BBB-RATED BONDS – SHOULD WE BE WORRIED?

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INTRODUCTION

There is a litany of positive U.S. economic data that seemingly provides a supportive environment for corporate spreads: quarterly GDP growth is at multi-year highs; the unemployment rate has decreased to below 4%; and consumer confidence is at levels not seen since the year 2000. Corporate financial results have also been very strong. S&P 500 companies have reported earnings growth above 20% for each of the first three quarters of 2018.

Despite the continued strength in economic indicators, there is growing concern that we are "late" in the economic cycle. Because of this, there is heightened sensitivity within the investment grade universe with regard to leverage[1] and the growth in BBB-rated debt outstanding.

Historically, ratings downgrades have been highly correlated with credit and economic downcycles. Market participants are questioning whether a multi-year economic downturn will lead to an overwhelmed high yield market incapable of absorbing fallen angels at reasonable price levels.

In the following analysis, we illustrate that the alarms being raised around investment grade leverage and BBB-rated debt outstanding are oversimplifications. Neither the credit strength of individual firms, nor the market in total, can be simplified down to one or two financial metrics. Rather, it is a mosaic resulting from numerous financial health measurements.

[1]Throughout this paper, leverage is calculated as: all debt divided by the sum of all EBITDA, unless otherwise noted. All data is aggregated from Columbia Threadneedle Investment Grade Research Analysts' models on a quarterly basis.

BBB-RATED DEBT OUTSTANDING

The growth in BBB-rated debt outstanding has outpaced growth in both total investment grade corporate debt and the high yield market. While the Bloomberg Barclays Investment Grade Corporate Index (“Index”) debt outstanding grew 1.9x from the end of 2010 to the end of 2017, the BBB-rated portion grew 2.4x. Over the same period, Bloomberg Barclays High Yield Corporate debt outstanding grew 1.7x (Exhibit 1).

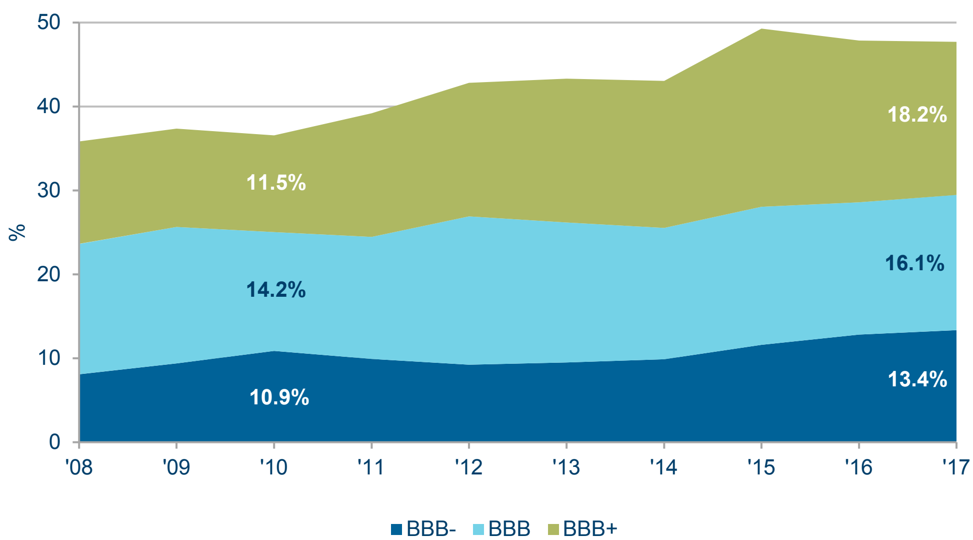
Exhibit 1: Debt outstanding growth 2010 vs. 2017

	Debt Outstanding $B		
Rating[1]	2010	2017	2017 vs 2010
AAA	24	102	4.2x
AA	443	413	0.9x
A	1,182	2,027	1.7x
BBB	950	2,319	2.4x
BBB+	299	886	3.0x
BBB	369	784	2.1x
BBB-	283	649	2.3x
Total Investment Grade	**2,599**	**4.860**	**1.9x**
Total High Yield	**642**	**1.085**	**1.7x**

Source: Bloomberg Barclays; Columbia Threadneedle Investments

We must remember that BBB-rated debt captures a large range of credit risk profiles, from BBB+ under near-term consideration for an upgrade to single-A to BBB- potentially on the verge of being downgraded to high yield. In fact, 60% of the BBB growth over the period has been driven by an increase in BBB+ debt outstanding (Exhibit 2).

Exhibit 2: Investment grade corporate BBB breakdown as a % of total debt outstanding



Note: Please see disclosures for methodology used to calculate bond ratings. Universe is the Bloomberg Barclays U.S. Investment Grade Corporate Index. Source: Bloomberg Barclays; Columbia Threadneedle Investments.

The growth in BBB-rated debt, touted as reason to worry, disguises several factors. The reality is that there is a finite number of issuers one must evaluate to understand the drivers of this growth. Upon reviewing what has driven the increased proportion of BBB-rated debt, our research found that banking issuers and a handful of non-financial issuers (AT&T, Verizon, General Motors and Ford) contributed nearly 90% of the growth from 2010 to 2017.

Banking issuers (which were largely AA/A-rated pre-Global Financial Crisis) have driven 40% of the growth in BBB-rated debt (see Exhibit 3). Banks, despite being lower-rated than pre-crisis, are better capitalized, have stronger liquidity and funding profiles, and are subject to a higher degree of ongoing regulatory oversight as a result of post-crisis reform.

Exhibit 3

Banking Industry Contribution to Change in BBB				
	2010 % Index	**2017 % Index**	**2017 vs. 2010**	**% Growth Contrib.**
Banks BBB-Rated	**1.6**	**6.1**	**4.5**	**40%**
Top 5 Chg.	-	3	3	26%
Citi	-	1.5	1.5	14%
Barclays	-	0.5	0.5	4%
Credit Suisse	-	0.3	0.3	3%
Deutsche Bank	-	0.3	0.3	3%
JPMorgan Chase	-	0.3	0.3	3%
Other Banks	1.6	3.1	1.5	14%
Total Index BBB-Rated	**36.6**	**47.7**	**11.2**	**100%**

Source: Bloomberg Barclays; Columbia Threadneedle Investments

Exhibit 4 displays the largest non-financial issuer contributors to the growth in BBB-rated debt outstanding since 2010. Mergers and acquisitions (M&A) issuance has been the primary driver—driving both debt issuance and credit downgrades. Telecom companies AT&T and Verizon have contributed 19% and 12%, respectively, of the growth in BBB rated debt outstanding. AT&T was single A-rated until 2015, as its debt burden grew via issuance to fund its acquisitions of DirecTV and Time Warner, Inc., as well as to fund spectrum purchases. Verizon was single A-rated until 2013, when the firm doubled its debt as it purchased Vodafone's stake in Verizon Wireless. Both firms are currently in the midst of de-levering, albeit at slower rates than originally promised.

Interestingly, the two auto companies—General Motors and Ford—were historically investment grade issuers that were downgraded to high yield for the first (and only time to date) in 2005. When downgraded to the High Yield Index on June 1, 2005, General Motors and Ford became the two largest issuers—making up 11.8% of the index (compared to a combined 4% of the index for the number-three and number-four issuers).

Their upgrades back to the investment grade space during the period contributed 7% each to the growth in BBB-rated debt outstanding.

Exhibit 4

Top Non-Financial Issuer Percentage Contribution of BBB-Rated Change
— In 2010, the Index did not have any BBB debt from the issuers below —

Company	Industry	2017%	% Contr. Of Chg.	Upgrade/ Downgrade	Notes
AT&T	Wirelines	2.1	19%	↓ in 2015	Increased issuance for DirecTV and Time Warner, Inc. acquisition & AWS spectrum
Verizon	Wirelines	1.6	14%	↓ in 2013	Doubled debt in 2013 with purchase of Vodafone's stake in VZ Wireless
GM	Automotive	0.8	7%	↑ in 2015	Fundamental improvement in business
Ford	Automotive	0.8	7%	↑ in 2012	Lower breakeven achieved in North America
Amgen	Pharmaceuticals	0.6	5%	↓ in 2011	Due to initiation of new dividend policy
Kinder Morgan	Midstream	0.6	5%	↑ in 2014	Acqn of KMP, EPB & KMM with cross guarantees; reduced leverage since 2015
AbbVie	Pharmaceuticals	0.6	5%	New Issue	Spun off from Abbott Laboratories; M&A increased debt
Amazon[2]	Consumer Cyclical Services	0.5	4%	New Issue	Debt increased from $7B to $24B to fund Whole Foods acqn in 2017
Abbott	Healthcare	0.5	4%	↓ in 2017	Acquired St. Jude Medical in 2017, otherwise has been A-rated
Allergan[3]	Pharmaceuticals	0.4	4%	↓ in 2015	Debt increases from $2B to $28B - many acquisitions of IG & HY firms
Charter	Cable Satellite	0.4	4%	↑ in 2016	Acquisition of TWC and BHN
Dell[4]	Technology	0.4	4%	New Issue	Net downgrade from A (downgrade in 2013 to HY and upgrade in 2016)
Kraft Heinz[5]	Food and Beverage	0.4	4%	↑ in 2015	Upgraded after merger of Kraft Foods and HJ Heinz
Broadcom	Technology	0.4	3%	New Issue	AVGO acquired Broadcom in 2016, upgraded to IG in 2017 (BRCM was A-rated issuer)

Note: Please see disclosures for methodology used to calculate bond ratings. Source: Bloomberg Barclays; Columbia Threadneedle Investments.

As detailed in the analysis above, the growth of BBB-rated debt outstanding as a proportion of the total index is not simply a broad-based symptom of a degrading investment grade market. Rather, the vast majority of this growth is the result of a handful of issuers. Investors can, and should, evaluate—at the issuer level—the downgrade risk that economic and credit downturns pose to each of these issuers. One must also weigh each issuer's ability and willingness to react dynamically to changes in its business environment in a manner that maintains its investment grade credit profile.

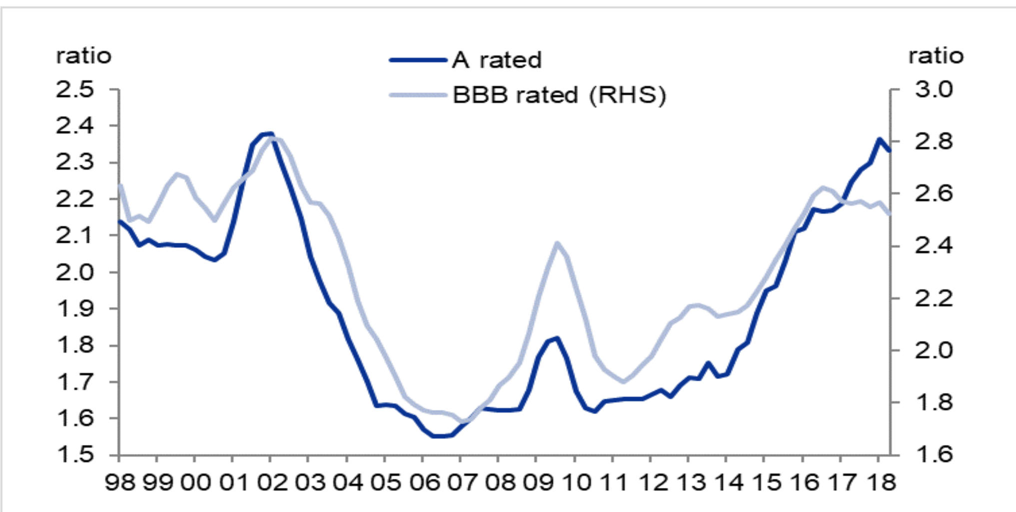
[2] Amazon has been upgraded to single A in 2018.
[3] Legacy Allergan firm Watson (WPI) BBB debt outstanding was 0.03% of the index in 2010.
[4] Issued secured IG bonds in 2016
[5] In 2015, Kraft merged with Heinz. Heinz BBB debt outstanding was 0.07% of the index in 2010.

LEVERAGE

Leverage also cannot be reduced to a simple headline number without ignoring several critical points. Leverage is not, in itself, credit quality or financial strength. Barclays has published several papers that caution investors that "although the idea that rising leverage should be linked to lower returns is intuitively appealing for investors with experience analyzing single credits, there is no clear relationship in aggregate."[6] Empirical studies do not support aggregate leverage as a predictor of index returns; they do not even support it as a predictor of aggregate downgrade levels. Rather, leverage—like all other measurements—must be viewed within the broader context of the economic environment and firms' willingness and ability to repay their debts.

Interestingly, in contrast to A-rated issues, gross leverage among BBB-rated bonds is on a declining trend of late, indicating the effort among many BBB-rated companies to de-lever (Exhibit 5). That is not to say that leverage is uniformly non-worrisome: our concerns related to leverage lie with issuers of all ratings within cyclical industries (particularly if the next shock is a recession sparked by excessive monetary policy tightening) and issuers with elevated leverage in industries going through significant disruption.

Exhibit 5: Investment grade leverage[7] trend and BBB[8] rating breakdown



Note: Universe is the Bloomberg Barclays U.S. Investment Grade Corporate Index.

Leverage among non-financial issuers has been rising steadily since markets stabilized following the Global Financial Crisis. Our 2018 gross leverage estimate is 2.47x vs. 1.55x in 2010. Upon reviewing the leverage of companies in our coverage universe in this 10-year period, certain changes and trends have become apparent: in some cases, concern is warranted; however, there are other cases where increased leverage is completely reasonable given the context of other credit metrics.

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[6] Barclays Credit Research - US Credit Focus - Leverage Update - April 7, 2017.

[7] Debt/EBITDA Chart Source: Bloomberg Barclays, FactSet, Goldman Sachs Global Investment Research

[8] Bond ratings shown are determined by using the middle rating of Moody's, S&P and Fitch. When a rating from only two agencies is available, the lower rating is used. When a rating from only one agency is available, that rating is used.

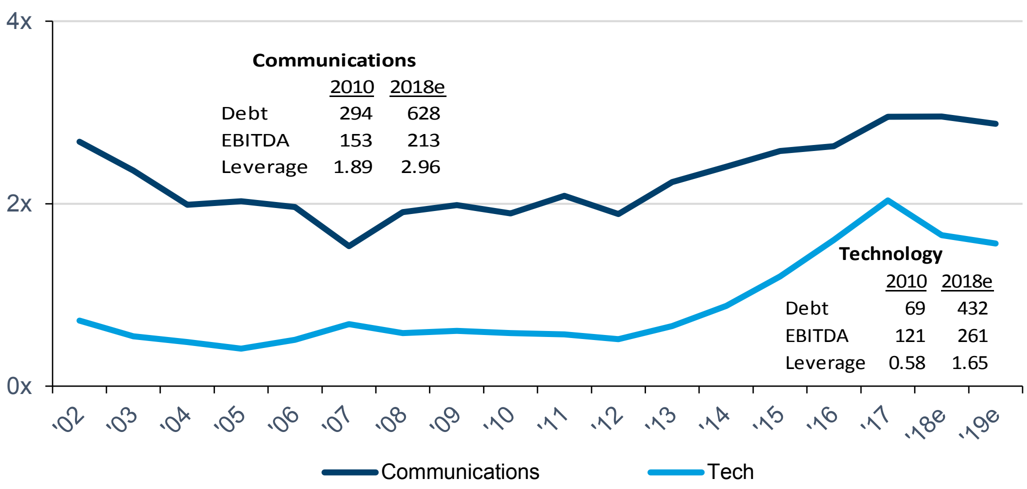
SECTOR TRENDS

Looking at leverage on a sector by sector basis, we have several observations detailed below:

Communications: 2018e leverage is 2.96x, up from 1.89x in 2010.
Since 2010, the industry has experienced rapid technological change. As a result, firms have delayed promised debt reduction because of continued acquisitions and capital expenditures. For instance, Verizon levered up to buy the minority Verizon Wireless stake held by Vodafone. It also bought Yahoo, AOL and additional wireless spectrum names. Other industry purchases included AT&T's debt-financed acquisition of DirecTV (2015) and Time Warner, Inc. (2018), both of which it executed while maintaining its high dividend. In quarterly reporting, AT&T has communicated its intent to reduce 2017 leverage of 3.3x to 2.5x by year-end 2019 and 2x by 2023.

Technology: 2018e leverage is 1.65x, up from 0.58x in 2010.
The increased leverage in technology is indicative of naturally evolving capital structures in maturing markets, rather than a cause for alarm. For instance, Apple had no outstanding long-term debt in 2010, but our 2018 gross leverage estimate is 1.54x. Some of the debt within the sector was taken on as a way of returning capital to shareholders with cash trapped in foreign subsidiaries at the time; gross leverage should trend lower for these issuers. In fact, our analysis projects a decrease in net issuance for 2018, as many of the top issuers have not issued this year (e.g., Apple, Microsoft, Oracle and Cisco). Cash balances remain high—estimated net leverage for the technology sector in 2018 is 0.66x.

Exhibit 6: Leverage – Communications and Technology



Source: All data is aggregated from Columbia Threadneedle Investment Grade Research Analysts' models on a quarterly basis

Consumer 2018e leverage is 2.79x, up from 1.69x in 2010.

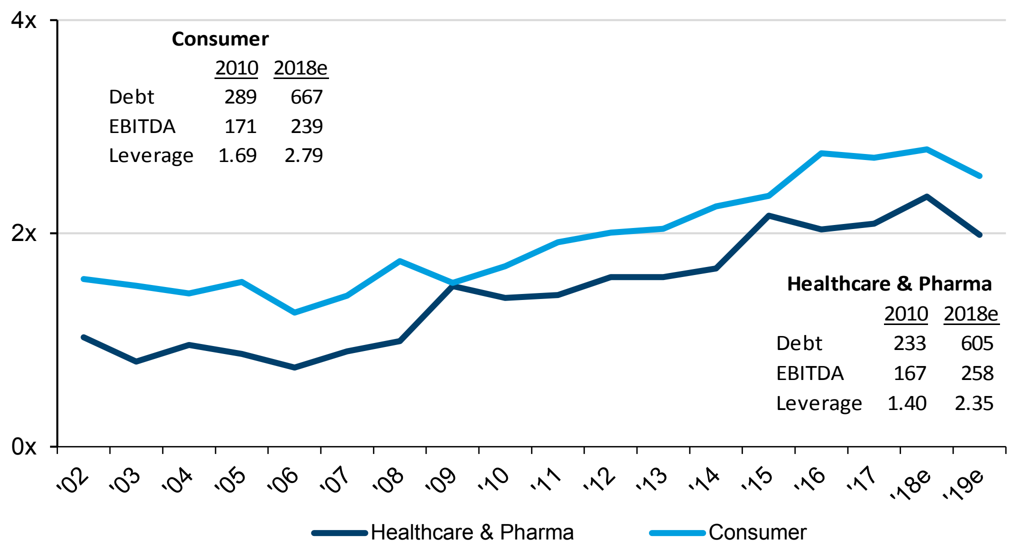
We are uncomfortable with many consumer-products management teams' willingness to increase leverage despite facing greater business uncertainty. Food & Beverage companies have been the largest contributors to increased leverage in this category; there were many debt-financed acquisitions that resulted in downgrades and significant leverage increases. We encourage caution in evaluating firms, particularly in the food space, that have been buying growth in lieu of generating it organically—paying steep premiums despite operating in a very challenging environment with low margins.

Our belief is that issuer selection is paramount in this sector due to idiosyncratic risk, rather than a general concern regarding an economic downturn. Retailers would likely be subject to a downturn in some cases, but the dominant debt issuers are notches above BBB-rated (e.g., Walmart, Home Depot, Target). Traditional retail has generally avoided levering up, given current industry conditions.

Healthcare and Pharma: 2018e leverage is 2.35x, up from 1.40x in 2010.

Debt issuance within this sector has been primarily M&A-related in the pursuit of scale and diversification (e.g., CVS and Aetna Insurance, Express Scripts and Cigna Insurance). Generally, we find M&A leverage increases in the healthcare and pharma space to be less concerning than in the consumer space. This is due, in part, to the motive differences for the M&A activity, as well as the high margins within healthcare and pharmaceuticals. We expect recently merged entities to de-lever. However, further integration is expected within the industry, much of it debt-financed.

Exhibit 7: Leverage – Consumer and Healthcare & Pharma



Source: All data is aggregated from Columbia Threadneedle Investment Grade Research Analysts' models on a quarterly basis

Utilities: 2018e leverage is 4.74x, up from 3.56x in 2010.

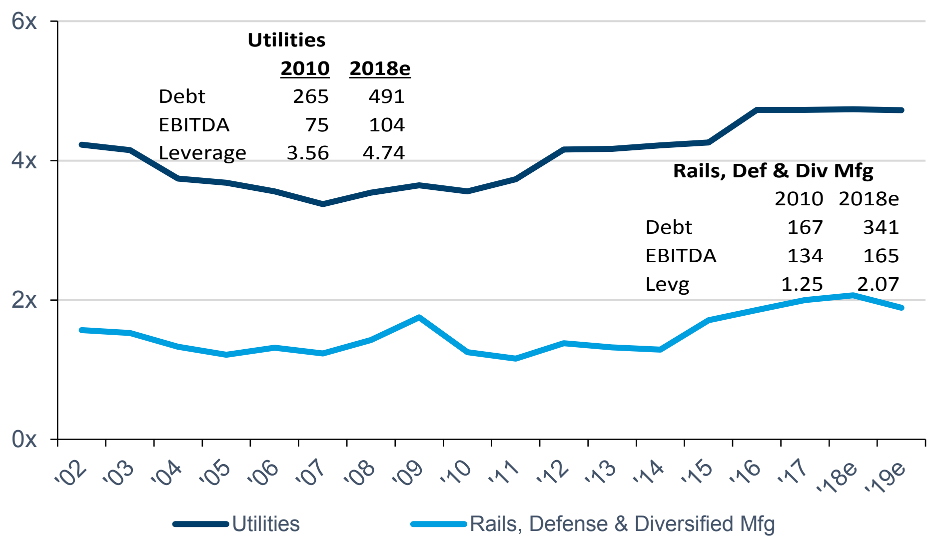
Some of the leverage increase witnessed in the utilities sector was due to shareholder pressure to enter non-regulated businesses during the energy boom (2010-2014); many of these decisions have been reversed. The ramp-up in capital expenditures (transmission systems, grid updates, security) has been supported by an increasingly predictable and consistent regulatory environment. Utilities are benefiting from frequent rate case adjustments and an improving business mix. This improving regulatory environment supports higher leverage without a deterioration of overall financial health.

Rails, Defense and Diversified Manufacturing: 2018e leverage is 2.07x, up from 1.25x in 2010.

There have been both capital structure changes (e.g., Union Pacific raised its leverage target) and debt-financed M&A (e.g., United Technologies and GE) that have contributed to higher leverage rates in the rail, defense and diversified manufacturing sector. The more cyclical issuers (e.g., Caterpillar) have extremely strong balance sheets and high agency ratings.

Leverage in this sector is extremely low at 2x, even though it has crept higher over the last 10 years, and our view is that many economically defensive issuers are underrated by the agencies.

Exhibit 8: Leverage – Utilities; rails, defense and diversified manufacturing



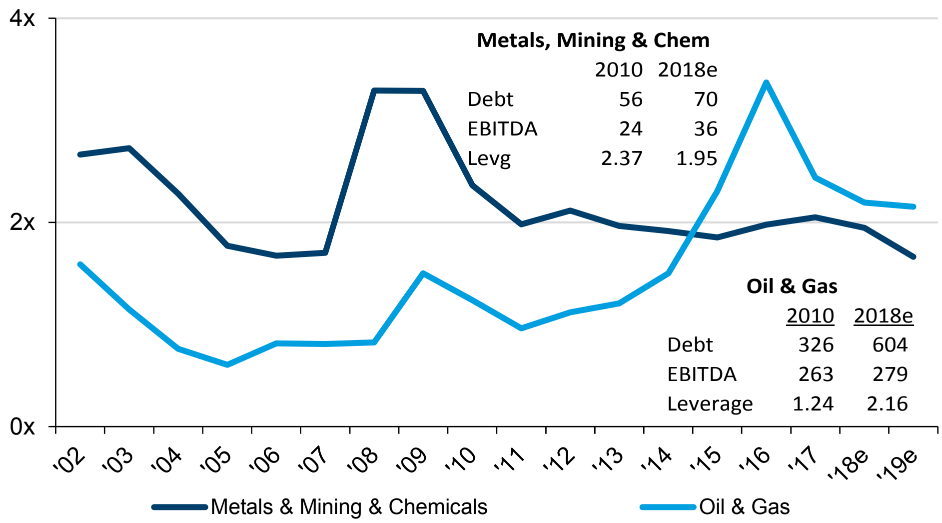
Source: All data is aggregated from Columbia Threadneedle Investment Grade Research Analysts' models on a quarterly basis

Energy and Commodities: 2018e leverage is 2.16x for Oil & Gas, up from 1.24x in 2010; Metals, Mining & Chemicals 2018e leverage is 1.95x, down from 2.37x in 2010.

Given the volatility of EBITDA generated by commodity companies, the resulting leverage metric for these firms is also volatile. Additionally, given the brutal commodity cycle we've just emerged from, it is uncertain how an economic downturn would impact issuers in these sectors. We have observed that commodity cycles are not necessarily correlated with traditional economic cycles.

During the energy crisis, companies took action to firm up their balance sheets, including dividend/distribution cuts and asset sales. More recently, we have seen producers using higher commodity prices to focus on balance sheet repair.

Exhibit 9: Leverage – oil and gas; metals, mining and chemicals



Source: All data is aggregated from Columbia Threadneedle Investment Grade Research Analysts' models on a quarterly basis

CONCLUSION

We do not believe that the amount of BBB-rated debt outstanding or the leverage within investment grade corporates are causes for immediate alarm. If we are, indeed, "late" in the cycle, investors would be well advised to actively manage their credit investments, avoiding the bad actors in the market that are taking on more debt in the face of greater and greater uncertainty, and instead investing in firms that have the cash-flow generation and balance sheet strength required to withstand a potential economic downturn.

Management teams do not passively "stay the course" in the face of economic and competitive challenges, simply accepting a degradation of their credit profile. As the energy crisis has shown, companies react and adapt their approach as their environment changes. Their objective is to behave in the best interest of their shareholders, and in the vast majority of cases, that best interest includes taking action to maintain their investment grade rating. Despite this, downgrades can and will occur—investors must consider this risk in their investment decisions.

Our belief is that simply applying historical downgrade rates ignores the rolling credit cycles our market has experienced (utilities and telecoms in the early 2000s, Global Financial Crisis ’07-08, Energy Crisis ’14-15, etc.) and emerged from. One result of these credit cycles is that industries and individual firms vary in their preparedness for the next downturn.

Ultimately, investors must remember that economic cycles do not die of old age—fundamental disruptions are behind periods of significant spread widening. While identifying and articulating the drivers post cycle is easy, predicting the next shock is very difficult. Investors must evaluate whether the current spread levels provide adequate compensation to absorb the risk of the next shock, which might be years in the future.