

## U.S. CREDIT ALPHA

### Finding a Range

After trading in a fairly tight range for most of the week, CDX IG and HY were able to continue their rally, helped by the large positive surprise in the July payroll report. Earnings trends were more of the same with a soft top line; however, successful cost cutting allowing most companies to beat EPS estimates. News out of Washington was focused on the “Cash for Clunkers” or the CARS program as the government requested another \$2bn following the initial \$1bn subsidy.

#### Focus: PIK of the Litter

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Toggle bonds are a prominent vestige of the 2005-07 credit bull market. We analyze the effect of PIK options' expiration on the market-implied cash-to-PIK premium, along with the anticipated technicals owing to upcoming changes to the index eligibility of PIK bonds, and offer cash-PIK relative value trade recommendations.

#### Investment Grade: Thinking Shorts

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Given the broad-based positive momentum in CDS, we recommend that investors looking to set short positions do so in credits likely to face, in addition to unfavorable demand trends, other catalysts for weakness that could drive spreads wider in the near term. We highlight short recommendations on four credits that could face potential near-term headwinds.

#### Hybrid Capital: High Beta Hybrids Look Attractive

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In light of the significant price action in high beta insurers, we revisit our recommendations for hybrids in that space. We find that LNC and XL hybrids appear cheap to fair value while LIBMUT and GNW hybrids appear rich. In the bank space, despite the rally relative to more senior debt, DRDs look cheap yielding 4-5pts more than corresponding trust preferreds on a tax-adjusted basis.

#### High Yield: How High Can CDX.HY12 Go?

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Inquiry about further upside potential has increased following unprecedented performance year-to-date. Using a similar approach to the analysis in last week's Investment Grade section, we believe further upside is limited for the HY synthetic index; the cash market is likely to have modestly more upside due to positive technicals and a negative CDS-cash basis.

#### Leveraged Loans: The Extension Tug of War

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Loans were flat while LCDX outperformed, and the LCDX/HYCDX12 relationship diverged more to 5pts. In July, Leveraged loans lagged high yield slightly, gaining only 4.70%, but maintained their 2009 advantage over high yield (40.96% versus 38.37%).

#### Structured Credit & Volatility Products: Relative Value across 7-10% Tranches

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Mezzanine tranches have tightened significantly on the back of positive financials earnings news and the July rally in index spreads. We analyze relative value across 7-10% tranches for trade opportunities and find that CDX.9 5y 7-10% trades wide relative to its peers after adjusting for portfolio differences.

PLEASE SEE ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES STARTING AFTER PAGE 29

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## OVERVIEW

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## Finding a Range

After trading in a fairly tight range for most of the week, CDX IG and HY were able to continue their rally, helped by the large positive surprise in the July payroll report. Cash outperformed, which is consistent with the normal lag in the market as we had witnessed CDS outperform the past few weeks. Equities were also higher with the S&P 500 reaching levels last seen in November 2008. Distressed financials outperformed significantly with AIG up 63% and Radian gaining 83% on Wednesday. Banks also benefited from the Bank of England's decision to pump \$85bn into the market to keep rates low.

Earnings trends were more of the same with a soft top line; however, successful cost cutting allowed most companies to beat EPS estimates. Same-store sales for retailers confirmed this trend as they came in modestly below guidance, but most retailers continue to hit earnings targets and gave a more positive outlook.

News out of Washington was focused on the "Cash for Clunkers" or the CARS program, as the government requested another \$2bn following the initial \$1bn subsidy. The positive effect of the program was demonstrated in July vehicle sales of 11.3mn. This has allowed most dealers to clear excess inventory. The rally in Ford continued on the back of the positive sales data and CDS was 6pts tighter this week. AXL CDS was also 8pts better after earnings even though the company continued to burn cash. The market took solace in management's comments that it hopes to restructure outside bankruptcy. Cooper-Standard was not so fortunate as it filed for Chapter 11.

As liquidity begins to diminish in August we believe the market should hold strong through Labor Day. Issuance was significant this week with more than \$20bn of investment grade bonds. Previously out of favor financial and REIT deals were met with a strong appetite from investors as GECC and Citi both rallied in the secondary. Supply should moderate in the coming weeks as market participants look to take the vacations they didn't get last summer. News flow should also slow following the conclusion of most 2Q earnings announcements next week.

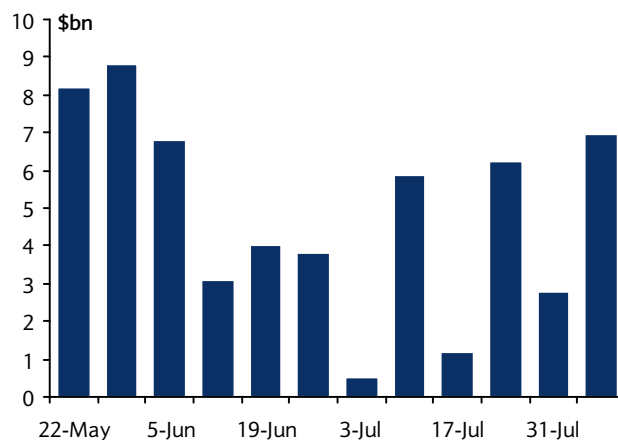
## Weekly Index Changes

	Thursday Close	Last Week Close	4-week Average
Credit Index (bp)	216	224	245
CDX.IG.12 (bp)	111	111	122
High-Yield Index (\$ price)	86.35	85.08	82.86
CDX.HY.12 (\$ price)	90.88	90.63	87.51
Leveraged Loan Index (\$ price)	82.29	81.78	80.56
LCDX12 (\$ price)	95.50	93.35	91.34

Note: CDX levels are mid-market and are not adjusted for defaults.

Source: Barclays Capital

Figure 1. Investment Grade Fixed Rate Financials Issuance



Source: Barclays Capital

It is important for accounts to position for September when we believe new issue supply will return and provide a better equilibrium for the robust demand for credit. In this week's focus piece we highlight the addition of PIKs to the High Yield Index on September 30. There will be \$18bn of PIKs added to the Index, which represents 2.5% by par value. This should create increased demand for PIK bonds, and we believe there are several instances where they trade cheap to pari passu cash pay bonds.

## FOCUS

## PIK of the Litter

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## European High Yield Strategy

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Toggle bonds are a prominent vestige of the 2005-07 credit bull market. At the time of issuance, toggles were generally added to the U.S. High Yield Index and remained index-eligible as long as interest was paid in cash. Once the issuer exercised the option to PIK the interest payment, the toggle bond was removed from the index. However, that changes September 30, when all PIK bonds will become eligible for inclusion. This will result in 22 bonds, covering \$17.7bn of debt, entering the index. This universe will represent 2.5% (by par) of the U.S. High Yield Index. This change will also apply to the European High Yield Index; however, most of the outstanding European PIKs have CLN- or FRN-like structures that make these securities ineligible for index inclusion.

Prior rule: No PIKs allowed, but toggles in cash-pay mode were eligible.

New rule (effective September 30): PIKs, including original issue PIKs, are eligible.

We expect the rule change to benefit PIK valuations in general as investors add exposure to match index weightings. Specifically we anticipate that PIKs from non-distressed issuers, PIKs that represent a large component of an issuer's index-eligible debt, and the most liquid PIKs will improve the most. To date, PIKs have traded cheap to pari cash-pay bonds because of investors' reluctance to purchase this security type. However, we believe that the recent rally provides an incentive to search for value in non-traditional securities. From a technical standpoint, we believe that Univision, Neiman Marcus, and, to a lesser degree, First Data are likely to benefit disproportionately.

Furthermore, the index rule change provides a good opportunity to refresh developments and opportunities in the PIK universe:

**PIKs are getting closer to their expiration dates:** Toggles were typically issued with the ability to PIK for 4-5 years; as a result, some of those issued in 2005 and 2006 have PIK expiration dates as early as 2H10.

**Relative value:** In general, PIKs trade cheap to pari cash-pay bonds. Some PIKs are cheaper than others according to our models. Among more liquid PIKs, we believe First Data, Energy Future Holdings (TXU), and Freescale are the most attractive.

**European relative value:** While index inclusion is unlikely to be a catalyst, we believe that European PIKs been overlooked in the recent rally. We highlight several issues—Cognis, BCM Ireland (Eircom), and Ardagh Glass—that offer attractive investment opportunities, in our opinion.

## The Future of Toggles

Now that most high yield issuers have opted to exercise their PIK options, the logical question is whether they will resume paying cash interest prior to the expiration date. We don't believe they will, for two reasons. First, most are trading well below par. Even if fundamentals rebound, the issuers are better served conserving the cash and/or buying the PIKs back in the open market. As shows in Figure 1, an issuer with the option to pay a 9% cash coupon per annum or 9.75% of additional securities has an economic incentive not to pay cash if the PIK is trading below \$92.3. The issuer could instead pay in kind and buy back

the additional securities in the open market<sup>1</sup> for less than the cash interest payment. This perspective ignores the transaction costs of repurchasing debt and/or other benefits associated with the positive signal that a cash payment would send to investors, but overall, we believe that most issuers will err on the conservative side when deciding whether to go back to paying cash.

**Figure 1: Breakeven Price of Cash Pay versus PIK Bonds**

Coupon (%)	Interest if in Cash Pay (%)	Additional Securities if PIK'ing	Breakeven Price
9%	9.00	9.75	92.31
10%	10.00	10.75	93.02
11%	11.00	11.75	93.62
12%	12.00	12.75	94.12
13%	13.00	13.75	94.55

Source: Barclays Capital

To date, very few issuers have reverted to cash pay, and the bonds were generally trading near \$90 before the announcement. Longer term, some PIKs could rally toward breakeven levels and may benefit from a second-order effect. We would expect PIKs that break into the low 90s to rally considerably relative to cash-pay bonds, if the issuer has cash-pay bonds also, as investors anticipate a switch back to cash pay.

Conversely, we expect few toggle issuers that are paying cash to switch to paying in kind, given that most are higher quality, non-cyclical companies with bonds trading well above par.

### Index Membership Has Its Privileges

As announced in early June, PIKs will be eligible for the High Yield Index beginning September 30. Currently, only toggles that are paying coupon in cash are included in the index, and once the issuer exercises the PIK option, the toggle bond is removed. Starting with the October returns universe, all PIKs will be added to the index. We estimate that there are 22 index-eligible PIK bonds representing \$17.7bn of debt, or roughly 2.5% of the index by par.<sup>2</sup>

<sup>1</sup> Assuming that the issuer has room under its covenant package.

<sup>2</sup> Floaters and illiquid PIKs (due to pricing difficulties) are excluded from the High Yield Index, so the size of the PIK market is larger.

Figure 2: Summary of Index-Eligible PIKs

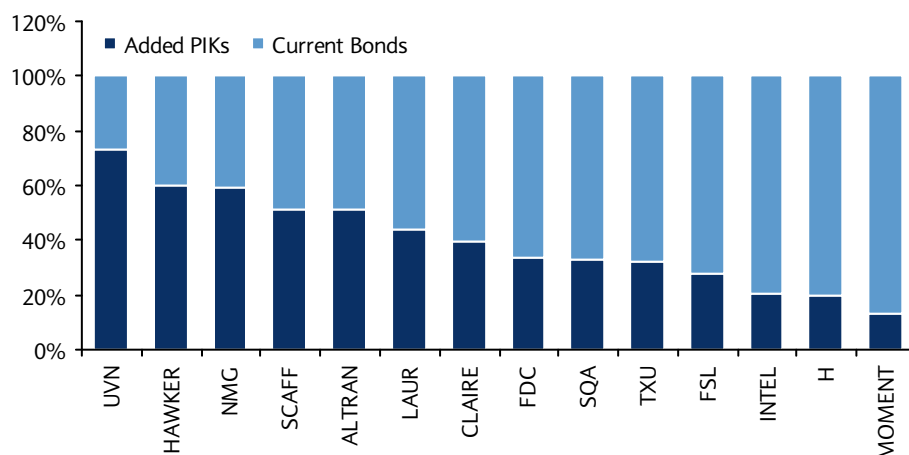
Description	Amount Outstanding (\$mn)	Coupon (%)	Maturity Date	Moody Rating	S&P Rating
American Media Operation	311	14.000	11/1/2013	NR	CCC-
Atrium Cos Inc	205	15.000	12/15/2012	C	CC
Claire's Stores Inc	387	9.625	6/1/2015	CA	CCC+
CW Media Holdings Inc	338	13.500	8/15/2015	CA	CCC
Energy Future Holdings	2,650	12.000	11/1/2017	CAA1	B-
First Data Corp	3,180	10.550	9/24/2015	CAA1	B-
Freescale Semiconductor Inc	848	9.875	12/15/2014	CAA2	CCC
Hawker Beechcraft Corp	275	8.875	4/1/2015	CAA3	CCC-
Intelsat Bermuda Ltd	2,400	11.500	2/4/2017	CAA2	CCC+
Momentive Performance Materials	193	10.125	12/1/2014	CAA2	C
Neiman Marcus Group Inc	735	9.750	10/15/2015	CAA2	B-
Realogy Corp	617	11.000	4/15/2014	CA	C
Sequa Corp	241	13.500	12/1/2015	CAA2	CCC
Symbion Inc	195	11.750	8/23/2015	CAA1	NR
Texas Comp Elec Hold Llc	1,847	11.250	11/1/2016	CAA1	CCC
Univision Communications	1,500	10.500	3/15/2015	CAA2	CCC
Varietal Distribution	713	11.250	7/15/2015	CAA1	B-
Allison Transmission	500	12.000	11/1/2015	CAA2	CCC+
Laureate Education	433	11.000	8/15/2015	CAA1	CCC+
Surgical Care Affiliates	157	9.625	7/15/2015	B3	B-

Source: Barclays Capital

We expect the bonds entering the index to benefit from a modest technical boost as investors adjust their portfolios in response to the weighting changes. In determining which bonds managers are likely to purchase, we look at three factors:

- Non-distressed credits—the universe of PIK issuers is somewhat biased in that companies paying PIK interest are more likely to be distressed. However, we expect portfolio managers to be more willing to add exposure to higher-quality credits that are likely to survive rather than investing in distressed names.
- Issuers that have a lot of PIK bonds relative to their index allocation—For issuers whose PIK bonds are a relatively small portion of total debt, investors may choose to purchase additional cash pays from the same issuer rather than PIKs, given less concern about tracking error. In contrast, issuers whose PIKs represents a larger portion of total debt will be more likely to be bought—out of necessity alone (Figure 3). In addition, we recommend focusing on large issuers, because managers are more likely to be indifferent toward small issuers, again given less concern about tracking error. It is worth mentioning that most investors benchmark to a capped index; therefore, for issuers with index-eligible debt already above the cap, there would be no net change in index debt, merely an allocation shift to a combination of cash pay and PIKs.
- Liquid PIKs—In general, secondary market liquidity for PIKs is considerably lower than that for pari cash-pay bonds. As a result, investors should focus on the most liquid alternatives.

Figure 3: Issuers with the Largest PIK-to-Non-PIK Ratios



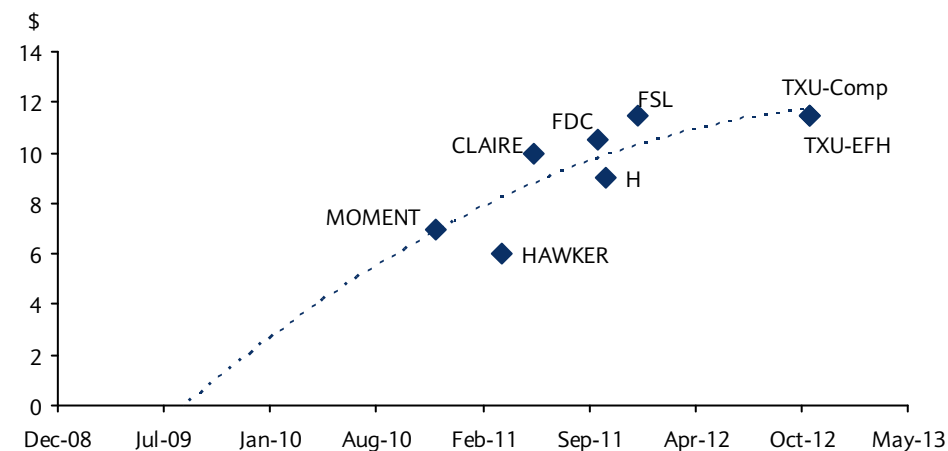
Source: Barclays Capital

Given these constraints, we believe the PIKs issued by Univision, Neiman Marcus, and, to a lesser extent, First Data (which will leap into the top 10 largest high yield issuers) are likely to benefit the most from technicals.

### Time Is Running Out!

The majority of toggles have expiration dates before the bond's maturity. Toggles were typically issued 10NC5 or 8NC4, with the PIK expiring on the first call date. Consequently, the toggles have a variety of expiration dates that will lead to relative value differences. We view the approach of the toggle expiration as analogous to the theta of an equity option. In the marketplace, PIKs trade with some negative convexity. For example, several PIKs trade 12pts behind pari passu cash-pay bonds three years prior to expiration, while other PIKs trade 10pts behind pari passu cash pay bonds two years prior to maturity (Figure 4). This market pricing suggests that a disproportionate amount of tightening will occur closer to the end of the option's life because of the general aversion to toggles and PIKs.

Figure 4: Price Premium of Cash Pay Bonds to PIKs versus PIK Option Expiry



Source: Barclays Capital

## Relative Value Opportunities

In general, the market's aversion to PIK bonds has made them attractive on a fundamental basis to cash-pay comps. The level of attractiveness, however, varies by issuer. We have historically valued PIKs relative to cash pays (where possible) using two approaches: first, we use CDS market prices and recovery marks to calculate default probabilities and losses given default at each payment date. For these issues already paying in kind, we assume that the issuer will PIK for the life of the option.<sup>3</sup> In our view this valuation approach is more appropriate for lower-quality high yield credits. Second, we consider a scenario in which a PIK investor chooses to monetize the additional bonds received by selling them in the open market. Here, we assume that PIK prices are constant through the life of the option and calculate the cash deficiency of the PIKs at each payment date relative to the cash pays and present value the cash flows. This approach, which assumes that default is not a likely outcome, is more appropriate for higher-quality high yield names. Figure 5 depicts a subset of PIKs in the market, current prices, issue size, and PIK proportion relative to total index debt (pro forma), and PIK versus cash pay price differentials compared with fair value estimates from our two approaches. Using this analysis as a starting point, we highlight some of the most attractive PIKs, in our view.

**Figure 5: Liquid PIK Statistics and Relative Valuation**

Toggles						Fair Value vs Pari Passu Cash Pays			
Issuer	Coupon	Maturity	Price	Issue Size	% of Issuer Debt	Price Diff	Price Diff w/Accrual	CDS Implied Def. Prob.	Cash Conversion
MOMENT	10.125	12/1/2014	60	193	13%	7	8.7	1.3	4.7
FSL	9.125	12/15/2014	60	848	28%	12	12.8	4.5	7.1
H	11	4/15/2014	41	617	20%	9	11.9	5.3	13.6
CLAIRE	9.625	6/1/2015	41	387	40%	7	8.8	5.2	9.6
FDC	10.55	9/24/2015	79	3180	34%	11	13.9	0.8	3.7
TXU-EFH	11.25	11/1/2017	77	2650	57%	10	13.5	3.8	5.4
TXU-Comp	10.5	11/1/2016	66	1847	20%	11	13.8	6	9.3

Source: Barclays Capital

### First Data 10.55% 2015

We view the FDC 10.55s as one of the cheapest PIK bonds, at \$10.5 behind the cash pays (\$14 when accrued is included)—despite the market rally, which has narrowed this relationship—and with only two years remaining before the PIK expiration. CDS spreads have tightened considerably, implying a much lower default probability and, therefore, less expected loss to the PIKs. Much of the rally was caused by an article in last week's *Financial Times* that mentioned First Data as a potential IPO candidate. While we acknowledge that an IPO of a 9x leveraged company would be challenging, any infusion of junior capital should benefit this trade. Based on our analysis of loan and bond covenants, we also believe the PIKs could benefit if the company decides to pursue a debt exchange or buyback.

### TXU-EFC 11.25% 2017, TXU-Comp 10.5% 2016

TXU has two PIK bonds, one each at the TCEH and EFH entities. Although both trade at roughly equal discounts to their respective cash pay comps, we view the EFH PIK as more attractive because of its lower risk of credit loss (as illustrated by tighter CDS spreads) and

<sup>3</sup> See, for example, *U.S. Credit Alpha* dated November 14, 2008.



higher dollar price (which allows holders, in theory, to monetize the additional securities received through open market sales). Relative to other PIKs, both TXU PIKs have the advantage of potentially better recovery prospects but have longer PIK periods, i.e., more theta. Despite this, we believe investors are more than compensated for owning the PIKs, particularly for EFH.

#### Freescall 9.125% 2014

In our opinion, Freescall's 9.125s are another inexpensive PIK bond. According to our model incorporating CDS implied default probabilities, the bonds should trade 4.5pts behind the pari 8.875s but instead trade 12-13pts behind, one of the widest discrepancies for PIKs with 2011 expirations. With 20x leverage, recovery potential is low, and as a result, we use a 10% recovery rate. If we assume a 0% recovery, then the PIKs should trade 5.5pts behind the cash pays (i.e., a 10% change in the recovery assumption moves the fair value gap by roughly \$1). Our credit analyst Jeff Harlib maintains a Market Weight recommendation on Freescall bonds.

### Implications for European High Yield

In the European market, most PIK instruments are extremely narrowly held and illiquid leveraged loan instruments that trade on private documentation. Outside of the loan universe, there are some public documentation PIK instruments that are traded. The main reason that public PIK instruments are rare is that the credit crunch hit before more could be issued. From an index-inclusion standpoint, the majority of outstanding PIK notes are ineligible because they are credit-linked notes or have FRN structures. Only one PIK is eligible to enter the Barclays Capital high yield indices in October—Ardagh Glass 10.75% due 2015, as it has a fixed coupon. That said, we feel that this segment of the market has been overlooked in the recent rally and believe that select issues offer attractive investment opportunities.

### Trades in PIKs

Below, we discuss our favorite PIK notes in the European market. Liquidity is a concern in terms of execution, given that PIKs are the most deeply subordinated tranche in a capital structure.

- Cognis E+700bp 2015 PIK—We are currently Overweight the PIK. At its last quoted price of €65, the PIK was €27.5 lower than the 9.5% senior bond. The historical relationship between the cash pay and PIKs has generally been notably tighter, and with the company continuing to buy back the PIKs post-1Q<sup>4</sup> results, there is also a positive technical angle to buying the PIKs instead of the cash pays.
- BCM Ireland (Eircom) E+700bp 2017 PIK—We believe that the capital structure could benefit from positive technicals. Currently, STT Communications has submitted a bid to the equity fund that holds the majority of Eircom's equity, with preliminary indications of support from the Employee Share Ownership Trust and unions. While a new owner may not deleverage the credit, it should provide increased stability, removing the uncertainty that has been weighing on the capital structure, and potentially execute a buyback of the PIK, in our analysts' view. Currently, the PIK is quoted at €37.5 offered, a €31.5 differential to the 2016 FRN—a wide gap that should narrow if the offer is finalized.

<sup>4</sup> See *European High Yield: H2 09 Industrials Outlook* for details.

- Ardagh Glass 10.75% 2015—We still see value in this PIK ahead of its inclusion in the European index. At the current price of €75, the upside is limited, but we still see a natural bid for this instrument from index tracking funds. Currently, our analysts are Marketweight on the PIK (Overweight on all other bonds in the capital structure).<sup>5</sup>

## Conclusion

Over the next few months, PIK bonds will provide investors with ample opportunities, in our view. The addition of PIKs to the High Yield Index should boost valuations through the technical demand of index buyers. Furthermore, most PIKs look attractive versus cash pays on a fundamental basis and should benefit as the suite of higher yielding investment alternatives declines amid the broader market rally.

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<sup>5</sup> See *European High Yield: H2 09 Industrials Outlook* for details.

## INVESTMENT GRADE

## Thinking Shorts

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Cash spreads rallied further during the week on continued positive earnings news and macroeconomic data. The Barclays Capital Credit Index was tighter by 8bp, at 216bp, with tightening seen across sectors and across the quality spectrum. CDX IG12 underperformed cash and closed Thursday at 111bp, unchanged on the week.

Last week, in *U.S. Credit Alpha*, July 31, 2009, we analyzed the spread composition of the CDX IG12 constituents to estimate a potential floor for traded index levels. Based on our analysis, we believe that overall risks in CDS appear skewed to the downside at current levels. While this sets the stage for potential short trades, we remain cognizant of the broad-based positive momentum in CDS. Markets have generally reacted positively to earnings-related announcements, even though recent performance has mainly been a result of aggressive cost reduction to maintain margins and generate cash flow. At a revenue level, second-quarter performance has missed expectations and points to continued weakness in demand (Fig 1a, b). We think it is unlikely that broad-based signs of pressure at the revenue level will move markets wider during the remainder of the earnings season (more than 85 out of the 125 CDX IG12 credits have reported earnings thus far).

Against this backdrop, we recommend that investors looking to set short positions do so in credits likely to face, in addition to unfavourable demand trends, other catalysts for weakness that could drive spreads wider in the near term. Given the negative cash-CDS basis, we continue to recommend CDS as a means to express most short positions. Below, we highlight recommendations from our High Grade Fundamental Research team on credits that could face potential near-term headwinds.

**Valero Energy (VLO) (Catalysts: Narrow light/heavy differentials, potential legislation):** Valero Energy recently reported 2Q09 results below expectations, primarily due to lower diesel and jet fuel margins and lower sour crude oil differentials. In addition to narrow light/heavy differentials nearly eliminating VLO's traditional feedstock advantage over other refiners, the company is also facing headwinds from the carbon legislation currently making

Figure 1a: Ratio of Positive to Negative Revenue Surprises

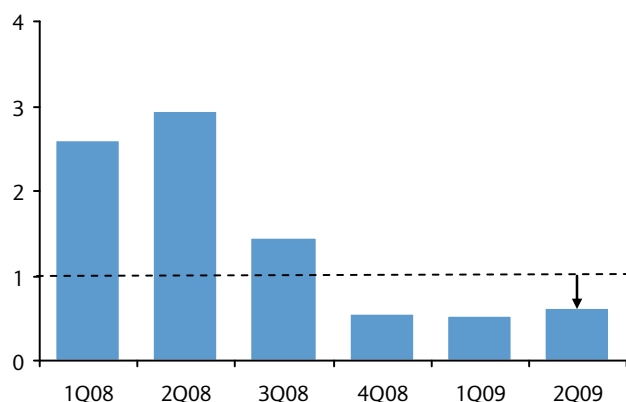
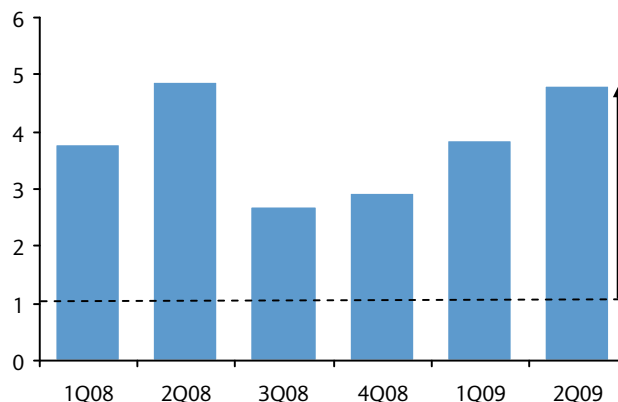


Figure 1b: Ratio of Positive to Negative EPS Surprises



Note: Calculations are based on a sample of 120+ Investment Grade companies with debt > \$1bn that reported 2Q09 earnings by August 5, 2009.  
Source: CapitalIQ, Barclays Capital

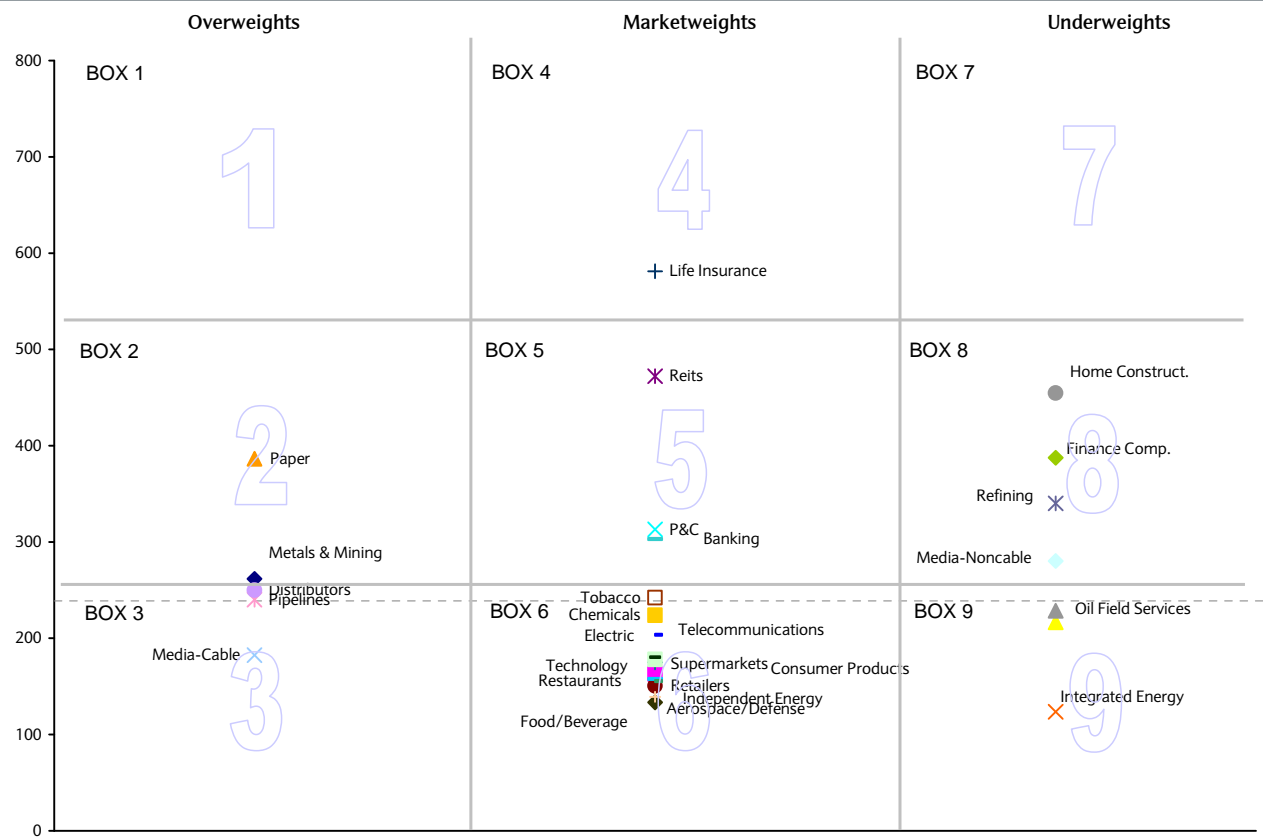
its way through the Congress. Although we think the chances of the legislation being passed into law in its current form are far from certain, it is still an overhang. Even if VLO is able to pass through the full cost of carbon to consumers, the company (and the downstream sector) runs the risk of adversely affecting demand, which could further constrain utilization rates and profitability. For more details, please see Harry Mateer's [report](#).

**Motorola Inc. (MOT) (Catalysts: Handset spin, competitive pressure in smart-phone marketplace):** Motorola recently reaffirmed that the handset spin was on schedule. We believe this could act as negative catalyst for credit, depending on capitalization. We continue to believe that the smart-phone marketplace and, more specifically, Android-based phones will increasingly become crowded, which could make it difficult for the company to increase share of smart phones. In our view, the value proposition for mobile phones is moving to the OEM platform (RIM, Apple, Palm, Nokia) and away from the actual device design. Additionally, Motorola was unwilling to commit to having the mobile business be cash flow positive for full-year 2010. Ericsson's purchase of Nortel's wireless business is also likely to increase competitive pressure on MOT's infrastructure business. We continue to believe MOT should trade behind XRX and CBS, both names that have solved liquidity issues and generate significant amounts of free cash flow. For more details, please see Hale Holden's [note](#).

**GATX Corp. (GMT) (Catalysts: Potential acquisitions, new issuance):** GMT reported a weak second quarter, with management reducing its full-year EPS guidance to \$2.00 from \$2.50, implying even weaker earnings over the next two quarters. Management also maintained that it would be aggressive in pursuing acquisition opportunities. Given the company's liquidity situation, GATX would likely need to raise new debt and leverage up to fund any purchases. We see this as a near-term catalyst to push CDS wider. For more details, please see Matthew Vittorioso's [note](#).

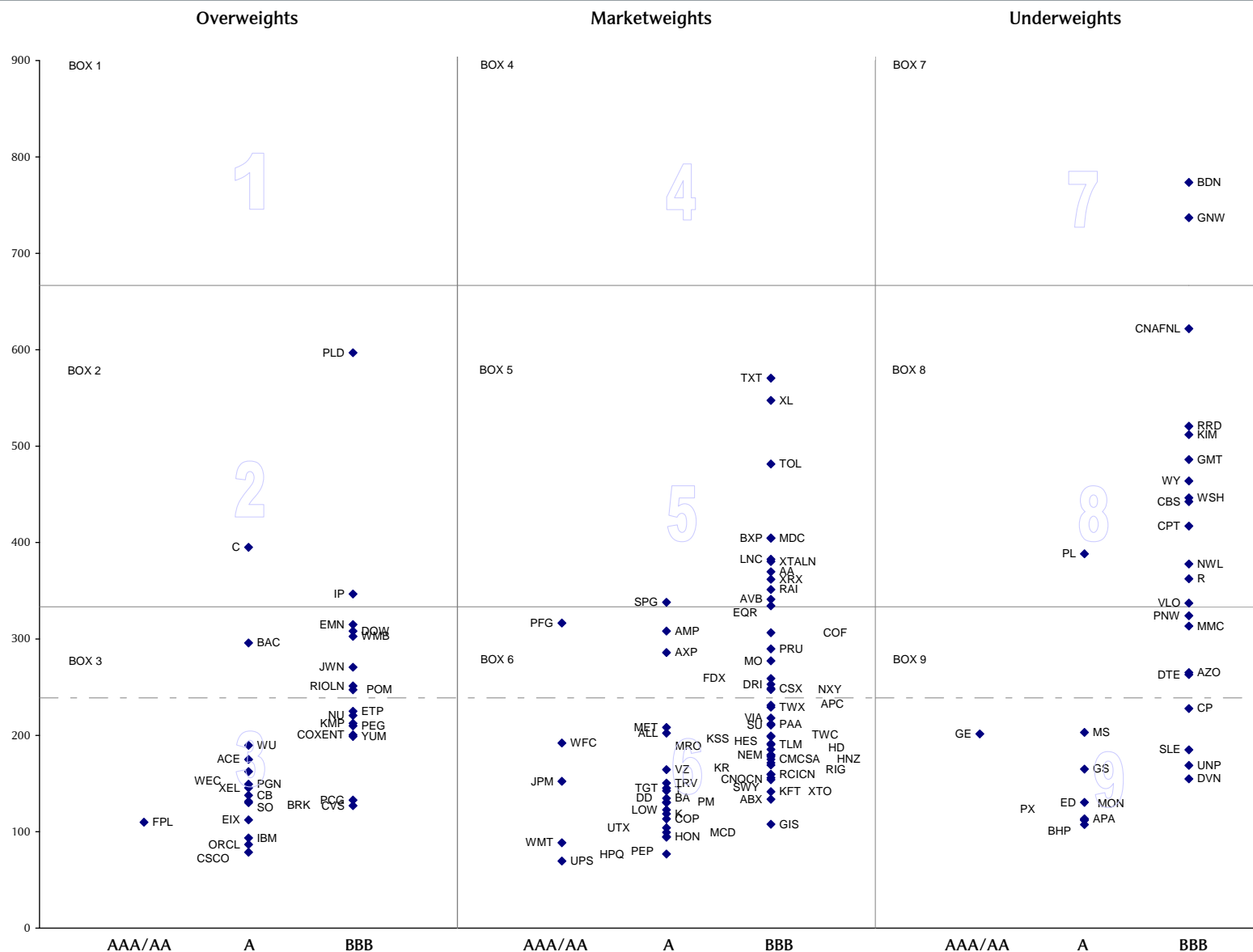
**RR Donnelley (RRD) (Catalysts: Potential acquisitions, increased competition):** RR Donnelley posted soft 2Q results that were marginally below estimates. The company noted that its cost-cutting efforts were unable to offset price and volume declines. RRD noted that the pace of declines in 2Q was similar to the first quarter, implying limited to no incremental improvement. 2Q09 earnings beat primarily reflects a tax adjustment and does not warrant tightening post earnings. Total debt declined to \$3.62bn from \$4.1bn at YE08. While the debt reduction is incrementally positive, we believe it partly reflects RRD's focus on positioning its balance sheet ahead of the failed Quebecor bid. We continue to believe that RRD spreads face the potential risk of debt-financed acquisitions, increased competition with its former CEO/chairman recently named Quebecor chairman and Vertis also recently naming a new CEO, long-term pressure in end markets from e-books, and higher mailing costs and negative operating leverage. For more details, please see Hale Holden's [note](#).

Figure 2: Sector Relative Value Monitor



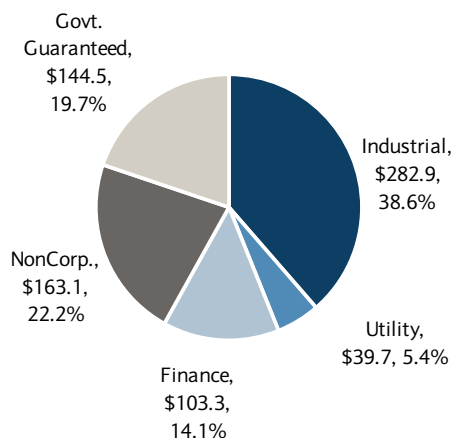
Note: Dashed line represents the average OAS for the Barclays Capital US Corporate Index. Levels as of August 6, 2009. Source: Barclays Capital

Figure 3: Issuer Relative Value Monitor



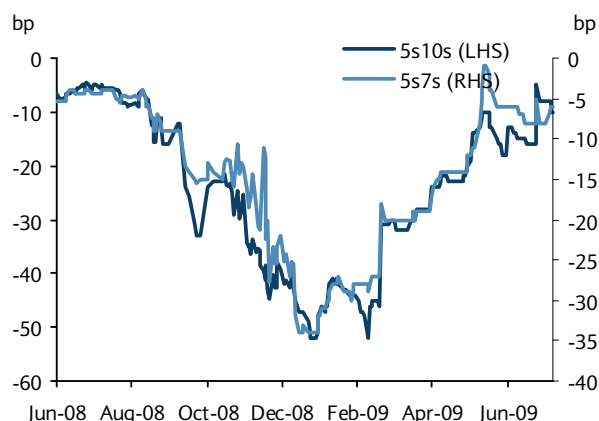
Note: Dashed line represents the average OAS for the senior unsecured bonds in the Barclays Capital U.S. Corporate Index. Levels as of August 6, 2009. This table does not represent our full coverage universe. A full list of ratings can be found on our research website. Source: Barclays Capital

## YTD2009 Fixed IG Supply



Source: Barclays Capital

## CDX.IG Curve



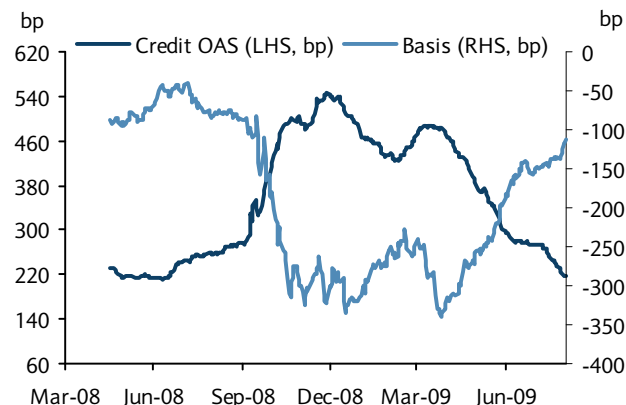
Note: A portion of the significant steepening in CDX.IG curve levels on March 20, 2009, is attributable to the roll from Series 11 to Series 12. Source: Barclays Capital

## CDX.IG versus VIX



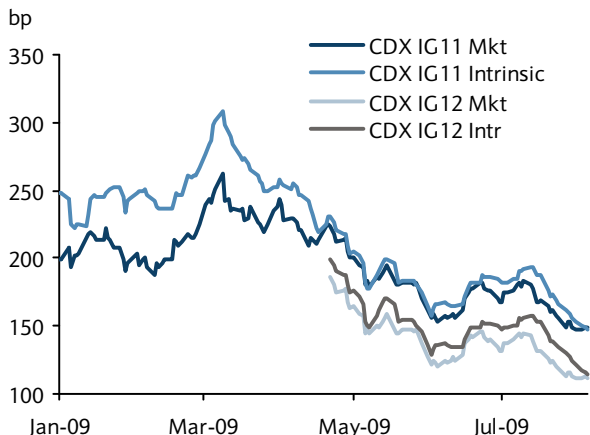
Note: A portion of the significant tightening in CDX.IG on March 20, 2009, is attributable to the roll from Series 11 to Series 12. Source: Markit, Barclays Capital

## Basis



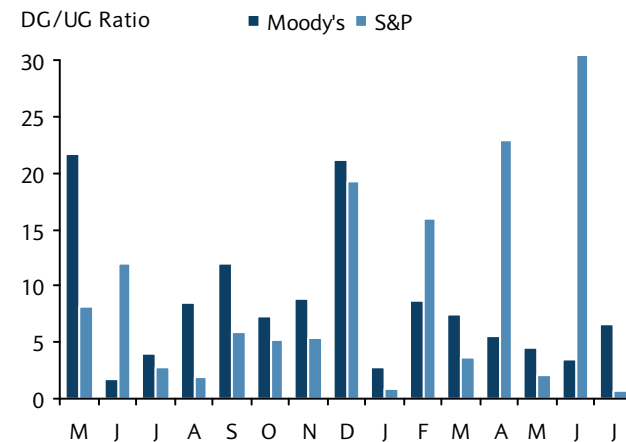
Basis defined as CDX.IG OTR spread - corporate Libor OAS. Source: Barclays Capital

## CDX.IG Mkt vs. Intrinsic



Source: Barclays Capital

## Par Downgrade/Upgrade Ratio



Source: Moody's, S&P, Barclays Capital. Note: The S&P ratio for June 2009 was 9.35.

## HYBRID CAPITAL

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## High Beta Hybrids Look Attractive

High beta insurers have rallied along with, and in many cases outperformed, the broader insurance space over the past month. As improving credit fundamentals and the enhanced prospects of a quicker-than-expected economic recovery have led to a compression of yields across the insurance space, investor demand for higher-yielding securities has partly driven the outperformance of these credits.

In light of the significant price action in the space, we revisit our recommendations for high-beta insurance hybrids. We analyze five insurers – Genworth Financial (GNW), Liberty Mutual (LIBMUT), Lincoln National (LNC), XL Capital (XL), and AIG (AIG) – all of which trade at wider spread levels compared with their peers. With the exception of GNW, the senior bonds of these issuers have tightened more than 100bp over the past month (Figure 1). The hybrid securities have also outperformed driven by the tightening in the senior parts of the capital structure. The rally was more pronounced for some of the higher yielding securities – in particular, the LIBMUT, AIG, and XL hybrids.

**Figure 1: Senior Insurance Spreads Have Tightened ...**

Security	Mid Price	Yield @ Mid Price	Spread Change (bp) *
AIG 8.25% 2018	\$ 66.0	15.3%	-162
GNW 6.515% 2018	\$ 66.0	13.2%	-39
LIBMUT 6.7% 2016	\$ 87.0	9.3%	-207
LNC 8.75% 2019	\$ 108.5	7.5%	-107
XL 5.25% 2014	\$ 90.0	7.7%	-146

\*Spread change since July 1, 2009. Source: Barclays Capital.

With the steep rally along the capital structure, we compare the fair value of the hybrid securities (as implied by senior unsecured spreads) with the current price levels to spot any relative value opportunities (Figure 2).

- Lincoln hybrids have lagged the recent rally even though senior LNC debt has tightened by more than 100bp. As a result, these securities appear cheap. We expect hybrids to outperform the more senior parts of the capital structure.
- XL hybrids have rallied materially as senior spreads have tightened almost 150bp. Despite the rally, XL 6.868s look attractive relative to senior bonds. Also, the 6.868s should rally relative to the 6.5s – we estimate that the XLSTO bonds should trade about \$7 higher than the 6.5s given their higher current and back-end coupons; the bond currently trades \$7 lower than the 6.5s.
- The AIG 8.175 hybrids have tightened more than 600bp on the back of the rally in senior bonds and equity. However, these securities still appear cheap and we would expect them to outperform the more senior parts of the capital structure if the rally in AIG continues. That said, our insurance analyst, Tom Walsh, is cautious on the credit fundamentals. In particular, given the part government ownership of the company, the hybrid securities are exposed to substantial policy risk.



- The LIBMUT and GNW hybrids appear rich with the LIBMUT securities trading more than \$8-11 above estimated fair value. For investors bullish on these credits, we would recommend buying senior bonds, which offer better risk-reward profile, in our opinion.

Figure 2: ... Driving the Rally in Hybrids

Security	Mid Price	Yield @ Mid Price	Spread Change (bp) <sup>1</sup>	Fair Value Estimate	Credit View <sup>2</sup>
AIG 8.175%	\$ 36.5	22.3%	-676	\$ 40.5	NA
GNW 6.15%	\$ 48.5	13.5%	-27	\$ 46.3	Underweight
LIBMUT 7%	\$ 63	12.1%	-89	\$ 52.1	NA
LIBMUT 7.8%	\$ 69	11.6%	-182	\$ 56.8	NA
LIBMUT 10.75%	\$ 90.5	11.9%	-276	\$ 78.8	NA
LNC 7%	\$ 66.5	10.8%	-60	\$ 68.9	Market Weight
LNC 6.05%	\$ 63	10.4%	-33	\$ 65.5	Market Weight
XL 6.5%	\$ 61	11.4%	-237	\$ 61.6	Market Weight
XLSTO 6.868%	\$ 54	14.3%	-502	\$ 68.1	Market Weight

<sup>1</sup>Spread change since July 1, 2009. <sup>2</sup> Analyst Tom Walsh's recommendations. Source: Barclays Capital.

### JP Morgan Exchange Offer

On August 4, JP Morgan announced a tender offer for its floating rate trust preferred securities. The company is offering to buy back any and all of the FRN hybrids listed in Figure 3 for cash at a \$60-63 price (on \$100 par) reflecting a \$3-7 premium above pre-announcement levels. The exchange is scheduled to close on August 11, 2009.

We don't find the terms of the exchange attractive and do not recommend participating in the exchange. At the exchange price, these securities yield about 8.6% which appears too high in comparison with JPM fixed-rate trust preferred securities – for instance at current levels, the JPM 6.45% hybrids yield 7.7%. Using the pricing of senior unsecured debt, we estimate that the fair value of the floating rate hybrids is \$12-15 higher than the exchange price offered.

Figure 3: JPM Hybrid Exchange Offer

CUSIP	Coupon	Maturity	Outstanding Amount (mn)	Exchange Price (\$100 Par)	Yield at Exchange Price
161480AA6	L+50	Feb-27	\$ 500	\$ 63	8.5%
31945HAA3	L+55	Feb-27	\$ 250	\$ 63	8.6%
161478AA0	L+55	Mar-27	\$ 300	\$ 63	8.7%
16162LAA1	L+62.5	Aug-28	\$ 250	\$ 63	8.7%
46626YAA0	L+95	Sep-34	\$ 475	\$ 63	8.6%
48123KAA4	L+95	Feb-37	\$ 850	\$ 60	8.6%
48123UAA2	L+100	May-47	\$ 750	\$ 60	8.7%

Source: Company Filings, Barclays Capital.

### Revisiting DRDs

At the peak of the credit crisis, market participants were charging substantial premium for bank DRD securities owing to their non-cumulative coupons, subordination in the capital structure and the potential for being wiped out in a nationalization event. However, with the

completion of the stress test and the improvement in banks' balance sheets as a result of capital raisings and hybrid exchanges, the risk premia for DRDs has decreased and these securities have rallied relative to trust preferred securities.

Despite the rally, we believe that DRDs look cheap relative to trust preferred securities. In Figure 4, we compare the yield of select bank DRDs with corresponding trust preferred securities. The BAC and JPM DRDs trade about 50bp back of the trust preferred securities while the difference is 150bp for WFC. In addition, DRD dividends are tax-advantaged and thus the effective yield of these securities is higher. In general, U.S. corporations can treat 70% of the dividends received from DRD securities as tax deductible.<sup>6</sup> Thus, assuming that 70% of the dividend is tax deductible and the marginal tax rate of the investor is 35% we estimate the tax-adjusted yield of these securities. After incorporating their different tax treatment, we find that the yield of the DRDs is between 4% and 5% higher than corresponding trust preferred securities. We note that the DRD treatment is only applicable for corporations. For individual investors and hedge funds, the dividend constitutes Qualifying Dividend Income (QDI) resulting in lower tax rates. Thus our earlier conclusion is broadly applicable for this investor class also.

**Figure 4: Tax-adjusted DRD Yields Appear Attractive**

Security	Mid Price	Yield to Worst	Tax-adjusted Yield	Trust Preferred Yield
BAC 8%	\$ 89.0	9.4%	13.0%	8.9%
BAC 8.125%	\$ 89.0	9.4%	13.0%	8.9%
JPM 7.9%	\$ 97.0	8.2%	11.3%	7.7%
PNC 8.25%	\$ 92.0	9.8%	13.5%	NA
WFC 7.98%	\$ 92.0	9.1%	12.6%	7.6%

Source: Barclays Capital.

The 4-5% pick-up in yield by moving from trust preferred securities to DRDs appears attractive, in our opinion. In particular, we believe that the premium that the market is charging for the different risks associated with DRDs, relative to trust preferreds, is excessive owing to the following reasons:

- **Non-cumulative coupons:** DRDs have non-cumulative coupons and as a result any deferred coupons are lost. However, despite facing fairly tough economic conditions none of the large US banks, with the exception of Citigroup, deferred coupons on their DRD securities. Even in the case of Citigroup, the company offered to exchange the DRD securities before deferring coupons on them.
- **Subordination in the capital structure:** Although DRDs are junior to trust preferreds, both securities are so deeply subordinated in the capital structure that we expect recovery in liquidation to be minimal for both the structures.
- **Nationalization:** We expect DRDs to significantly underperform the trust preferred securities in a nationalization. However, with the successful completion of the stress tests, we believe that this scenario is highly unlikely.

<sup>6</sup> The percent of dividends that are tax-deductible may be higher if the company receiving dividends owns more than 20% of the other corporation.

## Benchmark Yankee Tier 1 Performance

Description	Coupon	First Call	Backend	August 6, 2009		July 22, 2009		July 9 2009	
				Price	YTW	Price	YTW	Price	YTW
BNP Paribas	5.186	6/29/15	L + 168	67.0	9.2	66.0	9.1	64.0	9.0
Credit Suisse	5.86	5/15/17	L + 169	70.8	9.0	64.0	9.8	64.0	9.5
Deutsche Bank	5.628	1/19/16	L + 170	66.6	9.5	63.0	9.7	61.0	9.7
RBS	6.99	10/5/17	L + 267	51.0	14.3	49.0	14.7	48.0	14.7
Societe Generale	5.922	4/5/17	L + 175	66.9	9.6	64.0	9.8	62.0	9.7
UBS	7.247	6/26/11	L + 230	62.8	11.5	63.0	11.2	62.0	10.8

Source: Barclays Capital

## Benchmark Hybrids Performance

Description	Coupon	First Call	Scheduled Maturity	Backend	August 6, 2009		July 22, 2009		July 9 2009	
					Price	YTW	Price	YTW	Price	YTW
Banks										
Citigroup Inc	8.3	12/21/37	12/21/57	L + 417	86.5	9.7	72.5	11.5	71.0	11.7
CIT Group Inc	6.1	3/15/17	3/15/67	L + 181.5	7.8	77.6	6.0	99.6	29.0	21.3
JP Morgan Chase	6.45	2/2/37	1/15/87	L + 196	84.4	7.7	81.0	8.2	80.0	8.3
National City Corp	12	12/10/12	Perp	L + 861	104.3	10.4	103.0	12.7	103.0	12.4
Wachovia Bank	5.8	3/15/11	Perp	L + 93*	65.2	9.0	62.0	9.3	59.0	9.8
Wells Fargo Capital X	5.95	12/15/36	12/1/86	L + 185	81.2	7.6	77.5	8.0	73.0	8.5
Insurance										
AIG	8.175	5/15/38	5/15/58	L + 419.5	36.5	22.4	27.0	30.2	27.0	30.2
Allstate	6.125	5/15/17	5/15/37	L + 193.5	76.5	8.8	75.0	8.9	74.4	8.7
Chubb Corp	6.375	4/15/17	3/29/67	L + 225	83.6	8.3	78.0	8.6	76.0	8.6
Hartford Investment Group	8.125	6/15/18	6/15/38	L + 460.3	77.0	11.4	68.0	12.7	68.0	12.6
Progressive Corp	6.7	6/15/17	6/15/37	L + 201.8	77.6	9.1	71.0	9.9	68.0	10.1
Prudential Financial	8.875	6/15/18	6/15/38	L + 500	87.1	10.8	84.0	11.0	83.0	11.1
Travelers Cos	6.25	3/15/17	3/15/37	L + 221.5	80.5	8.6	78.0	8.8	77.9	8.6
Non-Financials										
CVS Corp	6.302	6/1/12	6/1/37	L + 206.5	78.0	9.1	73.0	9.6	73.0	9.1
Enterprise Products Oper	7.034	1/15/18	1/15/68	L + 268*	82.0	9.0	74.0	9.8	73.5	9.6
Dominion Resources Inc	6.3	9/30/11	9/30/66	L + 230	72.0	9.9	68.0	10.2	68.0	9.7
FPL Group Capital Inc	6.65	6/15/17	6/15/67	L + 212.5	82.0	8.5	79.0	8.6	80.0	8.2
Textron Financial	6	2/15/17	2/15/67	L + 173.5	50.0	12.7	45.0	13.9	45.0	13.6

Note: Scheduled Maturity can be different from Legal Final Maturity in some cases. Backend with \* indicates the backend is floored at a fixed rate. Source: Barclays Capital

## Benchmark \$1000 par DRDs

Description	Coupon	Backend	August 6, 2009		July 22, 2009		July 9 2009	
			Price	YTW	Price	YTW	Price	YTW
BAC	8.00	L+363	89.0	9.4	83.5	9.9	82.0	9.8
BAC	8.125	L+364	89.0	9.4	83.5	9.9	82.0	9.9
C	8.40	L+403 (7.7575% floor)	97.0	8.2	72.0	12.3	67.0	13.0
JPM	7.90	L+347	92.0	9.8	92.0	8.8	87.0	9.1
PNC	8.25	L+422	92.0	9.1	88.0	10.0	85.0	10.0
WFC	7.98	L+377	89.0	9.4	86.5	9.5	84.0	9.6

Source: Barclays Capital

## HIGH YIELD

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## How High Can CDX.HY12 Go?

The high yield market continues to rally, with CDX.HY12 up ½pt, to \$91, and a month-to-date return of 1.4% for the U.S. High Yield index. Given historically unprecedented performance for 2009, investor inquiry about further upside potential for the market has increased. Using a similar approach to the analysis in last week's Investment Grade section, we attempt to answer this question. First, we compute the intrinsic spread of the CDX.HY12 index (using today's constituents but their spreads as of September 2007). In our view, spreads are unlikely to return to early-2007 levels that were emblematic of excessive financial leverage and structured products; we think September 2007/2006 valuations are more reasonable (Figure 2). This results in a spread of 370bp, or about 35bp wider than the CDX.HY on-the-run index spread in September 2007 (given lower portfolio quality due to the inclusion of several LBOs).

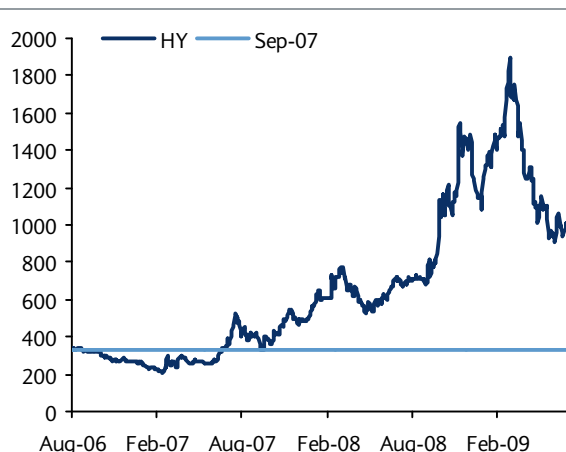
Second, we quantify the substantial negative ratings transition experienced in the portfolio over the past two years in terms of the additional spread compensation required. Put into perspective, each name on average has witnessed a downgrade of 1-2 rating notches. However, there is a lot of differentiation across credits (e.g., some LBO, finance, and auto names have fallen 8-13 notches, whereas a dozen or companies were actually upgraded a notch or two). We map today's bond ratings back to September 2007 spread levels for those ratings (i.e., if a name rated B in 2007 used to trade at 375bp and now that name is rated CCC, then we map the name to the CCC spread at that time, which is 520bp). Accounting for rating migration increases the index intrinsic spread by a significant 170bp, to 540bp. While it could be argued that over the next year, there could be an overall improvement in credit metrics, we note that, historically, upward ratings migration has been minimal in the quarters following a recession. Moreover, to the extent that the outlook for growth may be below trend given structural challenges, we find it difficult to argue for substantial improvement.

Third, we consider the number of defaults that could occur into 3Q10. From a macro viewpoint, there are 34 credits rated CCC, CC, and/or C in the index. In the year after the 1990-91 and 2001 recessions, approximately 25-30% of CCCs defaulted, implying 8-10 defaults (according to rating agency criteria). Debt exchanges may reduce the actual

Figure 1: Cash and CDS Movers

High Yield Cash					
Best	Px	Chg	Worst	Px	Chg
AXL 7.875 '17	49.00	+17.0	CNB 6.375 '15	5.16	-19.8
MBI 4.65 '18	47.66	+12.7	FRP 13.125 '18	18.00	-8.0
SWFT 12.5 '17	57.00	+11.0	MBI 6.4 '22	38.10	-6.9
High Yield CDS					
Best	5y	Chg	Worst	5y	Chg
AXL	48.0	-15.0	RDN	37.0	+4.0
H	50.0	-11.5	LVL	26.0	+2.0
ARM	16.0	-8.0	POL	11.5	+1.8

Figure 2: Historical CDX.HY On-the-Run Spread



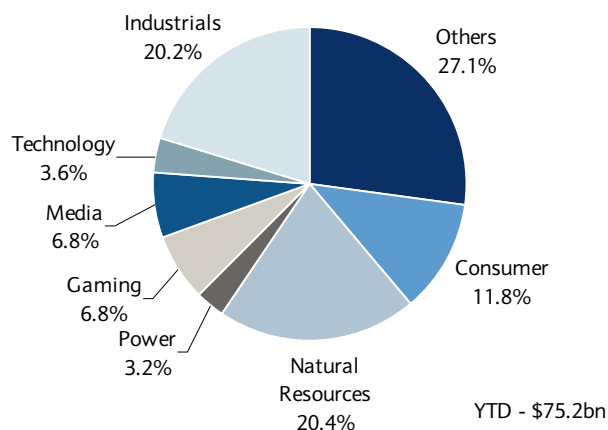
Source: Barclays Capital

Source: Barclays Capital. Note: Returns normalized to 1 at September 2, 2008

number of credit events, and our bottom-up fundamental analysis of the CDX.HY12 constituents suggests that 6-8 events is a reasonable estimate. Again using a 30% recovery assumption, we calculate a fair value (intrinsic) spread for the index assuming 5, 7.5, and 10 credit events over the next year. The corresponding intrinsic spreads are approximately 640bp, 690bp, and 740bp, compared with the market spread of 750bp. Under the above assumptions, our analysis suggests that upside from current levels is about 60bp, or 2pts.

In short, we believe further upside from capital appreciation is limited for the synthetic index; the cash market is likely to have modestly more upside on a relative basis due to positive technicals and a negative CDS-cash basis.

## High Yield 2009—Supply by Sector



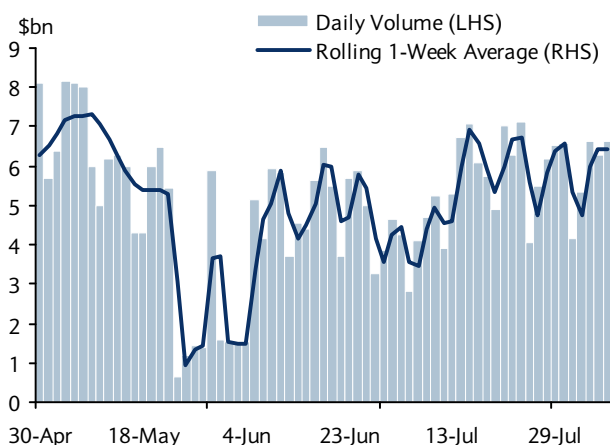
Source: Barclays Capital

## Top CDX Index Names by Net CDS Outstanding

	Notional Outstanding (\$bn)		Change – Week Ending 7/31/09 (\$mn)	
	Gross	Net	Gross	Net
Limited Brands	28.5	2.6	(4,353.2)	(86.5)
Lennar	39.4	2.5	236.9	(10.8)
Radian Group	36.0	2.4	(1,191.3)	(29.3)
Clear Channel	29.3	2.3	(3,597.1)	(2.9)
Sprint Nextel	30.3	2.2	(3,337.8)	24.7
Temple-Inland	27.1	2.1	183.8	(2.5)
Radioshack	20.7	2.1	154.0	14.3
Gannett	27.5	2.1	277.1	(23.1)
Tyson Foods	23.3	2.0	(50.4)	(102.0)
Harrah's	29.2	1.9	268.5	32.9

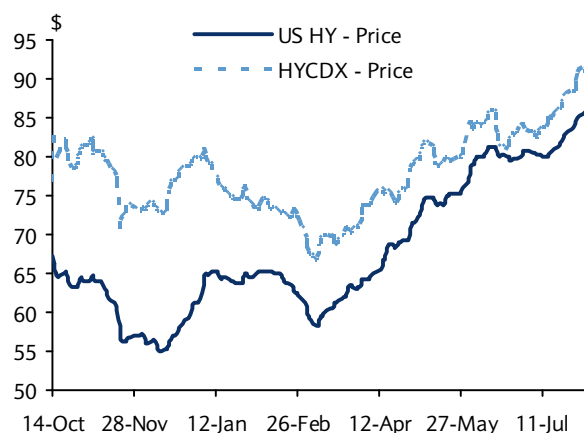
Source: DTCC

## High Yield Average Institutional Trade Volume



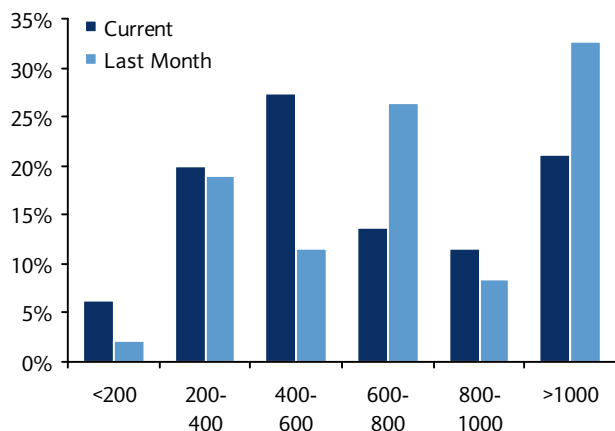
Source: Trace, Barclays Capital

## OTR HYCDX versus U.S. High Yield Index



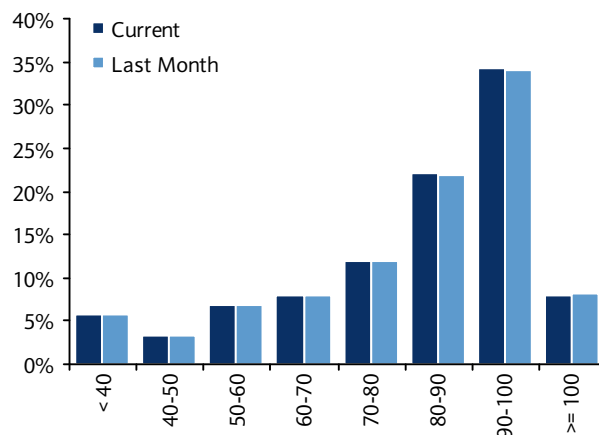
Source: Barclays Capital

## On-the-Run HYCDX Spread Distribution



Note: Excludes defaults. Source: Barclays Capital

## High Yield Index Price Distribution by Par Value (%)



Source: Barclays Capital

## LEVERAGED LOANS

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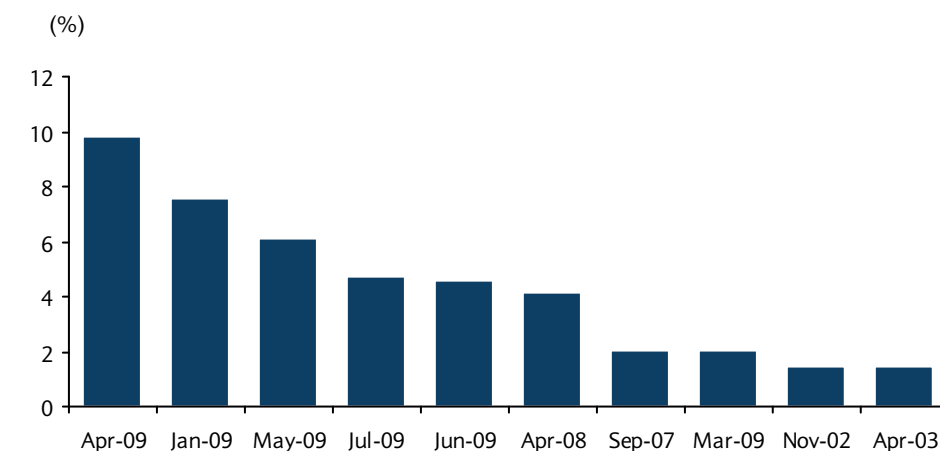
### The Extension Tug of War

Loans were flat while LCDX outperformed, rallying by more than 2pts to close at 95.5. The LCDX/HY12 relationship reversed last week's compression, diverging more than 1.5pts, to 5pts. In July, Leveraged loans lagged high yield slightly, gaining only 4.70%, but maintained their 2009 advantage over high yield (40.96% versus 38.37%). July was the seventh consecutive positive month and the fourth best ever, covering 12 years of data. The primary market saw some action as the \$635mn L+375 NTELOS term loan broke for trading. The company will use the term loan to refinance its existing credit facility. Also, Pilgrim's Pride prepared to launch a \$1.65bn loan to support its exit from bankruptcy.

Loan amendments continue to face pushback from investors attempting to extract larger concessions, particularly for more aggressive amend-and-extend proposals that look to piggyback covenant relief and other carve-outs. Cedar Fair won approval to extend \$750mn of its \$1.7bn term loan after returning to the lenders with a sweetened amend-and-extend offer including higher pricing (up 15bp from initial offer), call premiums, pricing step-up on downgrade, and most-favored-nation (MFN) protection against further extensions. The MFN clause, typically seen in credit agreements of the LBO era, prevents the yield on incremental loans from exceeding the existing loan, i.e., the existing loan coupon would have to be bumped up to match the extended loan. Select Medical successfully implemented an amend-and-extend this week, pushing out about \$385mn of its \$650mn term loan by 2.5 years for a 175bp pricing increase.

While amend-and-extends have gained momentum, the loan rally has subdued the previously hot sub-par loan buyback phenomenon. Six sub-par buybacks were launched in July, of which one was approved and another was withdrawn. AIMCO won approval to buy back its L+150 term loan despite trading in the 90s. Typically in the past, sub-par loan buybacks have been approved for loans trading at a more discounted level.

Figure 1: Best Monthly Loan Returns



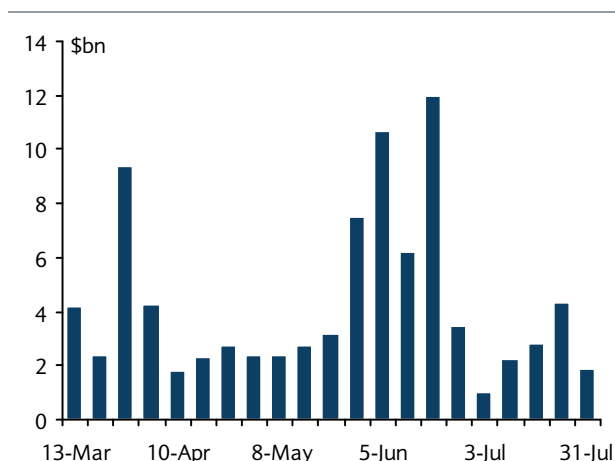
Source: Barclays Capital

### Weekly Leveraged Loan New Issue Volume

Leveraged Loan	# of Deals	Amt (\$mn)
Institutional Launched Volume	8	2,050
Forward Calendar of Institutional T/Ls	7	3,483
Year-to-Date Institutional Loans*	43	13,760

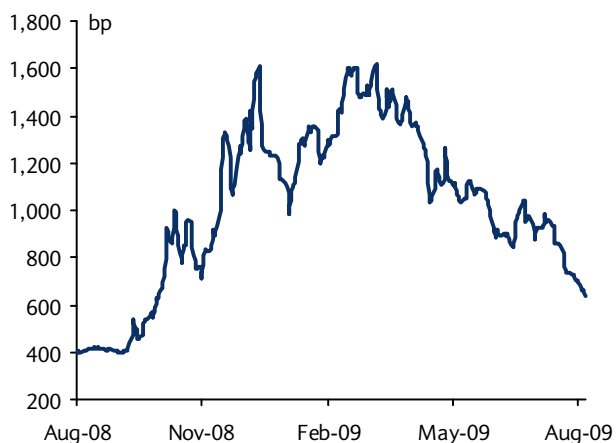
Source: S&P LCD and S&P/LSTA Leveraged Loan Index, Barclays Capital

### New Trade Volume in LCDX Indices



Source: DTCC

### OTR LCDX Historical Spreads



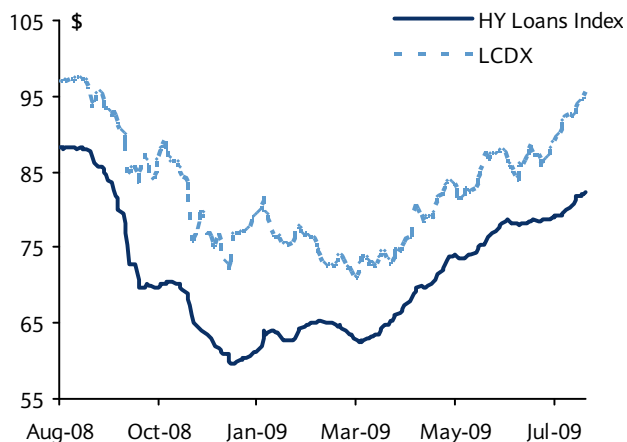
Current market assumes 55% recovery on LCDX.  
Source: Barclays Capital

### OTR HYCDX vs. LCDX



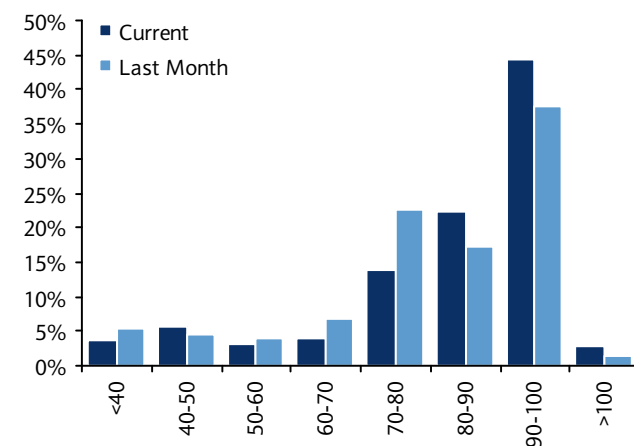
Source: Barclays Capital

### OTR LCDX versus Loan Index Price History



Source: Barclays Capital

### Loan Index Price Distribution by Par



Source: Barclays Capital



## STRUCTURED CREDIT & VOLATILITY PRODUCTS

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### Relative Value across 7-10% Tranches

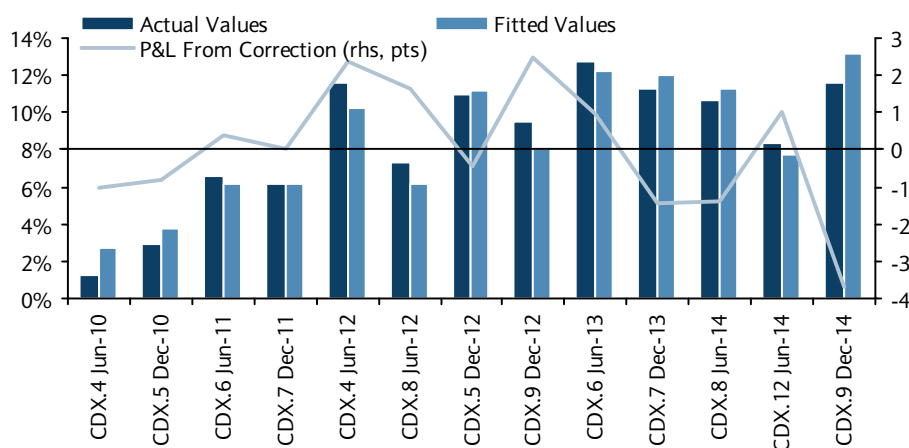
In this section we look at relative value opportunities across the 7-10% tranches of different series that are maturing over the next 5.5 years. Notwithstanding the past week's moves, the July rally in index spreads and positive earnings-related news regarding financials has caused mezzanine tranches to tighten significantly. The 3-7% tranche is 7% tighter while the 7-10% tranche is 2.7-3.4% tighter on a delta-adjusted basis m/m. Idiosyncratic risk in the IG portfolios is high enough that we cannot consider the 3-7% tranche to be immune from defaults. However, we think it would require a systemic unraveling in the IG sector to impair the 7-10% tranche and we believe this is where investors should look to express views about relative value or simply to look to go long.

Figure 1 plots the percentage of index losses that are contained in the 7-10% tranche across different series. On average, the 7-10% tranche contains 8.5% of index losses. As we expected, however, there is significant variation across the spectrum of tranches. Tranches that are close to their maturity dates (e.g., CDX.4 5y 7-10%) or reference indexes that have relatively low expected losses (e.g., CDX.12 5y 7-10%) are likely to contain a smaller percentage of index expected losses compared with their peers. When looking for relative value across these tranches, we need to adjust for portfolio characteristics that affect the allocation of losses.

In our opinion, five main portfolio characteristics should matter when trying to explain 7-10% losses. These are 1) index expected losses; 2) tranche subordination; 3) time to maturity; 4) dispersion; and 5) default correlation. Factors 1 and 2 measure the distance of the tranche from expected losses and the risk of being impaired, respectively. The other factors determine the volatility of the portfolio loss distribution and hence influence the allocation of index losses to the 7-10% tranche.

For each portfolio we measure the first four factors and regress 7-10% expected losses against these factors. We ignore default correlation as we expect that to be of very similar

**Figure 1: Percentage of Index Losses Contained in the 7-10% Tranche**



Note: Fitted values are based on the following regression equation:  $Y = 11.4\% + 0.5\% \text{ TTM} + 1.9\% \text{ Index Losses} - 2.14 \text{ Subordination} - 0.1\% \text{ Index Dispersion}$ . TTM = Time to Maturity, Index Dispersion is defined as the ratio of the standard deviation of intrinsic spreads and the average intrinsic spread. Source: Barclays Capital

magnitude across the different portfolios. In Figure 1 we show the percentage of index expected losses as predicted by our fitted regression equation. The regression equation used for the chart is laid out in the note below the Figure. As expected, tranche loss allocations increase with maturity and index expected losses but decrease with greater subordination and portfolio dispersion. Our simple linear regression approach explains a large percentage of the variation across tranches losses with an  $R^2$  of greater than 90%.

In Figure 1 we also show the implied move in 7-10% prices required to correct the difference between observed and fitted values. Positive/negative numbers indicate whether the tranche is currently cheap/rich relative to its peers. Our analysis shows tranches that lie in the belly of the maturity spectrum (e.g., CDX.4 7y, CDX.8 5y and CDX.9 5y) are cheap relative to tranches that lie on the wings (e.g., CDX.9 7y).

### Recommended Trade

**Trade:** Sell CDX.9 5y 7-10% protection; buy CDX.9 7y 7-10% protection

One trade to monetize our view would be to sell protection on CDX.9 5y and buy protection on CDX.9 7y 7-10%.

- The trade has an upfront cost of about 5 pts. The net coupon of the trade is zero.
- If both legs of the trade normalize to their fitted regression levels we would expect the trade to outperform by about 6 pts. Normalization in either one of the legs of the trade would generate a P&L of 2.5-3.7 pts.
- In equal notional terms, the trade is short-credit owing to the higher duration of the 7y tenor. Investors who wish to remain credit neutral would need sell 1.4x 5y 7-10% against the 7y leg. Executed this way the trade would still benefit from any steepening in the index. Investors who want to reduce any sensitivity to the index should consider hedging each leg of the trade. The 5y and 7y legs have traded deltas of 4.1x and 3.1x respectively.
- Finally, for investors looking to go outright long, we prefer selling protection on the CDX.9 5y 7-10%. The trade would generate a P&L of about 2.5 pts if the tranche value reverted to its regression-implied level.

### Market Recap in Synthetic Tranches and Credit Options

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The IG.9 index flattened slightly during the past week, with reference levels remaining unchanged in the 5y and 7y tenors and tightening by 2bp in the 10y tenor. The delta-adjusted moves within the capital structure were uniform across all tenors, as the 0-15% part of the capital structure widened and the 15-30% part of the capital structure tightened delta-adjusted. Equity tranches widened the most with the 7y equity tranche widening by 2.9pts on a delta-adjusted basis.

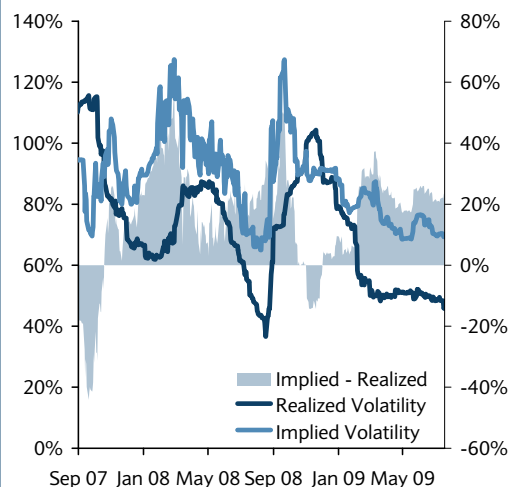
The HY.10 index ref levels increased 0.5pts, 1pts, and 1.25pts in the 3y, 5y, and 7y tenors, respectively. Junior tranches tightened, with the 15-25% part of the capital structure tightening 1.3-2.8% w/w on a delta-adjusted basis. The super senior tranche was wider delta-adjusted across all tenors.

The LCDX.10 index ref levels increased by 2.0pts in the 3y and 5y tenors. The 5-8% tranche outperformed the most, while the 8-100% part of the capital structure underperformed. The 5y 8-12% was the worst performer underperforming by 4.3% delta-adjusted.

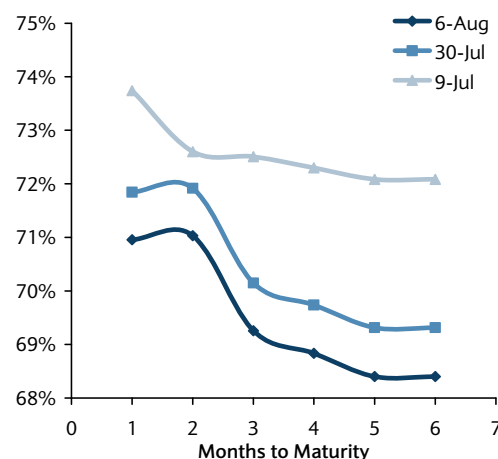
In IG index options, implied volatility decreased during the past week. 3m implied volatility increased 0.9%, to 69.3%, while 3m realized volatility decreased 3.4%, to 46.1%. The risk premium, which we define as the basis between the implied and realized volatility levels, increased 2.6%, to 23.1%. The term structure of implied volatility remained inverted, with the 3m-1m implied volatility basis at -1.7%. The implied volatility skew steepened. The implied volatility basis between 115% and 85% normalized strikes (assuming that the ATM strike is 100%) increased to 0.3% from -2.1%.

				Weekly			Monthly			
				Tranche	Bid	Offer	Delta	Level Change	Delta Adjusted Return	Level Change
										Delta Adjusted Return
5y CDX.IG.9	Index	165						0		-34
	0-3%	67.88	68.38	1.0	2.63	-2.6%	-2.50	0.8%		
	3-7%	22.00	22.50	4.1	1.63	-1.6%	-12.56	7.7%		
	7-10%	1.13	1.63	4.1	0.13	-0.1%	-7.50	2.7%		
	10-15%	3.94	4.31	2.3	0.50	-0.5%	-3.38	1.0%		
	15-30%	-0.94	-0.84	0.9	-0.10	0.1%	-0.44	-0.4%		
	30-100%	-2.39	-2.31	0.7	-0.22	0.2%	-0.15	-0.5%		
7y CDX.IG.9	Index	157						0		-34
	0-3%	73.13	73.63	0.7	2.88	-2.9%	-1.38	-0.1%		
	3-7%	29.00	29.50	3.1	1.50	-1.5%	-12.00	7.1%		
	7-10%	6.00	6.50	3.8	0.75	-0.8%	-9.00	3.1%		
	10-15%	8.25	8.75	2.2	0.25	-0.3%	-5.63	2.0%		
	15-30%	-0.76	-0.61	0.9	-0.06	0.0%	-1.39	0.0%		
	30-100%	-3.20	-3.08	0.8	-0.18	0.2%	-0.66	-0.4%		
10y CDX.IG.9	Index	140						-2		-32
	0-3%	75.25	75.75	0.5	2.25	-2.3%	-1.25	-0.2%		
	3-7%	32.13	32.63	2.4	0.75	-1.1%	-11.88	7.0%		
	7-10%	9.63	10.13	3.6	0.25	-0.7%	-10.38	3.4%		
	10-15%	11.63	12.13	2.1	0.13	-0.4%	-6.88	2.5%		
	15-30%	-0.60	-0.40	0.9	-0.15	0.0%	-1.60	-0.4%		
	30-100%	-4.50	-4.30	0.8	-0.20	0.1%	-1.02	-0.6%		
3y CDX.HY.10	Index	97.5						0.5		6.75
	0-10%									
	10-15%	86.50	88.50	0.8	-1.25	0.9%	-8.00	3.4%		
	15-25%	32.25	34.25	3.3	-3.00	1.3%	-19.25	0.5%		
	25-35%	0.50	2.50	1.9	-1.00	0.0%	-12.00	-1.5%		
5y CDX.HY.10	Index	94.25						1		7.5
	0-10%									
	10-15%	92.00	94.00	0.3	-0.75	0.5%	-4.75	2.8%		
	15-25%	56.50	58.50	1.8	-3.25	1.5%	-13.00	1.5%		
	25-35%	12.50	14.50	1.9	-2.00	0.1%	-13.00	-0.1%		
7y CDX.HY.10	Index	93.5						1.25		8
	0-10%									
	10-15%	95.25	98.25	0.2	-0.50	0.3%	-1.50	-0.1%		
	15-25%	60.00	63.00	1.4	-4.50	2.8%	-9.75	0.0%		
	25-35%	23.00	26.00	1.7	-3.25	1.1%	-11.25	-1.2%		
3y LCDX.10	Index	97						2		9.75
	0-5%									
	5-8%	3.25	5.25	0.2	1.75	1.4%	3.00	1.8%		
	8-12%	50.25	52.25	4.4	4.25	-3.1%	27.75	2.1%		
	12-15%	85.25	87.25	3.5	4.25	-2.0%	35.75	6.0%		
5y LCDX.10	Index	92.5						2		9.25
	0-5%									
	5-8%	2.00	4.00	0.1	1.50	1.3%	1.75	0.8%		
	8-12%	23.75	25.75	1.8	-0.75	-4.3%	8.50	-2.8%		
	12-15%	54.00	56.00	2.4	3.88	-0.6%	19.00	1.1%		
Swap Sep-09 IG.12 Ref =	15-100%	105.50	106.50	1.1	2.00	-0.2%	9.50	-1.8%		
	Strike	Type	Price	Imp Vol	Strike	Type	Price	Imp Vol		
	100	REC	23	68.6%	90	REC	26	67.7%		
	110	REC	43	69.9%	100	REC	42	67.9%		
	110	PAY	53	69.9%	110	REC	61	68.5%		
Swap Dec-09 IG.12 Ref =109	120	PAY	35	70.4%	110	PAY	97	68.5%		
	130	PAY	23	71.3%	120	PAY	80	69.0%		
	140	PAY	15	73.0%	130	PAY	64	68.6%		
					140	PAY	54	71.1%		

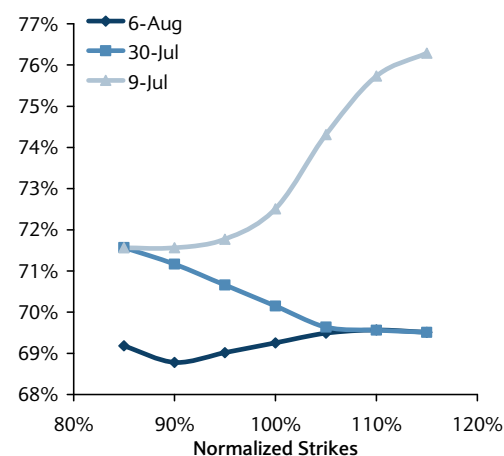
3m ATM On-the-run IG Realized vs Implied Volatility



Term Structure of Implied Volatility for ATM IG Options



Normalized Volatility Skew of 3m On-the-run IG Options



Note: W/w changes constitute the difference in market closing levels between August 6, 2009, and July 30, 2009. M/m changes constitute the difference in levels between August 6, 2009, and July 9, 2009. Source: Barclays Capital

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