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What Fundamental Factors Matter for High Yield

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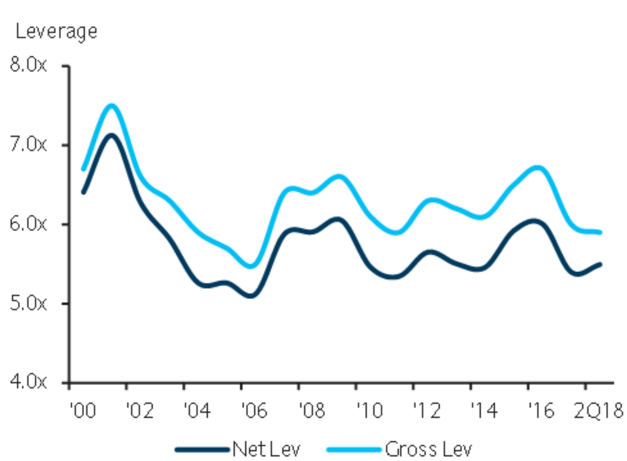
Corporate leverage has been a focal point of increasing interest for investors, as the extended length of the credit cycle has many considering how a shift in the economic backdrop could play out in credit markets at the single-name level. Although much of the focus has been on the investment grade market, specifically BBBs (see *Gauging the Effect of Falling BBBs*), the high yield market has not been immune to similar concerns. Given that the US High Yield Index is currently trading at a spread of 315bp, near the post-recession tights hit earlier this year, and has outperformed investment grade meaningfully on a beta-adjusted basis, investors are considering which credit fundamentals should be monitored more closely as a prelude to credit market weakness.

We recently noted that when starting at High Yield Index spreads similar to today's, a simple look at historical data points to modest widening over the next year, on average (see *What Trading Near the Tights Can Teach Us*). But we also noted that the high yield bond market is higher rated and of shorter duration than during previous periods of similar valuations. Coupled with the continued strength of the macro environment, we believe that high yield should be reasonably stable over our forecast horizon and that investors should not rely on the historical record alone to suggest that we are approaching an absolute floor for credit spreads.

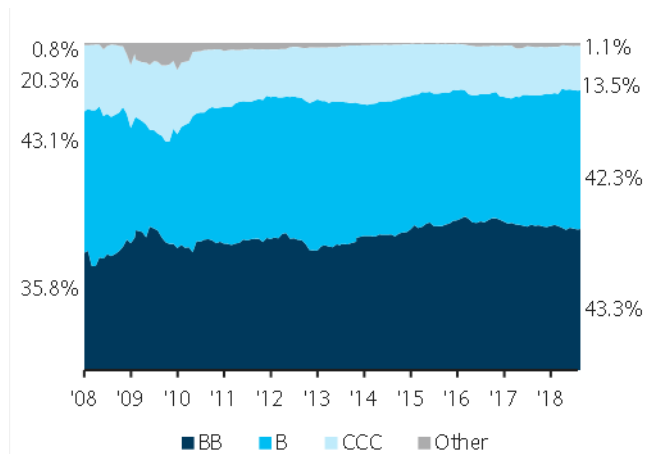
Furthermore, high yield gross leverage is at a post-crisis low on a par-weighted basis (Figure 1). Much of the improvement in credit quality of the bond market since 2008 is reflected in the shift in overall quality of the investable opportunity set as well, as BBs now represent 43% of the High Yield Index, up from 36% at the start of 2008. As a result, the high yield market looks relatively stable when evaluated through the lens of leverage and could enter the next downturn in a position of relative strength if current balance sheet management practices continue, in contrast to other credit cycles. But we also look beyond leverage to determine what other factors might help explain spread moves at the single-name level when the credit cycle ultimately turns.

FIGURE 1
US High Yield Leverage Is Near Post-Recession Lows…



Note: Excludes financials.
Source: FactSet, Bloomberg Barclays Indices

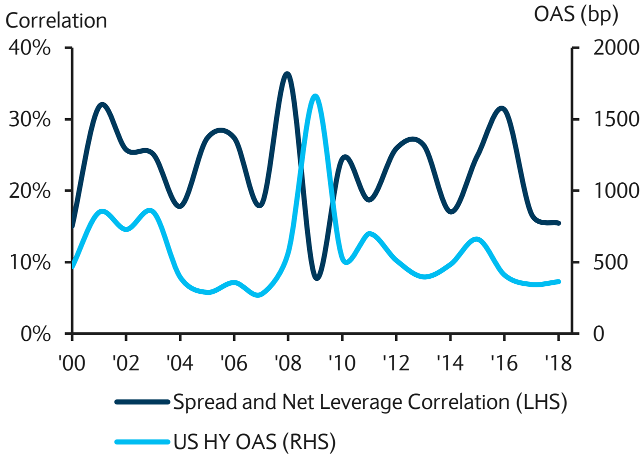
FIGURE 2
…and BBs Now Represent the Largest Portion of the Index



Source: Bloomberg Barclays Indices

FIGURE 3

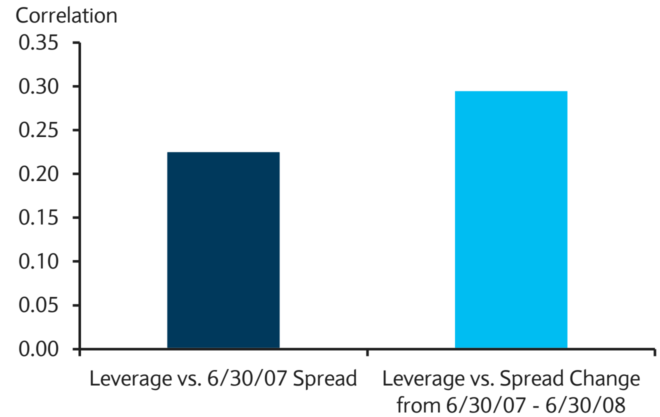
High Yield Leverage Matters, but the Correlation with Spreads Broke Down during the Crisis



Source: FactSet, Bloomberg Barclays Indices

FIGURE 4

Net Leverage Was More Closely Correlated with Spread Change during the Recession Than Starting Spread



Note: Excludes CCC and lower rated issuers.
Source: FactSet, Bloomberg Barclays Indices

For this article, we examine the relationship between various fundamental factors and valuations at the start of the last major downturn in 2007 and how spreads progressed from there (excluding financials and CCCs). We focus specifically on the last credit turn, as spread moves between major cycles can be driven by any number of sector-specific factors, as well as general economic conditions. By confining our observations to the last major cycle turn, we think we can obtain a more complete picture of how spreads react to the rationing of capital that occurs in a general downturn (which investors currently expect more than a sector-specific default wave akin to the spike in commodity sector defaults in 2015-16).

As seen in Figure 3, the correlation between absolute spread and leverage at the single-name level vacillated in and around the credit crisis. When we examine that period further, we find that there was a weak relationship between leverage and spread at the start of the sell-off (we use data as of 2Q07), with compressed valuations not fully differentiated by credit quality (Figure 4). In addition, starting leverage was only a modestly better predictor of spread performance over the subsequent year (July 2007-June 2008), during which the OAS of the High Yield Index widened by more than 400bp. So while balance sheet leverage does matter in the relative pricing of credit and helps explain valuations at particular moments, leverage alone cannot fully explain outsized spread moves because credits in different sectors can support different levels of leverage given differing industry dynamics and trends. Quite simply, cyclical credits behave differently than non-cyclical credits during downturns. So while starting net leverage can help explain current valuations, the relatively low correlation between starting leverage and ensuing spread moves begs the question of what other company-level metrics could help predict spread moves in case of a broader market move wider?

We therefore look at other fundamental metrics at the start of the same period (July 2007-June 2008) to assess what else drove performance during the ensuing sell-off, with the aim of providing a framework for future moves. While credit analysts monitor countless financial metrics, we evaluated spread changes in the context of four metrics for each public high yield credit (again, excluding financials and CCCs) at the end of 2Q07:

- Net leverage
- LTM EBITDA margin
- Operating cash flow (ie, before capital spending and dividends)
- Interest coverage (net of capitalized interest)

We think that these four metrics cover a range of measures of financial health, including scale (operating cash flow), profitability (EBITDA margin), and debt serviceability (net leverage and interest coverage). To avoid outsized influence from outliers, we normalize each company's metric by assigning a percentile rank relative to the sample set. We note that our parallel investment grade analysis last week considered reliance on short-term debt (as defined by the ratio of net short-term debt to free cash flow) as a substitute for operating cash flow (see *Beyond Leverage: Fundamental Factors That Matter*). However, our high yield-focused analysis found that operating cash flow is more closely tied to both absolute and relative spread change than free cash flow. As a result, we run the regressions with operating cash flow. Ideally, we would strip maintenance capex from cash flow to get a truer measure of the cash flow more readily available for debt service, but company-level data do not consistently provide that level of granularity. We did examine the factor of operating cash flow less total capital spending, but the results were not materially different from those that relied on operating cash flow outright.

Figures 5 and 6 show the results of our multivariate regressions of starting fundamental metrics as of 2Q07 versus the ensuing one-year absolute and percentage spread moves. Essentially, we examine, given a static picture of company fundamentals on the eve of the credit crisis, which factors help explain the ensuing moves better than others.

1) Net leverage: Not surprisingly, leverage was the most significant driver in terms of both absolute and relative spread change during the observation period. From the regression results, we find that credits at the highest end of the leverage spectrum widened about 244bp more than those at the lowest end (all else equal). In the investment grade article referenced earlier, we found that leverage was less of a driver, which we attribute to the less significant implications of increased leverage within the investment grade market, where absolute low starting levels of leverage keep default risk relatively well contained. For example, an investment grade company that increases leverage does not experience drastic funding effects (through increased borrowing costs) or see access to capital crimped materially relative to companies further down the ratings spectrum, where the hit to debt serviceability can be more sizable and access to funding markets is fickle. In addition, the potential triggering of high yield leverage covenants could have significant adverse effects on spread levels – a consideration typically not relevant for investment grade credits.

FIGURE 5

Factor Coefficients for Absolute OAS Moves, June 07-08

	Coefficient	Standard Error	P-value
Intercept	256.1	79.7	0%
Net Leverage	244.4	84.9	0%
Operating Cash Flow	(91.5)	53.7	9%
EBITDA Margin	(95.1)	51.4	7%
Interest Coverage	24.0	89.5	79%

Note: Excludes financials and issuers rated CCC+ or below.
Source: Factset, Bloomberg Barclays Indices, Barclays Research

FIGURE 6

Factor Coefficients for Relative OAS Moves, June 07-08

	Coefficient	Standard Error	P-value
Intercept	0.89	0.28	0%
Net Leverage	0.80	0.30	1%
Operating Cash Flow	0.18	0.19	35%
EBITDA Margin	(0.36)	0.18	4%
Interest Coverage	0.04	0.31	89%

Note: Excludes financials and issuers rated CCC+ or below.
Source: Factset, Bloomberg Barclays Indices, Barclays Research

2) EBITDA margin: While net leverage is the most significant driver of spread change in high yield (on both an absolute and a relative basis), EBITDA margin also has a high level of significance, particularly in explaining relative OAS changes. Even though EBITDA margin takes a back seat to leverage in explaining spread moves for high yield (we observed the opposite in our investment grade analysis last week), our regressions show that credits that start with larger EBITDA margins tend to see less spread widening during periods of significant stress. This makes sense because high yield credits generally enter downturns with a higher probability of default (hence the initial reliance on starting leverage for pricing), and any adverse developments in profitability (through the compression of EBITDA margins) can quickly erode the cushion between solvency and distress.

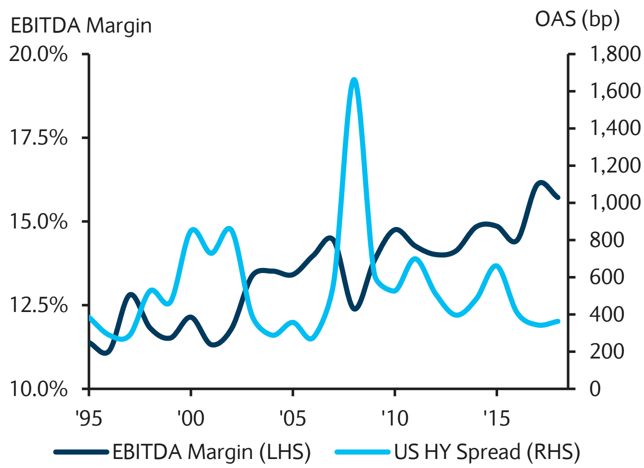
Indeed, when we examine index-wide EBITDA margins, we find that periods of wide index spreads have coincided with EBITDA margin contraction (Figure 7). This relationship is also evident in recent years, as the High Yield Index has tightened nearly 350bp since the end of 2015 and EBITDA margin has expanded roughly 80bp over the same period.

That said, EBITDA margin expansion has not been felt evenly across all parts of the market. EBITDA margins have expanded for most sectors since the end of the last credit cycle (Figure 8), with energy the only sector that has experienced significant margin compression, likely owing to higher oil prices pre-recession, although it still ranks as the sector with the highest median margin today and has seen active balance sheet repair since the cleansing through defaults in 2015-16. Conversely, technology and consumer cyclical margins have expanded by 10% and 7%, respectively, over the past 11 years.

3) Operating cash flow: Cash flow plays a more important role in explaining spread changes for high yield than for investment grade. This is intuitive for a couple of reasons. First, a larger proportion of investment grade companies are able to weather credit downturns by delaying refinancing until markets improve by drawing down on existing liquidity. Second, high yield investors may look at cash flow more closely when companies have endured restrictions on or a rationing of capital and liquidity and when runways are potentially more challenged. That said, when we look at spread change, operating cash flow has less explanatory power (p-values of 35% for relative change and 9% for absolute change) than net leverage and EBITDA margin.

FIGURE 7

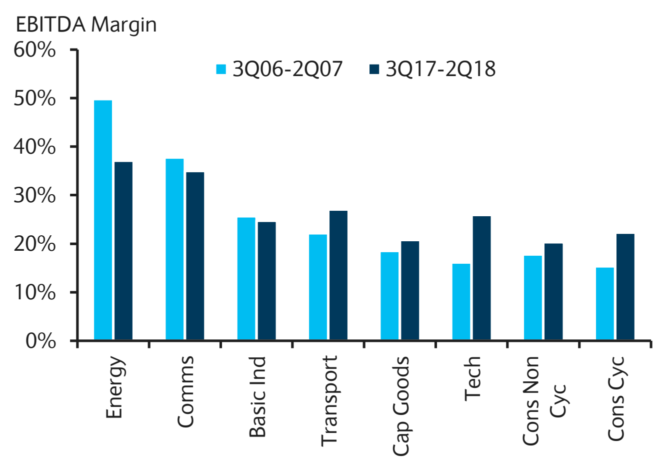
Median High Yield EBITDA Margin at Historical Highs Helps Explain Credit Spreads Reaching Post-Crisis Tights



Note: Excludes financials and CCC+ or below rated credits
Source: Capital IQ, Factset, Bloomberg Barclays Indices, Barclays Research

FIGURE 8

EBITDA Margin Has Expanded for Most Sectors since Before the Recession



Note: Excludes financials and CCC+ or below rated credits
Source: Capital IQ, Factset, Bloomberg Barclays Indices, Barclays Research

4) Interest coverage: Somewhat surprising to us is the lack of explanatory power of interest coverage for both absolute and relative spread moves during the period of our study. Our regressions indicate that this metric had no significance in explaining spread changes during the evaluated period (large p-values). As we recently noted (see *A Little More Leaning on Leverage*), median interest coverage is currently at a post-crisis high, and we do not view the rise in rates as a threat to this status (see *Covering Rising Rates*). As a result and given this strong starting point, we do not view starting coverage levels as a differentiator at the single-name level and encourage investors who are looking to gauge debt serviceability ahead of the next credit turn to continue to rely more heavily on starting net leverage.

Certainly, this analysis explores just a few of the factors that drive high yield spread performance. Other non-fundamental factors include relative liquidity, duration, and security-specific technicals. But we are comforted to find that leverage and EBITDA margins rank prominently among the explanatory factors. With gross leverage at cycle lows and EBITDA margins at cycle highs, we believe that high yield could experience lower-than-typical volatility in a garden-variety recession that falls short of the liquidity seizures of 2008-09, particularly if current management conservatism holds in advance of a cycle turn.

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