

December 2017 Outlook

2018: Expect the Unexpected

SOLUTIONS & MULTI-ASSET | GLOBAL BALANCED RISK CONTROL TEAM | MACRO INSIGHT | 2018

A new year always brings a few surprises. Coming into 2018, there are three possible surprises for investors on our radar: a monetary policy surprise; an inflation surprise; and a volatility surprise. With strong global economic growth, lofty equity valuations and historically low volatility, we believe the market may not be fully prepared for them.

POTENTIAL SURPRISE #1: Interest rates rise faster than expected

At this point in the cycle, most investors expect interest rates to continue their upward trend, but there is lack of agreement on the number and timing of rate hikes.

• **SHORT-TERM RATES**

Market expectations for short-term rates are only slightly below FOMC¹ projections in 2018. Assuming a typical rate hike of 0.25%, the market expects about two hikes and the FOMC projects about three (*Display 1*). In 2019, however, the discrepancy becomes larger, with the market predicting fewer rate hikes than the Federal Reserve (the Fed).

AUTHOR



ANDREW HARMSTONE
Managing Director

Andrew is Lead Portfolio Manager for the Global Balanced Risk Control Strategy (GBaR). He joined Morgan Stanley in 2008 and has 37 years of industry experience.

¹ FOMC stands for the Federal Open Market Committee, which sets monetary policy in the US.

It can be dangerous to bet against either the Fed or the markets, but here investors have to choose. With the global economy running at full steam, we think the evidence points towards the Fed's projections.

• LONG-TERM RATES

We also expect a significant surprise in 10-year rates. The spread between 10- and two-year rates is currently about 50 basis points. If the Fed in fact raises interest rates three times in 2018—for a total of about 75 basis points—with no change in 10-year rates, the result would be an inverted yield curve. We see this scenario as highly unlikely. Given the currently strong economic environment, borrowers will have an incentive to issue debt in longer maturities, while yield-seeking investors will be motivated to stay short to avoid being locked in at low rates. These forces are likely to drive long-term rates higher.

Moreover, widening interest rate differentials (between the US and both Europe and Japan) have driven up the cost of hedging to the point that hedged long-dated US bond yields are increasingly unattractive to European and Japanese investors. The annualised cost of hedging US debt into euros and yen is 2.6% and 2.2% respectively, which is gradually becoming uneconomic. European or Japanese investors buying a hedged US 30-year bond based on an annualised 1-month contract would get a yield below that of the equivalent domestic yield. (Display 2). For example, a Japanese investor could do better by investing in a Japanese 30-year bond at 80 basis points, rather than a hedged US 30-year bond at 70 basis points. (Display 3).

DISPLAY 1

Second-guessing the Fed

FOMC projections vs market-expectations

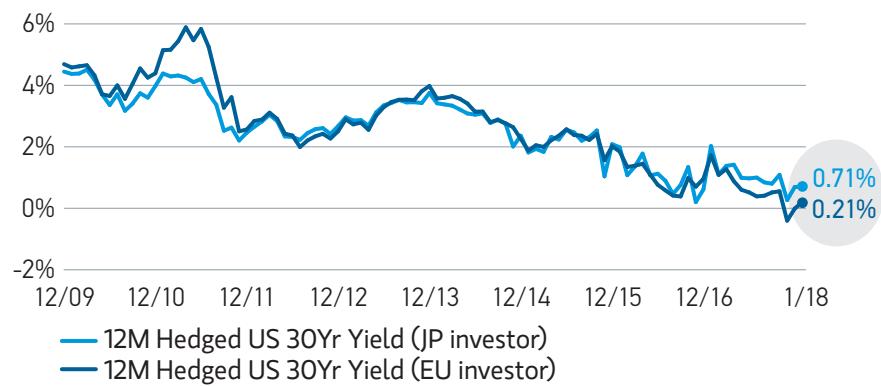


Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass. Source: Bloomberg as of 20 December 2017.

DISPLAY 2

High-priced hedging erodes yields on US Treasurys...

12-month hedged yield on 30-year US Treasurys for European and Japanese investors



Source: Bloomberg as of 9 January 2018.

DISPLAY 3

...making domestic bonds more attractive

30-year US treasury yields and 30-year yields on JGBs



Source: Bloomberg as of 9 January 2018. JGBs – Japanese Government Bonds. Past performance is no guarantee of future results.

Furthermore, there are indications that the Bank of Japan (BoJ) may want to cut back on its QE² programme. Recently, the BoJ's governor, Haruhiko Kuroda, said interest rates are lower than optimal for growth. Higher rates at home would likely diminish Japanese appetite for US Treasuries and could put further upward pressure on US rates.

Finally, the long end of the curve does not seem to be pricing in strong US growth—*yet*. Nominal 10-year bond yields tend to track nominal Gross Domestic Product (GDP). Recently, US nominal GDP growth has increased to 4.1%, its highest level since June 2015. Meanwhile, 10-year bond yields remain relatively depressed at around 2.5%. We see this as unsustainable, with rates potentially rising faster than the market may expect (*Display 4*).

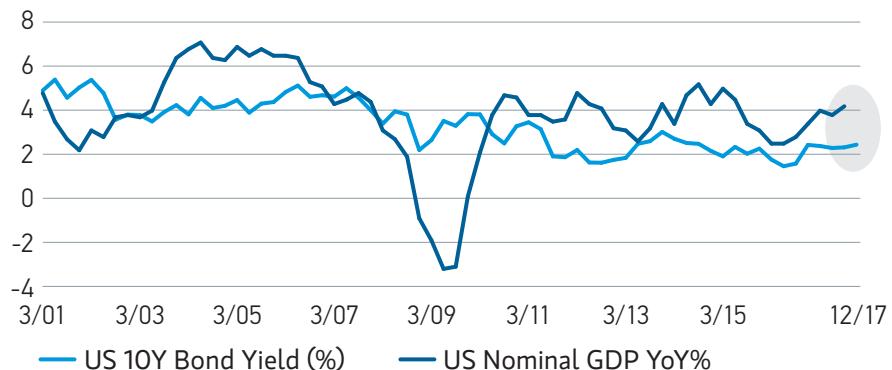
POTENTIAL SURPRISE #2: Inflation pressures heat up

Inflation expectations in the US remain subdued, with consensus expecting an increase to 2.17% by the end of 2018. This forecast may prove too conservative.

We expect productivity to start rising as a result of business investment in fixed assets. This will give a window for businesses to raise wages without adversely affecting their bottom line. The currently low unemployment rate will also put upward pressure on wages.

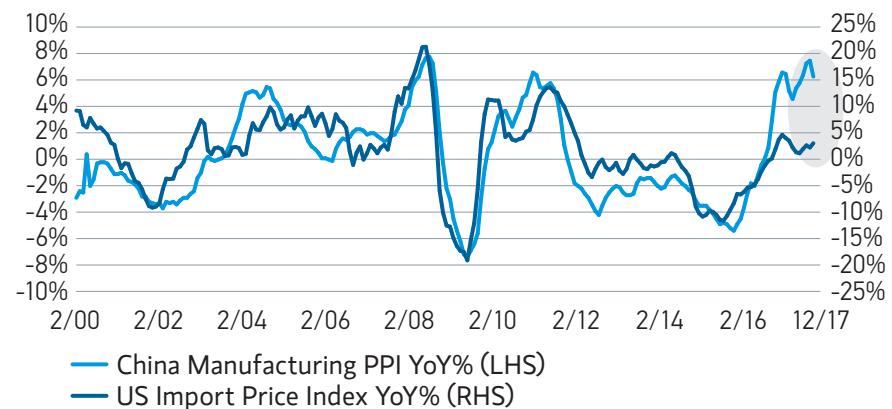
The most recent wage numbers showed disappointing overall growth because much of the increase in employment was in the low-wage sector, which brings down the overall average wage. Holding the mix between low and high wages constant shows that actual wages—not

DISPLAY 4 Interest rates are lagging economic growth



Source: Bloomberg as of 20 December 2017

DISPLAY 5 U.S. import prices are lagging Chinese PPI



Source: Bloomberg as of 20 December 2017

just employment—in the low-wage sectors increased. In other words, we are already seeing wage growth, which will feed inflationary pressures.

These pressures are not isolated to US sources. Chinese producer price inflation (PPI) usually feeds into US import prices, but import prices have

not yet followed the sharp run-up in Chinese PPI (*Display 5*). This gap is likely to correct in the months ahead, giving further fuel for inflation.

Energy prices are also a source of inflationary pressure. November's month-on-month headline inflation was 0.4%, which would translate into

² QE stands for quantitative easing, a method by which central banks seek to implement monetary policy.

a quite high annualised rate of 4.8%. Investors often discount headline inflation because it includes the volatile components of food and energy, but these do flow into the inflation forecast over time. Rising oil prices have been exerting steady upward pressure on producer prices (Display 6).

POTENTIAL SURPRISE #3: Volatility will make a comeback

Considering our outlook for higher interest rates and inflation—both of which are destabilising to the markets, especially given the currently high level of valuations—we do not envision a continuation of the past year's extraordinarily low and declining volatility. When one takes into account the high level of geopolitical uncertainty in the current environment, a resurgence of volatility seems even more likely (Display 7).

• MARKET VOLATILITY

One of the justifications for high equity valuations has been that they look reasonable in light of extremely low bond yields. If bond yields rise as we expect, that case weakens and equity volatility is likely to increase. Bond volatility itself may turn out to be quite unexpected for fixed income investors, and those holding longer-dated maturities may start to get uncomfortable. If interest rates rise faster than expected, we could see a sharp re-adjustment and a new bout of volatility.

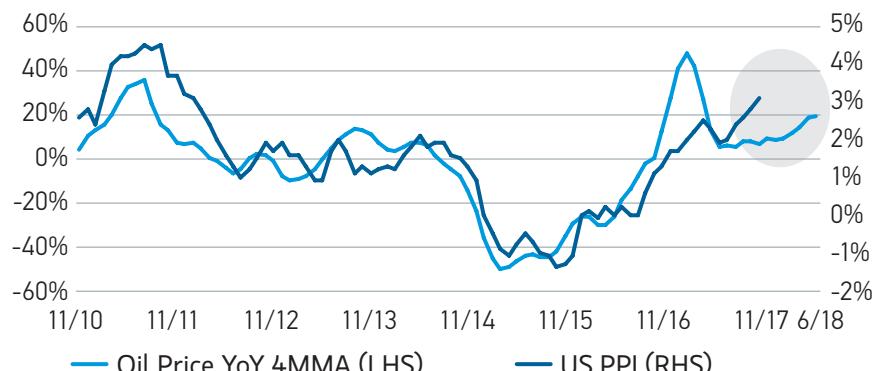
• GEOPOLITICAL UNCERTAINTY

Significant political risks, many of which arose in 2017, are likely to continue in 2018. Whilst uncertainty about the situation in North Korea is currently less of a concern to investors, continued US political uncertainty and elections worldwide will increasingly come into focus this year.

In the US, the tax bill and the proposal to raise the debt ceiling

DISPLAY 6

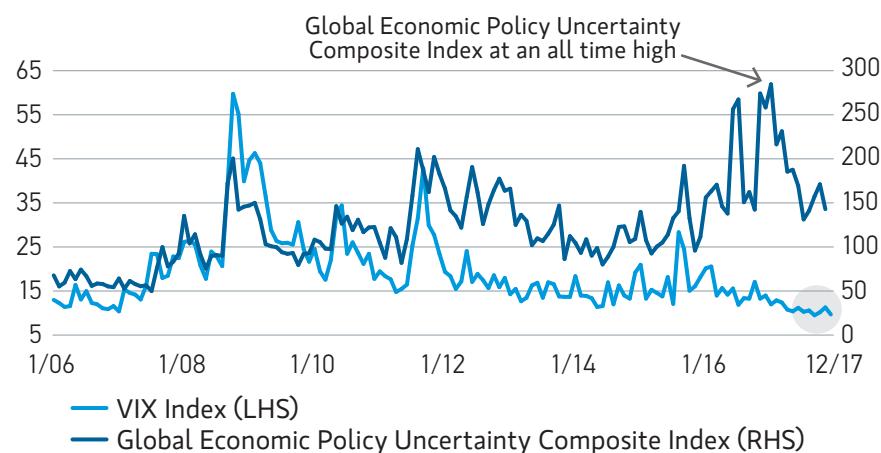
Rising energy prices are driving production costs higher



Source: Bloomberg as of 20 December 2017. 4MMA is 4-month moving average.

DISPLAY 7

Extraordinarily low volatility unlikely to persist



Source: Bloomberg as of 20 December 2017. Global Economic Policy Uncertainty Index can be accessed at www.policyuncertainty.com. The VIX is the Chicago Board Options Exchange (CBOE) Volatility Index®, (VIX®) a key measure of expected volatility using S&P 500 stock index option prices. The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.** See Disclosure section for index definitions.

passed relatively smoothly through Congress; however, if Democrats win the House and the Senate in the mid-term elections, the ensuing political friction could spill over into markets.

Europe also has important elections in 2018. In Italy, the populist Five Star Movement has indicated willingness to form a coalition. In 2013, they received the most votes

for the Chamber of Deputies, but won only a few seats because they refused to form coalitions. Their newfound openness to partnership increases their chances for creating a government.

Elections in Mexico could also cause volatility to ratchet up. The left-wing Morena party, which opposes NAFTA, has been leading the polls.³

³ <https://www.reuters.com/article/us-mexico-election/mexican-leftist-lopez-obrador-leads-presidential-race-polls-idUSKBN1DM286>

A win by Morena would increase the likelihood of NAFTA falling apart, which would rattle investors.

Keeping in mind these three potential surprises, let's review key asset classes across the globe:

Emerging markets and commodities: Sensitive to the US dollar

• EMERGING MARKETS

In emerging markets, corporations still have significant amounts of dollar-denominated debt, which exposes them to movements in interest rates and the possibility of a rising dollar. In the short term, there is upward pressure on the US dollar due to expectations for further rate hikes in 2018 and beyond. However, other regions that have been experiencing strong growth but thus far have suppressed their interest rates—including Japan and Europe—are likely to raise their interest rates as well. This is likely to offset strength in the US dollar relative to other currencies.

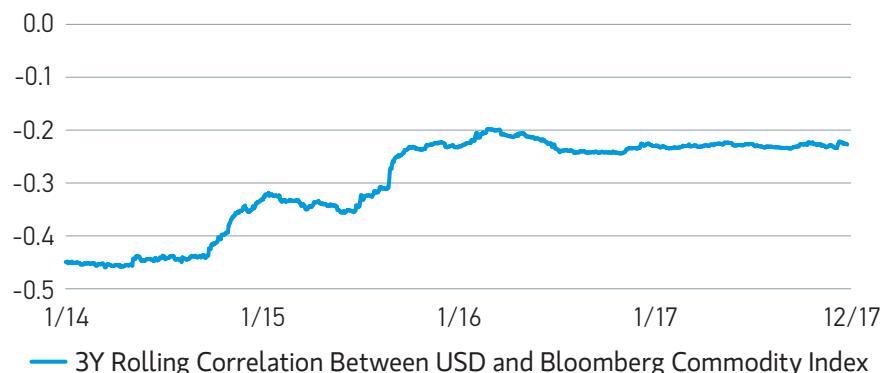
Arguably, the dollar is overvalued in the longer term. We think a short-term increase is likely, with a potential reversal following as we move further into 2018. Given solid growth and earnings fundamentals in emerging markets and limited upside in the US dollar, we expect the region to remain well supported.

• COMMODITIES: A WEAKER CORRELATION

Commodities tend to be negatively correlated to the dollar (*Display 8*). In 2014, there was a negative 45% correlation of commodities with the US dollar. Since then, the correlation has become less negative, ranging between 20% and 25% over the past two years.

DISPLAY 8

Commodities are inversely correlated with the US dollar



Source: Bloomberg as of 18 December 2017. Past performance is no guarantee of future results.

A short-term rise in the US dollar argues negatively for commodities, but again, we expect any negative US dollar impact to be limited. If the US dollar does indeed reverse once the rest of the world starts tightening monetary policy, then we are likely to eventually see a strong run in commodities as the global economy accelerates.

China: A calculated slowdown

The Chinese economy has slowed down, dampening growth in the rest of Asia. We believe this is more a deliberate government policy to remove leverage from the economy than true weakness. If Chinese growth slows too much, the government will just re-stimulate again. We do not see the recent cooling as a source of concern.

Tensions in Korea have also been negative for Asia, but with the Olympics coming up in South Korea, we believe US unilateral action to be less likely. We expect both of these issues to be resolved relatively soon, but until we see a bit more clarity we are neutral Asia ex-Japan. Looking forward longer term, the region seems quite positive.

Japan: Supported by positive trends

As we discussed in our previous piece *The Third Arrow: Governance*, we think structural reforms have taken root and are giving Japan further upside potential. There is some geopolitical risk associated with the Asian region, particularly with North Korea. There is a good chance this will be resolved in a peaceful way, but it is nonetheless a risk.

Conclusion: Expect some volatility in 2018

Last year, we expected interest rates to rise as a result of Trump's tax cuts and other fiscal stimulus. The delay of those measures postponed the rise of interest rates and inflation, leading to an unprecedented period of low volatility.

Now, however, there are a number of factors that can fuel volatility: rising interest rates, growing inflation and various political risks. The year ahead could be a bit of roller coaster ride. For experienced investors who can anticipate these risks—particularly those with the latitude to adjust their portfolio allocations—there will be plenty of interesting opportunities.

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. 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. **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

The indexes are unmanaged and do not include any expenses, fees or sales charges. It is not possible to invest directly in an index. Any index referred to herein is the intellectual property (including registered trademarks) of the applicable licensor. Any product based on an index is in no way sponsored, endorsed, sold or promoted by the applicable licensor and it shall not have any liability with respect thereto. The **Chicago Board Options Exchange (CBOE) Market Volatility (VIX)** Index shows the market's expectation of 30-day volatility. The Volatility Index (VIX) is the ticker symbol for the Chicago Board Options Exchange Market Volatility Index, a popular measure of the implied volatility of S&P 500 index options. It represents one measure of the market's expectation of stock market volatility over the next 30-day period. The VIX is quoted in percentage points and translates, roughly, to the expected movement in the S&P 500 index over the next 30-day period, which is then annualized. **Bloomberg Commodity Index (BCOM)** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

Commodities are goods and services normally intended for sale on the market at a price that is designed to cover their cost of production. The **Producer Price Index (PPI)** is a weighted index of prices measured at the wholesale, or producer level and volatility. **Treasuries** are debt obligations of the U.S. government that are issued at various intervals and with various maturities. **Volatility** is measured by calculating the standard deviation of the annualized returns over a given period of time. It shows the range to which the price of a security may increase or decrease. **Yield** is the annual percentage rate of return earned on a security.

IMPORTANT DISCLOSURES

The views and opinions are those of the author as of the date of publication and are subject to change at any time 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 portfolio managers at Morgan Stanley Investment Management (MSIM) or the views of the firm as a whole, 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. These conclusions are speculative in nature, may not come to pass and are not intended to predict the future performance of any specific Morgan Stanley Investment Management product.

Certain information herein is based on data obtained from third party sources believed to be reliable. However, we have not verified this information, and we make no representations whatsoever as to its accuracy or completeness.

The information herein is a general communications which is not impartial and has been prepared solely for information 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 material contained herein has not been based on a consideration of any individual client 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.

Past performance is no guarantee of future results. Charts and graphs provided herein are for illustrative purposes only.

This communication is not a product of Morgan Stanley's Research Department and should not be regarded as a research recommendation. The information contained herein has not been prepared in accordance with legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

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

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. Prior to investing, investors should carefully review the strategy's/ product's relevant offering document. There are important differences in how the strategy is carried out in each of the investment vehicles.

DISTRIBUTION

This communication 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.

United Kingdom: Morgan Stanley Investment Management Limited 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, authorised and regulated by the Financial Conduct Authority. Dubai: Morgan Stanley Investment Management Limited (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). Germany: Morgan Stanley Investment Management Limited Niederlassung Deutschland Junghofstrasse 13-15 60311 Frankfurt Deutschland (Gattung: Zweigniederlassung (FDI) gem. § 53b KWG). Italy: Morgan Stanley Investment Management Limited, Milan Branch (Sede Secondaria di Milano) is a branch of Morgan Stanley Investment Management Limited, a company registered in the UK, authorised and regulated by the Financial Conduct Authority (FCA), and whose registered office is at 25 Cabot Square, Canary Wharf, London, E14 4QA. Morgan Stanley Investment Management Limited Milan Branch (Sede Secondaria di Milano) with seat in Palazzo Serbelloni Corso Venezia, 16 20121 Milano, Italy, is registered in Italy with company number and VAT number 08829360968. The Netherlands: Morgan Stanley Investment Management, Rembrandt Tower, 11th Floor Amstelplein 1 1096HA, Netherlands. Telephone: 31 2-0462-1300. Morgan Stanley Investment Management is a branch office of Morgan Stanley Investment Management Limited. Morgan Stanley Investment Management Limited is authorised and regulated by the Financial Conduct Authority in the United Kingdom. Switzerland: Morgan Stanley & Co. International plc, London, Zurich Branch Authorised and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered with the Register of Commerce Zurich CHE-115.415.770. Registered Office: Beethovenstrasse 33, 8002 Zurich, Switzerland, Telephone +41 (0) 44 588 1000. Facsimile Fax: +41(0)44 588 1074.

U.S.

A separately managed account may not be suitable for all investors. Separate accounts managed according to the Strategy include a number of securities and will not necessarily track the performance of any index. Please consider the investment objectives, risks and fees of the Strategy carefully before investing. A minimum asset level is required. For important information about the investment manager, please refer to Form ADV Part 2.

Please consider the investment objectives, risks, charges and expenses of the funds carefully before investing. The prospectuses contain this and other information about the funds. To obtain a prospectus please download one at morganstanley.com/im or call 1-800-548-7786. Please read the prospectus carefully before investing.

Morgan Stanley Distribution, Inc. serves as the distributor for Morgan Stanley Funds.

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

Australia: This publication is disseminated in Australia by Morgan Stanley Investment Management (Australia) Pty Limited ACN: 122040037, AFSL No. 314182, which accept responsibility for its contents. This publication, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act. **Hong Kong:** This document has been issued 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 document 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 document shall not be issued, circulated, distributed, directed at, or made available to, the public in Hong Kong. **Singapore:** This document 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. In particular, for investment funds that are not authorized or recognized by the MAS, units in such funds are not allowed to be offered to the retail public; any written material issued to persons as aforementioned in connection with an offer is not a prospectus as defined in the SFA and, accordingly, statutory liability under the SFA in relation to the content of prospectuses does not apply, and investors should consider carefully whether the investment is suitable for them.

IMPORTANT INFORMATION

EMEA: This marketing communication has been issued by Morgan Stanley Investment Management Limited ("MSIM"). Authorised and regulated by the Financial Conduct Authority. Registered in England No. 1981121. Registered Office: 25 Cabot Square, Canary Wharf, London E14 4QA.

Any index referred to herein is the intellectual property (including registered trademarks) of the applicable licensor. Any product based on an index is in no way sponsored, endorsed, sold or promoted by the applicable licensor and it shall not have any liability with respect thereto.

MSIM has not authorised financial intermediaries to use and to distribute this document, unless such use and distribution is made in accordance with

applicable law and regulation. MSIM shall not be liable for, and accepts no liability for, the use or misuse of this document by any such financial intermediary. If you are a distributor of the Morgan Stanley Investment Funds, some or all of the funds or shares in individual funds may be available for distribution. Please refer to your sub-distribution agreement for these details before forwarding fund information to your clients.

The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without MSIM' express written consent.

All information contained herein is proprietary and is protected under copyright law.

This document may be translated into other languages. Where

All information contained herein is proprietary and is protected under copyright law.

Morgan Stanley Investment Management is the asset management division of Morgan Stanley.

This document 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 document in another language, the English version shall prevail.

Explore our site at www.morganstanley.com/im