

Introduction

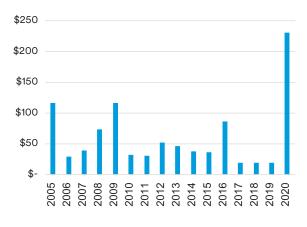
Fallen angels, or issuers that are downgraded from investment grade ("IG") to high yield ("HY"), can represent significant risk or reward depending on your vantage point and investment guidelines. The topic has been well researched and tends to come into focus when there is an uptick in leverage and corporate balance sheet stress. In this paper we aim to provide an overview of recent developments in the credit markets, with a focus on fallen angels, including expectations and observations around valuations and the sectors likely to be most impacted.



A Wave of Fallen Angels, but This Time is Different

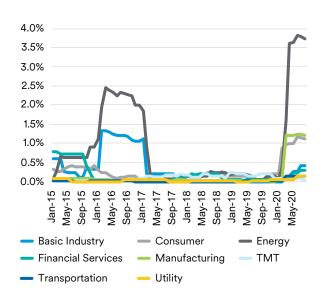
Throughout last year, we observed a gradual climb in leverage across many investment grade issuers, with the ratio of corporate debt to U.S. GDP hitting a high of 46.6% at the end of 2019.¹ At the same time, the BBB rated sector stood at ~50% of the IG market.² This led us to anticipate a number of downgrades in 2020, in particular within the lower echelon of the BBB market. However, it was nowhere close to current levels as COVID-19 and oil price declines sent a shockwave across fixed income markets. So far in 2020, there have been 37 fallen angels representing over \$200 billion in debt,³ comprising 10%+ of the ICE Bank of America Merrill Lynch U.S. High Yield Index,⁴ and already surpassing the amount of fallen angels during the Great Financial Crisis. To note, the recent downgrades have been fairly concentrated, with just a handful of issuers, and a few sectors accounting for the majority of the year-to-date volume (see charts below).⁵ Rating agencies have appeared to be more aggressive bringing down ratings in 2020, as just in February a number of Energy companies that were downgraded in March had stable outlooks.

Fallen Angel Face Value (\$bn)



Source: CreditSights, as of August 31, 2020

Fallen Angel Activity by Sector, Led by Energy



During times of volatility such as we have seen in recent months, the spread differential between IG and HY can widen dramatically, and the speed at which this occurred this year was exceptional. To put this in perspective, the spread between BBB and BB rated issuers widened from 62 basis points on December 31, 2019 to a wide of 408 basis points on March 23, 2020, representing 346 basis points of widening.⁶ Compare this to the average spread differential of ~170 basis points over the last 20 years,⁷ and it is clear that this time period was truly notable (although still lower compared to 600+ basis points differential which was reached in December of 2008, during the Great Financial Crisis). This rapid widening compounding with a high level of uncertainty in the market significantly increased fallen angel risk.

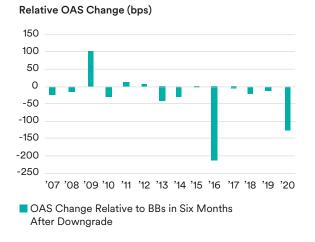
History has shown us that the market tends to anticipate deteriorating credit quality long before the rating agencies act to downgrade an issuer, creating a situation where much of the negative performance associated with the name is borne in the investment grade market. In fact, according to Bloomberg Barclays index data going back to 2000, historically fallen angels have widened relative to other BBB rated securities by 230 basis points in the six months leading up to a downgrade. However, given this year's extreme volatility and the aforementioned rapid widening

in the BBB/BB spread, the fallen angel class of 2020 has widened on average 420 basis points relative to other BBB issuers before the downgrade action (see LHS chart below).8

Fallen Angels Fell Harder This Year

Relative OAS Change (bps) Par Value (\$bn) 450 160 400 140 350 120 300 100 250 80 200 60 150 40 100 20 50 '10 '11 '12 '13 '14 '15 '16 '17 OAS Change Relative to BBBs in Six Months Before Downgrade Fallen Angel Volume (RHS)

But Have Rebounded More as Well



Source: Barclays Research

As the saying goes, the harder they fall, the faster they rise; and once the actual downgrade occurs, fallen angels have tended to outperform their new BB peers as these issuers enter the high yield market and are picked up by the high yield investor base. In fact, on average, fallen angels historically (again Bloomberg Barclays index data 2000 to present) tighten relative to other BB issuers by 20 basis points in the six months following the rating downgrade. Not surprisingly, the fallen angel class of 2020 has been unique in this respect as well. Likely due to the magnitude of underperformance before the downgrade and coupled with the April 9th announcement from the U.S. Federal Reserve ("Fed") to include fallen angels meeting certain criteria in its bond buying program,9 this year's fallen angels have tightened relative to other BBs by 125 basis points as of mid-April,10 over six times the average outperformance (see RHS chart above). We believe that the Fed clearly meant to target intermediate BBB and BB paper with the secondary market facility, and it appears their goal was reached. Further, the Fed backstop has been a unique factor in driving performance bifurcation across fallen angels. However, we note that the Fed may not be able to pay down the substantial amount of corporate debt accumulated during the decade-long credit cycle; and has little influence, in our view, over sustained growth of free cash flow at the corporate level to be used to pay down that debt.

Estimates for near term fallen angel volumes vary wildly from \$300 billion at the low end to \$500 billion at the high end. The variability is most certainly being driven by the heightened level of uncertainty. Given the fact that \$900 billion worth of BBB rated bonds have a negative outlook in the USD markets we expect additional fallen angel activity. Clearly this time is different than previous periods and risks are also being driven by the unknows surrounding COVID-19. There are uncertainties with respect to the reopening of the global economy, supply chain disruptions, and fears around an additional wave of the virus resurging later in the year.

Hence, the downgrade draft may be influenced by a number of factors, including the direction of oil prices, the containment of the virus and the pace of economic recovery. What we are watching

are the industries we believe are most stressed in this current market environment. Some business models will likely be challenged and potentially disrupted. Throw a reluctant consumer into the mix, given the rise in unemployment and continuation of social distancing, and it is potentially a recipe for further deterioration of credit fundamentals, with more downgrades likely.

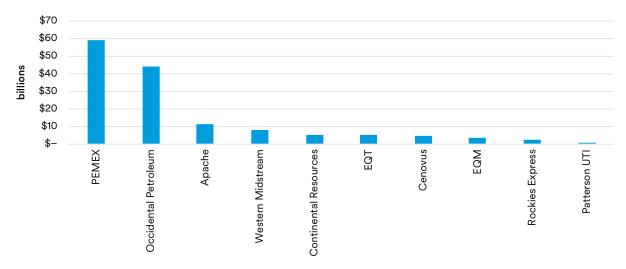
Going Forward – Evaluating the Risks

The unprecedented nature of the COVID-19 crisis and the lack of any clear timetable for when life can return to normal has caused many companies to avoid providing forward guidance in their first quarter earnings results; no sector is truly immune. Management teams have instead focused on providing updates on their liquidity profile and attempted to highlight balance sheet strength. Accordingly, much of our analysts' time has been spent calculating cash burn rates and free cash flow breakeven points. Companies' maturity profiles and debt distributions have also taken on heightened importance during this crisis, as well as their financial policies. The steps companies take now to repair their balance sheets, some of them long overdue, should allow them to survive or even thrive on the other side of this shutdown. Of course, identifying those names that will thrive and those that may falter, but where you are adequately compensated for the heightened risk is crucial. Thus, deep fundamental credit analysis and security selection is now more important than ever.

While many companies have scrapped or drastically reduced their dividends and share repurchase programs in an effort to preserve their investment grade credit rating, others have not. Frankly, in some sectors the decision to stay investment grade is out of management's hands anyway. This is where the dynamics of the particular sector come into play. Given the far-reaching nature of the government-mandated business closures and travel restrictions, both domestically and abroad, every sector has been impacted in one way or another, including seeing an uptick in downgrades and fallen angels. Below we highlight two sectors we think have an elevated level of fallen-angel risk in the near-term and discuss the drivers of potential downgrades.

Energy: More than any other, the COVID-19 pandemic has severely impacted the energy sector and led to a slew of credit rating downgrades, including several prominent fallen angels. Of course, an oil price war that began right as the spread of COVID-19 was taking hold did not help the sector either. Regardless of financial policy or balance sheet strength, no energy firm could have been

Energy Fallen Angels Through August



Source: CreditSights

expected to withstand the sudden crash in oil prices in March and April without seeing its credit rating at least reviewed by the rating agencies. While the U.S. government was able to encourage OPEC+ members to provide some relief on the supply side, the extreme drop in demand for oil is much more difficult to solve. Nothing short of a fully functional economy can be expected to sufficiently increase demand to pre-COVID levels, and that may only occur once an effective vaccine has been developed, proven, and widely distributed. Unsurprisingly, of the roughly \$230 billion of fallen angels we've already seen in 2020, more than half has come from the energy sector:

The surge of fallen angels, along with bankruptcies, among lower-rated energy companies has materially changed the quality mix and duration of the energy sector in the ICE Bank of America Merrill Lynch U.S. High Yield Index. As of 5/31, energy represented 12.6% of the index with BB's, B's and CCC's and below comprising 65% / 24% / 10% of sector market values, respectively, and a sector duration of 4.52 years. By comparison, at 12/31/2019 energy was 12.5% of the high yield index with a 45% / 41% / 14% split between BB's, B's and CCC's and below, with a sector duration of 3.51 years. So, the net result of the energy ratings migration has been a 20% increase in BB's and a full year lengthening in duration. The quality mix in high yield energy is now a full 10% higher in BB's than the overall index (65% vs. 55%), compared to 4% lower than the index as of 12/31/2019 (45% vs. 49%).¹³

With transportation comprising 60% of oil demand, the return to historical routines is critical to bringing oil demand back up to the 100 million barrels per day level entering 2020.

Oil prices have rebounded sharply along with other risk assets, but still remain below breakeven levels of \$40 - \$55/bbl for most non-OPEC producers¹⁴ and the path to higher prices depends on continued demand gains as well as continued OPEC compliance and non-OPEC production declines through 2021. With transportation comprising 60% of oil demand,¹⁵ the return to historical routines is critical to bringing oil demand back up to the 100 million barrels per day level entering 2020. Recent estimates have oil demand around 90 million bbls/day, well off the lows of ~75 million bbls/day in April, driven largely by a global rebound in ground transportation, which particularly benefits gasoline and to a lesser extent diesel demand. Continued gains in gasoline and diesel are likely, however jet fuel demand previously comprised 6-7 million bbls/day of global oil demand, and a return to pre-virus jet fuel demand is expected to significantly lag other modes of transportation. On the supply side, the market is benefitting from OPEC cuts totaling 9.7 million bbls/day and non-OPEC shut ins and natural declines approaching 5 million bbls/day. OPEC spare capacity and incentives for OPEC cheating should limit price upside in the near term, however, the 30% drop in 2020 global upstream capex versus 2019 levels sets up the potential for a supply deficit and higher prices longer term.

Furthermore, the recent wave of energy downgrades came on the heels of commodity price deck adjustments at the rating agencies. Currently, Moody's/S&P/Fitch are using WTI oil prices per barrel of \$30/\$25/\$32 for 2020 and \$40/\$45/\$42 for 2021 with S&P and Fitch each using \$50/bbl for 2022. While the potential for up to \$100 billion of additional fallen angel debt exists if oil prices disappoint to the downside, we tend to believe the worst of the downgrade wave in the sector is behind us.

Consumer: Consumer packaged goods companies are typically viewed as defensive credits, especially during recessionary times, as they produce staples that people consume during all phases of the business cycle. However, consumer shifts and a wave of M&A have increased risk in the sector and lead us to highlight it here. In addition, unlike in energy, firms within the Consumer sector generally have more control over the fate of their credit rating, although that control has become more limited in the COVID-19 environment.

Over the past several years, facing slowing topline growth and increased competition from upstart companies, the consumer sector has seen a large increase in M&A activity and an increase in leverage to finance that activity. As these transactions took shape and were consummated, the rating agencies were generally lenient in permitting these companies to increase leverage considerably and maintain investment grade ratings, while allowing for extended deleveraging timelines. Even as companies failed to meet their initial deleveraging targets and maintained shareholder return programs, the agencies continued to give them leeway. Rating agency sentiment began to shift in late 2018 with the downgrade of Anheuser-Busch InBev from A- to BBB+ by Moody's and further downgrades and more harsh rating requirements have followed.

Presumably, the fact that these companies have such a large scale and generate relatively stable cash flows given the nature of their industry, caused the agencies to grant them more leniency than they would have to a more cyclical sector. What's more, these companies generally have more levers to pull if needed to prevent a downgrade, such as cutting dividends and share repurchases, or selling assets.

Until recently, most assumed that when facing a downgrade to high yield these companies would do whatever was necessary to prevent that outcome. However, we recently saw a notable deviation from this when management at Kraft Heinz repeatedly assured investors about their commitment to investment grade ratings, but then changed course in February, walking away from this commitment and basically accepting a downgrade to high yield rather than being forced to cut its dividend or sell assets on a rating agency timeline. Newell Brands was also downgraded to junk

The road to recovery over the longer term, in our view, will not be uniform across sectors and securities.

several months earlier after the company disclosed it would not proceed with the final asset sales that were part of a larger divestiture program designed to reduce debt and maintain ratings, due to undesirable offers and strong cash flow generating at the businesses.

Both Kraft and Newell are examples of consumer companies that levered up in recent years for acquisitions that ultimately forced them to defend their investment grade rating, and in the end, their management teams chose not to. While these financial policy decisions may prove to be the right ones for these particular companies, they came at the cost of credit ratings and drove underperformance in the names pre-downgrade. What's striking is both firms were downgraded to high yield before the COVID-19 crisis took hold in the United States, and ironically, the government shutdowns have been a boon to Kraft Heinz and certain product lines at Newell Brands, as consumers have rushed to stockpile goods. In addition, these companies are viewed as some of the highest-quality high yield companies in their sub-sectors, driving investor demand. Still, long-term growth remains challenged and there is no telling what impact COVID-19 will have on

consumers' preferences long-term. There is also the question of whether it pays for companies to fight to defend their investment grade ratings. Since being downgraded to junk, Kraft Heinz has been able to take advantage of a strong high yield market and its operating momentum in the COVID-19 environment, to issue new debt at relatively low rates. While the downgrade at Kraft Heinz may have had limited negative impact on the company over the near-term, it is important to consider the financing cost increases for high yield companies in a market where the spread between BB and BBB credit is wider. Many investment grade companies have substantial near-term maturities to consider and must also think about their ability to finance large transformative M&A in the high yield market.

Looking across the consumer landscape, there are a number of sub-sectors with fallen-angel risk in the current market environment. While some of these companies have options to defend their ratings, the impact of COVID-19 is putting pressure on operations and may take the decision out of their hands, especially in a second wave scenario. The rating agencies have been attempting to look through the near-term shutdowns, but for companies already on the cusp of high yield, there may not be enough cushion to avoid a downgrade. In consumer goods, companies that are dealing with delayed deleveraging timelines post-large M&A could be at risk, along with other companies with weak credit metrics being impacted by COVID-19. In the retail space, shutdowns and reduced customer traffic are putting pressure on sales, margin, and working capital, and leave several companies at risk of downgrade. Department stores appear to be the most vulnerable, with Macy's already taken to junk, and several others at the low-end of the IG spectrum. Restaurants and foodservice companies are also at risk, given extended shutdowns, permanent closures, and the challenges of operating dining rooms under mandated restrictions. The lodging sector remains at high risk of downgrades as well, given the reliance of hotels on both business and leisure travel, and the uncertainty surrounding demand going forward.

It is also important to note that historically the performance of fallen angels has not been uniform across maturity, with long-end bonds typically bearing the larger brunt of underperformance, given a scarcity of a viable buyer-base with the shorter duration nature of the high yield market. While the Kraft Heinz capital structure was absorbed fairly well across all maturities, there was still a lag in longer-dated maturities as the high yield market adjusted to it. This is one area of the market that we are closely watching due to the potential impact on the composition of the high yield market.

Conclusion

In conclusion, the critical challenge for an asset manager is to identify potential fallen angels ahead of a downgrade and adjust positions as needed, in an attempt to avoid any potential negative performance impact associated with the downgrade. Secondly, it is beneficial to not be a forced seller in the month the downgrade occurs and transitions to the High Yield market as that is typically the highest point of underperformance for fallen angels. If a manager can (by guideline leeway or active decision making) hold fallen angels and exit the position over time, the negative performance impact may be mitigated as these issuers historically tend to outperform in the months post downgrade.

The road to recovery over the longer term, in our view, will not be uniform across sectors and securities. A number of current fallen angels could eventually become rising stars. The path that these fallen angels will take going forward will depend not only on the shape of the recovery, but also management teams' desire and ability to return to investment grade status. As such, we will continue to watch fundamental trends closely, paying close attention to company balance sheets, monitoring for any improvement in leverage and operating trends.

Appendix

Given the Fed's role in the markets, which in our view has been one of the key drivers for recovery, we outline below the Fed's corporate credit facilities and some of the associated key traits:

	Fed purchase eligibility specification:17	
Facilities	Two specific facilities: the Secondary Market Corporate Credit Facility (SMCCF) and the Primary Market Corporate Credit Facility (PMCCF)	
Size	The announced size of the program is a combined \$750 billion, which is comprised of \$75 billion funding from the Treasury, with maximum 10/1 leverage provided by the Fed. This is split between \$500 billion for the primary facility and \$250 billion for the secondary facility. "The PMCCF will leverage Treasury's equity at 7 to 1 when acquiring corporate bonds or syndicated loans from Eligible Issuers that are rated below investment grade at the time of purchase." "The SMCCF will leverage Treasury's equity at 7 to 1 when acquiring corporate bonds of issuers that are rated below investment grade at the time of purchase and in a range between 3 to 1 and 7 to 1, depending on risk, when acquiring any other type of eligible asset."	
Minimum Ratings Criteria	The issuer had to be IG-rated by a major nationally recognized statistical rating organization (NRSRO) as of March 22, 2020 (or by at least two agencies if rated by more than one) and at least BB-/Ba3 as of the date of purchase. Hence, the eligibility includes fallen angels that have been downgraded since the facilities were announced, but not before.	
Domicile and Incorporation	U.S., intended for U.S. issuers with majority of employees and operation within the U.S. borders.	
Maturities	Maturities are limited to 5 years for SMCCF and 4 years for PMCCF	
Exclusions	Depository institutions or their holdcos are not included, which eliminates all the banks from these programs. The issuer must not have received specific support pursuant to the CARES Act or any subsequent federal legislation.	
ETF Buying	As specified, the SMCCF may purchase U.Slisted ETFs where the investment objective is to provide broad exposure to the market for U.S. corporate bonds. That may include U.S. investment-grade corporate bonds, as well as U.S. high yield corporate bonds, for example. When buying ETFs, the facilities would not look through to ETF holdings. This is significant as it effectively allows purchases of otherwise ineligible assets. For example, the LQD ETF has a duration of almost 10 years and comprised of nearly 25% otherwise ineligible banks, as well as significant component of non-U.S. issuers.	
Recent SMCCF Amendment	In June, the Fed expanded the SMCCF, allowing purchases of a broad and diversified mix of corporate bonds without the issuer's certification. Each issuer would be capped at 1.5% of the total facility size of \$750 billion. The maximum amount of corporate bonds of a single issuer for purchase on the secondary market would be additionally capped at 10% of the issuer's maximum bonds outstanding between March 22, 2019, and March 22, 2020. This amendment may increase the program's effectiveness as a backstop.	
Sunset Provision	The facilities sunset on Sept. 30 unless extended.	

Fallen Angels YTD 2020

Date	Ticker	Face Value (\$)
1/31/20	SPR	1,300
2/29/20	EQT	4,500
2/29/20	KHC	21,791
2/29/20	EQM	3,500
3/31/20	SASOL	3,250
3/31/20	UCGIM	1,250
3/31/20	DAL	4,100
3/31/20	WES	7,820
3/31/20	ADAABB	500
3/31/20	F	36,322
3/31/20	OXY	29,060
3/31/20	CVECN	4,781
3/31/20	М	2,457
3/31/20	ZFFNGR	1,698
3/31/20	MARSPE	300
4/30/20	PEMEX	58,619
4/30/20	HI	375
4/30/20	KORS	450
4/30/20	RCL	1,450
4/30/20	MXCN	1,550
4/30/20	CMZB	1,000
4/30/20	CLR	5,300
4/30/20	SPR	300
4/30/20	ROCKIE	2,050
5/31/20	MTNA	3,620
5/31/20	SVC	4,950
6/30/20	APA	6,901
6/30/20	CCL	4,000
6/30/20	EDF	3,598
6/30/20	FLR	1,100
6/30/20	ROLLS	1,000
7/31/20	AXSBIN	500
7/31/20	BBVASM	1,500
7/31/20	BANGAN	400
7/31/20	BRASKM	5,289
8/31/20	RCL	3,320
8/31/20	SILSEA	620

Source: CreditSights, as of August 31, 2020

Endnotes:

- 1 CreditSights Research (CreditSights, Federal Reserve, BEA data, including Corporate Debt Securities and Loans), June 2020
- ² Bloomberg Barclays
- ³ CreditSights Research
- ⁴ Excluding EM issuers (e.g. Pemex) that did not fall into the U.S. HY Index
- ⁵ CreditSights Research. RHS chart the fallen angel rate is based on the LTM sum of fallen angels relative to the 12 month prior total BBB face value sum
- ⁶ Barclays Research
- ⁷ Bloomberg Barclays, monthly data. BBB spread: LCB1OAS Index and BB spread: BCBATRUU Index
- ⁸ Barclays Research: Note: 2020 change is through April 16. Fallen angels excluding EM debt. For more detail, see "Not All Fallen Angels Are Getting Wings", April 17, 2020
- ⁹ Refer to the Appendix for the Fed purchase program and some of the associated key conditions
- ¹⁰ Barclays Research
- ¹¹ Various sell-side estimates
- ¹² Goldman Sachs Research. The two sides of "fallen-angel" downgrades: Risk vs. risk premium (Lynam/Puempel/Karoui). As of April 20, 2020
- 13 ICE BofA Indexes
- ¹⁴ MetLife Investment Management internal analysis
- 15 Barclays Research
- ¹⁶ Moody's figures as of April 28, 2020; S&P figures as of March 19, 2020; Fitch figures as of April 2, 2020
- ¹⁷ https://www.newyorkfed.org/markets/primary-and-secondary-market-faq/corporate-credit-facility-faq;
 The table is for illustrative purposes, and is not an exhaustive list, please refer to the NY Fed website for more information
- 18 Barclays Research

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