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Choosing Lower Price over Larger Coupons

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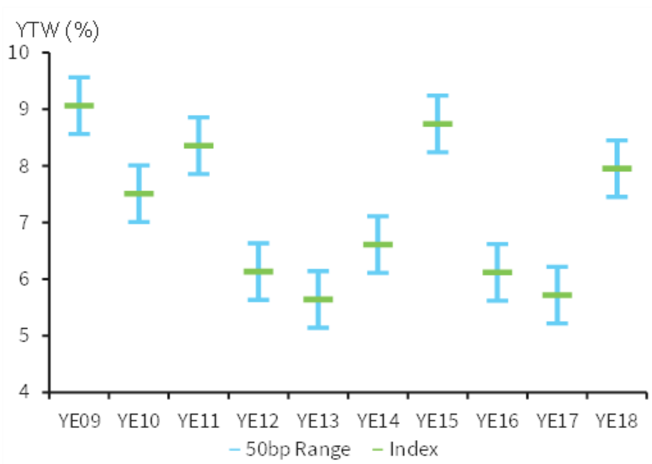
Credit investors reliably lean on fundamental analysis to build their portfolios, but technicals derived from the competing demand dynamics of various cohorts of investors can matter just as much, if not more, at different points. For example, investors often face the choice (even within the same capital structure) of picking bonds of equivalent credit risk, seniority, claim, tenor, and yield to worst (YTW) but of different coupons and, hence, bond prices. Some investors favor the upfront cash flow of higher coupons, while others prefer the "pull to par" nature of discount bonds with a smaller upfront investment, which also have better convexity. We evaluate this dynamic and find that lower priced bonds tend to outperform as a result of this better convexity, longer duration, and smaller initial investment.

To analyze this at the broader market level, we look at the ensuing total returns of bonds with similar yields separated into either "low price" (lower coupon) or "high price" (higher coupon) buckets. We start by filtering for bonds that have YTWs similar to the US High Yield Index. As seen in Figure 1, we include only bonds with YTWs within 50bp of the index at the end of each year. For example, the YTW of the index at the end of 2018 was 7.95%; we therefore include only bonds with YTWs of 7.45-8.45%. On average, there were roughly 300 bonds in each year's bucket.

Next, we split this universe of bonds into the aforementioned "low price" and "high price" buckets. Figure 2 shows characteristics for the two groups at YE18, with the lower priced bucket having a slightly higher rating, as well as longer duration (OAD) and more years to maturity, despite a similar YTW. We then track the following year's total returns for each bucket, as shown in Figure 3.

FIGURE 1

Mapping the 50bp Band of Year-end YTW of the US High Yield Index



Source: Bloomberg Barclays Indices

FIGURE 2

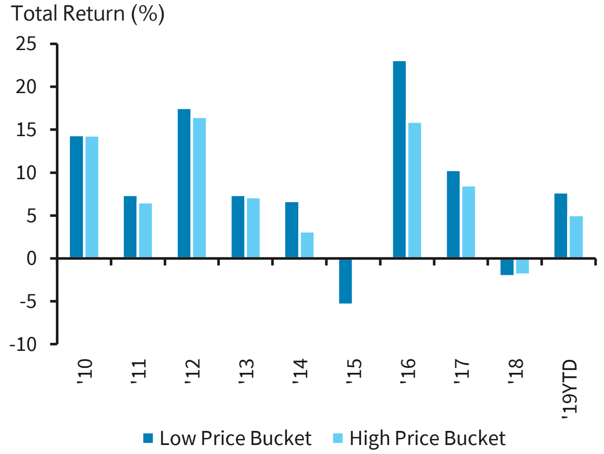
The 2018 Year-end "Low Price" Bucket Has Greater 2019 Returns than the "High Price" Bucket

	YE18 Low Price Bucket	YE18 High Price Bucket
Weighted Average Price ($)	94.40	101.70
Weighted Average YTW (%)	7.87	7.95
2019 YTD Total Return (%)	7.86	5.27
Weighted Average Index Rating	B+	B
Weighted Average OAS (bp)	399	369
Weighted Average OAD	4.8	2.9
Weighted Average Maturity (years)	7.4	5.4

Source: Bloomberg Barclays Indices

FIGURE 3

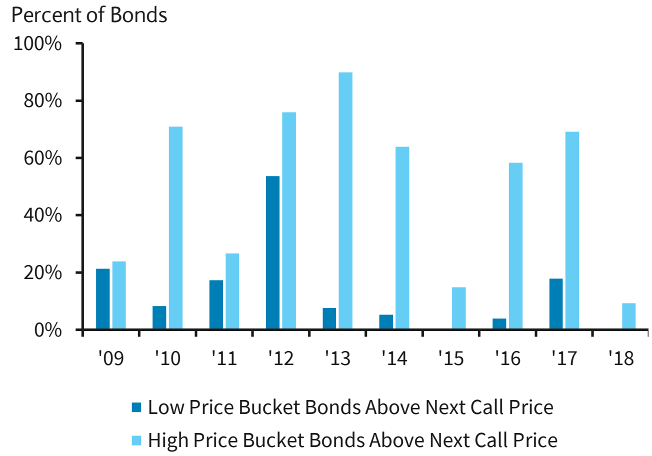
The "Low Price" Bucket Has Outperformed the "High Price" Bucket in Eight of the Past Ten Years (including 2019 Year-to-Date)



Source: Bloomberg Barclays Indices

FIGURE 4

The "High Price" Buckets Have a Greater Percentage of Bonds Trading above the Next Call Price at Year-end



Source: Bloomberg Barclays Indices

For example, the 2018 data reflect the performance of the "low price" and "high price" bond cohorts formed at the end of 2017. The average total return of the lower priced buckets exceeded the average total return of the higher priced buckets by an average of 1.2%. Furthermore, the lower priced bucket outperformed the higher priced bucket in eight of the past ten years, including 2019 year-to-date. The "low price" bucket also outperformed the broader US High Yield Index by an average of 1.4% over the ten-year period. We believe that a few significant factors contribute to the outperformance of the lower priced bonds over their higher priced peers of similar yield:

- **Convexity:** Lower dollar priced bonds have greater convexity than their higher priced peers (*Capture the Convexity*), as a lower proportion trade above their next call price (Figure 4). In addition, recovery prospects improve more rapidly for lower priced bonds than for higher priced bonds in sell-offs.[1] Ironically, lower dollar priced bonds underperformed in down years in our sample set. However, with the worst year down only 5% for the lower priced bucket, the move was not material enough for recovery prospects to play a major role.

- **Duration**: Currently, the lower priced bucket has significantly longer duration than the higher priced bucket. Historically, this difference has been smaller, at an average of 0.9 years over the annual periods. While this often goes hand-in-hand with the convexity profile, the longer duration of the lower priced bucket in a solid credit environment with generally low interest rates has been a boon to the longer duration cohort. To control for yield curve reshaping in various rate environments, we examined excess return as well and found that the "low price" buckets still outperform the "high price" buckets on this basis. We also noted that the "low price" bucket had better spread performance on average, which affirms that outperformance was not driven by duration alone.

- **Smaller capital commitment**: Lower priced bonds are also attractive for investors given their cheaper funding costs relative to higher priced bonds. Put simply, investors tend to prefer the cheaper of two bonds with the same yield, all else equal, given that it will take up less of the balance sheet.

[1] For instance, assuming 40% recovery on unsecured bonds, the effective recoveries on $100 and $120 bonds are 40% (=40/100) and 33% (=40/120), a 7% difference. Suppose that yields rise and the bond prices decline to $80 and $100. The effective recovery difference increases to 10% (50% for the $80 bond and 40% for the par bond).

Given this analysis, we believe that investors may benefit from rotating into lower dollar priced bonds from higher dollar priced bonds with similar yields. Figure 5 highlights select bond pairs from the same issuer that have similar YTWs (within 50bp) where our analysts have an Overweight rating on the lower dollar priced bond and either a Market Weight or Underweight rating on the higher dollar priced bond.

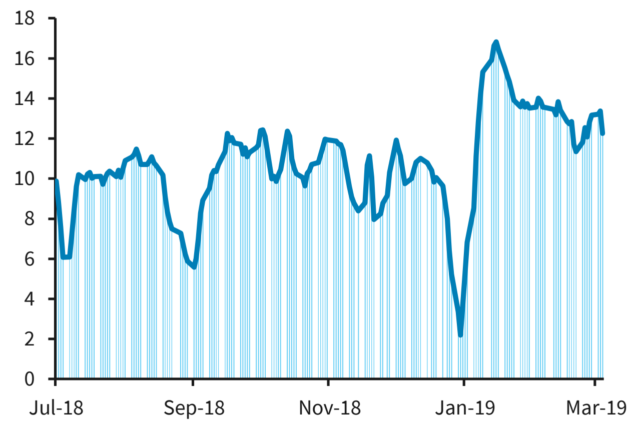
FIGURE 5

Select Swaps from Higher to Lower Dollar Priced Bonds of the Same Issuer

				Swap Into						Swap Out of					
Ticker	Issuer	Sector	Analyst	Coupon (%)	Maturity	YTW (%)	Price ($)	Index Rating	Barclays Rating	Coupon (%)	Maturity	YTW (%)	Price ($)	Index Rating	Barclays Rating
CHTR	Charter Comm.	Cable Satellite	Vince Foley	4.0	3/1/23	4.17	99	Ba2	OW	5.75	1/15/24	3.77	103	Ba2	MW
										5.125	2/15/23	3.79	102	Ba2	MW
										5.875	4/1/24	4.46	104	Ba2	MW
				5.0	2/1/28	5.50	97	Ba2	OW	5.75	2/15/26	5.02	103	Ba2	MW
										5.5	5/1/26	5.04	102	Ba2	MW
				5.125	5/1/27	5.38	99	Ba2	OW	5.875	5/1/27	5.30	103	Ba2	MW
NUAN	Nuance Comm.	Technology	Jeff Harlib	5.625	12/15/26	5.22	102	Ba3	OW	6	7/1/24	4.79	103	Ba3	MW
STLD	Steel Dynamics	Metals & Mining	Brian Lalli	4.125	9/15/25	4.59	97	Ba1	OW	5.25	4/15/23	4.38	102	Ba1	MW
				5.0	12/15/26	4.73	101	Ba1	OW	5.5	10/1/24	4.59	103	Ba1	MW
THC	Tenet Healthcare	Healthcare	Rishi Parekh	5.125	5/1/25	5.21	100	B2	OW	8.125	4/1/22	5.45	107	Caa1	MW

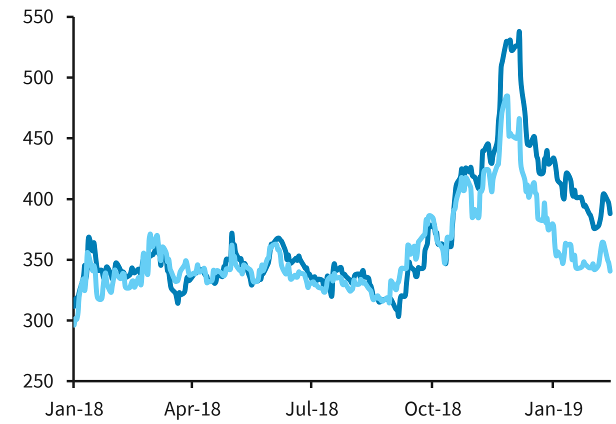
Source: Barclays Research, Bloomberg Barclays Indices

High Yield Average Institutional Trade Volume ($bn)



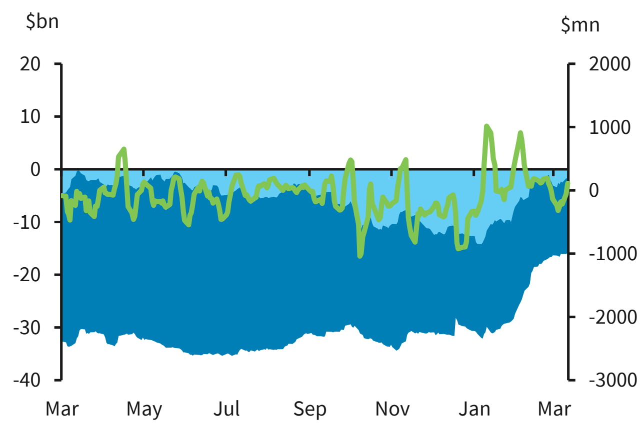
Note: Includes both registered and 144A volumes. Source: FINRA TRACE

On-the-Run HYCDX versus US High Yield Index (bp)



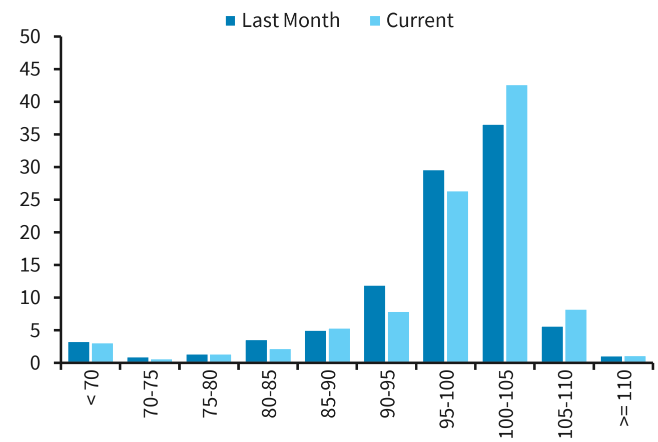
Source: Barclays Research

Flows to High Yield Mutual Funds and ETFs



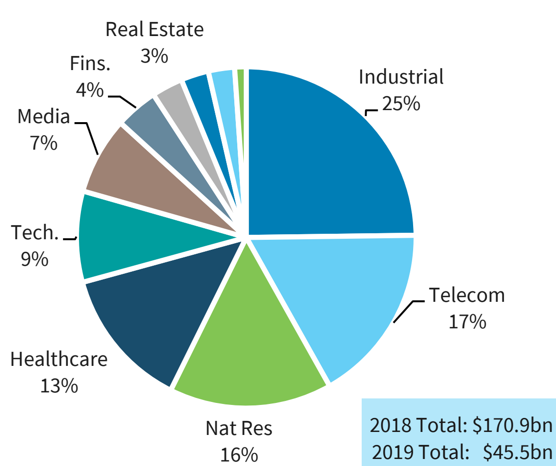
Note: Daily reporters only. Source: EPFR

High Yield Index Price Distribution by Par (%)



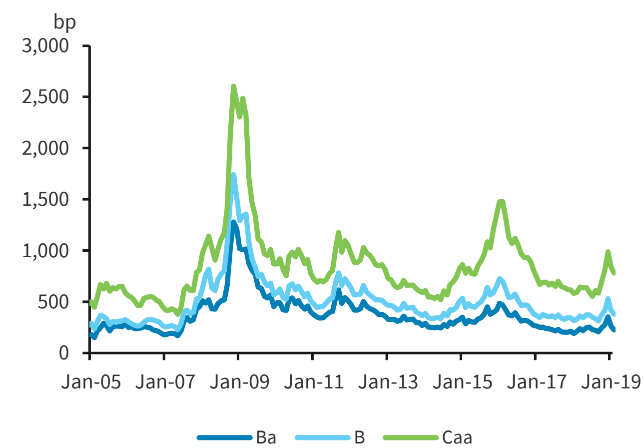
Source: Barclays Research

High Yield Supply by Sector



Note: 2019 new issue data as of March 13.
Source: Bloomberg Barclays Indices

High Yield Spreads by Credit Quality



Source: Bloomberg Barclays Indices

Analyst Certification

We, Rizwan Hussain, Bradley Rogoff, CFA and Scott Schachter, hereby certify (1) that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

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Materially Mentioned Issuers/Bonds

CCO HOLDINGS LLC / CCO HOLDINGS CAPITAL CORP, CD/J/K/M/N
CHTR 4 03/01/23, Overweight (USD 99.00, 13-Mar-2019)
CHTR 5 02/01/28, Overweight (USD 96.25, 13-Mar-2019)
CHTR 5 1/8 05/01/27, Overweight (USD 98.25, 13-Mar-2019)
Valuation Methodology: In our view, these three HoldCo bonds continued to screen as relatively attractive long opportunities within the Cable-Satellite universe, particularly given the small sell-off in recent months. In the context of a dollar price of $93-95 and YTW of 5.2-6.0%, we believe these bonds offer decent yields and the potential for additional upside compared with other bonds within the Charter complex.
Risks that May Impede Achievement of the Rating: -Weaker macro backdrop leading to sub losses
-Integration issues
-The biggest near- to intermediate-term risks to Charter's balance sheet and leverage targets are its wireless aspirations and potential for M&A.

CHTR 5 1/2 05/01/26, Market Weight (USD 102.00, 13-Mar-2019)
CHTR 5 1/8 02/15/23, Market Weight (USD 101.75, 13-Mar-2019)
CHTR 5 3/4 01/15/24, Market Weight (USD 102.50, 13-Mar-2019)
CHTR 5 3/4 02/15/26, Market Weight (USD 103.13, 13-Mar-2019)
CHTR 5 7/8 04/01/24, Market Weight (USD 104.00, 13-Mar-2019)
CHTR 5 7/8 05/01/27, Market Weight (USD 102.13, 13-Mar-2019)
Valuation Methodology: While Charter's valuations have widened of late along with the broader cable-satellite universe, valuations are unlikely to tighten meaningfully until Charter's leverage profile improves and the higher dollar price securities do not have as much upside. We view the higher dollar price bonds as fairly valued.
Risks that May Impede Achievement of the Rating: -Weaker macro backdrop leading to sub losses
-Integration issues
-The biggest near- to intermediate-term risks to Charter's balance sheet and leverage targets are its wireless aspirations and potential for M&A.

NUANCE COMMUNICATIONS INC, A/CD/CE/D/J/K/L/M
NUAN 5 5/8 12/15/26, Overweight (USD 101.88, 13-Mar-2019)
Valuation Methodology: With its leading position in speech technology solutions, high recurring revenues, strong free cash flow, and solid bookings growth, we view Nuance as a strong/improving higher quality BB credit. At current levels, we find these notes attractive.
Risks that May Impede Achievement of the Rating: Company engages in leveraging acquisition or competitive position deteriorates over time. Effect from malware incident more severe than expected.

STEEL DYNAMICS INC, CD/CE/J
STLD 5 1/2 10/01/24, Market Weight (USD 102.75, 13-Mar-2019)
STLD 5 1/4 04/15/23, Market Weight (USD 101.50, 13-Mar-2019)
Valuation Methodology: At current trading levels, we believe the STLD 2023/24 notes already price in the potential for an IG upgrade and see limited upside due to the lower duration (both callable in the next 12 months).
Risks that May Impede Achievement of the Rating: Heavy cyclicality of/excess capacity in the domestic steel industry and/or a delay in IG upgrade

STLD 4 1/8 09/15/25, Overweight (USD 97.00, 13-Mar-2019)
STLD 5 12/15/26, Overweight (USD 101.25, 13-Mar-2019)
Valuation Methodology: Given its new growth capex plans, we see the potential for some delays to the IG upgrade story for STLD, but we do not see this derailing the ultimate upgrade story for this credit. These notes present the most attractive relative value in an IG-upgrade scenario.
Risks that May Impede Achievement of the Rating: Heavy cyclicality of/excess capacity in the domestic steel industry and/or a delay in IG upgrade

TENET HEALTHCARE CORP, A/CD/CE/D/J/K/L/M
THC 8 1/8 04/01/22, Market Weight (USD 107.25, 13-Mar-2019)
Valuation Methodology: A number of events should support EBITDA improvement in 2018. We expect more asset sales, believe the micro-hospital strategy is attractive, and forecast continued growth for USPI and an improvements from Conifer (and a possible sale of the segment). As with other acute-care providers, we anticipate continued pressure on volumes and operating expenses.

We downgraded the 2022 and 2023 notes to a Market Weight from Overweight due to price, which we believe is capped at current levels.
Risks that May Impede Achievement of the Rating: Weaker acute-care volumes, loss of business (specifically Conifer), weaker volumes from USPI, inability to improve free cash flow and execute on asset sales, and relative value.

Risks to MW on 2022 and 2023 notes: if Conifer is sold or spun, company may change direction and tender for bonds at make-wholes
THC 5 1/8 05/01/25, Overweight (USD 99.38, 13-Mar-2019)
Valuation Methodology: A number of events should support EBITDA improvement in 2018. We expect more asset sales, believe the micro-hospital strategy is attractive, and forecast continued growth for USPI and an improvements from Conifer. As with other acute-care providers, we anticipate continued pressure on volumes and operating expenses.

Risks that May Impede Achievement of the Rating: Weaker acute-care volumes, loss of business (specifically Conifer), weaker volumes from USPI, inability to improve free cash flow and execute on asset sales, and relative value.

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Market Weight (MW):
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For sectors rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index, the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, the Bloomberg Barclays Pan-European High Yield Finance Index or the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index, the analyst expects the six-month total return of the sector to be in line with the six-month total return of the relevant index.

Underweight (UW):
For sectors rated against the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or the Bloomberg Barclays EM USD Corporate and Quasi-Sovereign Index, the analyst expects the six-month excess return of the sector to be less than the six-month excess return of the relevant index.
For sectors rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index, the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, the Bloomberg Barclays Pan-European High Yield Finance Index or the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index, the analyst expects the six-month total return of the sector to be less than the six-month total return of the relevant index.

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Overweight (OW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to exceed the six-month expected excess return of the relevant sector.
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Market Weight (MW): The analyst expects the six-month total return of the debt security subject to this rating to be in line with the six-month expected total return of the relevant sector.
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