

2021 Market Outlook

Promising Signs for Securitized Products

The impacts of COVID-19 on risk and performance across securitized sectors have varied significantly. Yet, we believe the market has reasonably adjusted credit spreads to reflect current risk profiles (*Display 1*), making the outlook for securitized assets in 2021 look promising after a roller-coaster year in 2020.



GREGORY FINCK

Portfolio Manager
Head of Securitized,
Global Fixed Income Team



ERIN GLENN

Portfolio Specialist
Global Fixed Income Team

Agency MBS: The Fed Is Back

Agency mortgage-backed securities (MBS) held up well during the first quarter of 2020 as investors found the asset class to be a haven in their hunt for decent yield given that agency MBS have high liquidity and virtually no credit risk. In March, the Fed announced the renewal of its massive MBS purchase program, which pushed spreads even tighter (*Display 2*).

However, while agency MBS should remain supported in 2021 by the continuation of the Fed's MBS purchase program, agency mortgage-backed securities (MBS) now look moderately expensive.

Nominal spreads on current coupon agency MBS began 2020 trading at 91 basis points above interpolated U.S. Treasuries. However, spreads tightened 20 basis points during 2020—almost exclusively a function of the Fed purchases during the period—and ended the year trading at 71 basis points above interpolated treasuries, the tightest spread level since the second quarter of 2019.

Fueled by the lowest mortgage rates in U.S. history—hitting new historic lows again in December: 2.67% for 30-year fixed rate mortgages—prepayment speeds showed no signs of slowing. Issuance volumes of agency MBS hit historic highs in 2020, which we expect to be surpassed in 2021.

The Fed was the entity to absorb this surge in issuance, increasing its market share of agency MBS by more than 8% in 2020, while money managers reduced their ownership by the same amount (*Display 3*). Since their March announcement, the Fed has purchased nearly \$1.5 trillion in agency MBS, bringing their total agency MBS holdings to a new high of \$2.077 trillion, almost one-third of the outstanding agency MBS market.

We expect the Fed to remain substantial buyers of agency MBS, absorbing the majority of this issuance, and the sector should perform relatively well as a result, despite the rich valuations.

DISPLAY 1

Risk Profile by Securitized Sector Post COVID-19

HIGH RISK	MODERATE RISK	LIMITED RISK
Significantly Impacted by COVID-19		More Resilient Credit Performance
<ul style="list-style-type: none"> • Hotel Commercial Mortgage Backed Securities (CMBS) • Retail Shopping CMBS • Aircraft Asset Backed Securities (ABS) • Small Business Loan ABS 	<ul style="list-style-type: none"> • Consumer Credit • Office CMBS • Multifamily Housing 	<ul style="list-style-type: none"> • Agency MBS • U.S. Non-Agency RMBS • Single-Family Rental Housing • European RMBS • Auto Loan ABS

DISPLAY 2

Federal Support for Agency MBS Remains Strong

Agency MBS Nominal Spreads Versus Fed Holdings

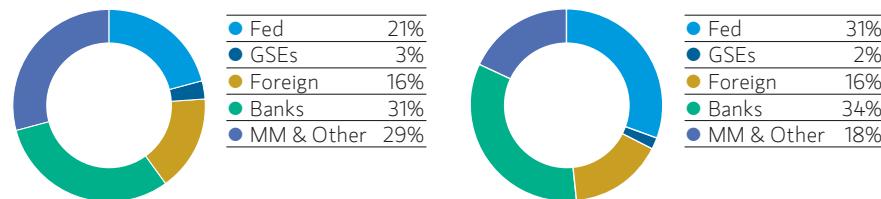


Sources: JP Morgan, the Federal Reserve Bank, and Wells Fargo. Spread data as of December 31, 2020. The yield curve performance is provided for illustrative purposes only. **Past performance is no guarantee of future results.**

DISPLAY 3

Fed Meaningfully Increased Its Market Share of Agency MBS in 2020

December 2019 Versus September 2020



Sources: JP Morgan, the Federal Reserve Bank, Wells Fargo. Spread data as of November 30, 2020.

So What Is the Fed Buying?

We expect the Fed to continue to buy more agency MBS in 2021, and for as long as economic conditions remain challenging. The Fed's MBS purchases have been primarily concentrated in 30-year 2.0% and 30-year 2.5% coupons, and the TBA rolls in these coupons have traded "special" in recent months as a result. These purchases have migrated down in coupon over time as mortgage rates continued to fall during 2020. As a result, TBA rolls have followed the Fed purchases with "roll specialness," increasing in coupons the Fed is buying, and as a result, offering attractive carry in our opinion. For higher-coupon MBS, specified pools appear to be the only attractive opportunities, as the low-rate environment continues to encourage fast prepayment speeds and negative TBA rolls in this part of the coupon stack.

U.S. Non-Agency RMBS and the State of the U.S. Housing Market

While valuations across many areas of securitized credit have recovered to pre-pandemic levels, we believe there are certain sectors that still offer attractive risk-adjusted opportunities. Our favorite securitized credit sector remains residential credit for several reasons. The housing market has been impressively resilient in the face of the COVID-19 pandemic with home prices up over 7% over the past year.¹ Mortgage forbearance requests and mortgage delinquencies have subsided after rising in March and April, although even the peak levels during the pandemic did not approach levels that threatened most non-agency RMBS. The structures of most non-agency RMBS in the post-financial crisis era have been designed to withstand very high levels of defaults and losses without threatening the RMBS securities, default levels that we believe will not be reached during this pandemic.

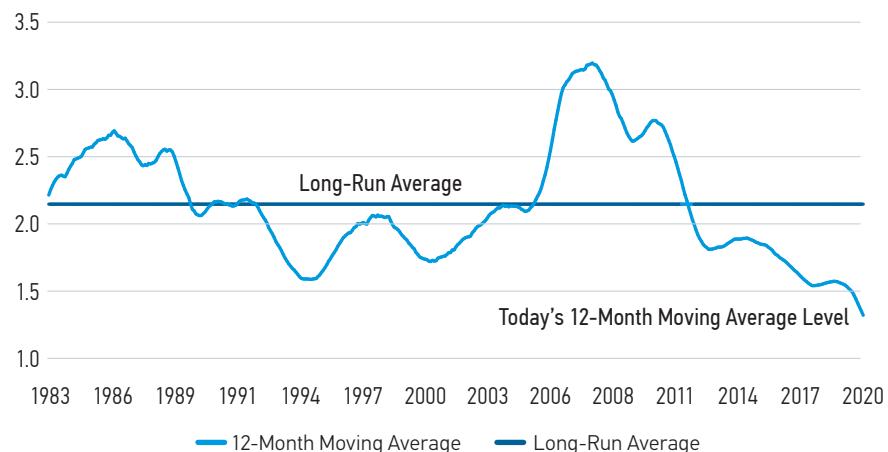
Positive Home Supply/Demand Dynamics

As the millennial generation (the largest generation ever) transitions into

DISPLAY 4

Low Existing Home Inventory: Positive Technical for HPA

Existing Home Inventory (Millions of Units)

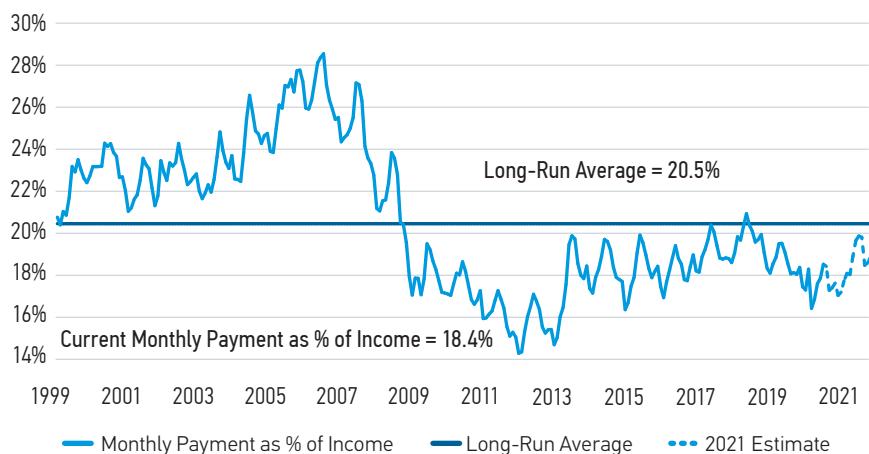


Source: US Census Bureau, NAR, MBA, Freddie Mac, Case Shiller, Morgan Stanley Research estimates as of October 30, 2020.

DISPLAY 5

Housing Remains Historically Affordable

Monthly Mortgage Payment as a Percentage of Income: Historical and 2021 Forecasts



Source: US Census Bureau, NAR, MBA, Freddie Mac, Case Shiller, Morgan Stanley Research estimates.

the home buying stage, the demand for homes has increased significantly over the past decade. However, after the financial crisis there was very little residential construction, and as a result, housing supply levels were at 50-year lows at the beginning of 2020 (Display 4). The COVID-19 pandemic further exacerbated this shortage, as the widespread adoption of the "work-from-

home" dynamic has encouraged buyers to search for homes outside of expensive metropolitan areas.

Housing Remains Affordable

Low mortgage rates have also added to housing demand and have helped keep homes affordable. Thirty-year mortgage rates fell to 2.66% in 2020,

¹ Reflects October 2020 data: home prices up 8.41% YoY for the National Index as of October 2020. Source: Case-Shiller Home Price Index.

the lowest level in U.S. history. These low mortgage rates have kept housing affordable despite increasing home prices, with the percentage of income required to afford a home still below historical averages (*Display 5*).

We believe price appreciation should remain positive in 2021, but expect the rate of growth to slow to roughly 3% from more than 7% in 2020 (*Display 6*).

Non-Agency RMBS Securitization Structures Much More Robust Post Crisis

RATING AGENCIES AND INVESTORS HAVE DEMANDED MORE STRUCTURAL CREDIT PROTECTION AND IMPROVED LENDING STANDARDS

Finally, since being the epicenter of the global financial crisis, the securitized market has been better structured to handle substantial amounts of economic stress with tighter lending standards and more robust structures. Using the global financial crisis as the ultimate stress test, these bonds are structured with thick levels of credit enhancement able to help withstand substantial default and loss levels, far above the levels we have seen reported during the pandemic.

We believe that these bonds will ultimately be unimpaired from a fundamental credit perspective and that non-agency RMBS delinquency/default rates should continue to improve and remain substantially below structural credit protection levels for most securities.

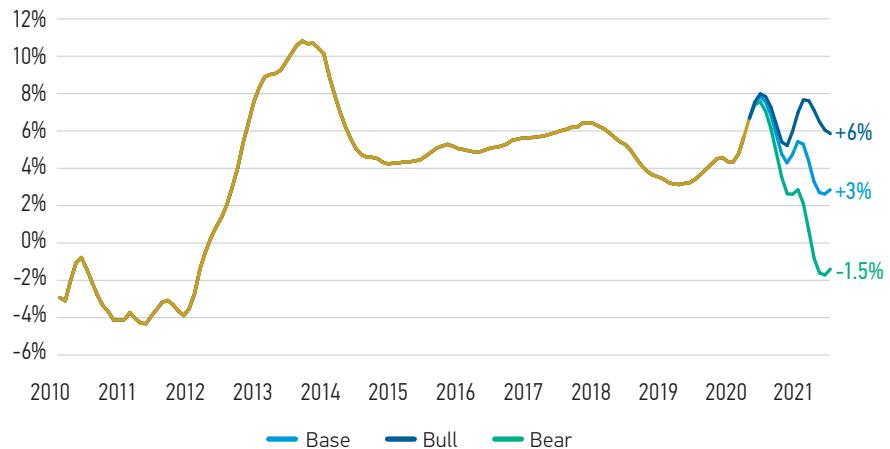
Mortgage Fundamental Performance Fared Relatively Well During the Pandemic and Has Shown Signs of a Strong Rebound

Despite the spike in unemployment due to the global economic shutdowns resulting from COVID-19, mortgage fundamental performance has generally remained positive. Loan delinquencies and forbearance requests increased in March and April, but then declined meaningfully over the remainder of the year (*Display 7*). We believe even at their pandemic peaks, mortgage delinquency and default levels were generally not threatening to the large majority

DISPLAY 6

Historical Home Price Appreciation and Forecast Scenarios

Home Price Change YoY (%)

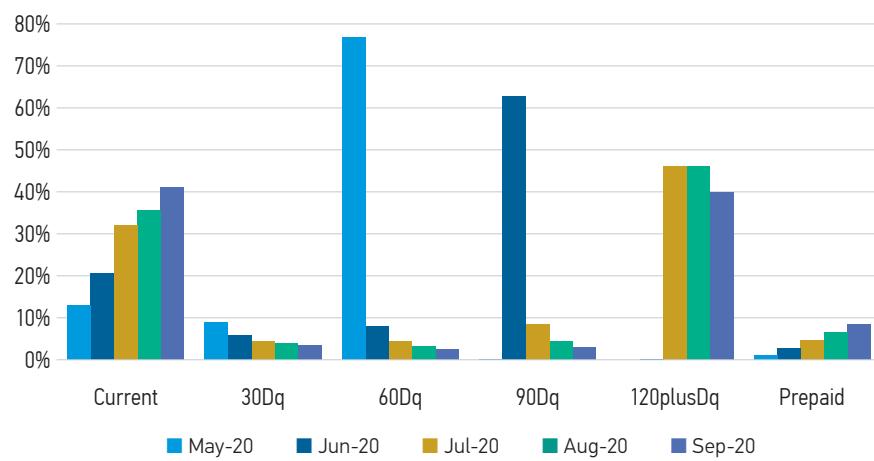


Sources: US Census Bureau, NAR, MBA, Freddie Mac, Case Shiller, Morgan Stanley Research estimates. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

DISPLAY 7

Loan Delinquencies Not Significant for Non-Agency MBS

Of Loans That First Fell Delinquent in April, ~50% Have Either Come Back Current or Have Prepaid



Sources: Fannie Mae, Freddie Mac, eMBS, Morgan Stanley Research.

of non-agency RMBS, which have been structured in the post-financial crisis era to withstand substantial levels of defaults and losses without being impaired.

CMBS: Divergence in Performance and Risk Driven by Property Type

CMBS remains a stressed but potentially timely investment opportunity, as sectors have experienced

divergent performance, which we believe will continue this year (*Display 8*). Multifamily housing (apartments) and office buildings have performed better and have lower risks of near-term defaults, but these sectors could still face challenges if there are fundamental shifts in how people want to live and work in the post-pandemic world. We anticipate a meaningful decline in rent and occupancy levels, particularly

in major cities, which could impact property valuations and refinancing prospects. Hotels and shopping centers have been severely impacted by the pandemic, and remain very stressed and vulnerable to high levels of default. There is significant recovery potential in these sectors but also substantial risk. Industrial and logistics centers seem poised to benefit from the pandemic with increased demand, and consequently look more stable from a credit and valuation perspective.

U.S. ABS: U.S. Consumer Fundamentals Show Signs of Recovery

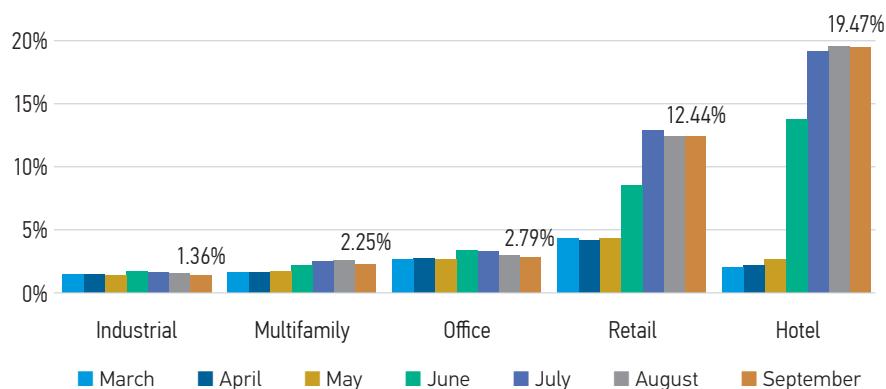
CONSUMER FUNDAMENTALS REMAIN STRONG BUT MIXED OUTLOOK BY ASSET TYPE

The financial state of the U.S. consumer continues to improve as excess savings increased in 2020 (Display 9). Auto loan delinquencies and defaults, even among subprime borrowers, rose minimally during the pandemic, despite the sharp rise in unemployment (Display 10). Overall consumer debt levels remain well below historical levels on an inflation-adjusted basis. While these improving fundamentals are crucial to lay the foundation for the road to a global recovery, we believe there are better relative value opportunities in other sectors of the ABS market.

At the security level, U.S. ABS performance has varied significantly by sector, and we expect this divergence to persist. Traditional ABS, such as auto loans, credit cards and consumer loans have performed well during the pandemic, and we expect this strong credit performance to continue. However, current valuations are more expensive than pre-pandemic levels, which we find unattractive on a relative value basis.

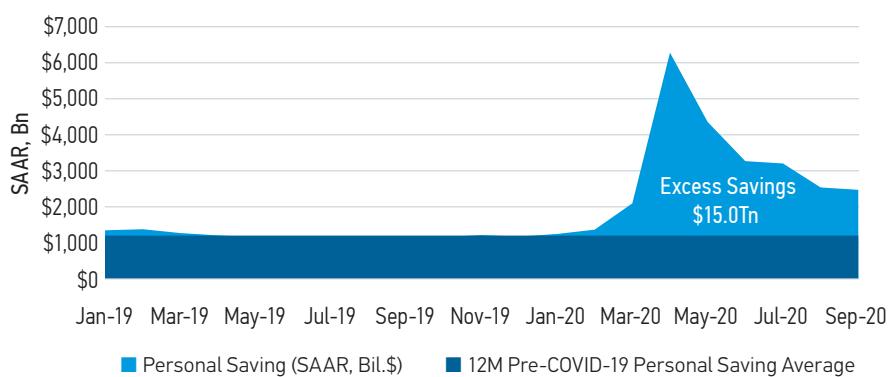
The most COVID-19-challenged ABS sectors offer much more recovery potential. Aircraft leases, small business loans and mortgage servicing assets offer much more attractive ABS value opportunities in our opinion and are poised to benefit if the economy recovers strongly.

DISPLAY 8 Hotel and Retail CMBS Delinquency Rates Rise Sharply



Source: Bank of America Research

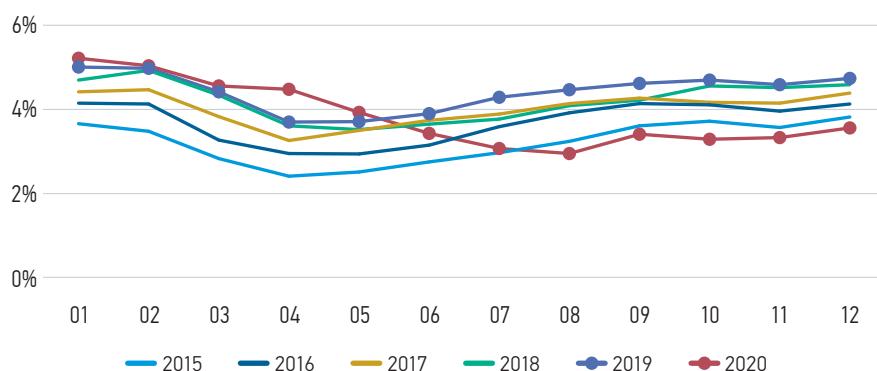
DISPLAY 9 U.S. Consumer Excess Savings Remain Elevated



Source: Bureau of Economic Analysis, Morgan Stanley Research. Note: These figures are annualized (x12). Morgan Stanley Research calculated excess savings by taking the cumulative difference in personal saving from April to September compared to the 12-month average personal saving level from March 2019 to February 2020.

DISPLAY 10 Auto Delinquencies Remain Subdued

Subprime Auto Delinquencies by Years



Source: Morgan Stanley Research, Intex.

Europe

European markets are experiencing similar sector-specific performance dynamics, and overall performance has been in line with the U.S. for comparable assets. European spreads are now back in line with comparable U.S. assets after being tighter for most of the year, as U.S. assets have tightened substantially over the last few months. European securitized markets should remain well supported by the

historically low rates prevailing in Europe and by the asset purchase and lending programs of the ECB and BOE.

Conclusion

Although we enter the new year with COVID-19 cases rising around the globe, we are seeing steps being made towards a more optimistic future. The implementation of several vaccines, continued levels of unprecedented Central Bank support, and renewed

fiscal stimulus packages are all laying down a foundation that should help bridge global economies, companies and individuals to a post-pandemic world.

Overall, we remain constructive on securitized credit and have a modest credit overweight across our portfolios, although we remain conscious of liquidity issues given the experiences of last March and cautious regarding ongoing COVID-19 concerns.

Risk Considerations

There is no assurance that a strategy will achieve its investment objective. Portfolios are subject to market risk, which is the possibility that the market value of securities owned by the portfolio will decline. Accordingly, you can lose money investing in this strategy. Please be aware that this strategy may be subject to certain additional risks. **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. In a declining interest-rate environment, the portfolio may generate less income. **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. Some **U.S. Government** securities are not backed by the full faith and credit of the U.S., thus these issuers may not be able to meet their future payment obligations. **High yield securities ("junk bonds")** are lower rated securities that may have a higher degree of credit and liquidity risk. In addition to the risks associated with common stocks, investments in **convertible securities** are subject to the risks associated with fixed-income securities, namely credit, price and interest rate risks. **Public bank loans** are subject to liquidity risk and the credit risks of lower rated securities. **Foreign securities** are subject to currency, political, economic and market risks. The risks of investing in **emerging market** countries are greater than risks associated with investments in foreign developed countries. Sovereign debt securities are subject to default risk. **Derivative instruments** can be illiquid, may disproportionately increase losses and may have a potentially large negative impact on the portfolio's performance. **Restricted and illiquid securities** may be more difficult to sell and value than publicly traded securities (**liquidity risk**). **Collateralized mortgage obligations** can have unpredictable cash flows that can increase the risk of loss.

IMPORTANT DISCLOSURES

Past performance is no guarantee of future results.

The views, opinions, forecasts and estimates expressed 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, economic or other conditions. Furthermore, the views will not be updated or otherwise revised to reflect information that subsequently becomes available or circumstances existing, or changes occurring, after the date of publication. The views expressed do not reflect the opinions of all portfolio managers at Morgan Stanley Investment Management (MSIM) or the views of the firm as a whole, and may not be reflected in all the strategies and products that the Firm offers.

Forecasts and/or estimates provided herein are subject to change and may not actually come to pass. Information regarding expected market returns and market outlooks is based on the research, analysis and opinions of the authors. These conclusions are speculative in nature and are not intended to predict the future performance of any specific Morgan Stanley Investment Management product.

This material is a general communication, which is not impartial and all information provided has been prepared solely for informational and educational purposes and does not constitute an offer or a recommendation to buy or sell any particular security or to adopt any specific investment

strategy. The information herein has not been based on a consideration of any individual investor circumstances and is not investment advice, nor should it be construed in any way as tax, accounting, legal or regulatory advice. To that end, investors should seek independent legal and financial advice, including advice as to tax consequences, before making any investment decision.

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.

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

There is no guarantee that any investment strategy will work under all market conditions, and each investor should evaluate their ability to invest for the long term, especially during periods of downturn in the

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

Ireland: MSIM Fund Management (Ireland) Limited. Registered Office: The Observatory, 7-11 Sir John Rogerson's Quay, Dublin 2, D02 VC42, Ireland. Registered in Ireland as a private company limited by shares under company number 616661. MSIM Fund Management (Ireland) Limited is regulated by the Central Bank of Ireland. **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:** MSIM Fund Management (Ireland) Limited Niederlassung Deutschland, Grosse Gallusstrasse 18, 60312 Frankfurt am Main, Germany (Gattung: Zweigniederlassung (FDI) gem. § 53b KWG). **Italy:** MSIM Fund Management (Ireland) Limited, Milan Branch (Sede Secondaria di Milano) is a branch of MSIM Fund Management (Ireland) Limited, a company registered in Ireland, regulated by the Central Bank of Ireland and whose registered office is at The Observatory, 7-11 Sir John Rogerson's Quay, Dublin 2, D02 VC42, Ireland. MSIM Fund Management (Ireland) 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 11488280964. **The Netherlands:** MSIM Fund Management (Ireland) Limited, Rembrandt Tower, 11th Floor Amstelplein 1 1096HA, Netherlands. Telephone: 31 2-0462-1300. Morgan Stanley Investment Management is a branch office of MSIM Fund Management (Ireland) Limited. MSIM Fund Management (Ireland) Limited is regulated by the Central Bank of Ireland. **France:** MSIM Fund Management (Ireland) Limited, Paris Branch is a branch of MSIM Fund Management (Ireland) Limited, a company registered in Ireland, regulated by the Central Bank of Ireland and whose registered office is at The Observatory, 7-11 Sir John Rogerson's Quay, Dublin 2, D02 VC42, Ireland. MSIM Fund Management (Ireland) Limited Paris Branch with seat at 61 rue de Monceau 75008 Paris, France, is registered in France with company number 890 071 863 RCS. **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.

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.

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 2.20% per annum (including tax)) shall be incurred in proportion to the contract period. For some strategies, a contingency fee may be incurred in addition to the fee mentioned above. Indirect charges also may be incurred, such as brokerage commissions for incorporated securities. Since these charges and expenses are different depending on a contract and other factors, MSIMJ cannot present the rates, upper limits, etc. in advance. All clients should read the Documents Provided Prior to the Conclusion of a Contract carefully before executing an agreement. This 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 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 objective 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 objective, risks, charges and expenses of the fund carefully before investing. The prospectus contains this and other information about the fund. To obtain a prospectus, 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 DEPOSIT

IMPORTANT INFORMATION

EMEA: This marketing communication has been issued by MSIM Fund Management (Ireland) Limited. MSIM Fund Management (Ireland) Limited is regulated by the Central Bank of Ireland. MSIM Fund Management (Ireland) Limited is incorporated in Ireland as a private company limited by shares with company registration number 616661 and has its registered address at The Observatory, 7-11 Sir John Rogerson's Quay, Dublin 2, D02 VC42, Ireland.

The indexes are unmanaged and do not include any expenses, fees or sales charges. It is not possible to invest directly in an index. Any index referred to herein is the intellectual property (including registered trademarks) of the applicable licensor. Any product based on an index is in no way sponsored, endorsed, sold or promoted by the applicable licensor and it shall not have any liability with respect thereto.

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.

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

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.

Explore our new site at www.morganstanley.com/im