Building Better Outcomes

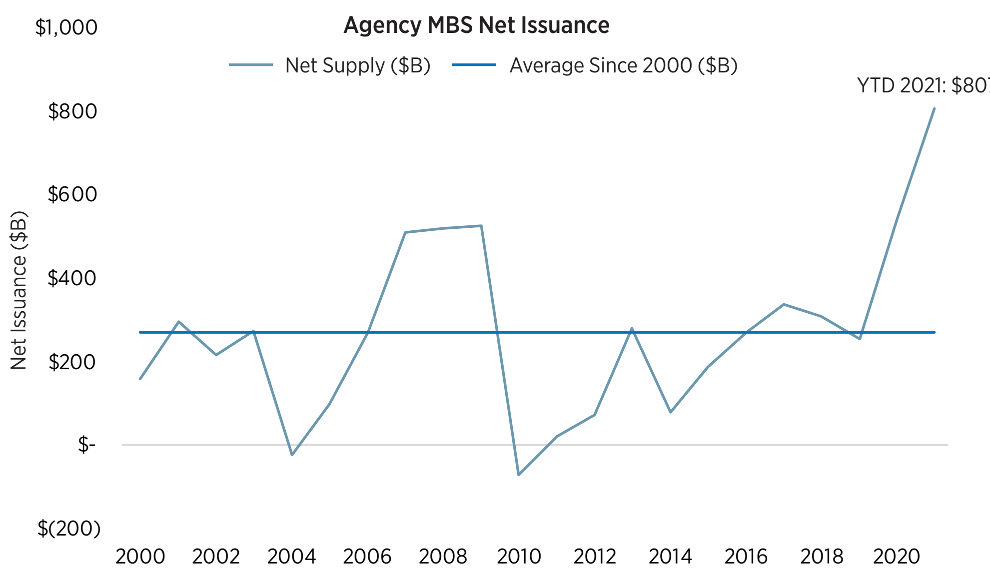
A Changing Rate Environment in 2022 Could Benefit Active MBS Investors

Andrew Szczurowski, CFA
Director, Mortgage-Backed Securities

"We believe that agency MBS investors could potentially outperform in the rising rate environment we foresee by moving up in coupon."

Boston – 2021 is a year most agency Mortgage-Backed Securities (MBS) investors will be happy to have in the rearview mirror. The agency MBS market underperformed nearly all other U.S. fixed-income sectors in 2021 and suffered only its second negative year over the past 25 years, as measured by the Bloomberg US Mortgage Backed Securities (MBS) Index. Both negative years (2013 and 2021) were actually the byproduct of the same event, eight years apart … tapering of the Fed's quantitative easing programs. While most agency MBS investors expected the Fed to taper its MBS purchases before 2021 was over, the real surprise of 2021 was the seemingly never-ending amount of supply, which hit the market month after month.

The agency MBS market began 2021 with one very solid technical, the Fed absorbing almost 100% of new net issuance early in the year as mortgage rates rose. Coming into 2021, many expected supply for the year would be somewhere around $400 billion, meaning the Fed would be taking out 100% of net supply. After rising nearly 50 basis points in the first quarter, mortgage rates leaked lower for the rest of the year. Lower mortgage rates, a hot U.S. housing market and trillions in pent-up home equity all combined to create record supply in the agency MBS market. To put it in context, in 2021, the MBS market saw nearly three times the supply it has seen on average over the last 20 years. Despite being a government-backed sector, and the Fed purchasing over $400 billion of bonds during 2021, the $800+ billion of supply was too much for the agency MBS market to handle without widening spreads.



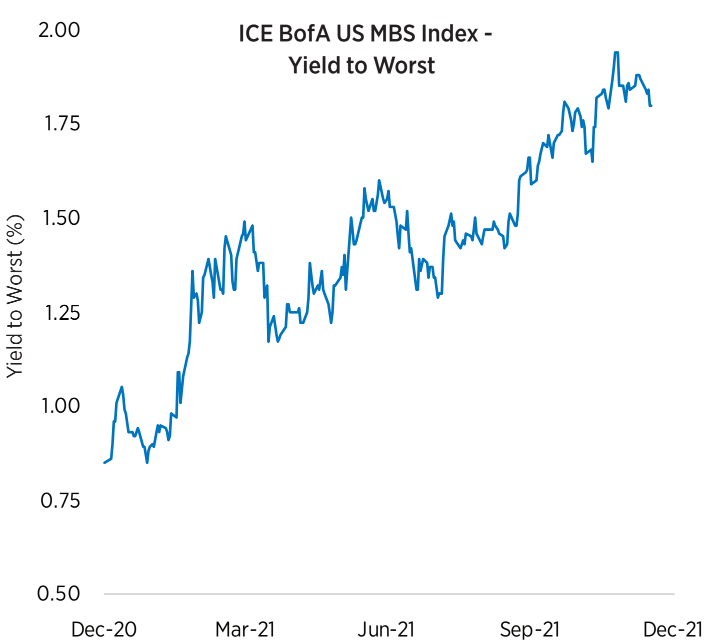
Source: JPMorgan. As of 11/30/21.

The elevated level of supply was difficult for the market to digest, as negative returns in many higher-quality fixed-income sectors kept bond fund flows muted. Traditional bond funds remained underweight MBS all year in favor of corporates and appeared to be waiting for a slowdown in the economy before moving back into the higher-quality agency MBS sector. Banks were large buyers of MBS due to elevated deposit growth, as U.S. consumers were flush with cash from stimulus checks and rising wages. Last but not least, overseas demand stayed on the sidelines as they waited for more clarity on the taper impact.

The bad news for MBS investors during 2021 was widening spreads and rising short-end yields, which led to negative returns across the MBS landscape. The good news for agency MBS investors going into 2022 is that starting MBS index yields are almost 100bps higher than where they began 2021.

Markets are also forward looking, and they price in spread widening long before events actually occur. Of course, past behavior is no predictor of future results, but we have seen a similar scenario play out before. The 2013 taper tantrum produced the last rising yield and spread widening event, resulting in the only other negative year for MBS in the last 25. The following year (2014), as the tapering process was ongoing, agency MBS spreads actually ground tighter, and the sector rose by over 6%.

While monetary policy across the globe in 2022 will ultimately depend to a large extent on the path of the pandemic, we believe our economy learns to cope better



Source: Bloomberg. As of 12/17/21.

with each new wave. In 2022, we expect the long end of the yield curve – longer maturity bonds with yields that are 10 years or greater – to wake up to the fact that inflation is not as transitory as it initially seemed. Although we don't expect inflation to stay at the 7% annualized rate, we do expect it to stay well above the Fed's 2% target for the foreseeable future. While transitory inflation components will eventually work their way through as the year progresses, higher wages and elevated home price appreciation could potentially keep inflation well above target for the foreseeable future.

With elevated inflation, we expect will come continued rising bond yields across the curve. Although the Treasury curve always flattens during Fed tightening cycles, we also expect the market to price in a much higher terminal rate - a rate that is consistent with full employment and capacity utilization and stable prices - than it is currently reflecting, which will allow the long end to leak higher. As it stands now, the market expects the terminal fed funds rate for this cycle to be around 1.5%; however, elevated inflation will mean this number should be significantly higher and something the bond market will have to reprice in 2022.

We believe that agency MBS investors may outperform in the rising rate environment we foresee by investing in bonds with higher coupons. The elevated prepayment speeds of 2021 in higher coupon pools are likely to slow in 2022, and these coupons offer less extension risk than lower-coupon agency MBS. Investors in the agency MBS market can also protect themselves from extension risk by investing in the collateralized mortgage obligations (CMO) market, which can offer more structural protection than typical pass-through securities, which are a pool of fixed-income securities backed by a package of assets. Last but not least, we expect the floating-rate CMO market to also become a more attractive place for agency MBS investors to hide out from rising bond yields as the Fed hiking cycle gets underway.

Bottom Line: Elevated inflation has forced the Fed's hand to remove accommodation from the bond market much earlier than originally anticipated. As the Federal Reserve winds down its quantitative easing (QE4) program in Q1 2022 and removes the training wheels from the bond market, look for added volatility across the Treasury market and risk assets in 2022. Agency MBS investors should look to protect themselves from rising bond yields and mortgage rates by migrating up in coupon to pools that stand to benefit more from a possible slowdown in prepayments.

All investing involves risk, including the risk of loss.

The value of investments may increase or decrease in response to economic, and financial events (whether real, expected or perceived) in the U.S. and global markets. Securities with longer durations tend to be more sensitive to interest rate changes than securities with shorter durations. As interest rates rise, the value of certain income investments is likely to decline. Mortgage- and asset-backed securities are subject to credit, interest rate, prepayment and extension risk. Investments in debt instruments may be affected by changes in the creditworthiness of the issuer and are subject to the risk of non-payment of principal and interest. The value of income securities also may decline because of real or perceived concerns about the issuer's ability to make principal and interest payments. U.S. Treasury securities generally have a lower return than other obligations because of their higher credit quality and market liquidity. While certain U.S. government-sponsored agencies may be chartered or sponsored by acts of Congress, their securities are neither issued nor guaranteed by the U.S. Treasury.

Definitions

ICE BofA U.S. MBS Index tracks the performance of U.S. dollar-denominated investment-grade asset-backed securities publicly issued in the U.S. domestic market.

Risk Considerations

Investing entails risks and there can be no assurance that any strategy will achieve profits or avoid incurring losses.

Short-Duration Bonds – The value of investments may increase or decrease in response to economic, and financial events (whether real, expected or perceived) in the U.S. and global markets. Securities with longer durations tend to be more sensitive to interest rate changes than securities with shorter durations. As interest rates rise, the value of certain income investments is likely to decline. Mortgage- and asset-backed securities are subject to credit, interest rate, prepayment and extension risk. Investments in debt instruments may be affected by changes in the creditworthiness of the issuer and are subject to the risk of non-payment of principal and interest. The value of income securities also may decline because of real or perceived concerns about the issuer's ability to make principal and interest payments. U.S. Treasury securities generally have a lower return than other obligations because of their higher credit quality and market liquidity. While certain U.S. government-sponsored agencies may be chartered or sponsored by acts of Congress, their securities are neither issued nor guaranteed by the U.S. Treasury.

Important Information

Date-of Data: As of December 27, 2021.

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.

A separately managed account may not be appropriate for all investors. Separate accounts managed according to the particular Strategy may include securities that may not necessarily track the performance of a particular index. A minimum asset level is required.

For important information about the investment managers, please refer to Form ADV Part 2.

The views and opinions and/or analysis expressed 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 without notice 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 personnel at Morgan Stanley Investment Management (MSIM) and its subsidiaries and affiliates (collectively "the Firm"), 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 or the investment team. These conclusions are speculative in nature, may not come to pass and are not intended to predict the future performance of any specific strategy or product the Firm offers. Future results may differ significantly depending on factors such as changes in securities or financial markets or general economic conditions.

This material has been prepared on the basis of publicly available information, internally developed data and other third-party sources believed to be reliable. However, no assurances are provided regarding the reliability of such information and the Firm has not sought to independently verify information taken from public and third-party sources.

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.

The Firm does not provide tax advice. The tax information contained herein is general and is not exhaustive by nature. It was not intended or written to be used, and it cannot be used by any taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer. Each Jurisdiction tax laws are complex and constantly changing. You should always consult your own legal or tax professional for information concerning your individual situation.

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

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.

This material is not a product of Morgan Stanley's Research Department and should not be regarded as a research material or a recommendation.

Eaton Vance and Calvert are part of Morgan Stanley Investment Management. Morgan Stanley Investment Management is the asset management division of Morgan Stanley.

Distribution

This material 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.

MSIM, the asset management division of Morgan Stanley (NYSE: MS), and its affiliates have arrangements in place to market each other's products and services. Each MSIM affiliate is regulated as appropriate in the jurisdiction it operates. MSIM's affiliates are: Eaton Vance Management (International) Limited, Eaton Vance Advisers International Ltd, Calvert Research and Management, Eaton Vance Management, Parametric Portfolio Associates LLC, Atlanta Capital Management LLC, Eaton Vance Management International (Asia) Pte. Ltd.

This material has been issued by any one or more of the following entities:

EMEA:

This material is for Professional Clients/Accredited Investors only.

In the EU, MSIM and Eaton Vance materials are issued by MSIM Fund Management (Ireland) Limited ("FMIL"). FMIL is regulated by the Central Bank of Ireland and 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.

Outside the EU, MSIM materials are issued by Morgan Stanley Investment Management Limited (MSIM Ltd) is authorized and regulated by the Financial Conduct Authority. Registered in England. Registered No. 1981121. Registered Office: 25 Cabot Square, Canary Wharf, London E14 4QA.

In Switzerland, MSIM materials are issued by Morgan Stanley & Co. International plc, London (Zurich Branch) Authorized and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered Office: Beethovenstrasse 33, 8002 Zurich, Switzerland.

Outside the US and EU, Eaton Vance materials are issued by Eaton Vance Management (International) Limited ("EVMI") 125 Old Broad Street, London, EC2N 1AR, UK, which is authorized and regulated in the United Kingdom by the Financial Conduct Authority.

Italy: MSIM FMIL (Milan Branch), (Sede Secondaria di Milano) Palazzo Serbelloni Corso Venezia, 16 20121 Milano, Italy. **The Netherlands:** MSIM FMIL (Amsterdam Branch), Rembrandt Tower, 11th Floor Amstelplein 1 1096HA, Netherlands. **France:** MSIM FMIL (Paris Branch), 61 rue de Monceau 75008 Paris, France. **Spain:** MSIM FMIL (Madrid Branch), Calle Serrano 55, 28006, Madrid, Spain.

Middle East:

Dubai: MSIM Ltd (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).

EVMI utilizes a third-party organization in the Middle East, Wise Capital (Middle East) Limited ("Wise Capital"), to promote the investment capabilities of Eaton Vance to institutional investors. For these services, Wise Capital is paid a fee based upon the assets that Eaton Vance provides investment advice to following these introductions.

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 managers, 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 for the Morgan Stanley funds please download one at morganstanley.com/im or call 1-800-548-7786 for the Eaton Vance and Calvert Funds please download one at https://funds.eatonvance.com/open-end-mutual-fund-documents.php or contact your financial professional. Please read the prospectus carefully before investing.

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

Eaton Vance Distributors, Inc. ("EVD"), serves as the distributor for Eaton Vance and Calvert Funds.

Hong Kong: This material 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 material 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 material shall not be issued, circulated, distributed, directed at, or made available to, the public in Hong Kong. Singapore: This material 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. Eaton Vance Management International (Asia) Pte. Ltd. ("EVMIA") holds a Capital Markets Licence under the Securities and Futures Act of Singapore ("SFA") to conduct, among others, fund management, is an exempt Financial Adviser pursuant to the Financial Adviser Act Section 23(1)(d) and is regulated by the Monetary Authority of Singapore ("MAS"). Eaton Vance Management, Eaton Vance Management (International) Limited and Parametric Portfolio Associates® LLC holds an exemption under Paragraph 9, 3rd Schedule to the SFA in Singapore to conduct fund management activities under an arrangement with EVMIA and subject to certain conditions. None of the other Eaton Vance group entities or affiliates holds any licences, approvals or authorisations in Singapore to conduct any regulated or licensable activities and nothing in this material shall constitute or be construed as these entities or affiliates holding themselves out to be licensed, approved, authorised or regulated in Singapore, or offering or marketing their services or products. 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. EVMI is exempt from the requirement to hold an Australian financial services license under the Corporations Act in respect of the provision of financial services to wholesale clients as defined in the Corporations Act 2001 (Cth) and as per the ASIC Corporations (Repeal and Transitional) Instrument 2016/396. Calvert Research and Management, ARBN 635 157 434 is regulated by the U.S. Securities and Exchange Commission under U.S. laws which differ from Australian laws. Calvert Research and Management is exempt from the requirement to hold an Australian financial services license in accordance with class order 03/1100 in respect of the provision of financial services to wholesale clients in Australia.

China & South Korea: This material does not constitute an offer to sell or the solicitation of an offer to buy any services referred to expressly or impliedly in the material in the People's Republic of China (excluding Hong Kong, Macau and Taiwan, the "PRC") to any person to whom it is unlawful to make the offer or solicitation in the PRC. The material may not be provided, sold, distributed or delivered, or provided or sold or distributed or delivered to any person for forwarding or resale or redelivery, in any such case directly or indirectly, in the People's Republic of China (the PRC, excluding Hong Kong, Macau and Taiwan) in contravention of any applicable laws.

In addition, this material has been prepared for information purposes only and should not be construed as legal, tax or investment advice nor as an offer or solicitation to buy or sell any securities, any interest in securities or any other instrument. This document does not constitute a public offer of investment, whether by sale or subscription, in the People's Republic of China (PRC). Persons who come into possession of this document are required to observe this restriction and obtain any applicable regulatory approvals prior to making any investment decisions.

EVMI is registered as a Discretionary Investment Manager in South Korea pursuant to Article 18 of Financial Investment Services and Capital Markets Act of South Korea.

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