

The Case for Stable Risk-Adjusted Returns: Why Now?

INVESTMENT INSIGHT | PORTFOLIO SOLUTIONS GROUP | 2023

Why now? Because the 40-year decline in interest rates has ended, where inflation risks and interest rates are likely to become more volatile. As a result, investors can no longer rely on bonds to provide steady returns and be the ballast in portfolios as they did for four decades. The correlation of equity and bond returns is likely to be higher, thus increasing the risk of drawdowns for traditionally managed multi-asset portfolios. We believe a balanced approach to managing portfolios that controls for volatility to produce better risk-adjusted returns is required to achieve a stable compounding of returns into the future—and our Global Balanced Risk Control Strategy is designed to do just that.

High correlations across fixed income and equity asset classes reduce diversification benefits and increase portfolio risk, leaving the door open for significant drawdowns. While this tenet is well-established and demonstrable, it is often forgotten in the good years; in 2022 however, market returns made it painfully obvious. This change in market dynamics toward higher correlation risks is not new, it has been with us since 2018 and it is likely to be with us for the foreseeable future. When high correlation risks produce substantially negative returns investors take notice; while in the good years it is ignored. Perhaps the bigger question is: what is an investor going to do about it? As intimated earlier, we have a solution: our Global Balanced Risk Control Strategy.

Better to get balanced and control risk than get defensive

The solution is to construct a portfolio with a better balance of offsetting risks, instead of just utilizing what have been traditionally known as defensive assets. The difference is that balance is a portfolio construction decision to reduce risk, while becoming defensive is an asset allocation decision.

AUTHOR



JIM CARON
Chief Investment Officer
Portfolio
Solutions Group

In high correlation markets, assets' performance is highly correlated, thus defensive asset allocation decisions provide less of a hedge to drawdowns than they historically had in the past. For instance, in 2022 high quality investment grade bonds also lost value and did not provide a meaningful defensive offset to equity as it had prior to 2018.

We suggest a different approach: construct a portfolio that balances the risks of the asset selections against each other to reduce the portfolio risk. This is accomplished by targeting a level of volatility and managing risks within a specified range around that volatility target, or balancing the risks in order to provide stable risk-adjusted returns over time.

Put simply, the traditional multi-asset manager approach to creating a diversified portfolio by making a simple asset allocation decision, such as 60% equity versus 40% bonds, will not work well when both asset returns are highly correlated. Employing a balanced and active management approach to achieve more stable risk-adjusted returns may prove superior and the overriding goal of the Global Balanced Risk Control Strategy.

Diversification is good, but being balanced is better

Given the vicissitudes of the market, holding certain investments in certain markets could be potentially disastrous. Research shows that, in distressed markets, equities across the globe start to move together in lockstep. Equity-only managers have no recourse other than to reallocate between their equity holdings and cash. We have previously referred to this quandary as "rearranging the deck chairs on the Titanic."

Fixed income is often viewed as a safer investment in volatile markets. But we

"An actively managed global multi-asset strategy anticipates risk and can adjust its asset mix to capture the best opportunities as market conditions change."

have seen bond funds lose money, and they have historically delivered lower long-term performance than equity.

Diversification is often the pat answer to managing volatility. It entails building a portfolio with both equity and fixed income assets in some fixed proportion based on an investment horizon and risk profile. And it's a good idea.

Until it isn't.

In our minds, a passively-managed portfolio, no matter how diversified, fails to protect capital during significant market drawdowns. Imagine an investor holding a 70% equity/30% fixed portfolio: If the equity allocation is down -30% and fixed income is unchanged, simple maths indicates the total portfolio is still down -21%, i.e., bear territory.

In contrast, a multi-asset manager allocates across multiple asset classes that can be rearranged to manage risk. But in our view, there are two keys to managing a multi-asset portfolio successfully: One, that the manager is a truly active manager, and two, that they manage to a volatility target, not a benchmark.

Active management is forward looking

Simply defined, multi-asset managers manage equity, fixed income and cash in the same portfolio. In our case (and others), we manage commodity-linked notes as well. Multi-asset funds are not "target date" funds, where allocations between equity and fixed income change at prescribed intervals over the

life of the fund, based on the age and risk profile of the investor. While target date funds are a good fit for certain investors, they generally do not make tactical adjustments based on market conditions over the life of the fund.

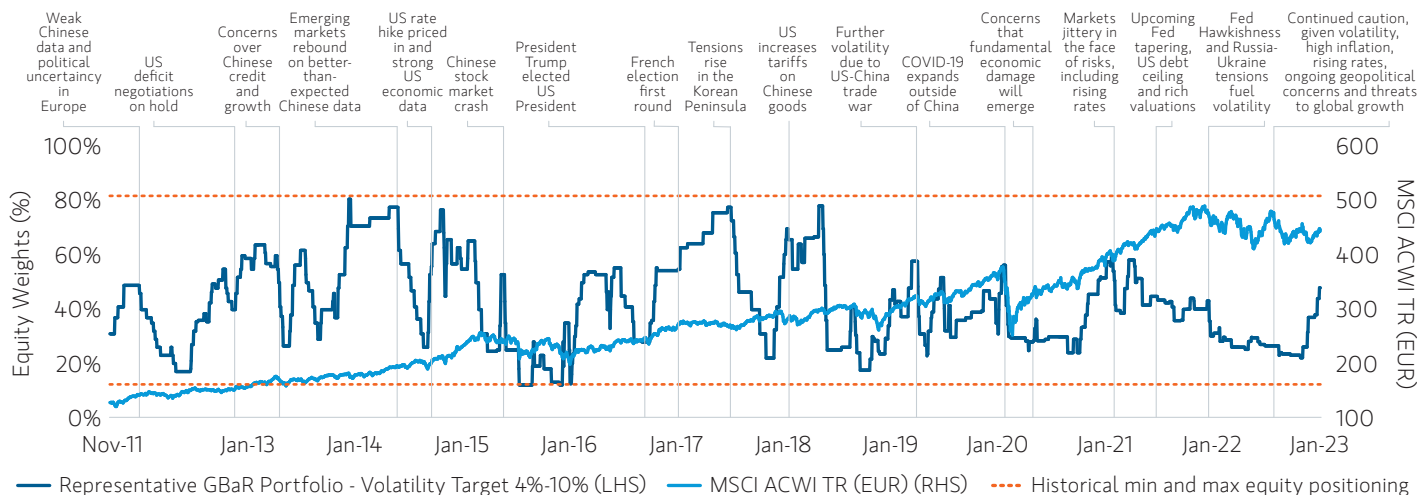
As we see it, diversification is only effective if a portfolio is actively managed. In our case, active management is a forward-looking exercise, and anticipating volatility events is the hallmark of our investment approach. Yes, that means we are, in fact, trying to forecast the future. But not with tarot cards. Our dedicated team of 25¹ investment professionals continually surveys macroeconomic and geopolitical conditions across the globe to identify potential sources of risk that could arise. Our stated goal is to adjust portfolio exposures before volatility strikes.

In our portfolios the equity allocation is the primary lever for adjusting our risk exposure. When we expect some event—such as political instability, exacerbated trade tensions or a significant change in monetary policy—to cause a spike in market volatility, we typically—actively—reduce exposure to equities. Our goal is to get ahead of the "bad" news, as opposed to a post-volatility correction. In the same way, when we expect a reduction in the volatility level, we actively increase exposure to equities, to take advantage of the upside potential. *Display 1* shows how we have adjusted equity exposure in anticipation of various global events over the past two years.

¹ Source: Morgan Stanley Investment Management, Team as of 30 September 2023. Team members may change from time to time without notice.

DISPLAY 1

Dynamic equity exposure is key in our multi-asset portfolios



Note: The Left-Hand Scale represents the equity weights of the Representative GBaR Portfolio with a Volatility Target of 4-10%.

Source: Representative GBaR Portfolio, MSIM, DataStream, 3 November 2011 to 31 January 2023. Subject to change daily. Provided for informational purposes only and should not be deemed as a recommendation to buy or sell securities in the asset class shown above. Each portfolio may differ due to specific investment restrictions and guidelines. Accordingly, individual results may vary. Effective weights incorporate the impact of options. Target weights are the weights targeted at the time of the team's rebalancing.

As you can see from *Display 1*, we make significant changes to our asset mix based on what we see as upcoming risk events. Our equity allocation was near 80% in mid 2018, but when US-China trade tensions were exacerbated globally by political factors, we shifted that allocation to close to 25% by the summer of that year. In early 2020, to help manage volatility during the COVID-19 pandemic and unprecedented shutdown of the global economy, we reduced the equity allocation of our

flagship portfolio from around 55% to 20%, a position we maintained as volatility remained elevated.

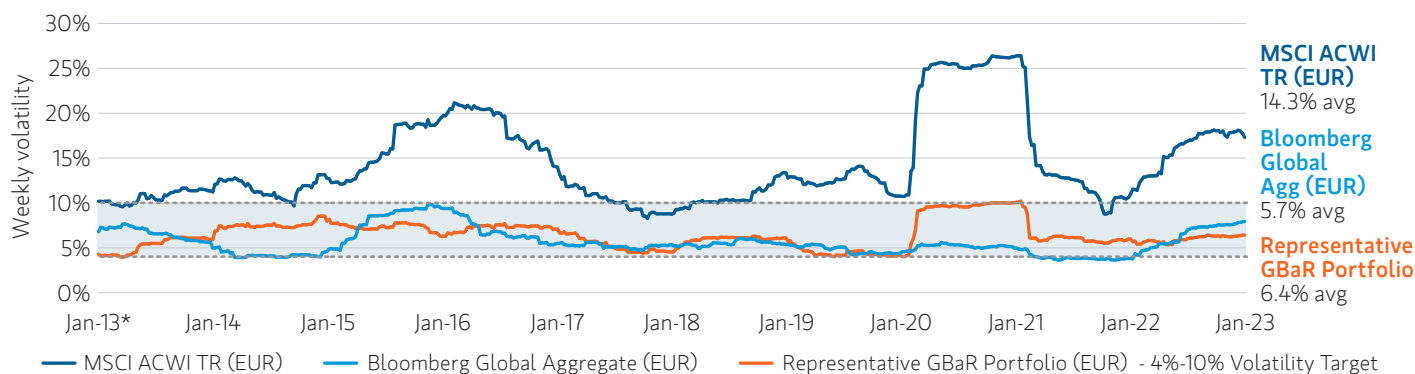
Providing the benefits of compounding returns by managing volatility

On one level we are managing a multi-asset portfolio, but in truth, what we are really managing is volatility. In our case, we manage our multi-asset portfolios to a pre-defined risk budget, also defined as a volatility target range.

In our representative Global Balanced Risk Control (GBaR) portfolio, launched in November 2011, we target volatility in the range of 4%-10% (see *Display 2*). Typically, we expect volatility to be towards the middle of this range, but in extreme conditions we may make fuller use of the range, for example to mitigate the impact of volatile down markets. Our goal is to deliver competitive returns and minimise downside market participation within these volatility parameters.

DISPLAY 2

A track record of stable volatility

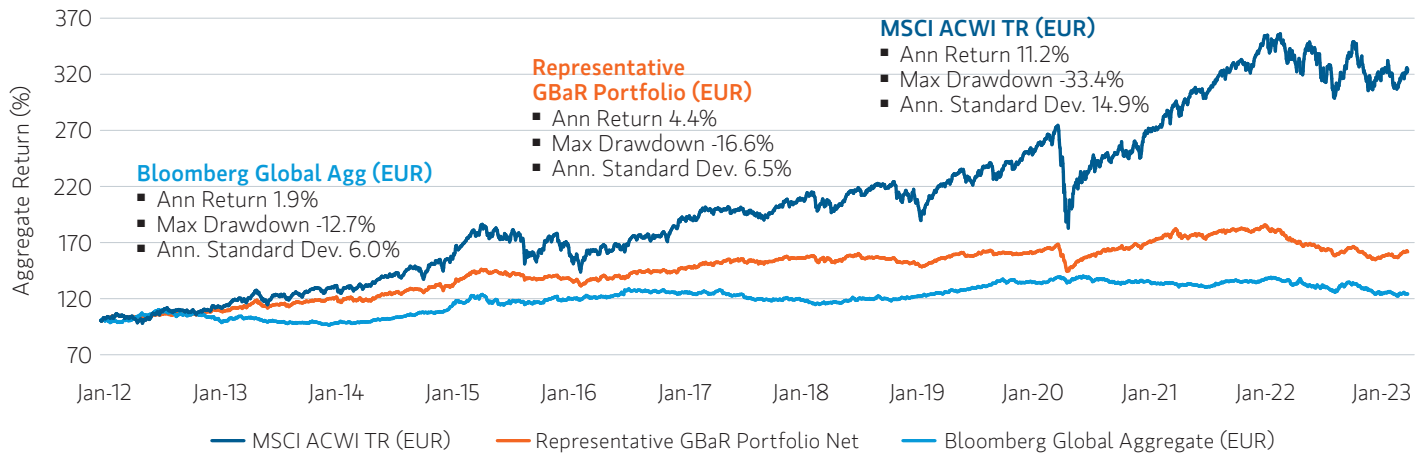


Source: Datastream, from 31 January 2013 to 31 January 2023 (including averages). Subject to change daily. Based on 1-year weekly data. **Past performance is not a reliable indicator of future performance.** Provided for informational purposes only and should not be deemed as a recommendation to buy or sell securities in the asset class shown above. Each portfolio may differ due to specific investment restrictions and guidelines. Accordingly, individual results may vary.

* The data starts one year after inception, as one-year weekly data is required for statistical significance.

DISPLAY 3

An active multi-asset approach anticipates risk, avoids extremes



Source: Datastream, from 26 January 2012 to 31 January 2023. Subject to change daily. Provided for informational purposes only and should not be deemed as a recommendation to buy or sell securities in the asset class shown above. Each portfolio may differ due to specific investment restrictions and guidelines. Accordingly, individual results may vary. Past performance is no guarantee of future results.

This is quite a different approach from most investment managers, who designate a benchmark to evaluate their fund's performance. But evaluating any investment relative to a benchmark is tricky: If the broader market is down -35% and a portfolio only -30%, the manager has in fact beaten their benchmark, which is great for the manager. The client, however, has still lost close to a third of their investment.

We benchmark our portfolios based on volatility and our investment process begins with risk. As discussed, we specify a target range of volatility, e.g., 4%-10%, within which we aim to maintain the strategy's volatility. Typically, we expect this to be towards the middle of the range i.e., 6%-7%. As stated, our multi-asset portfolios hold a mix of equities, fixed income, commodity-linked notes and cash, and this flexibility to diversify across asset classes is critical in managing risk.

In the industry vernacular, we are often referred to as, not surprisingly, a "volatility manager." A paper from the Yale School of Management, "Volatility Managed Portfolios,"² indicates that

volatility management is an investment approach that can produce superior investment results.

From the paper's abstract:

"Managed portfolios that take less risk when volatility is high produce large, positive alphas and increase factor Sharpe ratios by substantial amounts."

Furthermore from the research:

"We construct portfolios that scale monthly returns by the inverse of their expected variance, decreasing risk exposure when the returns variance is expected to be high, and vice versa. We call these volatility-managed portfolios. We document that this simple trading strategy earns large alphas across a wide range of asset-pricing factors, suggesting that investors can benefit from volatility timing."

Perhaps the simplest explanation of what we are trying to achieve, is an investment process that provides a stable return profile that enables clients to compound their returns more predictably within a volatility range, as seen in *Display 2*.

The Portfolio Solutions Group's multi-asset portfolios

2020 is a good example of what we believe are the advantages of an actively managed multi-asset portfolio benchmarked to a volatility target.

As can be seen in *Display 3*, our multi-asset representative Global Balanced Risk Control portfolio, captured the same returns as the MSCI All Country World Total Return Index (EUR) over the course of 2020. Yet, its maximum drawdown during the year was *less than half* that of the index—approximately 17% vs 33% for the MSCI ACWI TR (EUR) achieved with less than half the volatility—approximately 7% vs 15% for the MSCI ACWI TR (EUR). In our view, delivering competitive performance without extreme volatility is particularly appealing for the vast majority of clients.

In fact, we find that our approach to multi-asset investing often meets the needs of both high-net-worth (HNW) investors and smaller clients. In particular, as a core portfolio allocation for the former and as a holistic strategy for the latter. Over the years, we have come to understand that investors are

² Source: <https://pdfs.semanticscholar.org/e024/3261d9d0afa94ed87827fcdc68338422fa0f.pdf>, published on 23 November 2015

often more concerned with keeping their money than with growing it aggressively. Having said that, we see that both HNW and smaller investors do want to grow their money, but with less volatility and most importantly, with no surprises. These investors (and others) realize that massive drawdowns have the potential to cause even the most sophisticated investors to sell at the bottom—often the biggest disaster of all. Instead, true active management and flexibility within a volatility target/risk control framework are required to mitigate the downside during the most volatile periods. The speed of execution and available tools (futures and options, among others) in order to achieve these results are also factors to consider when an investor delegates part of their portfolio to a multi-asset manager with a risk control framework.

ESG and multi-asset investing

There has certainly been an uptick in demand for Environmental, Social and Governance (ESG)-run products in recent years—and multi-asset is no exception to this trend. As a team, we believe that the market ascribes value to ESG factors and that companies with strong ESG

profiles are more attractive investments; emphasising such companies therefore provides an opportunity to add value to portfolios. Likewise, avoiding companies that perform relatively poorly on ESG criteria, and could be expected to suffer in the new environment, is an additional risk management tool.

For this reason, the Portfolio Solutions Group seeks to enhance portfolios' ESG profiles, or ESG "friendliness," through a process of "tilting" towards securities with relatively high ESG ratings. In addition, the team excludes securities with exposure to significant ESG controversies and seeks to actively engage with company management on ESG issues for a targeted set of companies held in our portfolios. Ultimately as an increasing number of ESG factors represent material investment risks, incorporating ESG in an investment process is no longer simply a matter of personal conviction, but in our case is a natural extension of our risk control philosophy.

Our investment team and process

Investors are faced with continually changing market conditions. In our

years of active fund management, our team has invested during economic recessions and recoveries, momentum markets and bubbles, rising interest rate and inflationary environments. Not to mention those "black swan" events that can take even the most astute investors by surprise.

We expect that markets will be more volatile in the future and that our investment process that controls for volatility to create a more stable return profile and produce higher quality risk-adjusted returns will offer better long-term results for investors. Our process is paramount.

An approach that adapts – so that you don't have to

We believe that multi-asset portfolios can navigate a variety of environments by employing an approach that actively manages allocation decisions, while managing the entire portfolio to a volatility target. This is an approach that adapts the asset mix so that you don't have to.

Simply put, our goal is to deliver competitive performance with minimized participation in distressed markets.

Risk Considerations

There is no assurance that the Strategy 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 this portfolio. Please be aware that this strategy may be subject to certain additional risks. There is the risk that the Adviser's **asset allocation methodology** and assumptions regarding the Underlying Portfolios may be incorrect in light of actual market conditions and the Portfolio may not achieve its investment objective. Share prices also tend to be volatile and there is a significant possibility of loss. The portfolio's investments in **commodity-linked notes** involve substantial risks, including risk of loss of a significant portion of their principal value. In addition to commodity risk, they may be subject to additional special risks, such as risk of loss of interest and principal, lack of secondary market and risk of greater volatility, that do not affect traditional equity and debt securities. **Currency fluctuations** could erase investment gains or add to investment losses. **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. **Equity and foreign securities** are generally more volatile than fixed income securities and are subject to currency, political, economic and market risks. Equity values fluctuate in response to activities specific to a company. Stocks of **small-capitalization companies** carry special risks, such as limited product lines, markets and financial resources, and greater market volatility than securities of larger, more established companies. The risks of investing in **emerging market countries** are greater than risks associated with investments in foreign developed markets. **Exchange traded funds (ETFs)** shares have many of the same risks as direct investments in common stocks or bonds and their market value will fluctuate as the value of the underlying index does. By investing in exchange traded funds ETFs and other Investment Funds, the portfolio absorbs both its own expenses and those of the ETFs and Investment Funds it invests in. Supply and demand for ETFs and Investment Funds may not be correlated to that of the underlying securities. **Derivative instruments** can be illiquid, may disproportionately increase losses and may have a potentially large negative impact on the portfolio's performance. A **currency forward** is a hedging tool that does not involve any upfront payment. The use of leverage may increase volatility in the Portfolio. **Diversification** does not protect you against a loss in a particular market; however, it allows you to spread that risk across various asset classes.

DEFINITIONS

Volatility is a statistical measure of the dispersion of returns for a given security or market index. The team measures volatility on an ex-ante (forward-looking) basis using the manager's proprietary risk management system. **Targets** are typical ranges. There is no assurance that these targets will be attained. Sharpe ratio is a risk-adjusted measure calculated as the ratio of excess return to standard deviation. **Sharpe ratio** is a risk-adjusted measure calculated as the ratio of excess return to standard deviation. The Sharpe ratio determines reward per unit of risk. The higher the Sharpe ratio, the better the historical risk-adjusted performance.

The **Asset Allocation** strategies provide the Investment Adviser with wide discretion to allocate between different asset classes. From time to time, the Asset Allocation may have significant exposure to a single or limited number of fixed income or equity asset classes. Accordingly, the relative relevance of the risks associated with equity securities, Fixed Income Securities and derivatives will fluctuate over time.

Investments in derivative instruments carry certain inherent risks such as the risk of counter party default and before investing you should ensure you fully understand these risks. Use of leverage may also magnify losses as well as gains to the extent that leverage is employed. These investments are designed for investors who understand and are willing to accept these risks. Performance may be volatile, and an investor could lose all or a substantial portion of his or her investment.

The **MSCI All Country World Index (ACWI)** is a free float-adjusted market capitalization weighted index designed to measure the equity market performance of developed and emerging markets. The term "free float" represents the portion of shares outstanding that are deemed to be available for purchase in the public equity markets by investors. The performance of the Index is listed in EUR and assumes reinvestment of net dividends. The **Bloomberg Global Aggregate Index** is a flagship measure of global investment grade debt from twenty-eight local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers. There are four regional aggregate benchmarks that largely comprise the Global Aggregate Index: the US Aggregate, the Pan-European Aggregate, the Asian-Pacific Aggregate, and the Canadian Aggregate Indices. The Global Aggregate

Index also includes Eurodollar, Euro-Yen, and 144A Index-eligible securities, and debt from five local currency markets not tracked by the regional aggregate benchmarks (CLP, COP, MXN, PEN, and ILS). A component of the Multiverse Index, the Global Aggregate Index was created in 2000, with index history backfilled to January 1, 1990. Total return provides investors with a price-plus-gross cash dividend return. Gross cash dividends are applied on the ex-date of the dividend.

DISTRIBUTION

This material is only intended for and will only be distributed to persons resident in jurisdictions where such distribution or availability would not be contrary to local laws or regulations.

MSIM, the asset management division of Morgan Stanley (NYSE: MS), and its affiliates have arrangements in place to market each other's products and services. Each MSIM affiliate is regulated as appropriate in the jurisdiction it operates. MSIM's affiliates are: Eaton Vance Management (International) Limited, Eaton Vance Advisers International Ltd, Calvert Research and Management, Eaton Vance Management, Parametric Portfolio Associates LLC and Atlanta Capital Management LLC.

This material has been issued by any one or more of the following entities:

EMEA:

This material is for Professional Clients/Accredited Investors only.

In the EU, MSIM and Eaton Vance materials are issued by MSIM Fund Management (Ireland) Limited ("FMIL"). FMIL is regulated by the Central Bank of Ireland and is incorporated in Ireland as a private company limited by shares with company registration number 616661 and has its registered address at The Observatory, 7-11 Sir John Rogerson's Quay, Dublin 2, D02 VC42, Ireland.

Outside the EU, MSIM materials are issued by Morgan Stanley Investment Management Limited (MSIM Ltd) is authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 1981121. Registered Office: 25 Cabot Square, Canary Wharf, London E14 4QA.

In Switzerland, MSIM materials are issued by Morgan Stanley & Co. International plc, London (Zurich Branch) Authorised and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered Office: Beethovenstrasse 33, 8002 Zurich, Switzerland.

Outside the US and EU, Eaton Vance materials are issued by Eaton Vance Management (International) Limited (“EVMIL”) 125 Old Broad Street, London, EC2N 1AR, UK, which is authorised and regulated in the United Kingdom by the Financial Conduct Authority.

Italy: MSIM FMIL (Milan Branch), (Sede Secondaria di Milano) Palazzo Serbelloni Corso Venezia, 16 20121 Milano, Italy. **The Netherlands:** MSIM FMIL (Amsterdam Branch), Rembrandt Tower, 11th Floor Amstelplein 1 1096HA, Netherlands. **France:** MSIM FMIL (Paris Branch), 61 rue de Monceau 75008 Paris, France. **Spain:** MSIM FMIL (Madrid Branch), Calle Serrano 55, 28006, Madrid, Spain. **Germany:** MSIM FMIL Frankfurt Branch, Große Gallusstraße 18, 60312 Frankfurt am Main, Germany (Gattung: Zweigniederlassung (FDI) gem. § 53b KWG). **Denmark:** MSIM FMIL (Copenhagen Branch), Gorrissen Federspiel, Axel Towers, Axeltorv2, 1609 Copenhagen V, Denmark.

LATIN AMERICA (Brazil, Chile Colombia, Mexico, Peru, and Uruguay) This material is for use with an institutional investor or a qualified investor only. All information contained herein is confidential and is for the exclusive use and review of the intended addressee, and may not be passed on to any third party. This material is provided for informational purposes only and does not constitute a public offering, solicitation or recommendation to buy or sell for any product, service, security and/or strategy. A decision to invest should only be made after reading the strategy documentation and conducting in-depth and independent due diligence.

ASIA PACIFIC

Hong Kong: This material is disseminated by Morgan Stanley Asia Limited for use in Hong Kong and shall only be made available to “professional investors” as defined under the Securities and Futures Ordinance of Hong Kong (Cap 571). The contents of this material have not been reviewed nor approved by any regulatory authority including the Securities and Futures Commission in Hong Kong. Accordingly, save where an exemption is available under the relevant law, this material shall not be issued, circulated, distributed, directed at, or made available to, the public in Hong Kong. **Singapore:** This material is disseminated by Morgan Stanley Investment Management Company and should not be considered to be the subject of an invitation for subscription or purchase, whether directly or indirectly, to the public or any member of the public in Singapore other than (i) to an institutional investor under section 304 of the Securities and Futures Act, Chapter 289 of Singapore (“SFA”); (ii) to a “relevant person” (which includes an accredited investor) pursuant to section 305 of the SFA, and such distribution is in accordance with the conditions specified in section 305 of the SFA; or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. This publication has not been reviewed by the Monetary Authority of Singapore. **Australia:** This material is provided by Morgan Stanley Investment Management (Australia) Pty Ltd ABN 22122040037, AFSL No. 314182 and its affiliates and does not constitute an offer of interests. Morgan Stanley Investment Management (Australia) Pty Limited arranges for MSIM affiliates to provide financial services to Australian wholesale clients. Interests will only be offered in circumstances under which no disclosure is required under the Corporations Act 2001 (Cth) (the “Corporations Act”). Any offer of interests will not purport to be an offer of interests in circumstances under which disclosure is required under the Corporations Act and will only be made to persons who qualify as a “wholesale client” (as defined in the Corporations Act). This material will not be lodged with the Australian Securities and Investments Commission.

Japan: For professional investors, this material is circulated or distributed for informational purposes only. For those who are not professional investors, this material is provided in relation to Morgan Stanley Investment Management (Japan) Co., Ltd. (“MSIMJ”)’s business with respect to discretionary investment management agreements (“IMA”) and investment advisory agreements (“IAA”). This is not for the purpose of a recommendation or solicitation of transactions or offers any particular financial instruments. Under an IMA, with respect to management of assets of a client, the client prescribes basic management policies in advance and commissions MSIMJ to make all investment decisions based on an analysis of the value, etc. of the securities, and MSIMJ accepts such commission. The client shall delegate to MSIMJ the authorities necessary for making investment. MSIMJ exercises the delegated authorities based on investment decisions of MSIMJ, and the client shall not make individual instructions. All investment profits and losses belong to the clients; principal is not guaranteed. Please consider the investment objectives and nature of risks before investing. As an investment advisory fee for an IAA or an IMA, the amount of assets subject to the contract multiplied by a certain rate (the upper limit is 2.20% per annum (including tax)) shall be incurred in proportion to the contract period. For some strategies, a contingency fee may be incurred in addition to the fee mentioned above. Indirect charges also may be incurred, such as brokerage commissions for incorporated securities.

Since these charges and expenses are different depending on a contract and other factors, MSIMJ cannot present the rates, upper limits, etc. in advance. All clients should read the Documents Provided Prior to the Conclusion of a Contract carefully before executing an agreement. This material is disseminated in Japan by MSIMJ, Registered No. 410 (Director of Kanto Local Finance Bureau (Financial Instruments Firms)), Membership: the Japan Securities Dealers Association, The Investment Trusts Association, Japan, the Japan Investment Advisers Association and the Type II Financial Instruments Firms Association.

IMPORTANT INFORMATION

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.

A separately managed account may not be appropriate for all investors. Separate accounts managed according to the particular Strategy may include securities that may not necessarily track the performance of a particular index. A minimum asset level is required.

The views and opinions and/or analysis expressed are those of the author or the investment team as of the date of preparation of this material and are subject to change at any time without notice due to market or economic conditions and may not necessarily come to pass. Furthermore, the views will not be updated or otherwise revised to reflect information that subsequently becomes available or circumstances existing, or changes occurring, after the date of publication. The views expressed do not reflect the opinions of all investment personnel at Morgan Stanley Investment Management (MSIM) and its subsidiaries and affiliates (collectively “the Firm”), and may not be reflected in all the strategies and products that the Firm offers. Forecasts and/or estimates provided herein are subject to change and may not actually come to pass. Information regarding expected market returns and market outlooks is based on the research, analysis and opinions of the authors or the investment team. These conclusions are speculative in nature, may not come to pass and are not intended to predict the future performance of any specific strategy or product the Firm offers. Future results may differ significantly depending on factors such as changes in securities or financial markets or general economic conditions.

This material has been prepared on the basis of publicly available information, internally developed data and other third-party sources believed to be reliable. However, no assurances are provided regarding the reliability of such information and the Firm has not sought to independently verify information taken from public and third-party sources.

This material is a general communication, which is not impartial and all information provided has been prepared solely for informational and educational purposes and does not constitute an offer or a recommendation to buy or sell any particular security or to adopt any specific investment strategy. The information herein has not been based on a consideration of any individual investor circumstances and is not investment advice, nor should it be construed in any way as tax, accounting, legal or regulatory advice. To that end, investors should seek independent legal and financial advice, including advice as to tax consequences, before making any investment decision.

Charts and graphs provided herein are for illustrative purposes only.

This material is not a product of Morgan Stanley’s Research Department and should not be regarded as a research material or a recommendation.

The Firm has not authorised financial intermediaries to use and to distribute this material, unless such use and distribution is made in accordance with applicable law and regulation. Additionally, financial intermediaries are required to satisfy themselves that the information in this material is appropriate for any person to whom they provide this material in view of that person’s circumstances and purpose. The Firm shall not be liable for, and accepts no liability for, the use or misuse of this material by any such financial intermediary.

This material may be translated into other languages. Where such a translation is made this English version remains definitive. If there are any discrepancies between the English version and any version of this material in another language, the English version shall prevail.

The whole or any part of this material may not be directly or indirectly reproduced, copied, modified, used to create a derivative work, performed, displayed, published, posted, licensed, framed, distributed or transmitted or any of its contents disclosed to third parties without the Firm’s express written consent. This material may not be linked to unless such hyperlink is for personal and non-commercial use. All information contained herein is proprietary and is protected under copyright and other applicable law.

Eaton Vance is part of Morgan Stanley Investment Management. Morgan Stanley Investment Management is the asset management division of Morgan Stanley.