

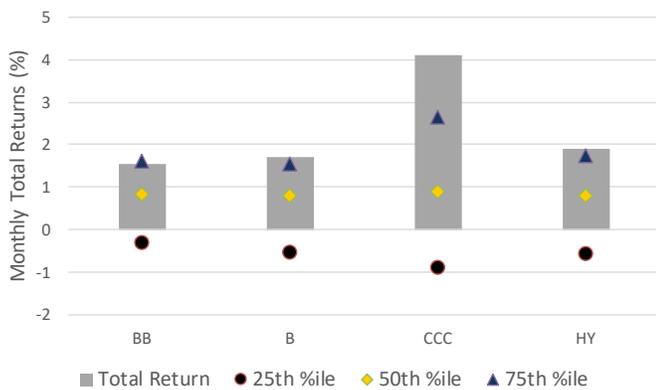
### SKYView: The Case for Spread Tightening

In our *2021 US High Yield Outlook* (published December 8, 2020) we put forth our case for spread tightening relative to prevailing Option-Adjusted Spread (OAS) levels, which at the time were approximately 433 basis points (bps). Positive developments on the vaccine front and a new fiscal stimulus deal – all while the Fed worked to hold down rates – led to a late-year rally, pushing spreads below the 400 bps threshold for the first time since the earliest reported US deaths from the coronavirus. In this *Weekly Briefing*, we discuss our target spread framework, and make the case for further compression.

The ICE BofA US High Yield Index (HOAO) returned 1.9% in December 2020, a top-quartile month in the context of returns since the start of 2000. CCCs (see definition for Credit Ratings), in particular, posted impressive numbers, a 4.1% monthly total return approaching top-decile levels for the rating bucket over the same time frame. The strength of the rally compressed aggregate index spreads by 47 bps in December alone, admittedly eating away at some of the tightening we envisioned for 2021 (as presented when our outlook report was published). So, how tight are spreads now? At 386 bps, OAS has just now entered the tightest quartile on an historical basis, all despite a still sluggish economic environment amidst persistently rising coronavirus cases.

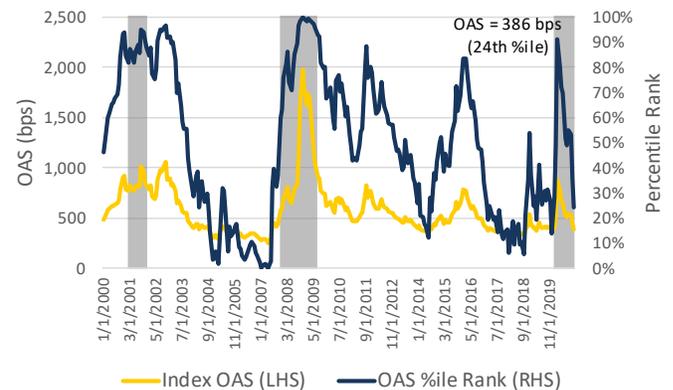
#### December '20 Returns vs. Historical Monthly Return Quartiles

one month data



#### ICE BofA US High Yield Index (HOAO) Option-Adjusted Spread

monthly data since January 2000; recessions shaded grey

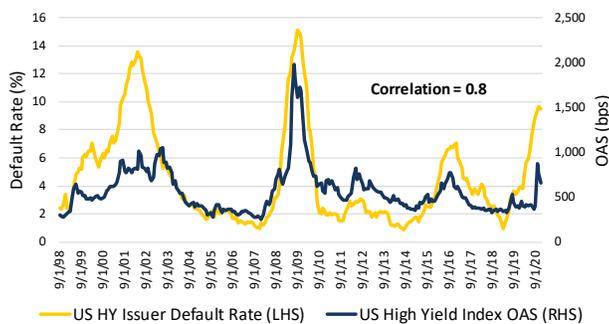


Source: SKY Harbor, ICE Data Indices

However, we are mindful that markets are forward-looking in nature, our statistical analysis (left chart below) showing that HOAO OAS is most correlated to the prevailing high yield universe default rate three to four quarters in advance. As such, our view that defaults will be cut in half by the end of 2021, and perhaps moderate further to ~ 3.5% by the end of 2022, is consistent with continued spread compression via credit loss erosion. Furthermore, a surprise Democratic sweep in Georgia run-off elections (written about in our prior *Weekly Briefing*, found [here](#)) portend additional fiscal stimulus measures, further increasing demand for risk assets. So, where do we think spreads may end up after fully incorporating fundamental improvements on a go-forward basis?

#### US HY Spreads Most Correlated To Default Rate In 3 to 4 Quarters

20 years, monthly data



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

#### SKY Harbor Model Projects Fewer Defaults Over Next 24 Months

regression based on monthly data

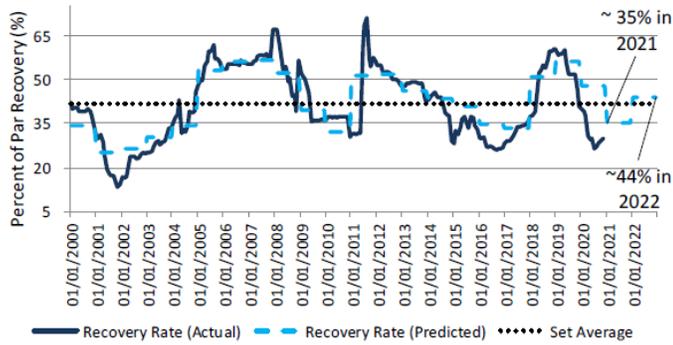


Forecasts are inherently limited and cannot be relied upon. Actual results may vary.

First, we need to generate credit loss estimates for the coming years. In 2020, we estimate credit losses for high yield were in excess of 600 bps, the product of the prevailing default rate and the loss given default (1 minus the recovery rate). Given our expectation of improving economic conditions over the next 24 months, this loss estimate is expected to decline in the coming quarters. Our internal recovery rate forecast model, which is driven by fundamental credit metric trends (both net leverage and interest coverage ratios), the rate of default (par-weighted), a measure of lending conditions (tightening vs. loosening of standards), and the relative concentration (sector-based) of bankruptcy filings, anticipates recoveries improving to ~ 35% by the end of 2021, and further to 44% by the end of 2022. Since investors tend to be forward-looking (3 to 4 quarters, according to the spread analysis above), credit losses incorporated into OAS by the end of 2021 should reflect the outlook for default and recovery rates by the end of 2022, leading to our 196 bps estimate (see sensitivity table below).

## SKY Harbor Recovery Model - Actual vs. Predicted (Annualized)

monthly data, includes forward-looking estimates



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

## SKY Harbor Default Loss Sensitivity Analysis

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

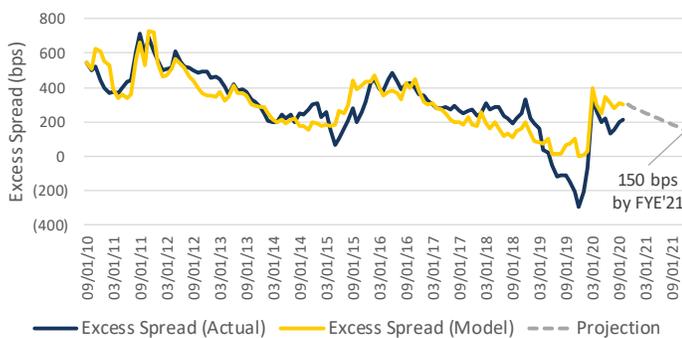
SKY Harbor <u>Default</u> Regression Model Output		SKY Harbor <u>Recovery</u> Model Output	
Dec '19 (Actual)	3.9%	Dec '19 (Actual)	40.1%
Dec '20 (Actual)	9.5%	Dec '20 (Actual)	29.4%
Dec '21 (Est)	5.0%	Dec '21 (Est)	35.0%
Dec '22 (Est)	3.5%	Dec '22 (Est)	44.0%

2022	Default Rate						
	2.75%	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%
Recovery Rate	51.5%	49.0%	46.5%	44.0%	41.5%	39.0%	36.5%
	133	146	158	170	182	194	206
	140	153	166	179	191	204	217
	147	161	174	187	201	214	227
	154	168	182	196	210	224	238
	161	176	190	205	219	234	249
	168	183	198	214	229	244	259
	175	191	206	222	238	254	270

Historically speaking, investors have typically demanded, on average, another 300 or so basis points of “excess spread” above and beyond what is associated with expected credit losses. The level of excess spread, as we have discovered through statistical analysis, can vary significantly, and is typically a function of prevailing risk-free rates, yields offered by ancillary assets classes, FX hedging costs, and credit fundamentals. Incorporating estimates for these values into our model, we think excess spreads should be ~ 150 bps by the end of 2021, leading to a fair value index OAS estimate (credit losses + excess spread) of 196 bps + 150 bps = 346 bps, still tighter than prevailing spread levels of ~386 bps at the time of publication.

## SKY Harbor Excess Spread Model

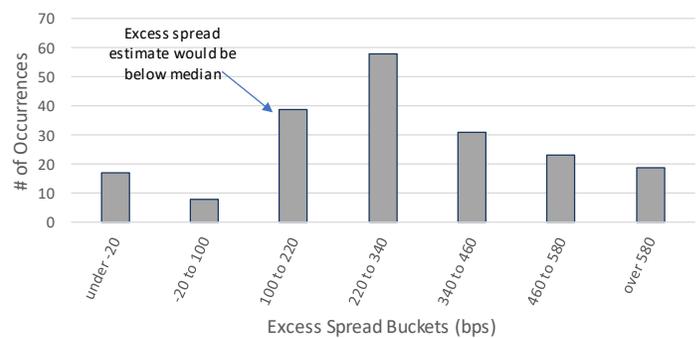
OAS after accounting for credit losses



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

## Historical Excess Spread Distribution

monthly data since 2004



It is also important, in our view, to remember that spreads have been tighter than our ~ 350 bps target, and can persist below the 400 bps range for extended periods of time. By way of example, in the most recent credit cycle (emergence from the global financial crisis in July '09 and up until the virus-induced recession in February '20), the ICE BofA US High Yield Index hit a spread tight of 316 bps (Oct. 3, 2018), and had a 22-month streak in which spreads remained below 400 bps. In the prior cycle (December '01 until the GFC in '08/'09), high yield spreads achieved a tight of 241 bps (Jun. 1, 2007), and would have had a 34-month streak in which spreads remained below 400 bps had it not been for two short-lived months of widening (spreads briefly went to 418 bps).

In conclusion, we continue to have an optimistic view of the potential for spread compression despite a sharp December rally. Driven by our expectation of falling defaults, rising recoveries, and continued fiscal stimulus measures, we estimate a fair value OAS of ~ 350 bps by the end of 2021, or nearly 40 bps tight to existing levels. Furthermore, we would highlight that spreads have been meaningfully lower in prior business cycles and can persist at sub-400 bps levels for extended periods of time when investors expect credit losses to remain subdued.

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## Definitions

**Basis points (bps)** refer to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01%, or 0.0001, and is used to denote the percentage change in a financial instrument.

**Correlation** shows the strength of a relationship between two investments and is measured on a scale from +1 to -1, where +1 indicates perfect positive correlation (investments rise and fall together) and -1 is perfect negative correlation (investments move in opposite directions).

**Credit Ratings** are used by the S&P and Fitch credit agencies for long-term bonds and some other investments. They range from the highest rating of AAA (the borrower's capacity to meet its financial commitment the obligation is extremely strong) to D (the borrower is in default). Ratings in order of quality include AAA, AA, A, BBB, BB, CCC, CC, C and D.

**ICE BofA US High Yield Index:** An index that tracks the performance of US dollar denominated below investment grade rated corporate debt publicly issued in the US domestic market. The index is further defined by sub-indexes associated with credit ratings (e.g., the CCC sub-index).

**Leverage** is an investment strategy of using borrowed money, specifically, the use of various financial instruments or borrowed capital, to increase the potential return of an investment.

**Option-Adjusted Spread (OAS)** is the measurement of the spread of a fixed income security rate and the risk-free rate of return, which is then adjusted to take into account an embedded option.

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**Important Disclosures and Disclaimers**

Past performance does not guarantee future results. The referenced indices are shown for informational purposes only and are not meant to represent the AXS Investments Funds. Investors cannot directly invest in an index.

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