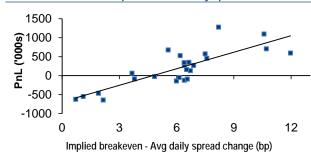
In breakeven spread terms, our backtested PnL was positive on average when the implied daily move when volatility was sold was 1bp or more above the average realised daily spread change. For HY, this number was around 5.5-6bp.

Chart 14: IG: PnL vs. implied-realised daily spread move



Source: BofA Merrill Lynch Global Research, Back-tested between December 2010 and January 2015

Chart 15: HY: PnL vs. implied-realised daily spread move

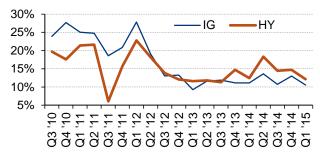


Source: BofA Merrill Lynch Global Research, Backtested between December 2012 and January 2015

HY vs. IG

Over recent years, the implied to realised premium in HY has been higher than in IG making it more attractive to sell HY volatility than IG (Chart 16). The difference between IG and HY implieds ticked up noticeably this month although it has already reversed course over the last couple of days. However as Chart 17 shows, the difference between the realised volatility for the two indices is quite high. So, even as HY vol looks low relative to IG, it appears to be more attractive to sell HY vol because the underlying index is realising far less vol than IG.

Chart 16: 3m Implied to 1m realised vol premium, quarterly average



Source: BofA Merrill Lynch Global Research

Chart 17: Widening in IG vs. HY implieds justified by realised





RV at a glance - CDS Indices

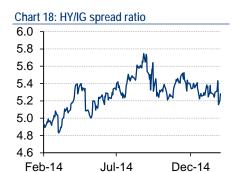
All CDS index spreads tightened last week. CDX IG and HY came in 3bp and 19bp, while Main and Crossover tightened 7bp and 35bp respectively. iTraxx FinSen tightened 11bp and FinSub tightened 10bp. Single name spread performance lagged index performance for IG, Main, Crossover, and FinSen as skews became more negative, though single names outperformed for HY and FinSub (Table 1).

Table 1: CDS Indices - spread, intrinsic and skew

		,										
Index	5y Spread	1W-Chng	1M-Chng	3M-Chng	5y Intrinsic	1W-Chng	1M-Chng	3M-Chng	Skew	1W-Chng	1M-Chng	3M-Chng
CDX IG	62	-3	-6	2	70	-2	-7	1	-8	-2	1	1
CDX HY	328	-19	-29	0	323	-27	-46	-12	5	9	18	13
iTraxx Main	51	-7	-3	-9	54	-4	-5	-9	-3	-3	2	0
iTraxx XO	273	-35	-27	-56	298	-21	-19	-45	-25	-14	-8	-12
iTraxx FinSen	57	-11	-2	-6	56	-8	0	-5	1	-2	-2	-1
iTraxx FinSub	125	-10	0	-18	121	-12	-4	-20	4	2	4	2

Source: BofA Merrill Lynch Global Research, Spreads for the On The Run series. Until there sufficient data points for the On The Run series, the 1W/1M/3M changes reflect spreads changes for the previous series.

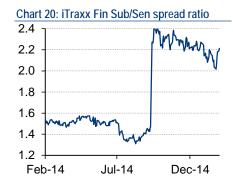
Investment grade underperformed high yield last week as the spread ratio has compressed. The ratio between the two indices stands at 5.28, down 0.03 since the week prior (Chart 18). In Europe, the ratio between Crossover and Main has increased since last week and now stands at 5.35 (Chart 19). The Sub/Senior ratio has increased to 2.21 over the same time period (Chart 20).



Source: BofA Merrill Lynch Global Research



Source: BofA Merrill Lynch Global Research



Source: BofA Merrill Lynch Global Research

Both the Main-IG (-11bp) and XO-HY (-56bp) spread differences declined since last week as the former dropped 4bp while the latter fell 17bp (Chart 21 and Chart 22).

Chart 21: iTraxx Main- CDX IG



Source: BofA Merrill Lynch Global Research

Chart 22: iTraxx XO - CDX HY

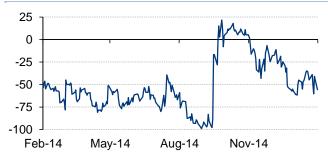




Table 2: CDX vs. ML Cash Indices

Index	Spread	1W-Chng	1M-Chng	3M-Chng
CDX IG	62	-3	-6	2
HG Cash	138	-3	-12	4
CDX HY	328	-19	-29	0
HY Cash	458	1	-72	Δ

Source: BofAML Global Research, 5y spreads for CDX, OAS for cash.

RV at a glance - Cash versus CDS

The CDX HY index outperformed the high yield cash index this week, while in IG CDX and cash performance was the same (Table 2). Both our US HG cash index and CDX IG tightened 3bp, while in HY, cash widened 1bp compared to 19bp of tightening for CDX HY. CDX IG saw the same tightening across the curve this week as each bucket tightened 3bp. For the HG cash curve, the 1-3 year bucket outperformed this week with 4bps of tightening (Table 3).

Table 3: High Grade Cash and CDX curves

Index	Spread	1W-Chng	1M-Chng	3M-Chng	Index	OAS	1W-Chng	1M-Chng	3M-Chng
CDX IG 3Y	36	-3	-4	5	US HG 1-3yr	78	-4	-12	-1
CDX IG 5Y	62	-3	-6	2	US HG 3-5yr	108	-2	-8	6
CDX IG 7Y	86	-3	-6	2	US HG 5-7yr	138	-1	-13	1
CDX IG 10Y	104	-3	-6	2	US HG 7-10yr	152	-3	-16	0

Source: BofA Merrill Lynch Global Research, Tables shows option adjusted spreads (OAS) for the ML cash indices

Our measure of cash-CDS basis for CDX IG issuers was -29bp, 4bp higher than the previous week's level of -33bp (Chart 24). For HY, basis became more negative over the same period as it shifted from -70bp to -73bp (Chart 26).

Chart 23: Average cash and CDS spreads for CDX IG issuers



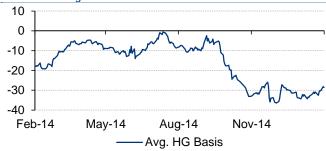
Source: BofA Merrill Lynch Global Research, Average spreads for a selection of issuers in the On The Run CDX IG index. Currently includes 121 IG21 constituents.

Chart 25: Average cash and CDS spreads for CDX HY issuers



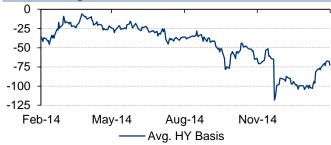
Source: BofA Merrill Lynch Global Research, Average spreads for a selection of issuers in the On The Run CDX HY index. Currently includes 89 HY21 constituents.

Chart 24: Average cash-CDS basis for CDX IG issuers



Source: BofA Merrill Lynch Global Research, Average cash-CDS for a selection of issuers in the On The Run CDX IG index. Currently includes 121 IG21 constituents.

Chart 26: Average cash-CDS basis for CDX HY issuers



Source: BofA Merrill Lynch Global Research, Average basis for a selection of issuers in the On The Run CDX HY index. Currently includes 89 HY21 constituents.



RV at a glance - Credit vs. Equity

European equities outperformed US equities while volatility declined in both markets (Table 4). European equities have outperformed US equities over the past 1 and 3 month periods as well as Europe gained 6.8% over the last month versus the US's 2.5% gain.

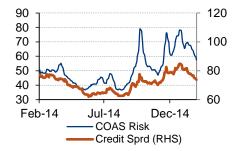
Table 4: CDS Indices vs. Equity Benchmarks and Equity Volatility

Index	5y Spread	1W-Chng	1M-Chng	3M-Chng	Index	Level	1W-Chng	1M-Chng	3M-Chng
CDX IG	62	-3	-6	2	S&P 500	2115	0.7%	2.5%	3.3%
CDX HY	328	-19	-29	0	VIX	14	-2.1	-2.7	-0.3
iTraxx Main	51	-7	-3	-9	Eurostoxx50	3547	3.2%	6.8%	13.6%
iTraxx XO	273	-35	-27	-56	VSTOXX	18	-6.5	-4.5	-1.2

Source: BofA Merrill Lynch Global Research, Bloomberg

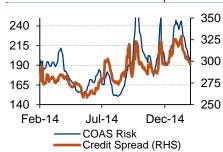
For our HG COAS universe, we saw average spreads tighten 6bps while equity-implied credit risk fell 3bp (Chart 27). In Europe, HG spreads were 3bps lower while COAS risk dropped 6bps (Chart 29). US HY saw its average spread tighten 6bps during the week while its COAS risk declined 13bp (Chart 28). In our US COAS universes, credit looks slightly cheap relative to equity as COAS z-scores have risen during the past week, while in Europe credit looks fairly valued relative to equity. Z-scores now stand at 0.62, 1.05, and -0.08 for US HG, US HY, and EU HG respectively (Chart 30, Chart 31, and Chart 32).

Chart 27: US HG COAS Risk vs. Spread



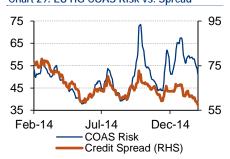
Source: BofA Merrill Lynch Global Research, Avg. across 359 listed high grade USD issuers.

Chart 28: US HY COAS Risk vs. Spread



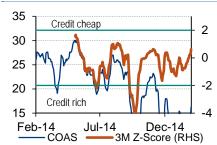
Source: BofA Merrill Lynch Global Research, Avg. across 99 listed high vield USD issuers.

Chart 29: EU HG COAS Risk vs. Spread



Source: BofA Merrill Lynch Global Research, Avg. across 202 listed high grade EUR issuers.

Chart 30: US HG COAS & Z-Score



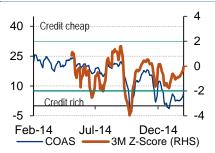
Source: BofA Merrill Lynch Global Research, COAS = Spread – COAS Risk, A positive (negative) z-score indicates that credit is trending cheap (rich) relative to equity. Z-scores above (below) +2 (-2) can be considered indicative a significant debt-equity dislocation.

Chart 31: US HY COAS & Z-Score



Source: BofA Merrill Lynch Global Research, COAS = Spread – COAS Risk, A positive (negative) z-score indicates that credit is trending cheap (rich) relative to equity. Z-scores above (below) +2 (-2) can be considered indicative a significant debt-equity dislocation.

Chart 32: EU HG COAS & Z-Score



Source: BofA Merrill Lynch Global Research, COAS = Spread – COAS Risk, A positive (negative) z-score indicates that credit is trending cheap (rich) relative to equity. Z-scores above (below) +2 (-2) can be considered indicative a significant debt-equity dislocation.

US COAS Dislocations

Rich to Equities

According to our COAS model, this week's richest US name is Springleaf Holdings Inc. Springleaf has a 3-month z-score of -2.5, its CDS spread is 1.0 standard deviation tight to its 3-month average, and its credit risk is 2.3 standard deviations above its 3- month average. Springleaf's equity gained 9.3% this week while its vol increased 6 vol points. Last week, news broke that the company is near closing a deal to purchase Citi's OneMain consumer and subprime lending business for \$4bn.

After Springleaf, Darden Restaurants Inc screens as the second richest name to its equity. It has a 3-month z-score of -1.7, its CDS spread is 2.2 standard deviations tight to its 3-month average, and its credit risk is 0.5 standard deviations below its 3-month average. Darden's equity added 3.4% this week as its vol fell 1 vol point. Following Springleaf and Darden, L Brands Inc, PHH Corp, and Universal Health Services Inc each screen as rich to their equity.

Table 5: Top 5 richest to equity according to COAS

	Equity	Wkly		Wkly		Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-
Issuer	Рх	Chng	Vol	Chng	CDS	Chng	Avg	Score	Risk	Chng	Avg	Score	OAS	Chng	Avg	Score
Springleaf Holdings Inc	37.7	9.3%	47	6	306	-4	329	-1.0	279	35	222	2.3	27	-39	107	-2.5
Darden Restaurants Inc	63.5	3.4%	24	-1	126	-8	155	-2.2	64	-6	67	-0.5	62	-2	88	-1.7
L Brands Inc	91.5	-1.5%	23	-1	125	-4	137	-2.2	68	-5	71	-0.7	57	1	65	-1.7
PHH Corp	24.2	-2.2%	26	-5	345	-24	430	-2.1	126	-31	160	-2.3	219	8	269	-1.7
Universal Health Services Inc	108.5	1.6%	30	0	130	-4	139	-1.8	99	0	92	8.0	31	-3	47	-1.5

Source: BofA Merrill Lynch Global Research

Cheap to Equities

With a 3-month z-score of 2.5, DISH Network Corp screens as the cheapest US name to its equity in our COAS universe. DISH's CDS spread is 1.2 standard deviations wide to its 3-month average while its equity-implied credit risk is 1.0 standard deviation below its 3-month average. During the past week, DISH's stock added 1.4% and its vol decreased 7 vol points.

Following DISH, CBS Corp ranks second on our list of names that register as cheap to their equity. CBS has a 3-month z-score of 2.4, its CDS spread is 0.5 standard deviations tight to its 3-month average, and its credit risk is 2.5 standard deviations below its 3-month average. Over the past week, its equity fell 1.3% while its vol decreased 3 vol points. Last week, CBS reported better-than-expected Q4 earnings. After DISH and CBS, Du Pont (E.I.) de Nemours & Co, FedEx Corp, and Ford Motor Co, each screen as cheap to their equity.

Table 6: Top 5 cheapest to equity according to COAS

	Equity	Wkly		Wkly		Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-
Issuer	Px	Chng	Vol	Chng	CDS	Chng	Avg	Score	Risk	Chng	Avg	Score	OAS	Chng	Avg	Score
DISH Network Corp	77.8	1.4%	37	-7	257	9	237	1.2	171	-48	186	-1.0	86	58	51	2.5
CBS Corp	59.4	-1.3%	24	-3	58	0	59	-0.5	51	-8	66	-2.5	7	8	-7	2.4
Du Pont (E.I.) de Nemours & Co	77.9	1.9%	16	-2	48	0	44	0.7	21	-3	29	-1.3	26	3	15	2.4
FedEx Corp	177.8	-1.0%	20	-1	52	-1	46	1.4	23	-2	24	-0.2	29	1	22	2.0
Ford Motor Co	16.4	1.6%	19	-2	94	-2	103	-1.1	45	-6	69	-2.0	49	4	34	2.0



Europe COAS Dislocations Rich to Equities

According to our COAS model, this week's richest European name is Next PLC. Next has a 3-month z-score of -3.7, its CDS spread is 2.0 standard deviations tight to its 3-month average, and its credit risk is 3.9 standard deviations above its 3-month average. The firm's equity added 2.4% this week while its vol increased 6 vol points.

After Next, Ladbrokes PLC screens as the second richest name to its equity. Ladbrokes has a 3-month z-score of -3.2, its CDS spread is 3.7 standard deviations tight to its 3- month average, and its credit risk 1.8 standard deviations above its 3-month average. Ladbroke's equity fell 3.1% over the past week and its vol increased 1 vol point. Following Next and Ladbrokes, Publicis Groupe, Svenska Cellulosa AB, and Peugeot SA each screen as rich to their equity.

Table 7: Top 5 richest to equity according to COAS

	Equity	Wkly		Wkly		Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-
Issuer	Рх	Chng	Vol	Chng	CDS	Chng	Avg	Score	Risk	Chng	Avg	Score	OAS	Chng	Avg	Score
Next PLC	74	2.4%	26	6	46	-3	54	-2.0	29	9	19	3.9	17	-12	34	-3.7
Ladbrokes PLC	1	-3.1%	35	1	230	-33	273	-3.7	153	2	130	1.8	77	-35	143	-3.2
Publicis Groupe	72	3.8%	22	-2	39	-3	46	-2.4	31	-6	21	2.1	8	3	25	-2.5
Svenska Cellulosa AB	198	-0.6%	23	2	46	-2	51	-2.2	46	6	34	1.8	0	-8	16	-2.5
Peugeot SA	15	8.7%	37	-4	145	-31	216	-2.6	150	-37	170	-1.5	-5	6	46	-1.7

Source: BofA Merrill Lynch Global Research

Cheap to Equities

With a 3-month z-score of 2.5, Tate & Lyle screens as the cheapest European name to its equity in our COAS universe. Tate & Lyle's CDS spread is 1.0 standard deviation tight to its 3-month average while its equity-implied credit risk is 2.0 standard deviations below its 3-month average. The company's equity gained 3.0% over the past week and its vol fell 2 vol points. Rumors have circulated that Bunge is considering making a takeover bid for the company.

Following Tate & Lyle, Vodafone Group PLC ranks second on our list of names that register as cheap to their equity. Vodafone has a 3-month z-score of 1.6, its CDS spread is 1.8 standard deviations tight to its 3-month average, and its credit risk is 2.2 standard deviations below its 3-month average. The firm's equity fell 2.2% this week as its vol declined 2 vol points. After Tate & Lyle and Vodafone, AstraZeneca PLC, Banco Popolare SC, and RWE AG each screen as cheap to their equity.

Table 8: Top 5 cheapest to equity according to COAS

	Equity	Wkly		Wkly		Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-	Credit	Wkly	3M	3M Z-
Issuer	Рх	Chng	Vol	Chng	CDS	Chng	Avg	Score	Risk	Chng	Avg	Score	OAS	Chng	Avg	Score
Tate & Lyle	6	3.0%	22	-2	90	-2	93	-1.0	55	-8	66	-2.0	35	6	27	2.5
Vodafone Grp PLC	2	-2.1%	22	-2	60	-6	65	-1.8	51	-7	66	-2.2	9	1	-1	1.6
AstraZeneca PLC	45	-1.0%	20	-2	28	0	30	-1.4	22	-2	29	-1.6	6	2	1	1.6
Banco Popolare SC	14	7.2%	41	-4	166	-12	172	-0.4	176	-28	213	-1.2	-10	16	-41	1.4
RWE AG	25	2.5%	27	-2	75	-1	73	0.5	77	-7	86	-0.7	-2	6	-12	1.3



HG Basis Screen

Safeway Inc, with a basis of -149bp, tops our list of IG23 names with the most negative basis, along with MDC Holdings Inc at -132bp. Names with the most positive basis include Avon Products Inc (+72bp) and Berkshire Hathaway Inc (+45bp).

Table 9: CDX IG 23 Basis Report

Sector	Ticker	Issuer	Coupon	Maturity	Price	Cash Sprd	5y CDS	Interp CDS	Hedge Ratio	Basis		1W Chg	
Food and Drug Retail	ALBLLC	Safeway Inc	4.75	Dec-21	89.00	515	289	366	0.84	-149	-166		-29
Consumer Durables - Non Auto	MDC	MDC Holdings Inc	5.625	Feb-20	105.20	278	151	146	1.11	-132	-133	2	-124
Multi-line Insurance	GNW	Genworth Holdings Inc	7.7	Jun-20	105.76	460	361	366	1.13	-94	-111	17	-120
Paper and Forest Products	MWV	MeadWestvaco Corp	7.375	Sep-19	119.04	127	39	33	1.35	-94	-95	1	-91
Retail	SPLS	Staples Inc	2.75	Jan-18	99.70	171	190	79	1.01	-92	-94	1	-85
Paper and Forest Products	WY	Weyerhaeuser Co	7.375	Oct-19	119.79	117	39	34	1.36	-83	-85	2	-85
Retail	DRI	Darden Restaurants Inc	6.45	Oct-17	110.31	128	124	47	1.20	-82	-81	0	-84
Technology	PBI	Pitney Bowes Inc	6.25	Mar-19	112.72	142	95	70	1.24	-72	-73	1	-84
Consumer Products	NWL	Newell Rubbermaid Inc	4.7	Aug-20	109.16	117	49 64	54	1.17	-63	-65 -76	2	-63 -79
Pipelines Technology	KMI ARW	Kinder Morgan Energy Partners LP Arrow Electronics Inc	2.65 3	Feb-19 Mar-18	100.53 102.59	110 92	65	46 30	1.02 1.06	-63 -62	-76 -59	13 -3	-79 -57
Industrial Products	AVT	Avnet Inc	4.875	Dec-22	102.39	179	73	118	1.14	-62	-63	-3 1	-57 -54
Technology	EXPE	Expedia Inc	5.95	Aug-20	112.69	165	94	104	1.24	-62	-48	-14	-74
Retail	GPS	Gap Inc/The	5.95	Apr-21	114.00	158	77	97	1.26	-61	-60	-1	-60
Health Care Equipment & Services	BSX	Boston Scientific Corp	2.65	Oct-18	101.49	88	49	30	1.04	-58	-65	7	-65
Transportation	LUV	Southwest Airlines Co	5.125	Mar-17	106.98	73	56	18	1.14	-55	-57	2	-58
Transportation	CSX	CSX Corp	4.25	Jun-21	109.49	77	17	24	1.18	-54	-56	2	-55
Banks	COF	Capital One Bank USA NA	2.3	Jun-19	100.29	76	28	23	1.01	-53	-60	7	-60
Oil & Gas	WFT	Weatherford International PLC	4.5	Apr-22	90.49	443	357	390	0.86	-53	-90	37	-74
Advertising Dependent Media	FOXA	21st Century Fox America Inc	4.5	Feb-21	110.51	83	25	32	1.19	-51	-52	2	-51
Food, Beverage & Tobacco	SUNTOR	Beam Suntory Inc	1.75	Jun-18	99.78	56	11	6	1.00	-50	-52	2	-53
Food, Beverage & Tobacco	RAI	Reynolds American Inc	3.25	Nov-22	99.89	134	51	84	1.01	-50	-60	10	-62
Retail	YUM	Yum! Brands Inc	3.75	Nov-21	103.42	134	63	85	1.07	-49	-51	3	-47
Transportation	NSC	Norfolk Southern Corp	3.25	Dec-21	104.15	73	15	25	1.08	-48	-61	12	-60
Electric Utilities	EXC	Exelon Corp	5.15	Dec-20	112.38	101	45	55	1.23	-46	-48	2	-47
Retail	AZO	AutoZone Inc	4	Nov-20	107.13	90	37	44	1.14	-46	-48	2	-49
P&C Insurance	ACE	ACE Ltd	5.9	Jun-19	115.46	62	20	17	1.28	-45	-47	1	-46
Food, Beverage & Tobacco	MO	Altria Group Inc	4.75	May-21	111.74	88	32	44	1.22	-45	-56	11	-55
Automobiles	JCI	Johnson Controls Inc	3.75	Dec-21	104.95	109	44	65	1.10	-44	-46	2	-44
Paper and Forest Products	IP AET	International Paper Co	9.375	May-19	127.77	90	60 22	46 17	1.50	-44	-43	-1 2	-39 -45
Services	AET CCL	Aetna Inc Carnival Corp	2.2 3.95	Mar-19 Oct-20	100.67 106.07	61 106	53	63	1.02 1.12	-44 -44	-46 -49	5	-43 -47
Gaming, Lodging & Leisure Services	MCK	McKesson Corp	2.284	Mar-19	100.07	61	24	03 18	1.02	-43	-49 -49	6	-47 -47
Oil & Gas	APC	Anadarko Petroleum Corp	6.95	Jun-19	117.19	116	87	73	1.32	-43	-43	1	-30
Advertising Dependent Media	CBS	CBS Corp	2.3	Aug-19	99.50	90	56	48	1.00	-42	-31	-11	-40
Food, Beverage & Tobacco	MDLZ	Mondelez International Inc	2.25	Feb-19	100.57	70	39	29	1.02	-41	-47	6	-46
Other Insurance	MMC	Marsh & McLennan Cos Inc	2.35	Sep-19	101.13	57	17	15	1.03	-41	-43	1	-43
Advertising Dependent Media	VIA	Viacom Inc	2.2	Apr-19	99.58	86	59	45	1.00	-41	-43	2	-41
P&C Insurance	L	Loews Corp	2.625	May-23	96.53	114	52	73	0.95	-41	-40	-1	-46
Transportation	R	Ryder System Inc	2.45	Sep-19	100.52	81	47	41	1.02	-40	-56	15	-50
P&C Insurance	ALL	Allstate Corp/The	7.45	May-19	121.59	60	25	21	1.39	-39	-41	2	-39
Metals & Mining	NEM	Newmont Mining Corp	3.5	Mar-22	97.34	208	127	169	0.97	-39	-23	-16	-43
Retail	LOW	Lowe's Cos Inc	3.12	Apr-22	103.52	70	19	31	1.07	-39	-41	2	-38
Electric Utilities	FE	FirstEnergy Corp	2.75	Mar-18	102.10	85	91	46	1.05	-38	-40	2	-43
Cable/DBS	DTV	DIRECTV Holdings LLC	1.75	Jan-18	99.84	66	57	29	1.00	-38	-40	2	-40
Consumer Products	WHR	Whirlpool Corp	2.4	Mar-19	100.93	73	49	35	1.03	-38	-40	3	-41
Advertising Dependent Media	OMC	Omnicom Group Inc	4.45	Aug-20	110.29	74	32	36	1.19	-38	-50	12	-49
Food and Drug Retail	KR	Kroger Co/The	2.3	Jan-19	101.16	60	32	22	1.03	-38	-45	7	-44
Pipelines	SRE	Sempra Energy	2.875	Oct-22	100.33	92	33	55	1.02	-37	-36	-1	-42
Oil & Gas	VLO	Valero Energy Corp	6.125	Feb-20	115.02	120	86	84	1.28	-37	-36	-1	-36
Aerospace & Defense	RTN	Raytheon Co	2.5	Dec-22	99.04	69	17	33	0.99	-36	-38	2	-39
Multi-line Insurance	XL	XLIT Ltd	2.3	Dec-18	101.21	59	32	23	1.03	-36	-37	1	-45
Gaming, Lodging & Leisure	HOT	Starwood Hotels & Resorts Worldwide Inc	6.75	May-18	114.83	72	73	36	1.28	-36	-42	6	-43
Cable/DBS	COXENT	Cox Communications Inc	3.25	Dec-22	100.71	120	55	85	1.03	-35	-41	6	-45
Aerospace & Defense	NOC	Northrop Grumman Corp	1.75	Jun-18	100.20	44	15	9	1.01	-35	-45	10	-44
Services	CAH	Cardinal Health Inc	1.7	Mar-18	100.16	46	22	11	1.01	-34	-41	6	-40
Technology	XRX	Xerox Corp	2.8	May-20	100.20	111	74 14	77 27	1.02	-34	-36	2	-40 20
Aerospace & Defense	LMT	Lockheed Martin Corp	3.35	Sep-21	105.55	60 126	16 75	27	1.11	-34	-35	1 11	-39 20
Cable/DBS Tochnology	TWC	Time Warner Cable Inc	4	Sep-21	105.34	126	75 114	92 166	1.11	-34	-23 -37	-11 3	-20 21
Technology	CSC	Computer Sciences Corp	4.45	Sep-22	103.33	200	114	166	1.07	-34	-31	3	-31



Table 9: CDX IG 23 Basis Re	port												
Sector	Ticker	Issuer	Coupon	Maturity	Price	Cash Sprd	5y CDS	Interp CDS	Hedge Ratio	Basis	1W Ago	1W Chg	1M Avg
Diversified Telecom	VZ	Verizon Communications Inc	2.625	Feb-20	101.02	80	47	47	1.03	-33	-37	4	-40
Gaming, Lodging & Leisure	MAR	Marriott International Inc/MD	3.375	Oct-20	104.52	80	41	47	1.09	-33	-36	3	-37
Electric Utilities	D	Dominion Resources Inc/VA	2.75	Sep-22	99.89	84	34	54	1.01	-31	-31	1	-39
Food, Beverage & Tobacco	CAG	ConAgra Foods Inc	4.95	Aug-20	111.38	100	66	71	1.21	-29	-32	3	-35
Real Estate	EQR	ERP Operating LP	2.375	Jul-19	100.90	67	48	40	1.02	-28	-32	5	-33
Metals & Mining	TCKBCN	Teck Resources Ltd	3	Mar-19	96.66	249	282	222	0.96	-28	-38	11	-32
Retail	M	Macy's Inc	3.875	Jan-22	105.62	110	53	83	1.11	-27	-27	0	-27
Advertising Dependent Media	TWX	Time Warner Inc	2.1	Jun-19	100.17	58	41	32	1.01	-25	-33	7	-31
Diversified Financials	HRB	Block Financial LLC	5.5	Nov-22	109.51	203	120	178	1.18	-25	-30	6	-26
Technology	MSI	Motorola Solutions Inc	3.5	Sep-21	102.05	133	85	109	1.05	-24	-24	0	-39
Wireline Telecom	T	AT&T Inc	2.3	Mar-19	100.62	70	63	47	1.02	-23	-33	9	-22
Diversified Financials	NRUC	National Rural Utilities Cooperative Finance Corp	2.15	Feb-19	101.03	48	34	25	1.03	-23	-25	2	-21
Health Care Equipment & Services	BAX	Baxter International Inc	1.85	Jun-18	100.68	38	25	15	1.02	-23	-27	4	-33
Pharmaceuticals	AMGN	Amgen Inc	2.2	May-19	101.06	47	31	25	1.03	-23	-37	15	-34
Transportation	UPS	United Parcel Service Inc	2.45	Oct-22	99.75	56	19	33	1.01	-22	-30	7	-30
Electric Utilities	AEP	American Electric Power Co Inc	1.65	Dec-17	100.69	33	22	11	1.02	-22	-24	2	-28
Chemicals	DD	El du Pont de Nemours & Co	4.25	Apr-21	109.49	78	46	56	1.18	-22	-22	0	-23
P&C Insurance	CB	Chubb Corp/The	5.75	May-18	113.17	31	17	9	1.24	-21	-22	1	-25
Electric Utilities	DUK	Duke Energy Carolinas LLC	3.9	Jun-21	109.90	42	15	21	1.18	-21	-27	6	-29
Auto Manufacturers	F	Ford Motor Co	6.5	Aug-18	114.49	79	93	58	1.27	-20	-18	-2	-26
Cable/DBS	CMCSA	Comcast Corp	1.974	Apr-19	100.38	42	29	22	1.01	-20	-20	0	-21
Facilities	DGX	Quest Diagnostics Inc	2.7	Apr-19	101.52	86	88	66	1.04	-20	-27	7	-34
Pharmaceuticals	BMY	Bristol-Myers Squibb Co	1.75	Mar-19	100.13	29	15	11	1.01	-18	-20	2	-17
Transportation	UNP	Union Pacific Corp	2.25	Feb-19	102.11	28	14	11	1.04	-17	-19	1	-19
Industrial Products	HON	Honeywell International Inc	5	Feb-19	112.66	28	15	11	1.23	-17	-18	1	-15
Food and Drug Retail	CVS	CVS Health Corp	2.25	Aug-19	101.80	32	19	16	1.04	-16	-30	14	-31
Industrial Products	DE	Deere & Co	2.6	Jun-22	100.02	70	38	54	1.01	-15	-24	9	-23
Retail	JWN	Nordstrom Inc	4	Oct-21	108.49	74	42	59	1.16	-15	-23	7	-21
Chemicals	SHW	Sherwin-Williams Co/The	1.35	Dec-17	99.98	24	21	10	1.01	-15	-14	-1	-27
Oil & Gas	HAL	Halliburton Co	2	Aug-18	100.90	45	53	32	1.02	-13	-18	4	-18
Food, Beverage & Tobacco	GIS	General Mills Inc	3.15	Dec-21	103.11	81	53	68	1.06	-12	-14	2	-14
Technology	HPQ	Hewlett-Packard Co	2.75	Jan-19	102.46	69	82	56	1.05	-12	-26	14	-25
Food, Beverage & Tobacco	CPB	Campbell Soup Co	4.25	Apr-21	108.66	92	66	81	1.16	-11	-11	0	-1 14
Food, Beverage & Tobacco Pharmaceuticals	TSN PFE	Tyson Foods Inc Pfizer Inc	2.65 2.1	Aug-19	102.13 101.59	63 24	61 17	52 13	1.05 1.04	-11 -10	-15 -17	4 6	-14 -8
Chemicals	EMN	Eastman Chemical Co	3.6	May-19	101.59	116	76	107	1.04	-10	-17 -8	-1	-o -6
Retail	KSS	Kohl's Corp	3.0 4	Aug-22 Nov-21	105.47	127	85	120	1.10	-10 -7	-o -2	-1 -5	-0 2
Multi-line Insurance	AIG	American International Group Inc	2.3	Jul-19	103.26	53	55	47	1.03	- <i>1</i> -6	-2 -14	-3 7	-15
Real Estate	SPG	Simon Property Group LP	2.3	Feb-19	101.14	34	39	28	1.03	-6	-19	13	-16
Retail	TGT	Target Corp	2.2	Jun-19	102.34	24	23	19	1.04	-5	-9	3	-9
Advertising Dependent Media	DIS	Walt Disney Co/The	1.85	May-19	100.83	17	15	12	1.03	-5 -5	-12	7	-11
Aerospace & Defense	BA	Boeing Co/The	0.95	May-18	98.66	14	16	9	0.98	-4	-6	2	-6
Life Insurance	PRU	Prudential Financial Inc	2.35	Aug-19	100.81	64	69	60	1.02	-4	-0 -7	3	-8
Diversified Financials	AXP	American Express Co	1.55	May-18	100.04	29	47	29	1.01	0	-10	10	-18
Chemicals	DOW	Dow Chemical Co/The	4.125	Nov-21	108.26	92	70	93	1.15	2	-3	4	-1
Services	UNH	UnitedHealth Group Inc	1.625	Mar-19	100.07	17	26	20	1.01	3	1	2	-5
P&C Insurance	HIG	Hartford Financial Services Group Inc/The	5.125	Apr-22	115.03	88	64	92	1.27	3	4	-1	-1
Oil & Gas	COP	ConocoPhillips	2.4	Dec-22	98.55	66	49	70	0.99	4	-2	6	1
Retail	HD	Home Depot Inc/The	2	Jun-19	101.71	11	19	16	1.04	5	1	4	-2
Oil & Gas	DVN	Devon Energy Corp	2.25	Dec-18	101.29	53	86	61	1.03	8	7	1	1
Retail	MCD	McDonald's Corp	1.875	May-19	100.60		41	33	1.02	8	3	5	4
Metals & Mining	ABXCN	Barrick Gold Corp	2.5	May-18	101.66		164	82	1.04	9	20	-12	3
Life Insurance	MET	MetLife Inc	2.3	Apr-19	101.55	46	73	59	1.04	13	-1	14	4
Industrial Products	CAT	Caterpillar Inc	3.9	May-21	109.28	51	52	64	1.17	13	8	6	8
Retail	WMT	Wal-Mart Stores Inc	1.95	Dec-18	102.37	-7	14	10	1.05	17	11	5	7
Consumer Products	PG	Procter & Gamble Co/The	1.6	Nov-18	102.37	-6	18	13	1.03	18	18	0	12
Technology	IBM	International Business Machines Corp	1.95	Feb-19	101.46	15	50	36	1.02	21	18	3	21
Metals & Mining	FCX	Freeport-McMoRan Inc	3.1	Mar-20	95.45	252	278	278	0.94	26	17	9	26
Diversified Financials	GE	General Electric Capital Corp	2.3	Jan-19	102.59	21	59	47	1.05	26	26	0	25
Oil & Gas	NBR	Nabors Industries Inc	4.625	Sep-21	95.46	368	376	403	0.94	35	18	16	23
Oil & Gas	RIG	Transocean Inc	3.8	Oct-22	77.50	647	693	403 685	0.94	38	26	13	13
P&C Insurance	BRK	Berkshire Hathaway Inc	2.1	Aug-19	102.24	6	58	50	1.05	45	44	1	34
Consumer Products	AVP	Avon Products Inc	4.6	Mar-20	93.06	468	540	540	0.90	72	58	14	54
SSSumor Froudots	/ t v l		7.0	mul 20	, 5.00	100	010	0.10	0.70	12	30	.7	07



HY Basis Screen

Parker Drilling Co, with a basis of -365bp, occupies the topmost position on our list of issuers with the most negative basis. Toys R Us Inc, with a basis of -362bps, is second on the list. In terms of most positive basis, The McClatchy Co (+234bp) and Calpine Corp (+166bp) top the list.

Table 10: CDX HY 23 Basis Report

Table 10: CDX HY 23 Basis					5.	Cash	5y	Interp	Hedge		1W	1W	1M
Sector	Ticker	Issuer	Coupon	Maturity	Price	Sprd	CDS	CDS	Ratio	Basis	Ago	Chg	Avg
Oil & Gas	PKD	Parker Drilling Co	7.5	Aug-20	84.00	1035	669	670	0.76	-365	-405	40	-406
Retail	TOY	Toys R Us Inc	10.375	Aug-17	84.25	1775	1618	1412	0.78	-362	-372	10	-455
Paper and Forest Products	NBDCN	Norbord Inc	5.375	Dec-20	97.53	417	195	218	0.98	-198	-185	-14	-190
Consumer Durables - Non Auto	HOV	K Hovnanian Enterprises Inc	7	Jan-19	94.38	732	644	544	0.94	-187	-207	20	-221
Gaming, Lodging & Leisure	BC	Brunswick Corp/DE	4.625	May-21	100.38	303	97	125	1.03	-178	-153	-25	-179
Paper and Forest Products	LPX	Louisiana-Pacific Corp	7.5	Jun-20	107.25	368	187	193	1.15	-175	-221	46	-225
Gaming, Lodging & Leisure	BYD	Boyd Gaming Corp	9	Jul-20	106.75	521	347	360	1.15	-161	-146	-14	-187
Technology	AMD	Advanced Micro Devices Inc	6.75	Mar-19	99.50	538	503	394	1.02	-144	-136	-8	-155
Technology	SDSINC	SunGard Data Systems Inc	6.625	Nov-19	103.50	401	286	257	1.09	-144	-140	-4	-194
Technology	UIS	Unisys Corp	6.25	Aug-17	106.25	249	263	107	1.13	-143	-173	30	-186
Chemicals	OLN	Olin Corp	5.5	Aug-22	101.50	332	148	192	1.05	-140	-114	-26	-128
Other Insurance	RDN	Radian Group Inc	9	Jun-17	112.00	245	219	106	1.24	-138	-115	-23	-127
Food and Drug Retail	SVU	SUPERVALU Inc	6.75	Jun-21	102.00	463	280	327	1.06	-136	-147	11	-148
Consumer Durables - Non Auto	RYL	Ryland Group Inc/The	6.625	May-20	106.75	339	203	208	1.14	-131	-128	-3	-139
Paper and Forest Products	OI	Owens-Illinois Inc	7.8	May-18	112.25	238	208	112	1.24	-126	-107	-19	-125
Diversified Financials	PHH	PHH Corp	7.375	Sep-19	105.50	431	343	307	1.12	-124	-93	-31	-112
Consumer Durables - Non Auto	SPF	Standard Pacific Corp	8.375	May-18	113.50	251	226	128	1.26	-122	-123	1	-121
Technology	ALUFP	Alcatel-Lucent USA Inc	8.875	Jan-20	109.75	371	262	249	1.20	-122	-148	25	-146
Consumer Durables - Non Auto	VMC	Vulcan Materials Co	7	Jun-18	112.00	181	117	61	1.23	-120	-107	-13	-129
Automobiles	CTBUS	Cooper Tire & Rubber Co	8	Dec-19	112.88	322	217	203	1.25	-119	-101	-18	-121
Advertising Dependent Media	NYT	New York Times Co/The	6.625	Dec-16	107.63	147	135	29	1.15	-118	-108	-10	-114
Retail	DDS	Dillard's Inc	7.13	Aug-18	111.75	209	166	96	1.23	-113	-91	-22	-106
Other Telecom	WIN	Windstream Holdings Inc	7.5	Jun-22	99.63	562	369	453	1.03	-109	-92	-18	-105
Consumer Durables - Non Auto	PHM	PulteGroup Inc	7.625	Oct-17	112.25	164	145	57	1.24	-107	-117	10	-126
Industrial Products	BBDBCN	Bombardier Inc	7.75	Mar-20	102.50	540	436	436	1.07	-105	-83	-21	-82
Technology	STX	Seagate Technology HDD Holdings	3.75	Nov-18	103.50	137	57	35	1.07	-103	-96	-7	-99
Food, Beverage & Tobacco	SFD	Smithfield Foods Inc	6.625	Aug-22	107.75	337	176	239	1.16	-98	-117	19	-140
Technology	DELL	Dell Inc	5.875	Jun-19	108.50	217	147	119	1.17	-97	-84	-13	-122
Automobiles	AXL	American Axle & Manufacturing Inc	7.75	Nov-19	114.25	268	189	173	1.27	-96	-85	-10	-107
Consumer Durables - Non Auto	DHI	DR Horton Inc	3.75	Mar-19	101.00	208	151	114	1.03	-94	-99	5	-102
Consumer Durables - Non Auto	KBH	KB Home	8	Mar-20	106.25	474	383	383	1.14	-92	-94	2	-89
Cable/DBS	CVC	CSC Holdings LLC	8.625	Feb-19	116.50	252	225	161	1.31	-91	-74	-17	-97
Oil & Gas	TSO	Tesoro Corp	4.25	Oct-17	103.75	164	188	74	1.08	-90	-95	5	-117
Paper and Forest Products	SEE	Sealed Air Corp	6.5	Dec-20	111.50	237	128	149	1.22	-89	-73	-16	-76
Diversified Financials	STAR	iStar Financial Inc	7.125	Feb-18	107.75	304	327	218	1.16	-85	-112	27	-125
Automobiles	MTOR	Meritor Inc	6.75	Jun-21	104.13	406	266	323	1.10	-83	-60	-23	-75
Technology	TSG	Sabre Holdings Corp	6.35	Mar-16	106.75	131	276	48	1.14	-83	-105	22	-95
Commercial Services	HTZ	Hertz Corp/The	4.25	Apr-18	101.63	245	321	165	1.04	-81	-77	-4	-104
Cable/DBS	DISH	DISH DBS Corp	5.125	May-20	100.25	340	258	263	1.03	-78	-79	2	-87
Cable/DBS	CHTR	CCO Holdings LLC	6.625	Jan-22	106.38	378	266	302	1.13	-76	-70	-7	-95
Gaming, Lodging & Leisure	MGM	MGM Resorts International	8.625	Feb-19	114.75	292	262	216	1.28	-76	-73	-3	-81
Commercial Services	RRD	RR Donnelley & Sons Co	8.25	Mar-19	115.63	247	239	171	1.29	-76	-57	-18	-63
Diversified Financials	DLX	Deluxe Corp	6	Nov-20	105.13	304	216	233	1.11	-72 71	-87	15	-89 100
Consumer Durables - Non Auto	LEN	Lennar Corp	4.5	Jun-19	102.50	236	195	165	1.06	-71	-75 -71	4	-100
Consumer Durables - Non Auto	BZH	Beazer Homes USA Inc	7.25	Feb-23	94.75	628	464	562	0.94	-67	-71	4	-58
Diversified Financials	AMGFIN	Springleaf Finance Corp	6	Jun-20	102.25	379	306	312	1.06	-66	-52	-15	-77 -95
Diversified Financials	ALLY	Ally Financial Inc	3.5	Jan-19	100.00	208	169	145	1.01	-63	-86	22	
Electric Utilities	NRG	NRG Energy Inc	7.625	Jan-18	110.75	242	372	179	1.21	-63	-43	-20	-90
Chemicals	POL	PolyOne Corp	5.25	Mar-23	104.00	265	171	205	1.09	-61	-53	-8	-74
Wireline Telecom	CTL	CenturyLink Inc	5.625	Apr-20	107.00	240	183	184	1.14	-56	-70	14	-89
Retail	RAD	Rite Aid Corp	6.75	Jun-21	106.00	358	259	305	1.13	-53	-27	-26	-55
Diversified Financials	CIT	CIT Group Inc	3.875	Feb-19	101.00	217	182	165	1.03	-52	-54	2	-59
Wireline Telecom	FTR	Frontier Communications Corp	9.25	Jul-21	117.00	395	291	349	1.32	-46	-56	10	-63
Commercial Services	IRM	Iron Mountain Inc	7.75	Oct-19	106.75	229	205	184	1.14	-45	-37	-8	-37
Diversified Financials	AER	International Lease Finance Corp	5.875	Apr-19	109.00	199	177	155	1.17	-44	-17	-27	-27
Facilities	CYH	Community Health Systems Inc	7.125	Jul-20	106.38	401	346	357	1.14	-44	-12	-32	-31
Technology	AMKR	Amkor Technology Inc	6.375	Oct-22	104.25	369	248	330	1.10	-39	-55	15	-56
Advertising Dependent Media	GCI	Gannett Co Inc	5.125	Jul-20	104.00	257	212	224	1.09	-33	-5	-28	-23
Retail	LB	L Brands Inc	5.625	Feb-22	110.25	201	126	177	1.19	-24	-12	-13	-40
Facilities	THC	Tenet Healthcare Corp	6.75	Feb-20	106.00	365	353	342	1.13	-23	15	-38	5



Table 10: CDX HY 23 Basis Report

Sector	Ticker	Issuer	Coupon	Maturity	Price	Cash	5y		Hedge	Basis	1W	1W	1M
Sector	TICKCI	issuci	Coupon	waturity	THICC	Sprd	CDS	CDS	Ratio	Dasis	Ago	Chg	Avg
Pipelines	KMI	Kinder Morgan Inc/DE	5	Feb-21	107.91	173	135	152	1.15	-20	-26	5	-29
Automobiles	GT	Goodyear Tire & Rubber Co/The	6.5	Mar-21	107.88	269	210	250	1.16	-19	-44	24	-62
Facilities	HCA	HCA Inc	6.25	Feb-21	109.00	268	223	254	1.18	-14	1	-15	-22
Oil & Gas	CHK	Chesapeake Energy Corp	5.375	Jun-21	102.25	325	292	313	1.06	-12	11	-23	2
Auto Manufacturers	GM	General Motors Co	3.5	Oct-18	103.25	120	140	109	1.07	-12	12	-24	-5
Commercial Services	RLGY	Realogy Group LLC	9	Jan-20	109.13	288	287	277	1.19	-11	-17	6	-14
Commercial Services	URI	United Rentals North America Inc	7.375	May-20	108.50	252	236	242	1.17	-10	-12	2	-37
Electric Utilities	AES	AES Corp/VA	7.375	Jul-21	112.00	319	277	312	1.23	-7	17	-24	-15
Metals & Mining	AKS	AK Steel Corp	8.375	Apr-22	88.50	915	852	911	0.84	-3	-15	12	-14
Commercial Services	FDC	First Data Corp	12.625	Jan-21	119.50	329	301	338	1.38	9	-28	37	-53
Gaming, Lodging & Leisure	RCL	Royal Caribbean Cruises Ltd	5.25	Nov-22	107.25	216	165	241	1.14	25	38	-13	12
Technology	FSL	Freescale Semiconductor Inc	10.75	Aug-20	109.00	168	192	208	1.19	39	-22	61	30
Textile & Apparel	LEVI	Levi Strauss & Co	6.875	May-22	110.00	254	241	307	1.20	53	49	4	35
Commercial Services	CAR	Avis Budget Group Inc	5.5	Apr-23	104.75	278	253	339	1.10	60	85	-25	45
Metals & Mining	Χ	United States Steel Corp	6.875	Apr-21	102.50	462	487	523	1.07	61	57	4	54
Diversified Telecom	S	Sprint Communications Inc	7	Mar-20	110.00	301	387	385	1.20	84	96	-12	89
Electric Utilities	CPN	Calpine Corp	6	Jan-22	109.38	205	313	371	1.18	166	125	41	109
Advertising Dependent Media	MNI	McClatchy Co/The	9	Dec-22	101.00	689	917	923	1.05	234	257	-22	230

Source: BofA Merrill Lynch Global Research

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Recommendation	Investor Action Points (Cash and/or CDS)	Primary Investment Return Driver
Overweight-100%	Up to 100% Overweight of investor's guidelines	Compelling spread tightening potential
Overweight-70%	Up to 70% Overweight of investor's guidelines	Carry, plus some spread tightening expected
Overweight-30%	Up to 30% Overweight of investor's guidelines	Good carry, but little spread tightening expected
Underweight-30%	Down to 30% Underweight of investor's guidelines	Unattractive carry, but spreads unlikely to widen
Underweight-70%	Down to 70% Underweight of investor's guidelines	Expected spread underperformance
Underweight-100%	Down to 100% Underweight of investor's guidelines	Material spread widening expected

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