MV Credit

Asset Allocation: Senior Leveraged Loans

This paper examines the main asset classes and their respective behaviour. The paper then goes on to discuss why we believe European senior leveraged loans are an attractive investment opportunity.

1. *Introduction*
2. *Broad asset class comparison*
3. *40/60 case study*
4. *Why invest in leveraged loans?*
5. *Conclusion*

INTRODUCTION

Every asset class exhibits unique and distinctly different characteristics, depending on the nature and economics of that given asset. For example, equities will typically generate a higher return than fixed income ("FI") instruments, but this may come at the cost of higher volatility. Part one of this paper looks to explore the key investible asset classes and their respective traits, highlighting return and volatility over various points in the cycle. Whilst looking at a broad range of assets, this paper will have a particular focus on European senior leveraged loans and why they are an attractive addition to an investment stable.

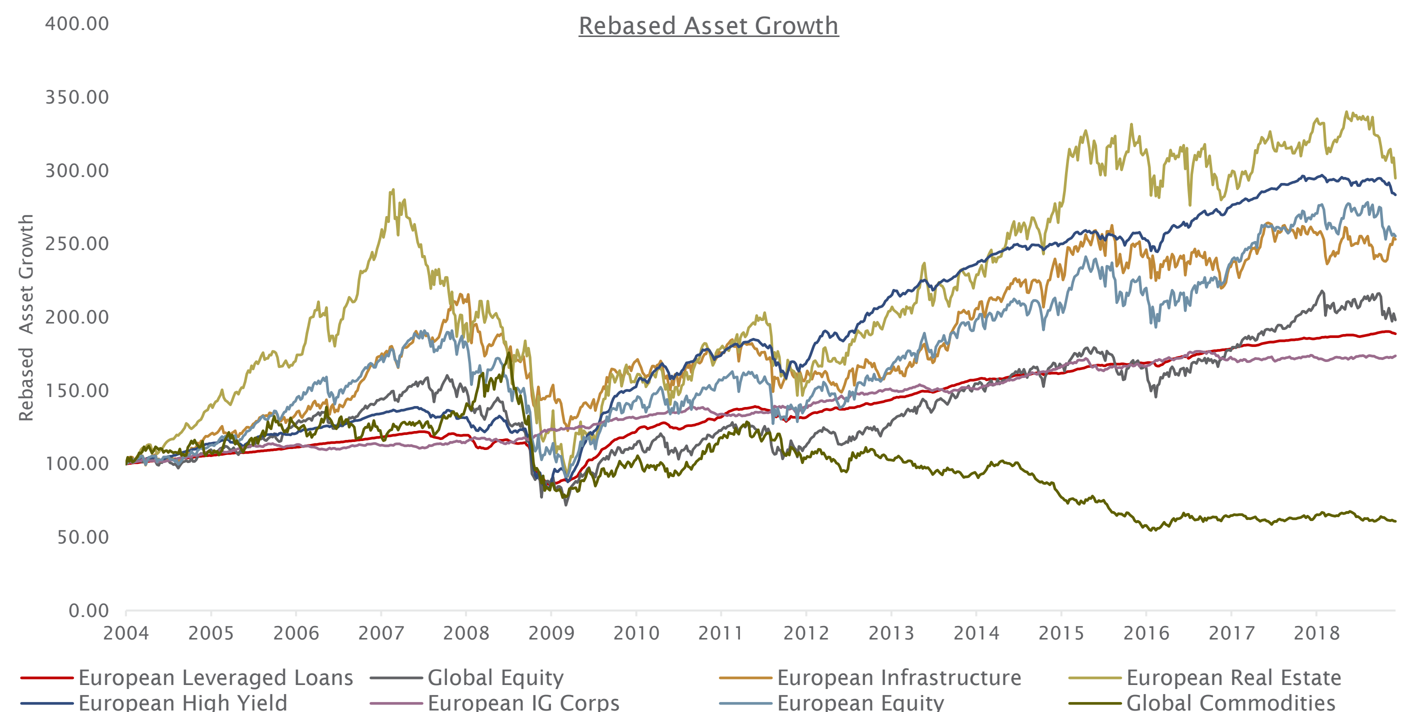
A single asset class alone does not constitute a portfolio and exposes the underlying investor to a single isolated point of risk. It is common practice and evidenced by Harry Markowitz that owning different kinds of risky assets is less risky than owning one kind of risky asset, as introduced in his 1952 essay on modern portfolio theory[i] ("MPT"). The basic premise being that assuming non-perfect correlation, risk is not additive. Part two of this paper explores the benefits of portfolio optimisation with a key focus on adding senior leveraged loans to a typical 40/60 investment portfolio (40% investment grade ("IG") FI and 60% equity). Ultimately, like any team, a good portfolio must rely on multiple players to achieve the goals of a given investor.

"The way a team plays as a whole determines its success. You may have the greatest bunch of individual stars in the world, but if they don't play together, the club won't be worth a dime." – Babe Ruth, professional baseball player

Finally, given the focus on senior leveraged loans throughout, a note on the qualitative aspect of investing in the asset class.

RISK VS. RETURN ANALYSIS

Over 6,500 lines of data have been investigated, spanning back to 2004 to produce a comprehensive set of analysis across eight asset classes. A fundamental theory of economics is that economic prosperity (and decline) comes in peaks and troughs, and over cycles. Therefore, we have split the various pieces of analysis out over points in the cycle to give a complete overview of how different asset classes behave in different times of stress. Please see below for a rebased index for the asset classes discussed within this paper:



Source: Indices listed and detailed below. Data from 01/01/2004 - 08/08/2019.

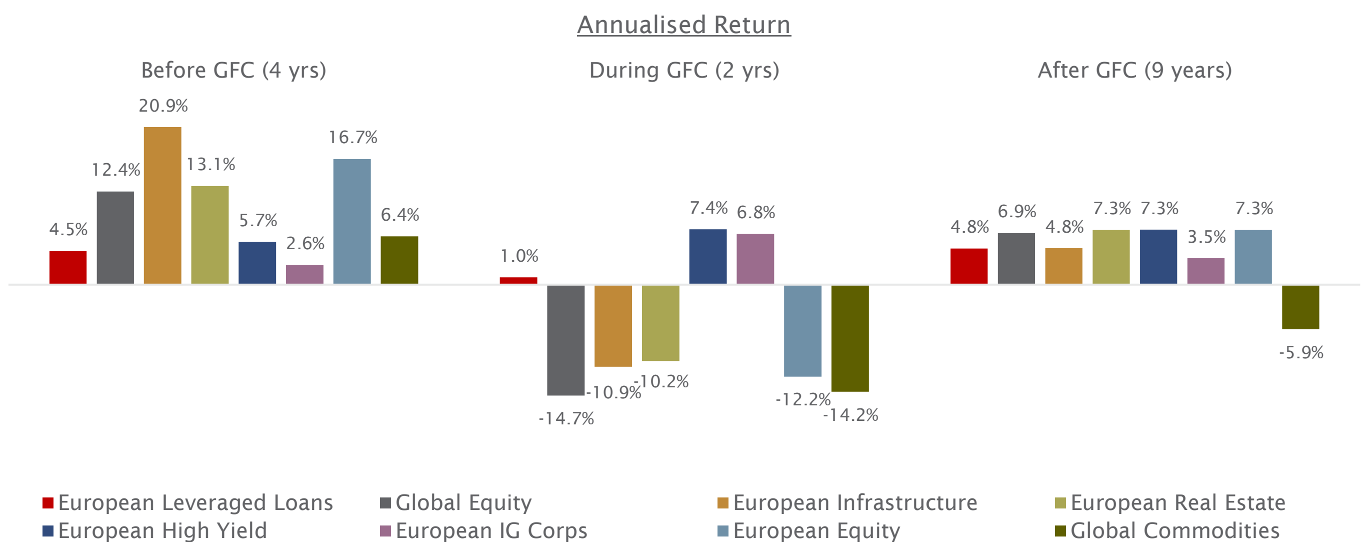
It is difficult to gain any meaningful insight from a rebased graph that has a multitude of data points, let alone assess the volatility of returns or the correlation between assets. As discussed above, we can break down cycles into multiple periods to best analyse the data. It is not unusual for assets to be positively correlated in one period, then negatively correlated the next (bonds and equity being an excellent example).

We have broken down the cycle into three distinct periods:

- Before the Great Financial Crisis ("GFC"): This is defined as from inception (01/01/2004) up until the onset of the crisis (01/01/2008).
- During the GFC: This is defined as 01/01/2008 until 01/01/2010. This period saw the bankruptcy of the investment bank Lehman Brothers, along with the consolidation of Bear Stearns and the collapse of a myriad of other financial institutions.
- After the GFC: This is defined as the period following the GFC. This period has seen the longest bull market in history with interest rates defying traditional economic theory and turning negative.

Please see below for historical annualised returns through the periods listed above:

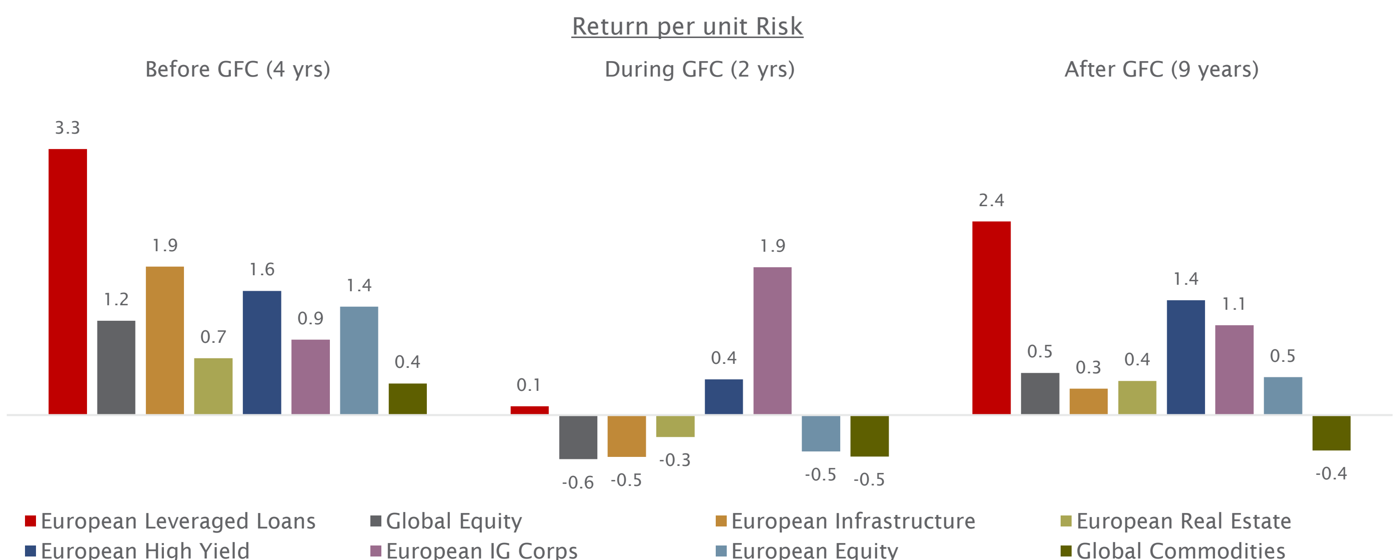
Annualised Return



As expected, the period leading up to the GFC saw an unprecedented upward trend fuelled by light regulation and sky-high valuations. This is reflected in the data above as equities and real estate soar. Prior to the crash the FI asset classes all demonstrate stable and consistent returns. During the crash, the three assets with the lowest returns are the only assets to not post negative returns. The subdued bull market following the GFC has led to relatively stable growth with only commodities suffering.

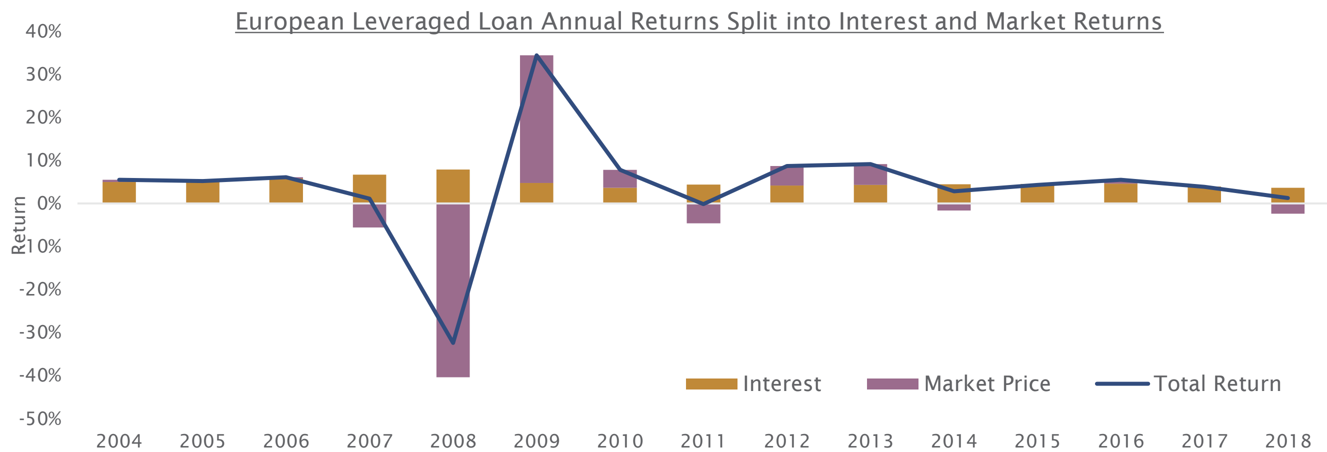
However, the return is only one part of the investment puzzle as the volatility of the returns generated is of key importance. Once we combine the historical risk with the historical return a clear winner emerges in European leveraged loans.

Return per unit Risk



Source: Indices listed and detailed on page 5. Data from 01/01/2004 - 08/08/2019. Performance data shown represents past performance and is no guarantee of, and not necessarily indicative of future performance.

The above demonstrates that European leveraged loans exhibit the best return per unit risk before and after the crisis. The gap between leveraged loans and the other asset classes during this time period is substantial. Qualitatively leveraged loans also exhibit lower default rates and higher recoveries than high yield bonds[ii]. We have broken down the return of the ELLI into the interest rate component and the market value component. See below:

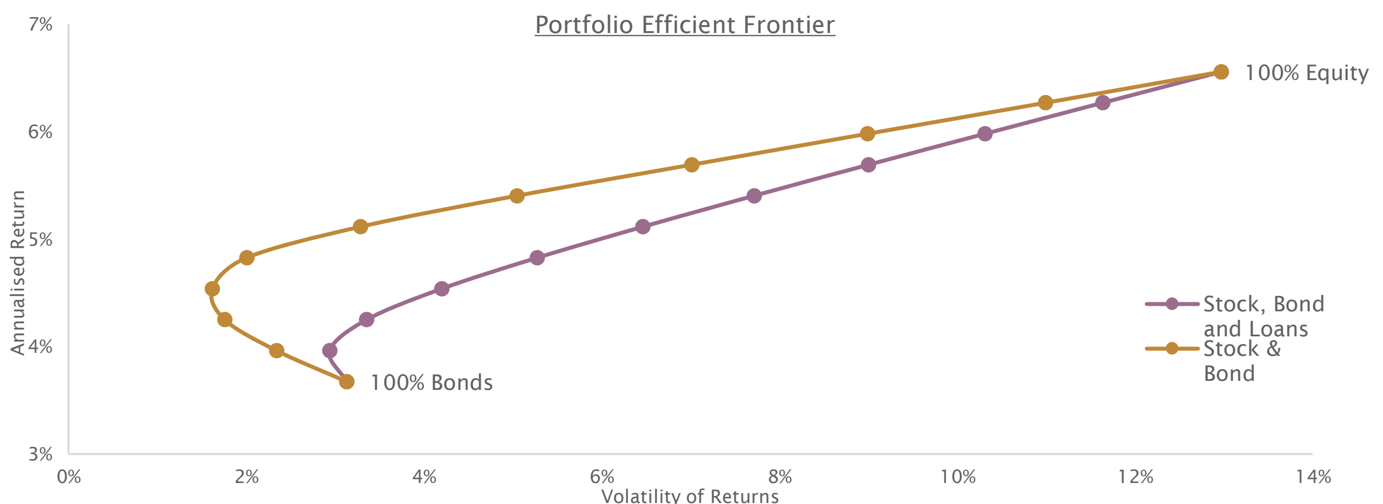


Source: S&P ELLI as listed below, from 01/01/2004 – 31/12/2018.

Once we look further into what happened in 2008 to 2009 to cause such volatility, it becomes clear why leveraged loans performed third best during the GFC. The interest component of the index remains remarkedly strong, demonstrating consistent cashflows afforded to investors in leveraged loans. The main driver of returns during the crash are from the sharp downward movement of secondary prices (a sharp rebound in 2009 should also be noted). As the markets crashed, banks and CLOs were forced sellers of leveraged loans and therefore the market sunk with them, providing a one-off opportunity unlikely to be repeated in a normal recession to take advantage of the low prices and buy leveraged loans. If an investor had invested in a buy and maintain, closed ended fund structure, then the volatility from market price would be erased. When investing in leveraged loans it is important to consider the best vehicle. Leveraged loans provide consistent, stable and risk adjusted returns.

40/60 CASE STUDY

Investors have long lived by the rule of investing 60% of their assets in higher returning, but potentially higher risk equity, alongside 40% in lower risk and lower returning investment grade corporate debt. We aim to investigate what would happen if an investor were to replace some of this allocation with European leveraged loans using MPT. As initially discussed, Harry Markowitz pioneered the concept of MPT and how a risk adverse investor can diversify a portfolio to reduce the overall risk. His paper titled “Portfolio Selection”, published in 1952 by the Journal of Finance (which was awarded a Nobel prize), lays down how an “efficient frontier” can be created. The “efficient frontier” is simply the line of minimised risk (standard deviation) for each respective return point for a portfolio of assets. We have run the analysis and created the frontier for an allocation purely in bonds and equity, and then on top we have an allocation towards bonds, equity and senior loans, see below:



Analysis has been run post crisis. 01/01/2010 – 08/08/2019 on a weekly basis

Source: Indices listed and detailed on page 5. Data from 01/01/2004 - 08/08/2019. Performance data shown represents past performance and is no guarantee of, and not necessarily indicative of future performance.

The benefits of adding senior leveraged loans to a portfolio of purely equity and bonds are clear. All points have shifted up and now have a higher return for the same or lower risk. A downside of MPT is that by optimising it will skew the investment portfolio into an unrealistic position based on the underlying mathematics (for example it will push leveraged loans over the other asset classes purely because of the risk adjusted return). To counter this we have taken some base case examples and illustrated the resulting risk and return:

Global Equity	*60%*	*60%*	*60%*	*50%*	*50%*	*50%*	*0%*
Euro IG Corporates	*40%*	*30%*	*20%*	*40%*	*30%*	*20%*	*50%*
Senior Loans	*0%*	*10%*	*20%*	*10%*	*20%*	*30%*	*50%*
Return	**5.40%**	**5.52%**	**5.63%**	**5.23%**	**5.34%**	**5.46%**	**4.24%**
Standard Deviation	**7.72%**	**7.79%**	**7.88%**	**6.51%**	**6.58%**	**6.67%**	**1.77%**
Return / Risk	0.70	0.71	0.71	0.80	0.81	0.82	2.39

Source: indices used are listed below and MPT has been used to calculate the returns. Calculated by MV Credit.

It is evident from the above that adding senior leveraged loans to a portfolio of equity and bonds will increase the overall return per unit risk by diversification and introduce an asset with lower volatility than the other asset classes.

WHY INVEST IN LEVERAGED LOANS

Apart from the purely quantitative aspect of adding senior leveraged loans to an investment portfolio, several other reasons exist to invest:

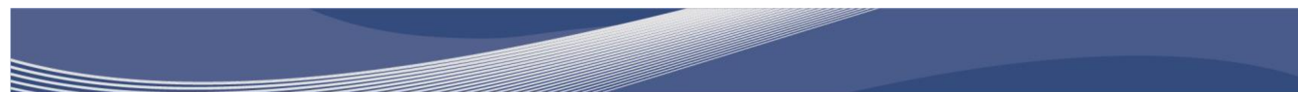
1. Senior leveraged loans are floating rate and therefore have minimal exposure to interest rate movements. This is beneficial in an environment of low interest rates as other debt instruments will have comparatively low returns (government debt in the eurozone is in negative territory). We are seeing this now as investors seek yield from other sources because their FI portfolios are not generating sufficient returns. The floating rate aspect also provides a hedge against interest rates should they rise.
2. As FI instruments, senior leveraged loans generate consistent high cashflows. A portfolio of senior leveraged loans is de-risking in nature as recurrent cashflows are paid to the investor.
3. Low correlation to traditional asset classes results in a high diversification impact when creating a portfolio of multiple asset classes.
4. Loans typically trade close to par due to low duration. This is also limited by the fact that the borrower can typically prepay the loan after two years without paying a break cost.
5. High return in a world where negative interest rates are the new normal.

An allocation to senior leveraged loans offers multiple benefits aside from reducing the overall portfolio risk.

CONCLUSION

To construct a successful investment portfolio, multiple asset classes must be considered. It has been demonstrated in this paper that adding European senior leveraged loans can enhance returns and can also reduce risk. Senior leveraged loans have consistently exhibited the highest risk adjusted return for the period shown above. This piece has been run on the basis of an index that buys the market. If you pair that with the correct manager, defaults and losses can be minimised resulting in alpha. It should also be noted that were an investor to invest in a long-term capital vehicle, potential volatility can be managed. Senior leveraged loans can enhance and diversify an asset allocation and we believe they are underinvested in as an asset class.

Source: Indices listed and detailed on page 5. Data from 01/01/2004 - 08/08/2019. Performance data shown represents past performance and is no guarantee of, and not necessarily indicative of future performance.



Methodology

The returns within this paper have been calculated using a simple average of compounded weekly returns and then annualised. The week on week returns are calculated on a logarithmic basis. The volatility or risk is calculated as the standard deviation of weekly returns, multiplied by the square root of 52 to annualise the data. The efficient frontier is calculated by minimising the standard deviation within a portfolio for a given return by using MPT.

Indices

European Leveraged Loans: *S&P European Euro Denominated Loan Index* The index reflects the market-weighted performance of institutional leveraged loan portfolios investing in European credits in the given segment (in this case Euro denominated facilities).

Global Equity: *MSCI AC World Index* The index reflects a broad global equity index that represents large and mid-cap equity performance. The index is market cap weighted.

European Infrastructure: *MSCI Europe Infrastructure* The index captures the global opportunity set of companies that are owners or operators of infrastructure assets. Constituents are selected from the equity universe of MSCI Europe, the parent index, which covers mid and large cap securities across the 15 Developed Market (DM) countries in Europe.

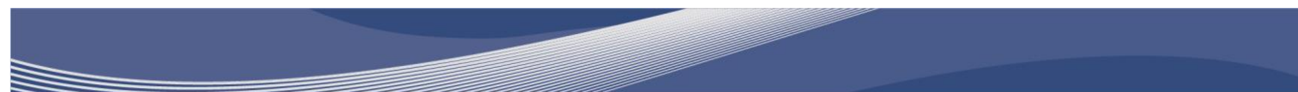
European Real Estate: *S&P Europe REIT* The index measures the investable Europe real estate investment trust market and maintains a constituency that reflects the market's overall composition.

European High Yield: *Bloomberg Barclays Pan European High Yield Euro* The index measures the market of non-investment grade, fixed-rate corporate bonds denominated in Euro.

European IG Corps: *FTSE Euro Broad Investment-Grade Bond Index* The index is a multi-asset benchmark for Euro-denominated fixed income bonds. We have used the corporate AAA/AA/A index. The index is market cap weighted and rebalances once a month at month end.

European Equity: *MSCI Europe* The index reflects a broad equity index that represents large and mid-cap equity performance across 15 European countries. The index is market cap weighted.

Global Commodities: *Bloomberg Commodity Index* The index is calculated on an excess return basis and reflects commodity futures price movements.



Disclaimer

This White Paper (this "White Paper") is being provided by MV Credit Partners LLP ("MV Credit"), a firm authorised and regulated by the UK Financial Conduct Authority (the "FCA"). This document is intended exclusively for Professional Investors.

This White Paper is not intended to create any right of a legally binding or enforceable nature between MV Credit and the recipient in respect of the provision of services or products. It does not purport to be a comprehensive review of any recipient's investment objectives, financial situation or particular needs. The contents of this White Paper do not constitute legal, tax or investment advice.

Recipients of this White Paper should make their own investigations and evaluations of the information contained herein and investors should consult their own legal, tax or relevant professional advisor or attorney with regard to their specific situations.

No representation or warranty is or will be made or given, express or implied, and no responsibility or liability will be accepted by or on behalf of MV Credit nor any of their affiliates or respective members, directors, officers, employees, advisers, agents, representatives, subsidiaries or corporate parents or by any other person as to, or in relation to, the accuracy, fairness, correctness or completeness of the preliminary information contained in this White Paper, the information or opinions contained herein or supplied herewith or any other written or oral information made available to any person, which all remain subject to amendment and updating and which may not be complete. No liability whatsoever (for negligence or otherwise) is accepted by MV Credit nor any of their affiliates or respective members, directors, officers, employees, advisers, agents, representatives, subsidiaries or corporate parents for any loss howsoever arising, directly or indirectly, from any use of this White Paper or otherwise arising in connection therewith.

This material is communicated in accordance with Article 14 (Investment Professionals), Article 21 (Certified high net worth individuals) and Article 22 (High net worth companies) of the Financial Services and Markets Act 2000 (Promotion of Collective Investment Schemes) (Exemptions) Order 2001, or pursuant to the permitted exemptions made available by the FCA in section 4.12 of its Conduct of Business Sourcebook and is not intended for retail clients (as defined in the FCA Rules) who should not, and cannot, rely on information here. Any offering or solicitation will be made only to such qualified prospective investors at a later date pursuant to the relevant offering documentation and/or investment agreement of a relevant investment product, all of which should be read in their entirety.

The distribution of this White Paper in other jurisdictions may be restricted by law, and persons into whose possession this White Paper comes should inform themselves about, and observe, any such restrictions.

Neither MV Credit nor any of its directors, officers, employees, advisers, agents, representatives, subsidiaries, corporate parents and affiliates undertake any obligation to update or revise this White Paper, the information or opinions contained herein or supplied here with or any other written or oral information made available to any of the prospective investors and their respective directors, officers, employees, advisers, agents and representatives.

---

[i] Harry Markowitz, *Portfolio Selection*, The Journal of Finance, Vol. 7, No. 1. (Mar. 1952), pp. 77-91.
[ii] Moody's Public Data

Additional Notes

This material has been provided for information purposes only to investment service providers or other Professional Clients or Qualified Investors and, when required by local regulation, only at their written request. This material must not be used with Retail Investors.

In the E.U. (outside of the UK and France): Provided by Natixis Investment Managers S.A. or one of its branch offices listed below. Natixis Investment Managers S.A. is a Luxembourg management company that is authorized by the Commission de Surveillance du Secteur Financier and is incorporated under Luxembourg laws and registered under n. B 115843. Registered office of Natixis Investment Managers S.A.: 2, rue Jean Monnet, L-2180 Luxembourg, Grand Duchy of Luxembourg. Italy: Natixis Investment Managers S.A., Succursale Italiana (Bank of Italy Register of Italian Asset Management Companies no 23458.3). Registered office: Via San Clemente 1, 20122 Milan, Italy. Germany: Natixis Investment Managers S.A., Zweigniederlassung Deutschland (Registration number: HRB 88541). Registered office: Im Trutz Frankfurt 55, Westend Carrée, 7. Floor, Frankfurt am Main 60322, Germany. Netherlands: Natixis Investment Managers, Nederlands (Registration number 50774670). Registered office: Stadsplateau 7, 3521AZ Utrecht, the Netherlands. Sweden: Natixis Investment Managers, Nordics Filial (Registration number 516405-9601 - Swedish Companies Registration Office). Registered office: Kungsgatan 48 5tr, Stockholm 111 35, Sweden. Spain: Natixis Investment Managers, Sucursal en España, Serrano n°90, 6th Floor, 28006 Madrid, Spain.

In France: Provided by Natixis Investment Managers International – a portfolio management company authorized by the Autorité des Marchés Financiers (French Financial Markets Authority - AMF) under no. GP 90-009, and a public limited company (société anonyme) registered in the Paris Trade and Companies Register under no. 329 450 738. Registered office: 43 avenue Pierre Mendès France, 75013 Paris.

In Switzerland: Provided by Natixis Investment Managers, Switzerland Sàrl, Rue du Vieux Collège 10, 1204 Geneva, Switzerland or its representative office in Zurich, Schweizergasse 6, 8001 Zürich.

In the British Isles: Provided by Natixis Investment Managers UK Limited which is authorised and regulated by the UK Financial Conduct Authority (register no. 190258) - registered office: Natixis Investment Managers UK Limited, One Carter Lane, London, EC4V 5ER. When permitted, the distribution of this material is intended to be made to persons as described as follows: **in the United Kingdom:** this material is intended to be communicated to and/or directed at investment professionals and professional investors only; **in Ireland:** this material is intended to be communicated to and/or directed at professional investors only; **in Guernsey:** this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Guernsey Financial Services Commission; **in Jersey:** this material is intended to be communicated to and/or directed at professional investors only; **in the Isle of Man:** this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Isle of Man Financial Services Authority or insurers authorised under section 8 of the Insurance Act 2008.

In the DIFC: Provided in and from the DIFC financial district by Natixis Investment Managers Middle East (DIFC Branch) which is regulated by the DFSA. Related financial products or services are only available to persons who have sufficient financial experience and understanding to participate in financial markets within the DIFC, and qualify as Professional Clients or Market Counterparties as defined by the DFSA. No other Person should act upon this material. Registered office: Office 603 - Level 6, Currency House Tower 2, PO Box 118257, DIFC, Dubai, United Arab Emirates.

In Taiwan: Provided by Natixis Investment Managers Securities Investment Consulting (Taipei) Co., Ltd., a Securities Investment Consulting Enterprise regulated by the Financial Supervisory Commission of the R.O.C. Registered address: 34F., No. 68, Sec. 5, Zhongxiao East Road, Xinyi Dist., Taipei City 11065, Taiwan (R.O.C.), license number 2018 FSC SICE No. 024, Tel. +886 2 8789 2788.

In Singapore: Provided by Natixis Investment Managers Singapore (name registration no. 53102724D) to distributors and institutional investors only. Natixis Investment Managers Singapore is a division of Ostrum Asset Management Asia Limited (company registration no. 199801044D).

In Hong Kong: Provided by Natixis Investment Managers Hong Kong Limited to institutional/ corporate professional investors only.

In Australia: Provided by Natixis Investment Managers Australia Pty Limited (ABN 60 088 786 289) (AFSL No. 246830) and is intended for the general information of financial advisers and wholesale clients only.

In New Zealand: This document is intended for the general information of New Zealand wholesale investors only. This is not a regulated offer for the purposes of the Financial Markets Conduct Act 2013 (FMCA) and is only available to New Zealand investors who have certified that they meet the requirements in the FMCA for wholesale investors. Natixis Investment Managers Australia Pty Limited is not a registered financial service provider in New Zealand.

In Latin America: Provided by Natixis Investment Managers S.A.

In Chile: Esta oferta privada se inicia el día de la fecha de la presente comunicación. La presente oferta se acoge a la Norma de Carácter General N° 336 de la Superintendencia de Valores y Seguros de Chile. La presente oferta versa sobre valores no inscritos en el Registro de Valores o en el Registro de Valores Extranjeros que lleva la Superintendencia de Valores y Seguros, por lo que los valores sobre los cuales ésta versa, no están sujetos a su fiscalización. Que por tratarse de valores no inscritos, no existe la obligación por parte del emisor de entregar en Chile información pública respecto de estos valores. Estos valores no podrán ser objeto de oferta pública mientras no sean inscritos en el Registro de Valores correspondiente.

In Colombia: Provided by Natixis Investment Managers S.A. Oficina de Representación (Colombia) to professional clients for informational purposes only as permitted under Decree 2555 of 2010. Any products, services or investments referred to herein are rendered exclusively outside of Colombia. This material does not constitute a public offering in Colombia and is addressed to less than 100 specifically identified investors.

In Mexico: Provided by Natixis IM Mexico, S. de R.L. de C.V., which is not a regulated financial entity, securities intermediary, or an investment manager in terms of the Mexican Securities Market Law (Ley del Mercado de Valores) and is not registered with the Comisión Nacional Bancaria y de Valores (CNBV) or any other Mexican authority. Any products, services or investments referred to herein that require authorization or license are rendered exclusively outside of Mexico. While shares of certain ETFs may be listed in the Sistema Internacional de Cotizaciones (SIC), such listing does not represent a public offering of securities in Mexico, and therefore the accuracy of this information has not been confirmed by the CNBV. Natixis Investment Managers is an entity organized under the laws of France and is not authorized by or registered with the CNBV or any other Mexican authority. Any reference contained herein to "Investment Managers" is made to Natixis Investment Managers and/or any of its investment management subsidiaries, which are also not authorized by or registered with the CNBV or any other Mexican authority.

In Uruguay: Provided by Natixis Investment Managers Uruguay S.A., a duly registered investment advisor, authorised and supervised by the Central Bank of Uruguay. Office: San Lucar 1491, oficina 102B, Montevideo, Uruguay, CP 11500. The sale or offer of any units of a fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627.

The above referenced entities are business development units of Natixis Investment Managers, the holding company of a diverse line-up of specialised investment management and distribution entities worldwide. The investment management subsidiaries of Natixis Investment Managers conduct any regulated activities only in and from the jurisdictions in which they are licensed or authorised. Their services and the products they manage are not available to all investors in all jurisdictions. It is the responsibility of each investment service provider to ensure that the offering or sale of fund shares or third party investment services to its clients complies with the relevant national law.

The provision of this material and/or reference to specific securities, sectors, or markets within this material does not constitute investment advice, or a recommendation or an offer to buy or to sell any security, or an offer of any regulated financial activity. Investors should consider the investment objectives, risks and expenses of any investment carefully before investing. The analyses, opinions, and certain of the investment themes and processes referenced herein represent the views of the portfolio manager(s) as of the date indicated. These, as well as the portfolio holdings and characteristics shown, are subject to change. There can be no assurance that developments will transpire as may be forecasted in this material.

Although Natixis Investment Managers believes the information provided in this material to be reliable, including that from third party sources, it does not guarantee the accuracy, adequacy, or completeness of such information. May not be redistributed, published, or reproduced, in whole or in part.

Amounts shown are expressed in USD unless otherwise indicated.