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SKY HARBOR
CAPITAL MANAGEMENT

Weekly Briefing

SKYView: Stress Testing

Essentially halfway through Q1'20 earnings season, the corporate profitability outlook for the balance of the year remains highly uncertain. EBITDA generation, thus far, has remained somewhat resilient, but coronavirus-related shutdowns for the most part primarily impacted a small portion of the quarter (just the last two weeks of March). With most management teams refusing to provide forward earnings guidance, modeling has largely become an exercise in stress testing. In this *Weekly Briefing*, we review our framework for estimating earnings downside, liquidity needs and credit metric trajectories for high yield issuers.

Historically speaking, earnings trends in the S&P 500 Index have been highly correlated with EBITDA growth among US high yield issuers, with the former typically reporting several weeks before the latter. With that as our guide, we note that EBITDA growth has been less robust this quarter vs. Q4'19 – particularly within Basic Materials, Consumer Cyclical and Industrial segments, where earnings deceleration has been more significant than average (note that trends are based on 78% of the S&P 500 Index that has reported Q1'20 results thus far, and prior-quarter trends are generated using only that constituent set for consistency). Importantly, however, Q1'20 results include only a few weeks of lockdown-related demand destruction, and the refusal of most management teams to provide forward-looking guidance leaves significant uncertainty when it comes to earnings projections over the next several quarters.

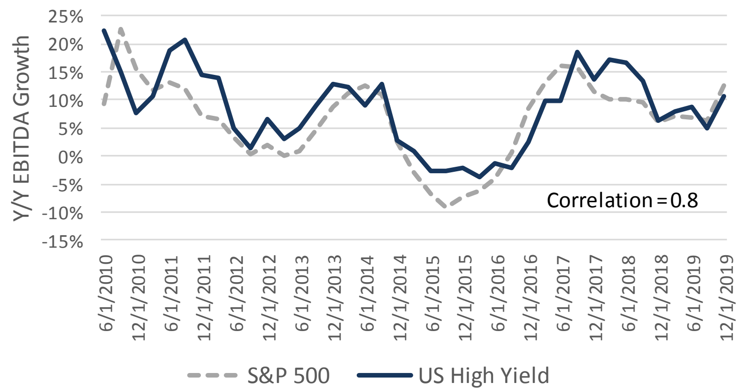
EBITDA Growth Trends by Sector

S&P 500 constituents that have already reported (~ 78% of index)

Sector	EBITDA Growth Q1'20	EBITDA Growth Q4'19	EBITDA Growth Last 4Q Avg.	Dominant Trend
Basic Materials	-4.4%	-1.2%	5.6%	Negative
Communications	7.9%	6.6%	12.5%	Mixed
Consumer, Cyclical	-4.5%	0.5%	4.1%	Negative
Consumer, Non-cyclical	8.3%	9.8%	6.4%	Positive
Energy	0.0%	-5.4%	15.9%	Mixed
Industrial	1.8%	3.6%	5.1%	Negative
Technology	10.1%	5.9%	3.9%	Positive
Utilities	16.9%	15.9%	5.3%	Positive
Sample Average	**4.6%**	**5.3%**	**6.6%**	

S&P 500 vs. US High Yield EBITDA Growth Trends

quarterly data, last ten years

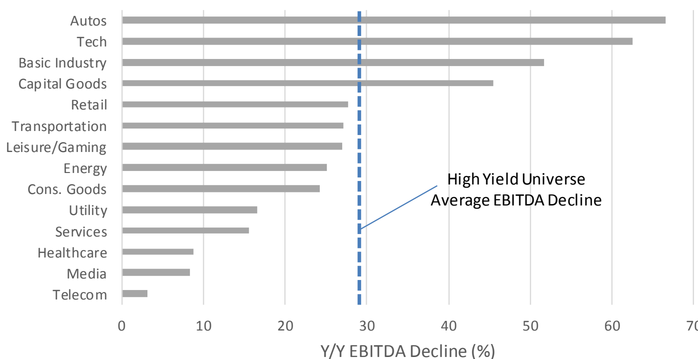


Source: SKY Harbor, Bloomberg, BofA Merrill Lynch, Capital IQ, company filings

With not much to go on from management teams, we use sector-based EBITDA declines during the global financial crisis as our guide. At that time, we estimate that high yield issuers, on average, suffered peak-to-trough EBITDA degradation of nearly 30%, with Autos, Technology, Basics and Capital Goods faring the worst. While we concede that every crisis is unique and that sector constituencies have changed in the last 11 years, we view the exercise as a useful one in at least bracketing downside potential. In the table at the right below, we shock current leverage metrics by assuming a 2020 EBITDA decline commensurate with downside from the GFC and compare resulting debt-to-EBITDA ratios relative to levels at the depths of the last recession. Interestingly, a nearly 30% shock to EBITDA would put index-wide leverage at roughly 6x, very much in line with peak debt-to-EBITDA ratios during the last recession. Sectors in which the gold bar is above the grey sphere represent areas of potentially greater coronavirus-induced financial stress than experienced in '08/'09.

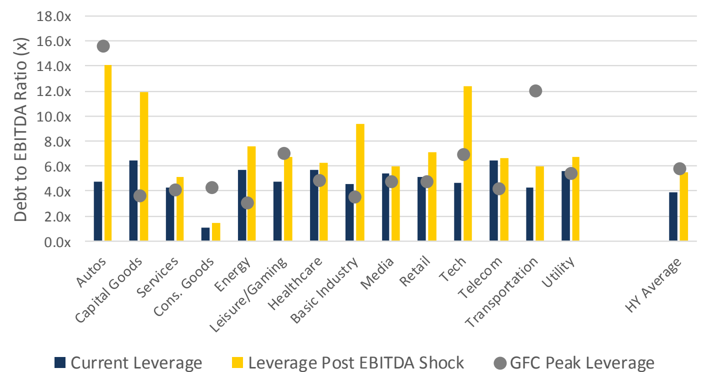
EBITDA Declines by Sector During GFC

max 4 quarter decline in '08 and '09



Leverage Scenario Analysis

current leverage is through Q4'19; sector EBITDA shocked by GFC EBITDA declines

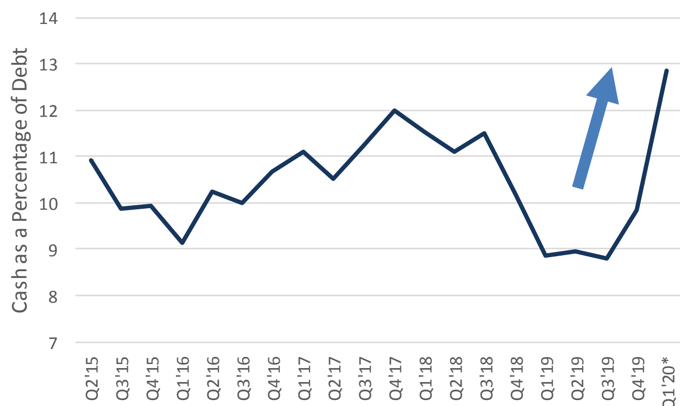


Source: SKY Harbor, BofA Merrill Lynch, Bloomberg, Capital IQ, company filings

To ready themselves for corporate-wide weakness in Q2'20 (and potentially beyond), management teams have been stockpiling cash on their balance sheets, in many cases taking advantage of strong free cash flow generation in a low interest rate environment. This has increased cash as a percentage of debt to nearly 13% through the end of Q1'20, beyond levels we have seen over the last five years. In addition, issuers have come back to the new issue market en masse, with April trends highly skewed toward general corporate purposes (prior to this period, refinancing had been the dominant use of proceeds for several quarters in a row). As demonstrated below, the year-to-date 2020 percentage of new issue proceeds earmarked for GCP is well beyond average, and represents a sign of proactively cautious behavior on the part of management teams.

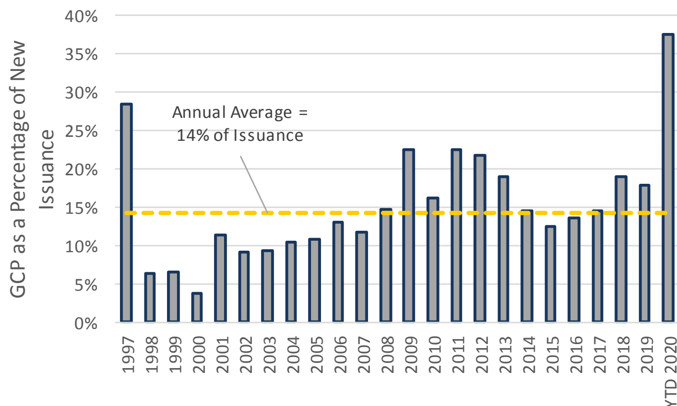
Issuers Starting to Stockpile Cash

quarterly data, trailing 5 years



Also Tapping New Issue Markets to Bolster Liquidity

annual data since 1997

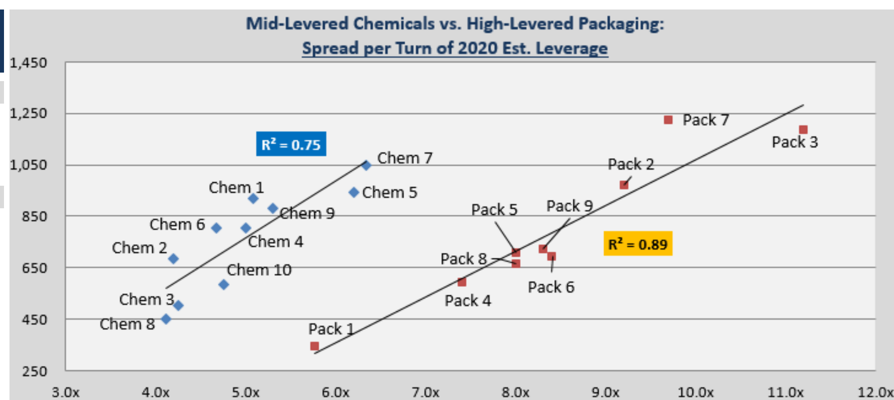


*Q1'20 represents only companies that have reported through April 30; YTD 2020 issuance is through April 30
Source: SKY Harbor, BofA Merrill Lynch

While the tracking of macro indicators and the simulation of EBITDA downside at the sector level can allow us to narrow down our area of focus, proper stress testing is best conducted on a micro basis. In light of unprecedented lockdowns, our research team methodically calculated cash obligations for issuers under our coverage, estimating interest expense, tax payments, maintenance capital expenditures, and working capital needs. The sum of these items, which would represent an issuer's cash drain in a zero EBITDA setting, was then compared to unrestricted cash and revolver headroom, all in an effort to derive an estimate of years of available liquidity in a relatively draconian operating environment. We also calculated the percent decline in last-twelve-month EBITDA levels that each company could withstand before free cash flows turned negative, maximum EBITDA declines for each company during the global financial crisis, and fixed vs. variable costs by operating model. We present some of the results from this analysis below, aggregating our findings at the sector level to preserve confidentiality of companies with private financial statements. Ultimately, this analysis has helped us identify survivors within the field of high yield constituents in what we anticipate will be an elevated default environment.

Among anticipated survivors, we also use this stress testing to gauge relative value. By way of example, we can see that the median Chemical company in our coverage universe has greater liquidity at present than the median Packaging company (2.1 years of cash burn in a zero EBITDA environment vs. 1.5 years) and can likely withstand a greater decline in EBITDA before free cash flow neutrality is breached (42% vs. 26%). However, the Packaging subset we follow suffered less severe EBITDA declines during the global financial crisis (largely due to resilient end markets, such as food, beverage and consumer goods) and benefits from a more highly variable cost structure. Given greater resiliency, we would expect investors to demand less spread compensation per unit of leverage for Packaging credits relative to Chemical credits. Plotting individual bond spreads along the y-axis (in basis points), and our internal estimates for issuer leverage by the end of 2020 across the x-axis, we see this dynamic largely priced into trading levels (the Packaging universe has a flatter slope and resides further out the leverage spectrum). While this analysis shows relatively appropriate trading levels (at least when using our forward-looking leverage estimates), it has often been useful in identifying mispriced securities.

	Years of Liquidity (no EBITDA)	Max EBITDA Decline to FCF Neutrality	GFC Max EBITDA Decline	Fixed to Variable Costs (est)
Packaging Sector (16 issuers analyzed)				
Top Decile	3.1	50%	-8%	
Median	1.5	26%	-16%	25/75
Bottom Decile	0.9	11%	-33%	
Chemicals Sector (14 issuers analyzed)				
Top Decile	4.1	56%	-22%	
Median	2.1	42%	-37%	40/60
Bottom Decile	1.2	17%	-51%	



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

In conclusion, earnings headwinds have begun to materialize, and the consensus view is that trends are likely to weaken substantially in Q2'20, when the lockdown-induced destruction of demand is expected to be most prevalent. With the majority of management teams no longer willing to communicate guidance to investors, we look to EBITDA contractions during the global financial crisis as a guide to the depths of stress some businesses are likely to encounter. In our view, index-wide leverage could increase to 6x if EBITDA were to fall ~30%, resulting in debt-to-EBITDA levels in line with prior recessionary peaks. As a partial offset, management teams have been shoring up their balance sheets via stockpiling of cash and tapping new issue markets. Our fundamental research team has been largely focused on estimating free cash flow burn in low to zero EBITDA generation environments for companies under coverage, gauging the appropriateness of liquidity reserves on an issuer-by-issuer basis, and modeling operating model resiliency through an analysis of fixed vs. variable cost structures. In our view, intense credit research will be paramount given an expected rise in defaults and market volatility, and our internal stress testing is being used across all strategies to assess both survivability and relative value.

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