Morgan Stanley

INVESTMENT MANAGEMENT

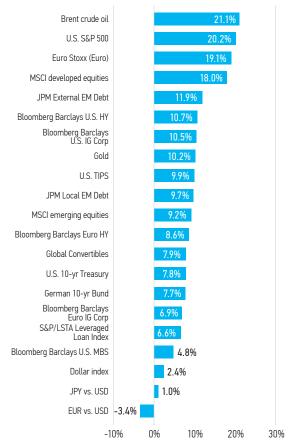
Global Fixed Income Bulletin

Just When It Looked Safe to Go Back in the Water

FIXED INCOME | GLOBAL FIXED INCOME TEAM | MACRO INSIGHT | AUGUST 2019

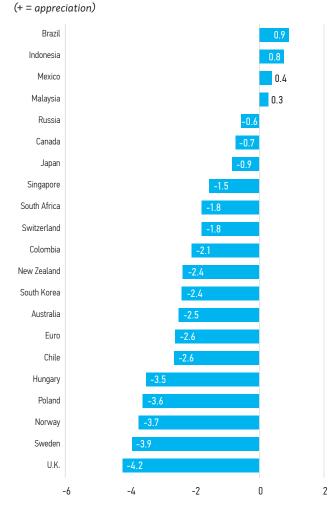
Financial markets continued their good run in July, with the S&P 500 Index hitting a new all-time high on July 26 and the U.S. Federal Reserve (Fed) cutting rates on July 31 for the first time in 11 years. After May's volatility on the back of bad news about U.S./China trade negotiations, things seemed to be getting better. And with central bank meetings out of the way by the end of the month, markets were set for a quiet August. Looked good on the surface: What happened?

DISPLAY 1 Asset Performance Year-to-Date



Note: USD-based performance. Source: Thomson Reuters Datastream. Data as of July 31, 2019. The indexes are provided for illustrative purposes only and are not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.** See pages 6 and 7 for index definitions.

DISPLAY 2
Currency Monthly Changes Versus U.S. Dollar



Source: Bloomberg. Data, as of July 31, 2019. Note: Positive change means appreciation of the currency against the USD.

DISPLAY 3

Major Monthly Changes in 10-Year Yields and Spreads

COUNTRY	10-YR YIELD LEVEL (%)	MONTH CHANGE (BPS)	10-YR SPREAD (BPS)	MONTH CHANGE (BPS)
			(Spread over USTs)	
United States	2.01	+1		
United Kingdom	0.61	-22	-140	-23
Germany	-0.44	-11	-245	-12
Japan	-0.15	+1	-217	0
Australia	1.19	-14	-83	-15
Canada	1.48	+1	-54	0
New Zealand	1.44	-13	-57	-14
EUROPE			(Spread o	ver Bunds)
France	-0.18	-18	26	-7
Greece	2.04	-41	248	-30
Italy	1.54	-56	198	-45
Portugal	0.34	-13	78	-2
Spain	0.28	-11	72	0
	INDEX	MTD	USD	MTD
	LOCAL	CHANGE	SPREAD	CHANGE
EM	YIELD (%)	(BPS)	(BPS)	(BPS)
EM External Spreads			331	-33
EM Local Yields	5.55	-17		
EM Corporate Spreads			276	-16
Brazil	6.65	-23	206	-26
Colombia	5.66	-11	175	-6
Hungary	1.36	-28	94	+4
Indonesia	7.43	-3	171	-16
Malaysia	3.60	-3	115	-13
Mexico	7.56	-3	323	-6
Peru	4.56	-30	117	-7
Philippines	4.58	-29	72	-7
Poland	1.91	-16	31	-8
Russia	7.11	-17	192	-14
South Africa	9.41	+21	300	+17
Turkey	15.20	-172	449	-29
Venezuela	_	-	11945	+3078
				MTD
CREDIT			SPREAD (BPS)	CHANGE (BPS)
U.S. IG			108	-7
EUR IG			99	-13
U.S. HY			371	-6
EUR HY			348	+41
SECURITIZED				
			0.4	. =

Positive Neutral Negative

Agency MBS

U.S. BBB CMBS

Source: Bloomberg, JP Morgan. Data as of July 31, 2019

84

249

+5

-4

Fixed Income Outlook

Unfortunately, by the end of July, the news flow shifted and what looked like a benign August became a lot more interesting. What gives? Two things changed. The first, which is easily reversible, is that the Fed's cautious 25 basis point rate cut on July 31 disappointed markets, which wanted more—not necessarily more basis points but more commitment to additional cuts in the future.

The second change is not as easily reversed. The sudden escalation of the U.S./China trade war in early August is a potentially trend-altering dynamic. Further tariffs on Chinese imports, and China's retaliation by buying fewer U.S. agricultural goods along with the sudden depreciation of the Chinese currency, increase global economic risks significantly.

For the first time since 2015, the chance of a more meaningful economic slowdown must be taken seriously. While we do not believe a true recession will occur, trade developments will exacerbate an already fragile economic situation, especially for manufacturing and global trade. Global business confidence has been weak for more than a year. These developments will not improve matters and will most likely hinder any rebound in economic activity anticipated for the second half of the year. What about Goldilocks? Can't central banks help?

Central banks will try, even as their monetary ammunition runs low (especially outside the U.S.), to keep the global economy chugging along, no matter what politicians try to do. So, buckle your seat belts, prepare for more volatility but do not panic. We believe lower rates can and will cushion the blow coming from trade, but unfortunately, there are legitimate questions as to how much monetary easing can help. On the negative side, lower interest rates cannot overcome the uncertainty about future economic relationships.

The problem is that trade issues keep escalating, and without knowing the end game how can investors be confident that they have seen the worst? We think the yield curve is the best barometer of market confidence. We think a measure of success, e.g., reflation, would be a steepening of yield curves. If monetary stimulus is working its magic, curves should steepen. Unfortunately,

so far, this is not happening. Long maturity bonds are rallying and short maturity bonds, particularly in the U.S., are well below official rates. Not a vote of confidence. Conditions are not much better or are even worse outside the U.S. Until yield curve steepening begins to happen, it is unlikely economies are on sound footings and it is unlikely risky assets will perform well.

This provides an environment where we should expect to see more monetary stimulus priced into markets, yields fall, yield curves steepen and riskier assets struggle. The ability of credit and emerging markets to absorb bad news is hurt by valuations. These markets have generated outsized returns this year and are not in a position to weather too much bad news. Whether or not there is a legitimate case for further underperformance, we do not think there is a strong case to add to positions in high-yield and emerging markets. Unfortunately, we also do not believe we have enough information to wholesale scale back exposures.

In the interim, we believe a focus on fundamentals—corporate, sovereign and structure (in the case of securitized assets)—will serve us best, and in that regard countries that have strong and/or improving fundamentals with reasonable valuations are best placed to weather this storm. On the developed sovereign side we continue to like Australia, Spain and the U.S.; in the emerging markets sovereign space we like Brazil and Peru on the local side and selected smaller countries, somewhat insulated from global trade issues, on the external side. The USD should remain generally firm except in specific instances, e.g., we like the Egyptian pound, which has a relatively unique set of fundamentals supporting it.

Our recent mantra of nimbleness as a requirement for success remains in place. Markets and policymakers are on the move. With markets anticipating (rightly or wrongly) big policy moves, investors are going to have to make key decisions about what tradeoffs central banks will make with regard to forestalling recession pressures by preemptive moves, responding to trade risks and acting too cautiously, letting recessionary forces become too strong to stop.

MONTHLY REVIEW

Developed Market (DM) Rate/Foreign Currency (FX)

In July, developed market sovereign bonds were mixed following the precipitous drop in yields over the preceding months. The yield on the 10-year U.S. Treasury bond rose one basis point over the month, while 10-year gilt yields fell by 22 basis points, and most Eurozone government bonds followed suit and declined as well. Throughout the month, the markets anxiously awaited the Federal Open Market Committee (FOMC) meeting on July 31st. During the weeks leading up to the meeting, markets priced in a 25 basis point rate cut with certainty, but also the probability of a larger 50 basis point cut. While the Fed's decision to cut by only 25 basis points did not come as a significant surprise to the market, investors were disappointed that the Fed did not commit to a more significant easing bias going forward. In the Eurozone, the ECB confirmed it is likely to ease policy at its meeting in September, with a combination of rate cuts, renewed quantitative easing (QE) and other easing measures likely. This largely confirmed the shift in position President Mario Draghi communicated in his speech at Sintra in early June. In the U.K., Boris Johnson was elected leader of the Conservative Party on July 23. Key roles have been given to committed supporters of Brexit whilst more than half of Theresa May's old cabinet has departed.

OUTLOOK

U.S. growth is likely to be lower for the remainder of 2019, although stabilized via easier monetary policy. Central banks have become more accommodative, particularly in the U.S. and Eurozone, and we expect that to continue as uncertainty in the geopolitical and economic landscape remains prevalent. We currently see three major risks to the outlook, which are Brexit, U.S./ China trade disputes and the U.S. presidential election.

Emerging Market (EM) Rate/FX

EM fixed income assets continued to perform well in July as the market continued to add risk, especially within dollar-denominated debt. JP Morgan estimated that portfolio flows into EM fixed income totaled \$9.2 billion, primarily to hard currency strategies. The markets, however, were disappointed by the U.S. Federal Reserve's FOMC decision at the end of the month to only cut 25 basis points, and were also perplexed by its convoluted statements at the accompanying press conference. The immediate impact was most evident in weaker EM currencies, especially euro-linked currencies in Eastern Europe, which capped off a month in which the dollar strengthened and the euro weakened. Local bond performance was positive and outweighed the negative currency impact on an aggregate level. Within hard currency assets, the high-yield segment outperformed the investment-grade segment, and sovereigns outperformed corporates. Commodity prices were broadly weaker in the period, led by agricultural commodities, followed by crude oil prices, which responded to a weaker global growth outlook and the invoicing impact of a stronger USD. Performance within metals was mixed as precious metals generally performed well while base metal prices were broadly weaker.

The outlook for risky assets in the next weeks, and EM debt in particular, is mixed. Regarding U.S.-China trade disputes, hopes of an extended truce after the Shanghai summit were dashed a few days later by President Trump's announcement on a 10% tariff to be imposed on the remaining \$300 billion of imports from China, to take effect on September 1. Moreover, expected China retaliation should add to heightened volatility, likely challenging the performance of risky assets. On the other hand, the monetary stance being adopted across the developed and emerging worlds remains largely supportive, but there could be potential setbacks, as highlighted by the negative market reaction to the "hawkish" Fed cut last month.

MONTHLY REVIEW

OUTLOOK

Credit

July saw corporate spreads tighter overall, continuing the trend in June post the move to synchronized central bank easing expectations. The key drivers in July were (1) expectations of easier monetary policy from Central Banks, (2) corporate earnings exceeding weak expectations giving confidence that a downturn isn't imminent and (3) strong demand for credit. The Bloomberg Barclays U.S. Corporate Index closed 6 basis points tighter in July to end the month at 107 basis points over government bonds.¹ Financials and non-financials credits performed in line. Within financials, longer dated names outperformed. Euro investment grade tightened 12 basis points in July to 99 basis points, as measured by the Bloomberg Barclays Euro-Aggregate Corporate Index.2

While valuations have tightened in the strong performance of 2019 to date, we would note the market recently ignored a number of signals that macro risk is rising. This includes increased risk of a hard Brexit, no resolution from continued trade negotiations between the U.S. and China, and weak global manufacturing data. Uncertainty makes the short-term outlook for corporate earnings less clear. Our base case does not call for a recession; rather we expect continued low global growth and low inflation, supported by low real rates and easy financial conditions. Our strategy has been to take profits on long-held positions as spreads moved below the long-run average and that triggered profit taking in the month, but we remain net long of risk looking to be tactical over the coming quarter.

Securitized

The Bloomberg Barclays U.S. Mortgage-Backed Securities (MBS) Index was up 0.40% in July, outperforming the Bloomberg Barclays U.S. Treasury Index, which was down 0.12%, as interest rates remained range bound and MBS durations were relatively unchanged.³ Current coupon agency MBS nominal spreads tightened 2 basis points in July to 85 basis points above interpolated U.S. Treasuries.⁴ The duration of the Bloomberg Barclays U.S. MBS Index shortened 0.08 years to 3.07 years during July, a continuing trend, as mortgage prepayment speeds have accelerated in recent months as the lower mortgage rates have begun to impact refinancing activity.⁵ The Fed's MBS portfolio shrank by \$21 billion during July to \$1.512 trillion and is now \$125 billion lower year-to-date.6

Overall our outlook remains largely the same from last month. We have a positive fundamental credit outlook for residential and consumer credit conditions in both the U.S. and Europe. We continue to have a slightly negative view on agency MBS due to the supply-demand dynamics from the Fed continuing to reduce its MBS holdings and increasing market float by approximately \$20 billion each month, but we have become less negative on agency MBS in 2019 as it has underperformed credit mortgage assets this year. We continue to have a mixed outlook on commercial real estate conditions due the more idiosyncratic nature of specific real estate sectors and properties.

Risk Considerations

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 the current rising interest rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. Longer-term securities may be more sensitive to interest rate changes. In a declining interest rate environment, the portfolio may generate less income. Certain U.S. government **securities** purchased by the strategy, such as those issued by Fannie Mae and Freddie Mac, are not backed by the full faith and credit of the U.S. It is possible that these issuers will not have the funds to meet their payment

obligations in the future. Public bank loans are subject to liquidity risk and the credit risks of lower-rated securities. High-yield securities (junk bonds) are lower-rated securities that may have a higher degree of credit and liquidity risk. Sovereign debt securities are subject to default risk. Mortgage- and asset-backed securities are sensitive to early prepayment risk and a higher risk of default, and may be hard to value and difficult to sell (**liquidity risk**). They are also subject to credit, market and interest rate risks. The currency market is highly volatile. Prices in these markets are influenced by, among other things, changing supply and demand for a particular currency; trade; fiscal, money and domestic or foreign exchange control programs and policies; and changes in domestic and foreign interest rates. Investments in foreign markets entail special risks such as currency,

political, economic and market risks. The risks of investing in **emerging** market countries are greater than the risks generally associated with foreign investments. Derivative instruments may disproportionately increase losses and have a significant impact on performance. They also may be subject to counterparty, liquidity, valuation, correlation and market risks. Restricted and illiquid securities may be more difficult to sell and value than publicly traded securities (liquidity risk). Due to the possibility that prepayments will alter the cash flows on collateralized mortgage obligations (CMOs), it is not possible to determine in advance their final maturity date or average life. In addition, if the collateral securing the CMOs or any third-party guarantees are insufficient to make payments, the portfolio could sustain a loss.

DEFINITIONS

 ${f R}^{\star}$ is the real short term interest rate that would occur when the economy is at equilibrium, meaning that unemployment is at the neutral rate and inflation is at the target rate.

INDEX DEFINITIONS

The indexes shown in this report are not meant to depict the performance of any specific investment, and the indexes shown do not include any expenses, fees or sales charges, which would lower performance. The indexes shown are unmanaged and should not be considered an investment. It is not possible to invest directly in an index.

The Bloomberg Barclays Euro Aggregate Corporate Index (Bloomberg Barclays Euro IG Corporate) is an index designed to reflect the performance of the euro-denominated investment-grade corporate bond market.

The **Bloomberg Barclays Global Aggregate Corporate Index** is the corporate component of the Barclays Global Aggregate index, which provides a broad-based measure of the global investment-grade fixed income markets.

The Bloomberg Barclays U.S. Corporate Index (Bloomberg Barclays U.S. IG Corp) is a broad-based benchmark that measures the investment-grade, fixed-rate, taxable corporate bond market.

The Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index tracks agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage. Introduced in 1985, the GNMA, FHLMC and FNMA fixed-rate indexes for 30- and 15-year securities were backdated to January 1976, May 1977 and November 1982, respectively. In April 2007, agency hybrid adjustable-rate mortgage (ARM) pass-through securities were added to the index.

Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.

The **Dow Jones Commodity Index Gold (Gold)** is designed to track the gold market through futures contracts.

Euro vs. USD—Euro total return versus U.S. dollar.

German 10YR bonds—Germany Benchmark 10-Year Datastream Government Index; **Japan 10YR government bonds**—Japan Benchmark

10-Year Datastream Government Index; and **10YR U.S. Treasury**—U.S. Benchmark 10-Year Datastream Government Index.

The **Hang Seng Index** includes the largest and most liquid stocks listed on the Main Board of the Stock Exchange of Hong Kong.

The ICE Brent Crude futures contract (Brent crude oil) is a deliverable contract based on EFP delivery with an option to cash settle.

The ICE BofAML European Currency High-Yield Constrained Index (ICE BofAML Euro HY constrained) is designed to track the performance of euro- and British pound sterling-denominated below investment-grade corporate debt publicly issued in the eurobond, sterling

The ICE BofAML U.S. Mortgage-Backed Securities (ICE BofAML U.S. Mortgage Master) Index tracks the performance of U.S. dollar-denominated, fixed-rate and hybrid residential mortgage pass-through securities publicly issued by U.S. agencies in the U.S. domestic market.

The ICE BofAML U.S. High Yield Master II Constrained Index (ICE BofAML U.S. High Yield) is a market value-weighted index of all domestic and Yankee high-yield bonds, including deferred-interest bonds and payment-in-kind securities. Its securities have maturities of one year or more and a credit rating lower than BBB-/Baa3, but are not in default domestic or euro domestic markets by issuers around the world.

The **ISM Manufacturing Index** is based on surveys of more than 300 manufacturing firms by the Institute of Supply Management. The ISM Manufacturing Index monitors employment, production inventories, new orders and supplier deliveries. A composite diffusion index is created that monitors conditions in national manufacturing based on the data from these surveys.

Italy 10-Year Government Bonds—Italy Benchmark 10-Year Datastream Government Index.

The **JP Morgan CEMBI Broad Diversified Index** is a global, liquid corporate emerging markets benchmark that tracks U.S.-denominated corporate bonds issued by emerging markets entities.

The JPMorgan Government Bond Index—Emerging markets (JPM Local EM Debt) tracks local currency bonds issued by emerging market governments. The index is positioned as the investable benchmark that includes only those countries that are accessible by most of the international investor base (excludes China and India as of September 2013).

The JPMorgan Government Bond Index Emerging Markets (JPM External EM Debt) tracks local currency bonds issued by emerging

market governments. The index is positioned as the investable benchmark that includes only those countries that are accessible by most of the international investor base (excludes China and India as of September 2013).

The JP Morgan Emerging Markets Bond Index Global (EMBI Global) tracks total returns for traded external debt instruments in the emerging markets and is an expanded version of the EMBI+. As with the EMBI+, the EMBI Global includes U.S. dollar-denominated Brady bonds, loans and eurobonds with an outstanding face value of at least \$500 million.

The JP Morgan GBI-EM Global Diversified Index is a market-capitalization weighted, liquid global benchmark for U.S.-dollar corporate emerging market bonds representing Asia, Latin America, Europe and the Middle East/Africa.

JPY vs. USD—Japanese yen total return versus U.S. dollar.

The **National Association of Realtors Home Affordability Index** compares the median income to the cost of the median home.

The **Nikkei 225 Index (Japan Nikkei 225)** is a price-weighted index of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange.

The MSCI AC Asia ex-Japan Index (MSCI Asia ex-Japan) captures largeand mid-cap representation across two of three developed markets countries (excluding Japan) and eight emerging markets countries in Asia.

The MSCI All Country World Index (ACWI, MSCI global equities) 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 U.S. dollars and assumes reinvestment of net dividends.

MSCI Emerging Markets Index (MSCI emerging equities) captures largeand mid-cap representation across 23 emerging markets (EM) countries.

The MSCI World Index (MSCI developed equities) captures large and mid-cap representation across 23 developed market (DM) countries.

Purchasing Managers Index (PMI) is an indicator of the economic health of the manufacturing sector.

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

The S&P/LSTA U.S. Leveraged Loan 100 Index (S&P/LSTA Leveraged Loan Index) is designed to reflect the performance of the largest facilities in the leveraged loan market.

The **S&P GSCI Copper Index (Copper)**, a sub-index of the S&P GSCI, provides investors with a reliable and publicly available benchmark for investment performance in the copper commodity market.

The **S&P GSCI Softs (GSCI soft commodities) Index** is a sub-index of the S&P GSCI that measures the performance of only the soft commodities, weighted on a world production basis. In 2012, the S&P GSCI Softs Index included the following commodities: coffee, sugar, cocoa and cotton.

Spain 10-Year Government Bonds—Spain Benchmark 10-Year Datastream Government Index.

The Thomson Reuters Convertible Global Focus USD Hedged Index is a market weighted index with a minimum size for inclusion of \$500 million (US), 200 million euro (Europe), 22 billion yen, and \$275 million (Other) of convertible bonds with an equity link.

U.K. 10YR government bonds—U.K. Benchmark 10-Year Datastream Government Index. For the following Datastream government bond indexes, benchmark indexes are based on single bonds. The bond chosen for each series is the most representative bond available for the given maturity band at each point in time. Benchmarks are selected according to the accepted conventions within each market. Generally, the benchmark bond is the latest issue within the given maturity band; consideration is also given to yield, liquidity, issue size and coupon.

The **U.S. 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 U.S. trade partners' currencies.

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). Ireland: Morgan Stanley Investment Management (Ireland) Limited. Registered Office: The Observatory, 7-11 Sir John Rogerson's, Quay, Dublin 2, Ireland. Registered in Ireland under company number 616662. Regulated by the Central Bank of Ireland. 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 U.K. 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 Branchl 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

Japan: For professional investors, this document is circulated or distributed for informational purposes only. For those who are not professional investors, this document 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 MSIMI 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 2.16 percent 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 document 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.

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

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. This material has not been reviewed by the Monetary Authority of Singapore. 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.

IMPORTANT INFORMATION

EMEA: This 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.

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.

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.

The views and opinions 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 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 teams 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.

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 material is a general communication, which is not impartial and 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. All investments involve risks, including the possible loss of principal. 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.

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. Additionally, financial intermediaries are required to satisfy themselves that the information in this document is suitable for any person to whom they provide this document in view of that person's circumstances and purpose. MSIM shall not be liable for, and accepts no liability for, the use or misuse of this document by any such financial intermediary.

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.

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's express written consent.

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

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

Explore our site at www.morganstanley.com/im