

Global Fixed Income Bulletin

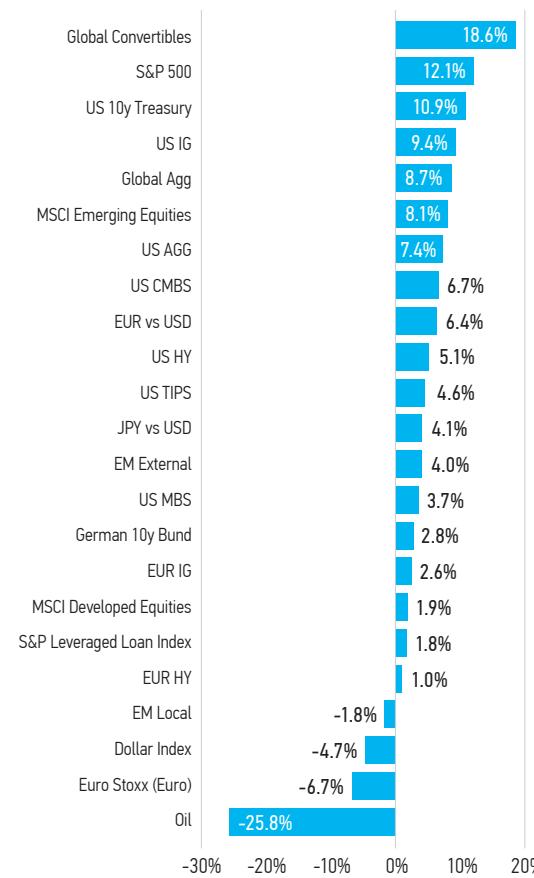
The Heat Is On

FIXED INCOME | GLOBAL FIXED INCOME TEAM | MACRO INSIGHT | DECEMBER 2020

An interesting month, once again. A pattern seems to be emerging: unusual times generate unusual constellations of market price movements. In November, government bond yields were mixed; credit spreads (including emerging markets) grinded meaningfully tighter, particularly high yield; and equities rallied double digits. This all in the face of growing COVID infection rates in Europe (which may have peaked) and the U.S., lack of U.S. fiscal and monetary action, weakening economic data in Europe, financial conditions eased. What happened? The U.S. election resulted in a Democratic victory for the White House; Republicans probably holding on to the Senate (final result due in January), thus likely resulting in a divided Federal government, which is expected to lead to benign policy outcome. But, most importantly of all, great news on vaccine efficacy and the likely roll out timeframe. While none of these actions affected the here and now, hope for 2021 increased dramatically, with expectations of mass inoculations and a return to some kind of normalcy in the second half of the year becoming consensus. Is the market correct to be so optimistic?

We think so, as long as no big hiccups occur on the actual vaccine roll out (small problems are likely inevitable). And more vaccines are likely to be approved in Q1 2020, reducing reliance on the ones which have so far finished their Phase 3 trials. We have seen evidence in countries in Asia that once the virus is beaten into submission, behavior normalizes fairly quickly. Normal behavior implies normal spending and normal employment. It is distinctly possible the global/U.S. economies will grow over 5% next year. This is truly great news. If it happens, we should expect to see higher government bond yields, particularly in the U.S., tighter still credit spreads, and emerging markets outperforming, both external and local. But, we do need to get from here, where the pandemic and economic situation is not looking so good—in the U.S. in particular—to there, where mass immunizations have been implemented. Indeed, U.S. employment data released in December showed a significant slowdown in hiring and will probably worsen in December. Preliminary business survey data in Europe

DISPLAY 1 Asset Performance Year-to-Date



Note: USD-based performance. Source: Bloomberg. Data as of November 30, 2020. 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.

The views and opinions expressed are those of the Portfolio Management team as of December 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

shows a marked slowdown in economic activity in November, especially, in the services sector, as more severe COVID restrictions started to bite. Moreover, just as U.S. job growth has slowed, unemployment benefits are expiring (at the end of the year). Without action, U.S. fiscal policy will tighten significantly in Q1 2021. Failure to act could worsen the near term outlook, deepening the economic hole for 2021. The good news is that there appears to be some bipartisan support for a \$900 billion plus package which would bridge the gap until vaccines began to work their magic.

Monetary policy has been less in the news recently; not surprisingly as vaccine and political news augers well for the economy in 2021, allowing central bankers to adopt a lower profile. However, vigilance is required. A strong 2021 economy is only a down payment on getting the global economy back on track. Strong growth in 2022 and something like at least trend growth in the years beyond are likely to be necessary to get employment and wage growth back to where they were pre-pandemic. In addition, the Fed needs to be wary of any premature rise in bond yields which could potentially tighten financial conditions and slow the recovery/expansion. While all central banks are running easy policy, the question is, is it easy enough? The answer is likely yes, if fiscal policy does not tighten. Central banks will support economies by NOT doing anything to hint at raising rates/reducing QE until full employment is in sight, in line with their recent communications. For economies and financial markets to continue to do well, monetary policy makers will have

to talk the talk and walk the walk, even if signs of inflation emerge (which we do not think is likely).

Thus, we remain comfortable with modestly long risk positions in portfolios, underweighting modestly interest rate risk. Looking into 2021, we still see economies improving with the slowdown confined to Europe Q4 2020 and U.S. Q4 2020/Q1 2021 as vaccines are rolled out. This also assumes no major lockdowns along the lines seen in Q2. We remain positioned to benefit from riskier fixed income assets outperforming and government bond yields moving sideways.

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	0.84	-3		
United Kingdom	0.31	+4	-53	+8
Germany	-0.57	+6	-141	+9
Japan	0.03	-1	-81	+2
Australia	0.90	+7	6	+10
Canada	0.67	+1	-17	+4
New Zealand	0.85	+31	1	+35
(Spread over Bunds)				
France	-0.33	+2	25	-4
Greece	0.64	-31	121	-37
Italy	0.63	-13	120	-19
Portugal	0.03	-7	61	-13
Spain	0.08	-5	65	-11
EM	INDEX LOCAL YIELD (%)	MTD CHANGE (BPS)	USD SPREAD (BPS)	MTD CHANGE (BPS)
EM External Spreads				
EM Local Yields	4.76	+15		
EM Corporate Spreads			351	-27
Brazil	6.52	+3	275	-43
Colombia	5.17	-22	231	-17
Hungary	1.62	-15	113	+7
Indonesia	6.23	-39	167	-23
Mexico	5.86	-34	229	-24
Peru	3.88	-24	132	+16
Philippines	3.65	+6	120	-9
Poland	0.63	+1	20	+4
Russia	5.57	-22	177	-20
South Africa	9.89	-35	407	-44
Turkey	12.40	-188	505	-133
Venezuela	-	-	19203	+309
CREDIT		SPREAD (BPS)	MTD CHANGE (BPS)	
U.S. IG		104	-21	
EUR IG		94	-22	
U.S. HY		412	-97	
EUR HY		359	-112	
SECURITIZED				
Agency MBS		73	-5	
U.S. BBB CMBS		538	-38	

Positive Neutral Negative

Source: Bloomberg, JPMorgan. Data as of November 30, 2020.

Note: Positive change means appreciation of the currency against the USD.
Source: Bloomberg. Data as of November 30, 2020.

The views and opinions expressed are those of the Portfolio Management team as of December 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

Fixed Income Outlook

The heat is on. On vaccine makers to produce and distribute their vaccines; on governments to have inoculation plans; on legislators to make sure there is enough fiscal/economic support to bridge the gap to vaccines allow a more complete reopening of economies and economic scarring is minimized; on central banks to make sure financial conditions stay easy, not just now during the bridging period, but also if the economies really take off next year post vaccine; and, last but not least, on ordinary citizens taking appropriate precautions so that we do not experience hard lockdowns or any other major disruptive event now and when vaccines are being deployed. That is a lot of heat, but we remain optimistic that we will have enough success on enough of these issues to look forward to a bright 2021/2022 economic future.

This optimism pervades financial markets. Implications are clear: be wary of higher yields; expect credit and emerging markets to outperform and watch out for landmines! What might those be? First, near term economic risks have risen. Fiscal policy action in the U.S. is stuck in Congress. We expect a bipartisan relatively large package this month or next, but who knows, policy gridlock is possible given the partisan climate. Second, lockdowns. Despite the unfortunate rise in infections, the U.S. is not locking down, like it did earlier this year. At least not yet. And, Europe appears to be past the worst. However, the situation remains fluid and warrants close attention. Third, while vaccine deployment looks increasingly likely, execution will be critical. It has to "get" to people; people have to be willing to be inoculated; and it needs to work as advertised. A reasonably long list of musts! On the good news front, if China is showing what happens when you

crush the virus, the global economy could be in a very good place indeed in 12 months.

Bond markets are not inexpensive. Although U.S. Treasury yields are generally well off their lows, they are not high; higher quality corporate bonds have retraced most, if not all, of their 2020 post-pandemic spread widening; even lower quality bonds, both corporate and emerging market, have had aggressive rallies in the last month. Laggards remain concentrated in those countries/sectors most negatively impacted by the pandemic and where lasting economic damage might have been done, e.g., gaming, airlines, leisure, hotels, malls. Except these sectors, we continue to have a moderately bullish position with respect to credit and emerging markets with a neutral to slightly negative bias to interest rate risk. Emerging markets in particular could be well placed to outperform in months ahead. The sharp fall in the U.S. dollar in recent weeks is a good sign that the global macro outlook is changing to the positive. Paying attention to the dollar's fortunes is one of the better "canary in a coalmine" warning signals that the optimistic outlook might be challenged, i.e., a reversal of the dollar's recent downtrend. But, don't expect to see the dollar continue to fall at its recent pace. Some consolidation is probably in order. Therefore, discrimination remains key in our choice of assets and we continue try to avoid the two tails of the risk spectrum: very high quality/low yielders and very low quality/high yielders, in credit, securitized and sovereign markets. We want to own exposure in those areas that can withstand some further volatility in macro/virus backdrop but have enough yield/spread to offer reasonable 2021 return potential.

	MONTHLY REVIEW	OUTLOOK
Developed Market (DM) Rate/Foreign Currency (FX)	<p>In November, markets moved to a strong “risk-on” stance as the U.S. election came and went without rattling the markets, coupled with the announcement of three effective COVID-19 vaccines. Various lockdowns that had been imposed across Europe proved to be effective, while the U.S. saw a significant spike in cases across the country. Global 10-year yields generally remained stable over the month, with the exception of some European countries seeing yields fall, and Australia and New Zealand saw yields increase.</p>	<p>The economic outlook has brightened for 2021 with the vaccine announcements. We expect a global economic recovery, especially in services sectors. However, we expect central banks to remain accommodative and keep yields low, especially at the shorter end of the curve. However, better-than-expected economic data and global economic recovery may also push yields higher.</p>
Emerging Market (EM) Rate/FX	<p>November was a strong month for risk assets, driven by the positive news on coronavirus vaccine trials and the U.S. election result. From a broad market perspective, Angola, Sri Lanka, Ghana, El Salvador, Senegal were the best performers in November, while bonds in Suriname, Lebanon, Ethiopia, Ecuador and Peru were laggards. From a sector perspective, companies in the Oil & Gas, Consumer and Metals & Mining segments led the market, while those in the Diversified, Financial and Real Estate sectors underperformed.</p>	<p>Conditions for EM debt outperformance in the near term remain in place. A global backdrop of steady, extended monetary accommodation, an imminent deployment of COVID-19 vaccines in the developed world, and expectations of fiscal stimulus in the U.S., should boost the growth-sensitive segments of the asset class. Delayed deployment of vaccines in EM, delayed transition to fiscal consolidation, and potentially excessive optimism about reduced trade frictions under a Biden administration (particularly, in U.S.-China relations) could challenge our positive scenarios for global trade and growth, and thus negatively impact the performance of growth sensitive EM assets.</p>

The views and opinions expressed are those of the Portfolio Management team as of December 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

MONTHLY REVIEW

OUTLOOK

Credit

Spreads were tighter in the month, driven by the vaccine news, U.S. election outcome and better than expected earnings results.

Looking forward, we see the remainder of the year as characterised by lower liquidity with market direction driven by the latest headline. Our base case reflects the consensus view that coronavirus is transitory and monetary policy is credit risk friendly likely driving spreads tighter in the medium term. In the short term, we continue to see risks of volatility but believe any downside is limited by expectations a vaccine will be deployed in the next 3 months.

Securitized Products

Both agency mortgage-backed securities (MBS) and securitized credit performed reasonably well in November. Mortgage prepayment speeds showed no signs of slowing as mortgage rates again hit new historic lows again in November. U.S. asset-backed securities (ABS) and European RMBS spreads were largely unchanged in November. U.S. Non-agency residential mortgage-backed securities (RMBS) and U.S. commercial mortgage-backed securities (CMBS) spreads tightened slightly in November, with AAA CMBS spreads now trading 80-110 basis points above comparable duration swaps.¹

Agency MBS look marginally expensive at current valuations after the spread tightening over the past 6 months. We particularly favor TBA securities in lower coupon 30-years (2% and 2.5%). U.S. non-agency MBS valuations are mixed; newly originated, or 2.0 non-agency MBS, look expensive at current valuations, but attractive opportunities exist in legacy non-agency RMBS, non-performing loans and other non-traditional RMBS. U.S. ABS performance has varied significantly by sector, and we expect this divergence to persist through the end of the year. We believe there is material upside to aircraft and small business loan ABS in an economic recovery. The outlook remains positive for multi-family, office and logistics CMBS, but we have concerns about properties in large cities. Hotel and shopping center CMBS are likely to remain very stressed. European markets are experiencing similar sector-specific performance dynamics to the U.S., but should remain well supported by the ECB's €1.35 trillion PEPP fund.

¹Source: Bank of America, as of November 30, 2020.

The views and opinions expressed are those of the Portfolio Management team as of December 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

Risk Considerations

There is no assurance that a portfolio will achieve its investment objective. Portfolios are subject to **market risk**, which is the possibility that the market values of securities owned by the portfolio will decline and that the value of portfolio shares may therefore be less than what you paid for them. Market values can change daily due to economic and other events (e.g. natural disasters, health crises, terrorism, conflicts and social unrest) that affect markets, countries, companies or governments. It is difficult to predict the timing, duration, and potential adverse effects (e.g. portfolio liquidity) of events. Accordingly, you can lose money investing in a portfolio. **Fixed-income securities** are subject to the ability of an issuer to make timely principal and interest payments (credit risk), changes in interest rates (interest rate risk), the creditworthiness of the issuer and general market liquidity (market risk). In a rising interest-rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. In

a declining interest-rate environment, the portfolio may generate less income. **Longer-term securities** may be more sensitive to interest rate changes. 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. **Basis point:** One basis point = 0.01%.

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. Corporate High Yield Index** measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes emerging market debt.

The **Bloomberg Barclays U.S. Corporate Index** 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.

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 **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, euro and euro legacy currency denominated bonds of corporate issuers domiciled in countries having an investment grade foreign currency long-term debt rating based on a composite of Moody's and S&P. This index is unhedged USD.

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

The views and opinions expressed are those of the Portfolio Management team as of December 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

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.

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 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.

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 **Russell 2000® Index** is an index that measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

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 (U.S.), 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.

The **Chicago Board Options Exchange (CBOE) Market Volatility (VIX) Index** shows the market's expectation of 30-day volatility.

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, Grosse Gallustrasse 18, 60312 Frankfurt am Main, Germany (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 11096HA, Netherlands. Telephone: 312-0462-1300. 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

The views and opinions expressed are those of the Portfolio Management team as of December 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

document is provided in relation to Morgan Stanley Investment Management (Japan) Co., Ltd. ("MSIM")'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 MSIM to make all investment decisions based on an analysis of the value, etc. of the securities, and MSIM accepts such commission. The client shall delegate to MSIM the authorities necessary for making investment. MSIM exercises the delegated authorities based on investment decisions of MSIM, and the client shall not make individual instructions. All investment profits and losses belong to the clients; principal is not guaranteed. Please consider the investment objectives and nature of risks before investing. As an investment advisory fee for an IAA or an IMA, the amount of assets subject to the contract multiplied by a certain rate (the upper limit is 2.20 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, MSIM 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 MSIM, 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 appropriate 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 publication 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 appropriate 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 appropriate 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 directly or indirectly reproduced, copied, modified, used to create a derivative work, performed, displayed, published, posted, licensed, framed, distributed, or transmitted or any of its contents disclosed to third parties without MSIM's express written consent. The work may not be linked to unless such hyperlink is for personal and non-commercial use. All information contained herein is proprietary and is protected under copyright law.

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

Explore our site at www.morganstanley.com/im