A Strategic Allocation: The Case for Credit

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Introduction

For purposes of this paper, we have defined "credit" as the universe of below investment-grade securities that includes high-yield bonds and broadly syndicated leveraged loans.

Following eight years of economic expansion in the U.S. and the ensuing rally in credit spreads, market participants are evaluating the attractiveness of fixed income and the role it should play in a portfolio context. We believe a strong case for owning below investment-grade credit still exists given several inherent characteristics of the asset class: attractive current income, strong risk-adjusted returns, low correlation to traditional fixed income and reduced interest rate sensitivity. Further, we have observed that credit has historically performed well in different economic environments, including periods of moderate to low growth, which is the expectation for most developed markets in 2018.

Our research makes the case for a strategic, long-term allocation to credit given the compelling return profile and difficulty in properly identifying and timing credit cycles. Instead of reducing or adding exposure at different inflection points, we advocate for remaining invested and generating coupon income, which we believe to be the key driver of high yield and leveraged loan performance over the long term.

In the context of the global capital markets, credit is a large and established asset class that continues to grow in relevance. With a combined North American and European market size of over $3.5 trillion[1], high-yield bond and leveraged loan investors can gain access to a wide spectrum of liquidity, income and return profiles across many industries and geographies.

In this paper, we explore the following:

I. Current market environment

II. Diversification benefits of owning credit

III. Return profile of high-yield bonds and leveraged loans

IV. Interest rate protection

V. Strong performance in different economic environments

[1]Data as of December 31, 2017. Source: Bank of America Merrill Lynch.
This paper represents Bain Capital Credit's view as of January 2018 and is subject to change.

I. Current Market Environment

To begin, we review the global fixed income landscape and compare yields across various markets. Years of easy monetary policy by Central Banks, which in turn has pushed investors out the risk curve in search of higher income opportunities, has resulted in compressed yields and increased valuations across fixed income. The following table summarizes percentile ranking data for various credit and government bond indices, examining the post-crisis era as one measurement period and then widening the lens to include the past 15 years. In the post-crisis era, we can see that yields for most segments of the fixed income market are trading near the bottom quartile as of December 31, 2017, with two exceptions - US leveraged loans and the US 10-year Treasury. At the extreme end of the spectrum, European high yield is trading in the third percentile with a current yield-to-worst of 4%. As we broaden our view with the same list of constituents, we can see that yields look even lower today relative to their 15-year histories; essentially, all markets are trading near the bottom quartile or decile.

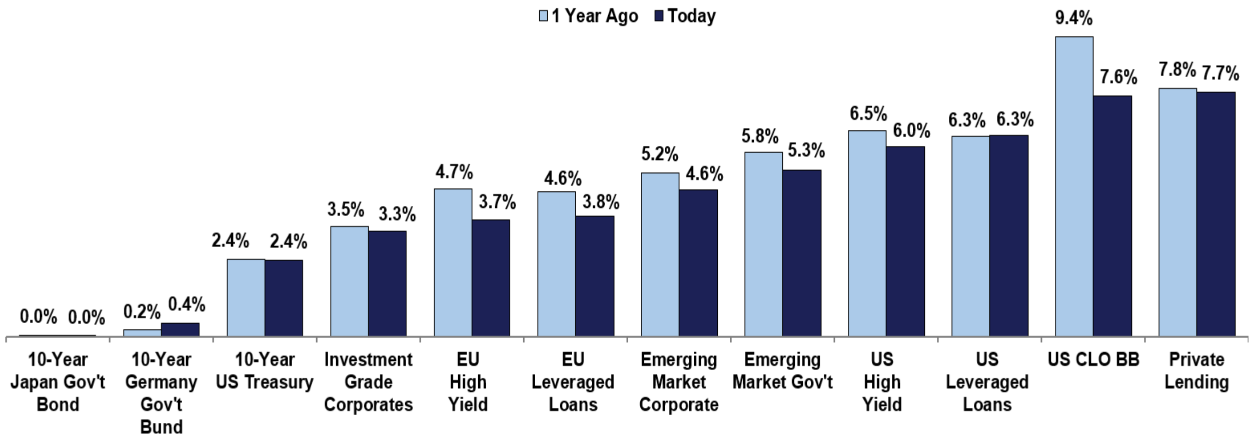
Figure 1: Global Fixed Income Relative Value[2]

		Current Yield	Post-Crisis		2002-2017	
			Median	Percentile	Median	Percentile
US	US High Yield	6.0%	6.8%	22.1%	7.9%	10.9%
	US Loans	6.3%	6.2%	65.2%	6.7%	37.5%
	Investment Grade	5.2%	7.3%	15.7%	8.3%	7.8%
Europe	EU High Yield	3.9%	5.5%	3.1%	5.1%	2.6%
	EU Loans	3.1%	3.3%	32.6%	4.3%	16.1%
Emerging Markets	EMBI (Sovereign)	5.3%	5.6%	27.3%	6.5%	13.5%
	CEMBI (corps)	4.6%	5.4%	12.6%	6.0%	6.2%
Government	US 10-YR	2.4%	2.3%	61.0%	3.3%	30.7%
	German 10-YR	0.4%	1.3%	24.2%	3.1%	11.9%
	Japan 10-YR	0.0%	0.6%	14.7%	1.2%	7.2%
	UK 10-YR	1.2%	2.0%	9.4%	3.6%	4.6%

While we recognize that finding yield has become increasingly difficult, Figure 2 shows that high-yield bonds and leveraged loans offer attractive relative value with absolute yields of approximately 6% in the US market. Although the relationship can vary depending on the economic climate, credit typically offers higher levels of current income compared with traditional fixed income as compensation for the increased risk. To be clear, this additional compensation can erode through losses, but what gives us confidence is that defaults, the key driver of risk premiums for the credit asset class, registered just 1.3% and 1.8% for bonds and loans, respectively, on a par-weighted LTM basis as of December 2017.[3] Looking ahead, our outlook for defaults is benign as we do not foresee a meaningful wave of industry stress in the near-term.

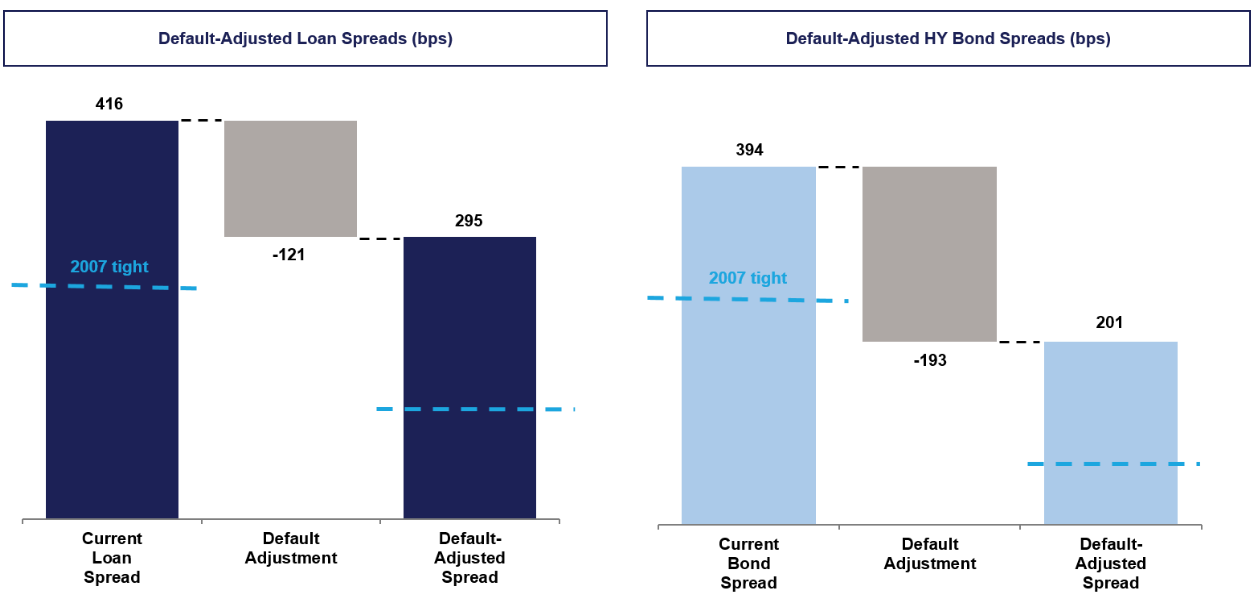
[2]Data as of September 30, 2017. Source: Credit Suisse and Bloomberg. Post-crisis includes data starting on January 31, 2010.
[3]Data as of December 31, 2017. Source: JP Morgan.

Figure 2: Yields In A Broader Context[4]



If viewed on a default-adjusted basis, current spread levels look more attractive and adequately compensate investors for the risk of impairment, in our opinion. Figure 3 shows leveraged loan and high-yield bond spreads, where loans are adjusted based on 3.1% long-term historical default rate and 64% recovery rate, while high yield is adjusted based on a 3.0% long-term default rate and 41% recovery rate.[3] As you can see, when viewed in this framework, valuations appear more reasonable, and spreads remain well above the levels recorded at the tights of the prior cycle in 2007. In our view, investors are better served looking at credit valuations through a risk-adjusted framework as opposed to making absolute comparisons.

Figure 3: Credit Provides Attractive Risk-Adjusted Return[5]



[4]Data as of December 31, 2017. "10-Year Japan Government Bond," "10-Year Germany Government Bund" and "10-Year US Treasury" are the bid prices per Bloomberg. "Investment Grade Corporates" is the yield to worst of the Barclays US Aggregate Industrial Corporate index. "EU Leveraged Loans" is the yield to maturity of the S&P European Leveraged Loan Index. "EU High Yield" is the yield to worst of the Credit Suisse Western European High Yield Index. "US Leveraged Loans" is the 3-year life swapped to fixed yield of the Credit Suisse Leveraged Loan index. "US High Yield" is the yield to worst of the Credit Suisse High Yield index. "US CLO BB" is the JPM CLOIE BB Post Crisis Yield. "Emerging Market Corporate" is the yield to worst of the JP Morgan CEMBI Broad index. "Emerging Market Gov't" is the yield to worst of the JP Morgan-EMBIG Diversified index. "Private Lending" is the cost of debt per Thompson Reuters.

[5]Data as of December 31, 2017. Market spread data per Credit Suisse. Default adjustment per JP Morgan. Shows the Credit Suisse High Yield index and Credit Suisse Leveraged Loan index. Default adjustment for loans assumes 3.1% default rate and 63.9 recovery rate since 1998. Default adjustment for bonds assumes 3.0% default rate and 41.5 recovery rate since 1992.

II. Diversification Benefits of Owning Credit

By investing a portion of their assets in high-yield bonds and leveraged loans, we believe investors can achieve attractive diversification benefits and reduce overall portfolio volatility. In the face of increasing equity market valuations and the potential for rising interest rates, we think this point is particularly relevant today. Consider the following data in Figure 4: over the past 15 years, leveraged loan returns have been negatively correlated to Treasuries (-0.38), relatively uncorrelated to the S&P 500 (0.57) and even less correlated to investment grade corporates (0.27). In the case of high yield, the data is similar in that returns are negatively correlated with Treasuries (-0.19); however, the asset class does exhibit more correlation to equity market returns (0.69), which makes sense given high yield's sensitivity to economic fundamentals and underlying company performance. Where traditional fixed income instruments are sensitive to changes in the yield curve, high-yield bonds and leveraged loans generate their returns primarily from a combination of credit risk and a liquidity premium. Further, leveraged loans are unique in that their contractual coupons are reset at regular intervals, typically quarterly, and will increase as the underlying base rate moves higher.

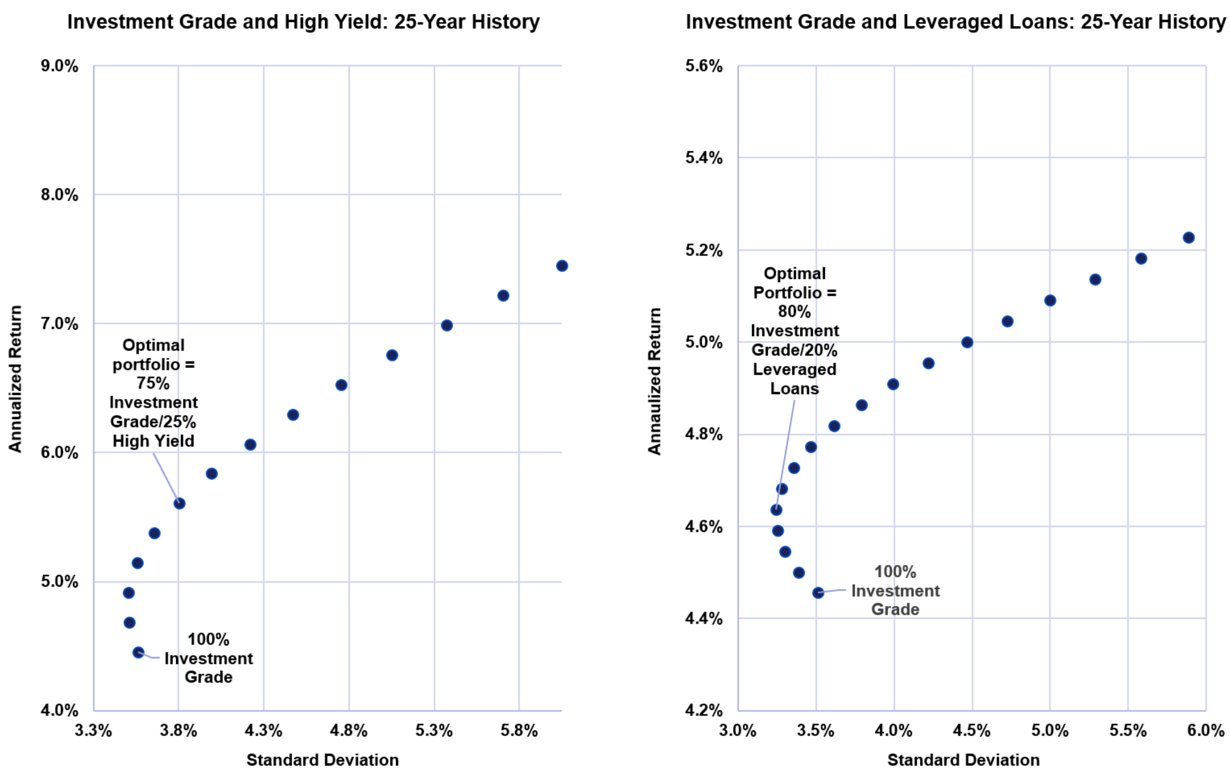
Figure 4: Credit Correlation with Other Asset Classes (15-year History)[6]

	5-year Treasury	10-year Treasury	LB Aggregate Bond Index	JPMorgan JULI High-Grade Index	JPMorgan Domestic HY Index	S&P 500	JP Morgan Leveraged Loan Index
5-year Treasury	1.00						
10-year Treasury	0.92	1.00					
LB Aggregate Bond Index	0.81	0.87	1.00				
JP Morgan JULI High-Grade Index	0.56	0.62	0.86	1.00			
JP Morgan Domestic HY Index	-0.19	-0.19	0.22	0.51	1.00		
S&P 500	-0.30	-0.29	-0.10	0.23	0.69	1.00	
JP Morgan Leveraged Loan Index	-0.38	-0.38	-0.02	0.27	0.87	0.57	1.00

[6]Data as of November 30, 2017. Source: JP Morgan.

In a portfolio context, we can see from Figure 5 that combining high-yield bonds and leveraged loans with investment-grade bonds, defined here as the Bloomberg Barclays Aggregate Index, can improve the efficient frontier by increasing returns and reducing risk. Starting out with an allocation of 100% to investment grade bonds, the portfolio returns 4.5% with an annualized volatility of 3.5%, resulting in a return per unit of risk, or Sharpe ratio, of 1.27. By adding high yield to the portfolio in 5% increments, the volatility initially decreases while expected return increases. As we move along the efficient frontier from left to right, the Sharpe ratio steadily improves and eventually peaks at 1.49, with a mix of 25% high yield and 75% investment grade. This is considered the optimal risky portfolio and the point on the curve where the maximum diversification benefits are realized. Based on the historical data, moving beyond this point and increasing the allocation to high yield typically enhance the return, however, volatility increases at a faster rate, thereby reducing the diversification benefit and lowering the Sharpe ratio. Similarly, when you add leveraged loans to a pure investment grade portfolio you can increase risk-adjusted returns quite meaningfully, except in this case the optimal portfolio allocation consists of 20% leveraged loans and 80% investment grade bonds. At this point on the curve the Sharpe ratio has improved from 1.27 to 1.43 and begins to fall as you increase the loan allocation because volatility once again increases at a faster rate.

Figure 5: Credit Improves the Efficient Frontier[7]

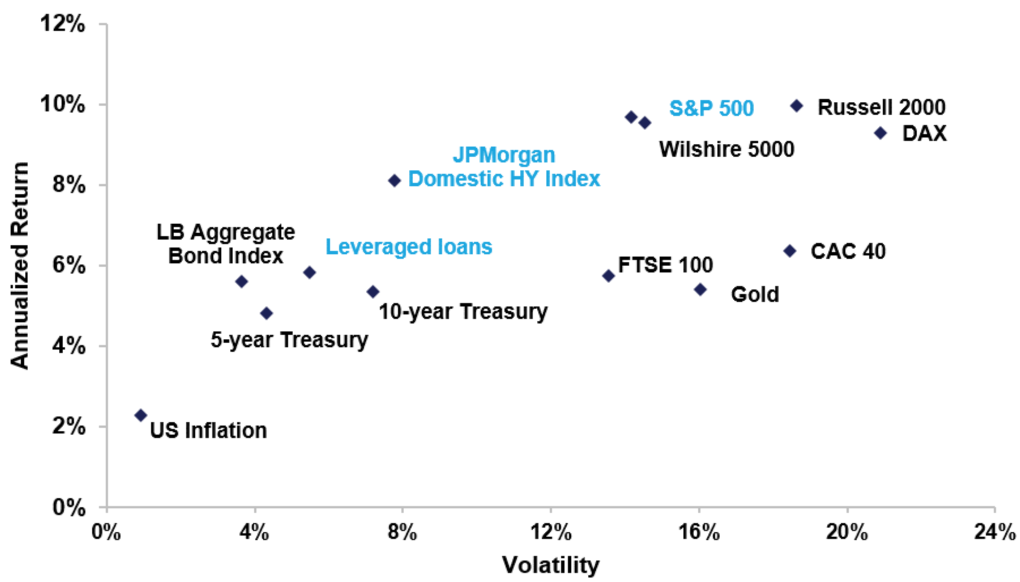


[7]Data as of November 30, 2017. Source: JP Morgan.

III. Return Profile of High-Yield Bonds and Leveraged Loans

The data from Figure 6 shows that high-yield bonds and leveraged loans have historically provided attractive risk-adjusted returns with less volatility than equities. For purposes of comparison, we classify credit and equities as "return seeking" investments as we believe these assets respond to similar drivers, namely company profitability and economic growth. Over the past 25 years, high-yield bonds and leveraged loans have generated annualized returns of 8.1% and 5.8%, respectively while the S&P 500 has returned 9.7%. At the same time, the standard deviation of the S&P 500 was approximately 14%, nearly twice as volatile as high yield and three times more volatile than leveraged loans.[8] The result is a superior Sharpe Ratio for loans and high-yield bonds as they have delivered a greater return per unit of volatility. To us, these results seem justified as below investment grade companies, along with equities, should perform well when the economy is expanding and growth is accelerating; however, during market sell-offs, credit will be more insulated due to its more senior position in the capital structure and the fact that loans are typically secured by company assets. In addition, high-yield bonds generate greater coupon income compared with equities, further mitigating price declines during market corrections.

Figure 6: Attractive Return Profile[8]



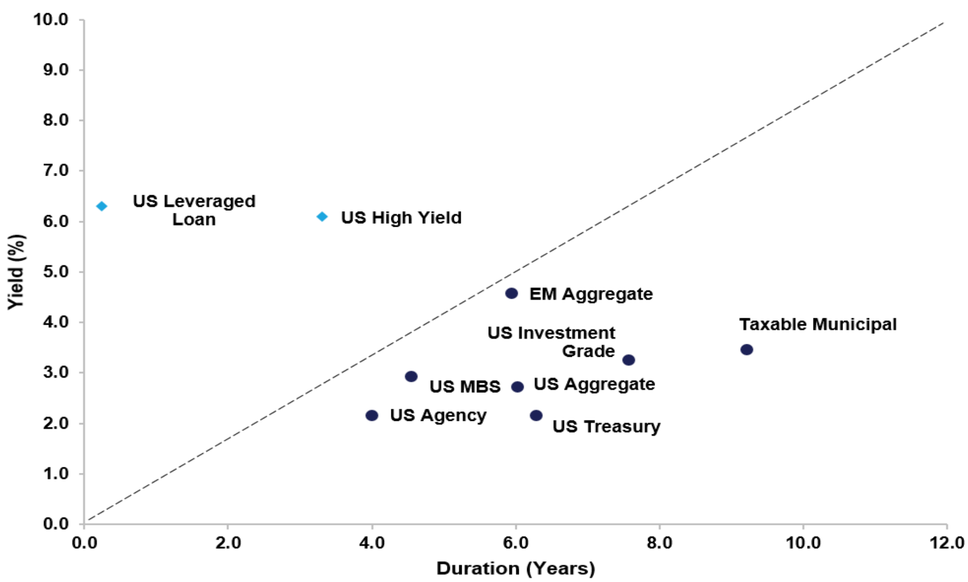
	US HY	US LL	S&P
Annualized Return:	8.12	5.82	9.69
Annualized Volatility:	7.77	5.47	14.18
Sharpe Ratio:	1.04	1.06	0.68

[8]Data as of November 30, 2017. Source: JP Morgan.

IV. Interest Rate Protection

Against the backdrop of a stable US economy and a firm labor market, the Fed has now initiated the process of raising interest rates and normalizing the size of its balance sheet. Where traditional fixed income securities like investment-grade corporates and sovereign debt are subject to basic duration math, credit is likely to outperform in a rising interest rate environment due to its lower sensitivity to interest rates. For leveraged loans, the reason is straightforward as coupons are reset on a periodic basis (typically every three months) and will increase as LIBOR moves higher, assuming that the base rate is above the floor level. Because of this variable coupon, loans have the added benefit of being a potential hedge against rising inflation. In the case of high-yield bonds, the situation is more nuanced and requires an understanding of several key concepts. First, rate increases are often associated with a period of economic expansion where the Fed is removing accommodation, an environment which portends improving credit fundamentals and lower default expectations, the main driver of high-yield performance. Compared with investment-grade bonds, high-yield bonds are able to better absorb rate increases due to their wider base spread, which can tighten to offset rate increases, resulting in a stable all-in yield. The larger coupon associated with high yield also helps lower the duration profile, making the asset class less sensitive to interest rates changes. In fact, Figure 7 below shows that high-yield bonds have the highest yield per unit of duration of all fixed income sectors, except for leveraged loans which yield slightly more in the current environment.

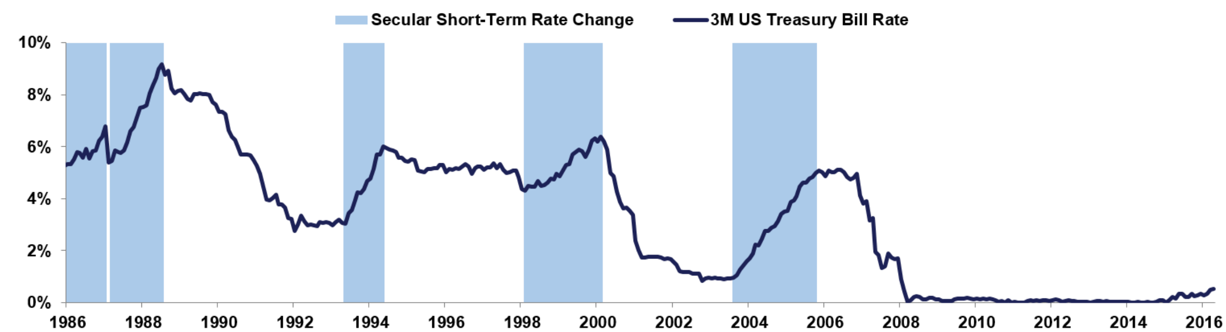
Figure 7: High-Yield Bonds and Leveraged Loans Offer Greater Yield Per Unit of Duration[9]



[9]Data as of December 31, 2017. Source: JP Morgan.

To help frame expectations in future instances of rising interest rates, Figure 8 examines five distinct periods where the 3-month Treasury bill rate increased by more than 1.5% in two years. As you can see, credit has outperformed higher quality bonds, returning 6.9% and 5.6% on average for leveraged loans and high yield versus 2.3% for high grade. The dynamic becomes most evident when you examine the period April 2004-June 2006, where the 3-month Treasury rose from 0.9% to 4.9% over the course of 27 months. High-yield bonds outperformed high-grade by approximately 4.9% while leveraged loans outperformed by 4.3%, suggesting loans benefit from the systematic coupon adjustment while high yield benefits due to a strengthening economy and improving corporate fundamentals.

Figure 8: Credit Performance During Rate Increases[10]



Annualized Corporate Credit Performance During Secular Rate Increases						
Period	Sept. 1986 – Sept. 1987	Nov. 1987 – Mar. 1989	Jan. 1994 – Jan. 1995	Oct. 1998 – Oct. 2000	Apr. 2004 – Jun. 2006	Average Annualized Return
High-Yield Bonds	6.9%	13.7%	0.3%	0.8%	6.4%	5.6%
Leveraged Loans	NA	NA	10.3%	4.6%	5.8%	6.9%
High-Grade Bonds	-0.7%	8.0%	-0.9%	3.4%	1.5%	2.3%

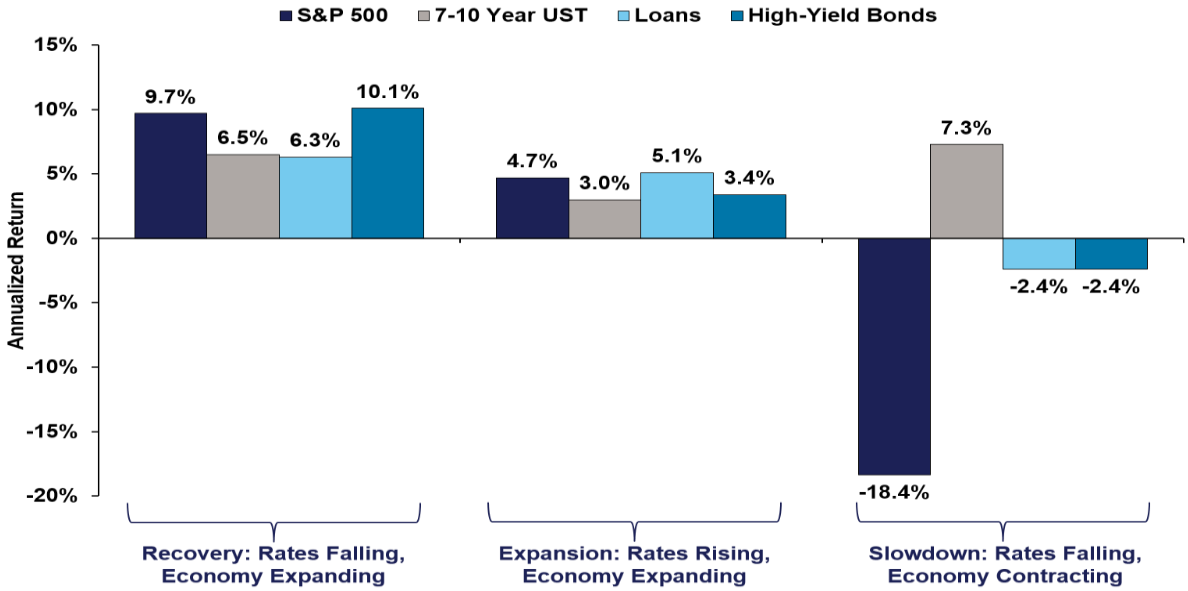
V. Strong Performance in Different Economic Environments

In our view, what is truly convincing about the credit asset class is that returns have been attractive across cycles and in different economic environments. To illustrate the point, we modeled returns against two key variables: the direction of GDP growth and US interest rates – against which we compared high yield, loans, equities and government bond returns. As evidenced by Figure 9, for the past 17 years, when we have been in a recovery period, high yield has outperformed equities while leveraged loans have kept pace with Treasuries, despite the secular bull market for rate sensitive securities. When the economy has recovered and shifted into expansion, leveraged loans performed better than high yield and even outpaced equities, showcasing the power of the coupon and the benefit of rising LIBOR. For the reasons mentioned earlier, high yield typically does well in an expanding economy and therefore outperforms safer alternatives such as Treasuries. When the economy enters the slowdown phase and growth decelerates, the opposite is true and Treasuries have shown their defensive characteristics, generating a decisively positive return. Due to their relative positions in a company's capital structure, you can also see that high yield and leveraged loans generally offer greater downside protection compared with equities. The future may not look like the

[10]Data as of December 31, 2016. Sources: Treasury bill data from Bloomberg. High yield data is the BAML US HY index. Leveraged loan data is the Credit Suisse Leveraged Loan index. High grade bond data is the Barclays US Aggregate Bond index.
Periods of increasing rates defined as episodes in which the 3-month Treasury bill rate increases by more than 1.5% in two years.

past, but we think this strong all-weather performance shown in Figure 9 illustrates the value of owning credit regardless of the economic environment.

Figure 9: Credit Has Performed Well in All Environments[11]



Conclusion

Given valuation levels and the length of the current economic expansion, investors may be wondering whether now is a prudent time to be investing in credit. In the context of the broader fixed income markets, leveraged loans and high-yield bonds offer strong relative value and attractive current income, particularly on a default-adjusted basis. The data also shows that high-yield bonds and leveraged loans have historically offered investors important diversification benefits and reduced correlation to traditional asset classes, with strong risk-adjusted performance and less volatility compared with equities. What is interesting and truly compelling about the credit asset class is how well it has performed in different market environments, even during periods of rising interest rates or when economic growth is decelerating. Attempting to perfectly time credit cycles is inherently difficult, particularly on a sustainable basis; instead, we believe that investors will benefit from implementing a long-term, strategic allocation to the credit asset class.

[11]Data shown from January 1, 2000 to May 31, 2017. Source: Bloomberg. Loans is the LSTA index. High-yield bonds is the BAML HY index. Performance during periods of economic expansion/contraction (defined by The National Bureau of Economic Research) and rising/falling rates since 2000. Rising rates defined as episodes in which the 3-month Treasury bill rate increases by more than 1.5% in two years.