



April 2019

Multi-Asset Credit: To Everything There is a Season

"To everything - turn, turn turn/ There is a season - turn, turn, turn/ And a time to every purpose under heaven" - Pete Seeger

Executive Summary

- The Pete Seeger song that became a hit during the 1960s in a cover version by The Byrds may seem to have little relevance to the world of debt investment, but when it comes to the management of Multi-Asset Credit (MAC) portfolios, the underlying message holds true – there is a time to be in each asset class and a time to leave.
- Single or multi-sector investment strategies with fixed allocations preclude investors from seeking to take advantage of over or under valuations of various asset classes in the investment universe. In contrast, managers with MAC mandates have the ability to rotate between asset classes as their views on relative attractiveness change. This gives investors the ability to gain exposure to an expansive universe of fixed income opportunities, as well as the ability to reduce duration.
- To manage MAC strategies effectively, there are three key factors that managers should consider: firstly, the differing valuations and prospective return opportunities; secondly, the likely future behaviour of each asset class; and thirdly, the extent of the dispersion of returns between the best and worst performing sectors in each asset class.
- In the current environment of historically low yields, MAC strategies may also afford protection against rising bond yields either through short duration instruments or more often, using derivative based hedges, which have been far more efficient from a transaction cost perspective, in our experience.
- Understanding the key factors that drive the relative attractiveness of each credit asset class within the MAC universe is critical to achieving the results that investors are looking for as they take advantage of a global credit opportunity set.
- This paper examines the key issues that govern the construction and management of MAC portfolios and how managers can decide when it may be a time to plant and when a time to reap.

Valuations, Cross-Sectional Dispersions, and Asset Class Behaviour Guide MAC Portfolio Construction

Many debt investors focus on higher yields to achieve their return targets; but with higher yields come higher risks both at the security level and also at the sector and asset class level. Indiscriminate investor demand can also push valuations on specific asset classes away from what fundamental considerations would imply. Being locked into any specific higher yielding asset class, such as US high yield or emerging market local currency sovereign debt through fixed asset allocations reduces the manager's ability to capture the upside return potential of other asset classes as their relative attractiveness changes. In contrast, MAC managers with the ability to recalibrate or eliminate exposures to specific asset classes are able to seek to take advantage of the time to sow – when asset class valuations, dispersions, and future likely behaviour are attractive to them, and the time to reap – when they determine valuations may have moved to excessive levels.

The global universe of higher yielding credits encompasses many separate credit asset classes beyond the staple of high yield debt and leveraged loans as Figure 1 illustrates. The underlying rationale of MAC mandates is that it gives experienced debt

managers discretion on the allocation between credit asset classes. This represents a shift away from the philosophy of setting fixed allocations, often to separate managers, in specific compartmentalised asset classes. There is a time to be in each asset class, but also a time to leave or at least reduce exposures, and managers of MAC mandates are given the discretion to make those informed decisions.

Figure 1: MAC Investment Opportunity Set

Typical MAC Universe of Opportunities		
US Investment Grade	European Investment Grade	EM Sovereign Hard Currency
US High Yield	European High Yield	EM Corporate Hard Currency
US Leveraged Loans	European Leveraged Loans	EM Sovereign Local Currency
US Securitised Markets	European Securitised Markets	EM Corporate Local Currency

Sources: Stone Harbor Investment Partners LP

A manager must be fully equipped to examine each asset class in order to seek to take advantage of a global opportunity set in credit. The three key factors that guide the relative attractiveness of each credit asset class at any point in time, in our view, are as follows:

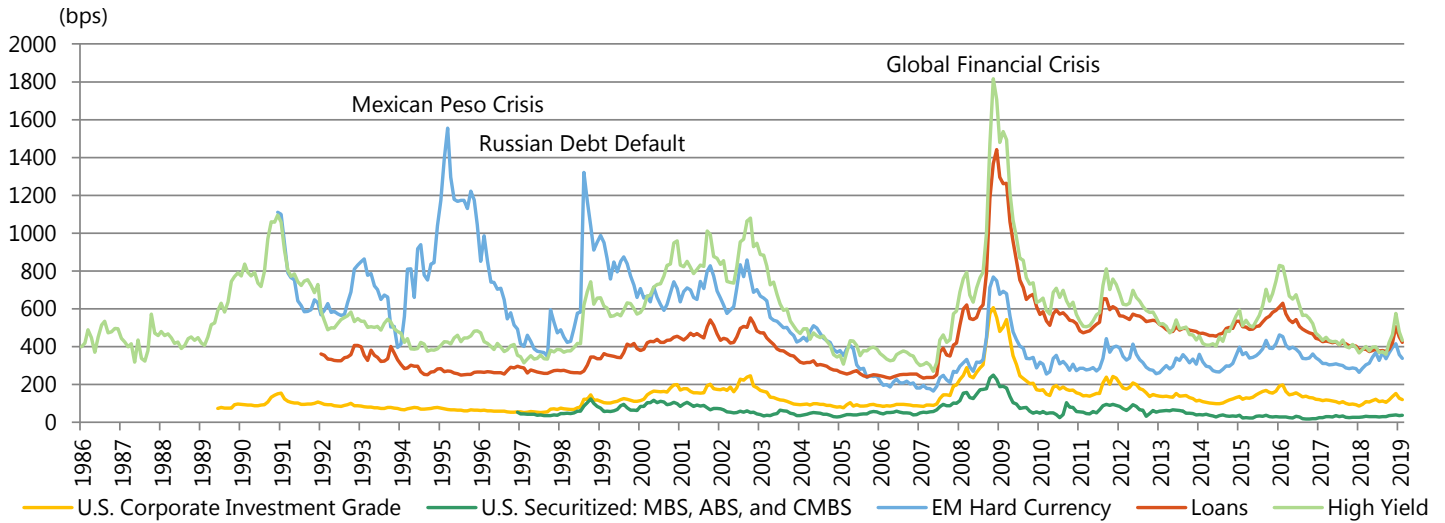
- Firstly, a manager must understand the differing valuations and prospective return opportunities of each asset class as a whole. Index characteristics, such as the average spread levels or historical default rates of each asset class can be helpful metrics.
- Secondly, active managers should also consider the likely future behaviour of each asset class. Historical correlations and returns may be useful as a guide, but these measures can also be misleading. New asset classes often exhibit a changing investor base, typically moving from hedge funds, endowments and high net worth individuals and family offices, to mainstream institutional investors, such as pension funds and insurance companies. This affects the behaviour of the asset class, particularly during crises.
- Thirdly, for active managers engaged in sector rotation and security selection, opportunities may arise when asset classes have a wide variation of returns between the best and worst sectors and securities. A measure of this is the cross-sectional dispersion of returns within the asset class. This can vary dramatically with time and across different asset classes. We believe that managers with high sector and security selection expertise are better positioned to identify more opportunities to generate total returns in markets that are exhibiting high cross-sectional dispersions.

Managing an unconstrained MAC strategy requires security selection expertise across a global universe of credit opportunities together with asset allocation skills. The challenge for investors is to identify those managers who also have the ability to intelligently combine quantitative metrics with behavioural insights in the portfolio construction process. We believe the potential benefits to be gained by devoting time to understand what is required to effectively manage MAC portfolios is well worth the effort.

Changing Valuations and Return Opportunities

Credit markets are not uniform and have time varying properties that create both opportunities and risks. This is illustrated in Figure 2, which shows historical spreads over US treasuries of a range of high yielding asset classes. Emerging market hard currency debt, for example, has seen spreads widen dramatically for long periods in response to crises such as the Mexican peso crisis in December 1994 and the Russian debt default in August 1998, both of which led to contagion across the entire emerging

Figure 2: Fixed Income Credit Spreads



As of 28 February 2019

Sources: Credit Suisse, Barclays, J.P. Morgan, Merrill Lynch, S&P, Stone Harbor Investment Partners LP

Loans: Credit Suisse Leveraged Loans Index; High Yield: Credit Suisse High Yield Index; EM HC: EMBI Inception to Dec 31, 1993; EMBI G D from Jan 1, 1994; U.S. Corporate Investment Grade: Barclays U.S. Corporate Investment Grade Index ; U.S. Securitized MBS,ABS, CMBS: Barclays U.S. Securitized Index.

market debt asset class as investors fled to the safe haven of US treasuries. Moreover, the cycles of spread compression and spread widening as well as of volatility can vary dramatically between asset classes.

Spreads alone, whilst important measures of value, do not encompass the full story. They are not measures of expected returns, but rather a measure of the compensation offered for taking on the embedded risks in each asset at any point in time.

Default risk for example, typically varies dramatically over time leading to a very pronounced credit cycle, as Figure 3 illustrates. The trailing 12-month default rates show the very strong cyclical nature of defaults. Nearly 15% of the issuers in July 2008 had defaulted by July 2009, whereas only around 6% of the issuers in June 2015 had defaulted nearly a year later. From our perspective, spread levels should be combined with an assessment of default probabilities to get a better picture of where value lies.

Figure 3: US Corporate High Yield Default Rates (trailing 12 month average)



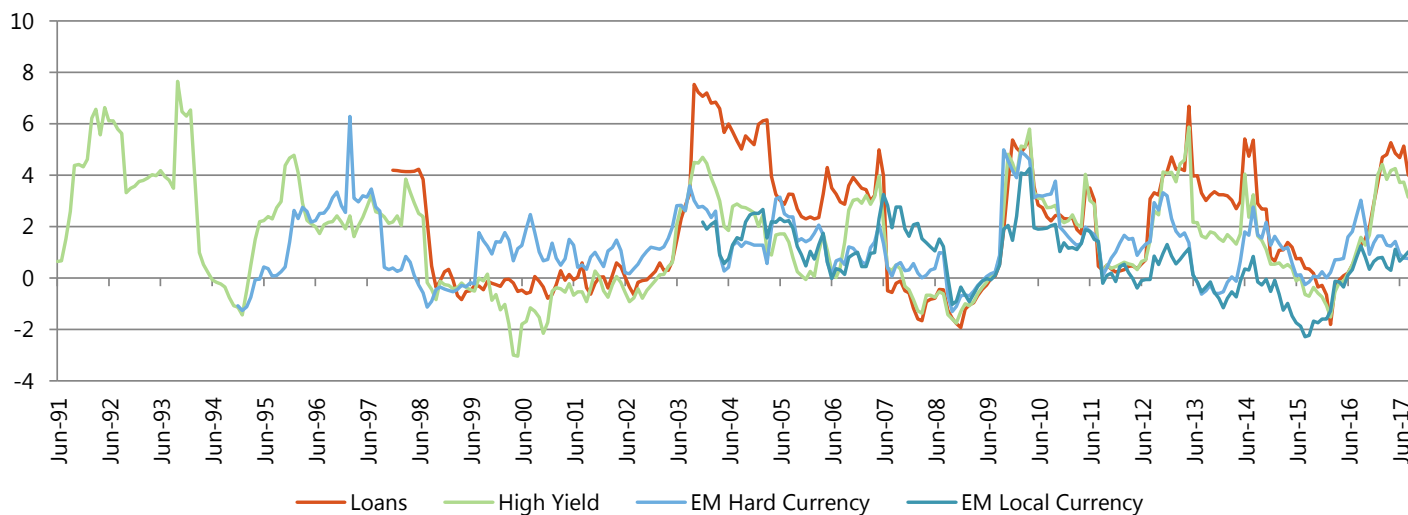
As of 28 February 2019

Source: Moody's, Stone Harbor Investment Partners LP

Default probabilities are themselves a function of the economic and business cycles. Tight spreads encourage more issuance by weaker credits who may later struggle if or when the economy falters. Current default rates are close to historical lows, and based on our observations, the general consensus does not see this changing in the next couple of years. But the demand for yield by investors has led to a reduction in covenant protection in both leveraged loans and high yield and a shortening of non-call periods on newly-issued high yield bonds over the past several years, which has shifted the benefits towards issuers and away from investors.

An additional insight may be gained by looking at the Sharpe ratio (i.e., the ratio of excess returns versus cash to the standard deviation of the portfolio returns) of each asset class. Figure 4 illustrates the Sharpe ratios of a range of debt asset classes. US leveraged loans during the four years or so leading up to the 2007/08 financial crisis showed exceptionally and, more importantly, consistently high Sharpe ratios reflecting the perceived attractiveness of the market - but did this really reflect fundamentals?

Figure 4: Fixed Income Sharpe Ratios (ex-post, trailing 12 month)



As of 28 February 2019

Sources: Barclays, J.P. Morgan, Merrill Lynch, S&P, Stone Harbor Investment Partners LP

Loans: S&P/LSTA Leveraged Loan Index; High Yield: BofA Merrill Lynch High Yield Master II Index; EM HC: J.P. Morgan EMBI Global Diversified; EM LC: J.P. Morgan GBI EM Global Diversified

Recognising Divergent Behaviour

The real benefit of a MAC strategy, in our opinion, is the ability to take advantage of divergent behaviour between multiple credit asset classes. Quantitative metrics can play an important role in assessing relative value and risk, but they do not tell the whole story.

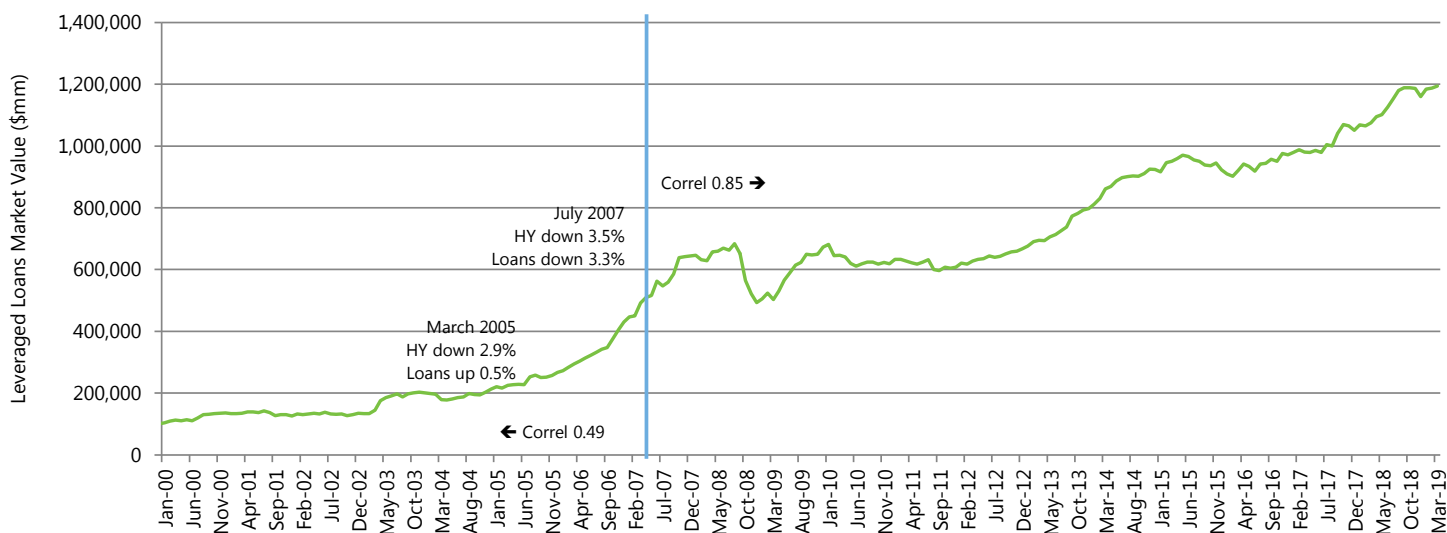
The US leveraged loan market is a prime example of this. In March 2005, the US high yield market dropped 2.9%, whilst the loan market was up 0.5% and the correlation between the two markets was close to zero, as seen in Figure 5. The US leveraged loan market until July 2007 behaved very differently from the US high yield bond market despite fundamental similarity from a credit perspective. The loan market behaviour was inconsistent with more established asset classes with similar credit risk, such as US high yield. As a developing asset class, it had sufficient spread to absorb the credit issues with an investor base that differed significantly from that of the high yield bond market. In the run up to 2007 the market size more than doubled bringing with it lower spreads, increased liquidity, and a broader investor base. The financial crisis in 2007/08 was so severe that investors fled from all credit assets towards the safety of US treasuries.

Loans were no different. Whilst the high yield bond market fell 3.5% in July 2007, leveraged loans also dropped 3.3% and subsequent to that, the correlation between high yield bonds and loans has been much higher, at or above 0.85 versus 0.49 prior to 2007.

Today, leveraged loans and high yield bonds reflect credit similarities and a shared investor base.

A lesson from this experience is that historical correlations between asset classes do not necessarily reflect the true risks embedded in the asset classes. The Sharpe ratios of loans prior to the financial crisis was very high with talk of a wonder asset class with little risk, high recovery rates, very low volatility, and high returns making the asset class a great place to invest in – even worth borrowing money to lever up. The reality was that there was fundamental risk in that market that was not being captured. Eventually, the market reached the point where the true underlying risk embedded in the market was realised during the financial crisis. In today's environment, we believe there is arguably insufficient attention being paid to the risks in certain asset classes with securitised illiquid debt being a case in point.

Figure 5: Changing Correlation of U.S. Leveraged Loans to US High Yield



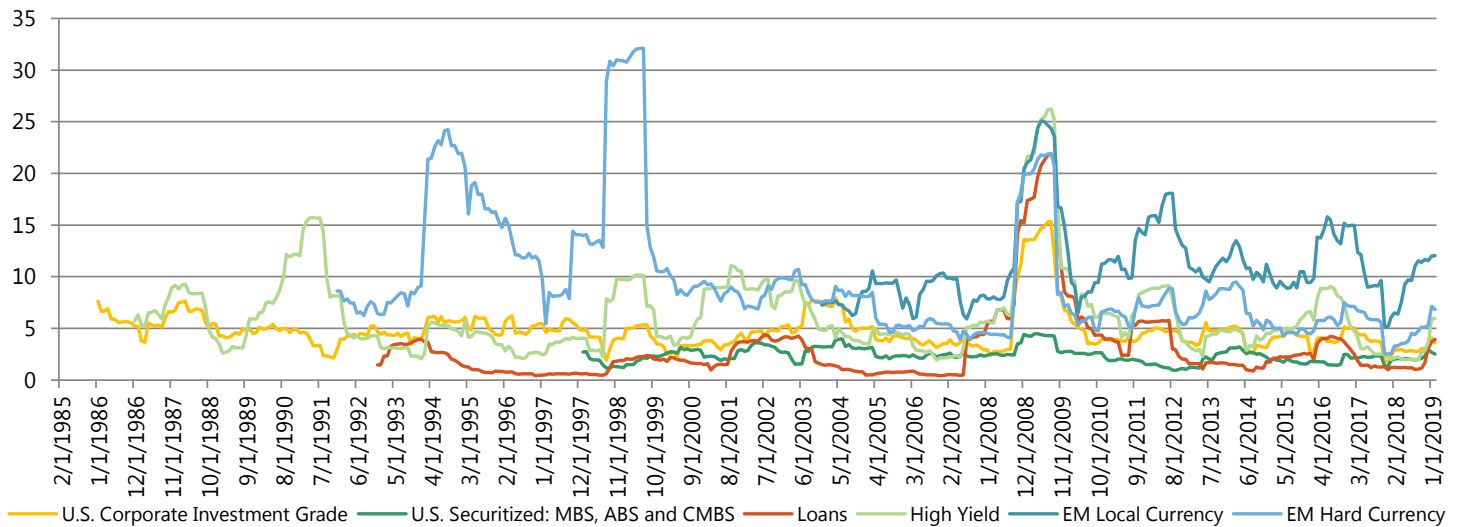
As of 28 February 2019
 Sources: ICE, S&P, Stone Harbor Investment Partners LP
 Credit Suisse Leveraged Loans Index (correlations calculated on since January 1992 inception).

Different credit asset classes can behave very differently in response to external shocks and this behaviour can also change with time. Figure 6 shows the volatility of returns across a range of asset classes. Emerging market debt suffered from bouts of volatility following the 1994 Mexican peso crisis and the 1998 Russian debt default, which left other credit markets generally unaffected. Few would argue, in our opinion, that a crisis in a single country in the future would give rise to the contagion we saw across all emerging markets in 1994 and 1998. The relative risks and returns of hard currency sovereign emerging market debt have changed dramatically since then. Historical experience, whilst informative, may or may not be a primary indicator of likely future behaviour.

We are currently in an environment of cyclically low volatilities for many of the asset classes although still relatively high for EMD. These different dynamics across different asset classes are a key issue for MAC strategies. Managers should understand the nature of the behavioural pattern of the asset classes both at the valuation level and also in terms of idiosyncratic return dispersions and in particular, recognise when there has been a regime change. Figure 7 for example (as seen on the next page), shows that the correlation of US high yield bond yields to US Treasury yields averaged around zero over the past 15-plus years. But it also shows there are clear regime shifts with historical periods when high yield bond returns were substantially negatively correlated with treasury returns and other periods when they were positively correlated.

In addition, managers should understand the behaviour of asset classes and how they may or may not be correlated, and how such correlations might change with different market environments, perhaps reflecting different stages of the credit or interest rate cycles. The most extreme example of this, in our view, as we described earlier, is that of US leveraged loans where there was no correlation between loans and any other asset class up until 2007, when it then became highly correlated to high yield bonds. A more recent example is the difference in market behaviour between periods of prospective/active Federal Reserve tightening of policy versus periods of inaction.

Figure 6: Credit Return Volatilities by Asset Class

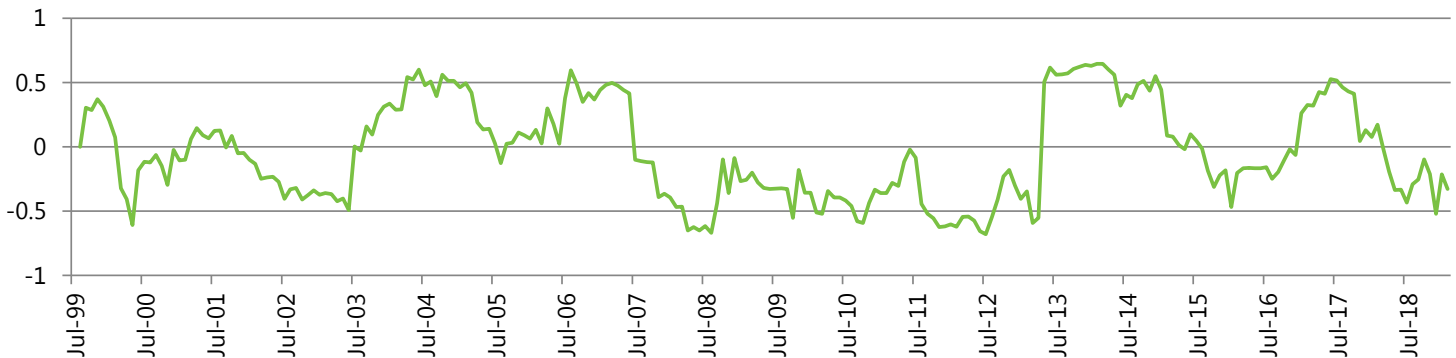


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Sources: Credit Suisse, Barclays, J.P. Morgan, Merrill Lynch, S&P, Stone Harbor Investment Partners LP

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Figure 7: US High Yield Bond Market Responsiveness to US Treasury Yield Changes - Correlations of Total Return



As of 28 February 2019

Source: Barclays, Stone Harbor Investment Partners LP

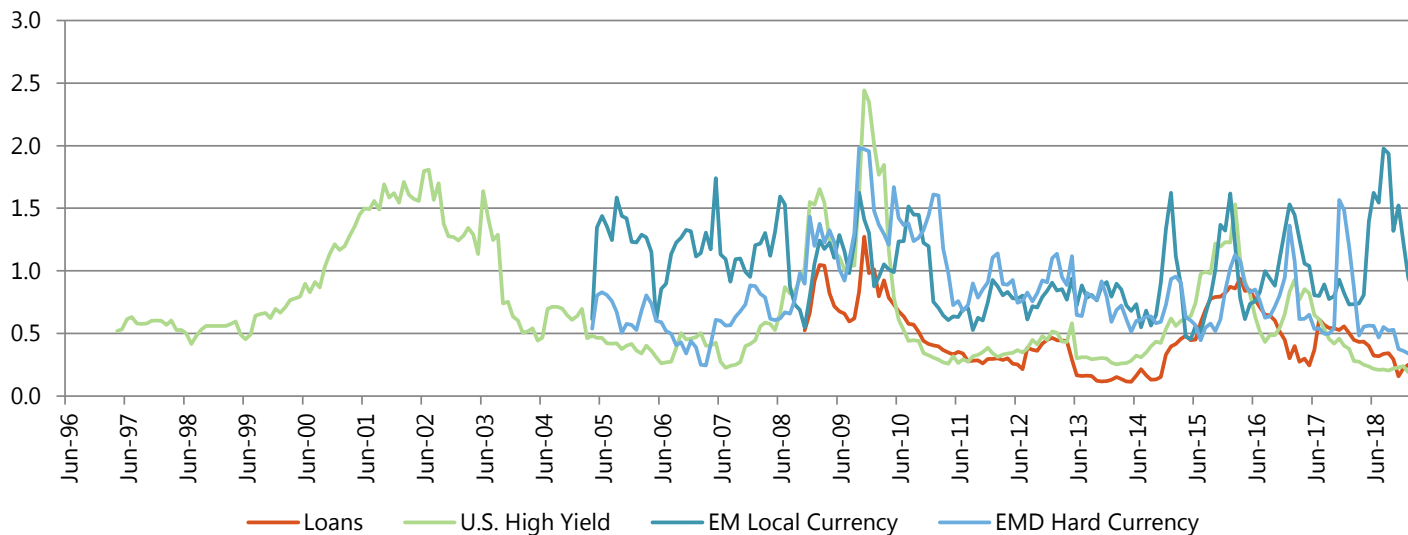
Benchmark: Barclays U.S. High Yield Index, Barclays U.S. Treasury Index

Exploiting Wider Cross Sectional Dispersions

Generating returns by sector rotation and security selection within an asset market is a key source of added value for any credit strategy, in our opinion; but the opportunities to do this vary between markets and also with time. One measure of the scale of this opportunity is the cross-sectional dispersions of excess returns, known as the 'idiosyncratic return dispersion'. Clearly, if all sectors produce exactly the same return, there would be no value in sector rotation. However, when there is a very wide dispersion of returns, we believe sector rotation becomes extremely important. Figure 8 shows how idiosyncratic return dispersion has varied across time and between asset classes.

Managers with strong issue selection skills are more likely to find cross sectional dispersions of value in markets with high idiosyncratic return dispersions. There is, however, a distinction between issue selection and sector selection. During periods when there is low sector return dispersion, managers may find it difficult to benefit from over and under weights in different sectors. In such an environment, however, we think skilled managers can identify opportunities to buy concentrated name positions in individual credits, which enhance returns. Individual names have idiosyncratic risk: perhaps lower than the long-term average, but there is sizable volatility at times in individual names. For credit managers, we believe picking individual credits is still and

Figure 8: Idiosyncratic Return Dispersion



As of 28 February 2019

Source: Stone Harbor Investment Partners LP

Benchmarks – Loans: S&P/LSTA Leveraged Loan Index; U.S. High Yield: The BofA Merrill Lynch U.S. High Yield Master II Index ; EM HC: J.P Morgan EMBI Global Diversified; EM LC: J.P. Morgan GBI EM Global Diversified

will continue to be important. Credit selection is resource-intensive and requires a team of analysts who understand the industry fundamentals and credit worthiness of each of the names that are included in the portfolio.

We have seen great demand over recent history for leveraged loans, in part due to their lower interest rate sensitivity. However, the relative dispersions across sectors suggests to us that right now there is probably a greater opportunity set within emerging markets debt than in either loans or high yield bonds while managing aggregate interest rate risk within a MAC structure. The great advantage of MAC strategies, in our view, is that managers can focus on a broader range of assets as the dispersion varies over time.

MAC Portfolio Construction

As we have seen, to manage MAC portfolios well requires expertise in three key areas: firstly, a realistic appraisal of prospective returns and risks in each credit asset class; secondly, an appreciation of the likely future behavioural characteristics of new and existing asset classes in the light of changes in endogenous and exogenous factors including their investor bases; and thirdly, a thorough analysis of the likely opportunity set within each asset class through measures such as the idiosyncratic risk dispersions of each.

Finding managers with the requisite resources and skill sets across the universe of credit asset classes and instruments that are available is a non-trivial task. Devising an effective methodology to then evaluate their performance should be considered carefully. In short, managing MAC portfolios most effectively requires tactical asset allocation between credit asset classes with 'a time to plant' and 'a time to reap,' as Seeger's lyrics suggest.

Stone Harbor Investment Partners

Stone Harbor's experienced team has been managing dynamic multi-sector allocation portfolios since 1993, combining deep sector expertise and shared insights.

We believe our ability to allocate among the broad credit fixed income markets globally has been a pivotal component of achieving attractive risk-adjusted returns in our multi-sector allocation portfolios. Success stems from balancing tactical flexibility and a strategic long-term perspective.

Investment solutions include:

- Traditional bond index benchmarked strategies such as Core Plus, Multi-Sector Total Return, Global Aggregate and Global Credit Strategies
- Unconstrained strategies, often with LIBOR benchmarks
- Diversified global credit strategies, with blended credit market benchmarks such as 1/3 EM, 1/3 HY, 1/3 Loans
- Multi-Asset Credit strategies, with no benchmarks but targeting a total return of 5-8% per annum over a cycle of the next 3 years

Our comparative advantages include a true team based approach with a long history of working together, proven track records in asset allocation as well as within the different asset classes that we invest in.

Indices referred to herein are broad-based securities market indices. Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index.

Index Definitions

The Credit Suisse Leveraged Loan Index is designed to mirror the investable universe of the \$US-denominated leveraged loan market. Loan facilities must be rated "5B" or lower, only fully-funded term loan facilities are included, the tenor must be at least one year and Issuers must be domiciled in developed countries; issuers from developing countries are excluded.

The Credit Suisse High Yield Index is designed to mirror the investable universe of the \$U.S.-denominated high yield debt market.

The J.P. Morgan EMBI Global Diversified (EMBI Global Diversified) tracks total returns for U.S. dollar-denominated debt instruments issued by emerging markets sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. The index limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts outstanding. The countries covered in the EMBI Global Diversified are identical to those covered by the EMBI Global.

The Barclays U.S. Corporate Investment Grade Index is a sub index of the U.S. Aggregate Index. It includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

The Barclays U.S. Securitized Index is the largest component of the U.S. Aggregate Index and consists of the U.S. Mortgage-Backed Securities Index, the fixed rate Asset-Backed Securities Index, and the ERISA eligible Commercial Mortgage-Backed Securities Index

The S&P/LSTA Leveraged Loan Index (LLI) reflects the market-weighted performance of U.S. dollar-denominated institutional leveraged loan portfolios. Facilities are eligible for inclusion in the index if they are U.S. dollar-denominated term loans from syndicated credits and meet the following criteria at issuance: minimum initial term of one year; minimum initial spread of LIBOR+125; minimum initial size of \$50 million. The index primarily consists of senior secured facilities; however, it does include second lien and unsecured loans if they are broadly held by CLO's and other traditional loan accounts. Loans are retired when there is no bid posted on the facility for at least 12 successive weeks or when the loan is repaid.

The BofA Merrill Lynch U.S. High Yield Master II Index (H0A0) tracks the performance of below investment grade U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

The J.P. Morgan GBI-EM Global Diversified consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure. The weightings among the countries are more evenly distributed within this index.

The Barclays U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries

designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are also included.

The Barclays U.S. Treasury Index tracks the obligations of the U.S. Treasury with a remaining maturity of one year or more.

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Multi-Sector Credit	Investment Grade	Global High Yield	Emerging Markets
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Important Disclosures

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