



High-Income Credit Portfolio Management

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I. Executive Summary

High-yield credit represents an important middle ground in the corporate investment universe. While the high-yield market has evolved significantly since the days of Drexel Burnham Lambert, its reputation as a risky, illiquid market still lingers. Hard data, however, points to a different reality: high-yield bonds and leveraged loans have delivered strong returns over the past two decades with significantly less volatility than equities. Over this period – which has witnessed a range of economic and market environments, including the greatest recession since the 1930s – credit has proven the best absolute performer in times of lower growth, suggesting it is a good portfolio diversifier across macro outcomes. However, misconceptions about high yield – and credit, in general – persist, leading investors to avoid an asset class that merits inclusion in any diversified portfolio.

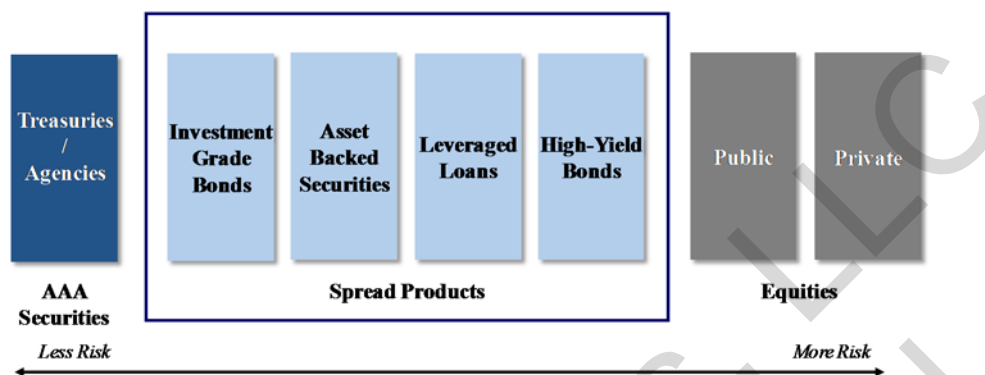
Having spent over a decade investing in high-yield credit, we at Sankaty remain convinced that investors should maintain some exposure to corporate credit across the cycle; however, we have also learned that the nature of that high-yield exposure should evolve constantly because not all forms of high-yield credit are created equal. Bonds and leveraged loans each possess unique characteristics and perform differently from one another at different times in the cycle; accordingly, we suggest investing in a portfolio that allocates strategically across these asset classes. We believe this type of flexible strategy can take advantage of opportunities across the more liquid portion of the credit markets, while reducing volatility through diversification, rigorous credit selection and hedging. We will also touch on the ability to enhance a portfolio of loans and bonds with relatively liquid special situation investments, such as liquid distressed debt, CLO debt and equity, public equity in levered companies and RMBS. Acting on these opportunities as they arise allows high-yield investors to capture additional yield while still maintaining the core focus of the portfolio.

The majority of this paper will focus on how to build such a portfolio; but first, we will begin with a brief discussion of what high-yield credit is, how it has evolved and performed since the late 1980s and why high-yield credit is an important component of any diversified portfolio.

This paper draws on Sankaty Advisors' integrated view of the credit markets and significant experience investing across leveraged loans, high-yield bonds and asset-backed securities. For over fourteen years, we have focused exclusively on the credit markets. We currently oversee approximately \$15.5 billion in credit-related assets, making us one of the largest and most established investors in this area.

II. The Case for High-Yield Credit

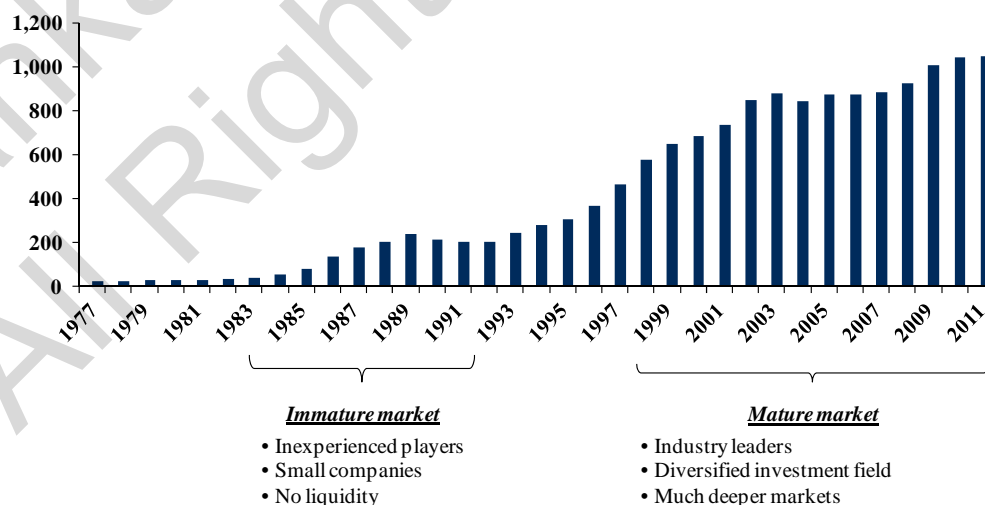
Credit occupies the huge spectrum between equities and Treasuries and takes many forms. The chart below summarizes the different spread products available to investors and their corresponding levels of risk:¹



In this paper, we focus on the area of spread products we know best and consider to have the most attractive risk/return profiles: high-yield bonds and leveraged loans. We define high-yield credit as non-distressed assets that pay a significant spread in order to offset the chance of default loss that might occur within a “normal” business environment. The risk/return profile of high-yield credit differs from investment grade debt and equities. In the case of investment grade debt, default is viewed as a tail risk event, and equities are the first loss piece within a capital structure.

Since the early 1990s, high-yield credit has evolved into a large, relatively liquid and diverse market. Some opinions of high-yield credit that one still encounters today were formed in the “Barbarians at the Gate” era over two decades ago. However, high-yield credit is no longer dominated by inexperienced players investing in small companies; rather, it is a business with proven winners that has been through several economic cycles. Additionally, the market has become increasingly diverse as a number of companies across a wide range of industries now issue loans and bonds. Figure 1 shows the growth of the market.

Figure 1: High-Yield Corporate Credit Market Size (\$B)²

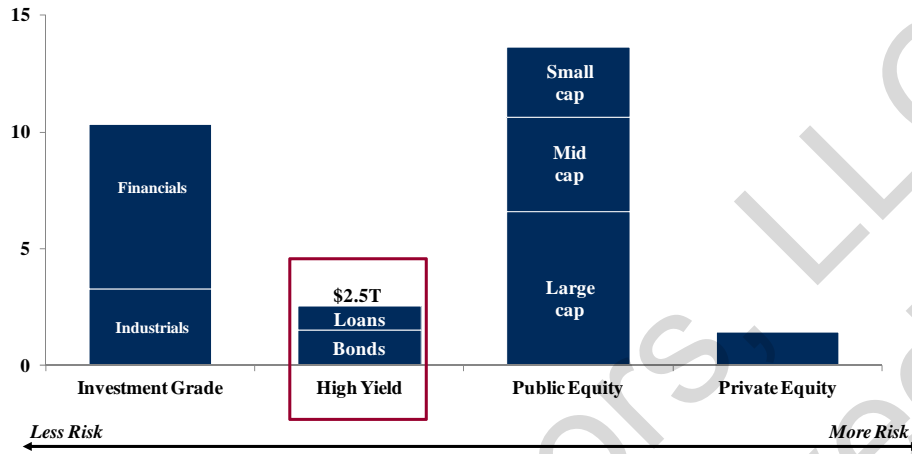


¹ Sources: Mortgages – Federal Reserve. Corporate Credit – Federal Reserve & Credit Suisse. Public Equity – S&P & Russell. Private Equity – Preqin.

² Source: Credit Suisse.

Just like asset-backed securities, loans and bonds can no longer be considered a niche asset class. The amount of loans and bonds outstanding now totals over \$2.5 trillion, making the high-yield market comparable in size to small cap equities and significantly more liquid than it was in the 1980s.

Figure 2: Corporate Investment Market Sizes (\$T)³

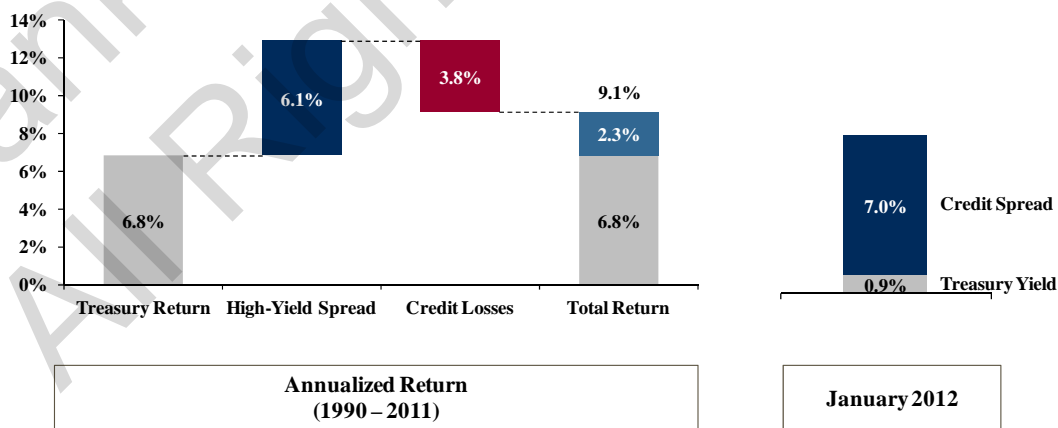


While investors initially accessed higher yielding credit primarily through bonds, loans and certain asset-backed securities have become equally as relevant over the last decade. Beginning in 2003, the LBO boom transformed the high-yield market and most of its growth until 2008 was driven by the securitization of LBO loans into levered vehicles, which primarily took the form of non mark-to-market CLOs. While loans suffered more than bonds during the credit crisis of 2008, both asset classes have mostly rebounded since.

We are now at a vantage point from which we can analyze the performance and volatility of high-yield credit over an extended period of time and through a number of market and economic environments, including the credit crisis of 2008.

Figure 3 demonstrates that over time, taking credit risk does pay. From 1990 to 2011, investors earned 2-3% above Treasuries from bearing high-yield corporate credit risk.

Figure 3: Composition of Historic High-Yield Credit Performance High Yield Today⁴

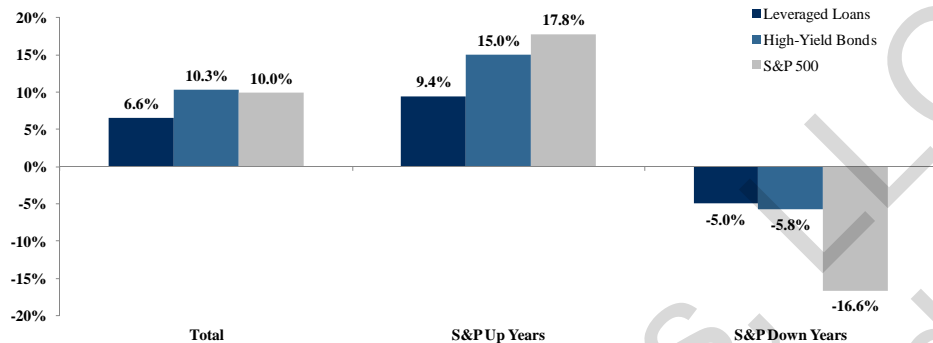


³ Sources: Mortgages – Federal Reserve, Corporate Credit – Federal Reserve & Credit Suisse, Public equity – S&P & Russell, Private Equity – Preqin.

⁴ Sources: Credit Suisse High-Yield Bond Index statistics, Moody’s default data, Credit Suisse recovery data, Bloomberg Treasury data.

The performance of high-yield credit compares favorably to equities. As illustrated in Figure 4, since 1992, high-yield bonds and leveraged loans have shared in nearly all of the upside of equities, with significantly less of the downside.

Figure 4: S&P 500 vs. High-Yield Credit: Average Annual Returns, 1992-2011⁵

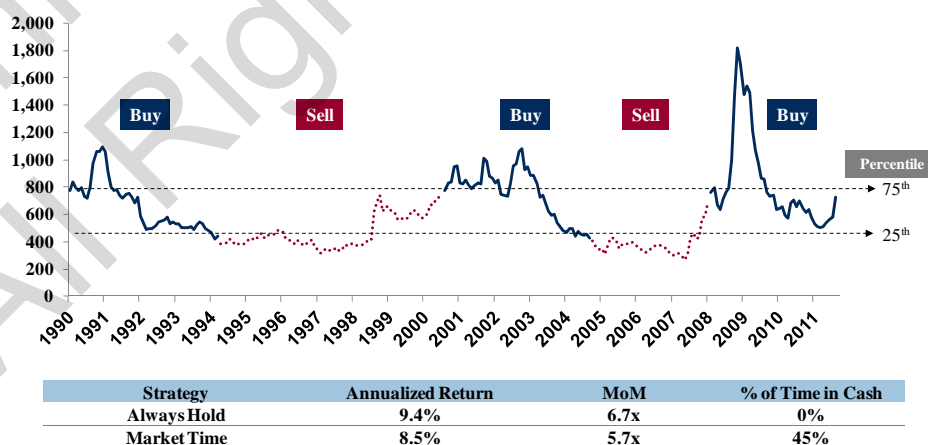


Bonds have also benefitted from being long duration in a period of secularly declining rates. On a floating-to-fixed swapped basis, the loan asset class returns would have been significantly higher and nearly in line with bonds, returning 8.9% overall, and, most impressively, up 2.1% in S&P down years.

We have also seen that credit is likely to be the best absolute performer in a lower-growth environment, making it a good portfolio diversifier across macro outcomes. Due to its place in the risk spectrum, credit will outperform equities and investment grade in middling macro environments, similar to the one many people think we are experiencing today. Subsequently, credit is a good portfolio hedge for any investor who is long cyclical risks yet uncertain about growth in the medium term.

To conclude our discussion on the performance of high-yield credit, it is worth mentioning that in our experience, timing credit is ineffective. Figure 5 shows that attempting to time entry and exit into the credit markets over time based on spreads has resulted in lower returns than staying invested in the market. Buying when spreads were at their 75th percentile and selling when they were at their 25th leads to nearly a full percentage point of underperformance relative to a strategy of simply buying and holding.

Figure 5: High-Yield Spread and Investment Strategy Return, 1990-2011⁶



⁵ Sources: Credit Suisse and Capital IQ data. Loan data from 1992-2011. Average returns are simple averages. 2011 data through December 31, 2011. Up years include years where the S&P 500 was positive, down years include years where the S&P 500 was negative.

⁶ Source: Credit Suisse high yield. Spread is STW. Market time strategy defined as holding high-yield index until spread reaches 75th percentile and then moving to investing in three month Treasury bills until high-yield spread hits its 25th percentile.

While we do believe one should seek to maintain some exposure to corporate credit over the cycle, we also assert that the nature of that exposure should not remain static and should evolve across market cycles and economic environments. In the next section, we outline our views on the benefits of investing in high yield through a portfolio that includes corporate credit in leveraged loans and high-yield bonds as well as a strategic allocation to select special opportunities arising at different points in the cycle. We believe this type of flexible strategy can take advantage of opportunities across the more liquid portion of the credit markets, while reducing volatility through diversification, rigorous credit selection and hedging. In the next section of this paper, we will outline the factors that must be taken into account when conducting portfolio allocation based on our own experience managing over \$2.6 billion of assets in a similar “High Income” strategy.

III. Constructing a Multi-Asset Class High-Yield Portfolio

A combination of quantitative analyses and historical context speaks to the importance of diversification when investing in high-yield credit. We analyzed the returns of loans and bonds both including and excluding the credit crisis of 2008 because the tail event of the credit crisis dramatically skews any portfolio optimization based on historical data. We discuss our findings in this section.

Within corporate credit, loans have historically enjoyed superior risk-adjusted returns to bonds due primarily to the loan market’s high barriers to entry. This resulted in superior risk-adjusted returns pre-crisis, but it led to dramatic underperformance by the loan asset class during the crisis, caused by weak technicals and forced selling. Post-crisis, we are seeing the return of a market with fewer natural buyers and hence potentially a return to the premiums seen previously.

Bonds have historically enjoyed higher absolute returns than loans, but this outperformance is due in part to the secular decline in rates over the last twenty plus years. Rate duration has provided a natural hedge to bond returns as Treasuries have historically rallied when spreads widened. In particular, we saw a large outperformance of bonds versus loans during the credit crisis.

Although a nuanced understanding of the historical circumstances is essential, we point to three major takeaways from our analysis:

1. If their premium due primarily to high barriers to entry persists, leveraged loans should continue to provide attractive risk-adjusted returns outside of crisis-type events,
2. A blended portfolio of corporate and asset-backed credit should outperform a single asset class portfolio on a risk-adjusted basis, and
3. Portfolio duration is a key piece of high-income returns and must be managed carefully in the current Treasury environment.

While historical experience points to the importance of diversity, the question of how exactly to allocate a portfolio of higher yielding credit remains. Five key factors remain at the forefront of our minds when we construct portfolios and shift allocations:

1. Valuations
2. Economic fundamentals
3. Interest rate environment

4. Market technicals

5. Liquidity

The relative importance of these five factors will clearly vary depending on market conditions. Today, we are most focused on valuations; followed by economic fundamentals, the interest rate environment and market technicals; and finally, on liquidity. We go into greater detail in the section below on each of these factors.

Valuations. Understanding the total expected return of each asset class and the risk/reward relationship is critical before investing. Total expected return accounts for both upside and downside risks, and one must examine valuation at both the individual asset level and think about the broad credit markets similarly. It is important to look at valuations using both yield and spread and to take time to assess where the markets are relative to history, adjusting for market environments. We have always found it helpful to compare each asset class, including investment grade and emerging markets. Rather than investing in loans and bonds without context, an investment manager must take into account all the available options. Taking a broader view of the investment universe helps us think about when investors might reallocate capital on a macro level, which would in turn affect loans and bonds.

Economic fundamentals. Loans and bonds occupy different portions of the risk spectrum, and hence the state of the economy will influence each asset class differently. Loans, as senior secured debt, are more resilient to economic downturns than are bonds, and typically they receive much higher recoveries in the event of default. Hence when we are more bullish on the overall economic environment, and particularly on the enterprise value multiples that companies will command, we tend to favor bonds over loans, and when we are more bearish, we tend to favor loans. Making a good loan investment is more often contingent on properly valuing the company in the event of default; whereas with a bond investment, typically a firm must avoid bankruptcy in order to realize an attractive return.

Interest rate environment. In the corporate markets, we must consider how changes in the Treasury yield curve interact with changes in corporate credit spreads and the dichotomy of floating rate loans versus fixed-rate bonds. The floating rate nature of loans makes them more attractive to borrowers, as an economic downturn will usually be accompanied by a lowering of rates by the Fed and hence decreased borrowing costs. However, as we noted in the quantitative section, the longer duration of bonds has historically provided a natural hedge to bond performance, as Treasury yields tend to fall and absorb some of the spread widening we typically see in an economic downturn. Overall, managing interest rate risk in the portfolio requires careful analysis of potential moves in the yield curve and the interplay of these moves with macroeconomic conditions.

Market technicals. As previously discussed, loans are a market with high barriers to entry. The supply/demand dynamic has shifted significantly over time, and understanding this dynamic is a key piece of loan performance. Historically, the loan buyer base was primarily a levered one. However, the credit crisis removed many levered buyers from the market. Since then, most large loan managers have developed strong unlevered loan businesses, but we have not yet seen a scale replacement for the loan demand that historically came from the issuance of new CLOs. The CLO market, which when healthy generates strong demand for leveraged loans, relies on the right combination of pricing and demand for CLO debt and equity. To understand this market requires an additional level of expertise in structured corporate credit. One must also take into account the supply of new loans, which depends heavily on the LBO market. In addition, one needs to project how many loans will get paid down early and whether borrowers are typically refinancing into new loans, or doing bond-for-loan takeouts, thereby decreasing supply.

Bonds, with a self-sustaining, unlevered buyer base, have a much different market technical than loans. While high-yield mutual funds are large holders, insurance companies, pensions and other long-term investors all participate in the asset class. Furthermore, high-yield bond owners usually reinvest their coupon in the asset class, providing steady demand for bonds. The biggest technical question here is the overall market demand for fixed rate assets, and how moves in Treasury yields will affect demand for bonds.

Liquidity. While our focus in this paper is liquid credit, each asset class offers different levels of liquidity. Loans are traded over the counter and are settled via the agent bank in a manual and paper-intensive process. Bank loan liquidity is often dependent upon the willingness of trading desks at major investment banks to use their balance sheets. Bonds are also traded over the counter but with a more standardized, delivery-versus-payment closing process. Because bonds are securities, more investors can easily access the asset class, creating more depth to these markets and therefore more liquidity. There has been talk, although little progress, of treating loans as securities so they may trade with the same liquidity characteristics as bonds. Were this to happen, it would be a significant positive for the loan market.

Other “High-Yield” Opportunities

Retaining the flexibility to enhance a portfolio of loans and bonds with special situation investments as opportunities arise allows investors to capture additional yield while still maintaining the core focus of the portfolio. Here we outline several forms such opportunistic investments can take in a relatively liquid high-yield portfolio:

1. Liquid distressed debt,
2. CLO debt and equity,
3. Public equity in levered companies, and
4. RMBS.

Liquid distressed debt. This is a market that ebbs and flows with the default cycle. After the market dislocation of 2008, opportunities with greater than 15% return abounded in liquid distressed credit. Some of these opportunities may be in the form of DIP (debtor-in-possession) loans where investors receive superpriority liens on the defaulted company’s collateral. They may also be in senior loan securities that are likely to be paid out at par at the company’s exit from bankruptcy. In addition, opportunities often exist during these times to invest in debt securities that have a high probability of being converted to equity in order to capture the post-restructuring upside. Currently we see a rich pipeline of liquid distressed opportunities in the coming years, given the unprecedented size of the current corporate credit market and the need for the majority of these companies to refinance in the coming two to three years.

CLO debt and equity. CLOs are unique in the ABS world because they are highly transparent and are collateralized with analyzable pools of corporate loans. Despite the difficult conditions in the loan market during the credit crisis, unlike mortgage CDOs, no cash flow CLO ever liquidated. Instead, the structures performed as they were designed to, delevering the senior debt and reinvesting cash to build long-term value. These assets continue to trade and often provide compelling value, both in the debt and equity tranches.

Public equity in levered companies. With fundamental insight into the companies issuing in the high-yield markets, portfolio managers are able to look up and down a capital structure to identify other attractive securities. Credit managers can offer analysis beyond traditional equity metrics, incorporating insights from the

debt profile and its impact on equity valuations. For example, one might look for equities that offer price appreciation through deleveraging and cash flow generation. A common profile of such an investment is a mid-cap equity, formerly owned by a financial sponsor, to which one has lent in the past.

RMBS. The epicenter of the credit crisis had its origins in the mortgage markets. Post crisis, normalcy still has not fully returned to these markets. The Agencies remain in conservatorship, and the private securitization market remains broken. While non-agency securities have recovered from the lows, attractive risk-adjusted returns are still available in certain areas. The breadth and depth of the RMBS market allows for the expression of a variety of credit and rate views. For example, involuntary and voluntary prepayment speeds can have opposite pricing consequences for different securities in the same mortgage deal. Understanding the structure, the underlying credit fundamentals, market technicals and relative value is key to generating superior returns in RMBS.

RMBS is subject to a very different macro risk than corporate credit. Earnings and access to the capital markets concern us most when investing in corporate credit. With RMBS, we are focused first and foremost on the health of the housing market and of the consumer. Hence, we will allocate our weighting here based on these fundamentals. We also have the ability to shift the risk of our portfolio between more senior RMBS debt with greater subordination (and lower spreads) and more junior debt with less subordination (and higher spreads). Analogous to the relationship of loans and bonds in the corporate credit market, senior RMBS debt is more of a play on recoveries, and junior RMBS debt relies on homeowners staying current on the underlying mortgages.

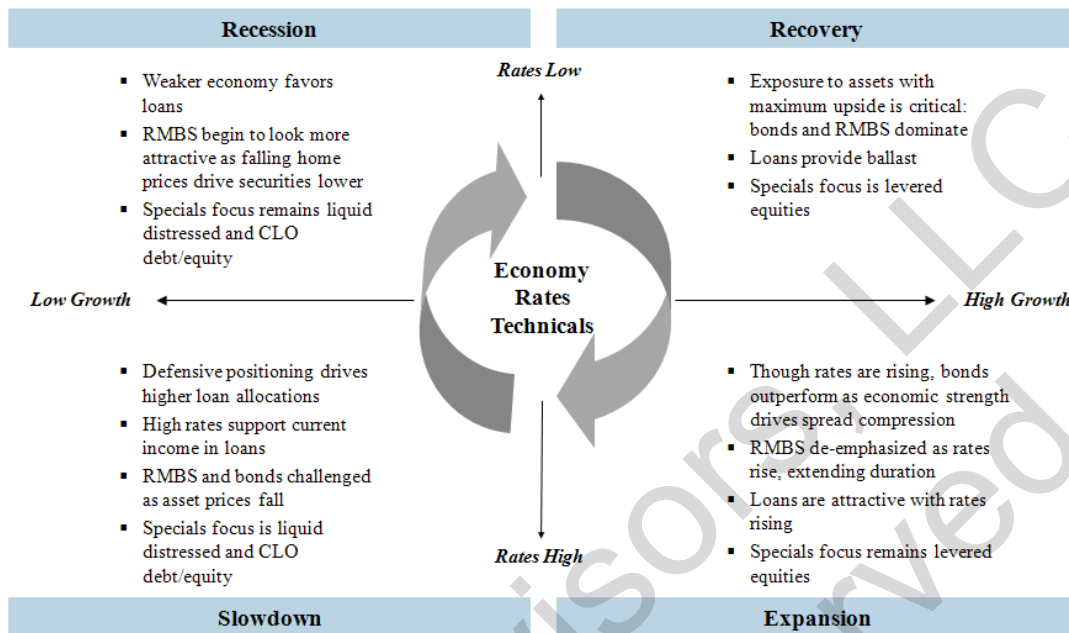
A Word on Hedging

In addition to diversification and rigorous security selection, hedging can also help reduce volatility in a high-yield portfolio. Hedging can be used to reduce exposure, to insulate a portfolio from tail risk events, to exploit a relative value anomaly between two related securities or indices and to express an outright negative view on a specific company or security. In our experience, it is preferential to avoid esoteric, illiquid and untested hedges. Listed below, in order of our preference, are the three most effective methods to implement these hedging strategies:

1. Shorting the credit indices, primarily the HY CDX, IG CDX and LCDX among others, because they are the most liquid and cost efficient means to reduce exposure. Other more specialized indices (e.g. financials and sovereigns) can be used as well.
2. Purchasing credit protection on single name CDS. This includes sovereigns, investment grade and below investment grade issuers.
3. Utilizing ETFs and options in liquid markets, including the equity market. (Our preferred tool for both kinds of risk is one with quantifiable downside at initiation, hence our preference for CDS, options and other derivatives. Depending on the price of volatility and thus the relative cost of hedging through options, we focus either on managing risk through paired trades and index hedges or by buying puts, usually on the largest equity indices.)

To summarize, we will put our analyses and theories into practice by mapping out how allocations to various asset classes should change throughout an actual cycle based on our own experience managing our High Income Strategy. One of the most helpful tools in this regard is the “debt/equity” clock. The clock has four quadrants representing different phases of the business cycle. In each one, an investor would prefer different mixes of credit and equities. We have adapted this for the credit markets recognizing that not all credit asset

classes are equally attractive or unattractive in each of the four phases. We have thought about average allocations in each quadrant recognizing there is a migration as rates and the economy evolve, potentially at different speeds.



To conclude, let us apply the clock to our own asset allocation in today's market environment. Today, the global economy is at an inflection point. The fragile recovery continues to face a variety of secular and cyclical headwinds. Accordingly, our current allocation for the approximately \$2.6 billion of assets we manage in our High Income Strategy represents a middle ground between recession and recovery. In the current environment, we believe the ideal corporate credit asset is a fixed-rate instrument with strong downside protection, whether in bond or loan form. One can effectively create that asset by buying a mix of loans and bonds. However, one can also achieve that objective by buying loans with high current coupons (e.g. with Libor floors) or buying safer bonds (e.g. companies with modest leverage). We emphasize loans that are subject to a Libor floor. Given that high-yield credit remains attractive on a risk-adjusted basis relative to other asset classes especially in this type of middling environment, we continue to invest conservatively while we wait for a pullback to provide us with opportunities.

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