Morgan Stanley

INVESTMENT MANAGEMENT

THE BIG PICTURE Emerging Markets: Stepping Into the Spotlight

MACRO INSIGHT | Q4 2022

In the 2010s, emerging market (EM) equities suffered their worst performance as an asset class since the 1930s (Display 1).1 They returned a mere +49%, compared to an average of +203% in the previous seven decades.² Emerging market countries ran high twin deficits, which led to currency depreciation and forced a cleanup of excesses from their precarious balance sheets, a legacy of loose fiscal and monetary policies. An important factor inhibiting EM equity performance in the last decade was the deterioration in the growth differential between emerging economies and the developed world, the key driver historically of relative returns of the asset class. After lagging the developed economies (DM), especially U.S. equities, for more than a decade, emerging markets are in a much stronger position to outperform developed countries this decade.

Despite global crises like the COVID pandemic and Russia's invasion of Ukraine, as well as monetary policy tightening by the Fed and the continued strength of the U.S. dollar (USD), several emerging markets have thrived. Brazil, Mexico, India, Indonesia and the GCC (Gulf Cooperation Council) have not only outperformed the MSCI EM index

AUTHOR



JITANIA KANDHARI
Deputy CIO, Solutions &
Multi Asset Group
Head of Macro &
Thematic Research,
Emerging Markets
Portfolio Manager, Active
International Allocation

¹ MSIM, Bloomberg, FactSet, Haver.

² MSIM, Bloomberg, FactSet, Haver. EM returns based on MSCI EM Index.

but even the U.S. so far in 2022.³ In fact 9 of the 10 top performing markets this year are emerging countries. The headwinds of the past are becoming tailwinds in several markets, with the exception of China, that we believe should provide support for many years to come. Various factors contributing to this outperformance should continue to serve as catalysts for a broader EM rally:

- Relative growth differentials now favor EM equities (Display 2)
- EM sovereigns are in healthier shape compared to DM governments due to better public debt and fiscal situations
- EM corporates are in a better position compared to DM corporates due to deleveraging
- EM external balances have improved compared to the past decade
- EM equities and currencies are trading at crisis-level valuations

Relative growth differentials now favor EM equities

Growth in EM used to be seen as dependent on China's economic performance. However, we think this relationship will change over the decade. Growth in China is likely to be weighed down due to its high debt, declining working-age population growth and falling contribution from exports. In the 2000s, China became the manufacturer to the world, and in the 2010s, China's economy grew thanks to consumer internet giants. The big focus this decade will be on green technology and science-based industries like semiconductors, artificial intelligence and high-end manufacturing. EM is a heterogeneous asset class—despite the slowdown in China, we expect many other emerging market countries to see an acceleration in their growth, which will drive relative earnings and market share. The growth story of EM is underpinned by several factors across countries:

DISPLAY 1

2010s: Worst Decadal Returns for EM Since the 1930s

Emerging Markets Cumulative Total Returns Each Decade



Data as of December 31, 2019.

Source: MSIM, Bloomberg, FactSet, Haver. Equity Total Returns, USD.

DISPLAY 2

Relative Growth Differentials Favor EM

EM vs DM Real GDP Growth Differential and Relative Performance



EM - DM Real GDP Growth Differential (LHS) — EM/DM Relative Total Return Index USD (RHS)

Data as of December 5, 2022. GDP-weighted.

Source: MSIM, Bloomberg, FactSet, Haver. Forecasts = Bloomberg consensus private sector estimates. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

- A manufacturing revival in competitive markets led by a "China plus one" strategy driving reshoring and friend-shoring
- A commodity upcycle driven by supply constraints and increased demand for green metals and
- minerals supporting decarbonization, benefiting resource-rich economies
- A digitization-led productivity boost will help growth across most EM regions
- A favorable political cycle in several pockets of emerging markets

³ MSIM, Bloomberg. Data as of December 11, 2022. U.S. returns based on the S&P 500® Index.

EM sovereigns are in healthier shape compared to DM governments due to better public debt and fiscal situations

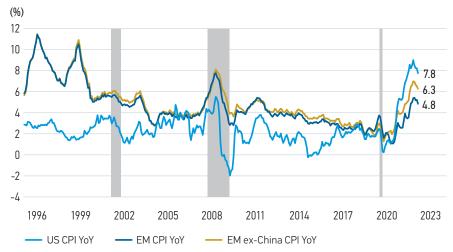
The absence of fiscal excesses in emerging economies has helped keep inflation more contained compared to the developed world. In fact, barring a brief period in the mid-2000s, inflation in EM for the first time is lower than in the U.S. (Display 3).⁴ Historically, fiscal spending and money printing was done by EM governments and central banks, which inevitably stoked inflation and currency crises. But this time it was the Fed, and other developed world central banks, that resorted to printing money during the pandemic.

While total EM government debt/GDP (Gross Domestic Product) has risen, EM excluding China government debt has in fact fallen 1% to 53.8%, with improving fiscal deficits and higher nominal growth.5 In another major development, EM borrowing has shifted to local funding, with about 85% of EM government debt now funded from domestic sources, reducing past vulnerabilities related to outflows and currency pressures during Fed hiking cycles.⁶ For example, in 2017, 40% of Indonesia's government securities were owned by foreign investors. Today that figure has fallen to 14%.7

Smaller frontier economies like Egypt, Ghana, Ethiopia, Pakistan and others still face debt problems, but they constitute only approximately 5% of global GDP and hence do not pose systemic risk.⁸ A positive: Larger emerging economies have no external debt issue—the original sin in emerging market countries.

DISPLAY 3 Inflation in EM Now Lower Than in the U.S.

Headline CPI Inflation Rate by Region



Data as of October 31, 2022. Market Cap Weighted Source: MSIM, Bloomberg, FactSet, Haver.

EM corporates are in a better position compared to DM corporates due to deleveraging

Over the past year, the private sector debt/GDP ratio of emerging economies, excluding China, decreased by 4.5% to 85.8% of GDP.9 The deleveraging was led by domestic corporate and household credit. Although private external debt rose by \$1 trillion over the past five years—reaching \$7.4 trillion in 2021—this acceleration reflects growth in China alongside borrowing by the Hong Kong and Singapore financial centers to fund Asian entities.10 Elsewhere, external private sector borrowing has flatlined and is falling as a share of GDP, suggesting corporatesector balance sheets are generally healthy across EM. Several EMs are starting a credit cycle with domestic liquidity, a healthy banking sector and a favorable asset-quality situation. Credit

could support higher growth in these markets going forward.

EM external balances have improved compared to the past decade

A better macro environment with stronger sovereign, corporate and household balance sheets along with lower external vulnerabilities has helped improve the current account balances for several emerging markets. Commodity tailwinds are helping the external accounts of resource-rich countries and lowering their reliance on foreign capital. Reserves in EM are higher than where they were at the beginning of last decade. 11 In contrast to the past, EM economies now exhibit healthier balanceof-payments accounts and balance sheets. This should support currencies in emerging economies, excluding China, that are trading at historical lows.

⁴ MSIM, Bloomberg, FactSet, Haver. Data as of October 2022.

⁵ MSIM, J.P. Morgan, IMF.

⁶ MSIM, J.P. Morgan, IMF.

⁷ MSIM, Bloomberg, FactSet, Haver. Data as of November 2022.

⁸ MSIM, The Economist.

⁹ J.P. Morgan, IMF.

¹⁰ J.P. Morgan, IIF.

¹¹ MSIM, Bloomberg, FactSet, Haver.

EM equities and currencies are trading at crisis-level valuations

(Displays 4 and 5)

Despite better relative growth prospects, improved external balances and competitiveness and sustainable sovereign and private debt, relative valuations of currencies and equities have dropped to lows last seen in 2000.12 That was when several markets were only beginning to recover from a series of crises—from the Mexican Tequila Crisis in 1994 to the Asian financial crisis in 1997 and the Russian debt default just a year later. Crisis-level valuations have been great starting points for EM outperformance in the past.

Currency valuations in emerging economies are critical as favorable currency moves on average have contributed to one third of total returns historically for dollar investors.¹³ While the euro, pound and yen have tumbled against the USD this year, EM currencies have performed significantly better.¹⁴ In fact, the EM currencies are holding up much better than other DM currencies compared to past Fed hiking cycles in the last 25 years. 15 Strength in these currencies relative to DM may be a harbinger of positive trends for the asset class. And notably, orthodox EM central banks began raising rates well ahead of the Fed in 2021.

NAVIGATING BEYOND CHINA

The Chinese economy and markets have also followed a decadal cycle. While the 2000s saw the last surge of the Old China and the 2010s the rise of New China, the 2020s will be the decade of "China 3.0"—with the government prioritizing hard sciences and frontier technologies. The drivers of China's economy and markets should also evolve in this decade. With China making up 30% of the MSCI EM Index, we do not think passive investing can capture

these thematics, given a large part of the index is still made up of Old and New China companies. Currently, China 3.0 is a small part of the index, with only a few interesting constituent companies

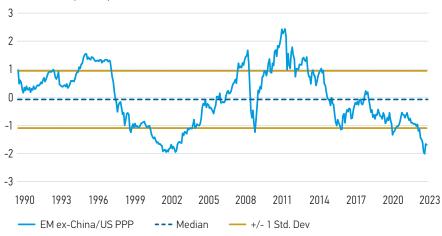
positioned for this decade. It's time to look beyond China's 30% weight in the index and focus on markets, sectors and companies that look structurally better as new trends emerge.

DISPLAY 4

EM ex-China Currencies Are at Crisis-level Lows

EM Currencies ex-China PPP Valuations

Valuation Index (Z score)

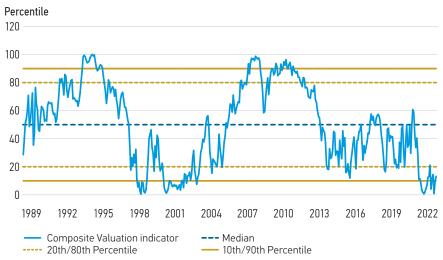


Data as of December 5, 2022. Market Cap Weighted. Source: MSIM analysis, Bloomberg, FactSet, Haver.

DISPLAY 5

Relative EM Equity Valuations Are Also at Crisis-level Lows

Emerging Markets vs Developed Markets Composite Valuation Indicator



Data as of December 5, 2022.

Source: MSIM, Bloomberg, FactSet, Haver. Composite measure of 6 valuation metrics: price/book, 12m-fwd. P/E, P/E, price/sales, price/cash earnings, dividend yield.

¹² MSIM, Bloomberg, FactSet, Haver.

¹³ MSIM, Bloomberg, FactSet, Haver.

¹⁴ MSIM, Bloomberg, FactSet, Global Insight. Data as of December 5, 2022.

¹⁵ MSIM, Bloomberg, FactSet, Global Insight. Data as of December 5, 2022.

Supply-chain diversion leading to reshoring and friend shoring: Under this era of deglobalization, countries feel a greater need to become more self-reliant and less dependent on China. This has led to the so-called "China plus one" strategy, a manufacturing revival and spreading of production to other countries to diversify supply chains away from China. Countries where wages are low and relatively high skills are appealing—such as India, Indonesia, Thailand, Vietnam and Mexico—are benefitting from this supply-chain diversification.

Decarbonization benefits commodity exporters: The global push to build a greener global economy has increased the demand for energy and raw materials while green politics have made it increasingly difficult to invest in new oil fields, aluminum smelters or copper mines. This imbalance provides support for commodity prices of energy and green metals that are benefitting from increased demand at a time when supply has been cut and curtailed. Commodity exporting countries like Brazil, Mexico, South Africa and some GCC countries will benefit from these decarbonization tailwinds.

Digitization has a positive growth

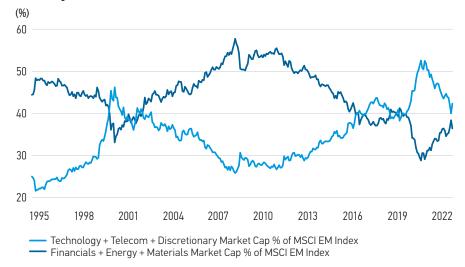
impact: The pandemic accelerated the digital revolution across the globe, but its impact will be felt more in emerging economies than developed ones. Consumers in emerging economies are moving quickly to adopt mobile internet services, from digital payments to online education and shopping. Digital revenue growth averaged 28% in emerging economies—more than double the 11% rate seen in developed ones. ¹⁶ Chinese internet and fintech prototypes are being used in several emerging markets to facilitate a new growth driver.

Policies and politics in EM are more favorable: Several countries have undertaken key economic reforms in recent years, such as the privatization of inefficient state-owned enterprises and tax changes in India and labor

DISPLAY 6

Changing Fortunes: New Economy vs Old Economy

Sector Weights in the MSCI EM Index Over Time



Data as of November 30, 2022 Source: MSIM, Bloomberg, FactSet, Haver.

reforms in Indonesia, which will help benefit the quality of growth in these economies. The new red tide in Latin America, brought on by a surge of anti-incumbent voting as well as demands for social justice in some countries, is different from an earlier era. Today's socialist governments in LatAm countries are more inclined to be fiscally conscious and maintain an independent central bank to keep their economies humming along.

EVOLUTION OF THE EM INDEX

Investors need to remember that the composition of the MSCI EM Index has continued to evolve since its inception in 1988. In the beginning, Malaysia made up 30% of the index, followed by Mexico, which became the top country, also with a 30% share in 1992.17 Over the years China's share in the index grew gradually and peaked at 43% in 2020 and has since fallen to 30% today.17 We think China's share will continue to fall as other economies grow faster. India's share has moved from 8% in 2020 to 15% today and could gain more, considering its economic and earnings growth.¹⁷ Passive investment in EM allocates too much capital to

the index heavyweights and misses out on capturing the positive trends in countries whose current index weights may not be reflective of their growth prospects going forward. We believe passive investing means buying the past, not the future.

Leadership also changes at the sector level (Display 6). Old economy sectors like commodities and financials accounted for 57% of the index in 2008 and halved to a low of 29% in 2020. New economy sectors like tech, telecom and consumer platforms made up 46% of the index in 2000 at the height of the global dot com boom and again peaked at 52% in 2020, with a sharp increase in the first year of the pandemic when all activity turned online.18 Now we are seeing another change in the fortune of the two with a convergence in the index weights of the new and old economy sectors in EM as old economy drivers like credit, manufacturing and commodities propel growth in several EMs. Last decade's winners have to give way to new leaders. Both country and sector dispersion in EM have started increasing in the past two years and should continue going forward.

¹⁶ MSIM, Statista. Data as of March 2021. Includes 9 largest emerging and 11 largest developed digital markets.

¹⁷ MSIM, Bloomberg, FactSet, Haver.

¹⁸ MSIM, Bloomberg, FactSet, Haver.

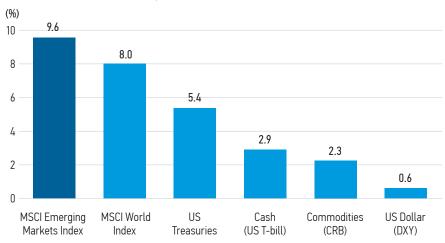
Yet, despite these changes, quality in EM has been a constant. We note that over the long term, quality has been the best performer through multiple cycles, even when there are short periods when either growth or value rise. Active management is critical in EM to capture the pockets of opportunities within countries, sectors and themes in the asset class.

EM LONG-TERM OUTPERFORMANCE

It is important to note that since the inception of the MSCI EM Index in 1988, despite weathering many financial and economic storms, emerging economies have outperformed developed markets, perhaps surprising many commentators. Since 1988, the MSCI EM Index has gained 9.6% annualized, which is over 150 basis points above the MSCI World Index (Display 7), and higher than other asset classes, albeit with higher volatility.¹⁹ Drawdowns in EM are common and have historically offered the best entry points for gaining exposure to the long-term positive trend return. We believe that the higher volatility in EM offers greater opportunity for active management to add value over the long term.

DISPLAY 7 EM Is the Long-term Performance Winner

Annualized Total Return Since 1988, USD



Data as of November 30, 2022.

Source: MSIM, FactSet, Haver. The index performance is provided for illustrative purposes only. Past performance is no guarantee of future results.

CONCLUSION

Despite better growth, lower debt and lower inflation, EM equities are trading at crisis-level valuations. We believe that most investors are under-allocated to EM, considering the potential returns from the catalysts for this asset class for the next decade. The average active global equity fund allocation to EM is 5.2%,

which is far below the 20-year average allocation of 9%.²⁰ For many investors EM remains unloved and under-owned. The environment for investing in EM will never be easy, but by focusing on country selection, stock selection and structural themes, we believe investors can reap the rewards of buying into these markets particularly at this stage of their economic and market cycle.

Risk Considerations

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 this portfolio. Please be aware that this portfolio may be subject to certain additional risks. In general, equities securities' values also fluctuate in response to activities specific to a company. Investments in foreign markets entail special risks such as currency, political, economic, market and liquidity risks. The risks of investing in emerging market countries are greater than the risks generally associated with investments in foreign developed countries. Stocks of small-capitalization companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies. Derivative instruments can be illiquid, may disproportionately increase losses and may have a potentially large negative impact on the Portfolio's performance. Illiquid securities may be more difficult to sell and value than public traded securities (liquidity risk). Non-diversified portfolios often invest in a more limited number of issuers. As such, changes in the financial condition or market value of a single issuer may cause greater volatility. Cryptocurrency (notably, Bitcoin) operates as a decentralized, peer-to-peer financial exchange and value storage that is used like money. It is not backed by any government. Federal, state or foreign governments may restrict the use and exchange of cryptocurrency. Cryptocurrency may experience very high volatility.

¹⁹ MSIM, Bloomberg, FactSet, Haver. Data as of October 31, 2022.

²⁰ Morningstar.

DEFINITIONS

Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. It includes all private and public consumption, government outlays, investments and net exports.

INDEX DEFINITIONS

The MSCI Emerging Markets Index (MSCI EM) is a free float-adjusted market capitalization weighted index that is designed to measure equity market performance of 23 emerging markets.

The MSCI World Index is a free float adjusted market capitalization weighted index that is designed to measure the global equity market performance of developed 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 U.S. dollars and assumes reinvestment of net dividends.

The **S&P 500® Index** measures the performance of the large cap segment of the U.S. equities market, covering approximately 75% of the U.S. equities market. The Index includes 500 leading companies in leading industries of the U.S. economy.

The **CRB Continuous Commodity Index (CRB)** is an index made up a of a broad grouping of different commodity futures, which is a benchmark of performance for commodities as an investment.

The **US Dollar Index (DXY)** is an index of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of US trade partners' currencies.

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.

For important information about the investment managers, please refer to Form ADV Part 2.

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. Past performance is no guarantee of future results.

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.

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 ("EVMI") 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.

MIDDLE EAST

Dubai: MSIM Ltd (Representative Office, Unit Precinct 3-7th Floor-Unit 701 and 702, Level 7, Gate Precinct Building 3, Dubai International Financial Centre, Dubai, 506501, United Arab Emirates. Telephone: +97 (0)14 709 7158).

U.S.

NOT FDIC INSURED | OFFER NO BANK GUARANTEE | MAY LOSE VALUE | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY | NOT A BANK DEPOSIT 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.