SKY HARBOR
CAPITAL MANAGEMENT

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Weekly Briefing

SKYView: Selloff Thoughts and Scenario Analysis

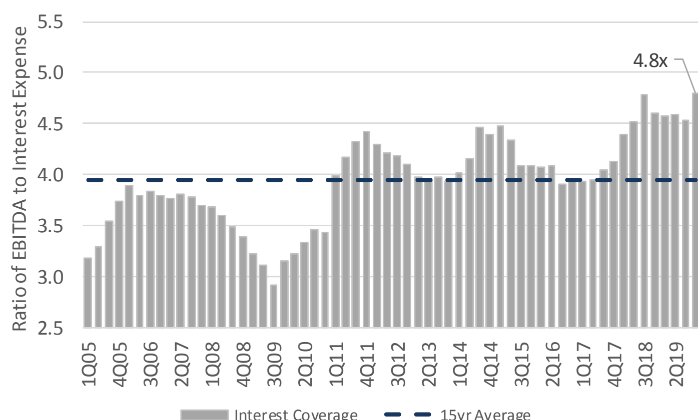
Markets sold off sharply on Monday as an oil price war worsened an already tenuous global economic environment on edge from the spread of the coronavirus. By day's end, most equity markets had shed 7%+ of their value, crude oil fell to the low $30s per barrel and US high yield spreads breached 650 bps for the first time since 2016. Amidst the turmoil, we have endeavored to frame the US high yield market within our F.A.S.T. construct (fundamentals, asset values, sentiment and technicals) in an attempt to goalpost the likely impact slowing growth and rising risk premiums may have on high yield issuers.

Fundamentals

From a fundamental perspective, we enter this period of uncertainty on strong footing. At the time of writing this piece, we estimate that ~ 85% of US high yield issuers have reported Q4'19 earnings, a large enough base from which to update our aggregate interest coverage ratio metric (~ 4.8x, and well above the 15-year average of ~ 3.9x). In comparing interest coverage ratios to par-weighted default rates, we find the latter typically hits an inflection above the 4-5% annual average when coverage metrics migrate below 3.4x, a seemingly comfortable distance from most recent levels absent any exogenous or sector-specific shocks.

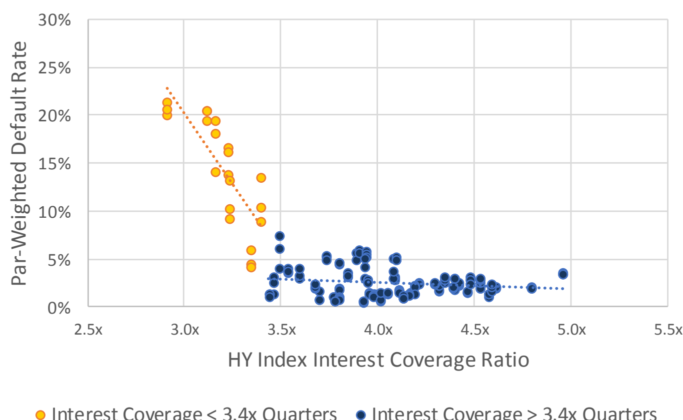
US High Yield Coverage Ratio

15 year time series



Defaults Tend to Rise When Interest Coverage Falls Below 3.4x

quarterly data, trailing 15 years



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

The coronavirus, however, has caused economic activity to slow in China, as tight quarantines and factory shutdowns were pervasive through much of January and February. Now, supply chain disruptions (China is a major supplier of intermediate goods to the rest of the world) and an uptick in new coronavirus cases outside of Asia threaten to erode US GDP growth prospects in 2020. This expected slowdown in US GDP growth is likely to restrict corporate earnings in the near term (at the time of publication, consensus expectations for large cap equity EPS growth is essentially flat for 2020, down from prior estimates of nearly +10%), and rising risk premiums have the potential to re-set coupons higher upon refinancing.

With this in mind, we developed the sensitivity analysis below. First, we shocked 2020 annual EBITDA growth in 500 bps increments, generating a range of corporate earnings estimates from flat to down 35%. Additionally, we assumed that opportunistic refinancing would cease, but maturities in 2020 and 2021 (so as to not allow any debt to go current) would have to be refinanced at higher interest rate levels. We further assumed that those levels would be anywhere from zero to 300 bps above current coupons. (In the case of loans coming due, we assumed they would be refinanced at similar increments above and beyond current discount margins.) Finally, we assumed management teams would not add net new debt to their capital structures via dividends or LBOs, consistent with behavior over the last couple of years. With depressed EBITDA generation (numerator) and increased interest expense (denominator), we then calculated resulting interest coverage ratios across a wide spectrum of potential shocks. As demonstrated in the table below, it would take an EBITDA decline of ~ 30% (or 25% with a significant rise in funding costs) in order to push aggregate interest coverage metrics below the threshold (3.4x) that typically coincides with a widespread increase in defaults. In the past, such EBITDA declines only occurred in severe recessions (2008 was severe enough, but 2001 was not). Furthermore, temporary dislocations (like we saw in the commodity crisis of 2015/2016) were also insufficient to achieve index-level EBITDA degradation that would spur a default wave, given elevated coverage at present. As such, we see as being unlikely the material uptick in index-wide default rates in 2020, absent the onset of a severe recession or sector-specific shocks.

Russell 2000 Index EBITDA Growth
quarterly data, since 1996 (recession shaded grey)

Interest Coverage Ratio Sensitivity Analysis
1 year horizon

Increased Coupon (bps)	Y/Y EBITDA Decline -35%	-30%	-25%	-20%	-15%	-10%	-5%	0%
+0 bps	3.1x	3.4x	3.6x	3.8x	4.1x	4.3x	4.6x	4.8x
+50 bps	3.1x	3.3x	3.6x	3.8x	4.0x	4.3x	4.5x	4.7x
+100 bps	3.0x	3.3x	3.5x	3.7x	4.0x	4.2x	4.4x	4.7x
+150 bps	3.0x	3.2x	3.5x	3.7x	3.9x	4.2x	4.4x	4.6x
+200 bps	3.0x	3.2x	3.4x	3.7x	3.9x	4.1x	4.3x	4.6x
+250 bps	2.9x	3.2x	3.4x	3.6x	3.8x	4.1x	4.3x	4.5x
+300 bps	2.9x	3.1x	3.4x	3.6x	3.8x	4.0x	4.2x	4.5x

Source: SKY Harbor, Bloomberg, National Bureau of Economic Research, ICE BofA Indices, Credit Suisse Indices

Unfortunately, the risk of sector-specific shocks are on the rise as a result of the OPEC+ alliance breakdown (Energy) and more stringent measures being taken on a global basis to suppress the spread of the coronavirus (Transportation, Leisure, etc.). We examine the impact these events may have on the index in the section below.

Asset Values

On Monday, the ICE BofA US High Yield Index (ticker H0A0) returned -3.61%, the third worst 1-day performance based on historical data going back to the start of 2000. At the close of markets, spreads had widened 104 bps to 668, while the index yield-to-worst hit 7.35%. Do asset values now look attractive? Admittedly unsure (as is everyone) how severe and widespread the coronavirus will be, and not knowing the ultimate fate of OPEC+ discussions, we think this now becomes an exercise in scenario analysis. Therefore, we frame the potential for intermediate-term index defaults by simulating various paths laid out below, ordered by increasing severity.

- *Scenario #1*: COVID-19 is contained more quickly than anticipated (in the next month), OPEC/Russia reach an output restriction agreement that ends the current oil price war, and a global recession is avoided. In this scenario, we maintain the 4% default estimate introduced in our *2020 US High Yield Outlook,* published in December '19.
- *Scenario #2*: COVID-19 spreads but is contained by mid-year, OPEC/Russia fail to reach an agreement and the oil price war persists, recession is avoided but the Energy sector suffers recession-like defaults. In this scenario, we assume an Energy sector default magnitude equivalent to the commodity crisis in 2016 while the balance of the index suffers our base case rate of 4%, ultimately leading to a blended default rate of 10%.
- *Scenario #3*: COVID-19 spreads beyond the mid-year point, OPEC/Russia continue down the path of oil price war, but virus and energy-specific stresses fail to spill over into the rest of the economy (so a full recession is avoided). In this scenario, we assume the same Energy crisis default outcome listed above, extrapolate that to sectors susceptible to virus woes (Transportation, Leisure, Basic Materials and Retail), and impose our base case 4% default rate to the balance of the index. In this situation, the blended index default rate goes to 12%.
- *Scenario #4*: COVID-19 is contained and oil prices revert back to normal levels on an OPEC+ agreement, but we slip into a recession anyway. In this case, we use the Great Financial Recession as our guide, and assume index default rates hit 16%.
- *Scenario #5*: COVID-19 and oil price wars continue unabated, and all sectors fall into recession. In this case, we use our stressed Energy and virus-related default estimates, assume a 16% default rate for all other sectors, and arrive at a blended default rate of 23%.

In the aforementioned scenarios, cumulative default rate estimates range from 4% to 23%. If we further assume a recovery rate on defaulted securities of 40% (historical average for high yield), make some assumptions regarding the current market price of bonds likely to default, add an estimate of excess spread to our calculation (~ 300 bps, the long-term average for high yield), and make an assumption as to the degree to which investors will over-estimate ultimate defaults (up to a 2x ratio in times of stress), we can generate some estimates of spread fair value for each scenario contemplated above. While admittedly over-simplifying the situation, we think this exercise at the very least introduces a reasonable set of spread ranges commensurate with the risks and uncertainties present in the market.

Scenario	Blended Index Default Rate	Avg. Default Candidate Price (widest x% of index, where x = default rate multiplied by 2)	Est. Recovery Rate	Loss Given Default (bps)	LGD x 2 (stress period avg)	Excess Spread (LT avg.)	Fair Value of Spreads		
#1	4%	51	40%	44	88	300	344	to	388
#2	10%	73	40%	330	660	300	630	to	960
#3	12%	77	40%	444	888	300	744	to	1,188
#4	16%	82	40%	672	1,344	300	972	to	1,644
#5	23%	87	40%	1,081	2,162	300	1,381	to	2,462

Source: SKY Harbor estimates

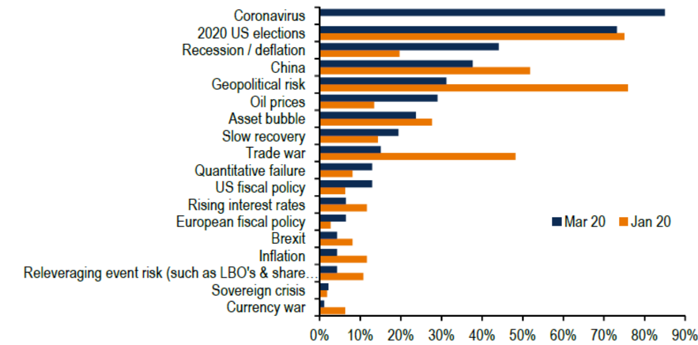
Internal and external research, along with conversations with investors and strategists over the last several days indicate an immense amount of uncertainty present in the market, consistent with admittedly wide projections of spread fair value ranges listed above. It is our opinion, however, that consensus expectations appear to be coalescing around Scenario #2. Accordingly, index spreads of 668 bps by the end of trading on Monday appear largely consistent with our scenario-implied range.

Sentiment

Sentiment has changed dramatically over the last two months, with investors now identifying the coronavirus as their #1 concern in the most recent BofA credit investor survey. Since January, the virus has overtaken 2020 US elections, recession risk and China as a top concern, while asset bubbles, trade war and the state of US and European fiscal policy fade into the background. Despite a re-shuffling of concerns, the median forecasted probability of a recession has declined from recent highs (35 % through November 2019), settling at 25% as of the most recent update (March 9, 2020).

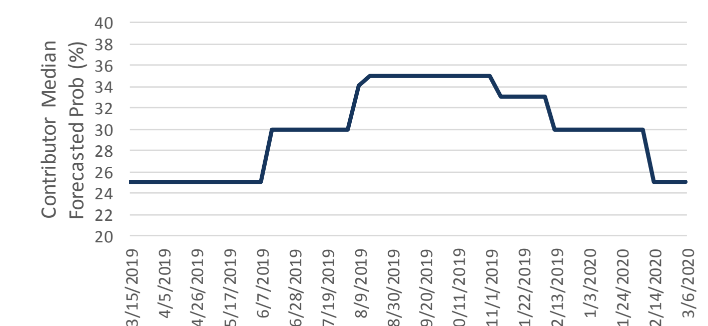
BofA Credit Investor Survey Points to Heightened Virus Concerns…

weekly data



…But US Recession Probability Forecast Falls Below Recent Highs

weekly data

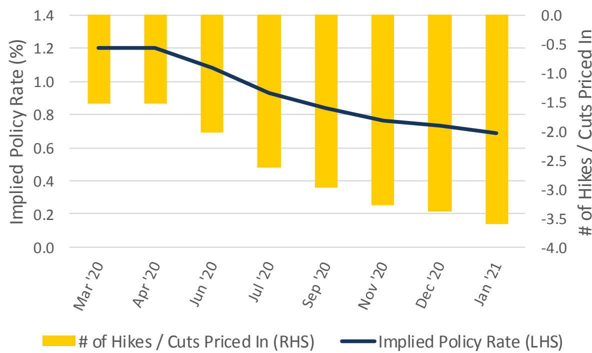


Source: SKY Harbor, BofA Merrill Lynch, Bloomberg

Investors are now pricing in further rate cuts this month (beyond the emergency measures taken last week), a dramatic change in sentiment relative to early January when the consensus view was for the Fed to remain on hold for most of the year. At the time of publication, Fed Funds Futures imply further easing from the FOMC during its March 18 meeting, with an implied policy rate now below 50 bps. The ECB is set to meet Thursday.

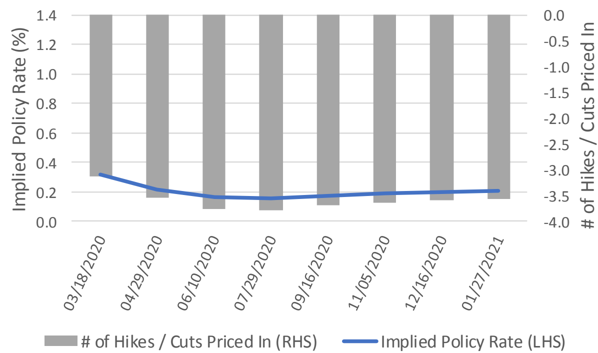
Market Priced in Rate Cuts Before Fed Announcement

data as of February 28, 2020



Market Now Expects Additional Cuts Later This Month

data as of March 9, 2020



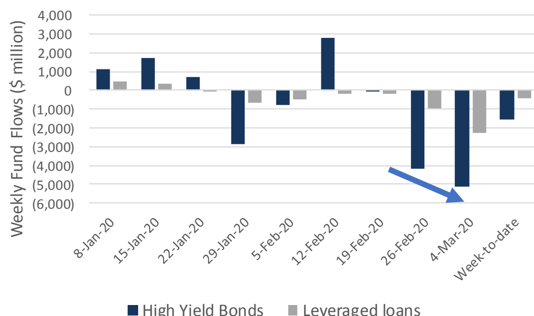
Source: SKY Harbor, Bloomberg

Technicals

Fund flows out of US high yield accelerated through the end of February and into the beginning of March, as investors fled to safe haven assets. Partially offsetting this technical headwind has been a sharp reduction in primary market activity, which nearly ground to a halt over the last couple of weeks. While fund inflows are notoriously difficult to predict, we anticipate limited new issuance in the coming weeks given a rise in market yields and lingering economic uncertainty. The combined impact of flows and issuance should, in our view, neutralize in the coming weeks.

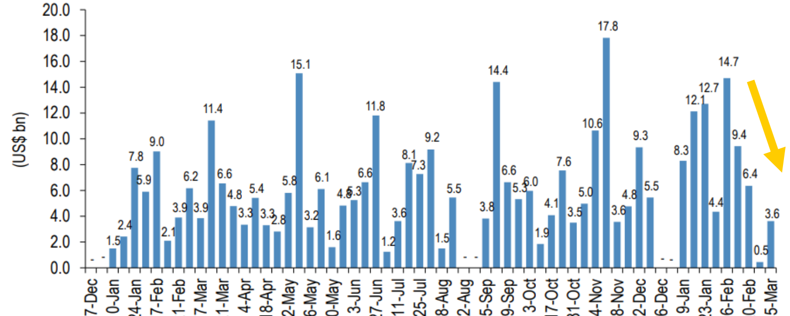
HY Outflows Accelerated Into March

weekly data



Lack of Primary Market Activity Has Offset Outflows

weekly data



Source: JP Morgan, Lipper

In conclusion, OPEC+ disintegration and coronavirus-driven threats to global growth have led to severe drawdowns across risk assets, and investors have thus far been unwilling to call a bottom given ongoing uncertainty. US high yield markets have, in our view, traded the news in an orderly fashion, with sectors most exposed to virus-related shocks underperforming those that are more insulated. While we do not deny that uncertainties abound, the scenario analysis presented above is meant to provide reasonable valuation brackets until greater market clarity emerges. In the meantime, more accommodative central banking policies and other forms of government stimulus may provide a catalyst to boost sentiment and bring markets back into balance.

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