SKY HARBOR
CAPITAL MANAGEMENT

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Weekly Briefing

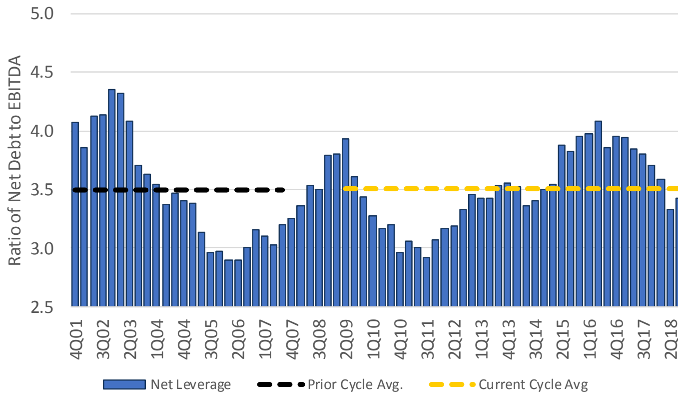
SKYView: Bonds vs. Loans

We are often asked to provide our thoughts on the trade-off between US high yield bonds and US leveraged loans, due largely to issuer overlap and a similar risk/return profile through various points in the business cycle. While such assessments are rarely clear-cut, we attempt to evaluate the merits and shortfalls of each in both a qualitative and quantitative framework in this *Weekly Briefing.* Similar to our work last week, we present our thoughts on each asset class through our F.A.S.T. (fundamentals, asset valuations, sentiment, and technicals) construct.

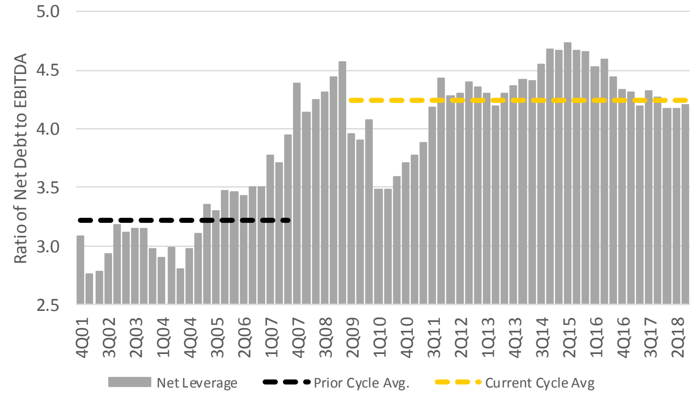
Fundamentals

Strong y/y EBITDA growth over the last nine quarters, as well as robust free cash (by virtue of low interest rates) have served to bolster credit metrics for most corporate credit issuers in the non-investment-grade space. Average net leverage for both US high yield bond and US leveraged loan constituents are below cycle peaks (Q3'16 and Q3'15, respectively), with net debt to EBITDA metrics falling more steeply on the bond side. Additionally, while we note that net leverage metrics through Q4'18 are below current cycle averages for both asset classes, leverage has trended higher on the loan side during this cycle relative to the previous cycle (see dotted average lines below).

Leverage Ratio: US High Yield Bonds
quarterly data



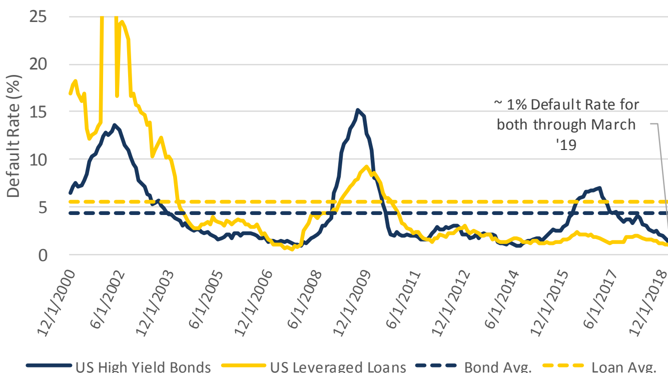
Leverage Ratio: US Leveraged Loans
quarterly data



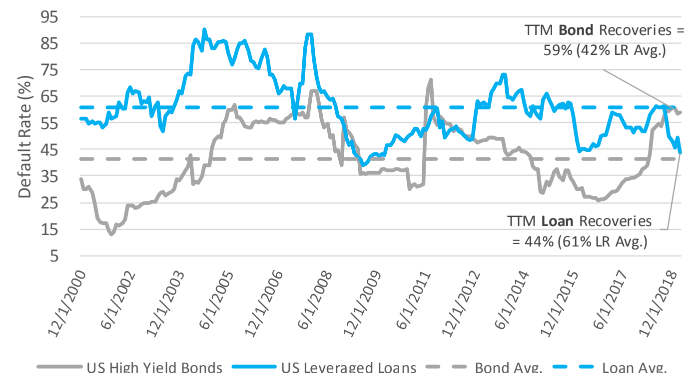
Source: SKY Harbor, BofA Merrill Lynch, Morgan Stanley, S&P LCD, Capital IQ, Bloomberg

Issuer-weighted default rates – for both high yield bond and leveraged loan issuers – have moderated since a spike in late 2016 and early 2017. On an LTM basis through March 31, 2019, issuer-weighted default rates for both bond and loan indices had fallen to ~ 1%, well below long-run annual averages. Recoveries, however, have trended disparately. As demonstrated in the chart below (right side), trailing twelve-month recoveries for defaulted US high yield bonds hit 59% at the end of March, well above the long-run average of 42%. In contrast, trailing twelve-month recoveries for defaulted US loans were ~ 44% at the end of March, well below the long-run average of 61%. As such, losses following a default have been greater on the loan side despite the secured nature of the asset class.

Issuer-Weighted Default Rates
monthly data

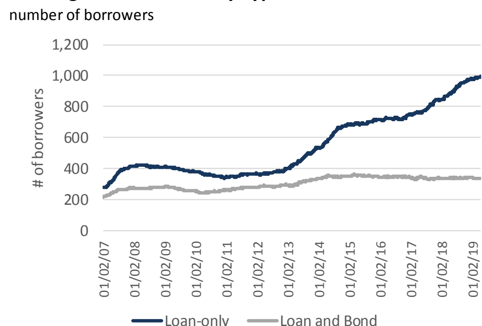


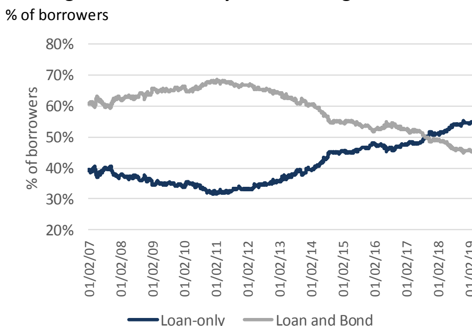
Recovery Rates
monthly data

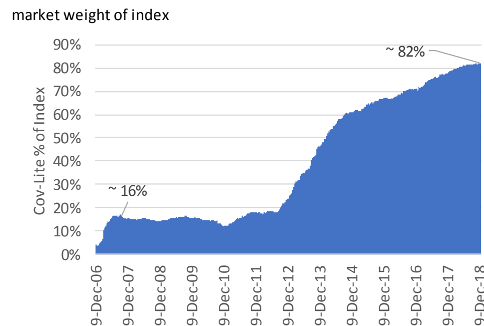


Source: SKY Harbor, BofA Merrill Lynch, Credit Suisse

This phenomenon – lower recoveries after default for secured loans vs. unsecured bonds – has occurred only sparingly over the last twenty years, and is most likely a function of the proliferation of loan-only and covenant-lite issuance. With regard to the former, loan-only issuance has risen steadily since 2011, and now represents over half of all leveraged loans by market weight. As for the latter, covenant-lite issuance has increased exponentially since 2012, and now represents ~ 82% of the market (vs. ~ 16% before the last recession).

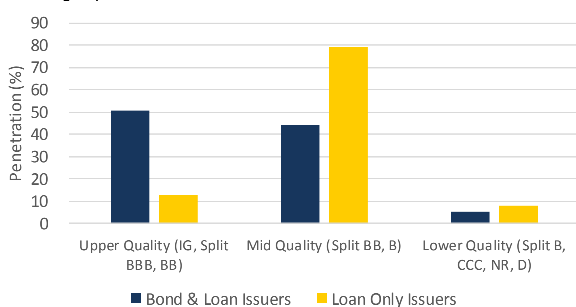


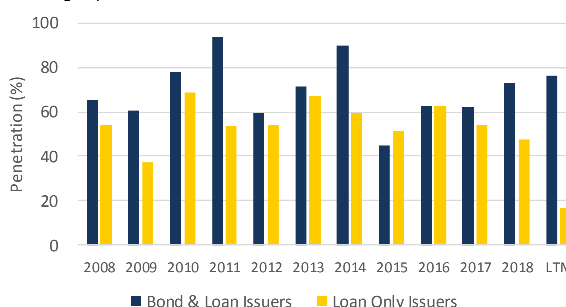




Source: JP Morgan

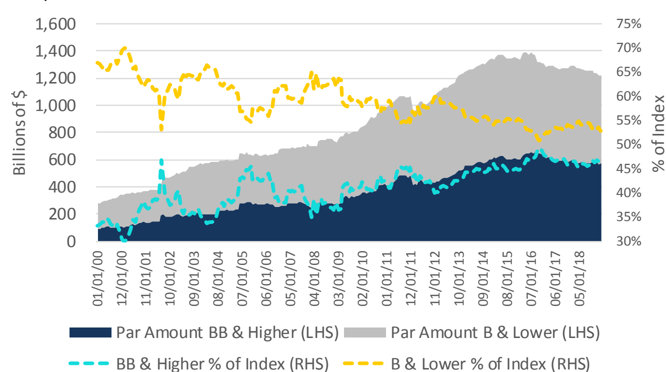
In our view, dilution of asset value and the elimination of junior debt with which to cushion credit deterioration is a major concern arising from the proliferation of loan-only issuance. Furthermore, the elimination of covenants has allowed loan issuers to operate without credit maintenance benchmarks historically put in place to curtail risky behavior and serve as an early warning signal to investors. While such loan-only and cov-lite deals are not necessarily fraught with risk, the situation has seemingly led to instances of adverse selection within the market. Furthermore, as demonstrated below, a recent analysis undertaken by JP Morgan found that loan-only issuers tended to be lower-rated and recover less in the event of default, potentially adding risk to the asset class not demonstrated in prior cycles.

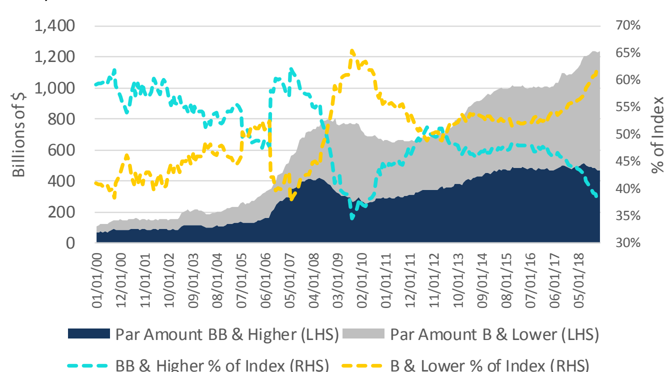




Source: JP Morgan

Concurrent with the dynamic outlined above, the US leveraged loan universe has become larger in size and lower in quality in recent years. Now modestly larger than the ICE BofAML US High Yield Index, the Credit Suisse Leverage Loan Index has grown in concentration of Single-B and lower rated securities (62%, up from 42% in 2007), while overall bond quality has improved (53% Single-B and lower-rated securities, down from 62% in 2007).





Bonds

Period	Size ($bn)	% BB & Higher	% B & Lower
2000	276	33%	67%
2007	695	38%	62%
2019	1,224	47%	53%

Loans

Period	Size ($bn)	% BB & Higher	% B & Lower
2000	109	59%	41%
2007	682	58%	42%
2019	1,239	38%	62%

Source: SKY Harbor, ICE BofAML Indices, Credit Suisse

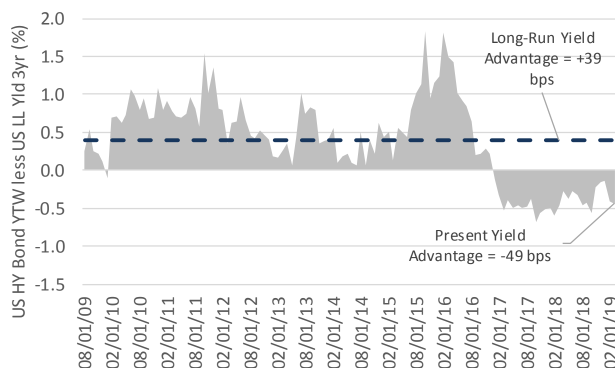
Differences in average leverage this cycle vs. prior cycle, weaker recovery rates (and the potential for this to persist given a spike in loan-only and cov-lite issuance), and shifting credit quality dynamics amidst a growing market dampen our perception of fundamentals within the loan space. As such, we give bonds the edge from a fundamental perspective in the current market environment. **Advantage: US High Yield Bonds.**

Asset Valuations

While there is no universally accepted method of comparing US high yield bond and US leveraged loan yields, we present a time series below in an effort to better frame relative value between the two asset classes. Comparing the yield-to-worst of the ICE BofAML US High Yield Index to the yield (3yr) of the Credit Suisse Leveraged Loan Index, we find that the cycle average premium for bonds (+ 39 bps) had turned into a deficit by December 2016, and is currently -49 bps (as of March 31, 2019). While we suspect the lack of call protection and abundance of securities trading above par likely played a role in this dynamic from 2017 through 2018, technical and fundamental drivers are likely impacting this relationship at present.

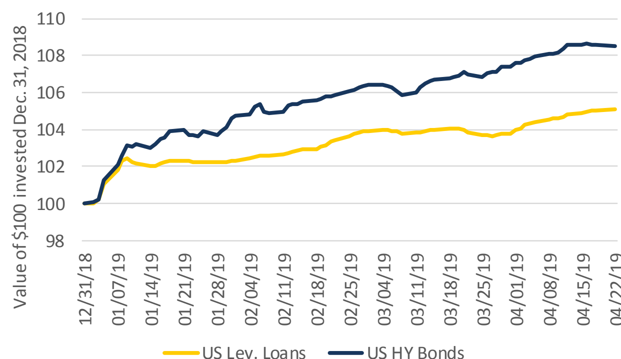
Differentials: US HY Bonds (YTW) *less* US Lev. Loans (Yld 3yr)

monthly data



Year-to-Date Total Returns

daily data



Source: SKY Harbor, ICE BofAML Indices, Credit Suisse

Nevertheless, the relationship above tends to imply greater value for US loans (yields are higher than they are for bonds, in opposition with the long-run average relationship), all else being equal. Additionally, a refresh of our macro regression models (key economic inputs differ between bonds and loans) imply "Fair Value" for US high yield bond spreads and "Cheap" for US leveraged loan discount margins (3yr).

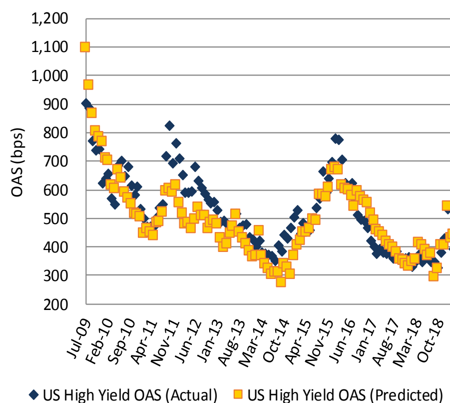
SKY Harbor US High Yield Spread Model

Index	Ticker	Mar 31, 2019 Actual OAS/DM3yr	Mar 31, 2019 Predicted OAS/DM3yr	Relative Value
ICE BofAML US High Yield Index	H0A0	405	418	Fair Value
CS Leveraged Loan Index	LEVLOAN	467	400	Cheap

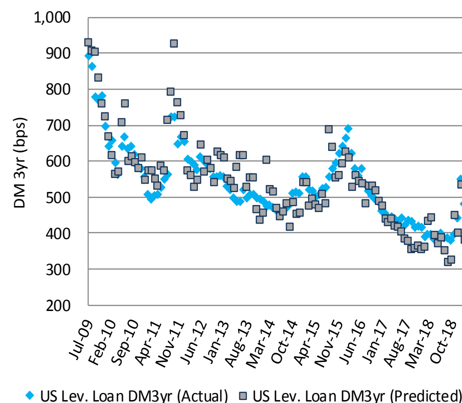
As of March 31, 2019. Ratings classes use the same factors as the HY Index regression.
Source: SKY Harbor, ICE BofAML Indices, Credit Suisse, Federal Reserve and Bloomberg
1 Variable definitions available upon request

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 R^2 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.

US High Yield Bond Regression Model



US Leveraged Loan Regression Model

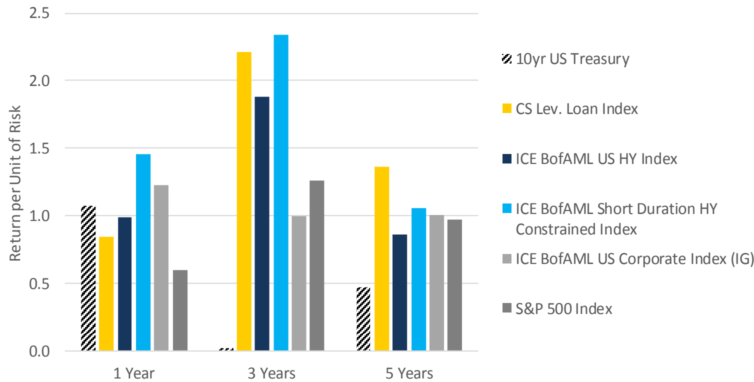


While it can be argued that changes in asset class constituencies, technical pressures and the dislocation of fundamentals between bonds and loans make our yield comparisons and underlying regression models less relevant and predictive than in the past, we acknowledge that loan underperformance relative to bonds YTD *may* be more pronounced than is justified. As such, and based on our model output, we give loans the edge from an asset valuation perspective in the current market environment. **Advantage: US Leveraged Loans.**

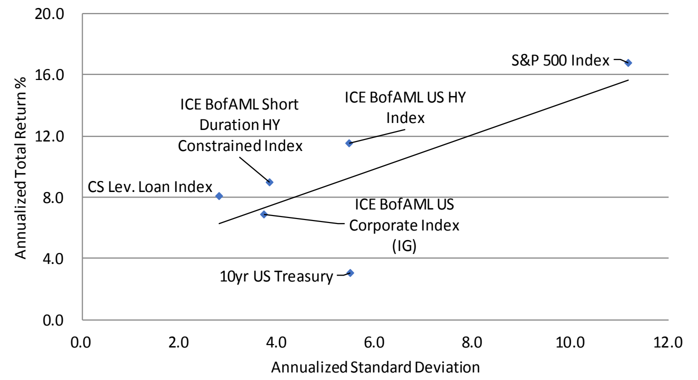
Sentiment

As the cycle ages and investor conviction wanes, increased attention is paid to total returns on a risk-adjusted basis. Over the long run (5+ years), leveraged loans have achieved superior Sharpe ratios relative to bonds, although US high yield bonds and US short duration bonds have generated stronger risk-adjusted returns over the trailing 1-year and 3-year periods (respectively). One relevant concern, however, is the impact the prevailing interest rate environment has on the loan asset class, given its floating-rate nature.

Annualized Return per Unit of Risk
data through March 31, 2019



Trailing 10 Year Return per Unit of Risk Profile
data through March 31, 2019

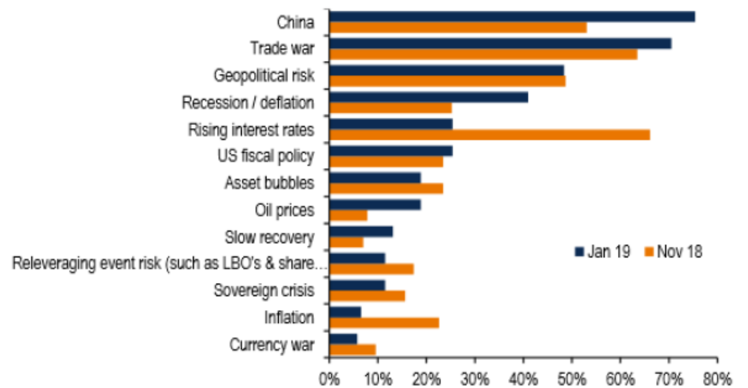


Source: SKY Harbor, ICE BofAML Indices, Credit Suisse, Bloomberg
The Short Duration HY index used is the ICE BofAML 1-5 Yr BB-B US Cash Pay High Yield Constrained Index

As demonstrated in the last several BofA Merrill Lynch Credit Investor Surveys, the fear of rising interest rates has substantially diminished, with the topic barely registering in the top 10 by the time March 2019 results were released. Furthermore, a Fed Funds rate cut now appears more likely than a hike over the next twelve months based on current implied probabilities.

BofA Merrill Lynch Most Recent Credit Investor Survey

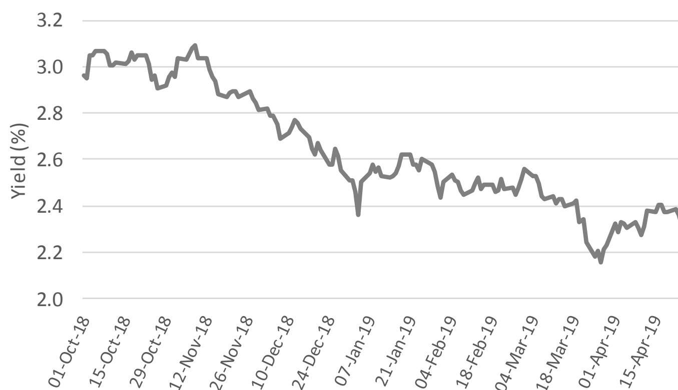
BofA Merrill Lynch Prior Period Credit Investor Survey



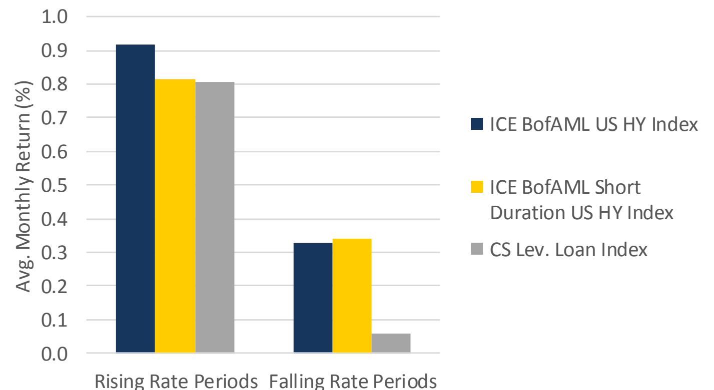
Source: SKY Harbor, BofA Merrill Lynch

With Treasury yields on the decline and little to suggest a near-term departure from the trend, we calculated average monthly returns for US high yield bonds (full market and short duration) and US leveraged loans in both rising and falling rate periods. As suspected, loan returns fall off precipitously in falling rate environments.

5yr US Treasury Yields
daily data



Average Monthly Returns
monthly data since 2000



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

Comparing sector concentrations between the ICE BofAML US High Yield Index and the Credit Suisse Leveraged Loan Index, disparities (3% or greater) emerge which we highlight below and compare to our prevailing sector-based preferences. In general, we find that risks associated with the bond markets' overweight to Energy (volatile, issuers often outspend earnings, geopolitical threats) is partially offset by an underweight to Retail (brick and mortar secular declines). Additionally, the potential benefits associated with the loan markets' overweight in Services (strong consumer, less earnings volatility) appear offset by an overweight to Technology (foreign exposure, tariff concerns).

Sector / Industry	US High Yield Bond Index	US Leveraged Loan Index	Notes	Advantage
Basic Industry	11%	9%		
Capital Goods / Autos	8%	8%		
Consumer Goods	3%	4%		
Energy	16%	3%	Strong YTD performer, but volatile / unpredictable commodity	Loans
Fin. Svcs. / Insurance / Real Est. / Banking	9%	6%	Significant stress last downturn; little history below IG	Loans
Healthcare	10%	12%		
Leisure	5%	5%		
Media / Telecom	20%	15%	Historically defensive, but now undergoing secular challenges	Even
Retail / Food	5%	8%	Significant challenges for brick & mortar retailers, rising defaults	Bonds
Services	5%	12%	Very diverse and varied group, no real discernible themes	Even
Technology & Electronics	6%	12%	Significant foreign exposure, particularly China; tariff implications	Bonds
Transportation	1%	3%		
Utility	2%	3%		

Legend
More High Yield Bond Exposure
More Leveraged Loan Exposure

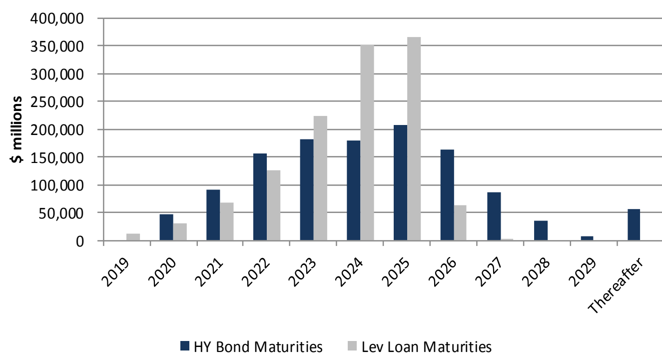
Source: SKY Harbor, BofA Merrill Lynch, ICE BofAML Indices, Credit Suisse

In general, superior long-run risk-adjusted returns for loans are somewhat counteracted by historical underperformance in falling rate periods (which appears more likely than not over the next twelve months). Additionally, sector disparities seem balanced, with puts and takes on both sides. As such, we give neither side an edge from a sentiment perspective in the current market environment. **Advantage: Even.**

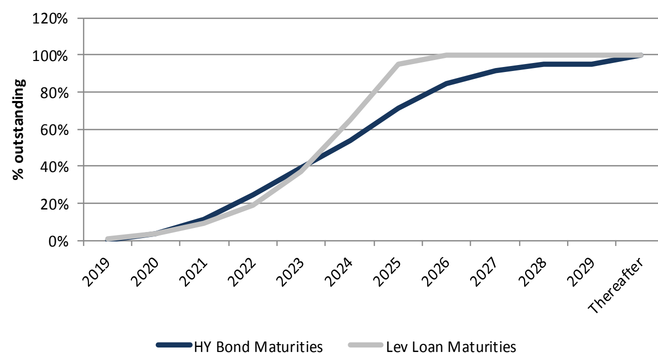
Technicals

A relatively healthy new issue market over the past several quarters has allowed management teams to address near-term maturities. As of April 24, 2019, we estimate that only 11% (by face value) of the ICE BofAML US High Yield Index (H0A0) has a maturity date between now and the end of 2021, while only 9% of the CS Leveraged Loan Index (LEVLOAN) has a maturity over the same timeframe. In general, refinancing risk has moderated considerably, and we do not expect a looming maturity wall to pressure issuers in either market over the intermediate term.

Maturities by Year - US High Yield Bonds vs. US Leveraged Loans
Data as of April '19



Cumulative Maturities - US High Yield Bonds vs. US Leveraged Loans
Data as of April '19

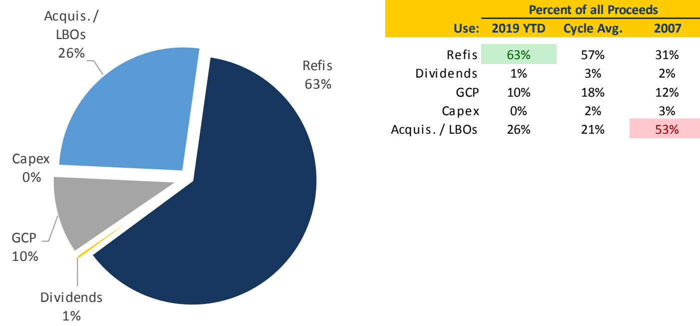


Source: SKY Harbor, ICE BofAML Indices, BofA Merrill Lynch, Credit Suisse

As highlighted in our most recent *Weekly Briefing* entitled "Balancing Fundamental Strength with Stretched Valuations," management teams of US high yield bond issuers have not taken advantage of favorable lending conditions, as the vast majority of new issuance has been directed toward the refinancing of debt (the leading use of proceeds for 26 consecutive months). Note that aggressive issuance of debt, which we would define as proceeds used to pay equity dividends or complete acquisitions/LBOs (22% of proceeds in 2018, 27% YTD 2019) is well below what the market experienced in the prior late-cycle period (55% of proceeds in 2007), and in line with cycle averages (24%). Among US leveraged loan issuers, new issuance has been more aggressive. Refinancing (15% of proceeds YTD) is below 2007 (19%) and cycle averages (36%), while issuance of loans to pay dividends or complete acquisitions/LBOs (70% YTD) is well above cycle averages (58%) and close to 2007 levels (75%).

New Issue Use of Proceeds (US High Yield Bonds)

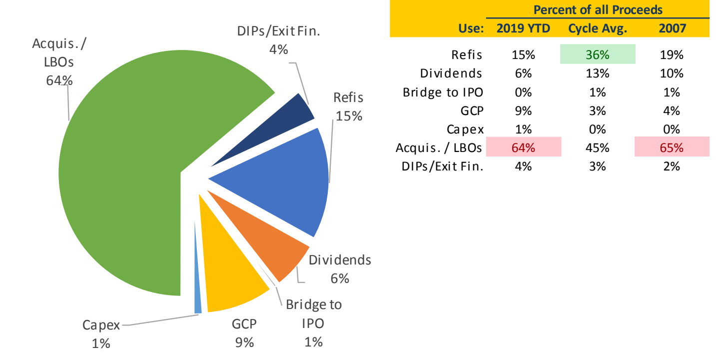
YTD data through April 2019



	Percent of all Proceeds		
Use:	2019 YTD	Cycle Avg.	2007
Refis	63%	57%	31%
Dividends	1%	3%	2%
GCP	10%	18%	12%
Capex	0%	2%	3%
Acquis. / LBOs	26%	21%	53%

New Issue Use of Proceeds (US Loans)

YTD data through April 2019



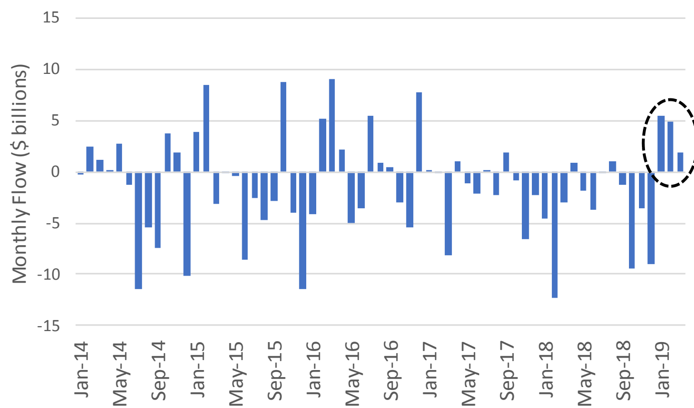
	Percent of all Proceeds		
Use:	2019 YTD	Cycle Avg.	2007
Refis	15%	36%	19%
Dividends	6%	13%	10%
Bridge to IPO	0%	1%	1%
GCP	9%	3%	4%
Capex	1%	0%	0%
Acquis. / LBOs	64%	45%	65%
DIPs/Exit Fin.	4%	3%	2%

Source: SKY Harbor, BofA Merrill Lynch

Fund flows have improved the technical picture for the US high yield bond market, largely at the expense of US leveraged loans. As demonstrated below, retail flows have been positive into US bond funds each month YTD, potentially driven by the reduced threat of rising interest rates. Those same factors have likely contributed to outflows in the US loan space, which have been significant over the last five consecutive months.

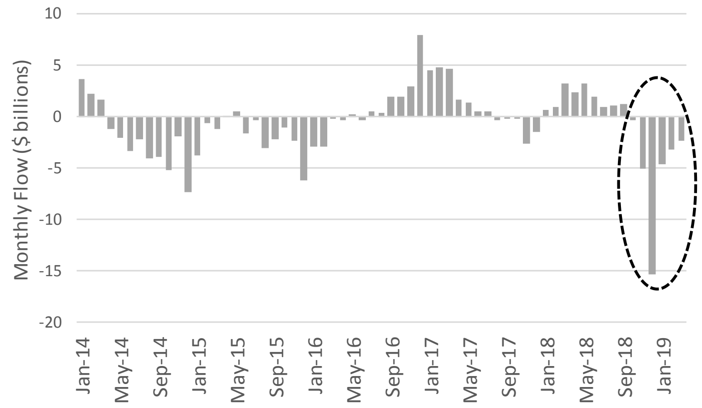
US High Yield Mutual Fund Flows

monthly data



US Leveraged Loan Mutual Fund Flows

monthly data



Source: JP Morgan, Lipper

A more aggressive use of new issue proceeds, coupled with diminishing fears of rising rates, have led to deterioration in the overall supply / demand dynamic within the loan space. As such, we give bonds the edge from a technical perspective in the current market environment. **Advantage: US High Yield Bonds.**

In conclusion, our comparison of US high yield bonds and US leveraged loans leaves us biased toward bonds at present. In our view, bonds maintain both a fundamental and technical advantage in the current market environment. Although loans may appear more attractive from an asset valuation perspective, we believe some of this is driven by the weakening of constituents over the last several quarters, and therefore may be at least partially justified. While security selection will be paramount in both markets, general tailwinds appear to favor US high yield bonds in the near term.

On the Calendar

Occurred

Event	Release Date	Period	Survey	Actual	Prior
Existing Home Sales	22-Apr-19	Mar	5.30m	5.21m	5.51m
New Home Sales	23-Apr-19	Mar	649k	692k	667k
GDP Annualized QoQ	26-Apr-19	1Q	2.3%	3.2%	2.2%

Upcoming

Event	Release Date	Period	Survey	Actual	Prior
Personal Income	29-Apr-19	Mar	0.4%		0.2%
Conf. Board Consumer Confid.	30-Apr-19	Apr	126.5		124.1
ISM Manufacturing	1-May-19	Apr	55.0		55.3

Source: SKY Harbor, Bloomberg

Recommended Reading

Fleming, Sam and Yuk, Pan Kwan (2019, April 26). US Economy Defies Slowdown Fears With 3.2% First-Quarter Growth. *Financial Times* (subs. req.), Retrieved from https://www.ft.com/content/0fe1aea0-680d-11e9-9adc-98bf1d35a056

Nussbaum, Alex (2019, April 15). Oil Tumbles Most in Two Months as Trump Promises Lower Prices. *Bloomberg*, Retrieved from https://www.bloomberg.com/news/articles/2019-04-25/oil-set-for-eighth-straight-weekly-gain-on-supply-constraints?srnd=economics-vp

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