

Multi-Asset Credit:

To Everything There is a Season

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Foreword

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. A MAC strategy is an approach where clients enable managers to create portfolios that seek to achieve an attractive total return by investing in all sectors of the fixed income market (investment grade, high yield, emerging market debt, loans, asset backed securities, etc.). For many clients, it offers the ability to gain a limited and controlled exposure to asset classes they would otherwise have neglected. 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.

*To everything - turn, turn, turn
There is a season - turn, turn, turn
And a time to every purpose under heaven*

*A time to be born, a time to die
A time to plant, a time to reap
A time to kill, a time to heal
A time to laugh, a time to weep*

Pete Seeger

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 when it comes to credit asset classes.

Executive Summary

- The investment universe encompasses a global opportunity set far beyond the traditional US high yield and loan markets. The relative attractiveness of asset classes within it varies across time but managers having fixed allocations to one or more asset classes cannot take advantage of over or under valuations of asset classes and sectors within them.
- In contrast, managers with MAC mandates are given the ability to switch among asset classes as their views on relative attractiveness change. This gives investors the ability to gain exposure to the widest possible 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 behavior of each asset class; and thirdly, the extent of the dispersion of returns between the best and worst sectors in each asset class.
- For investors, identifying managers with the resources, expertise and experience to manage MAC mandates well is the challenge.

Valuations, Cross-Sectional Dispersions and Asset Class Behavior 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 well 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 potential to benefit from switching between asset classes as their relative attractiveness changes. In contrast, MAC managers with the ability to vary or even 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 behavior 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 diet of high yield debt and leveraged loans as Table 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 compartmentalized asset classes, such as US high yield, or emerging market hard currency sovereign debt. There is a time to be in each, but also a time to leave or at least reduce exposures, and managers of MAC mandates are given the ability to make those decisions.

Table 1

| 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 Securitized Markets | European Securitized Markets | EM Corporate Local Currency |

There are three key factors that guide the relative attractiveness of each credit asset class at any point in time. 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:

- Firstly, a manager must understand the differing valuations and prospective return opportunities of each asset class as a whole. Index characteristics for each asset class can give a representation of metrics, such as the average spread levels or historical default rates.
- Secondly, active managers should also consider the likely future behavior of each asset class. Historical correlations and returns may be useful as a guide, but can also be dangerously 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 behavior 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 may identify more

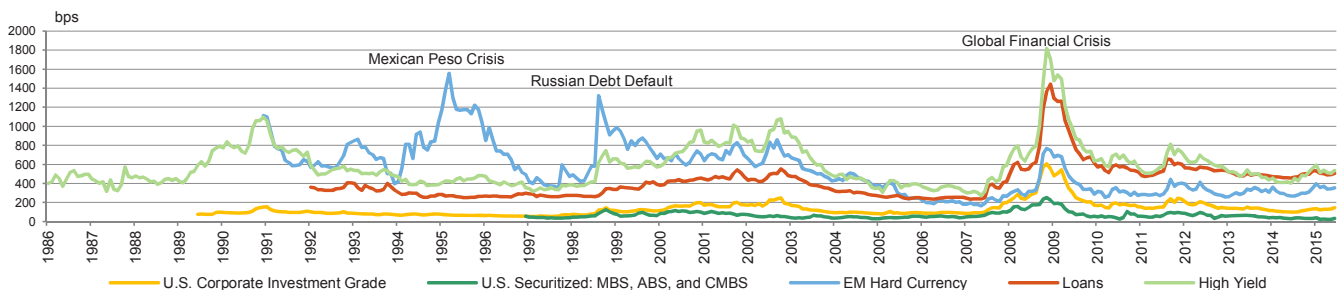
opportunities to generate total returns in markets which are exhibiting high cross-sectional dispersions.

To manage an unconstrained MAC strategy requires security selection expertise across a global universe of credit opportunities together with asset allocation skills to be able to intelligently combine quantitative metrics with behavioral insights in the portfolio construction. It appears that only a relatively small number of global debt managers have these capabilities, but for investors, 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 dramatically illustrated in Chart 1 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 whole emerging market debt asset class as investors fled to the safe haven of US treasuries. Moreover, the cycles of spread compression and widening and of volatility can vary dramatically between asset classes. Recently EMD spreads widened in 2013 only to re-compress in 2014 as the overall interest rate environment stabilized.

Chart 1 – Fixed Income Credit Spreads



As of 30 June 2015

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

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

Chart 2 – US Corporate High Yield Default Rates (trailing 12 month average)



As of 30 June 2015
 Source: Moody's, Stone Harbor Investment Partners LP

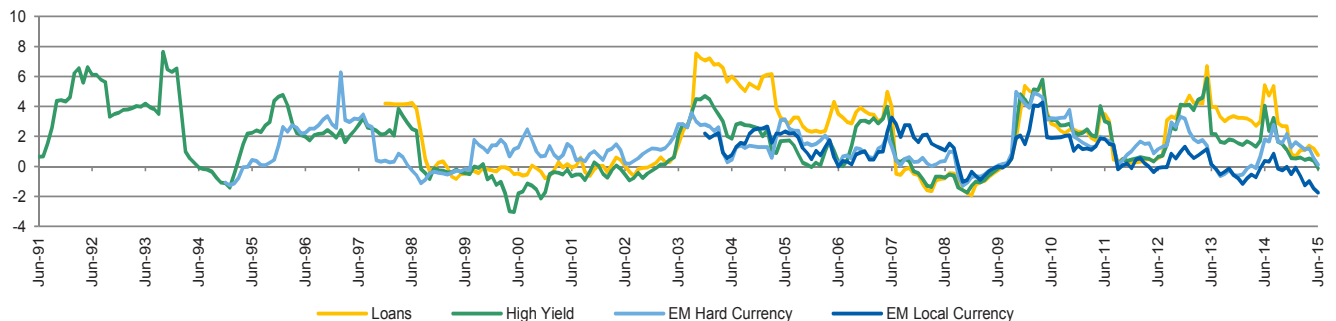
Spreads alone though, whilst important measures of value, do not encompass the full story. They are not measures of expected returns, but rather a measure of the compensation offered for taking on all the embedded risks in each asset at any point in time. Default risk for example, typically varies dramatically over time leading to a very pronounced credit cycle, as Chart 2 illustrates.

The trailing 12-month default rates show the very strong cyclical nature of defaults. Approximately 14% of the issuers in July 2008 had defaulted by July 2009, whereas only around 2% of the issuers in January 2013 had defaulted nearly a year later. Spread levels should be combined with an assessment of default probabilities to get a better picture of where value lies. Default probabilities are themselves a function of the economic and business cycles. When spreads are tight,

it encourages more issuance by weaker credits who may then struggle 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 at least. 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 few years, which has shifted the benefits towards issuers and away from investors.

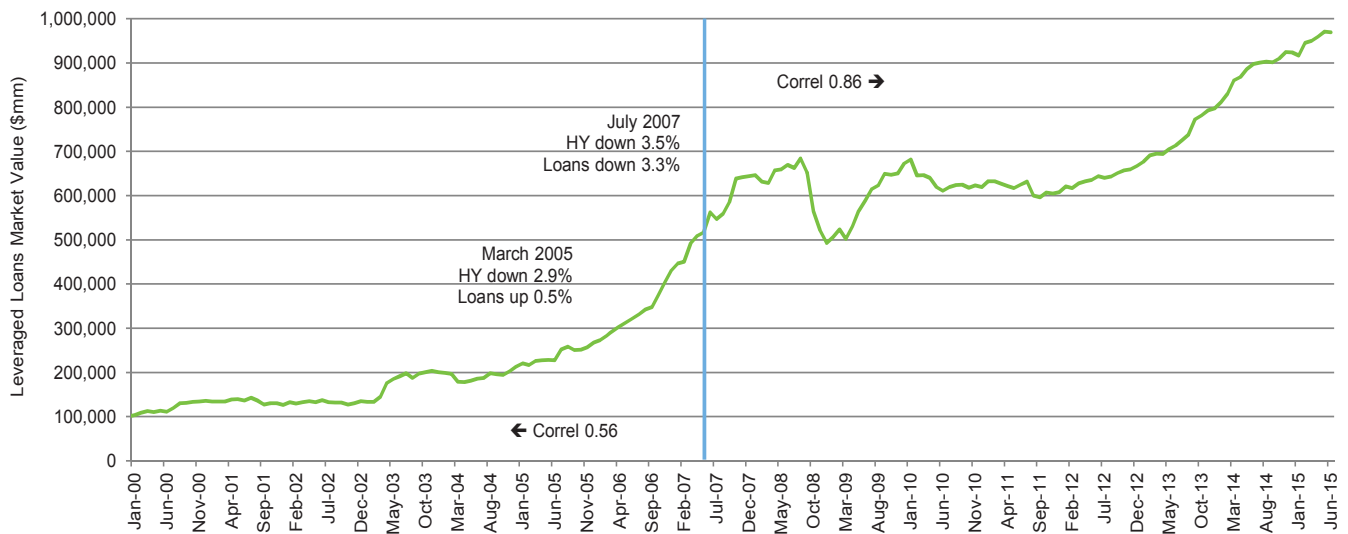
An additional insight may be gained by looking at the Sharpe ratio (the ratio of excess returns versus cash to the standard deviation of the portfolio returns) of each asset class. Chart 3 illustrates the Sharpe ratios of a range of debt asset classes. US leveraged loans

Chart 3 – Fixed Income Sharpe Ratios (ex-post, trailing 12 month)



As of 30 June 2015
 Source: Barclays, J.P. Morgan, Merrill Lynch, S&P, Stone Harbor Investment Partners LP
 Benchmarks – 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

Chart 4 – Changing Correlation of US Leveraged Loans to US High Yield



As of 30 June 2015

Source: Merrill Lynch, Stone Harbor Investment Partners LP

Benchmark: Credit Suisse Leveraged Loan Index

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?

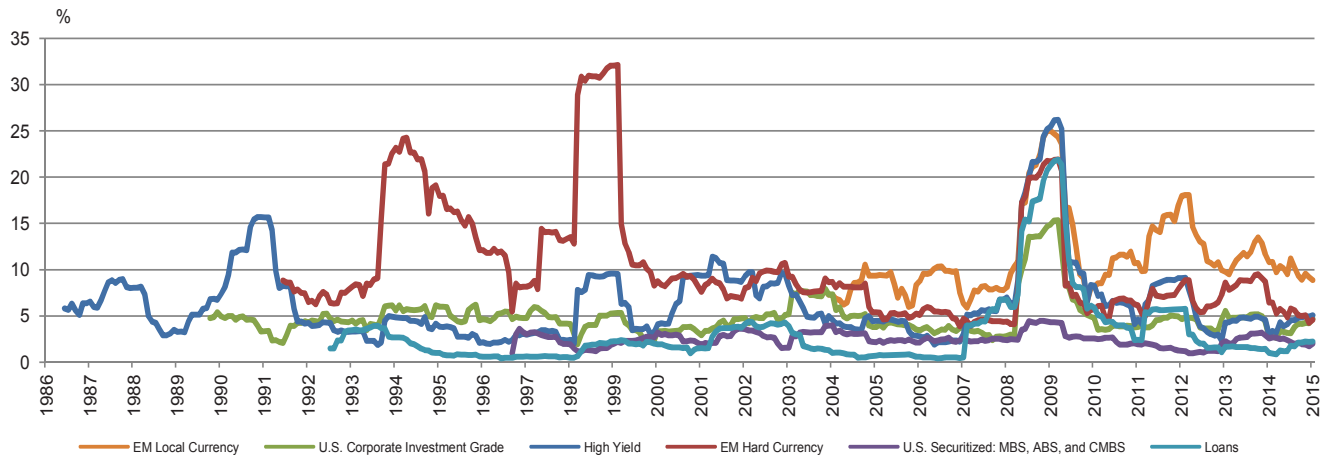
Recognizing Divergent Behavior

The real benefit of a MAC strategy, in our opinion, is the ability to take advantage of divergent behavior between different credit asset classes. Quantitative metrics can play an important role in assessing relative value and risk but they cannot 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 Chart 4. 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 behavior 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, leveraged loans also dropped 3.3% and subsequent to that, the correlation between high yield bonds and loans has been much higher. 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 were 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 realized during the financial crisis. In today’s environment, we believe there

Chart 5 – Credit Return Volatilities by Asset Class



As of 30 June 2015

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

Benchmarks – Loans: Credit Suisse Leveraged Loan Index; High Yield: Credit Suisse High Yield Index; EM HC: EMBI Inception to Dec 31, 1993; EMBI G D from Jan 1, 1994; EM Local Currency: GBI EM Global Diversified; US Corporate Investment Grade: Barclays US Corporate Investment Grade Index ; US Securitized MBS,ABS, CMBS: Barclays US Securitized Index.

is arguably insufficient attention being paid to the risks in certain asset classes with securitized illiquid debt being a case in point.

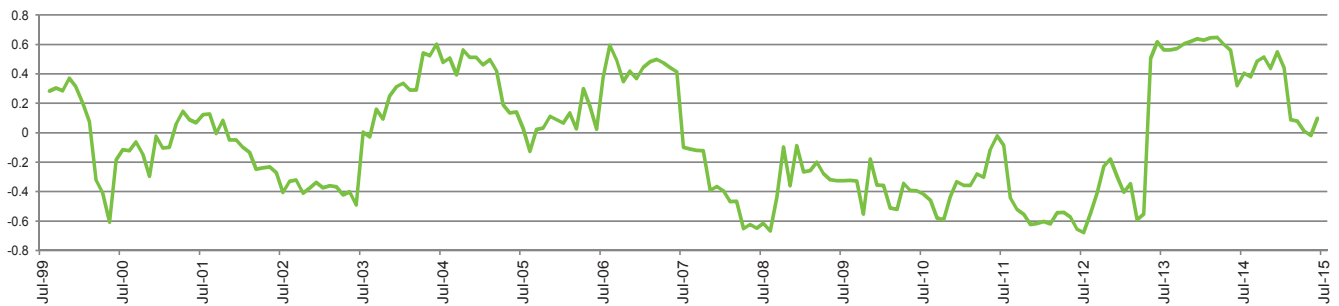
Different credit asset classes can behave very differently in response to external shocks and this behavior can also change with time. Chart 5 shows the volatility of returns across a range of asset classes. Emerging market debt suffered from bouts of volatility following the 1994 Mexican peso crisis and the 1998 Russian debt default which left other credit markets unaffected in the main. 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 behavior.

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 behavioral 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. Chart 6 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 10-15 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.

Managers should understand the behavior of asset classes and how they may 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 if you look back, 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 change in market behavior between periods of prospective Federal Reserve tightening of policy and inaction.

Chart 6 – US High Yield Bond Market Responsiveness to US Treasury Yield Changes - Correlations of Total Return



As of 30 June 2015
 Source: Barclays, Stone Harbor Investment Partners LP
 Benchmarks: Barclays U.S High Yield Index, Barclays US Treasury Index

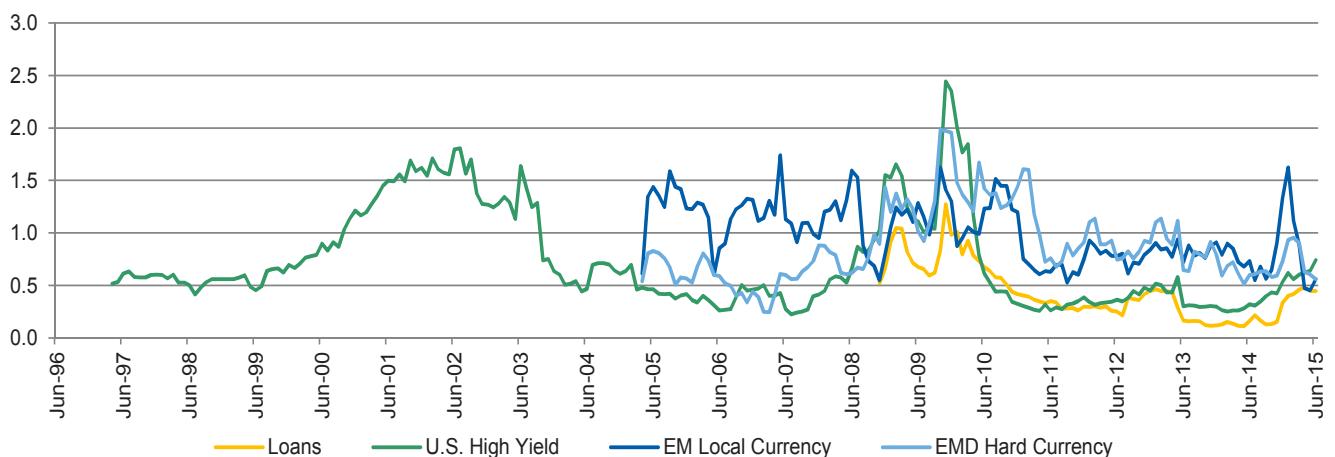
Exploiting Wider Cross Sectional Dispersions

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 give exactly the same return, there would be no value in sector rotation. Conversely, when there is a very wide dispersion of returns, we believe sector rotation becomes extremely important. Chart 7 shows how idiosyncratic return

dispersion has varied across time and between asset classes.

Managers with high stock selection skills are more likely to find these 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. This is still distinct from name selection. In this environment, we think skilled managers can buy concentrated name positions in individual credits and

Chart 7 – Idiosyncratic Return Dispersion



As of 30 June 2015
 Source: Stone Harbor Investment Partners LP
 Benchmarks – Loans: S&P/LSTA Leveraged Loan Index; US High Yield: The BofA Merrill Lynch US High Yield Master II Index ; EM HC: J.P Morgan EMBI Global Diversified; EM LC: J.P. Morgan GBI EM Global Diversified

still make money doing so. There are still opportunities in picking name A over name B as individual names still have idiosyncratic risk: it might be lower than the long-term average but there is still sizable volatility at times in individual names. So for credit managers, we believe picking individual credits is still and will continue to be important. Credit selection requires having the resources in terms of analysts to understand the industry fundamentals and credit worthiness of each of the names that are included in the portfolio.

We have seen great demand in the current environment for leveraged loans and high yield bonds but actually the relative dispersions across sectors suggests that right now there is probably a greater opportunity set within emerging market debt than in either loans or high yield bonds or investment grade credit. 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; and dispersion is not always where it might be imagined it would be.

MAC Portfolio Construction

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 judge their

performance should be considered carefully. The challenge for investors is to be able to ensure their fund managers are able to act in the best interests of the client without being constrained by narrow benchmarks or opportunity sets. For investment managers, the resource requirements to properly manage MAC strategies are significant. For investors seeking to invest in MAC portfolios, finding managers with the resources, expertise, and experience is the challenge.

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 behavioral characteristics of new and existing asset classes in the light of changes in endogenous and exogenous factors including their investor bases; and thirdly, a measure of the likely opportunity set within each asset class through measures such as the idiosyncratic risk dispersions of each. Given these three, experienced MAC managers then should be in a position to construct robust portfolios. To do this 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.

About Stone Harbor

Stone Harbor's experienced team has been managing dynamic multi-sector credit 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 credit 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.

Authors

David Scott is a Portfolio Manager for our Multi-Sector Credit strategies. He has 30 years of industry experience. Prior to joining Stone Harbor, David served as a Managing Director, Investment Policy Committee member and Head of the Traditional Investment Group responsible for the traditional bond product at Salomon Brothers Asset Management. Prior to his time with Salomon Brothers, he served as a Global Fixed Income Portfolio Manager at J.P. Morgan Investment Management. Earlier in his career, David served as a US Dollar Portfolio Manager at Mercury Asset Management and served as a Consultant Actuary for the Wyatt Company. He attained a BSc in Mathematics and Economics from Nottingham University, UK.

David Torchia is a Portfolio Manager for our Multi-Sector Credit strategies. He has 29 years of industry experience. Prior to joining Stone Harbor, David served as Managing Director and Senior Portfolio Manager responsible for directing investment policy and strategy for all Investment Grade US Fixed Income Portfolios at Citigroup Asset Management. He served as an Investment Policy Committee Member at Salomon Brothers Asset Management and as a Manager of Structured Portfolios for the Bond Portfolio Analysis Group at Salomon Brothers Inc. David attained a BS in Industrial Engineering from the University of Pittsburgh and an MBA in Finance from Lehigh University.

Max Horn, CFA is a Quantitative Analyst within our Risk Management and Quantitative Research team. He has 17 years of industry experience. Prior to joining Stone Harbor, Max served as a Director of Quantitative Research at Citigroup Asset Management. Prior to Citigroup, he served as a Quantitative Analyst at JP Morgan Investment Management. Max is a member of the CFA Institute and the New York Society of Securities Analysts. He attained an Honors BS in Theoretical Chemistry from Sydney University and an MBA in Finance and Accounting from the Stern School of Business at New York University.

Endnotes

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 \$US-denominated high yield debt market.

The J.P. Morgan EMBI Global Diversified (EMBI Global Diversified) tracks total returns for US 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 US Corporate Investment Grade Index is a sub index of the US Aggregate Index. It includes publicly issued US 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 US Securitized Index is the largest component of the US Aggregate Index and consists of the US 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 US dollar-denominated institutional leveraged loan portfolios. Facilities are eligible for inclusion in the index if they are US 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 US High Yield Master II Index (H0A0) tracks the performance of below investment grade US dollar-denominated corporate bonds publicly issued in the US 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 US 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 US Treasury Index tracks the obligations of the US Treasury with a remaining maturity of one year or more.



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