

US High Yield – 2021 Outlook

Executive Summary

2020 has been a unique and highly tumultuous year. The coronavirus pandemic brought about an abrupt end to the relatively benign risk environment enjoyed early in the year, leading to one of the most dramatic contractions in economic output on record. High yield spreads widened over 700 bps amidst the first US and European lockdowns, with weakening economic and market conditions necessitating central bank intervention and various government stimulus programs to prevent a downward spiral. Despite a third wave of coronavirus cases, we view renewed policy support and positive developments on the vaccine front as another step toward a sustained re-opening. And, cognizant of lingering risks, we remain optimistic about the high yield market as we head into 2021, underpinned by our expectation that positive EBITDA growth, credit metric improvement, a reduction in the default rate, and the continuation of technical tailwinds should bring about further spread compression. The following outlook report represents our analysis of the state of the US high yield market, with a focus on both the risks and opportunities inherent to the asset class as we enter a new year.

Key takeaways are as follows:

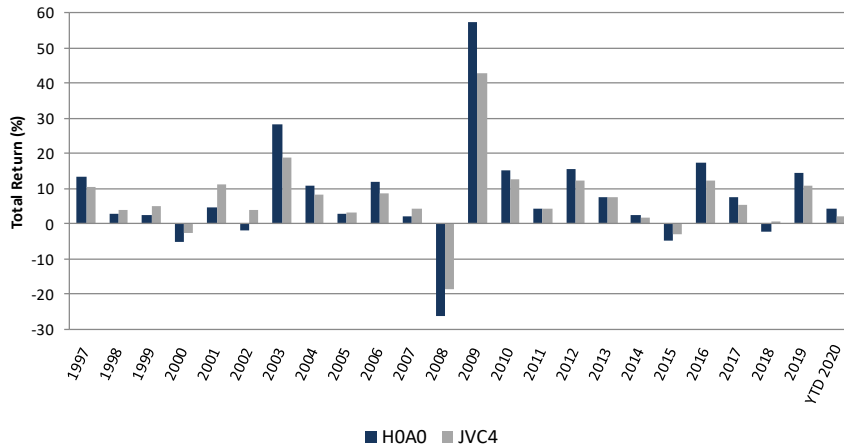
- Broad US high yield market returns of ~ 4.2% in 2020 (YTD through November 30) are approximately 43rd percentile relative to the last twenty years, and represent the 2nd weakest performance in the last five years
- Short duration US high yield market returns of ~ 2.2% in 2020 (YTD through November 30) are approximately 22nd percentile relative to the last twenty years, and also represent the 2nd weakest performance in the last five years
- BB credits outperformed on both an absolute and beta-adjusted basis YTD through November 30 (+7.0%), followed by Single-Bs (+1.9%); CCC credits significantly underperformed for a second year in a row (-1.2%) despite a late-year rally
- Energy (-11.0%) was the only sector generating negative total returns; the sector has underperformed the index in 9 of the last 12 years
- In contrast to 2019 - when rating and sector returns were driven largely by duration – sensitivity to the coronavirus and issue size were the key determinants of performance in 2020
- Large issues (> \$1bn in size) outperformed small issues (< \$350mm in size), likely driven by ETF inflows and their preference for holding the most liquid securities in the index
- The high yield market saw record-levels of primary market activity in 2020, with issuance of ~ \$420bn through November 30 up 52% vs. the same period in 2019
- Despite elevated high yield issuance, use of proceeds remained quite conservative; refinancing constituted 64% of primary market volumes in 2020, above the trailing 15yr average of 53%; aggressive issuance (debt-funded dividends, LBOs) made up 7% of volumes in 2020, below the 15yr average of 28%
- Virus-related lockdowns caused abnormally weak Q2 and Q3'20 EBITDA generation, pushing index net leverage to ~ 4.6x; this is approximately 1 turn above long-run averages, and a level not observed since the early 2000s
- Despite EBITDA erosion, index interest coverage of 4.1x is still above the long-run average of 3.7x, buoyed in large part by the low interest rate environment
- Corporate earnings growth turned negative in 2020, but is expected to rebound significantly in 2021, albeit off a weak base; for FY21, we expect EBITDA growth of ~ +9.5%
- We forecast the high yield default rate will decrease to ~ 5.0% in 2021 and ~ 3.5% in 2022 after reaching nearly 10% by FYE 2020
- We forecast recovery rates on defaulted issuers will increase to ~ 35% in 2021 and ~ 44% in 2022, up from ~ 30% on a trailing 12-month basis
- At November 30, 2020, broad market and short duration HY spreads were 433 bps and 385 bps, respectively, historically 2nd quartile and wide of spreads at the start of 2020
- We estimate excess spreads at the end of 2021 will be ~ 150 bps, below the long-run average of 300 bps due to low interest rates on a global basis
- Premiums paid to hold smaller/less-liquid issues are well above cycle averages; spread duration compensation is below cycle averages
- Index spreads have compressed toward pre-lockdown levels, but several sectors (Real Estate, Leisure, Financial Services, Healthcare, and Media) have lagged the H2'20 recovery
- We expect issuance to remain elevated in 2021, but below record-setting levels in 2020; in our view, reduced fallen angel volume and less issuance for general corporate purposes (used to bolster balance sheets during COVID lockdowns) should offset modestly higher acquisition funding needs
- We expect high yield demand to be robust in 2021, driven by less onerous FX hedging costs and a glut of negative/low yielding debt on a global basis
- For broad market US high yield, we expect year-end spreads of 345 bps, 5yr Treasury yields of 0.58%, a 5.0% default rate, and a 65% loss given default estimate to lead to 2021 returns of ~ 6%
- For short duration US high yield, we expect year-end spreads of 305 bps, 3yr Treasury yields of 0.40%, and a 5.0% ratings migration rate to lead to 2021 returns of ~ 6%
- We modestly prefer US over EUR high yield, and think there could be attractive total return opportunities in dual currency capital structures
- Key downside risks to our thesis include 1) failure to achieve trade war resolution, 2) additional lockdown measures should deployment of coronavirus vaccines be delayed or treatments prove ineffective, 3) a rise in policy uncertainty stemming from a new administration, 4) heightened post-rally convexity that could limit further spread compression within some parts of the HY market, and 5) shareholder friendly initiatives undertaken by management teams once business conditions normalize
- Key opportunities supporting our thesis include 1) exceptionally strong corporate EBITDA growth upon a full re-opening of the economy, 2) liquidity premium normalizations that lead to small issue outperformance, 3) technical tailwinds that reduce supply and increase demand for US HY, supporting secondary market spread compression, 4) rotation into cyclical credits as we emerge from recessionary conditions, and 5) outperformance of CCCs via the combination of positive EBITDA growth, a reduction in net downgrades, and a halving of the default rate

2020 Recap

The coronavirus pandemic and subsequent economic lockdown brought about an end to the longest US economic expansion on record. US high yield spreads (we use the ICE BofA US High Yield Index, ticker H0A0, as a proxy), which began the year at 360 bps (tightest quartile, or ~ 17th percentile based on 20 years of monthly data) rapidly widened amidst initial shelter-in-place orders in both Europe and North America. By March, index spreads had surpassed 1,000 bps for the first time since the Global Financial Crisis, with COVID-19 shockwaves prompting central bankers and politicians to devise plans for an economic backstop. On Sunday, March 15, the FOMC announced an emergency rate cut (essentially reducing the Fed Funds rate to 0) and implemented a new round of quantitative easing. Coordinated actions from central banks across the globe, along with anticipation of a stimulus package out of Congress, led to the peaking of spreads on March 23. In subsequent months, tailwinds from additional monetary and fiscal policy initiatives, an economic re-opening (through tenuous at times), and progress on the vaccine front led to rapid spread compression.

On a YTD basis (through November 30), the broad high yield market (H0A0) has returned +4.2%, modestly below-average (43rd percentile) should total returns remain in the same range for the full year. Within the short duration portion of the US high yield market (we use the ICE BofA 1-5Yr BB-B US Cash Pay High Yield Constrained Index, ticker JVC4, as a proxy), returns in the 2.2% range would register bottom quartile. With that said, the rally in high yield credit from trough-like conditions (-20.6% total return at March 23) has been significant. Furthermore, we expect to begin 2021 with starting spreads well above where they were at the onset of 2020.

Annual Returns by Index, Trailing 20 Years

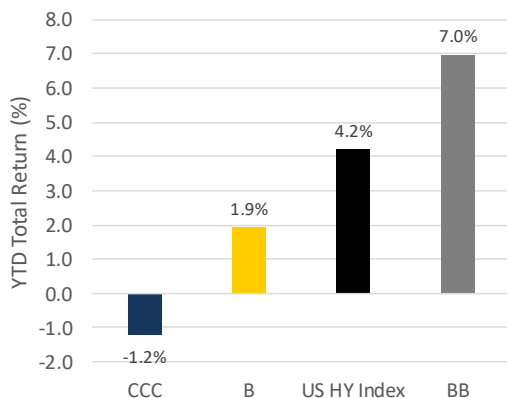


Source: SKY Harbor, ICE Data Indices

Rating bucket total returns were closely grouped through the first six weeks of the year, with a mere 6 bps separating BBs from CCCs (though BBs were outperforming more significantly on a beta-adjusted basis). COVID-fears and a drastic reduction in economic output led to significant spread widening in the subsequent weeks, with the ICE BofA US High Yield Index (H0A0) troughing at a YTD total return of -20.6% on March 23, 2020. BBs continued to outperform CCCs in the initial stages of spread tightening, ultimately reaching a total return advantage of 16.7% by early May. Performance of lower-quality credits has since stabilized, with CCCs outperforming BBs over the subsequent several months, though a sizeable YTD performance gap (8.2% through November 30) remains.

YTD Total Returns by Rating

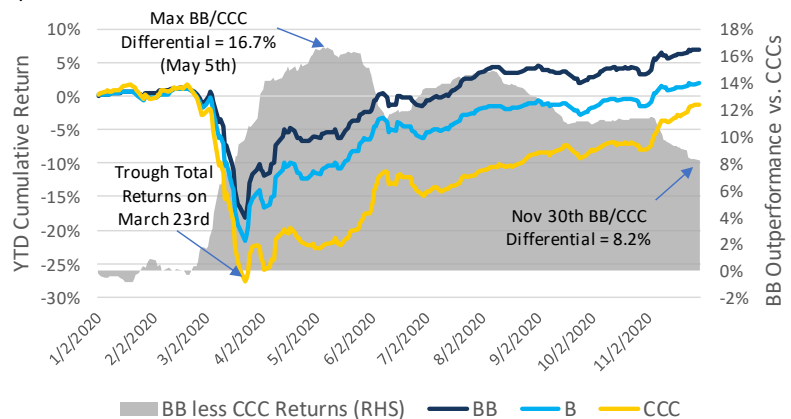
data through November 30, 2020



Source: SKY Harbor, ICE Data Indices

BB vs. CCC Performance Gap Closing But Remains Significant

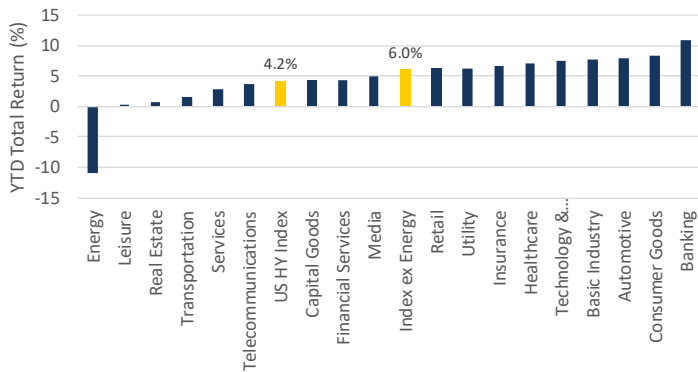
daily data



By sector, Energy has been the weakest performer YTD, trailing H0A0 by over 1,500 bps. Should this dynamic persist through December, the Energy sector will have underperformed the HY Index in nine of the last twelve calendar years. More generally, YTD bottom performers are among the sectors most negatively impacted by the coronavirus, with Leisure and Transportation lagging the index materially. Bucketing H0A0 into COVID and non-COVID sectors (the former including Autos, Energy, Leisure, Retail, and Transportation), maximum underperformance was reached at the end of March (19.5% return differentials), though a gradual re-open and positive developments on the vaccine front have compressed the disparity to a still meaningful 9.1% through the end of November.

YTD Total Returns by Sector

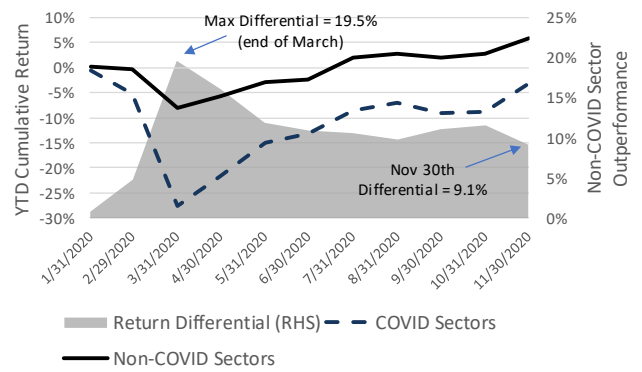
data through November 30, 2020



Source: SKY Harbor, ICE Data Indices

COVID vs. Non-COVID Performance Gap Closing But Still Material

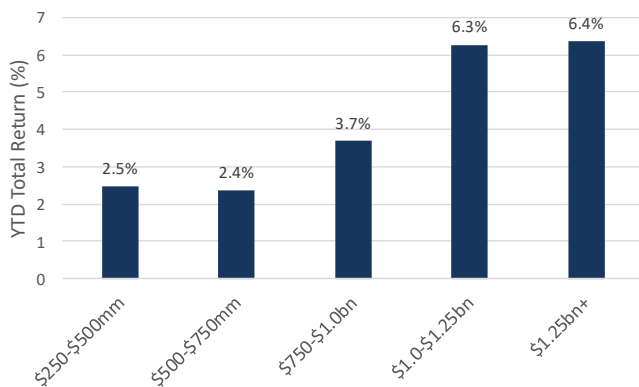
monthly data



Issue size has also been a significant driver of total returns thus far in 2020, with larger issues (in particular, bonds with a face value of \$1bn or above) significantly outperforming small issues (face value below \$350mm). We largely attribute this dynamic to two factors – benefits of scale (particularly in times of volatility), and the impact ETFs have had on high yield markets. With regard to scale, larger companies were believed to be better suited to handle the challenges brought forth by the coronavirus (more robust technological capabilities, greater access to capital, etc.). This dynamic played out across all risk markets early on in the year, with large cap equities proving more resilient than small cap equities in the initial stages of the selloff. We also saw evidence in bankruptcy filings, with the par-weighted default rate 230 bps below the equivalent issuer-weighted measure through November 30. Thus far in 2020, high yield ETFs have reported \$17.5bn in inflows, nearly equaling the total magnitude of 2019 inflows (+\$18.8bn) for all of high yield (mutual funds + ETFs), leading to disproportionate growth. Given size and liquidity needs of ETFs, we believe their preference for larger bond issues partially drove the total return disparity to a high of 8.2% by the end of April. Though the large vs. small performance gap continues to close, we still find a sizeable valuation gap.

YTD Total Returns by Issue Size

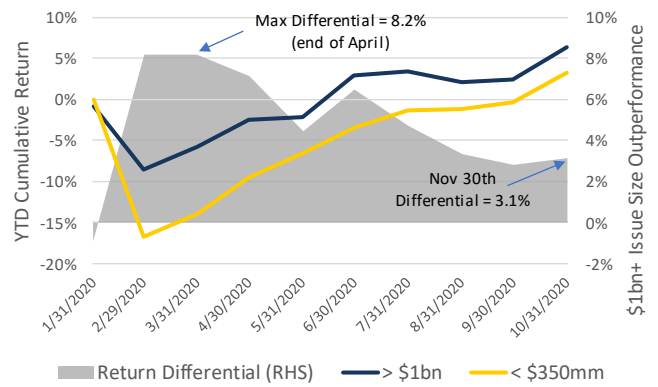
data through November 30, 2020



Source: SKY Harbor, ICE Data Indices

Small vs. Large Performance Gap Closing But Remains Significant

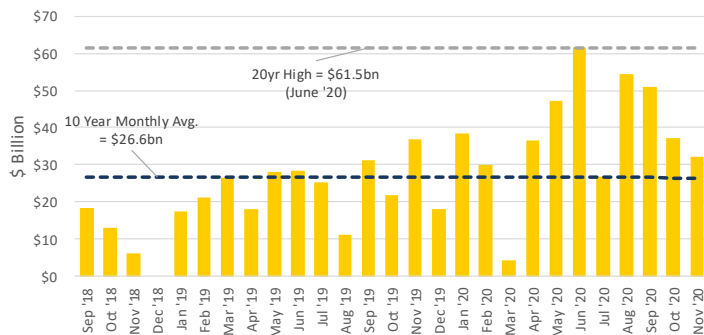
monthly data



A surge in high yield issuance was another key element to 2020 performance. In our view, a peaking of default rates well below prior recession levels was in part driven by the ability of issuers to tap primary markets to roll maturities or bolster balance sheets with additional cash. Aside from a short-lived drop in issuance during March (amidst initial lockdown orders), primary markets were quite active. Through November 30, gross issuance was ~\$420bn, up 52% vs. the same period in 2019. Issuance net of refinancing activity was up 66% vs. the same 11-month period in 2019.

US High Yield Market: Monthly Gross Issuance

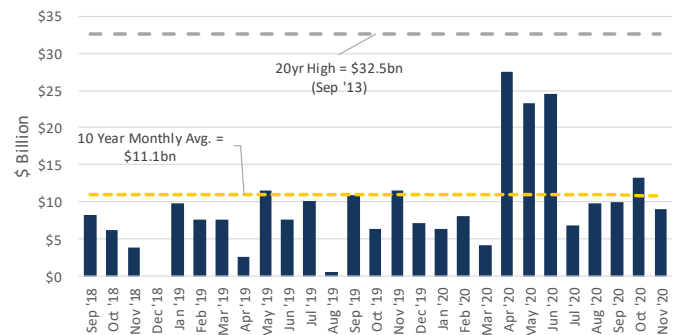
monthly data, last 24 months



Source: SKY Harbor, JP Morgan

US High Yield Market: Monthly Net Issuance

monthly data, last 24 months

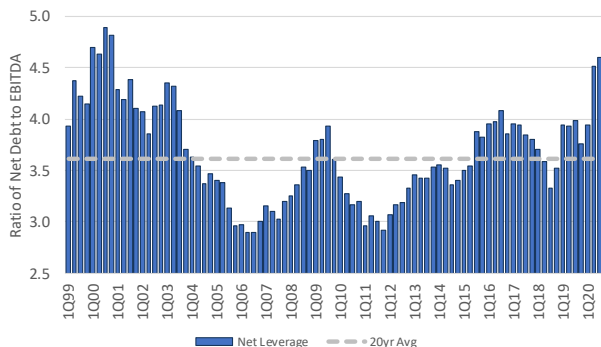


Fundamentals

Although not all US high yield companies have reported Q3'20 results thus far, early indications are pointing toward another quarter of negative EBITDA growth (~ -10%). Coupled with elevated amounts of debt – much of it incurred during peak pandemic months to combat operational free cash flow shortages – net leverage metrics for the **US high yield index in aggregate increased to approximately 4.6x, essentially a turn above the 20yr average of 3.6x, and up from 3.8x at the start of the year (pre-pandemic)**. Coverage has also declined to ~ 4.1x, but remains above the trailing 20yr average by virtue of manageable coupons in this low interest rate environment. Adjusted for accounting changes (the revised treatment of lease obligations), leverage appears to be peaking at roughly the same level as it did during the Global Financial Crisis, and very much in-line with recessionary conditions. Interest coverage, however, remains stronger than usual despite COVID disruptions.

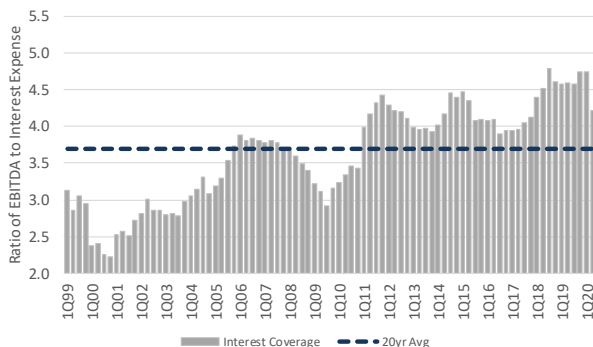
US High Yield Leverage Ratio

20 year time series



US High Yield Coverage Ratio

20 year time series

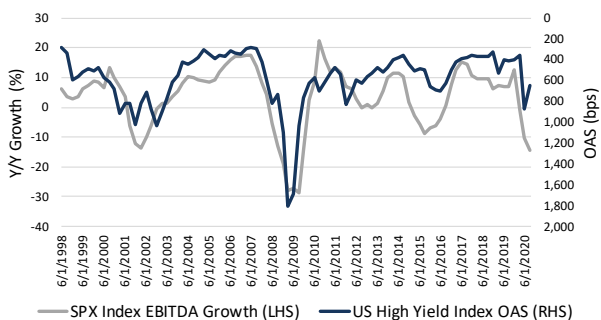


Source: SKY Harbor, BofA Merrill Lynch, Bloomberg, and Capital IQ

Of course, high yield markets are forward-looking in nature, and we find that **spreads typically anticipate inflections in earnings growth one to two quarters in advance**. With this in mind, we are mindful of the outlook for corporate earnings, and typically refer to consensus estimates for public equities for insights into future profitability (the equity sell-side community has well-articulated earnings expectations, and real-time earnings growth for S&P 500 and BofA US High Yield Index constituents have historically been highly correlated). In the coming quarters, consensus expectations call for large cap public company earnings growth in the double-digit range (albeit off a weak 2020 base hampered by COVID disruptions), which provides a strong read-through for our high yield issuers.

US High Yield Spreads vs. S&P 500 EBITDA Growth (1Q Lag)

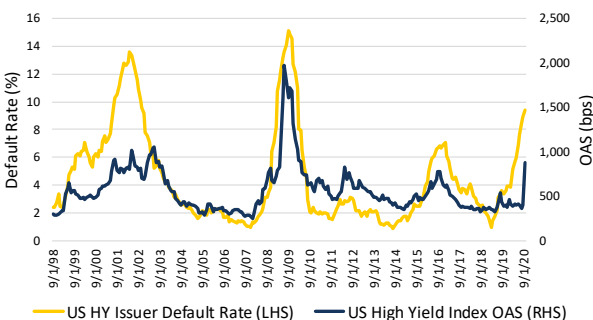
20 years, quarterly data



Source: SKY Harbor, BofA Merrill Lynch, Bloomberg, FactSet, and Capital IQ

US High Yield Spreads vs. Issuer Weighted Default Rate (8 Month Lag)

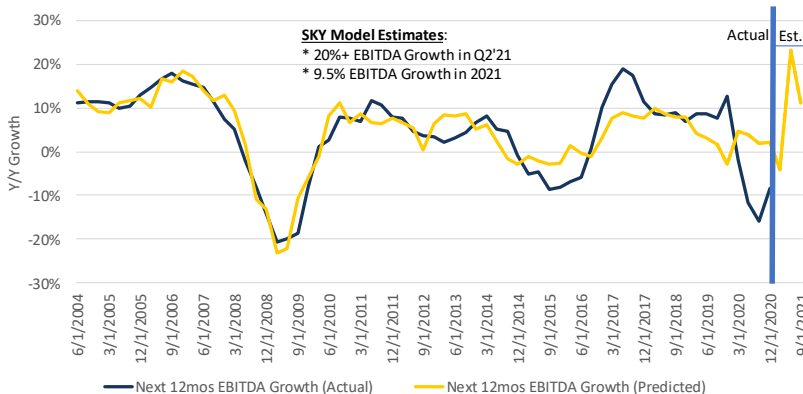
20 years, monthly data



We have also developed a multi-factor regression model to more fully develop an in-house view of underlying fundamental growth potential for high yield issuers. Incorporating measures of CEO confidence, global shipping trends, industrial production, volatility, and other factors, our model output projects **EBITDA growth among S&P 1500 constituents should approximate +9.5% in FY21, with peak growth in excess of 20% during Q2'21**.

S&P 1500 Index EBITDA Growth: Actual vs. Next 12mos SKY Model Predicted

quarterly data, trailing 15 years

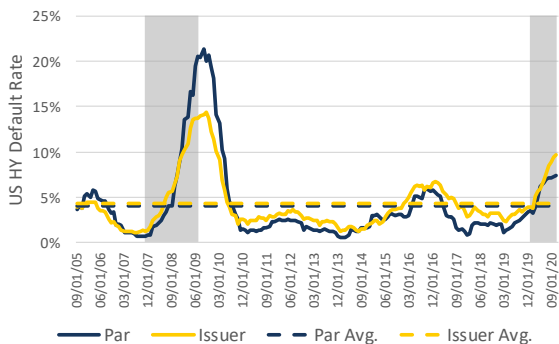


Source: SKY Harbor, Federal Reserve, Baltic Exchange, Chief Executive Magazine, Bloomberg

Index principal losses increased in 2020, with **trailing-12-month issuer and par-weighted default rates of 9.7% and 7.4%, respectively, well above the sub-4% default rate to start the year, and elevated relative to long-run averages.** On an issuer-weighted basis, the Energy sectors has suffered the most defaults (32%), followed by Retail (19%) and Travel/Leisure (12%). As expected, most defaults have come from COVID-impacted sectors, though we think the worst is now largely behind us (our default estimate for 2020 peaks out ~ 10%). In our view, the openness of primary markets even during economic lockdowns, as well as the relatively brief downturn (albeit sharp) prevented default rates from approaching levels experienced during the '08/'09 recession.

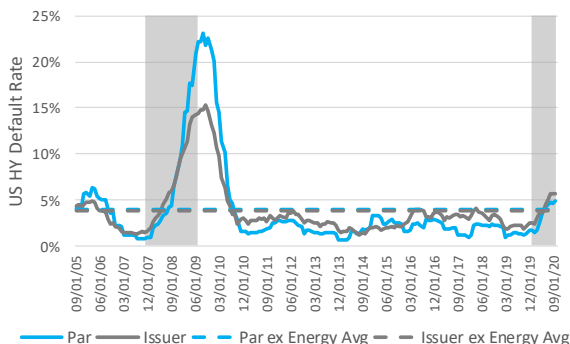
US High Yield Default Rate

monthly data, recessions shaded grey



US High Yield ex Energy Default Rate

monthly data, recessions shaded grey

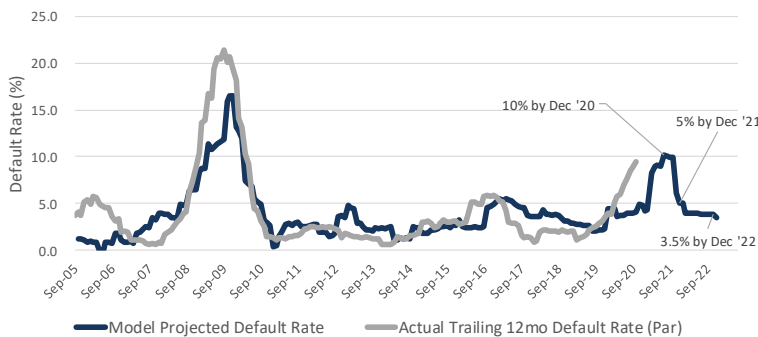


Source: SKY Harbor, BofA Merrill Lynch, National Bureau of Economic Research, Moody's

As with earnings growth expectations, **high yield spreads tend to anticipate inflection points in default rates in advance (~ 3 quarters).** Using our SKY Harbor Default Regression Model, which incorporates the distress ratio, the lending index and a measure of fallen angels to drive projections, our 12-month forward-looking model predicts a **2021 default rate of ~ 5%, with further alleviation to ~ 3.5% by the end of 2022.** These estimates are in-line to modestly below long-run annual averages (4.3% issuer-weighted and 4.1% par-weighted, respectively), and represent significant moderation from where we expect to end 2020.

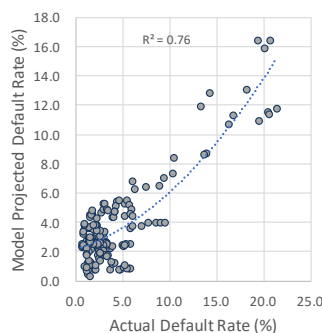
SKY Harbor Default Model

based on monthly data



Regression Fit

based on monthly data

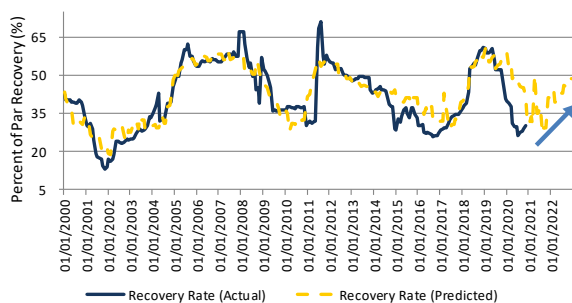


Source: SKY Harbor, BofA Merrill Lynch, ICE Data Indices, Moody's, and Bloomberg

Bond recovery rates – an often-neglected factor in gauging portfolio credit losses (the product of default rates and the difference between a bond issue price and ultimate recovery value) – have remained well below long-run index averages (40% to 45%) for the entirety of 2020. In our view, weak recover rates (~ 30% on a trailing 12 month basis) are the consequence of a sharp upturn in defaults (on an issuer-weighted basis, we started the year with a default rate of 3.9%, and are likely to end at approximately 10%) and the concentration of defaults in a one or two sectors (in this case, Energy and Retail). However, our expectation of improving credit metrics, reduced volatility, falling default rates, and more lenient lending standards points to rising recovery rates over the intermediate term. In particular, we project **recoveries will improve from ~ 30% today to ~ 35% in 2021, and to ~44% in 2022.**

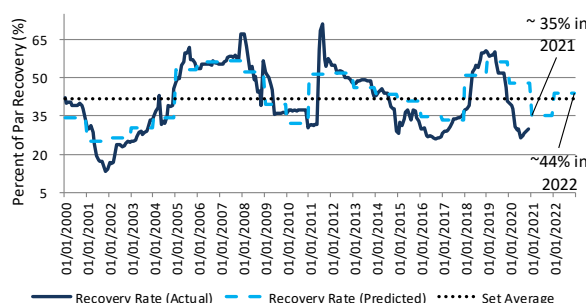
SKY Harbor Recovery Model - Actual vs. Predicted (Monthly)

monthly data, 12 month lag, includes forward looking estimates



SKY Harbor Recovery Model - Actual vs. Predicted (Annual)

monthly data, 12 month lag, includes forward looking estimates



Source: SKY Harbor, BofA Merrill Lynch, Federal Reserve, Bloomberg, and Capital IQ

From a sector basis, we aggregated trends associated with earnings, credit metrics, defaults, recoveries, debt relative to enterprise value multiples and distress ratios. While sectors generally showed fundamental degradation as a result of the pandemic, we find that **Telecom, Technology, Healthcare, Utilities, and Consumer Goods demonstrated the strongest performance** on a relative basis, while **Retail, Leisure, Transportation, Energy, and Capital Goods lagged**. Looking forward into 2021, we think earnings are likely to rebound significantly across most sectors, particularly those highly levered to a full re-opening.

Sector Trends

trailing 2 quarter trends

Sector	EBITDA		Net Leverage	Interest Coverage	Default Rate		Recovery Rate	Net Debt to EV	Distress Ratio
	Growth	vs. Index			(issuer)	(par)			
Automotive	-	-	=	=	=	=	=	=	=
Basic Industry	-	+	-	-	=	=	=	=	=
Capital Goods	-	-	-	-	=	=	=	=	=
Consumer Goods	-	-	+	+	=	=	=	+	+
Energy	-	-	-	-	=	=	=	-	-
Healthcare	+	+	-	-	=	=	=	+	+
Leisure	-	-	-	-	=	=	=	-	-
Media	+	+	-	-	=	=	=	+	+
Retail	-	-	-	-	=	=	=	-	-
Services	-	-	=	=	=	=	=	=	=
Technology & Electronics	+	+	+	+	=	=	=	+	+
Telecommunications	+	+	+	+	=	=	=	+	+
Transportation	-	-	-	-	=	=	=	-	-
Utility	-	+	+	+	=	=	=	+	+

Source: SKY Harbor, BofA Merrill Lynch, Bloomberg, and Capital IQ

Sector Leaders & Laggards

cumulative directionality over trailing 2 quarters

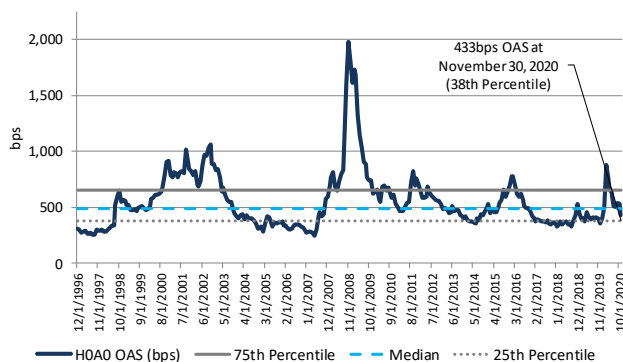
Superior Sector Trends	Inferior Sector Trends
Telecom	Retail
Tech	Leisure
Healthcare	Transportation
Utility	Energy
Consumer Goods	Capital Goods

Asset Valuations

Based on prevailing market conditions, we expect to start 2021 with index OAS wider than prior year, even with the expectation that spreads will continue to compress through December on further vaccine developments and stimulus talks. Valuations are certainly not as attractive as they were after H0AO breached 1,000 bps in March, but the alleviation of US political risk and rising confidence in global herd immunity to the coronavirus by mid-2021 have justifiably boosted sentiment and led to a market rally. With that said, **US high yield (H0AO) spreads at the end of November were ~ 433 bps, registering 38th percentile based on monthly data going back to index inception (1996). Short duration US high yield spreads of 385 bps rank somewhat better at 45th percentile.** For context, H0AO and JVC4 spreads were 19th and 22nd percentile, respectively, at the start of 2020.

Historical Spreads - ICE BofA US High Yield Index (H0AO)

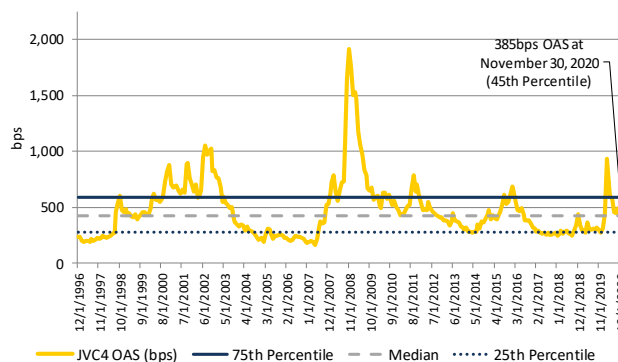
(December '96 to Present)



Source: SKY Harbor, ICE Data Indices

Historical Spreads - ICE BofA 1-5 Year BB-B US Cash Pay High Yield Constrained Index (JVC4)

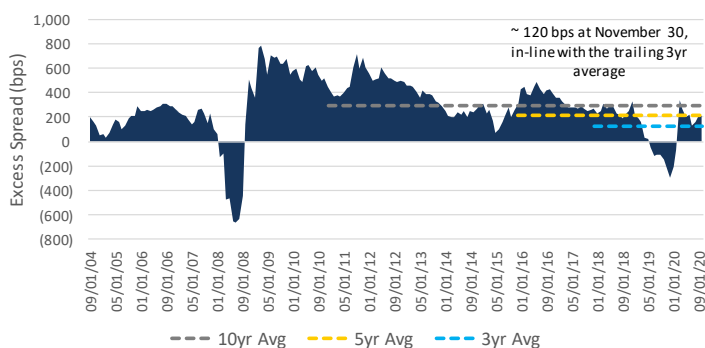
(December '96 to Present)



Excess spread – or the spread of the high yield index after accounting for expected credit losses over the next 12-month period – was approximately 120 bps at November 30, essentially in-line with the trailing 36-month average, though modestly below median levels since 2004. In our view, **excess spreads are likely to remain below the long run average of ~ 300 bps given comparatively attractive high yield coupons amidst a global search for yield.** We present our forward-looking excess spread model when discussing 2021 total return expectations later in this report.

Historical US High Yield Excess Spreads

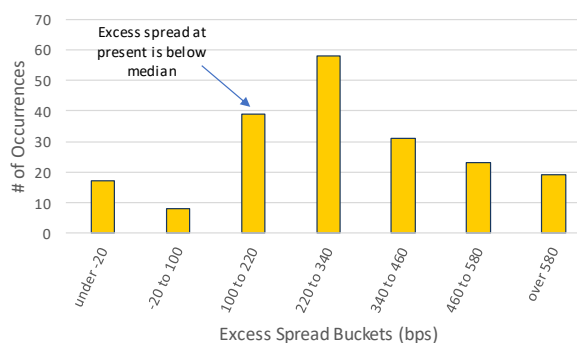
OAS less next 12 months credit losses



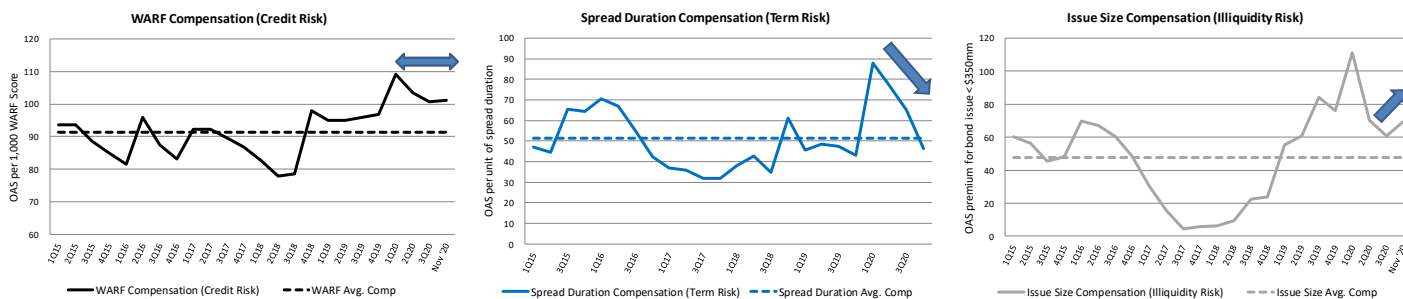
Source: SKY Harbor, ICE Data Indices, BofA Merrill Lynch

Historical Excess Spread Distribution

monthly data since 2004



The composition of risk changed throughout 2020 and was particularly volatile during the initial stages of the selloff (Q1'20 – Q2'20). Our compensation analysis breaks down the components of option-adjusted spread into term risk (spread duration), credit risk (WARF scores) and liquidity risk (issue size), and then we perform a regression analysis on these factors over the index since 2010. As shown below, credit risk compensation is essentially unchanged over the last several quarters and remains above 5yr levels (~ 110% of average). Term risk compensation has come down with rates since the start of 2020, and now scores below 5yr levels (~ 90% of average). Liquidity risk compensation increased significantly during the initial lockdown phases, though it has recovered somewhat on attractive valuations, in our view. At present, compensation for illiquidity is nearly 150% of trailing 5yr levels. By these measures, **liquidity and credit risk appear best compensated, with term risk now below trailing 5yr norms.**

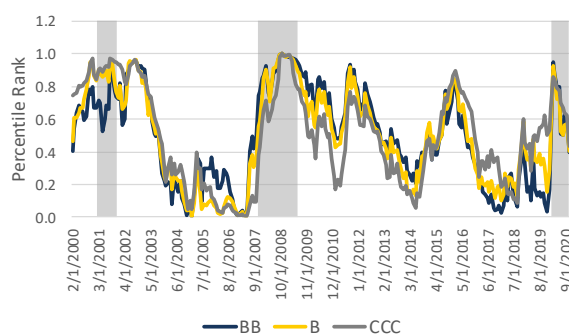


Source: SKY Harbor, ICE Data Indices, Moody's

When viewed on a percentile ranking basis, we find that BB outperformance in 2019 and 2020 has pushed the ratings bucket into "rich" territory, with OAS at present registering in the 39th percentile. **We find better value in lower quality sub-indices**, with the Single-B and CCC OAS of 41st and 43rd percentiles, respectively.

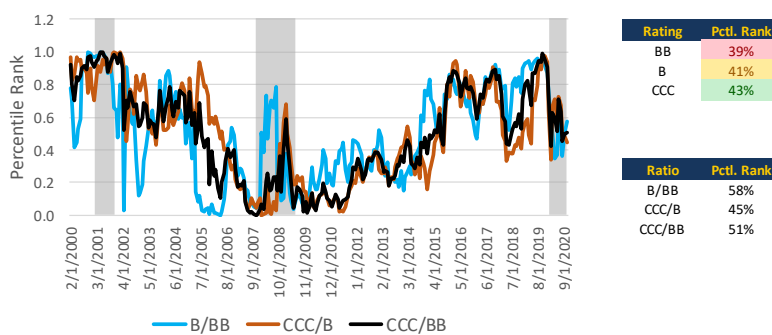
Rating Bucket OAS Percentile Rankings

monthly data since index Jan 2000, recessions shaded grey



Rating Bucket Ratio Percentile Rankings

monthly data since index Jan 2000

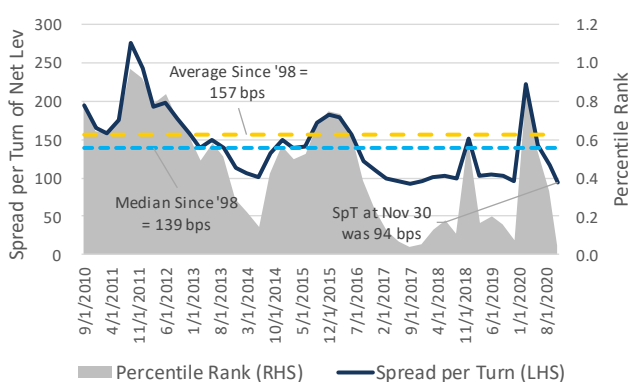


Source: SKY Harbor, ICE Data Indices

Balance sheet damage has been significant over the last two quarters, as the near halting of economic activity weighed heavily on EBITDA generation in both Q2 and Q3'20. As a result, net leverage has increased to recessionary levels, reaching 4.6x thus far (not all issuers have reported Q3'20 results at the time of writing), and up significantly from 3.8x at the start of the year. As such, **spread per turn of net leverage metrics are decidedly weak at 94 bps, well below the long-run average of ~ 157 bps.** Consistent, however, with the forward-looking nature of spreads, high yield bonds have tightened in anticipation of improving credit metrics upon a return to more normal business conditions in 2021. By sector, those hit hardest by COVID score the weakest, with Transportation, Hotels & Leisure, and Energy EBITDA generation going negative. Operating models that in some ways have benefitted from the disruption (Healthcare & Technology), as well as those with secular tailwinds as a result of pandemic lifestyle changes that may persist even after a re-open (Autos, Real Estate) score more favorably.

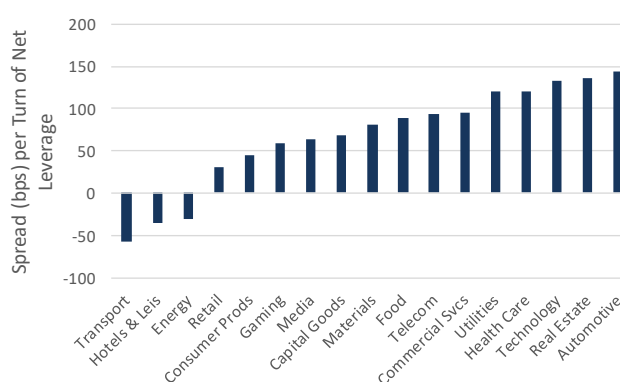
US High Yield Index: Spread per Turn of Net Leverage

quarterly data, last 10 years



COVID Disruptions Distort Sector Spread per Turn of Net Lev

data at November 30, 2020

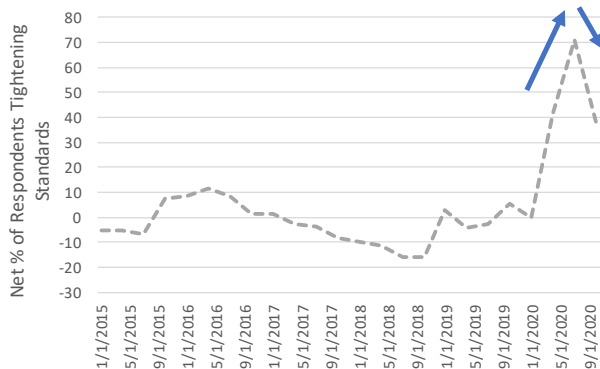


Source: SKY Harbor, BofA Merrill Lynch, ICE Data Indices

In addition to vaccine hopes and reduced political uncertainty, an inflection in the Senior Loan Officer Opinion Survey on Bank Lending Practices (left chart below, and a key factor in our forward-looking default regression model) combined to push high yield spreads down to ~ 440 bps by the end of November, a level that hadn't been reached since before the first reported coronavirus-induced death in the US. But, while index-level spreads at present are similar to those in late February 2020, trading levels of underlying constituents, in many cases, remains dramatically different.

Senior Loan Officer Survey Inflection

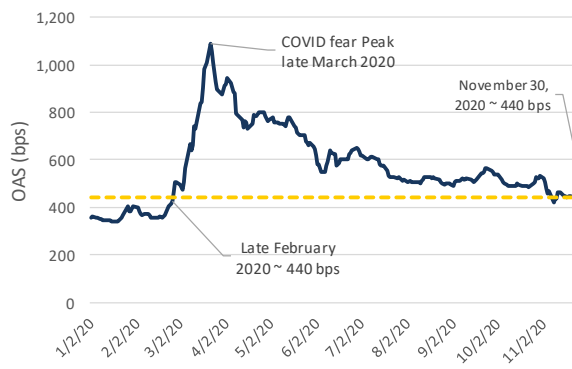
Net % of Domestic Respondents Tightening Standards



Source: SKY Harbor, Federal Reserve, ICE Data Indices, Bloomberg

Post Vaccine, Spreads Have Rebounded to Late Feb '20 Levels

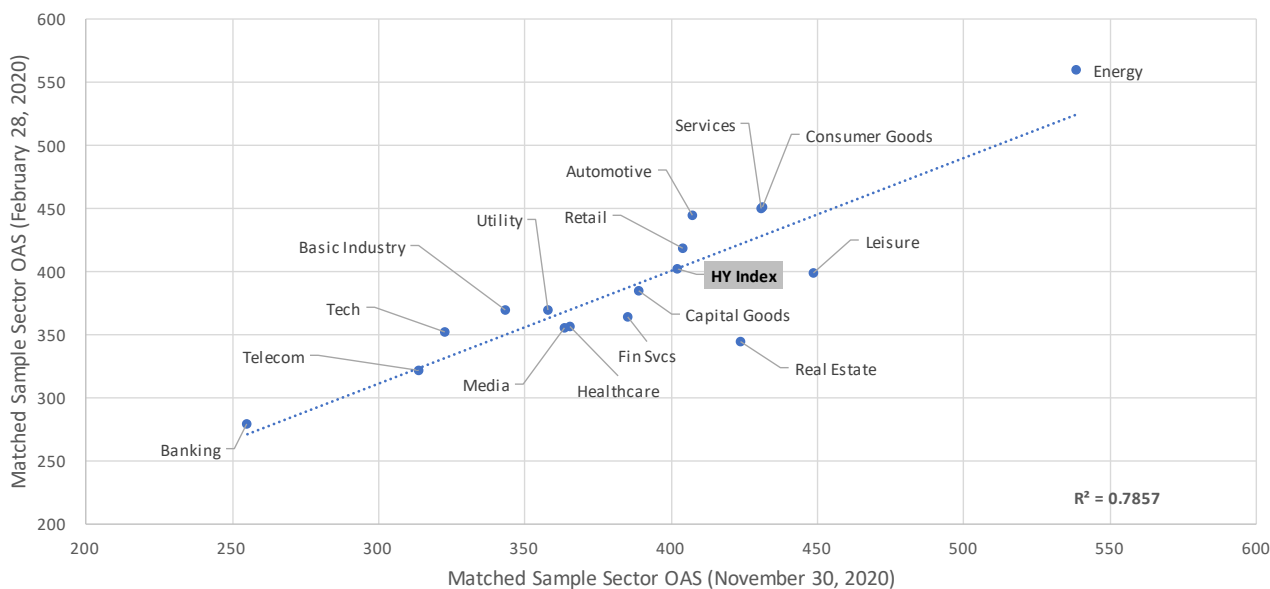
OAS, in bps



Given significant sector-level changes over the last several months – most notably from fallen angels entering and defaulted securities exiting the index – we created a matched sample universe limited to constituents contained within H0A0 both today and in late February. Furthermore, in an effort to exclude bonds whose spread may have been influenced by technical or structural factors, we eliminated any issue that traded at distressed levels or outside of a duration range of 2 to 8 in either period. The resulting data set, which numbered 600 issues and represented nearly half a trillion dollars in face value, was then segmented by sector. Below, we chart each sector on a scatterplot, with average spreads at November 30, 2020 along the x-axis, and average spreads at February 28, 2020, along the y-axis. Percentile rankings derived from a ratio of current to Feb 28 OAS levels show that Banking, Autos, Tech, and Basic Industry credits have tightened most significantly (and now on average trade inside of late February levels), while Real Estate, Leisure, Financial Services, Healthcare, and Media have lagged (and on average continue to trade wide of late February levels).

Pre-COVID / Post-Vaccine News Relative Value

matched sample sector spreads (min 1% of sample size)



Tighter Now Than Late February

- Banking
- Autos
- Tech
- Basic Industry
- Consumer Goods

Wider Now Than Late February

- Real Estate
- Leisure
- Financial Services
- Healthcare
- Media

Source: SKY Harbor, ICE Data Indices

Finally, we conclude this segment on valuation with our internal spread model, which utilizes regression analysis to predict fair value index spread levels using key macro indicators. Our broad high yield model, by virtue of spreads tightening more quickly than underlying economic improvement (which is not uncommon midway through recessionary environments) shows relative valuations to be somewhat “rich.” Our short duration high yield model, by virtue of lower volatility and open new issue markets, screens somewhat better within the “fair value” range. Nevertheless, **we maintain an optimistic view of high yield credit, and continue to believe that the pace of economic improvement in 2021 will catch up to the spread rally from peak uncertainty, allowing for further compression.** Furthermore, and as always, credit selection will be imperative to generate alpha in the coming quarters, particularly since the most severe instances of credit market dislocation have been already corrected.

SKY Harbor US High Yield Spread Model

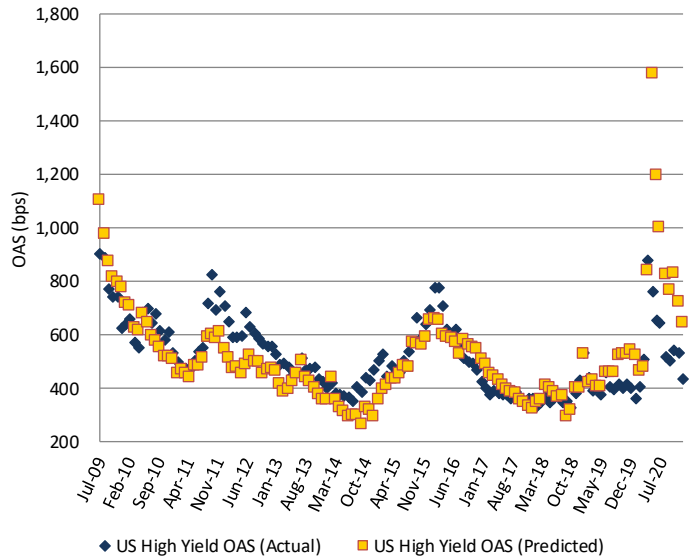
Index	Ticker	Actual OAS	Model Predicted OAS	Relative Value
ICE BofA US High Yield Index	HOA0	433	646	Rich
ICE BofA BB US High Yield Index	HOA1	308	461	Rich
ICE BofA Single-B US High Yield Index	HOA2	465	613	Rich
ICE BofA CCC & Lower US High Yield Index	HOA3	922	1111	Rich

US High Yield Regression Model Coefficients

St. Louis Fed Financial Stress Index
Capacity Utilization
US Industrial Production
ISM Purchasing Managers Index (PMI)

As of November 30, 2020. Ratings classes use the same factors as the HY Index regression.
Source: SKY Harbor, ICE BofA Indices, Federal Reserve and Bloomberg
1 Variable definitions available upon request

This multivariate linear regression analysis is for information purposes only. This analysis uses historical month-end data for the four factors shown and is not intended as the basis of a model portfolio or buy/sell decisions on any particular security. The analysis is one of many inputs in our investment decision-making process. High R² values are not intended to be taken as a guarantee of future results as differences in any of the four factors going forward can result in significant departures from predicted values. See additional disclaimers included with this presentation.



SKY Harbor US Short Duration High Yield Spread Model

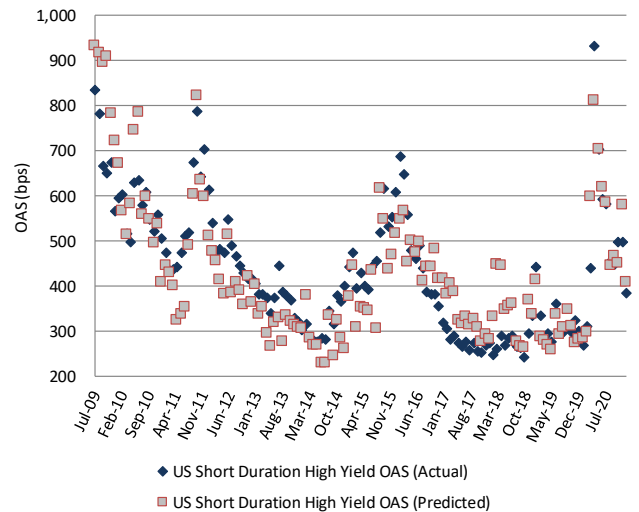
Index	Ticker	Actual OAS	Model Predicted OAS	Relative Value
ICE BofA 1-5Yr BB-B US High Yield Constrained Index	JVC4	385	410	Fair Value

US High Yield Regression Model Coefficients

CBOE Volatility Index
Capacity Utilization
US Industrial Production
Senior Loan Officer Opinion Survey on Bank Lending Practices

As of November 30, 2020.
Source: SKY Harbor, ICE BofA Indices, Federal Reserve, Baker Bloom & Davis, and Bloomberg
1 Variable definitions available upon request

This multivariate linear regression analysis is for information purposes only. This analysis uses historical month-end data for the four factors shown and is not intended as the basis of a model portfolio or buy/sell decisions on any particular security. The analysis is one of many inputs in our investment decision-making process. High R² values are not intended to be taken as a guarantee of future results as differences in any of the four factors going forward can result in significant departures from predicted values. See additional disclaimers included with this presentation.



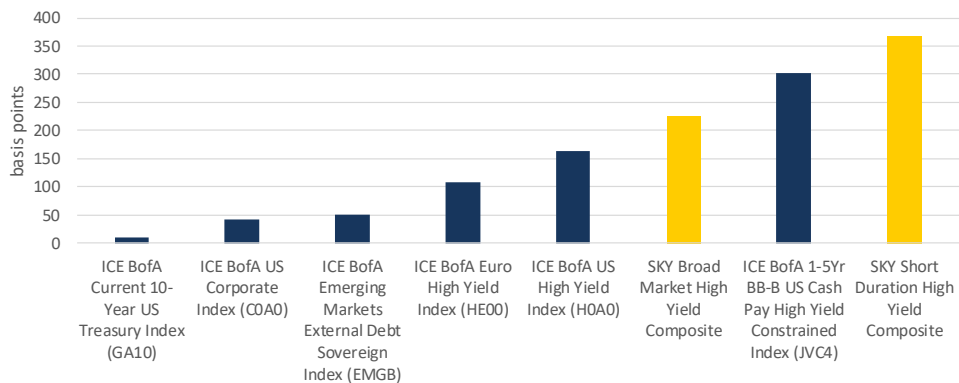
We acknowledge that credit yields have decreased over the last several months, despite lingering risks. As such, some investors may be concerned that yields may be poised to increase over the next 12 months, perhaps due to rising rates (via inflation from continued stimulus spending) or a surge in equity risk premiums (further spread of the virus should inoculation efforts disappoint). While we do not include either scenario in our base case, we nevertheless re-simulated the impact a hypothetical environment of rising yields would have on various fixed income asset class returns, updated to reflect post-rally metrics. Like our original analysis, the following simulation aims to calculate the maximum all-in yield increase an asset class could handle before total returns fell below breakeven levels (i.e., the point at which interest income is fully offset by the negative impact of rising yields). Our model maintains the following assumptions:

- 12 months investment horizon
- Increases in yield are linear in nature across all asset classes and occur in equal monthly increments
- No credit losses via defaults; no performance drag via downgraded securities exiting an index
- Coupon payments are reinvested in their respective strategies
- The driver of higher yield (whether by an increase in Treasury yields or a widening of spreads) is not specified
- No absorption of increased Treasury yields through spread compression (and vice versa)
- We include an estimate for duration extension for relevant asset classes under various widening scenarios
- No impact from roll-down as we assume investments are within a fund and repositioning would mitigate this impact
- Metrics are re-set monthly (increased carry and extension-related duration)
- Goal Seek is utilized to find the maximum increase in yield that would correspond to a 0% (breakeven) return

Our findings show both broad and short duration high yield (the ICE BofA US High Yield Index and ICE BofA 1-5Yr BB-B US Cash Pay High Yield Constrained Index, respectively) to be better positioned than adjacent fixed income indices (ICE BofA Euro High Yield Index, 10-yr Treasuries, investment grade corporates, EM, etc.) to generate breakeven returns in a rising yield environment. For example, our simulation estimates that the ICE BofA 1-5 Year BB-B US Cash Pay Constrained Index (JVC4, a proxy for short duration high yield) could absorb over 350 bps of linear yield widening over a 12-month period and still generate a total return of 0%. In contrast, the ICE BofA US Corporate Index (COA0, a proxy for investment grade credit) could only absorb ~ 45 bps of linear yield widening over a 12-month period before returns fall below 0%. The chart below plots breakevens for several fixed income indices under the assumptions listed above. Additionally, we further delineate breakevens for our broad market and short duration composites in gold, as well as for rating buckets within the US high yield index.

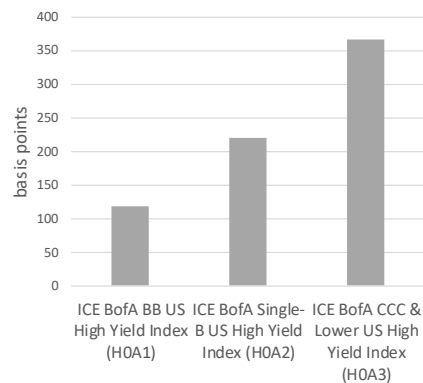
Breakevens by Index

12-month time horizon



US High Yield Breakevens by Rating

12-month time horizon



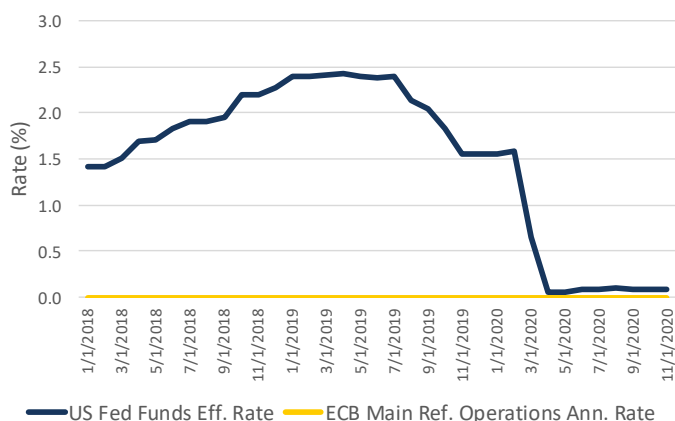
Source: SKY Harbor, ICE Data Indices

Given changes to some of our underlying funds – which now give us additional investment universe flexibility – we thought it appropriate to compare US and EUR high yield indices from a relative value perspective. In comparing total return differentials over time, we have found that FX hedging costs, starting spreads, credit fundamentals, geographic trends in economic output, volatility, and interest rates show considerable explanatory power.

According to Bloomberg consensus expectations, both the US and Eurozone are expected to generate strong GDP growth in 2021 and 2022 (+3% to +5%), driven by the potential for a permanent re-opening and accommodative monetary and fiscal policy. Additionally, both the Fed and the ECB are expected to keep interest rates low over the intermediate term, further enhancing the attractiveness of below-investment-grade yields. Defaults, which justifiably ticked up during the pandemic, are also expected to moderate.

Rates Expected to Stay Low in Both US and Europe

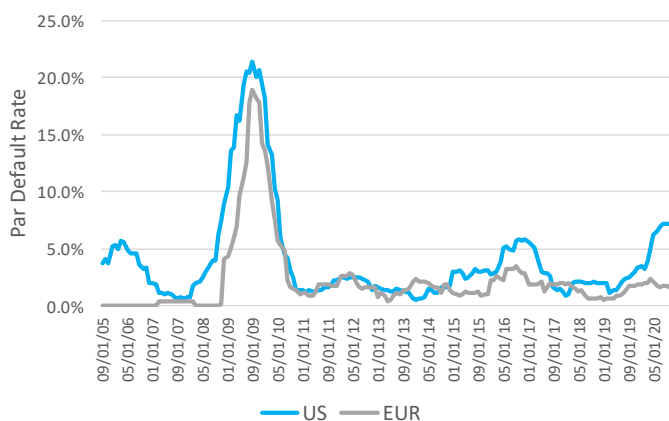
monthly data



Source: SKY Harbor, Federal Reserve Bank of New York, European Central Bank, BofA Merrill Lynch, ICE Data Indices, Bloomberg

Default Rates Likely to Moderate in Both Markets for 2021

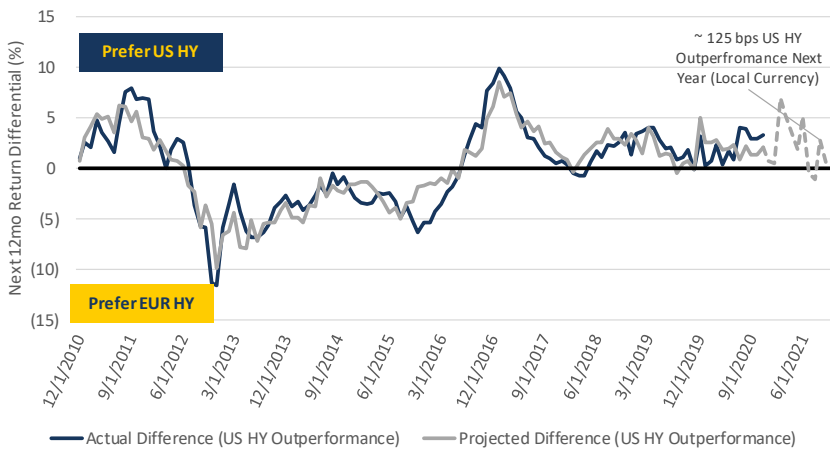
monthly data



Putting all the datapoints together in a multi-factor regression model, our projections call for a total return advantage of US over EUR high yield of ~ 125 bps in 2021, calculated on a local currency basis. At November 30, 2020, the annualized USDEUR hedging cost was ~ 95 bps, leaving a **small, albeit positive expected advantage for US high yield after adjusting for currency considerations**. Finally, though we continue to favor US over EUR high yield in aggregate, we have identified attractive EUR for USD issue swaps that should allow for yield enhancement after FX hedging costs.

Next 12mo Returns: US High Yield (HOA0) less EUR High Yield (HE00)

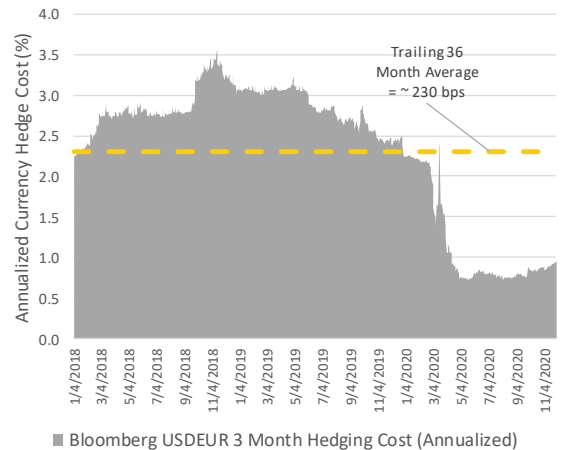
actual and projected data



Source: SKY Harbor, Federal Reserve Bank of St. Louis, Federal Reserve Bank of New York, Bundesministerium für Wirtschaft und Arbeit, Institute for Supply Management, ICE Data Indices, Bloomberg

US HY less EUR HY Returns Modestly Above FX Hedge Cost

daily data



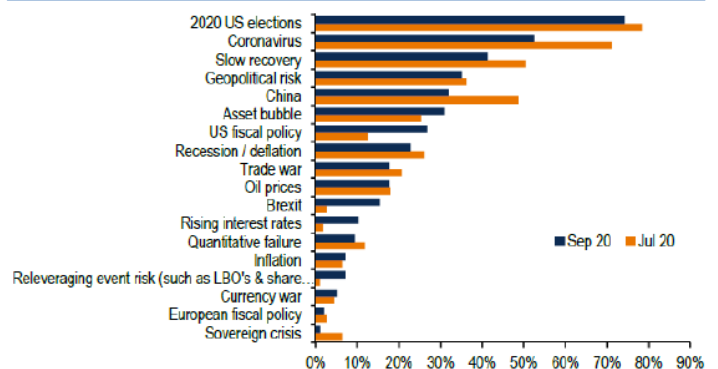
Sentiment

As a participant in the BofA Merrill Lynch Credit Investor Survey, we actively monitor the sources of greatest concern among high yield investors, and their associated changes every other month. With US election uncertainty (mostly) behind us, risks associated with a third wave of the coronavirus (and the potential for further lockdowns) have taken top billing. Despite positive vaccine developments, issues with production could delay preliminary inoculation timelines, leading to further drags on economic output and putting lofty 2021 GDP growth estimates at risk. The threat of rising rates is also a concern – despite FOMC statements to the contrary – as some fear influx of stimulus spending could spur inflation. On balance, however, **the sum of concerns has undoubtedly decreased over the last few months**, particularly as an end to coronavirus-related disruptions appear to have an end in sight.

BofA Merrill Lynch Most Recent Credit Investor Survey



Prior BofA Merrill Lynch Credit Investor Survey



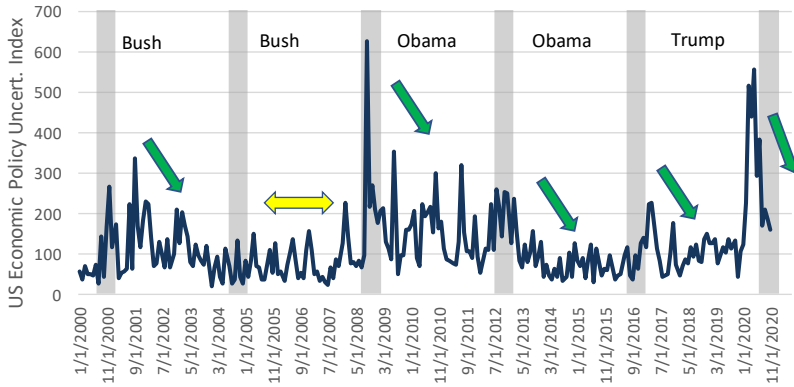
Source: SKY Harbor, BofA Merrill Lynch Global Research; The BofA survey queries a range of institutional investors, including money managers, hedge funds insurance companies, banks and pension funds.

One impasse after another stymied a second COVID relief package over the last three months, but consensus thinking is that both sides may be able to find common ground and inject dollars into the economy now that a bitterly contested election is (nearly) in the rear view mirror. **A bipartisan stimulus package, though likely to be much smaller than the \$2tn + plan envisioned by Democrats when they were on the precipice of a sweep, continues to be negotiated on both sides of the aisle.** Leadership – House Speaker Pelosi and Senate Majority Leader McConnell – has recently expressed openness for compromise, and Fed Chairman Powell urged additional fiscal support in each of his last two press conferences. In aggregate, economists are now predicting a \$1tn stimulus plan to be approved under a divided government, nearly equivalent to 5% of the nation's GDP. The Fed has also been supportive, announcing that rates and the pace of asset purchases will remain unchanged during the most recent FOMC meeting last week.

Consistent with most post-election periods, **the US Economic Policy Uncertainty Index has moderated following a pre-election surge.** The indicator – which tracks newspaper publications for key words like “economy,” “uncertainty,” “legislation,” “deficit,” “regulation,” and other factors related to policy changes – has proven to be positively correlated with US high yield spreads over time. Since election week, the indicator has decreased by nearly 50%, with the tightening of spreads directionally consistent with historical trends.

Economic Policy Uncertainty Typically Declines After an Election

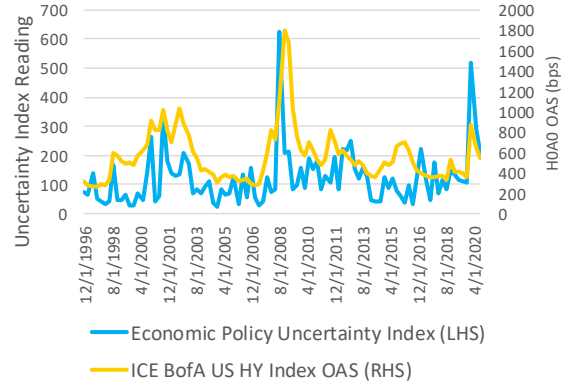
monthly data, shaded areas represent the period 4 months prior to and immediately after elections



Source: SKY Harbor, ICE Data Indices, Baker, Bloom, & Davis

EPU Positively Correlated to US High Yield (HOA0) OAS

quarterly data

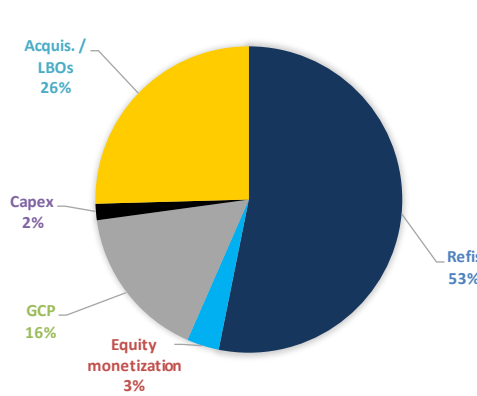


Technicals

As highlighted in our 2020 outlook, the relatively low interest rate environment enjoyed by corporate issuers over the last several years did not spur a wave of aggressive debt issuance, as **the percentage of new bond deals to fund leveraged buyouts and other hallmarks of frothy market conditions remained well below what occurred in prior late-cycle periods (2006 and 2007 in particular)**. Stress brought about by the onset of the coronavirus, however, did cause new issuance for general corporate purposes (GCP) to increase in Q2 and Q3'20, largely a function of management teams proactively bolstering liquidity amidst rising uncertainty. Going forward into 2021, higher than normal cash balances could become problematic should management teams embark upon shareholder friendly initiatives as virus risks fade. As an offset, however, many management teams we follow will continue to prioritize debt reduction even as business conditions normalize.

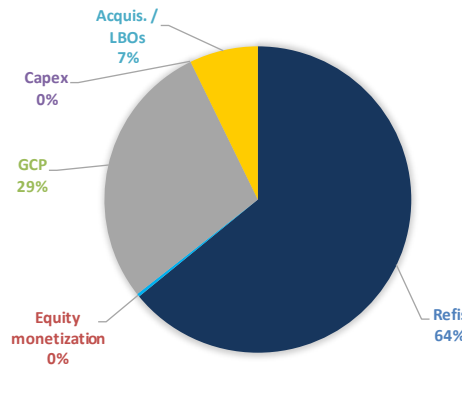
New Issue Use of Proceeds

Trailing 15 Year Average



New Issue Use of Proceeds

2020 YTD



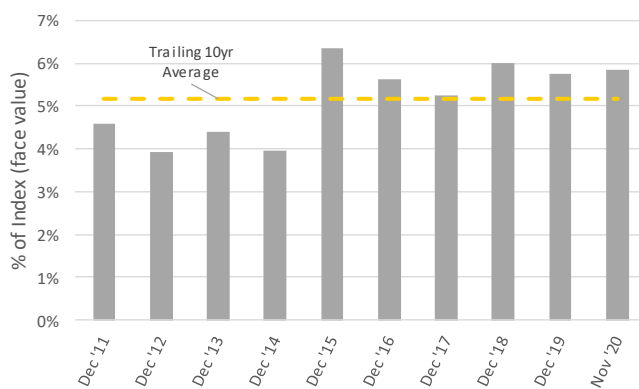
Use:	Percent of All Proceeds		
	Prior 15Yrs	2020 YTD	Trend
Refis	53%	64%	Higher
Dividends	3%	0%	Lower
GCP	16%	28%	Higher
Capex	2%	0%	Lower
Acquis. / LBOs	25%	7%	Lower

Source: SKY Harbor, BofA Merrill Lynch

In projecting market technicals for 2021, we break down the key elements of high yield bond supply and demand. Historically, a strong indicator of future refinancing activity is the absolute amount of debt due in the next 12-24 months, the percentage of the market trading to an early call, and the relative abundance of securities with coupons that exceed their market yield. Despite heightened activity in 2018, 2019, and YTD 2020, **we expect strong refinancing volumes to persist in 2021, as coupons remain elevated relative to prevailing market yields.**

Percentage of HOA0 Maturing Over Next 2 Years

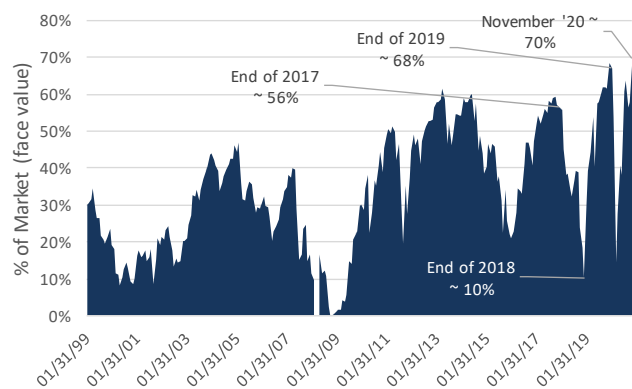
proxy for refinancing activity



Source: SKY Harbor, ICE Data Indices

Percentage of Market Trading to a Call (YTW < YTM)

proxy for refinancing activity

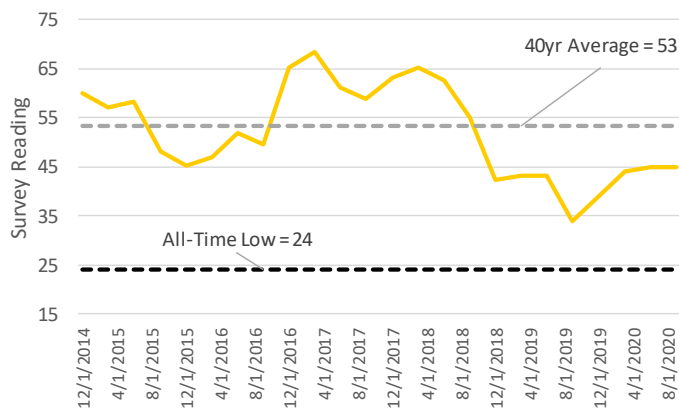


Equity dividends have historically made up a very small portion of new issuance, and we expect this trend to prevail in 2021 (not the least of which is due to US tax reform which caps interest deductions and disincentivizes excess leverage). Similarly, debt raised to support general corporate purposes, which increased in 2021 as management teams added cash to their balance sheets in an abundance of caution, will likely stay muted given our expectation of business conditions reverting to more normalized levels in H2'21.

We find acquisition and LBO activity to be more difficult to predict, but note that this cohort has historically been highly correlated to CEO confidence (which is below average but rising), the amount of regulatory uncertainty (to be determined following run-off Senate elections), enterprise value multiples (relative attractiveness of targets have diminished via the strong equity rally), and prevailing Treasury yields (economic health offset by the impact to financing costs). Putting these factors together, we forecast stable to modestly rising Acquisition/LBO financing needs in 2021.

Conference Board CEO Confidence Survey

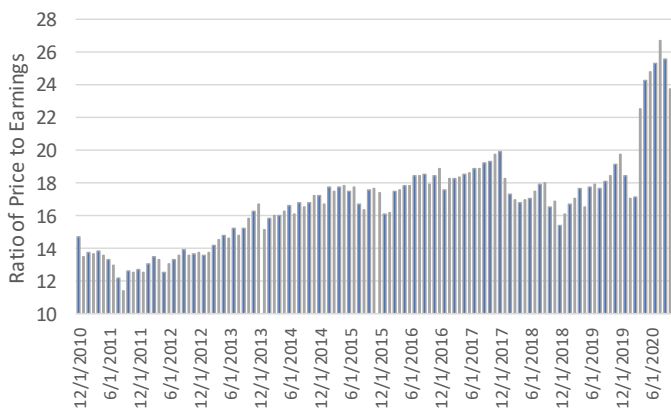
quarterly data, trailing 5 years



Source: SKY Harbor, The Conference Board, Bloomberg

S&P 500 Index P/E Multiples

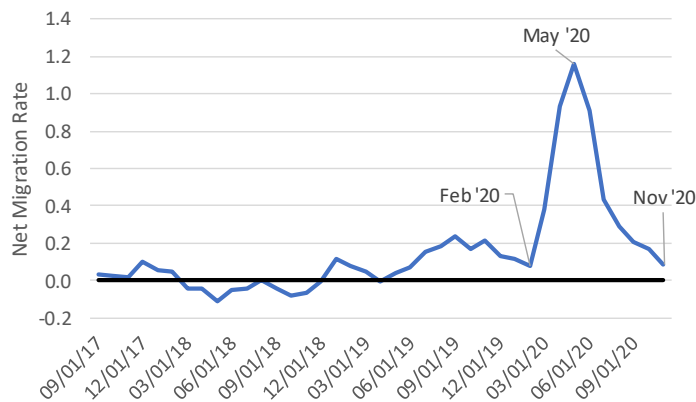
monthly data, trailing 10 years



Fallen angel volumes, net of rising stars, have historically been driven by the prevailing upgrade/downgrade ratio (now getting close to parity after a significant swing toward elevated net downgrades in the middle of the year), net leverage metrics (weakened due to virus disruptions in 2020, but we expect a recovery in 2021), earnings trends (again, weakened due to virus disruptions in 2020, but we expect a recovery in 2021), and the size of the BBB index relative to the BB index (this continues to trend negatively). Fallen Angels rapidly outpaced Rising Stars in 2020 (\$180bn vs. \$12bn, respectively), largely the result of deteriorating credit metrics as economic activity ground to a halt. The trend, however, has slowed, with Q4'20 inching close to parity after sizeable differences earlier in the year. Our model projects this dynamic will continue to narrow and may even reverse in the second half of 2021 on faster-than-expected corporate earnings growth, further improving technical tailwinds.

US High Yield Rating Migration Rates

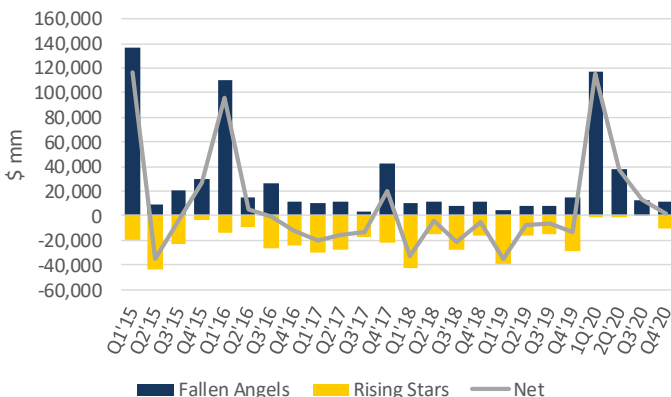
trailing-3-month rates, last 3 years



Source: SKY Harbor, BofA Merrill Lynch

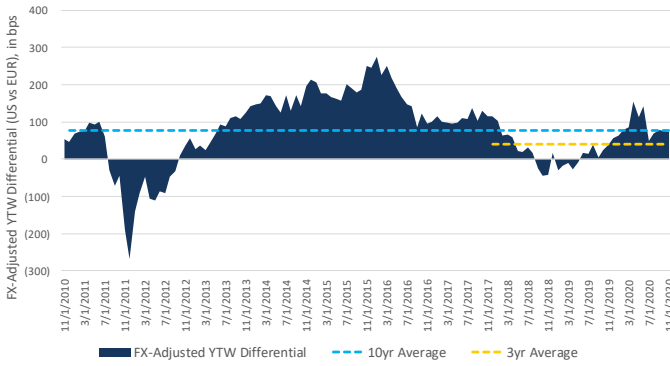
Rising Stars vs. Fallen Angels

upgrades vs. downgrades



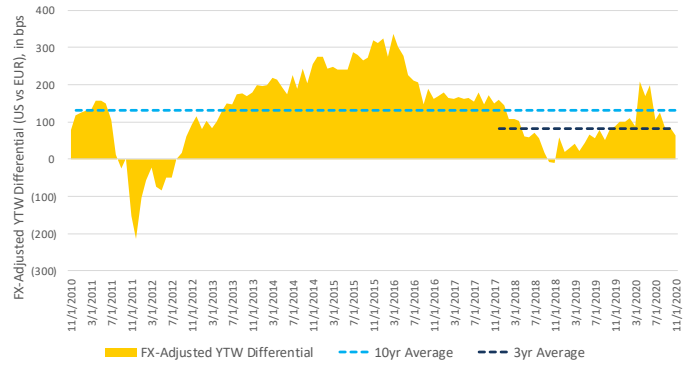
On the demand side, we expect the search for yield to persist given the abundance of negative yielding debt on a global basis. Additionally, **the cost to hedge FX exposure – particularly for EUR investors looking at the US high yield asset class – has decreased meaningfully over the last 24 months** and is now ~ 1/3 of recent peak levels. As demonstrated in the chart below (left side) the FX adjusted YTW of H0A0 exceeds the YTW of the ICE BofA Euro High Yield Index (HE00), offering EUR-based investors ~ 75 bps of additional yield at present (above the trailing 3yr average of ~ 42 bps). For EUR investors looking at short duration high yield, the FX-adjusted YTW of JVC4 is ~ 65 bps above a comparable subset of HE00 (right chart below).

Yield Pickup for EUR Investors (US High Yield YTW after Hedging Costs less Euro High Yield YTW)
monthly data, last 10 years



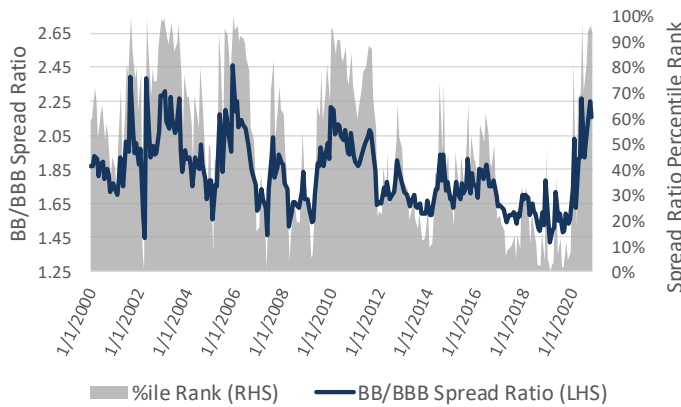
Source: SKY Harbor, Bloomberg, ICE Data Indices

Yield Pickup for EUR Investors (US SD High Yield YTW after Hedging Costs less Euro SD High Yield YTW)
monthly data, last 10 years



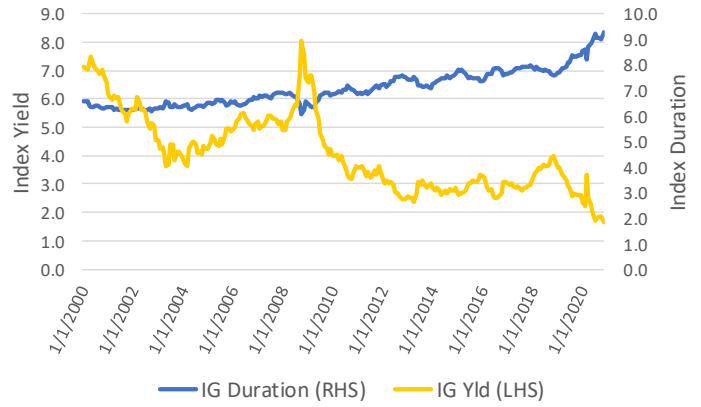
We also expect crossover interest from investment grade buyers – particularly in the BB space – driven by a desire to boost portfolio yield and reduce duration. As demonstrated in the charts below, the BB/BBB spread ratio registers top decile on an historical basis, and may attract interest from investment grade managers, particularly given record-low yields and record-high duration in the US IG Index (ICE BofA US Corporate Index, ticker COAO).

Elevated BB/BBB Spread Ratio Could Attract Crossover Buyers
monthly data, since 2000



Source: SKY Harbor, ICE Data Indices

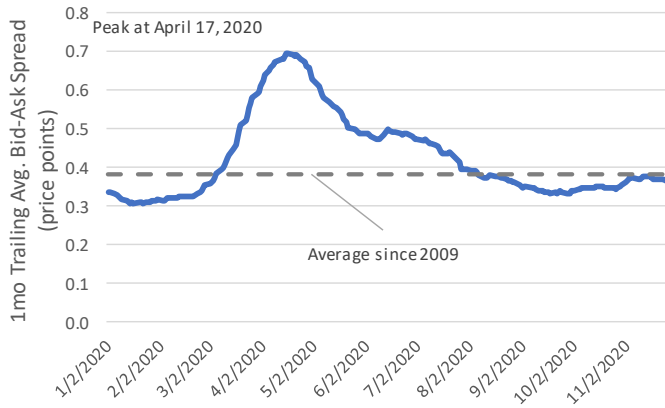
IG Yields At All-Time Lows; Duration at All-Time Highs
monthly data, since 2000



Overall, we expect another year of elevated high yield bond supply in 2021, though likely below 2020 levels on reduced need for GCP and fewer fallen angels that more than offset the potential for an uptick in acquisition financing. Additionally, we think all-in yields, reduced FX hedging costs, and crossover buyers will continue to support high yield bond demand in 2021, resulting in overall favorable technical conditions.

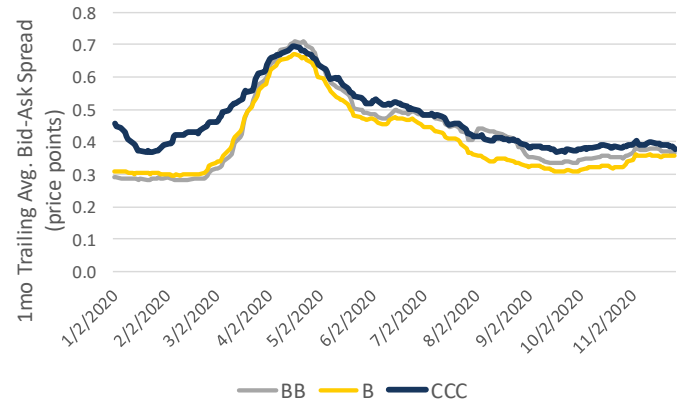
Finally, on the trading side, US high yield bond bid-ask spreads have normalized after expanding significantly during the initial stages of the pandemic. CCC issues, which had elevated bid-ask spreads relative to higher-quality bonds at the start of the year, have moderated to more normal levels.

US High Yield Effective Bid-Ask Spreads (30 day moving average)
daily data since the start of 2020



Source: SKY Harbor, BofA Merrill Lynch, ICE Data Indices

Bid-Ask Spreads by Rating (30 day moving average)
daily data since the start of 2020



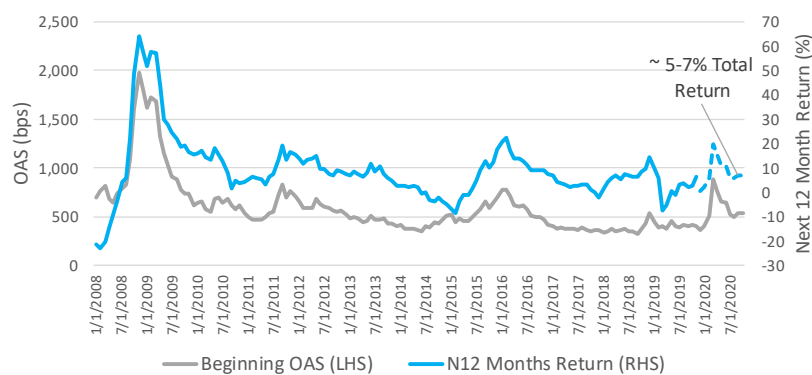
Return Expectations

Before we get into estimates, a cautionary note: returns for an asset class are dependent on many variables, most of which are difficult to estimate on their own. Additionally, banks typically employ several different methodologies to generate their expectations, all of which are subjected to debate by the investing public. Furthermore, no asset class return estimate can be conducted in a vacuum, as changes in risks and sentiment in other asset classes during the year can prompt funds to flow across strategies, causing technical implications that impact returns. Despite these pitfalls, return expectations remain one of the more popular questions from investors. As such, we aim to provide our best estimates below.

To frame expectations, we first look to correlation-driven return projections, as they have historically generated reasonable estimates on a forward-looking 12 months basis. Assuming 2021 begins with spreads and yields similar to levels in the market at the time of writing this piece, we believe total returns in the 5% to 7% range would be consistent with historical trends.

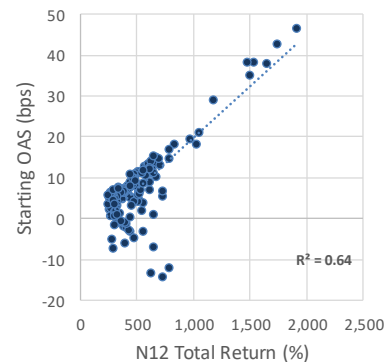
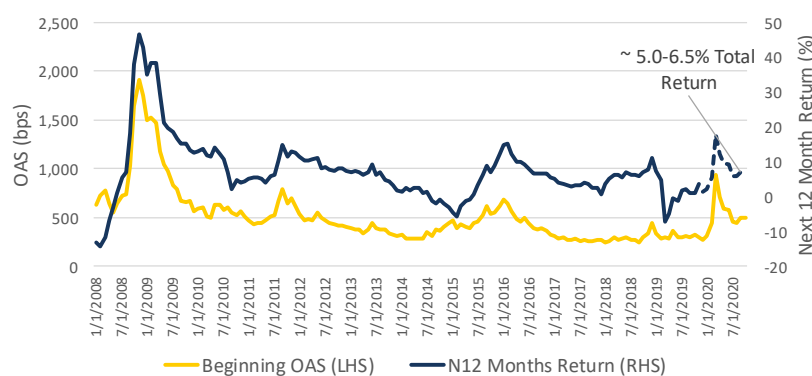
US High Yield Index (H0A0): Starting OAS vs. Next 12 Months Return

rolling monthly data



Short Duration US High Yield Index (JVC4): Starting OAS vs. Next 12 Months Return

rolling monthly data



Source: SKY Harbor, ICE Data Indices

As with last year, we also provide a more nuanced return model, utilizing the BofA Merrill Lynch index return framework as we believe it strikes the appropriate balance between complexity and transparency. As always, we augment this model with our own variable estimates, with further explanation below. Also, note that these return projections are for the broad US high yield market (the ICE BofA US High Yield Index, ticker H0A0) and the short duration US high yield market (the ICE BofA 1-5yr BB-B US Cash Pay High Yield Constrained Index, ticker JVC4), and not our internal portfolios.

For H0A0:

- **Treasury Yield Target** – We use consensus expectations contained within Bloomberg as our estimate of 5yr Treasury yields by the end of 2021; at the time of publishing this outlook, the median 5yr Treasury yield estimate for Q4'21 was 58 bps.
- **Index Default Rate** – Utilizing our multi-factor regression model, we anticipate that more lenient lending standards (the Senior Loan Officer Survey has already inflected), a drop in the distress ratio (strong corporate earnings growth should improve credit metrics), and an alleviation of fallen angels via moderation of rating migrations should allow for a reduction in the default rate to ~ 5.0% by the end of 2021, and ~ 3.5% by the end of 2022.
- **Recovery Rate** – Utilizing our multi-factor regression model, we anticipate that improving credit metrics (via extension of conservative balance sheet management and EBITDA growth), lower defaults (see above), the continuation of a low-rate environment (given Fed commentary), and open primary markets (via strong demand amidst a search for yield) should allow recovery rates to improve to ~ 35% in 2021 and ~ 44% in 2022.
- **Excess Spread** – The excess spread of the US high yield index, which is essentially the spread demanded by investors above and beyond accounting for next-twelve-month credit losses [default rate * (1-recovery rate)], has averaged 300 bps over the last decade. This level of excess spread, however, is influenced by several factors, including the level of compensation offered by ancillary asset classes (the EUR HY Index in particular), currency hedging costs, aggregate levels of interest coverage in the market, and the overall level of rates (we use Fed Funds as a proxy). We have developed an internal regression model that incorporates these factors, the output of which points to excess spreads of ~ 150 bps by FYE21.

- **Spread Target** – Our spread target, therefore, is the summation of expected credit losses and excess spread. Based on our internal estimates, we believe a fair value spread target for the HY index is ~ 345 bps by the end of 2021 (~150 bps excess spread + ~195 bps of default losses).

SKY Harbor Default Loss Sensitivity Analysis

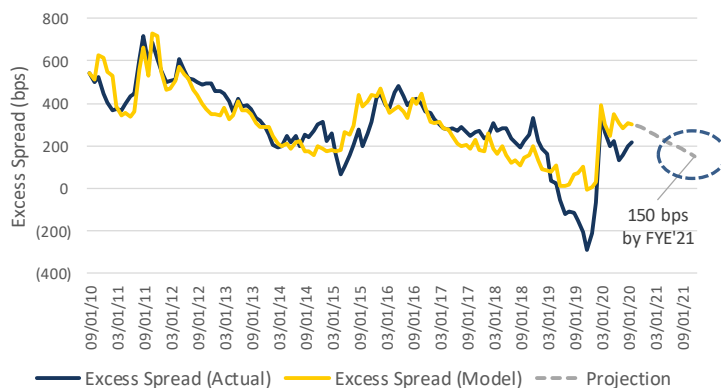
principal loss, in bps (default rate * 1-recovery rate)

2021		Default Rate						
		4.25%	4.50%	4.75%	5.00%	5.25%	5.50%	5.75%
Recovery Rate	42.5%	244	259	273	288	302	316	331
	40.0%	255	270	285	300	315	330	345
	37.5%	266	281	297	313	328	344	359
	35.0%	276	293	309	325	341	358	374
	32.5%	287	304	321	338	354	371	388
	30.0%	298	315	333	350	368	385	403
	27.5%	308	326	344	363	381	399	417
	2022		Default Rate					
		2.75%	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%
Recovery Rate	51.5%	133	146	158	170	182	194	206
	49.0%	140	153	166	179	191	204	217
	46.5%	147	161	174	187	201	214	227
	44.0%	154	168	182	196	210	224	238
	41.5%	161	176	190	205	219	234	249
	39.0%	168	183	198	214	229	244	259
	36.5%	175	191	206	222	238	254	270

Source: SKY Harbor, ICE Data Indices, BofA Merrill Lynch, Bloomberg, Capital IQ, Federal Reserve, Moody's

SKY Harbor Excess Spread Model

OAS after accounting for principal losses



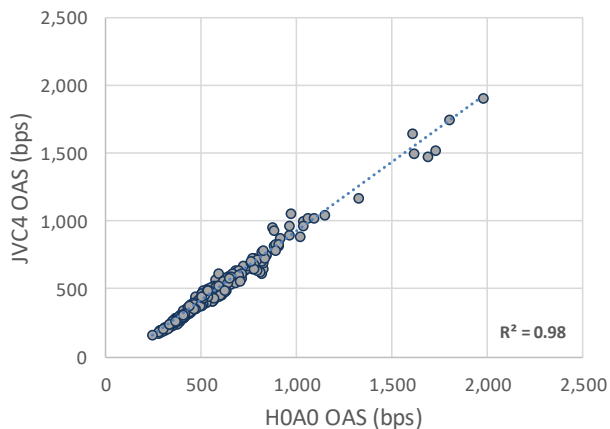
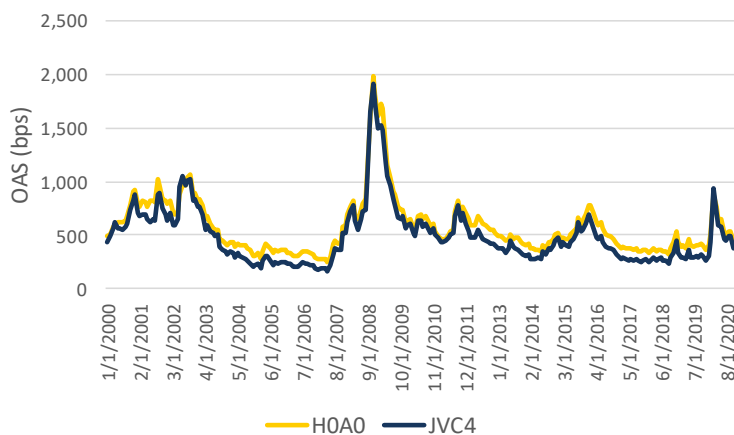
- **Other Inputs** – The balance of our inputs are simply ICE BofA US High Yield Index (H0A0) characteristics as of November 30, 2020, such as average index price, duration, and average coupon; for the price of our default universe, we use the average price of the widest 5% of the market (assuming issues expected to default in 2021 are already trading within this cohort).

For JVC4:

- **Treasury Yield Target** – We use consensus expectations contained within Bloomberg as our estimate of 3yr Treasury yields by the end of 2021; at the time of publishing this outlook, the median 3yr Treasury yield estimate for Q4'21 was 40 bps.
- **Rating Migration Rate** – Given in uptick in expected EBITDA growth, which should translate into improving credit metrics, we expect the rating migration rate to improve in 2021. However, given lingering COVID-related uncertainties and continued business interruptions, we still anticipate downgrades to marginally outnumber upgrades.
- **Downgrade Loss** – We assume that the market is correct in proactively anticipating downgrades, and so expect that issues likely to be cut by rating agencies in 2021 already trade among the widest 5% of JVC4. At the time of publication, the average price of those downgrade candidates is ~ 86, and we expect a dollar loss commensurate with recent CCC migration trends as spread levels adjust to new rating comparables.
- **Spread Target** – Since the short duration ratings constrained index is unlikely to suffer credit losses in 2021 (issuers under stress will likely exit the index before filing), we instead base our spread target on the historical relationship between H0A0 and JVC4. We approached this in two ways – 1) using a regression analysis that predicts JVC4 12mo spread change based on H0A0 spread change and starting spread levels and 2) calculating spread change beta of JVC4 relative to H0A0 in spread tightening environments. Both methods project spread tightening in JVC4 to be ~ 80 bps under a scenario in which H0A0 spreads tighten by 88 bps (which was our prediction based on H0A0 credit losses + excess spreads).

H0A0 and JVC4 Spreads Are Closely Correlated

monthly data, since January 2000



Source: SKY Harbor, ICE Data Indices

- **Other Inputs** – The balance of our inputs are simply JVC4 characteristics as of November 30, 2020, such as average index price, duration, and average coupon; for the average price of our downgrade universe, we use the average price of the widest 5% of the market (assuming the 5% of names expected to be downgraded in 2021 are already trading within this cohort).

Using these estimates, as well as various index measures at November 30, 2020, we arrive at an estimated return for both broad market and short duration high yield of ~ 6% over the next twelve months.

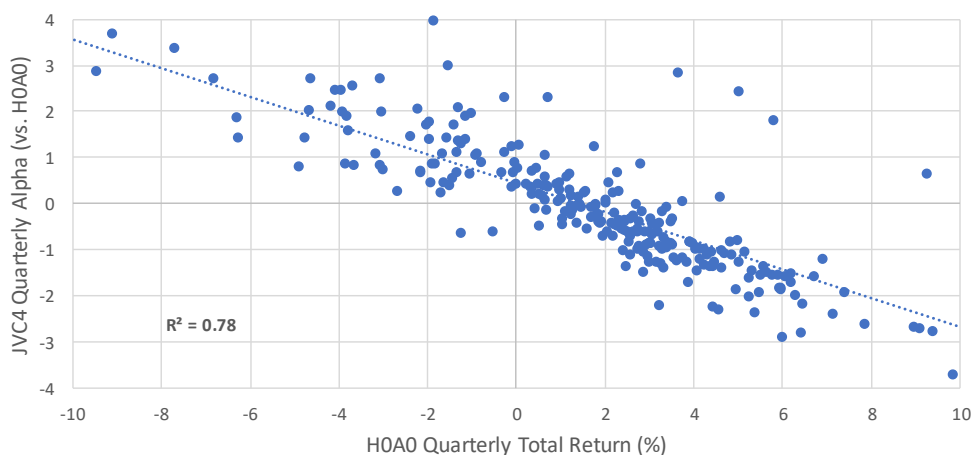
ICE BofA US High Yield Index - H0A0			ICE BofA 1-5 Year BB-B US Cash Pay High Yield Constrained Index - JVC4		
	HY	5yr Trsy		SD HY	3yr Trsy
Current Spread	433	42	Current Spread	385	20
Target	345	58	Target	305	40
Predicted Change	-88	16	Predicted Change	-80	20
Duration	3.6		Duration	2.1	
Index Price	103.1		Index Price	103.8	
Avg Par Coupon	603		Avg Par Coupon	604	
Tsy Change	16		Tsy Change	20	
Total Change in Yield	-72		Total Change in Yield	-60	
Capital Gain	247		Capital Gain	119	
Period Multiplier	1.00		Period Multiplier	1.00	
Current Yield	555		Current Yield	553	
Default Rate	5.00		Rating Migration Rate	5.00	
Price (default universe)	59.3		Price (downgrade universe)	86.0	
Credit Loss	205		Downgrade Loss	70	
Expected Periodic Return (FY 2021)	6.0 %		Expected Periodic Return (FY 2021)	6.0 %	

BofA Merrill Lynch Model, SKY Harbor variable estimates. The predictions herein are forward-looking statements, subject to change without notice due to changing market conditions, expectations, or judgments that could cause actual results to differ materially from those contained herein.

As a final note on 2021 total returns, we highlight that our expectation for short duration high yield is essentially the same as for broad market high yield in the coming year, despite our historical two-thirds capture target through the business cycle. Historical analysis would suggest that the quarterly return advantage for broad high yield over short duration shrinks to essentially breakeven levels in the 1.5% per quarter context (or ~ 6.0% on an annualized basis). Given our expectation of 2021 total returns of ~ 6%, we think the tradeoff between broad market and short duration high yield returns will be muted in our base case scenario.

H0A0 Quarterly Returns vs. JVC4 Quarterly Outperformance

monthly data, since 1997



Source: SKY Harbor, ICE BofA Indices

Key Risks & Opportunities

The thoughts presented in this report represent our base-case view of the market risks and opportunities as we head into 2021. However, we are cognizant of significant tail risks associated with the current market environment. Should such risks come to fruition, a re-visit of our investment thesis would likely be warranted. We list these risks and opportunities, in no particular order, below:

5 Key Risks

- **Trade War** – A Biden administration may implement a different approach to US-China trade negotiations in the coming year, but we nevertheless continue to believe compromise is the most likely outcome. With that said, tensions may rise in the interim, with the US House of Representatives recently passing a bill that aims to delist Chinese firms over audit and regulatory concerns. If additional protectionism measures are implemented on both sides, the relatively upbeat view on global GDP growth could diminish, putting our de-leveraging targets at risk. (see additional data on **pg. 19**, “Risk Factor #1: Trade War”)
- **Additional Lockdowns** – While several vaccines have shown tremendous efficacy in combating the dangers of the coronavirus, roll-out delays and other unforeseen issues could lead to another round of shelter-in-place orders. As such, relatively lofty 2021 GDP growth expectations could disappoint, leading to a widening sector spread basis between virus winners and losers. (see additional data on **pg. 19**, “Risk Factor #2: Additional Lockdowns”)
- **Policy Uncertainty** – Georgia Senate run-off elections in early January will ultimately decide the majority party in the upper chamber of Congress, and prediction markets anticipate that Joe Biden will be forced to work with a divided government upon taking the oath of office. These races are likely to have material consequences on tax policy, healthcare reform, and the regulatory environment in 2021, all of which may impact sector-specific outlooks. (see additional data on **pg. 20**, “Risk Factor #3: Policy Uncertainty”)
- **Convexity** – A rally in risk assets, most recently extended by positive vaccine developments, has once again made convexity an issue to be mindful of in high yield markets. While our base case calls for spread compression in 2021, the total return of some issues may fail to keep pace given call constraints. (see additional data on **pg. 20**, “Risk Factor #4: Convexity”)
- **Shareholder Friendly Activity** – Management teams were proactive in adding cash to balance sheets to protect against extended lockdowns amidst COVID-19 uncertainty, facilitated by strong investor demand for high yield in a relatively low interest rate environment. The resulting record-setting issuance in 2020 was largely driven by elevated GCP and refinancing, but a return to more normalized business conditions could compel management teams to embark on more aggressive and equity-friendly initiatives (debt-funded dividends, LBOs, etc.). This type of behavior has been absent from the market over the last several years but remains a risk if corporate balance sheets do not remain a priority for management teams. (see additional data on **pg. 21**, “Risk Factor #5: Shareholder Friendly Activity”)

5 Key Opportunities

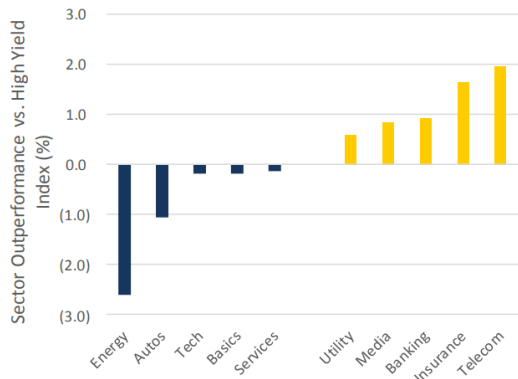
- **Elevated Corporate Earnings Growth** – While admittedly off a weak 2020 base, we expect corporate EBITDA growth to be significant in 2021, perhaps reaching +9.5% (top quintile levels) as issuers benefit from a re-opening of the economy. Such EBITDA growth is likely to push fundamental credit metrics back toward pre-COVID levels, depending on how aggressively management teams focus on their balance sheets. (see additional data on **pg. 21**, “Opportunity Factor #1: Elevated Corporate Earnings Growth”)
- **Illiquidity Premiums** – A rapid increase in illiquidity compensation during the initial stages of the COVID selloff has led to, in our view, compelling incentive to invest in smaller issues. The spread differential between small (< \$350mm) and large (> \$1bn) issues, further exacerbated by significant inflows into HY ETFs in 2020 (they typically favor the largest and most liquid bonds), now registers as top decile in nature, and remains wide of historical norms even after accounting for underlying differences in credit rating and duration. Isolating periods over the last twenty years in which the small to large issue OAS differential (further normalized as a percentage of overall H0A0 spreads) is widest decile (its actually 98th percentile now), we find that subsequent 3, 6, 9 and 12 month performance all favored small issues. (see additional data on **pgs. 21-22**, “Opportunity Factor #2: Illiquidity Premiums”)
- **Technical Tailwinds** – In addition to a reduction in debt raised for general corporate purposes (less need to hoard cash in a post-coronavirus world) and a reduction in fallen angel volumes (in our view, ratings migration rates will level off as business conditions improve), we believe US high yield demand will also bolster market technicals as investors seek yield. (see additional data on **pg. 22**, “Opportunity Factor #3: Technical Tailwinds”)
- **Cyclicals Poised to Rally** – Examining post-recession recoveries of the past, outperformance of Cyclical (excluding Energy) relative to Defensive sector bonds tend to accelerate over time. Additionally, subsequent 3, 6, 9, and 12 month returns on a rolling monthly basis of Cyclical (ex-Energy) and Defensive sector constituents, on average, favor the former when the starting spread ratio was top quartile in nature (which it is now). (see additional data on **pg.22**, “Opportunity Factor #4: Cyclical Rotation”)
- **Opportunities in Lower Quality Credit** – Significant risks undoubtedly remain in the high yield market, but we believe the YTD performance gap sets up for outperformance of CCC-rated debt over the coming 12 months. In our view, the combination of upbeat EBITDA growth, positive rating actions, and a halving of the default rate bode well for a rally in lower-rated credit over the intermediate term. (see additional data on **pg. 23**, “Opportunity Factor #5: Opportunities in Lower Quality Credit”)

Risk Factor #1: Trade War

In an effort to isolate areas most at risk from a re-escalation of tensions, we analyzed sector returns relative to the ICE BofA US High Yield Index (HOAO) in May 2019, arguably the most significant period of trade uncertainty (it involved several provocative tweets and a failed trade delegation trip to Washington, and ended with each side instituting 25% tariffs on \$200bn worth of goods). That month, Energy, Autos, Tech, Basics, and Services suffered the worst performance, while Telecom, Insurance, Banking, Media, and Utilities demonstrated the greatest resilience (left chart below).

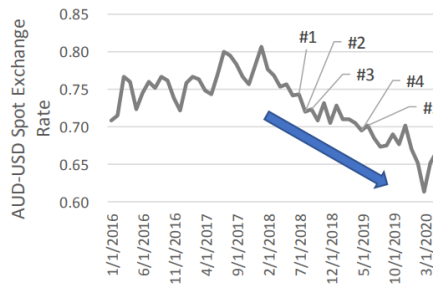
As an alternative method, we also compared changes in the value of the Australian dollar to changes in industry-level spreads over time. The largest buyer of its commodities and representing its largest market for exports, Australia is highly tied to the well-being of China, and the AUD has tended to rise and fall in response to China's growth outlook (which is certainly impacted by trade negotiations with the US). As demonstrated below, commodity, tech, and auto industries are likely to be sensitive to evolving US-China trade tensions, while restaurants, insurance, telecom, cable and medical products should be less impacted.

Sector Performance During May '19 Trade War Escalation
total returns in May 2019, sector less index



Source: SKY Harbor, ICE Data Indices, Bloomberg

Australian Dollar a Proxy for US/China Trade Risk
monthly AUD data, tariff overlay



- #1 = July 2018 tariffs (US \$34bn, China \$34bn)
- #2 = August 2018 tariffs (US \$16bn, China \$16bn)
- #3 = September 2018 tariffs (US \$200bn @10%, China \$200bn @10%)
- #4 = May 2019 tariffs (US \$200bn @25%)
- #5 = June 2019 tariffs (China \$60bn @25%)

AUD and Industry OAS Correlations
monthly data, January 2018 to May 2020

Most Sensitive to Trade War Tensions

Energy - Exploration & Production	(0.81)
Automakers	(0.79)
Oil Field Equipment & Services	(0.78)
Tech Hardware & Equipment	(0.76)
Steel Producers/Products	(0.75)
Metals/Mining Excluding Steel	(0.74)

Least Sensitive to Trade War Tensions

Restaurants	(0.33)
Multi-Line Insurance	(0.24)
Telecom - Wireless	(0.17)
Media Content	0.01
Cable & Satellite TV	0.11
Medical Products	0.15

Risk Factor #2: Additional Lockdowns

Though several vaccines have shown tremendous efficacy in combating the dangers of the coronavirus, roll-out delays and other unforeseen issues could lead to another round of shelter-in-place orders. As such, relatively lofty 2021 GDP growth expectations could disappoint, leading to a widening sector spread basis between virus winners and losers.

US Real GDP (Annual YoY%)

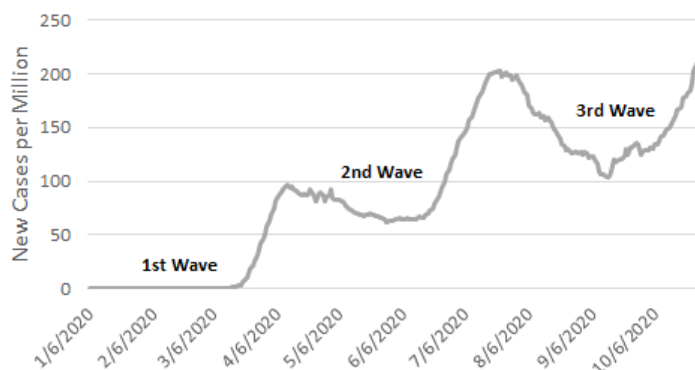
	2020	2021	2022
Median	-3.6	3.8	3.0
Mean	-3.6	3.8	3.0
Bloomberg Weighted Average	-3.6	3.8	3.0

Source: Bloomberg

Cognizant of risks posed by a third wave of the coronavirus, we look back to the market correction in late March '20 to inform sector-based risks, as well as sectors that have been generating positive earnings surprise despite continued coronavirus headwinds. Through the combination of these factors, we believe Capital Goods, Basic Industry, Retail, and Services are likely to contain some of the best positioned credits in the current market environment (via a combination of greater than index earnings surprise and lesser than index first wave selloff), and continue to take a cautious approach when it comes to security selection within the Leisure space (weaker than index earnings surprise and greater than index first wave selloff).

US New Cases Per Million People (Smoothed)

7-day rolling average



Source: SKY Harbor, ourworldindata.org, ICE Data Indices, Bloomberg

Earnings Surprise & COVID Selloff Matrix

Sector-Level Data

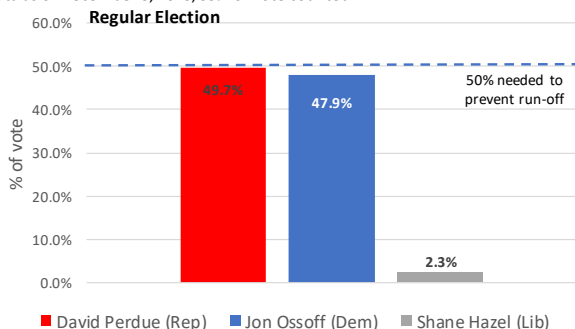
		Q3'20 Earnings Surprise (thus far) vs. Index	
		Worse	Better
1st Wave Selloff vs. Index	Better	Healthcare Cons. Goods Tech Telecom Media Utilities	Cap Goods Basics Retail Services
	Worse	Leisure	Autos Energy

Risk Factor #3: Policy Uncertainty

At the time of writing, called elections show Republicans control 50 seats in the Senate. As such, two run-off races in Georgia – scheduled for January 5, 2021, and necessary because no candidate reached the required 50% vote threshold – are likely to determine the balance of power within the Senate for the next two years. A tiebreaking vote goes to the Vice President (Democrat Kamala Harris), so Republicans will need to win at least one of the Georgia seats to extend control of the chamber. Of note, Republicans captured a slight majority in both races back in November.

Georgia Regular Senate Election

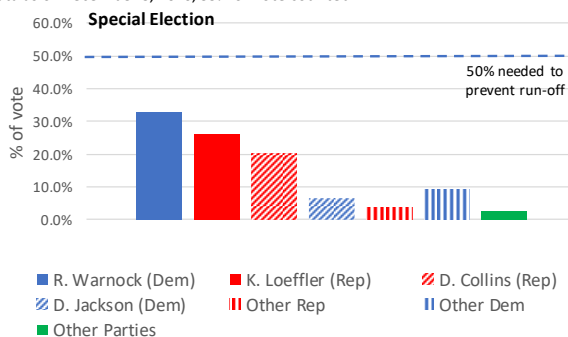
data as of December 3, 2020; 99% of vote counted



Source: SKY Harbor, The Associated Press

Georgia Special Senate Election

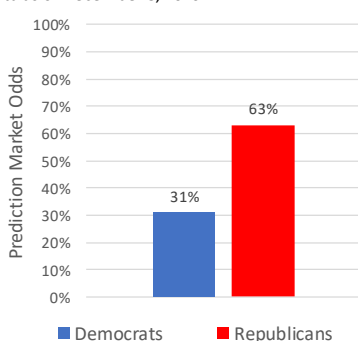
data as of December 3, 2020; 99% of vote counted



Given the importance of these races, we have seen a significant uptick in media coverage and political spending ahead of the second round of voting. While prediction markets still favor Republican control of the Senate, a new poll commissioned by WXIA-TV in Atlanta and conducted by SurveyUSA gives a slight edge to the Democrats. If Republicans can hold on, we envision a divided government pushing through a more modest stimulus package in the near term, and significantly reduced risk of corporate tax hikes over the next several quarters. A unified government under Democratic control would likely deliver a much larger stimulus package, though it would likely be funded by significant tax increases (corporate and individual).

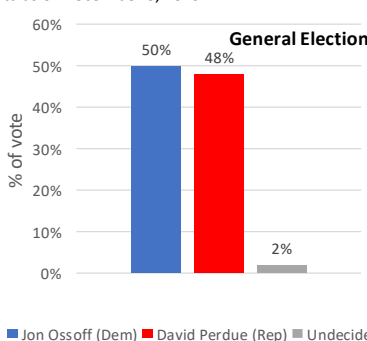
Prediction Market Odds of Control

data as of December 3, 2020



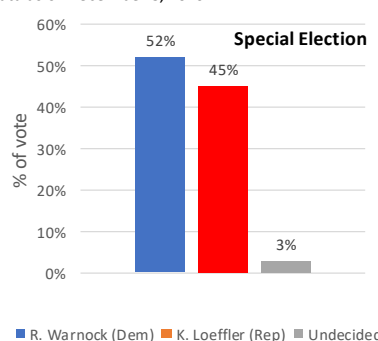
SurveyUSA General Senate Election Poll

data as of December 3, 2020



SurveyUSA Special Senate Election Poll

data as of December 3, 2020



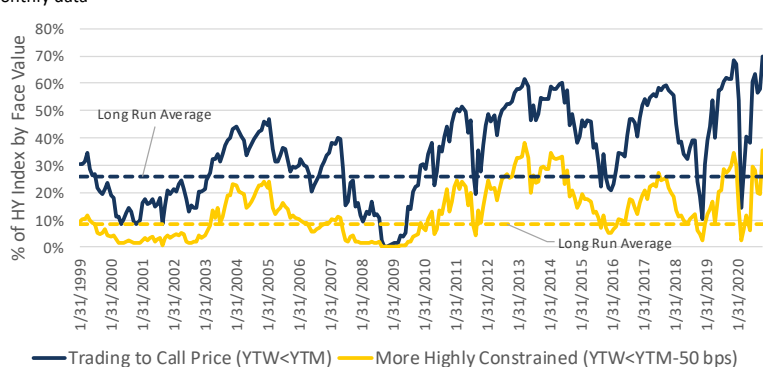
Source: SKY Harbor, Predict It, SurveyUSA

Risk Factor #4: Convexity

A rally in risk assets, most recently extended by positive vaccine developments, has once again made convexity an issue to be mindful of in high yield markets. While our base case calls for spread compression in 2021, the total return of some issues may fail to keep pace given call constraints. As a proxy for this risk, we calculated the percentage of HOA0 trading to a non-par call price, comparing prevailing YTW to YTM. We also assumed that issues with a YTW 50 bps or more below YTM are more materially constrained. Both measures are well above long-run averages, as demonstrated below, and we find the single-B rating class to be even more susceptible to this dynamic.

Amount of HY Index Trading to a Call is Elevated

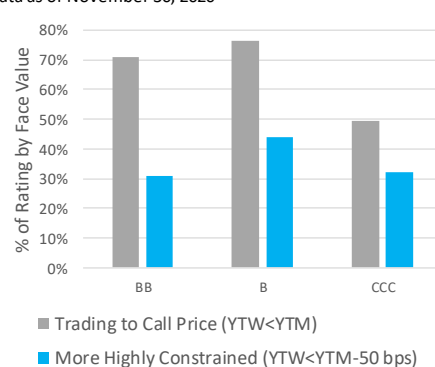
monthly data



Source: SKY Harbor, ICE Data Indices, BofA Merrill Lynch

Single B's Appear Most Constrained

data as of November 30, 2020

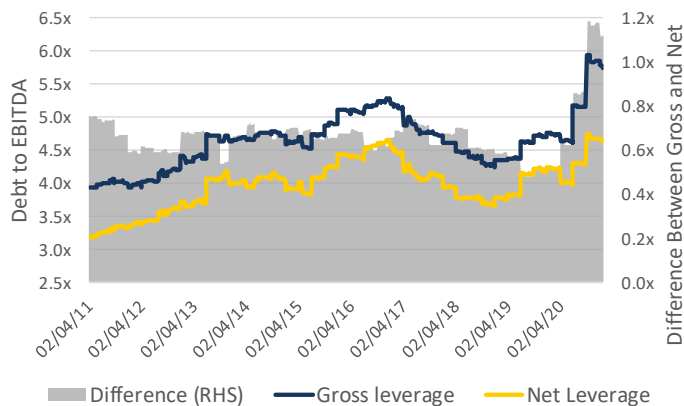


Risk Factor #5: Shareholder Friendly Activity

Management teams were proactive in adding cash to balance sheets to protect against extended lockdowns amidst COVID-19 uncertainty, facilitated by strong investor demand for high yield in a relatively low interest rate environment. The resulting record-setting issuance in 2020 was largely driven by elevated GCP and refinancing, but a return to more normalized business conditions could compel management teams to embark on more aggressive and equity friendly initiatives (debt-funded dividends, LBOs, etc.). This type of behavior has been absent from the market over the last several years (dividends + LBOs made up 8% of issuance in 2020, well below the long-run average of ~ 25%) but remains a risk if corporate balance sheets do not remain a priority for management teams. Additionally, we have been more willing to look at aggregate net leverage metrics in the HY space as we believe elevated cash balances are prudent and transitory in this period of uncertainty. However, the difference between gross and net leverage is quite elevated, and our optimistic view of fundamental credit metrics would diminish if excess cash was spent on things like dividends and share buybacks.

Debt Raised for GCP Drives Gross and Net Leverage Divergence

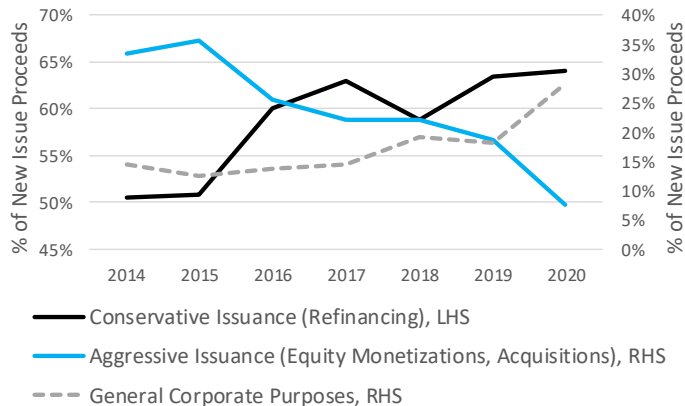
weekly data, trailing 10 years



Source: SKY Harbor, ICE Data Indices, BofA Merrill Lynch, Bloomberg, Capital IQ

HY New Issuance by Use of Proceeds

annual data, trailing 7 years

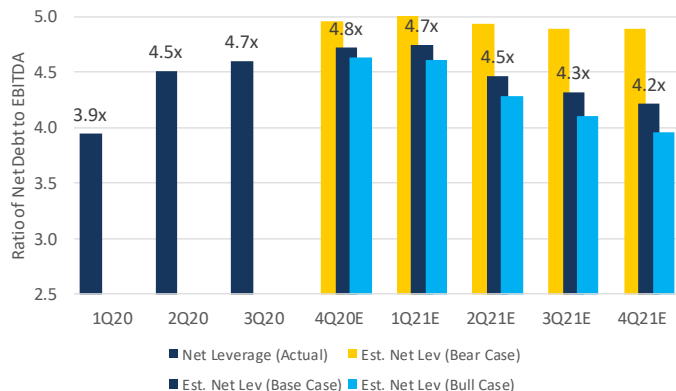


Opportunity Factor #1: Elevated Corporate Earnings Growth

We created an internal model to project future EBITDA growth using the S&P 1500 Index (significant overlap of high yield issuers, strong earnings correlation between S&P 1500 and US high yield index constituents, and we can avoid issues with private filers that challenge the same analysis done solely on the high yield index) using five key economic indicators. The resulting model projects significant EBITDA growth in 2021, albeit off of a COVID-weakened 2020 base. This EBITDA growth inflection (+9.5% growth for the year, over 20% growth in Q2'21, all following negative EBITDA growth in 2020) should allow for material de-leveraging of the high yield index. In our base case scenario, we assume corporate net debt remains static during 2021, with EBITDA growth alone likely to reduce leverage by 0.6x turns by the end of Q4. In our more bullish scenario, we assume net debt decreases by ~ 2.5% per quarter (via operational free cash flow), resulting in leverage declining to a level below 4.0x by the end of 2021. Interest coverage metrics should also improve from already elevated levels, even if rates rise in-line with consensus expectations.

Expect Net Leverage to Decline Throughout 2021

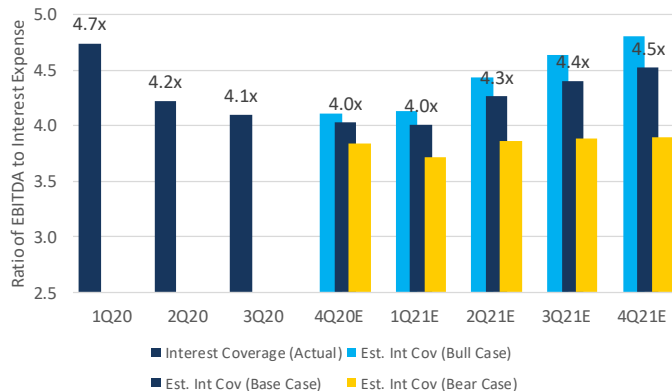
quarterly data



Source: SKY Harbor, BofA Merrill Lynch, Capital IQ, Bloomberg

Expect Interest Coverage to Improve Throughout 2021

quarterly data

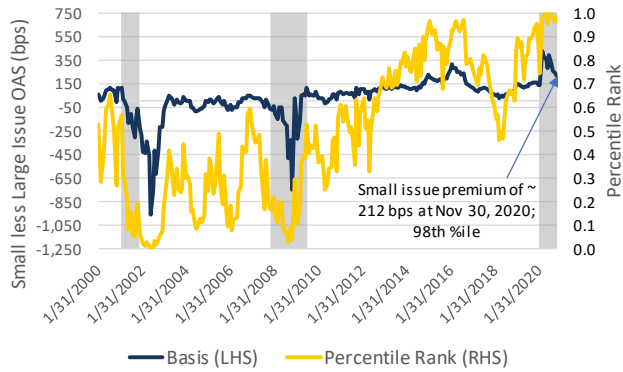


Opportunity Factor #2: Illiquidity Premiums

A rapid increase in illiquidity compensation during the initial stages of the COVID selloff has led to, in our view, compelling incentive to invest in smaller issues. The spread differential between small (< \$350mm) and large (> \$1bn) issues, further exacerbated by significant inflows into HY ETFs in 2020 (they typically favor the largest and most liquid bonds), now registers as top decile in nature, and remains wide of historical norms even after accounting for underlying differences in credit rating and duration. Isolating periods over the last twenty years in which the small to large issue OAS differential (further normalized as a percentage of overall HOAO spreads) is widest decile (its actually 98th percentile now), we find that subsequent 3, 6, 9 and 12 month performance all favored small issues.

Spread Pickup for Small (< \$350mm) vs. Large (> \$1bn) Elevated

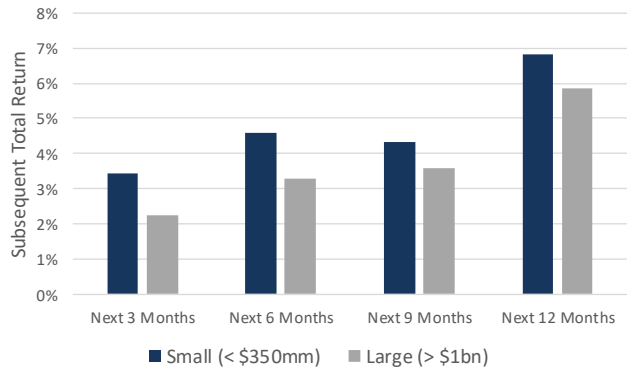
monthly data since 2000, recessions shaded grey



Source: SKY Harbor, ICE Data Indices

Returns When Small to Large Differential is Top Decile

monthly data since 2000, recessions shaded grey

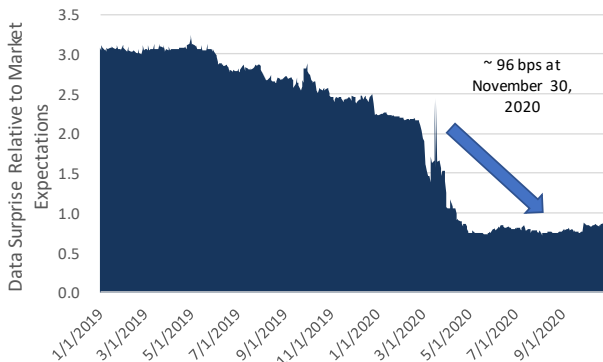


Opportunity Factor #3: Technical Tailwinds

In addition to a reduction in debt raised for general corporate purposes (less need to hoard cash in a post coronavirus world) and a decline in fallen angel volumes (in our view, ratings migration rates will level off as business conditions improve), we believe US high yield demand will also bolster market technicals as investors seek yield. The cost to hedge FX exposure – particularly for EUR investors looking at the US high yield asset class – has decreased meaningfully over the last 24 months and is now ~ 1/3 of recent peak levels. This, coupled with the continued rise of negative yielding debt on a global basis, should make US high yield a relatively attractive option for both domestic and international investors.

Bloomberg USDEUR 3 Month Hedging Costs (annualized)

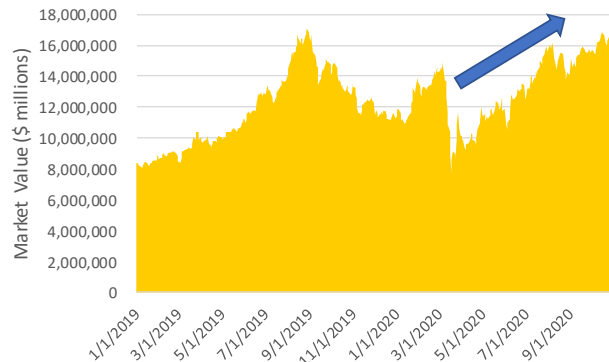
daily data



Source: SKY Harbor, Bloomberg

Bloomberg Barclays Global Agg Negative Yielding Debt Mkt. Value

in USD

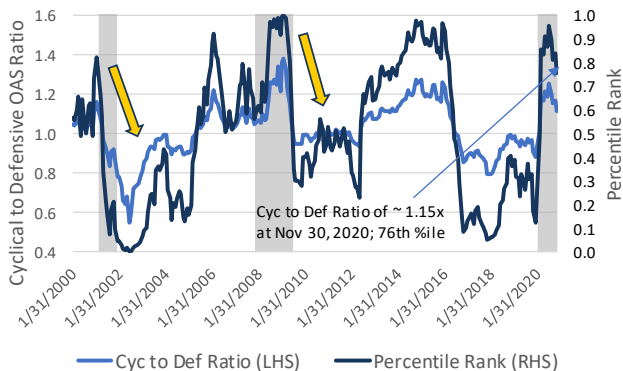


Opportunity Factor #4: Cyclical Rotation

Examining post-recession recoveries of the past, outperformance of Cyclical (excluding Energy) relative to Defensive sector bonds tends to accelerate over time. In the graphic below (left side), we chart the Cyclical ex-Energy to Defensive OAS ratio over time. The ratio at present – 1.15x – is below typical recessionary peak levels, but still screens attractively (top quartile) on an historical basis. Examining data since 2000, we calculated subsequent 3, 6, 9, and 12 month returns on a rolling monthly basis of Cyclical (ex-Energy) and Defensive sector constituents. Total returns favored Cyclicals over Defensives in all period breaks when starting OAS ratios were top quartile in nature (which they are now). As such, we continue to favor a rotation into Cyclicals, and believe OAS ratios (relative to Defensive credits) will continue to compress to 1.0x or below.

Cyclical (ex-Energy) to Defensive OAS Ratio Yet to Compress

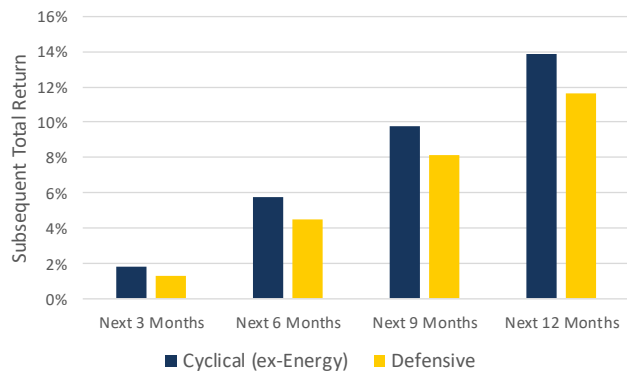
monthly data since 2000, recessions shaded grey



Source: SKY Harbor, ICE Data Indices

Returns When Cyclical to Defensive Ratio is Top Quartile

monthly data since 2000, recessions shaded grey



Opportunity Factor #5: Opportunities in Lower Quality Credit

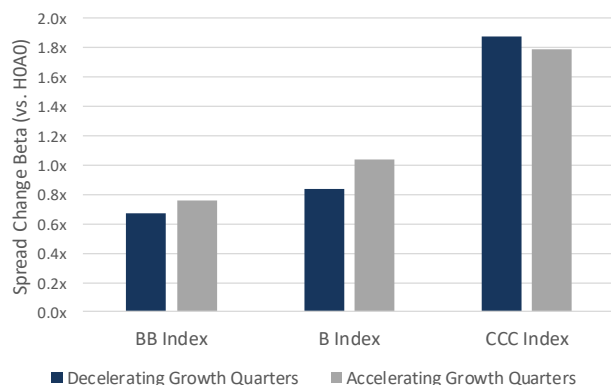
Rating bucket total returns were closely grouped through the first six weeks of the year, with a mere 6 bps separating BBs from CCCs (though BBs were outperforming more significantly on a beta-adjusted basis). COVID-fears and a drastic reduction in economic output led to significant spread widening in the subsequent weeks, with the ICE BofA US High Yield Index (HOAO) reaching an OAS peak of 1,087 bps on March 23, 2020. BBs continued to outperform CCCs in the initial stages of spread tightening, maintaining a cumulative total return advantage of over 15% through the first five months of the year (Jan – May). Performance of lower-quality credits has since stabilized, with CCCs outperforming BBs over the subsequent five months (Jun – Oct), though a sizeable YTD performance gap remains.

In our view, an inflection in corporate earnings is almost upon us, as our multi-factor regression model projects quarterly EBITDA growth among S&P 1500 constituents to exceed 20% by mid-2021. Using quarterly data over the last twenty years, we find that spreads tighten, on average, during quarters in which corporate EBITDA growth is positive, and widen, on average, during quarters in which corporate EBITDA growth is negative. Further nuancing this dynamic, we find the spread change beta of CCC bonds (relative to the index as a whole) is over 1.7x (left chart below), implying greater compression opportunity for lower-rated credits in an elevated EBITDA growth environment, such as the one we expect in 2021.

Defaults have also been topical over the last several months, with issuer-weighted rates in the 9.7% range at the end of November 2020. Our multi-factor regression model projects a peaking of defaults in the 10% range by December of this year, followed by a moderation to approximately 5% by December 2021. Since 2005 (the limit of our dataset), BBs have outperformed CCCs, on average, by nearly 45 bps of total return per quarter in periods in which the default rate was on the rise. When the default rate was on the decline – which we expect in 2021 – CCCs have outperformed BBs by nearly 115 bps, on average, per quarter.

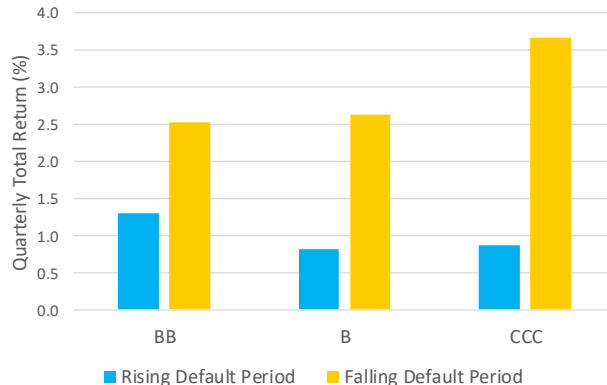
Rating Bucket Spread Change Betas by EBITDA Growth Environment

quarterly data, trailing 20 years



Rating Bucket Average Quarterly Returns by Default Environment

based on quarterly data



Source: SKY Harbor, ICE Data Indices, BofA Merrill Lynch, Bloomberg, Moody's

Finally, many scientists now believe herd immunity is likely to be achieved in the US by mid-2021, at which point we would expect a return to more normal business conditions. As we progress toward this goal, sectors most negatively impacted by the virus are likely to see the greatest improvement in investor sentiment (Leisure, for example). Furthermore, talks of another round of stimulus measures, as well as infrastructure spending, make a boost from fiscal intervention likely in the intermediate term. Capital Goods and Services sectors are likely beneficiaries, particularly under an infrastructure bill. These sectors have a disproportionately greater concentration of CCC credits, further improving the total return prospects of the rating cohort. Finally, we continue to believe small issue premiums should tighten toward longer-run levels. The CCC and single-B sub-indices, as of November 30, 2020, have a disproportionately higher concentration of small (< \$350mm in face value) issues, which may provide another tailwind for lower-quality credit.

Sector Concentration of CCC-Rated Credits

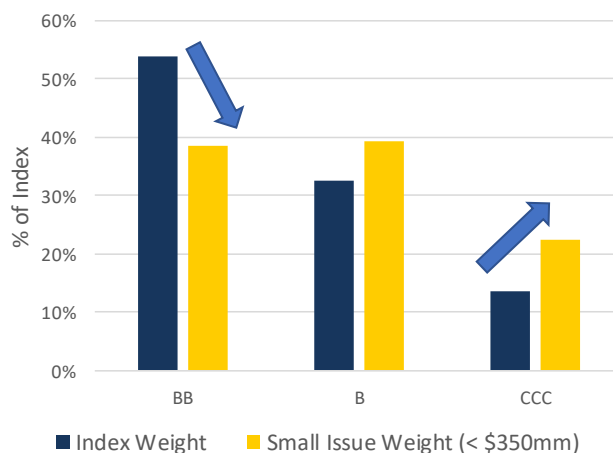
face values, November '20 index constituents

Sector	Weight in Index		Δ	CCC Representation
	Full Index	CCC Index		
Automotive	4.9%	1.8%	-3.1%	Lower
Banking	1.2%	0.0%	-1.2%	
Basic Industry	9.6%	7.7%	-1.9%	
Capital Goods	6.7%	13.3%	6.5%	Higher
Consumer Goods	4.9%	2.5%	-2.4%	Lower
Energy	14.8%	13.7%	-1.0%	
Financial Services	4.1%	0.5%	-3.6%	
Healthcare	8.7%	9.2%	0.6%	Higher
Insurance	1.1%	3.8%	2.8%	
Leisure	6.0%	13.0%	7.0%	
Media	9.2%	5.2%	-3.9%	Lower
Real Estate	4.3%	2.8%	-1.5%	Higher
Retail	4.8%	3.8%	-1.0%	
Services	4.4%	7.5%	3.2%	
Technology & Electronics	4.8%	6.4%	1.6%	Lower
Telecommunications	6.6%	6.2%	-0.4%	
Transportation	1.5%	1.6%	0.1%	
Utility	2.5%	0.9%	-1.6%	

Source: SKY Harbor, ICE Data Indices

Rating Concentration by Size

face values, November '20 index constituents



Summary Statistics

To further summarize the main characteristics of the US high yield market, and to offer greater detail of relative value and total return performance of various market segments throughout 2020, we present the following data table:

US High Yield Dashboard

data through November 30, 2020

Measure	% of HY Market	OAS	OAS %ile				1wk Total Return	MTD Total Return	QTD Total Return	YTD Total Return	
			Ranking (20yrs)	OAS 1wk Δ	OAS MTD Δ	OAS QTD Δ					OAS YTD Δ
HY Index (H0A0)	100%	432	0.38	(10)	(99)	(108)	73	0.55	4.00	4.49	4.18
BB	55%	307	0.41	(7)	(77)	(93)	105	0.46	3.61	4.12	7.15
B	32%	466	0.43	(10)	(102)	(101)	110	0.44	3.45	3.95	2.08
CCC	12%	936	0.47	(30)	(205)	(216)	(72)	1.27	7.47	7.77	(2.14)
Size < \$350mm	6%	593	0.52	(18)	(95)	(126)	116	0.76	3.68	4.49	3.21
Size \$350mm to \$1bn	51%	456	0.46	(13)	(103)	(127)	75	0.61	4.15	4.79	2.63
Size > \$1bn	43%	381	0.28	(12)	(98)	(86)	67	0.44	3.87	4.13	6.33
Dur 0-2	38%	392	0.39	(24)	(117)	(117)	134	0.29	1.75	2.04	(1.35)
Dur 2-4	33%	518	0.42	6	(97)	(102)	63	0.53	4.09	4.53	2.60
Dur 4-6	16%	421	0.32	(3)	(83)	(108)	45	0.64	5.13	5.61	2.90
Dur 6-8	7%	326	0.26	(9)	(66)	(83)	31	0.61	4.93	5.72	10.98
Dur 8+	6%	362	0.26	1	(37)	(66)	(9)	1.14	6.69	7.84	17.62
Automotive	5%	335	0.21	(8)	(92)	(127)	27	0.43	3.28	4.98	7.82
Banking	1%	270	0.24	(6)	(71)	(95)	73	0.61	4.95	6.03	10.91
Basic Industry	10%	375	0.27	(12)	(86)	(102)	84	0.35	2.94	4.14	7.79
Capital Goods	7%	443	0.49	(8)	(111)	(112)	151	0.41	3.85	4.34	4.30
Consumer Goods	5%	309	0.02	(3)	(60)	(69)	(18)	0.26	2.81	3.34	8.28
Energy	13%	682	0.78	(30)	(155)	(190)	9	1.62	8.25	8.01	(11.04)
Financial Services	4%	423	0.45	(4)	(97)	(94)	142	0.27	3.72	4.69	4.35
Healthcare	9%	375	0.33	(6)	(76)	(110)	49	0.21	2.66	3.73	7.13
Insurance	1%	439	0.44	(11)	(95)	(114)	84	0.35	3.06	3.63	6.62
Leisure	6%	485	0.47	(16)	(162)	(147)	256	0.70	6.18	5.33	0.08
Media	9%	361	0.13	(7)	(84)	(84)	116	0.36	3.56	3.44	4.98
Real Estate	4%	437	0.58	(11)	(110)	(108)	156	0.64	4.12	4.09	0.78
Retail	5%	402	0.14	(12)	(75)	(89)	(10)	0.75	3.44	4.20	6.27
Services	4%	460	0.40	(2)	(96)	(113)	125	0.21	3.31	4.09	2.78
Technology & Electronics	5%	336	0.31	(5)	(74)	(71)	93	0.14	2.00	2.47	7.43
Telecommunications	7%	378	0.18	(6)	(86)	(19)	(88)	0.25	2.13	2.63	3.75
Transportation	1%	874	0.71	(35)	(172)	(145)	302	0.91	6.49	7.07	1.58
Utility	3%	344	0.25	(13)	(72)	(73)	116	0.48	2.80	3.19	6.32
Cyclical ex Energy	43%	418	0.34	(11)	(102)	(108)	119	0.48	3.74	4.35	6.06
Defensive	44%	375	0.26	(5)	(81)	(82)	49	0.29	3.04	3.61	5.60
Energy	13%	682	0.78	(30)	(155)	(190)	9	1.62	8.25	8.01	(11.04)
Secured	20%	555	0.43	(10)	(114)	(109)	95	0.45	3.64	3.89	2.03
Senior	76%	404	0.36	(11)	(95)	(107)	65	0.57	4.04	4.58	4.78
Other	4%	320	0.21	(53)	(120)	(168)	0	0.67	5.44	6.16	2.33

Source: SKY Harbor, ICE Data Indices

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