RESEARCH FROM SYSTEMATIC FIXED INCOME

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Systematic Approaches to Late Cycle Credit Investing

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Systematic Credit Insights: Taking advantage of dispersion versus timing the cycle

A significant challenge that investors face today is how to manage through transition points as the cycle matures. In this cycle, we have seen some concerning trends, with corporate leverage rising to record levels and lower quality issuance becoming an increasingly large part of the market. Corporate credit, in particular, exhibits asymmetric risk that makes valuation judgments inherently more difficult than with other risk assets.

While it has been widely acknowledged that the credit cycle is a leading indicator for the business cycle, not all asset managers have figured out how to quantify these predictors into alpha insights that can help investors maintain a balanced, and defensive, market exposure. Additional features of the late cycle make credit investing difficult. With too much money chasing too few good credits (weak underwriting standards), the behavioral bias of "fear of missing out" (adverse selection) and the short-term benefits incentivizing reach for yield (principal/agent problem), credit investors have gone down in quality and down in liquidity to put money to work.

The problem with this trade is that it tends to increase the investor's downside correlation with equities and other risky assets, with low return compensation for assuming such risk.

Tom's Take

Dear Reader,

Navigating markets late in a cycle can be challenging, and it can be especially tough for credit investors.

Given the asymmetric payoff of credit investing, we observe that managers focus a lot of attention on trying to time when to rotate out of the sector. One way to try and forecast the turn in credit is to look at market implied defaults, which we have observed lead actual defaults on average by 9-12 months[1]. While on the surface this type of approach would appear to be effective, in practice timing leading indicators has had a very low probability of success. As with recession prediction models, there is a small sample size to examine, and the specific drivers of each turn in the cycle may vary.

Complicating matters is that late in the credit cycle is when investors are often allocating more to credit to maintain yield and income targets. This results in increasing levels of credit risk, right when those risks are most precarious. Even private investments may not be immune to late cycle dynamics as the idea that illiquidity is a hiding place from the cycle has been disproven by history. Illiquid credits tend to have large downward price movements when the sellers emerge, much like public markets.

The good news is that investors have alternatives to trying to solve the conundrum of timing credit downturns. Instead, investors can take advantage of systematic credit insights that benefit from dispersion and seek to generate more alpha when credit markets are in decline and are experiencing increased volatility. I hope this issue provides our readers with a deeper understanding of systematic credit investing, and how it can be utilized in a portfolio.

Best,
Thomas Parker

1. Source: BlackRock, Bloomberg. As of 10/31/2018.

As corporate debt levels continue to rise, the debate over what constitutes alpha and beta in credit has only grown hotter – from whether there exists a limit to diversification (AQR: "The Illusion of Active Fixed Income Diversification"[1]) to whether the disqualification of persistent credit tilts as alpha is warranted (PIMCO: "When Alpha Meets Beta: Managing Unintended Risk in Active Fixed Income"[2]).

We argue for an investment approach that distinctly separates alpha, smart beta, and beta, and takes advantage of the return dispersion that occurs late cycle. We believe that this approach necessitates a quantitative approach to credit insights which seeks to optimize for alpha-beta separation and minimizes common factor risk, rather than an approach that relies on arbitrary cycle timing.

Whether implemented in a long-only portfolio, with long/short expertise, or even in a multi-asset framework, investors may expect more consistent performance over late cycle environments with a strategy that embraces this approach. Let's apply systematic credit insights to two practical case studies.

CASE 1

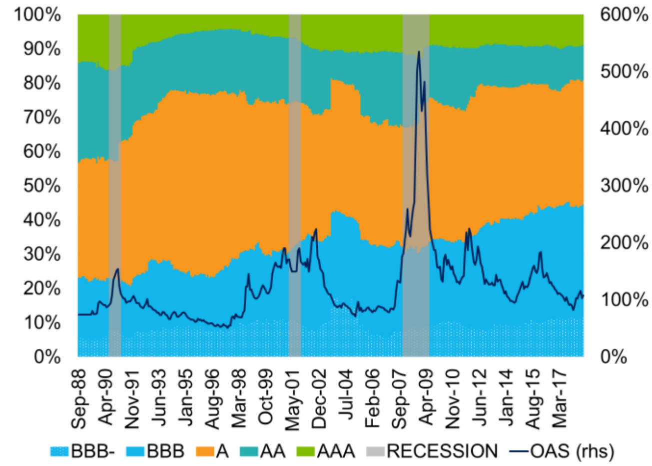
Credit Screening: Past and Future Savings in Downturns

2018 has been characterized by increased market volatility, prompting questions of whether the end of the cycle is near and what investors can do to position themselves given the economic backdrop. In our view, while the prospect of recession remains unlikely for the time being, the potential volatility inherent to late cycle markets could occur even in the absence of significant tail-risk shocks. And while investors are concerned about drawdowns from risky assets if we transition to a recession, the fear of missed carry opportunities in the meantime remains a greater concern. We believe this phase of the cycle is likely to run longer than many investors expect, so completely abandoning spread exposure at this time is unappealing, especially for those investors faced with liabilities that only grow as credit spreads compress. With the backdrop of October's market volatility, today's environment may call for defensive positioning within credit to tilt portfolios away from likely flash points, without resorting to lower-yielding flight-to-quality alternatives.

Should the BBB-rating migration and the growth of foreign buyers create concern for US IG credit investors?

The ratings migration in Investment Grade (IG) Credit has been a secular transformation that has persisted across market cycles. Since 1988, the BBB portion of the Bloomberg Barclays US Credit Index has doubled (Figure 1). As the credit market moves toward lower-quality IG, the asymmetry in credit risk and downside risk continues to build. This potentially makes the next turn in the credit cycle even more significant than its predecessors.

Figure 1: US Credit ratings changes over time
Bloomberg Barclays US Credit



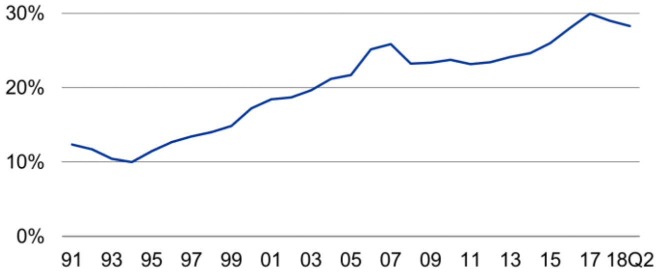
Source: Bloomberg Barclays. As of 8/31/2018. "OAS" stands for options-adjusted spread. The credit quality of a particular security or group of securities may be determined either by BlackRock or a nationally recognized statistical rating organization and does not ensure the stability or safety of an overall portfolio. In the event a security in unrated by a ratings organization, BlackRock may assign an internal rating for purposes of determining credit quality. Past performance is not indicative of future results

An additional technical risk within IG credit is the pullback in foreign investor flows. Non-US ownership of IG credit has increased steadily over time, especially between 2015 and 2017. Quantitative easing created artificially low yields and volatility, causing investors to reach for yield. Record low (and negative) global yields incentivized foreign investors to pile into US corporate debt in order to earn yield above the cost to hedge their currency. This year we have seen the flows into US credit begin to weaken as investors, both local and foreign, can find better risk adjusted value in safer assets with yields backing up. If this slowdown in flows continues, it could be another factor that acts to magnify late cycle credit market dynamics[3].

During the 2008 financial crisis, non-US ownership of IG credit declined as can be seen in Figure 2. This came at a time when company specific fundamental vulnerabilities were high, and the global slowdown in earnings was extreme. In this current credit cycle, if we see higher rates have an adverse impact on levered credits, that in turn leads to downgrades and defaults, we believe it will be important to monitor these non-US flows for a potential repeat of their pull back in 2008. This could be an additional source of negative technical headwinds at a time when liquidity is already stressed[3].

1. AQR: "The Illusion of Active Fixed Income Diversification", December 2017.
2. PIMCO: "When Alpha Meets Beta: Managing Unintended Risk in Active Fixed Income", May 2018.
3. BlackRock, Morgan Stanley Research. As of 29 June 2018. See Figure 2 on page 3.

Figure 2: Foreign ownership of US IG credit over time



Source: Morgan Stanley Research. As of 6/29/2018. Based on latest data available.

The benefit of avoiding credit downgrades in a portfolio can be meaningful

As we have been discussing credit risk is asymmetric and growing, but how do investors quantify the potential downside risk? One way is to look at fallen angels, investment grade credits that are downgraded to high yield. To determine the impact of fallen angels we first looked at return data over the past 20 years. We found that fallen angels declined sharply in price in the three months prior to downgrade, leading to a cumulative drag on benchmark performance of 580 bps. The size of the impact varied over time (Figure 3). In some years the impact was less than 5 basis points (bps), while in 2016 it was over 250 bps.

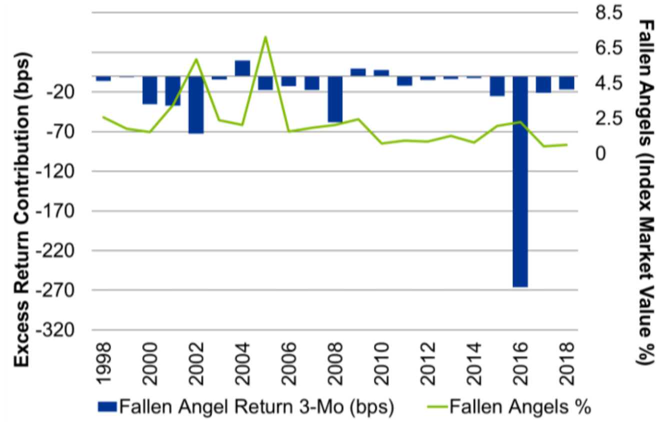
Next, we used our proprietary Economic Cycle Regime Indicator[1] to separate the impact of fallen angels into three economic cycles: early-, mid- and late-cycle. During early cycle, the impact of fallen angels has historically been benign, as risk assets generally fared well and defaults/ downgrades were low. Looking at the mid- to later- stages of the credit cycle, when high-yield default rates tended to increase, the percentage of fallen angels rose and the impact on performance became significant. In fact, over the past two late cycles, investors could have experienced 164 bps of excess return solely by avoiding credit downgrades, as you can see in Figure 3.

Fallen angels may pose an even greater risk to institutions pursuing liability-driven investment strategies. The fallen angel downgrade will result in the issue dropping out of an investment grade benchmark. This in turn will likely cause the benchmark yield (the liability discount rate) to decline, and the corresponding liabilities to rise. For example, selling the fallen angel has typically resulted in a loss on the asset side of the equation. The net result can be a decline in funded status, which illustrates that liability-driven investors may face the greatest potential harm from this fallen angel dynamic.

The potential benefits of diversifying active manager allocations

We believe that the potential downside from fallen angels makes a compelling case for employing some level of active

Figure 3: US HY Credit fallen angel excess return contribution over time

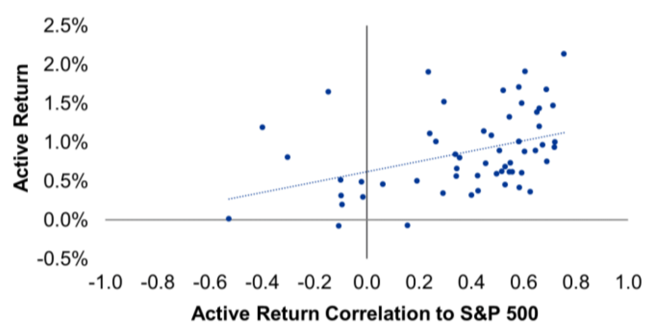


Source: Bloomberg Barclays US HY Fallen Angel 3% Cap Total Return Index Value Unhedged. As of 6/29/2018. Past performance is not indicative of future results.

management in your credit portfolio, but what should investors consider when selecting active managers? Investment Grade credit has been an area where active managers have been able to outperform the benchmark. When looking at active performance from US IG Credit managers, managers are able to show positive outperformance versus their benchmark over a 7-year period. In risk on periods, as measured by months where the S&P 500 had positive performance, even the 4th Quartile manager added 30 bps over the benchmark as seen in Figure 4.

Figure 4: US IG Credit manager performance comparison

7-Year US IG Credit Manager Active Return and Alpha Correlation to S&P 500



Source: BlackRock, eVestment. As of 9/30/17. Managers represent all active Investment Grade Credit Managers in composites reported to eVestment with stated, non-custom benchmarks. All returns are gross of management fees. Including management fees can alter performance and cause them to be lower than gross returns. The IG category above is defined by eVestment. The “manager” composite used is an equal weighted average of the monthly returns of composites within the category. The composite includes managers in the category that have a) benchmarks that mirror the category, b) a base currency in USD, and c) have at least one year of returns. The inception date of each manager varies. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index.

1. Source: BlackRock Systematic Fixed Income’s proprietary Economic Cycle Regime model. This model looks across macroeconomic data, including but not limited to home price appreciation, inflation, growth, and market level data including but not limited to HY spreads, volatility, and Conference Board economic indices to produce a proprietary score reflective of the economic regime. Fallen angels excess returns are calculated from the Bloomberg Barclays US HY Fallen Angel 3% Cap Total Return Index Value Unhedged over the risk-free rate.

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Where active managers have not proven their worth is in risk off markets, the exact time when the fallen angel risk is at its highest. The top quartile of managers lost 119bps in risk off periods over the 7-year period illustrated in Figure 4. This is an area where investors with active strategies may have more risk-on bets than they realize. This is important in the context of overall portfolio performance. Just when your equity allocation is struggling, and you need your fixed income to provide diversification, you likely experience underperformance in your credit allocation. We believe this happens because many active managers seek to beat their benchmark by allocating to lower quality, higher yielding sectors which doubles down on the equity risk they are taking elsewhere in their portfolio. Clients should look for active managers that provide downside protection in risk-off periods, and that can diversify an investor's credit allocation and help offset this heavy tilt to risk-on strategies. These features can likely be found with managers who demonstrate skill in identifying and avoiding credits before they experience price declines.

Similarly, one might be asking "what should I do with my high yield allocation in a late cycle environment?" As we have been arguing, late cycle periods tend to have higher volatility and lower monthly returns than early and mid-cycle markets as markets reprice the possibility of a downturn, but as we show in Figure 5, high yield can still post attractive returns during perceived late-cycle environments.

Figure 5: Annual US High Yield total return

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.

	2012	2013	2014	2015	2016	2017	2018 YTD
US HY Return	15.81	7.44	2.45	-4.47	17.13	7.50	0.93

Source: Bloomberg Barclays US HY Index. As of 10/31/2018.

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index returns are shown for illustrative purposes only. It is not possible to invest directly in an index.

While the fear of missing out on positive high yield carry and returns can outweigh the fear of being a "too-early doomsdayer" (Tom Parker, By The Numbers July 2018), the increased market volatility and dispersion characteristics of these regimes do call for a higher level of care for those with yield-seeking behavior. Similar to investment grade credit, we would suggest that investors adopt a more defensive allocation in high yield that will help to reduce the drawdown in the event of any tail risk shock or correction.

In looking at the universe of high yield active manager performance, we see greater dispersion across managers relative to investment grade, and there is a notable defensive bias that most managers exhibit. Many show the ability to generate alpha in risk-off periods, but lag in risk-on environments by over-allocating to higher quality bonds that under-yield the benchmark. While a defensive high yield allocation is exactly what we have argued for in late cycle, investors should also demand to keep up in a rallying environment . We believe a defensive strategy that combines downside protection while keeping up with the key risk characteristics of the underlying index is an optimal outcome, where investors can have their cake and eat it too.

Conclusion

Given the late cycle characteristics currently unfolding within the U.S. economy, we believe that the pace of high yield defaults and fallen angel downgrades are likely to rise. Barclays is forecasting $35B USD of fallen angel volume for 2019. This is the highest forecast since the commodity related crisis of 2015-2016, and more than the last two years combined, per Barclays research as of September 2018. Given the growth of BBBs as part of the investment grade universe, and the potential for greater underperformance during periods of credit stress, we feel security selection will become even more important in avoiding downgrades and the corresponding negative impact on total returns and funded status. Indeed, investment grade credit managers have proven that there is alpha to make in risk-on markets, as seen in Figure 4, but as we enter the later innings of this credit cycle, we believe it is important to diversify active risk and focus on a risk-off defensive strategy. Similarly, high yield investors should look to a defensive strategy as we approach later stages in the credit cycle, but that doesn't have to mean sacrificing performance in a rallying environment. As Tom Parker mentioned at the beginning of this piece, the good news for investors is that there is an alternative to risk-on credit mandates. Investors can invest with systematic managers whose credit insights have benefited from dispersion and create more alpha when credit markets are in decline. This is an attractive strategy for investors seeking to limit downside risk and looking to diversify their active managers.

CASE 2

A Multi-Asset Framework: A credit investor's defensive approach to equity investing

We feel many investors are aware of how the growth in leverage over the last 10 years has created embedded risks for the credit markets. But many are unaware of the dramatic implications that this increased leverage bears for the equity markets.

In this case study, we will discuss why elevated leverage levels make understanding a company's debt profile all the more important for equity security selection. We believe an investor can profit from a strategy that looks across the capital structure to consistently evaluate information from both debt and equity markets. In our opinion, this examination of the full capital structure will be increasingly important in the coming years as companies have to navigate the aging credit cycle in a world of rising funding costs, higher macro uncertainty, and few signs of deleveraging.

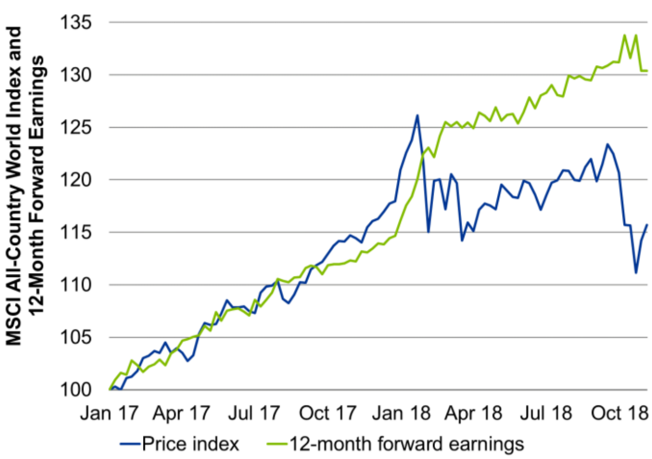
The US economy is exposed to all-time high corporate leverage and profit margins are stalling at pre-recession levels

The US economy has been in an extended period of low interest rates and economic expansion, accompanied by strong investor demand for corporate credit, which has supported increasing levels of corporate leverage. This can be seen by looking at leverage in the US Investment Grade nonfinancial corporate credit universe in Figure 6 below. Historically, it has been during recessionary periods when earnings fall that this measure of leverage jumps to record levels, as can be seen in the recessionary periods highlighted in red in Figure 6.

What is unique about where we currently stand is that the global economy is in an expansion, with profit margins and earnings healthy even though growth rates are stalling (Figure 6), and leverage levels relative to earnings are still at record levels (Figure 7). What can be foreboding about this level of leverage is that, when a slowdown in earnings does materialize, we will likely see current leverage levels rise beyond existing peaks, further elevating wide-scale risks of default. Our expectation is that this will act as a magnifying force to make a company's debt profile an incredibly important source of information for both credit and equity performance in a slowdown.

Figure 6: The global economy is in a late cycle expansion, with profit margins remaining healthy – but the forward earnings curve is bending.

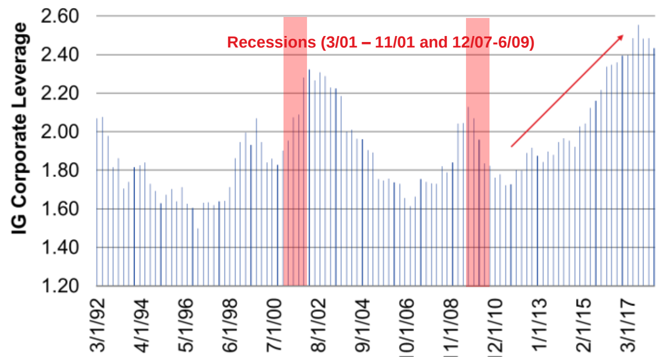
Global equity prices and earnings, 2017-2018



Sources: BlackRock Investment Institute, with data from Thomson Reuters and MSCI, as of November 9, 2018. Notes: The lines show price index and 12-month forward per MSCI aggregate earnings estimates for the MSCI All-Country World Index rebased to 100 at the start of 2017. Estimates per MSCI.

Figure 7: A world of rising leverage is catching investor attention and benefits systematic insights which focus on credit characteristics

US IG Median Gross Leverage



Source: Morgan Stanley, as of 8/1/2018. Based on latest available data.

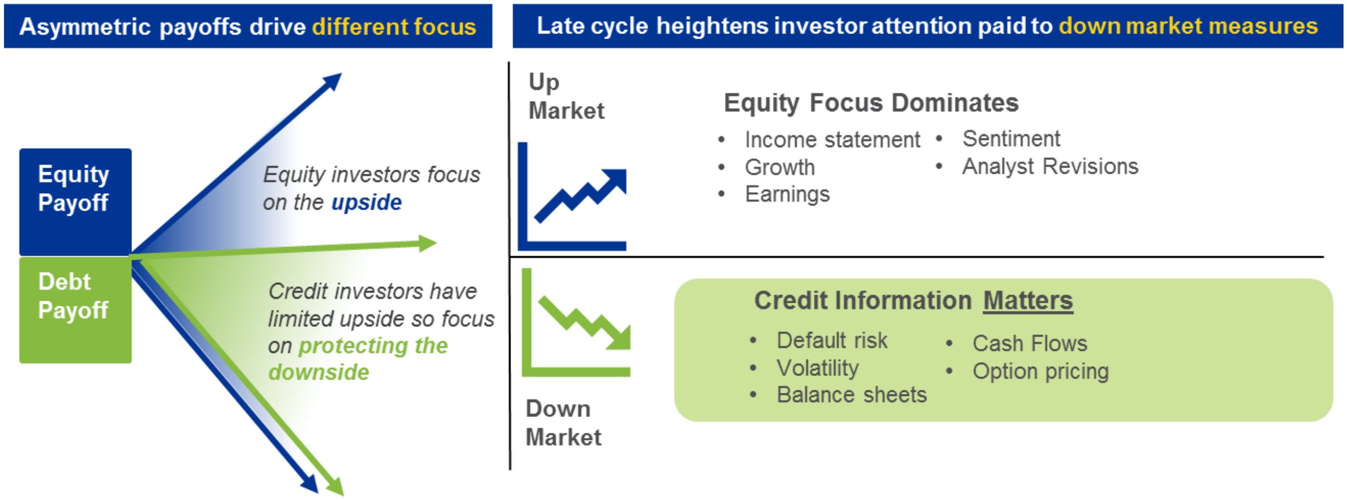
Companies are exposed to debt and equity funding – are investors paying consistent attention to both markets?

In light of this elevated leverage, one interesting output of our research has been a realization that equity investors do not consistently value debt information in their analysis.

For companies that are reliant on both the equity markets and the debt markets for funding, and it is critical to pay attention to both as moves in one asset class can have a dramatic impact on the other. Surprisingly, we have found that equity investors do not pay sufficient attention to credit markets outside of periods of credit stress. During the credit crises of 2008, discussing credit quality was common amongst equity investors, but in more normal times, as we have seen in this prolonged expansion, details of the credit market are often an afterthought. We find this to be a mistake.

One reason for this inconsistent attention could be due to the segmentation that exists within the asset manager community between equity and fixed income funds. Even though bonds and equities are issued by the same companies, the investor bases looking at these companies are often separated into distinct groups by asset class. Most asset management companies, including BlackRock, have separate equity groups and credit groups. Our clients often have separate groups that conduct due diligence on credit products and equity products. And even sell-side research is published by separate teams. This separation is largely driven by the different outcomes that the investors in the two asset classes seek to achieve. As a result, equity investors tend to inconsistently evaluate debt information on the companies they cover.

Figure 8: Different analysts focus on different investment metrics – late cycle emphasizes attention paid to down market measures



Source: BlackRock. For illustrative purposes only.

Why segmentation exists – the opportunity for cross-asset expertise

Because equities have a more symmetric payoff profile with meaningful upside potential (Figure 8), most equity professionals are paid to focus on the upside. Because equities represent a growth option on a firm's business operations, equity investors focus more on income statements, earnings growth, product rollouts, and long-term growth prospects when analyzing a company. Credit investors, on the other hand, are implicitly short a put option on the business, and therefore care less about growth and more about how that growth will be funded.

Notably, the asymmetric nature of debt securities is such that investors face the prospect of little upside potential and significantly more downside risk . Thus, debt investors are incentivized to focus on the downside. This leads to more attention paid to balance sheets, default probabilities, cash flows, and legal protections. Debt investors are literally paid to focus on what could go wrong. There's a reason that credit investors have tended to carry the stigma of being pessimistic, cynical, and outright grumpy at times.

These silos act like invisible boundaries between the markets that inhibit the efficient and consistent transfer of information. As a result, we believe that the equity and credit analysts tend to focus more heavily on information specific to their individual respective market. Because of this, we find that equity market information gets priced in the equity markets quickly, and credit information also gets priced into the credit markets quickly. In our experience, cross market mispricings of information can be more persistent due to the natural and persistent segmentation of the markets.

Conclusion

In summary, the overall elevated levels of leverage in the market make understanding a company's debt profile important for not only investing in the debt, but also critical for equity security selection. We can see how market silos between debt and equity investors has tended to result in inconsistent attention of equity investors being applied to debt information. As a result, we believe an investor can profit from these current debt and equity dynamics by employing a strategy that looks across the capital structure to consistently evaluate information from both markets.

Appendix

	Bloomberg Barclays US Credit	Blomberg Barclays Corporate High Yield	S&P 500 Index	Bloomberg Barclays US Aggregate	Bloomberg Barclays US HY 3% Capped Fallen Angels
2012	9.37%	15.81%	16.00%	4.21%	20.93%
2013	-2.01%	7.44%	32.39%	-2.02%	8.64%
2014	7.53%	2.45%	13.69%	5.97%	7.57%
2015	-0.77%	-4.47%	1.38%	0.55%	-2.37%
2016	5.63%	17.13%	11.96%	2.65%	26.74%
2017	6.18%	7.50%	21.83%	3.54%	9.86%
2018 Through Oct 31	-3.49%	0.93%	3.01%	-2.38%	-0.07%
1yr Ending Oct 31 2018	-2.81%	0.97%	7.35%	-2.05%	0.32%
3yr Ending Oct 31 2018	7.17%	21.13%	38.70%	3.15%	32.96%
5y Ending Oct 31 2018	14.89%	25.69%	71.11%	9.52%	48.00%

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