

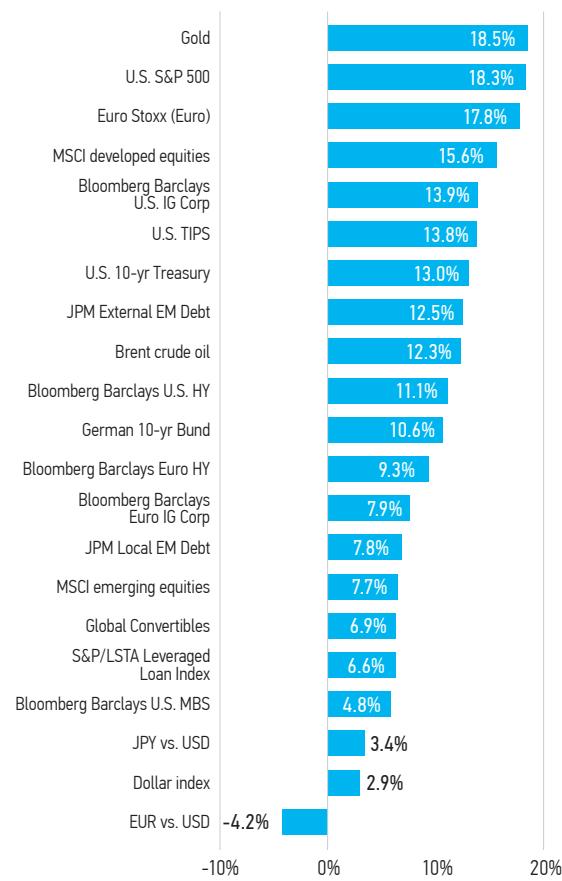
Global Fixed Income Bulletin

Volatility and Uncertainty Continue... With No End in Sight

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

Government bonds and the U.S. dollar continued their exceptional performance in August while other sectors and asset classes struggled. The reason: rising anxiety about the global economic outlook and policy responses. The causes: the U.S./China trade dispute escalated, economic data weakened (or did not improve as anticipated) and there was uncertainty about future central bank actions. Importantly, despite these issues, high-yield bonds and equities have weathered the storm well, preserving strong year-to-date returns. In fact, most fixed income assets, including credit, delivered positive returns in August. The problem: much of these returns are due to the dramatic fall in bond yields, which is unlikely to be repeated.

DISPLAY 1
Asset Performance Year-to-Date

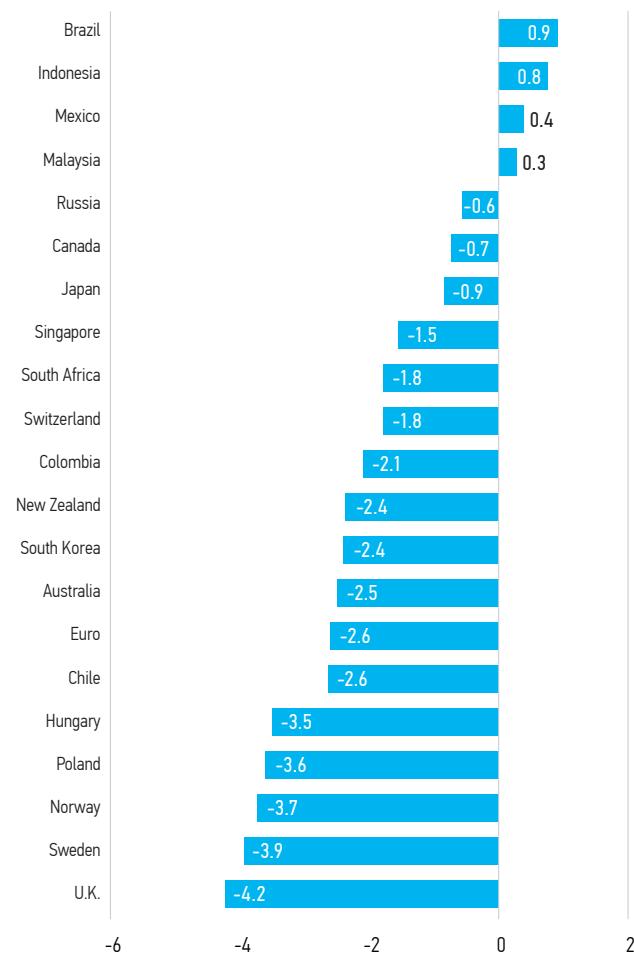


Note: USD-based performance. Source: Thomson Reuters Datastream. Data as of August 30, 2019. The indexes are provided for illustrative purposes only and are not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.** See pages 6 and 7 for index definitions.



DISPLAY 2**Currency Monthly Changes Versus U.S. Dollar**

(+ = appreciation)



Source: Bloomberg. Data, as of August 30, 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	1.50	-52		
United Kingdom	0.48	-13	-102	+39
Germany	-0.70	-26	-220	+26
Japan	-0.27	-12	-177	+40
Australia	0.89	-30	-61	+22
Canada	1.16	-31	-33	+21
New Zealand	1.06	-38	-43	+14
(Spread over Bunds)				
France	-0.40	-22	30	+4
Greece	1.63	-41	233	-15
Italy	1.00	-54	170	-28
Portugal	0.13	-22	83	+4
Spain	0.11	-18	81	+8
EM	INDEX LOCAL YIELD (%)	MTD CHANGE (BPS)	USD SPREAD (BPS)	MTD CHANGE (BPS)
EM External Spreads			359	+28
EM Local Yields	5.34	-20		
EM Corporate Spreads			331	+55
Brazil	6.82	+16	241	+35
Colombia	5.73	+8	179	+4
Hungary	1.04	-32	107	+13
Indonesia	7.46	+2	185	+14
Malaysia	3.34	-26	124	+9
Mexico	7.13	-43	334	+11
Peru	4.39	-16	122	+5
Philippines	4.39	-20	82	+10
Poland	1.69	-22	39	+8
Russia	6.94	-17	209	+17
South Africa	9.39	-3	321	+21
Turkey	15.81	+61	528	+79
Venezuela	—	—	11179	-766
CREDIT		SPREAD (BPS)	MTD CHANGE (BPS)	
U.S. IG		120	+12	
EUR IG		109	+10	
U.S. HY		393	+22	
EUR HY		336	-12	
SECURITIZED				
Agency MBS		97	+13	
U.S. BBB CMBS		252	+3	

Positive Neutral Negative

Source: Bloomberg, JP Morgan. Data as of August 30, 2019

The views and opinions expressed are those of the Portfolio Management team as of September 2019 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

Fixed Income Outlook

Anxiety is up. Economic data, especially softer, business confidence data, continues to soften. Trade disputes are escalating, not ending. Brexit will not go away. And August is a quiet month for central bank actions so we will have to wait until later in September to see exactly how they are going to respond. In particular, the two most important central banks, the Federal Reserve (Fed) and European Central Bank (ECB), will make important decisions this month.

If policy actions do not meet market expectations (a minimum of 25 basis points [bps] off the fed funds rate target in the U.S. and an across the board ECB easing, consisting of rate cuts, tiering of ECB bank deposit rates, forward guidance and quantitative easing (QE)), bonds, credit and equities could have a challenging fall.

Indeed, the data flow is sufficiently ominous, with signs that weak business spending (capex) and worsening corporate margins might begin to soften labor markets, particularly in the U.S. While we still do not believe a full-blown recession is likely, cycle indicators are deteriorating amongst political uncertainty. Until now, household economic strength, supported by strong labor markets and low borrowing costs, has been the bulwark against the negative corporate dynamics unleashed by the trade war.

The U.S. economy and bond market are probably most exposed to further deterioration. Much of this is due to its exposure to the global economy and global trade. U.S. business confidence, both in manufacturing and services, has been falling faster than in most other areas in the world. For example, U.S. purchasing managers' export expectations have sunk over the past month. If actual export volumes follow their lead, the drop would mimic that seen in full-blown recessions.

All is not lost. Over 15 central banks have cut interest rates this year. The fact that credit spreads are still tighter year to date, and U.S. equities remain near their all-time highs, reflects confidence that the economic slowdown seen so far will be contained. But, monetary

policy is not all-powerful. Tariffs and de-globalisation have powerful supply-side and aggregate-demand effects. While we do expect central banks to continue to cut rates, expanding their tool kit if necessary, it is not clear it will work, especially at this low level of yields. Indeed, lower rates and forward guidance cannot overcome uncertainty about future economic relationships (e.g., tariffs, capital flows).

During this period of intense uncertainty, we continue to look for signs/indicators showing how the situation is going to evolve. We continue to believe 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.

In the short term, we do seem to be coming into a period of greater calm. Apparently, the U.S. and China will resume trade negotiations; Italian politics has stabilized; a hard Brexit at the end of October seems unlikely; and September will see central banks easing once again. While we remain worried about the trends in place (both in economic data and policies), markets may settle down, with government yields stuck in narrow ranges and credit and emerging markets (EM) stabilizing. We would not recommend reducing exposures for now or increasing duration in government bond markets.

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 EM 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.

	MONTHLY REVIEW	OUTLOOK
Developed Market (DM) Rate/Foreign Currency (FX)	<p>Developed market sovereign bonds rallied sharply in August, with the yield on the 30-year U.S. Treasury dropping below 2% for the first time ever.¹ The spread between the 10-year Treasury and 2-year note inverted further, reigniting recession fears amongst investors.² Globally, the deterioration in U.S.-China trade negotiations was the primary catalyst behind an unusually tumultuous August in the fixed income and equity markets. Other events, such as Brexit developments under Boris Johnson and Italy's new government, added to the ever-present geopolitical uncertainty. Markets reacted positively to Italy's newly formed government, while Brexit uncertainties negatively affected the pound over the course of the month.</p>	<p>U.S. growth is likely to continue to remain under pressure for the remainder of 2019, supported by easier monetary policy. Central banks have become more accommodative, importantly in the U.S. and likely in the Eurozone, but the risk for fixed income markets is that the easing has now been fully priced in. Three major risks we see to the outlook are Brexit, U.S./China trade disputes, and weakness in the manufacturing and trade sectors undermining the consumer.</p>
Emerging Market (EM) Rate/FX	<p>Emerging markets fixed income asset performance was mixed in the month. Dollar-denominated assets were aided by falling U.S. Treasury yields, driving the outperformance of sovereigns over corporates and investment grade over high yield, which posted negative returns. Local bond performance was positive, but overwhelmed by currency weakness versus the U.S. dollar.³ The escalation of the U.S./China trade war in August, a typically poor month for market liquidity, exacerbated volatility. In addition, weaker global economic data and a massive sell-off in Argentinean assets following adverse election results for market-favorite President Macri contributed to lower risk sentiment. The negative view on global growth prospects also manifested itself in commodity prices, which were broadly lower in the period.</p>	<p>We hold a cautious view of the near-term outlook for EM debt. Market sentiment remains weak on the back of the unresolved China-U.S. trade dispute weighing on global trade and investment. After the U.S. administration followed up on its threat to raise tariffs on Chinese imports worth \$112bn as early as September 1, and China retaliated via higher duties on imports of US crude oil and litigation before the WTO, expectations for a major breakthrough at bilateral trade talks in Washington later this month are understandably low. Adding to a fragile global picture was Eurozone data that pointed to weakening growth, with Germany likely falling into technical recession in the third quarter. Furthermore, uncertainty is expected to remain high as we approach the final stage of the Brexit saga, where we would not rule out a potentially disruptive outcome, further muddling an already challenging backdrop for risky assets. On the other hand, we believe that increased monetary policy accommodation by central banks in the developed and emerging worlds will partially cushion the negative shocks originating from trade disputes and weaker global growth.</p>

¹ Source: Bloomberg, as of August 31, 2019.

² Source: Bloomberg, as of August 31, 2019.

³ Source: J.P. Morgan, as of August 31, 2019.

MONTHLY REVIEW

OUTLOOK

Credit

August saw corporate spreads wider overall, reversing most of the tightening seen in July, as concerns over global economic growth slowdown offset global accommodative monetary policies stances. The key drivers in August were (1) expectations of easier monetary policy from central banks, (2) increased trade war tensions, (3) weak economic data globally and (4) increased political uncertainty driving negative sentiment in the U.K. on Brexit. The Bloomberg Barclays U.S. Corporate Index closed 12 bps wider in August to end the month at 120 bps over government bonds. Financials outperformed non-financials in the month. In terms of excess returns versus government bonds, the U.S. IG Index generated an excess return of -1.05% in August. European investment grade outperformed the U.S. market, reflecting expectations of ECB buying under a new QE program and of concerns over the U.S. economy slowing as signaled by the U.S. 2yr-10yr curve inversion in late August.

Securitized

Agency mortgage-backed securities (MBS) materially underperformed in August, with MBS spreads widening 12 bps in August to 97 bps over U.S. Treasuries of comparable duration. Lower rate levels are causing prepayment expectations to increase substantially, putting pressure on the asset. Mortgage prepayments have already begun to accelerate, and are expected to increase from current levels as rates have continued to decline, with mortgage rates hitting their lowest levels since 2016. Pay-ups for specified pools continue to grow as investors look for pools with lower prepayment risks. Agency MBS mutual funds continue to receive steady inflows, receiving over \$1 billion net inflows in August.⁴ These inflows have helped offset the Fed's MBS portfolio run-off but are still relatively small when compared to the \$20 billion-per-month decline in Fed MBS holdings.

While valuations have tightened in the strong performance in 2019 to date, we see a number of signals that macro risk is rising. This includes increased risk of a hard Brexit, no likely resolution to U.S./China trade negotiations and weak global manufacturing data (PMIs). 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. We expect increased supply in September post the summer lull; however, technicals remain supportive overall, and we expect conservative risk positions across the street and steady inflows into credit to keep the risk of forced liquidations low.

Overall our outlook remains largely the same. We still have a positive fundamental credit outlook for residential and consumer credit conditions in both the U.S. and Europe, but we have begun reducing some of our securitized credit exposure as concerns over a potential economic downturn become more pronounced. We remain slightly negative on agency MBS, but we have been reducing our underweight over the past few months. Although agency MBS are under pressure from increased prepayment risks from lower mortgage rates and also due to the Fed continuing to reduce its MBS holdings, increasing market float by \$20B per month, spreads have widened materially over the past few months reflecting these risks, and now offer more comparable relative value. Much of the negative conditions for agency MBS seem to be priced in at this stage. We continue to have a mixed view on commercial mortgage-backed securities (CMBS); overall the sector seems marginally expensive on a risk-adjusted basis, but there are still a number of idiosyncratic opportunities that look compelling.

⁴ Source: Lipper US Fund Flows data, as of August 31, 2019.

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

R* 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

The views and opinions expressed are those of the Portfolio Management team as of September 2019 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

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 large- and 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.

The **MSCI Emerging Markets Index (MSCI emerging equities)** captures large- and 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.

The views and opinions expressed are those of the Portfolio Management team as of September 2019 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

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 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.

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 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 2.16 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 marketing communication has been issued by 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. Authorised and regulated by Central Bank of Ireland. ("MSIM Ireland").

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