Morgan Stanley

INVESTMENT MANAGEMENT

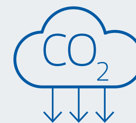
Setting an Active Fixed Income Portfolio on a Net Zero Pathway

FIXED INCOME TEAM | AUGUST 2024

Disclaimer: The net zero methodology described in this paper only applies to products and portfolios that have specified such an objective in their investment strategy.

The COP26[1] summit re-emphasised the urgency to act in order to reduce greenhouse gas (GHG) emissions and limit global warming to 1.5°C by 2050, in line with the Paris Agreement. The financial sector is uniquely positioned to mobilise large-scale capital towards climate change mitigation and resilience. Fixed income investors, in particular, play an important role in this endeavour, acting as first-line providers of debt financing to issuers in support of their low-carbon investment plans and climate-related commitments.

Implementing a net zero emissions pathway within fixed income portfolios represents an opportunity for active managers to differentiate themselves from rules-based, passive climate strategies. This can be done via a combination of screening, thematic engagement focused on decarbonisation, investment in green/sustainable bonds, and a research-driven identification of companies, across sectors, with positive climate-related momentum. Ultimately, the end goal is to support a steady low-carbon transition while delivering consistent returns.



DESIGNING A NET ZERO FIXED INCOME STRATEGY IN THREE PILLARS

We believe there are three key pillars underpinning the design of an active net zero fixed income strategy:

1. Choosing the right metric to track the portfolio's carbon footprint;
2. Defining the appropriate baseline; and
3. Determining the decarbonisation targets and pathway.

Introduction – An Active Approach to Net Zero

The Intergovernmental Panel on Climate Change (IPCC) 2023 Climate Synthesis report confirmed previous findings that are categorical in their assertion that human activity, primarily the burning of fossil fuels, is heating the planet and exacerbating extreme weather events, causing cascading impacts on people's health, lives and livelihoods.[2] It serves as a sombre reminder of climate-related threats, but also highlights that ambitious commitments and timely action can help limit warming to a 1.5°C scenario, in line with the goals of the Paris Agreement. As emphasised during COP26 and by the Glasgow Financial Alliance for Net Zero (GFANZ), of which Morgan Stanley is a founding member, the financial sector has to play a leading role in this transition, having the power to redirect capital towards companies, products and solutions that can help tackle climate change. In this process, there needs to be clarity around the approach taken to measure and track the carbon footprint of a portfolio, as well as the pathway followed to progress towards net zero GHG emissions by 2050.

[1] 26th United Nations Climate Change Conference, Glasgow, Scotland, 31 October-12 November 2021.

[2] IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)].

A thoughtful approach to each of them, which takes into consideration the specific characteristics of the multiple fixed income sub-asset classes and their respective investment universe, is critical to the credibility of the strategy, and can allow investors to benefit from the active management of portfolio-level emissions as part of the investment process.

1. CHOOSING THE RIGHT METRICS TO TRACK THE PORTFOLIO'S CARBON FOOTPRINT

There are multiple metrics that can be used to evaluate a portfolio's carbon footprint. The Task Force on Climate-related Financial Disclosures (TCFD) recommends a revenue-based weighted average carbon intensity (WACI) metric for reporting the carbon footprint of a portfolio. We note, however, that the most recent guidance from the TCFD,[3] in line with the Partnership for Carbon Accounting Financials (PCAF) and the EU is to pivot towards a carbon intensity metric based on Enterprise Value Including Cash (EVIC) (an approach that is increasingly followed by index providers), or to absolute GHG emissions.[4] We evaluate each of these metrics in **Display 1**, to assess their relative merits and appropriateness for net zero analysis in fixed income.

At MSIM, we take the view that the most appropriate metric to manage the decarbonisation of corporate holdings in our fixed income portfolios is, at this stage, **WACI based on company revenues, using Scope 1 and 2 emissions**, which provides a consistent representation of the investment universe, across investment grade and high yield companies. We separately track and report Scope 3 emissions intensity, with the intention to decrease it in line with Scope 1 and 2, and to formally phase it into our targets by 2024.

SCOPE 1, 2, AND 3 EMISSIONS[6]

A net zero pathway based on combined Scope 1 and 2 emissions will currently benefit from the most comprehensive data coverage and the greatest proportion of company-reported versus estimated data. As an example, the Bloomberg Global Aggregate Corporate Index has c.95% Scope 1 and 2 data coverage as of end-2021 (up by almost 20% compared to end-2019), with almost 80% of it being directly reported by companies. Scope 3 data on emissions generated across a business's value chain is at present heavily modelled by third party vendors, with companies often reporting only partial information. Modelled results can also

Display 1

Carbon Reduction Metrics – Pros & Cons in the context of fixed income portfolio management

CARBON METRIC[7]	EVALUATION
GHG emissions/ Revenue (WACI)	✓ Allows companies of different sizes to be compared ✓ Smooths volatility, as GHG emissions and Revenue are both correlated to productivity ✓ More consistent with EU Taxonomy alignment metric ✓ Most readily available data point, especially for unlisted companies in the fixed income universe ✗ Does not allow for assessment of financed emissions
GHG emissions/EVIC	✓ Facilitates attribution analysis of emissions that can be associated with investment notional ✗ Using market value for EVIC computation is potentially too volatile, using book value is potentially too static ✗ Challenge of data availability and comparability/consistency across public and private companies in fixed income
Absolute emissions	✓ Simplest and arguably purest measure ✗ Potentially very volatile metric with significant fluctuations driven by economic cycle ✗ Challenge of comparability across sectors

[3] "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures", October 2021.
[4] EU TEG Handbook of Climate Transition Benchmarks, Paris Aligned Benchmarks and Benchmarks' ESG Disclosures, December 2019.
[6] Scope 1 refers to direct emissions from company-owned or controlled sources. Scope 2 refers to emissions from purchased or acquired electricity, steam, heat, and cooling. Scope 3 includes all other indirect emissions that occur in a company's value chain. Source: GHG Protocol.
[7] Carbon metrics presented in the table refer to the underlying metrics considered at the issuer level, which are then weighted at the portfolio level to assess the overall portfolio's carbon footprint.

vary significantly across vendors, creating additional challenges. For smaller issuers, Scope 3 emissions reporting can be even more challenging due to a lack of resources. As disclosure rates and data quality improve, Scope 3 emissions can be gradually phased into net zero pathways and targets calculations, in line with the EU recommendations.[7]

SOVEREIGN EMISSIONS

Emissions associated with sovereign debt are not currently included across the majority of net zero portfolio targets and low carbon indices. This is mainly due to the large extent of double-counting between a country's emissions and those of its corporates, and to the diverging pictures resulting from the use of different carbon intensity denominators, such as GDP and population size. Market standards are being developed to facilitate this analysis, including through PCAF's working group on Sovereign Bonds.[8]

Our MSIM Sovereign ESG Scoring model, which informs the investment process for multi-sector portfolios, takes into consideration emissions per capita as one of the key "E" factors, adjusting them based on GDP levels, which gives us an indication of countries' carbon performance given their level of development.

2. DEFINING THE APPROPRIATE BASELINE

A net zero-orientated portfolio can set its decarbonisation baseline either using the carbon metric of its actual holdings at a given date (an "absolute" approach), or rebalancing its holdings to achieve an immediate drop in the carbon metric relative to a reference benchmark, and use that lower value as the starting point for calculating future reductions (a "relative" approach).

We view the approach of setting an **absolute baseline** as more suitable for our broad range of corporate credit portfolios, using year-end 2020 as our starting point for the calculation of the decarbonisation pathway.[9] For portfolios launched from 2021 onward, the baseline will coincide with the inception date.

As an example of the alternative relative approach, a growing range of Paris Aligned Benchmarks is being developed to facilitate the alignment of investment strategies, particularly in the passive space, with low-carbon objectives. Under EU regulation, there is a significant emissions reduction of up to 50% at baseline recommended for those benchmarks, versus their "traditional" versions.[10] We note that the feasibility of implementing a drastic cut in the carbon metric at once may differ based on nature of the investment universe, and it may have a material impact on performance in the short term, against the best interest of clients in the case of actively managed portfolios. It is also likely to over-penalise sectors such as utilities and materials in the short term, which tend to have the highest Scope 1 and 2 emissions, yet play a critical role in the low carbon transition.

Ultimately, active fixed income portfolio managers should be able to evidence their ability to pursue decarbonisation through a thoughtful combination of sector allocations, bearing in mind the risks and opportunities that each sector faces in the low carbon transition, and targeted security selection aimed at investing in the names with the strongest track record or positive momentum, or with the greatest potential to enable decarbonisation through their products.

3. DETERMINING THE DECARBONISATION TARGETS AND PATHWAY

We aim to achieve a **50% reduction in our carbon metric by 2030, at the portfolio level**. Based on the findings of the IPCC report[2] and in line with EU guidance, this pathway, using 2020 as baseline year, is consistent with a net zero trajectory and a Paris-aligned 1.5 degree warming scenario as of 2050.

This interim target sets our portfolios on a clear trajectory, whilst allowing for marginal periodic fluctuations, potentially related to changes in sector weighting, or to issues such as slower-than-expected progress in clean-tech R&D in sectors that are key to the transition, or delays in climate-focused regulation in some jurisdictions.

We find that a sector-based approach built on the currently available scientific research and scenario analysis developed, for example, by the International Energy Agency (IEA),[11] would lead to similar results, as shown in *Display 2*. The sector-based pathway, which sets specific emissions reduction targets for the most carbon-intensive sectors, appears slightly flatter until the mid-2030s, then steepening afterwards, largely in relation to expected policy changes and technological breakthroughs. In terms of implementations for investment portfolios, however, it entails at present multiple challenges with regards to modelling the future sector exposures of a portfolio, which are tied to a much larger number of variables.

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[7] The EU guidance for Climate Transition and Paris Aligned Benchmarks recommends the complete phase-in of scope 3 emissions for all business activities by 2024.

[8] Morgan Stanley co-leads PCAF's Sovereign Bonds working group. See draft methodologies here: "New Methods for financial institutions measuring and reporting scope 3 category 15 emissions: Green bonds, Sovereign bonds, Emissions removal - Draft for Public Consultation", PCAF, November 2021.

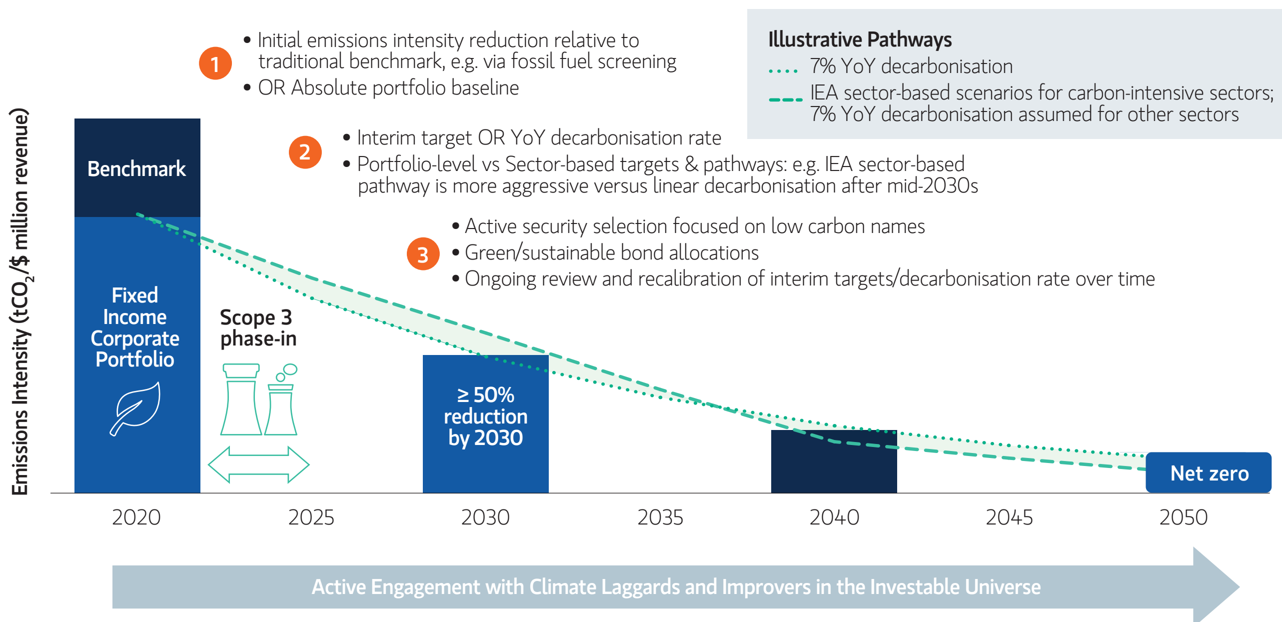
[9] The starting point of December 31, 2020 refers to the portfolio composition date. The GHG emissions data used to calculate the portfolio's carbon metric at this baseline has a time lag of 1 year, and in some cases of up to 2 years. This reflects the companies' reporting timeframes and seeks to maximise the portfolio's GHG emissions data coverage in cases where companies' reporting is delayed. As GHG emissions reporting standards improve, we intend to use the latest available GHG emissions data when measuring the portfolio's progress towards its decarbonisation targets.

[10] EU Technical Expert Group (TEG) Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures, September 2019.

[11] "Net Zero by 2050 – A Roadmap for the Global Energy Sector", IEA, 2021.

Display 2

Implementing a Net Zero Pathway – Illustrative Portfolio



Source: Morgan Stanley Investment Management, IEA (2021). Based on an illustrative portfolio.

Display 2 shows a 50% interim emissions reduction target and illustrative net zero pathways, alongside suggested implementation actions, which are described in more detail in the next section.

IMPLEMENTING THE NET ZERO STRATEGY

Translating a net zero strategy into action takes more than the calculation of targets. For example, our in-house research plays a key role in integrating climate-related—alongside other sustainability—risks and opportunities into sector and security analysis. This is done via proprietary assessment models, as well as direct, ongoing dialogue with issuers.

We believe a process to building and managing a net zero strategy should follow three main steps:

1. Screening the investable universe for climate and other sustainability risk mitigation;
2. Thematic engagement focused on decarbonisation and science-based targets;
3. Investing in green bonds and transitioning issuers across sectors.

1. SCREENING THE INVESTABLE UNIVERSE FOR CLIMATE AND OTHER SUSTAINABILITY RISK MITIGATION

Negative screening to avoid sectors with the highest exposure to GHG emissions is a simple solution to building a low carbon portfolio, and the most common tool deployed in climate-focused passive investment solutions. We recognise the importance of identifying the most adverse climate- and other sustainability-related risks to mitigate their potential financial impact on investment portfolios, in line with the philosophy of recent regulation such as the EU Sustainable Finance Disclosure Regulation (SFDR)'s Principal Adverse Impact statement, and the EU Taxonomy Do No Significant Harm principle.

As active investors, we believe screening should however represent only a first step in pursuing a net zero objective. The scope of exclusions should be determined by taking into account the portfolio's broader characteristics and return objective, and how specific sectors or business activities—alongside their future transition potential—fit within those.

Traditional fixed income portfolios may therefore opt for excluding only those business activities that are seen as not having a role to play in a low carbon economy due to, for example, their risk of stranded assets such as thermal coal mining and extraction. Sustainable portfolios may go one step further, broadening the scope of screening to coal-fired power generation and more conventional oil and gas activities.

Special consideration may be paid to green bonds, or other labelled sustainable bonds with proceeds or targets that contribute to pivoting a company's business model towards cleaner energy or technologies and achieving a reduction in their emissions. In such cases, we believe there is merit to apply an exception to fossil fuel exclusions, as long as those bonds are deemed robust and representative of the strategic measures a company is implementing to accelerate its transition.

2. THEMATIC ENGAGEMENT FOCUSED ON DECARBONISATION AND SCIENCE-BASED TARGETS

A research driven ESG integration process can help identify those issuers with a superior environmental profile and a positive track record of reducing their emissions. As such, we believe a key component of a net zero strategy is an active and targeted engagement programme focused on issuers' low-carbon transition strategies.[12] As part of this dialogue, we encourage companies to set science-aligned targets with verifiable milestones, and to provide comprehensive sustainability disclosure that spans environmental and social metrics.

Active engagement also enables the effective identification of which issuers are more ambitious in their low-carbon investment plans, and better positioned compared to their peers to benefit from systemic tailwinds, ultimately facilitating better investment decisions. We also note that fixed income investors have leverage beyond corporates. Notably, engaging with federal and regional governments, as well as with development organisations that lend directly to other companies, can help ensure broader accountability for progress towards the Paris Agreement and the UN Sustainable Development Goals.

3. INVESTING IN GREEN ISSUERS AND TRANSITIONING COMPANIES ACROSS SECTORS

GREEN BOND ALLOCATIONS

As previously highlighted, green and other labelled sustainable bonds provide an opportunity to invest in direct positive environmental impact. Green bond issuers are also more likely to develop targeted climate strategies and publish transparent climate-related reporting. Indeed, analysis by the EU's Joint Research Centre[13] as well as by Morgan Stanley Research[14] highlights that issuance of such instruments is often a precursor to an acceleration in emissions reductions compared to peers. Green bonds can therefore act as leading indicators for climate progress.

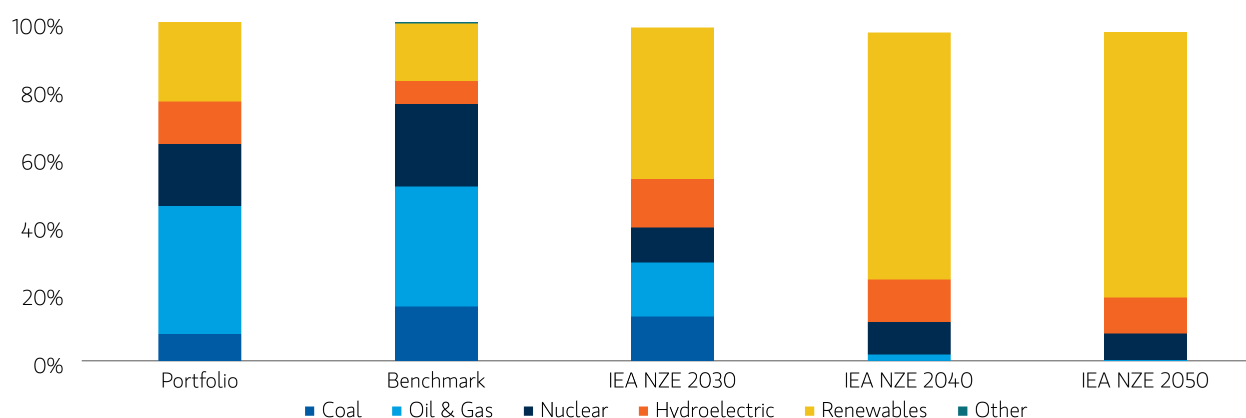
While there is ongoing collaborative dialogue on how to develop a bespoke methodology for assessing green bond issuers' carbon footprint more accurately, in particular through PCAF's working group on Green Bonds,[15] we believe the most transparent and conservative approach at present is to count the entirety of an issuer's GHG emissions in the portfolio's metric and decarbonisation calculations.[16] We may evolve this approach as new methodologies are published, where we deem them appropriate.

TRANSITIONING COMPANIES

Taking a constructive approach to investments in high-carbon sectors, such as energy, utilities and mining, recognising their potential role in the low carbon transition and yet the risks that their existing assets and activities represent, can be beneficial from both a climate and a credit perspective. We believe it is therefore important to focus on companies that demonstrate credible progress in reshaping their business, in terms of both track record and forward-looking targets for reducing their GHG emissions, and to engage with those sectors on this process. As such, in the near term a net zero strategy may continue to invest in transitioning issuers, as depicted in **Display 3**.

Display 3

Comparing an illustrative portfolio's power generation mix with the IEA Net Zero Emissions Scenarios (NZE)



Source: Morgan Stanley Investment Management, IEA (2023). As of June 28th, 2024. Based on an illustrative portfolio. Benchmark: Bloomberg Global Aggregate Corporate Index.

[12] "MSIM Fixed Income Engagement Strategy: Integrated, Insightful, Influential", MSIM, 2023.

[13] Fatica, S. and Panzica, R., Joint Research Centre (JRC), 2021. ESMA Report on Trends, Risks and Vulnerabilities No.2, 2021.

[14] "Net Zero Aligned Investing: How Potential Approaches Match Up Across Asset Classes", Morgan Stanley Research, 2021.

[15] Morgan Stanley co-leads PCAF's Green Bonds working group. See "New Methods for financial institutions measuring and reporting scope 3 category 15 emissions: Green bonds, Sovereign bonds, Emissions removal - Draft for Public Consultation", PCAF, November 2021.

[16] Different approaches may apply to portfolios composed exclusively of green and other labelled sustainable bonds, where the main focus may be on the total impact in terms of GHG emissions avoided.

Conclusion

Achieving net zero emissions by 2050 requires acting today. We view setting a clear pathway as the first, important milestone of an iterative process to help direct investments towards global, commonly shared climate objectives. Following a bespoke approach to net zero can help limit some of the sector bias and restrictions in passive strategies, and help achieve greater environmental impact as a result of research and engagement. We believe this also has the potential to generate superior investment returns alongside positive outcomes.

Appendix

MSIM Fixed Income's Net Zero approach embraces the goal of keeping global warming below 1.5 degrees, and some of underlying assumptions of the IPCC and the EU Benchmarks Regulation, while allowing us the flexibility to construct and actively manage portfolios that seek to generate superior investment returns alongside positive sustainability outcomes. A summary of the approach, compared with the EU Paris Aligned Benchmark's methodology for reference, is provided below.

Display 4

At a Glance: MSIM Fixed Income Net Zero Approach

NET ZERO COMPONENT	MSIM FIXED INCOME FUNDS WITH NET ZERO OBJECTIVE	EU PARIS ALIGNED BENCHMARKS
Carbon Metric	$tCO_2e.$ / Revenue	$tCO_2e.$ / EVIC Absolute $tCO_2e.$
Scope of Emissions	Scope 1+2 Scope 3 tracked separately	Scope 1+2 Scope 3 phase-in by 2024
Baseline – Absolute / Relative	Absolute: any level lower than index	Relative: 50% Day-1 reduction
Interim Target / Decarbonisation rate	-50% by 2030 (vs 2020 or fund launch date thereafter)	-50% by 2030 (vs 2020)
General Exclusions	Controversial Weapons, Civilian Firearms, Tobacco, Gambling, Adult Entertainment, UN Global Compact *[Alcohol for selected funds]*	Controversial Weapons, Tobacco, UN Global Compact
Fossil Fuel Exclusions	Thermal Coal Mining Coal-fired Power Oil Sands, Arctic Oil & Gas *[Conventional Oil & Gas for selected funds]*	Thermal Coal Mining Coal-fired Power Oil & Gas
Climate-Focused Engagement	Yes	No

Data subject to change
Source: MSIM, EU Climate Transition Benchmarks Regulation; as of June 30, 2024. Data is subject to change.

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Risk Considerations

Diversification does not eliminate the risk of loss.

There is no assurance that a portfolio will achieve its investment objective. Portfolios are subject to **market risk,** which is the possibility that the market values of securities owned by the portfolio will decline and that the value of portfolio shares may therefore be less than what you paid for them. Market values can change daily due to economic and other events (e.g. natural disasters, health crises, terrorism, conflicts and social unrest) that affect markets, countries, companies or governments. It is difficult to predict the timing, duration, and potential adverse effects (e.g. portfolio liquidity) of events. Accordingly, you can lose money investing in a portfolio. **Fixed-income securities** are subject to the ability of an issuer to make timely principal and interest payments (credit risk), changes in interest rates (interest rate risk), the creditworthiness of the issuer and general market liquidity (market risk). In a rising interest-rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. In a declining interest-rate environment, the portfolio may generate less income. **Longer-term securities** may be more sensitive to interest rate changes. Certain **U.S. government securities** purchased by the strategy, such as those issued by Fannie Mae and Freddie Mac, are not backed by the full faith and credit of the U.S. It is possible that these issuers will not have the funds to meet their payment obligations in the future. **Public bank loans** are subject to liquidity risk and the credit risks of lower-rated securities. **Highyield securities (junk bonds)** are lower-rated securities that may have a higher degree of credit and liquidity risk. **Sovereign debt securities** are subject to default risk. **Mortgage- and asset-backed securities** are sensitive to early prepayment risk and a higher risk of default, and may be hard to value and difficult to sell (**liquidity risk**). They are also subject to credit, market and interest rate risks. The **currency market** is highly volatile. Prices in these markets are influenced by, among other things, changing supply and demand for a particular currency; trade; fiscal, money and domestic or foreign exchange control programs and policies; and changes in domestic and foreign interest rates. Investments in **foreign markets** entail special risks such as currency, political, economic and market risks. The risks of investing in **emerging market** countries are greater than the risks generally associated with foreign investments. **Derivative instruments** may disproportionately increase losses and have a significant impact on performance. They also may be subject to counterparty, liquidity, valuation, and correlation and market risks. Restricted and illiquid securities may be more difficult to sell and value than publicly traded securities (liquidity risk). Due to the possibility that prepayments will alter the cash flows on **collateralized mortgage obligations (CMOs)**, it is not possible to determine in advance their final maturity date or average life. In addition, if the collateral securing the CMOs or any third-party guarantees are insufficient to make payments, the portfolio could sustain a loss. **ESG Strategies** that incorporate impact investing and/or **Environmental, Social and Governance (ESG)** factors could result in relative investment performance deviating from other strategies or broad market benchmarks, depending on whether such sectors or investments are in or out of favor in the market. As a result, there is no assurance ESG strategies could result in more favorable investment performance.

There is no guarantee that any investment strategy will work under all market conditions, and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market.

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