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November 19, 2018

SKY HARBOR
CAPITAL MANAGEMENT

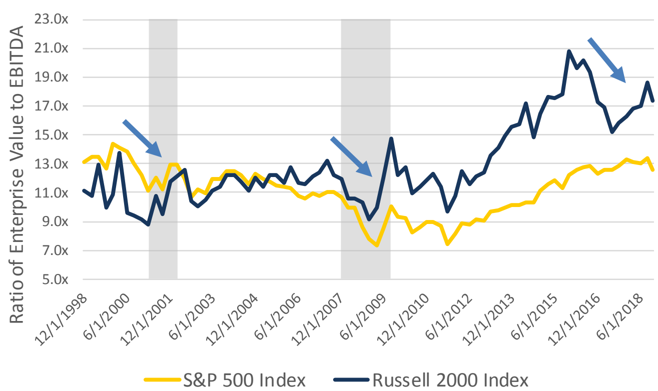
Weekly Briefing

SKYView: Valuations

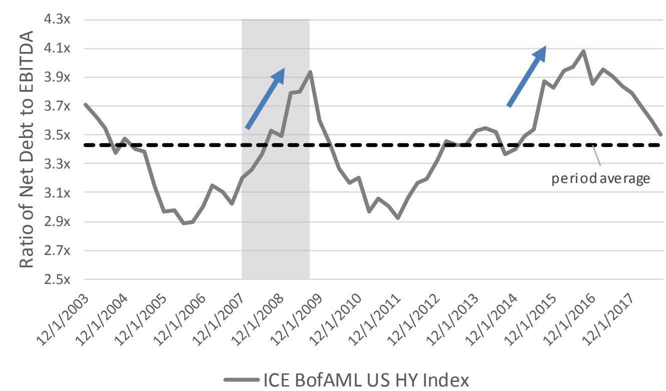
The selloff in risk assets has continued, with large cap US equities and US high yield bonds posting negative returns since the start of October. During that time, Enterprise Value to EBITDA multiples for both the S&P 500 and Russell 2000 indices have declined 7%, and for the former now represents the lowest level since December 2016. While we stress that **we are not of the mindset that an end to the cycle is imminent**, and note that the magnitude of EV multiple deterioration over the past six weeks is well below what was experienced in prior cycle downturns (we include the last two recessions, as well as the commodity “mini-cycle” in 2015 and 2016), **we are nevertheless cognizant of how quickly a concurrent fall in EV multiples and negative EBITDA growth can erode implied “cushions” for leveraged credits**. In this weekly brief, we focus on the size and resilience of sector equity cushions, and re-visit sector relative value post-selloff.

Equity market Enterprise Value multiples typically erode during periods of economic stress and have fallen more than 30% heading into past cyclical troughs. At the same time, underlying EBITDA generation tends to suffer, with y/y declines often exceeding 20%. This decline in EBITDA ultimately leads to credit metric deterioration as high yield market net leverage rises. As demonstrated in the charts below, a simultaneous fall in EV multiples and rise in net leverage ratios occurred during the last recession and during a period of acute commodity stress in 2015/2016.

US Equity Enterprise Value Multiples Through the Cycle
20 years of quarterly data, recessions shaded in grey



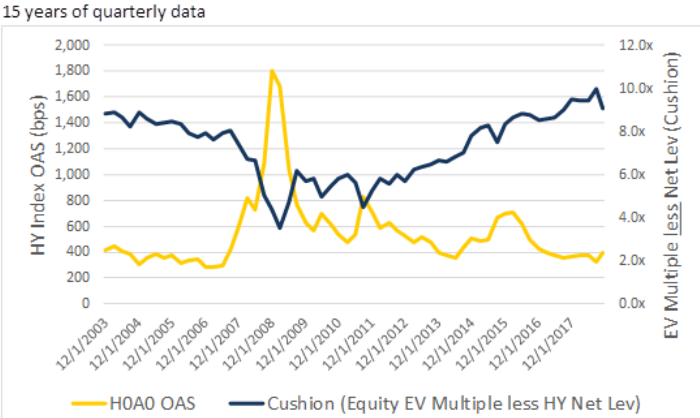
US High Yield Net Leverage Ratios Through the Cycle
15 years of quarterly data, recessions shaded in grey



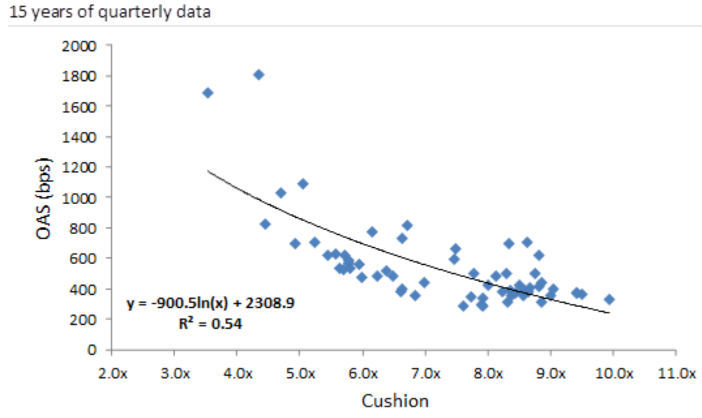
Source: SKY Harbor, Bloomberg, BofA Merrill Lynch

Given a priority claim within an issuer’s capital structure, high yield investors have generally benefited from equity multiple expansion and underlying earnings growth over the last several years. The resulting equity cushions – which we define as the difference between Enterprise Value multiples and net leverage – have largely been on the rise since 2011. While net leverage continues to trend downward in the US high yield bond market (largely due to EBITDA growth), rapid deterioration in equity market EV multiples since the start of October has more than offset the deleveraging tailwind, resulting in cushion compression. While the approximately 9.0x cushion at present (S&P 500 Index EV/EBITDA multiple of 12.5x less US High Yield Index Net Leverage of ~ 3.5x) is nearly two turns above the trailing-15-year average, **cushion degradation has historically coincided with ICE BofAML US High Yield (H0A0) spread widening** given the highly negative correlation between the two factors.

"Cushion" Compression Negatively Correlated to HY Spreads
15 years of quarterly data



Regression Analysis: Equity Cushion vs. HY Spreads
15 years of quarterly data

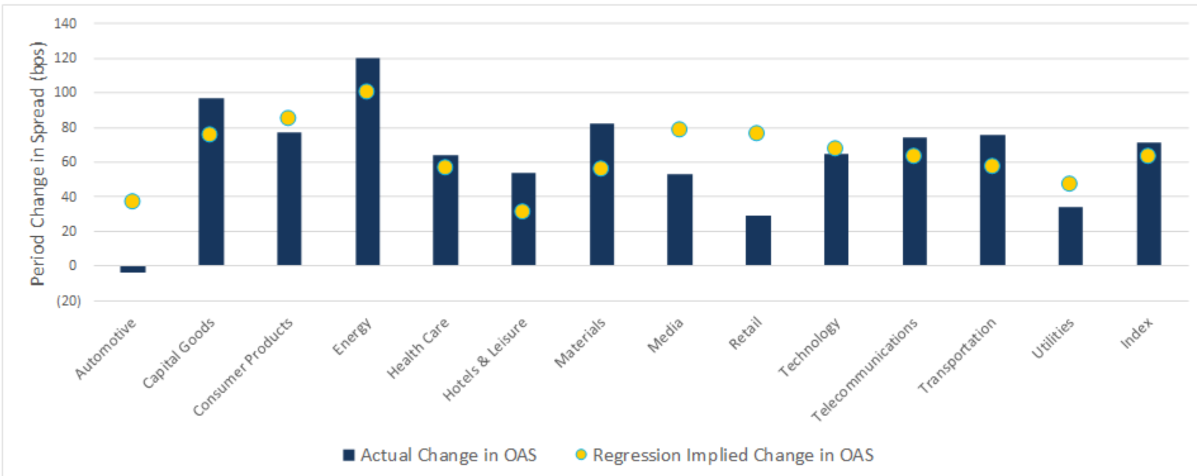


Source: SKY Harbor, Bloomberg, BofA Merrill Lynch, ICE BofAML Indices

Taking our analysis to the sector level, we created a dataset that captured net leverage, Enterprise Value and EBITDA growth, and the resulting cushion calculations at various points in time through the cycle, all broken down by ICE BofAML Level 3 sector classifications. Over time, **periodic changes in corresponding sector EV/EBITDA multiples, as well as "bear case" leverage expansion estimates** (average sector-specific EBITDA declines over the last two recessions, applied to LTM sector net leverage to generate a recessionary net leverage estimate) **proved most statistically significant in determining changes in sector spreads**. Using this relationship, we then compared actual spread widening (from September 30 to November 14, 2018) to model-implied spread widening (using the aforementioned variables) in search of potential market mispricings. Although idiosyncratic risks abound (we are in the middle of Q3'18 earnings season), we view this exercise as an appropriate starting point to identify opportunistic trades in what may be a brief period of market dislocation.

Sector OAS Change: Actual vs. Regression Model Implied

actual spread change from September 30 through November 14, 2018



vs. Model-Implied Fair Value

Widened Too Much
Capital Goods
Energy
Hotels & Leisure
Materials
Transportation

Widened Too Little
Automotive
Media
Retail
Utilities

Widened In-Line
Consumer Products
Healthcare
Technology
Telecommunications

Source: SKY Harbor, Bloomberg, BofA Merrill Lynch, ICE BofAML Indices

In summary, we remain mindful of sector EV multiple degradation in the current selloff, as there has historically been a statistically significant correlation between equity cushions and US high yield spreads over time. Additionally, sector-specific measures of EV multiples, net leverage and trough EBITDA growth point to dislocation between actual and model-implied spread widening since the start of October, which we are using to shape our thoughts around sector allocation and to identify swap opportunities.

On the Calendar

Occurred

Event	Release Date	Period	Survey	Actual	Prior
NFIB Small Business Optimism	13-Nov-18	Oct	108.0	107.4	107.9
Empire Manufacturing	15-Nov-18	Nov	20.0	23.3	21.1
Industrial Production MoM	16-Nov-18	Oct	0.2%	0.1%	0.3%

Upcoming

Event	Release Date	Period	Survey	Actual	Prior
Housing Starts	20-Nov-18	Oct	1230k		1201k
Existing Home Sales	21-Nov-18	Oct	5.20m		5.15m
U. of Mich. Sentiment	21-Nov-18	Nov	98.3		98.3

Source: SKY Harbor, Bloomberg

Recommended Reading

Colchester, Max and Douglas, Jason (2018, November 15). UK's Brexit Deal in Jeopardy as Senior Ministers Resign. *The Wall Street Journal* (subs. req.), Retrieved from https://www.wsj.com/articles/european-officials-to-meet-to-approve-draft-brexit-deal-1542269504?mod=hp_lead_pos1

McCormick, Liz (2018, November 15). Goldman Sees Fed Hikes Pushing 2- to 30-Year Spread Toward Zero. *Bloomberg*, Retrieved from https://www.bloomberg.com/news/articles/2018-11-15/goldman-sees-fed-hikes-pushing-2-to-30-year-spread-toward-zero?srnd=fixed-income

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