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Factoring What Is in the Spread

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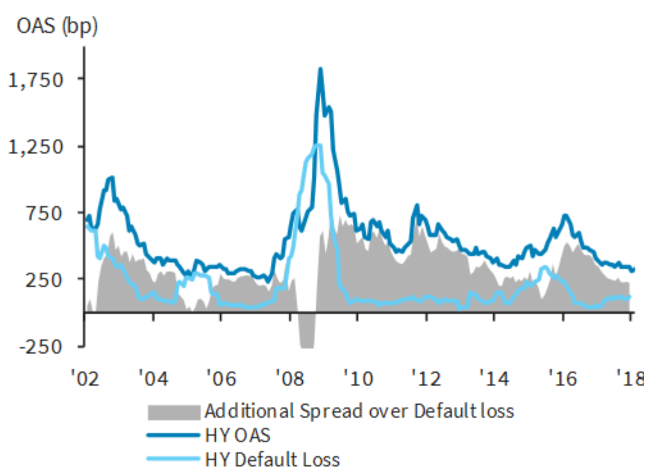
As investors turn from the macro to the micro with earnings season now in full swing, it is worth considering how various risks may be priced into the high yield asset class after the V-shaped move in the US high yield OAS over the past two months. Our approach here considers how high yield investors are being compensated on an index-wide level (as measured by the US High Yield Index OAS) for actual default losses, as well as any other number of risks, which we label "additional spread" (for a discussion of our factor model for single bond valuations, see *Deconstructing Spreads* and *High Yield Spread Model, Refined*).

First, we approximate this additional spread by subtracting from the starting high yield OAS the actual default loss (calculated from Moody's LTM par-weighted default rate and unsecured recoveries) for a high yield portfolio over an ensuing one-year period. We consider this the incremental risk premium investors require to hold high yield above default losses (Figure 1).

While investors generally share our view of a small, but manageable rise in the default rate over the coming year (see *2019 US HY and Loan Default Outlook*), they have also wondered how much the change in the market structure for credit post-crisis has resulted in a permanently higher additional spread. While we discuss the evolving role of liquidity later, the additional spread for high yield climbed through the financial crisis, soon recovered, but then reversed higher once again after the European sovereign debt crisis and US debt ceiling debate of 2011. It has generally been slightly elevated relative to our estimate of it pre-crisis. This suggests that investors have sought greater compensation for risks outside of defaults.

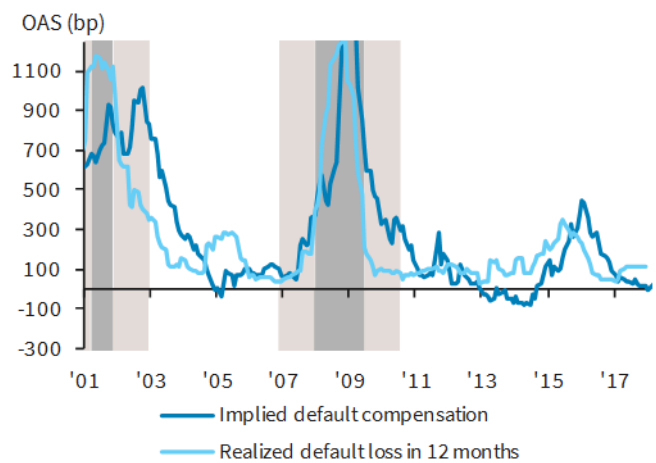
We then calculate the average of this additional spread over a rolling three-year period (given spikes in the default rate and then their recovery typically fall within this window). Assuming that this trailing three-year average additional spread is applicable over the coming year, we can deduct it from the US high yield OAS at that point to estimate a spread contribution demanded by market participants to compensate for defaults over the coming year – an implied default spread compensation. A comparison of this implied default spread compensation with the actual realized loss over the coming 12 months is shown in Figure 2.

FIGURE 1
Breaking Down the High Yield OAS into Realized Default Loss and Additional Spread over Default Loss



Source: Moody's, Bloomberg Barclays Indices, Barclays Research

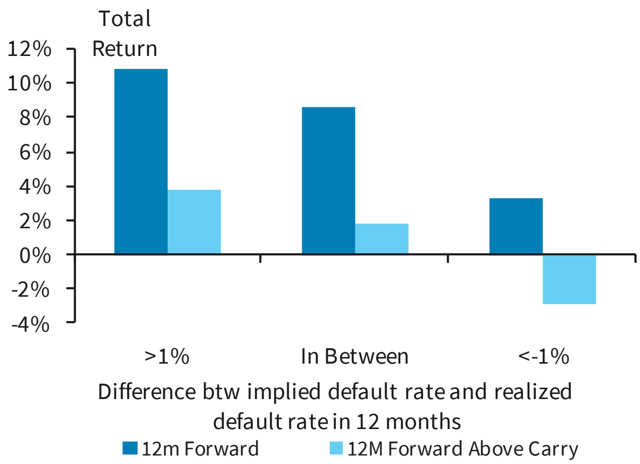
FIGURE 2
Tracking Implied and Realized Default Losses



Note: Dark shaded areas represent recessions, with light shaded bands noting 12m periods around them.
Source: Bloomberg Barclays Indices, NBER, Barclays Research

FIGURE 3

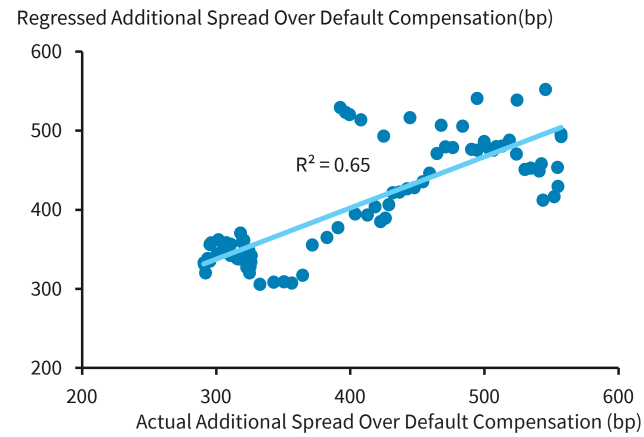
Average High Yield Forward Returns Bucketed by Default Cushion



Note: Returns captured outside of recessions and 12 months leading into and out of recession. Excluding outlier returns of greater than 15%.
Source: Moody's, Bloomberg Barclays Indices, NBER, Barclays Research

FIGURE 4

Our Regression Model Tracks Actual Additional Spread



Note: Data are from January 2011 to present.
Source: Bloomberg, Bloomberg Barclays Indices, Moody's, Barclays Research

Over the study period, one particular period stands out. As the high yield market rallied through mid-2014, we estimate that high yield investors serially underpriced default losses to come over the next 12 months (the implied default compensation spread actually turned negative). Ultimately, the US high yield OAS bottomed in mid-2014 as oil turned sharply lower, helping to explain the outsized move wider of the US high yield OAS as investors looked to reprice high yield for the rising risk of defaults.

Next, we consider the implications for total returns, given the implied default rate. Figure 3 shows the average 12m forward total returns and 12m forward return above the starting YTW for high yield when the implied default rate differs from the realized default rate by differing amounts. We exclude observations in the twelve months around a recession. For example, the data suggest that should no recession be realized over the coming 12 months – again, a key assumption – when the implied default rate exceeds the actual realized default rate by over 1%, the average total return has been approximately 10%.

Recall that our 2019 par-weighted default rate forecast is 2.5-3.5%. The spread framework above points to an implied par-weighted default rate of 1.8% at today's high yield OAS of 430bp. This is inside our forecast default rate and points to negative price returns from current levels should our forecast be realized, although total returns including carry would still be positive. For context, our 2019 total return forecast for high yield is 6.5-7.5% (see *US HY and Loans: Returns Re-Rack*). Alternatively, implementing our YE19 spread target of 465bp would imply a default rate of 2.4%, more in line with our 2019 forecast.

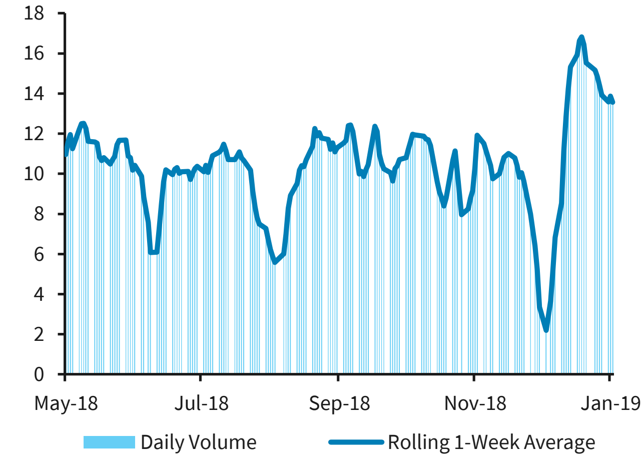
Next, we consider what drives the additional spread accounted for in the high yield OAS. We use a simple three-factor model approach considering three variables to help explain the absolute level and changes in this additional spread measure from 2010 to present. Regressing these three against our measure of additional spread yields a model r-squared of 0.64. The factors we explored are:

- **Liquidity**: We use Barclays' LCS® metric to capture the cost of transacting as measured by normalized bid-ask spreads (see *Using Bond-Level Liquidity Cost Scores in Portfolio Management*). All else equal, higher transaction and friction costs argue for higher additional spread.
- **Duration:** Changes in the option-adjusted duration of the high yield market should influence the overall market OAS, as credit risk declines with duration, all else equal.

- **Ratings:** We consider the numeric index rating of the US High Yield Index.

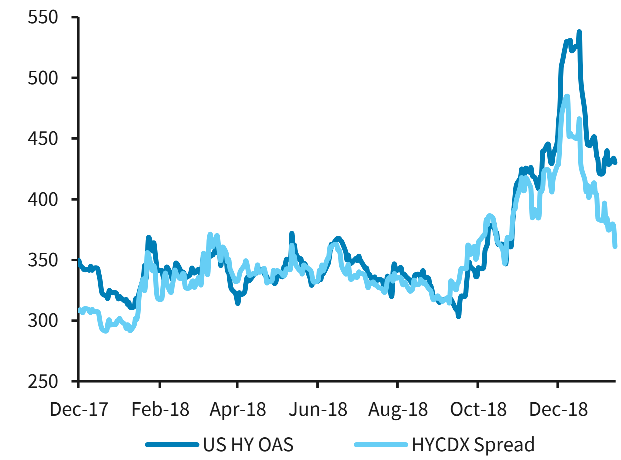
While we are not able to quantitatively capture it, investors' change in expectations of the 12m forward default rate will clearly influence the additional spread measure. Changes in market liquidity conditions are also likely to have a significant effect, as suggested by the statistical significance of the LCS® variable noted above. The role liquidity played was quite evident as 2018 came to end, with retail fund outflows pressuring the loan and bond markets (particularly the former). Changes in duration and ratings themselves are much slower and unlikely to have as big of an effect over the short term on investors' additional spread compensation, although they do rank as statistically significant variables over a longer time, as shown in our regression model.

High Yield Average Institutional Trade Volume ($bn)



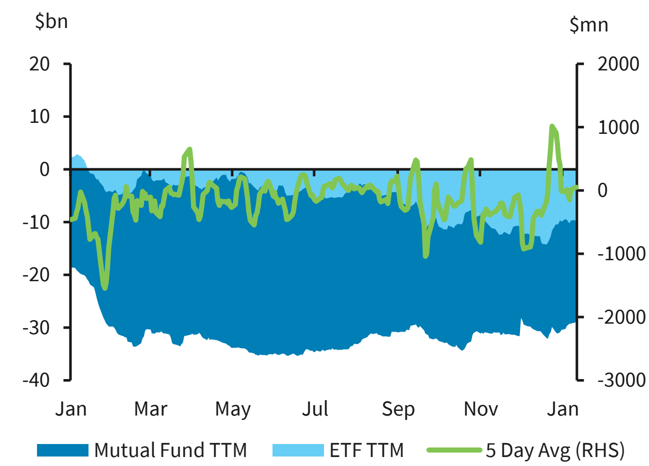
Note: Includes both registered and 144A volumes. Source: FINRA TRACE

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



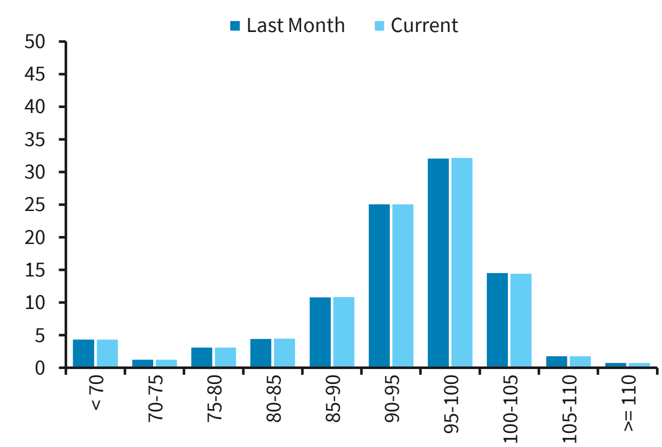
Source: Barclays Research

Flows to High Yield Mutual Funds and ETFs



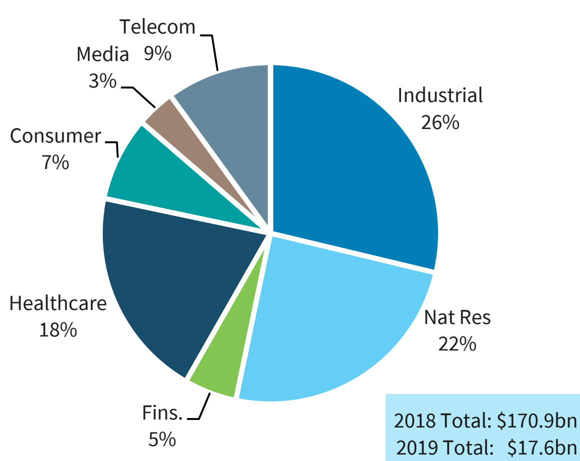
Note: Daily reporters only. Source: EPFR

High Yield Index Price Distribution by Par (%)



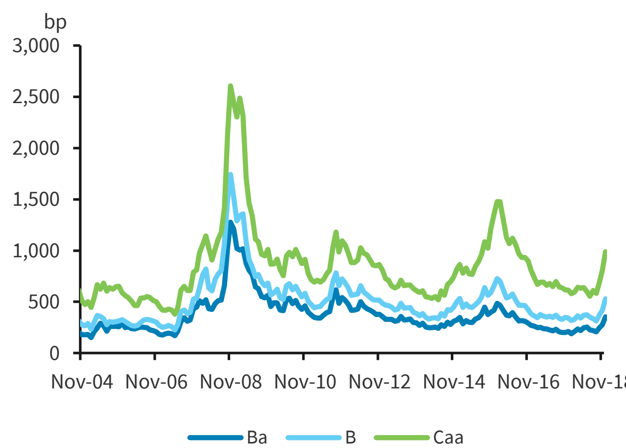
Source: Barclays Research

High Yield Supply by Sector



Source: Bloomberg Barclays Indices

High Yield Spreads by Credit Quality



Source: Bloomberg Barclays Indices

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