Manulife Investment Management

Fourth quarter 2023

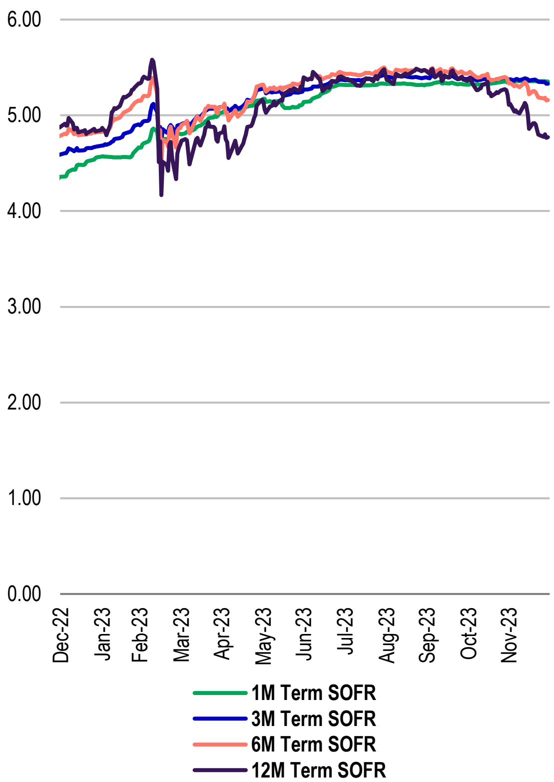
Total Return Bond Strategy

Quarterly Market & Strategy Review

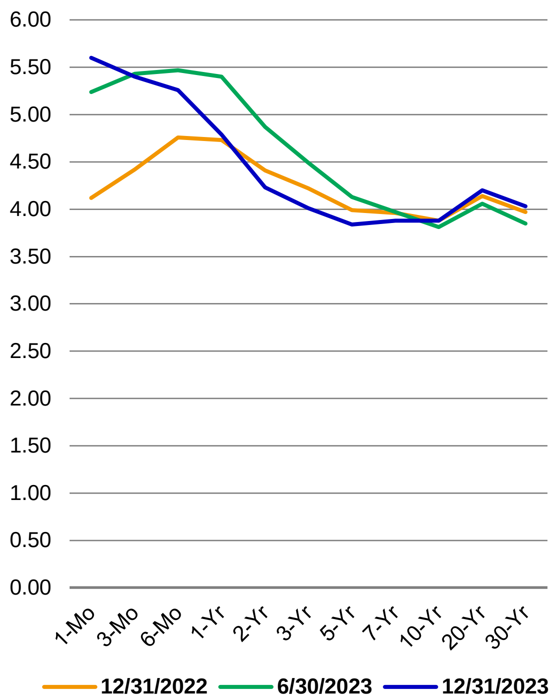
For a discussion of the risks associated with this strategy, please see the Investment Considerations page at the end of the presentation. For Institutional/Investment Professional Use Only. Not for distribution to the public.

Fixed income markets finished sharply higher on strong rally

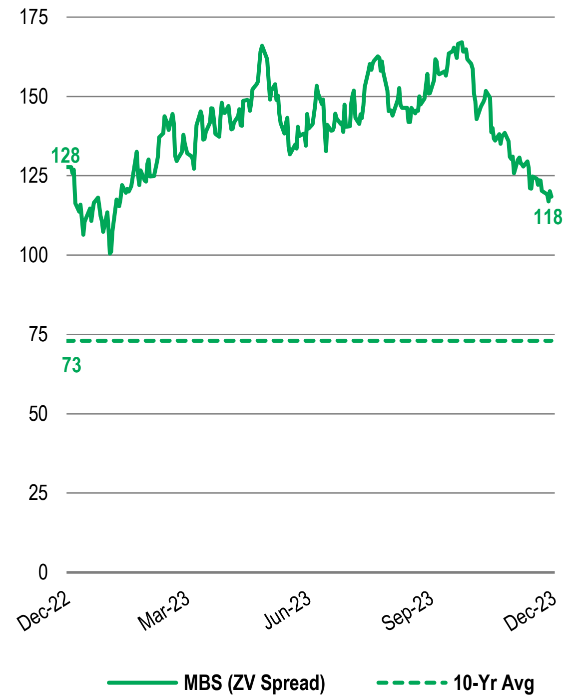
Short-term rates started to decline



Treasury curve steepened

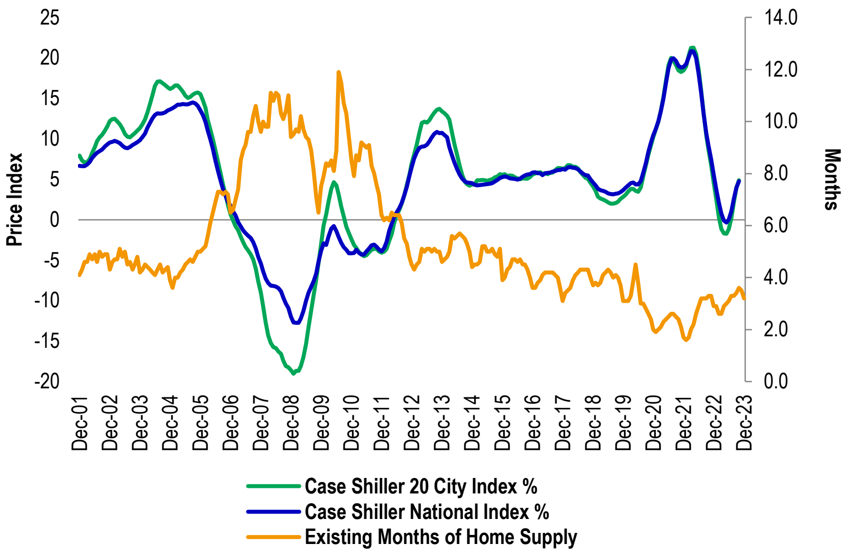


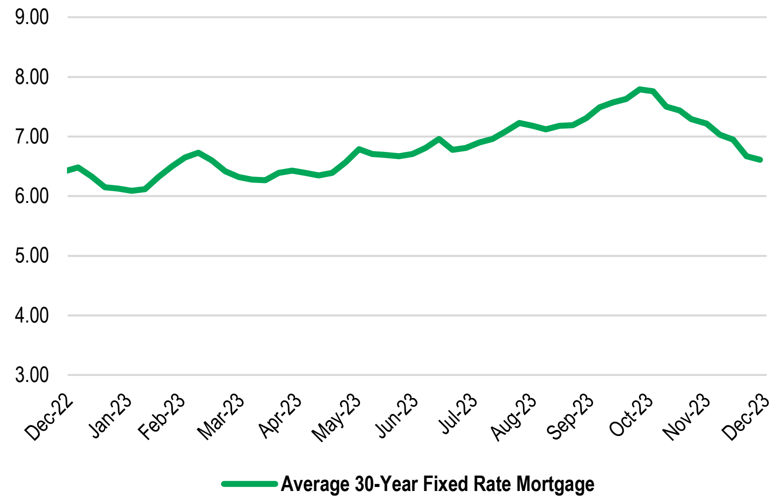
MBS spreads remained volatile



As of December 31, 2023
Source: US Treasury, CME Group, JPMorgan

Continued low supply could offset impact of higher mortgage rates





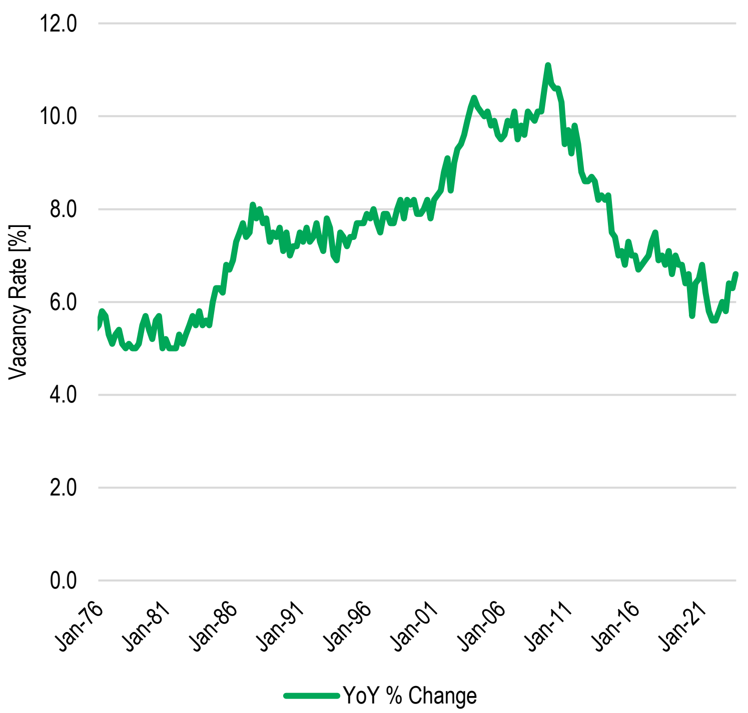
- Mortgage rates fell late in the year after rising steadily throughout most of 2023, while home prices rebounded after briefly depreciating earlier in the year.
- Although supply has ticked higher, it remains historically low and should limit the impact of higher rates on valuations.
- Existing homeowners are opting to stay locked into their current low rate, further exacerbating supply/demand imbalance.
- As a large percentage of homeowners experienced significant equity build-up coming out of the pandemic, we expect to see fewer distressed or foreclosure sales.

{(Case Shiller 20 City Index %: S&P CoreLogic Case-Shiller 20-City Composite Home Price NSA Index); (Case Shiller National Index %: S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index)}
Source: Case Shiller Indices, Bloomberg. St. Louis Federal Reserve.
Case Shiller and Existing Inventory data as of December 2023. Average Mortgage Rate data as of December 2023.

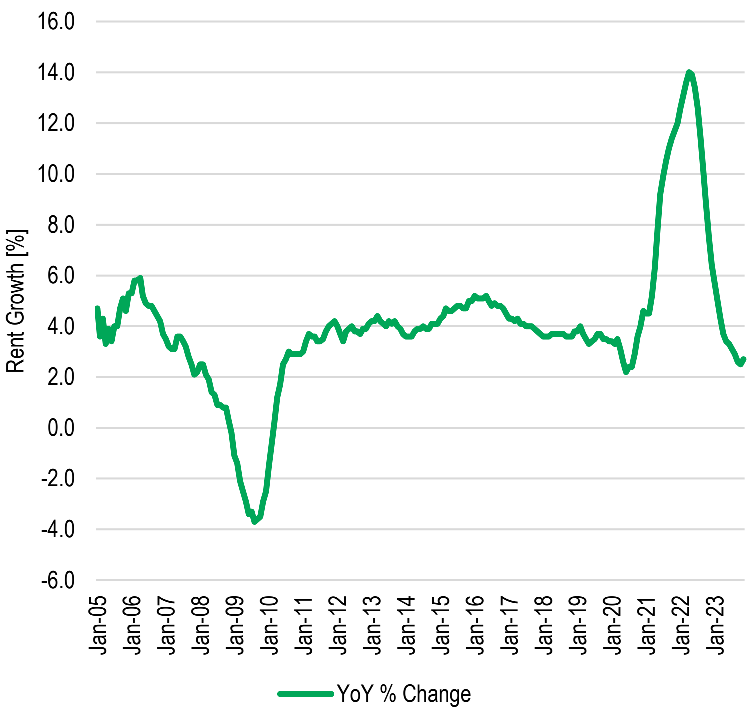
Rental market continued to cool though vacancies are still low

Rent growth declines may have troughed as vacancies remain at low end of historical range.

Rental Vacancy Rates[1]



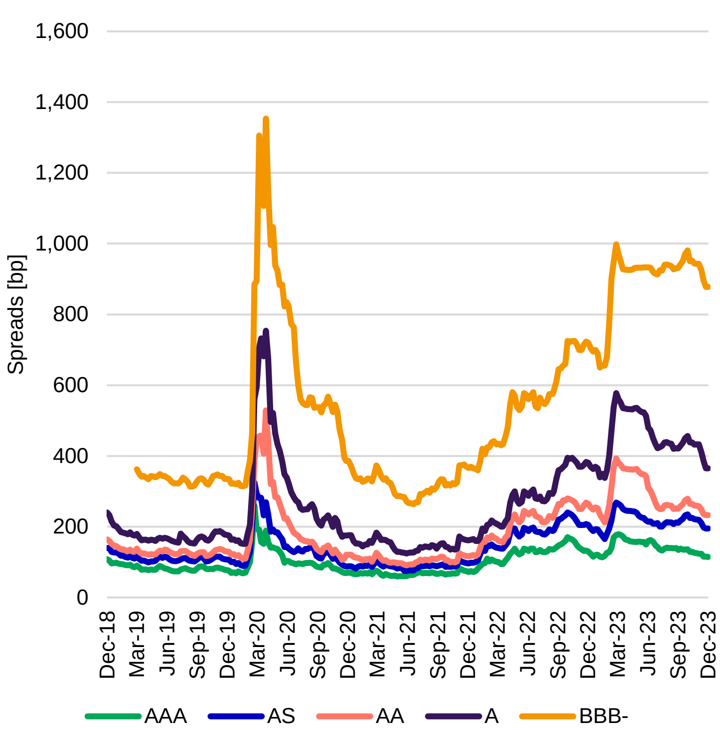
YoY Rent Growth[2]



Source: CoreLogic Single-Family Rent Index, St. Louis Federal Reserve
1 As of Third Quarter 2023. 2 As of November 2023.

Lower rates could create new opportunity in commercial real estate

CMBS Secondary Spreads[1]



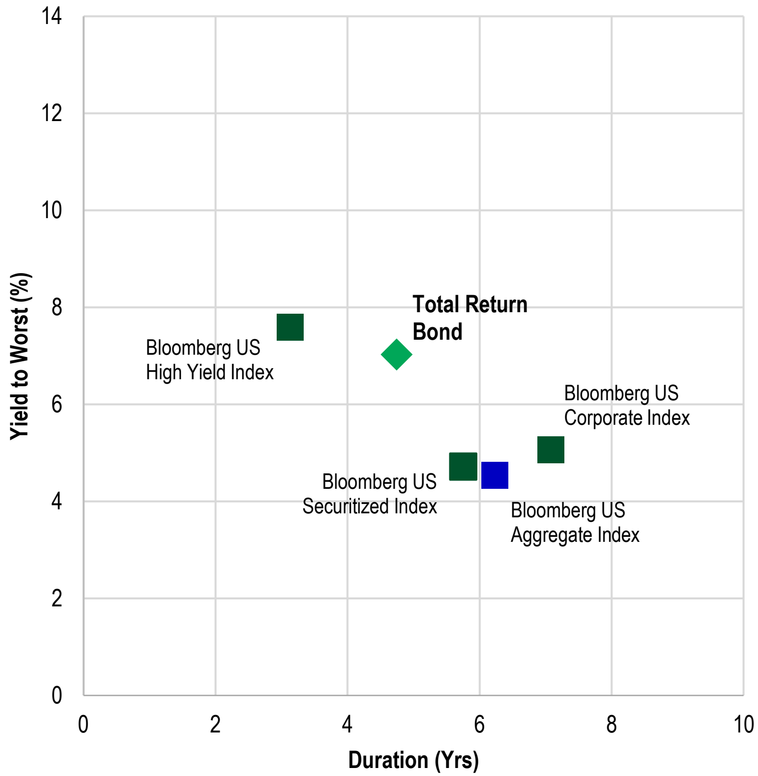
- Concerns in commercial real estate were exacerbated by the banking crisis in Q1 2023.
- Deterioration in fundamentals for certain properties is likely to play out over the long-term.
- Strategy exposure is down materially due to fundamental headwinds.
  - Remaining exposure is focused in industrial, life science, multifamily properties.
- Fundamentals for commercial real estate should benefit from a more benign rate environment suggesting there could be an opportunity within CMBS going forward.

[1]Source: JPMorgan, as of December 2023.

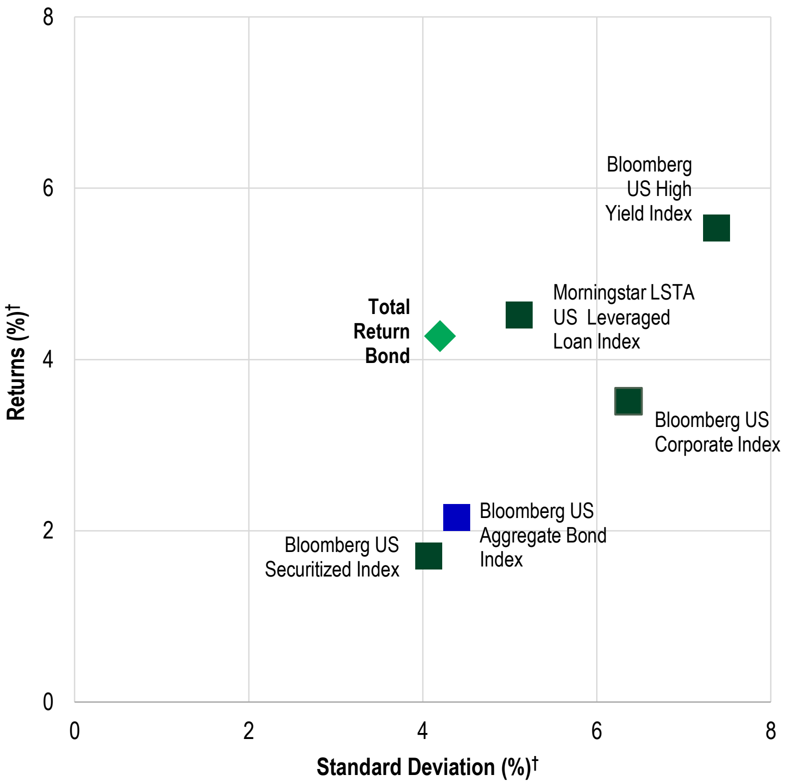
Incremental yield advantage without increasing duration

Active management in securitized markets can provide attractive yields per unit of duration and competitive risk-adjusted returns.

Yield/Duration Profile



Attractive Risk-Return Profile

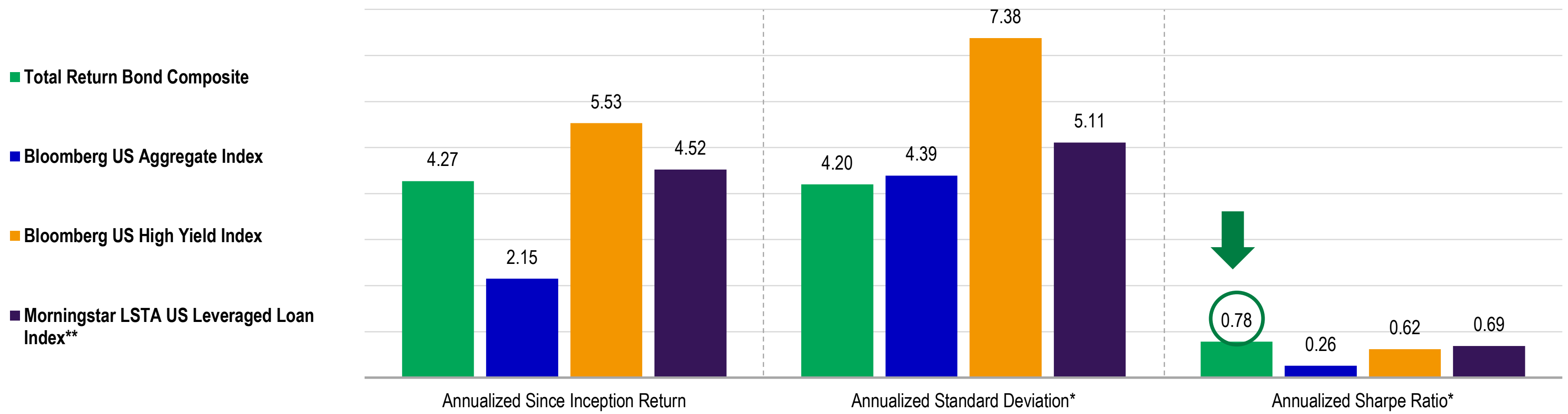


†Returns and standard deviation are since inception. As of December 31, 2023. Inception Date: February 2011.
Source: eVestment, Bloomberg

Past performance is not indicative of future results. Performance shown of the strategy is net of fees. Net performance results reflect the application of the highest incremental rate of the standard investment advisory fee schedule to gross performance results.

Risk-adjusted returns

December 31, 2023 — Since Inception Return and Risk Metrics (%)[1]

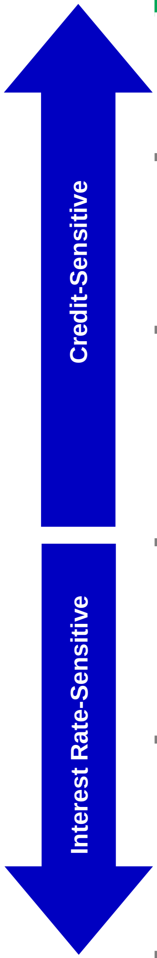


Return (%)

	QTD	YTD	1-year	3-year	5-year	7-year	10-Year	Since Incep.	2023	2022	2021	2020	2019
Total Return Bond Composite (Gross)	5.68	6.57	6.57	0.81	3.18	3.60	3.94	4.89	6.57	-6.50	2.81	6.14	7.56
Total Return Bond Composite (Net)	5.52	5.93	5.93	0.21	2.57	2.98	3.32	4.27	5.93	-7.06	2.20	5.51	6.92
Bloomberg US Aggregate Bond Index	6.82	5.53	5.53	-3.31	1.10	1.29	1.81	2.15	5.53	-13.01	-1.54	7.51	8.72
Bloomberg US High Yield Index	7.17	13.45	13.45	1.98	5.37	4.57	4.60	5.53	13.45	-11.19	5.28	7.11	14.32
Morningstar US Leveraged Loan Index**	2.87	13.32	13.32	5.76	5.80	4.77	4.42	4.52	13.32	-0.60	5.20	3.14	8.64

* Source: eVestment
** The Bloomberg US HY Loan Index previously shown was discontinued on October 31, 2016. The Morningstar US Leveraged Loan Index was chosen to replace it as it was the most similar in composition.
[1] Inception Date: February 2011. Past performance is not indicative of future results. Performance is shown in USD. Gross performance results do not include advisory fees and other expenses an investor may incur, which when deducted will reduce returns. Changes in exchange rates may have adverse affects. Net performance results reflect the application of the highest incremental rate of the standard investment advisory fee schedule to gross performance results.

Portfolio Allocation and Outlook



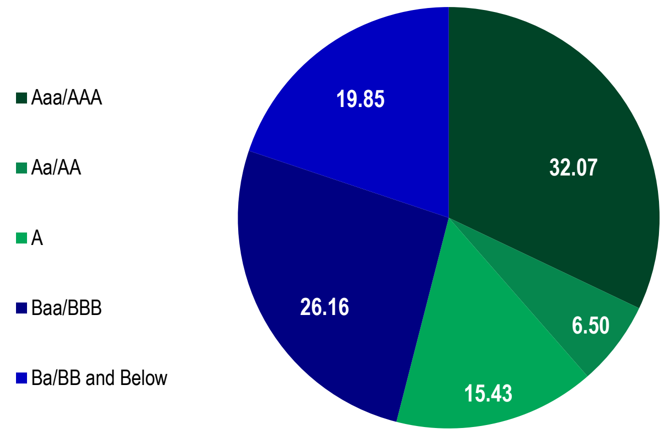
Subsector	Market Factors
CLO	• Spreads resting near the widest levels as bank loan prices have been steadily falling. • Attractive spread opportunities across tranches. • Loan fundamentals expected to weaken as interest rates continue to rise.
CMBS	• Very selective in single-asset single borrower transactions, continued weak demand for conduit. • Prefer single-asset single borrower transactions backed by multifamily, industrial and medical properties. • Some tiering in the market has occurred, though weak fundamentals likely to prevent material tightening.
ABS	• While fundamentals remain solid, we have likely seen the low mark on consumer delinquencies. • Yields are attractive in many consumer and esoteric subsectors but with an uncertain economic outlook, shorter duration and higher in the capital structure is preferred. • The single-family rental sector offers another opportunity to leverage rising rental costs and home price appreciation.
Non-Agency RMBS	• Higher rates are impacting the housing market, though robust underwriting and fundamentals remain favorable. • Supply remains historically low and is expected help to offset the impact of higher mortgage rates. • Agency CRT and non-QM deals look increasingly attractive given current valuations, though it remains pertinent to stay higher in the capital structure.
Agency MBS	• Higher interest rates and elevated rate volatility caused Agency MBS valuations to widen significantly and appear attractive on a relative value basis. • We recently began to increase our exposure in Agency MBS, primarily to lower coupon pools with attractive yields and deeper discount dollar prices. • Although we typically use the sector for hedging, there could be opportunities to generate outsized returns.

Source: Manulife Investment Management, as of December 31, 2023

Representative portfolio characteristics as of December 31, 2023

Characteristic	Representative portfolio	Bloomberg US Aggregate Index
Yield to Worst (%)	7.03	4.54
Average Credit Quality	A3	Aa3
Duration (Years)	4.74	6.23
Weighted Average Life (Years)	8.64	8.41

Quality (%)



Sector Allocation (%)	Representative portfolio	Bloomberg US Aggregate Index
ABS	12.15	0.48
CLO	7.12	0.00
CMBS – Conduit	0.94	1.63
CMBS – Large Loan	3.83	0.00
CMBS – Interest Only	6.81	0.00
CMBS – Other	2.70	0.00
Agency MBS	30.13	26.62
Agency CMO, IO/IIO	4.96	0.00
Non-Agency MBS – Agency Credit	12.62	0.00
Non-Agency MBS – Non-QM	2.96	0.00
Non-Agency MBS – SFR	6.41	0.00
Non-Agency MBS – Legacy	2.23	0.00
Corporate Bonds	5.20	24.56
US Treasuries	1.95	41.64
US Agency	0.00	0.93
Municipal & Local Authorities	0.00	0.60
Bank Loans	0.00	0.00
Foreign Developed & Supranational	0.00	2.27
Emerging Markets	0.00	1.27
Total	**100**	**100**

Source: Manulife Investment Management, Bloomberg. Holdings, sector weightings, market capitalisation and portfolio characteristics are subject to change at any time and are for illustrative and reference purpose only. Holdings, sector weightings, market capitalisation and portfolio characteristics of individual client portfolios in the program may differ, sometimes significantly, from those shown. This information does not constitute, and should not be construed as, investment advice or recommendations with respect to the securities and sectors listed. This information is supplemental to the GIPS-compliant presentation included as a part of this material. The specific investment identified and described is not representative of all of the investments purchased, sold, or recommended for the strategy. It should not be assumed that any investment identified has or will be profitable. There can be no guarantee that similar investment opportunities will be available in the future or that the strategy will be able to exploit similar investment opportunities should they arise.

Total Return Bond Strategy
Benchmark Definitions

Index	Definition
Bloomberg US High Yield Index	The Bloomberg US High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are also included.
Bloomberg US Aggregate Index	The Bloomberg US Aggregate Bond Index represents securities that are US domestic, taxable, dollar-denominated. The index covers the US investment-grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.
Bloomberg US Government Index	Comprised of the US Treasury and US Agency Indices, the US Government Index contains securities issued by the US Government.
Bloomberg US Corporate Index	The Bloomberg US Corporate Index represents publicly issued US corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.
Bloomberg US Securitized Index	The Bloomberg US Securitized Index consists of the securitized component of the Bloomberg US Aggregate Index. The index includes eligible Agency MBS, ABS, and CMBS securities.
Morningstar Leveraged Loan Index	The Morningstar Leveraged Loan Index represents the universe of syndicated leveraged loans. The index consists of US dollar denominated, senior secured term loans with at least one year to maturity, with a minimum issue facility size of at least 50 million USD.
S&P CoreLogic Case-Shiller 20-City Composite Home Price NSA Index	The S&P CoreLogic Case-Shiller 20-City Composite Home Price NSA Index seeks to measure the value of residential real estate in 20 major U.S. metropolitan areas: Atlanta, Boston, Charlotte, Chicago, Cleveland, Dallas, Denver, Detroit, Las Vegas, Los Angeles, Miami, Minneapolis, New York, Phoenix, Portland, San Diego, San Francisco, Seattle, Tampa and Washington, D.C.
S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index	The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index is a composite of single-family home price indices for the nine U.S. Census divisions and is calculated monthly. It is included in the S&P CoreLogic Case-Shiller Home Price Index Series which seeks to measure changes in the total value of all existing single-family housing stock.

Manulife Investment Management

Total Return Bond Composite

GIPS® Report

Prelim – Only Schedule of Year End Returns updated per SEC Marketing Rule

Creation Date: January 1, 2018 | Inception Date: February 1, 2011 | Reporting Currency: USD

Schedule of Calendar Year Returns and Assets

Year End	Gross of Fees Return (%)	Net of Fees Return (%)	Benchmark Return (%)	Composite Net 3-Yr Std. Dev. (%)	Benchmark 3-Yr Std. Dev. (%)	Number of Portfolios End of Period	Composite Dispersion (%)	Total Assets End of Period (Millions)	Firm Assets End of Period (Millions)
2022	-6.50	-7.06	-13.01	7.05	5.77	<=5	N/A	577	422,291
2021	2.81	2.20	-1.54	6.70	3.35	<=5	N/A	624	455,705
2020	6.14	5.51	7.51	6.69	3.36	<=5	N/A	569	421,097
2019	7.56	6.92	8.72	1.55	2.87	<=5	N/A	532	422,034
2018	3.11	2.50	0.01	1.51	2.84	<=5	N/A	507	392,058
2017	6.18	5.55	3.54	1.59	2.78	<=5	N/A	460	N/A
2016	4.43	3.81	2.65	1.74	2.98	<=5	N/A	399	N/A
2015	2.53	1.92	0.55	2.15	2.88	<=5	N/A	454	N/A
2014	7.36	6.73	5.97	2.61	2.63	<=5	N/A	419	N/A
2013	2.65	2.04	-2.02	N/A	N/A	<=5	N/A	263	N/A

Schedule of Year End Returns

Date	Return	1 Year Gross (%)	5 Year Gross (%)	10 Year Gross (%)	SI Gross (%)	1 Year Net (%)	5 Year Net (%)	10 Year Net (%)	SI Net (%)
12/31/23	Composite	6.57	3.18	3.94	4.90	5.93	2.57	3.32	4.27

Date	Return	1 Year	5 Year	10 Year	SI
12/31/23	Benchmark	5.53	1.10	1.81	2.15

Firm Definition: For purposes of compliance with the Global Investment Performance Standards (GIPS®), our firm Manulife Investment Management "Manulife IM" was created on January 1, 2018 as a result of a consolidation of six firms that claimed compliance with GIPS®. Manulife IM comprises Manulife Investment Management (US) LLC, Manulife Investment Management (North America) Limited, Manulife Investment Management (Europe) Limited, Manulife Investment Management (Japan), Manulife Investment Management (Hong Kong) Limited, Manulife Investment Management (Singapore) Pte. Ltd., Manulife Investment Management Limited, Manulife Investment Management Private Markets (Canada) Corp. and John Hancock Trust Company. Effective January 1, 2021, the firm includes assets managed under contract by Manulife Investment Management Private Markets (US) LLC ("Manulife IM PM US") and the unaffiliated managers SMA/Wrap business from John Hancock Investment Management LLC, a Manulife IM company.

Compliance Statement: Manulife claims compliance with the Global investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Manulife has been independently verified for the periods 1/1/2018 through 12/31/2022. The verification report(s) is/are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. Compliance with the GIPS® Standards for the predecessor firms were verified by a third party for the periods noted: MAM US 1/1/1993 to 12/31/2017, MAM UK 1/1/2008 to 12/31/2017, MAMJ 1/1/2006 to 12/31/2017, MAM HK 1/1/2006 to 12/31/2017, MAMS 6/5/2007 to 12/31/2017, and MAML 1/1/2007 to 12/31/2017. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

General Disclosure: A complete list of the Firm's composite and pooled funds descriptions as well as policies regarding valuing investments, calculating performance, and preparing GIPS reports are available upon request. All returns reflect the reinvestment of dividends and other earnings. Gross performance results do not reflect the deduction of investment management fees, and are net of commissions and foreign withholding tax. Net performance results reflect the application of the highest incremental rate of the standard investment advisory fee schedule to gross performance results. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Advisory fees are available upon request. Dispersion of annual returns is measured by an equal weighted standard deviation calculation of gross of fee returns. From inception to December 31, 2019 dispersion was measured by an asset weighted standard deviation calculation of gross of fee returns. Dispersion is not presented when there are five or fewer accounts in the composite for the entire year. Past performance is not a guarantee of future results. For annual periods starting January 1, 2011, the 3-year annualized ex-post standard deviation is not shown for the composite or the benchmark when 36 monthly composite returns are not available. The 3-year standard deviation for composite returns is calculated using composite gross returns.

Composite Description: The Total Return Bond strategy includes all portfolios with a return objective of 6-10% net annualized over a market cycle. The strategy invests primarily in the securitized markets and is designed to generate high current income with controlled exposures to credit, prepayment and interest rate risk. Holdings include both investment and non-investment grade securities.

Fee Schedule: This report is intended for institutional investors and the standard investment advisory fee schedule is 0.60%.

Benchmark Description: The Bloomberg U.S. Aggregate Bond Index tracks the performance of U.S. investment-grade bonds in government, asset-backed, and corporate debt markets. It is not possible to invest directly in an index.

Benchmark Change: Effective December 31, 2015 the benchmark was retroactively changed from the BofA Merrill Lynch LIBOR 3-Month Constant Maturity Index to the Bloomberg U.S. Aggregate Bond Index as this index better reflects the investment process and holdings of the composite. Returns for the BofA Merrill Lynch LIBOR 3-Month Index are available upon request.

Investment Considerations

General Risks
Any characteristics, guidelines, constraints, or other information provided for this material was selected by the firm as representative of the investment strategy and is provided for illustrative purpose only, may change at any time, and may differ for a specific account. Each client account is individually managed; actual holdings will vary for each client and there is no guarantee that a particular client's account will have the same characteristics as described herein. Any information about the holdings, asset allocation, or sector diversification is historical and is not an indication of future performance or any future portfolio composition, which will vary. Portfolio holdings are representative of the strategy, are subject to change at any time, are not a recommendation to buy or sell a security, and do not represent all of the securities purchased, sold or recommended for the portfolio. It should not be assumed that an investment in these securities was or will be profitable. Top ten holdings information combines share listings from the same issuer, and related depositary receipts, into a singular holding to accurately present aggregate economic interest in the referenced company.

No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. Diversification or asset allocation does not guarantee a profit or protect against the risk of a loss in any market. The indices referenced herein are broad-based securities market indices and used for illustrative purposes only. The indices cited are widely accepted benchmarks for investment performance within their relevant regions, sectors or asset classes, and represent non-managed investment portfolios.

If derivatives are employed, note that investing in derivative instruments involves risks different from, or possibly greater than, the risks associated with investing directly in securities and other traditional investments and, in a down market, could become harder to value or sell at a fair price.

GIPS Performance
Unless otherwise noted, all performance represents composite data. Gross of fees returns do not include advisory fees and other expenses an investor may incur, which when deducted will reduce returns. Changes in exchange rates may have an adverse effect. Actual fees may vary depending on, among other things, the applicable fee schedule, portfolio size and/or investment management agreement. Unless otherwise noted, returns greater than 1 year are annualized; calendar year returns for each one-year period end in December. Discrepancies may occur due to rounding. Past performance does not guarantee future results.

Performance information shown is generally for discretionary strategies/solutions and managed by a Manulife entity which is GIPS compliant and falls under the definition of a corresponding Manulife GIPS firm. Some investment strategies/solutions may not be included in a GIPS compliant firm under certain circumstances, such as SMA/UMA business in Canada.

Asset class risks
Principal risk factors that have an impact on the performance of our equity strategies include risks arising from economic and market events, portfolio turnover rates, governmental regulations, local, national and international political events, volatility in the commodities and equity markets, and changes in interest rates and currency values as well as environmental, social and corporate governance factors.

The principal risks associated with investing in a fixed income investment strategy include economic and market events, government regulations, geopolitical events, credit risk, interest rate risk, and risks associated with credit ratings, counterparties, foreign securities, currency exchange, hedging, derivatives and other strategic transactions, high portfolio turnover, liquidity, mortgage-backed and asset-backed securities, call or prepayment risk, and issuer stability along with environmental, social and corporate governance risk factors. The market value of fixed income securities will fluctuate in response to changes in interest rates, currency values and the credit worthiness of the issuer.

Principal risk factors that impact upon the performance of our asset allocation strategies include all the risks associated with the underlying funds and asset classes in which they are invested, in addition to overall asset allocation investment decisions. In addition, the underlying funds' performance may be lower than expected.

Information about SFDR
Unless otherwise noted, any references in this presentation to ESG or sustainability reflect the general approach of Manulife Investment Management to integrating sustainability risk considerations into our investment decision-making processes. Further details on Manulife Investment Management's general approach to sustainability are available at www.manulifeim.com/institutional /global/en/sustainability.

The source for all information shown is Manulife Investment Management, unless otherwise noted.

ESG Integration and Engagement
Any ESG-related case studies shown here are for illustrative purposes only, do not represent all of the investments made, sold, or recommended for client accounts, and should not be considered an indication of the ESG integration, performance, or characteristics of any current or future Manulife Investment Management product or investment strategy.

Manulife Investment Management conducts ESG engagements with issuers but does not engage on all issues, or with all issuers, in our portfolios. We also frequently conduct collaborative engagements in which we do not set the terms of engagement but lend our support in order to achieve a desired outcome. Where we own and operate physical assets, we seek to weave sustainability into our operational strategies and execution. The relevant case studies shown are illustrative of different types of engagements across our in-house investment teams, asset classes and geographies in which we operate. While we conduct outcome-based engagements to enhance long term-financial value for our clients, we recognize that our engagements may not necessarily result in outcomes which are significant or quantifiable. In addition, we acknowledge that any observed outcomes may be attributable to factors and influences independent of our engagement activities.

We consider that the integration of sustainability risks in the decision-making process is an important element in determining long-term performance outcomes and is an effective risk mitigation technique. Our approach to sustainability provides a flexible framework that supports implementation across different asset classes and investment teams. While we believe that sustainable investing will lead to better long-term investment outcomes, there is no guarantee that sustainable investing will ensure better returns in the longer term. In particular, by limiting the range of investable assets through the exclusionary framework, positive screening and thematic investment, we may forego the opportunity to invest in an investment which we otherwise believe likely to outperform over time. Please see our ESG policies for details.

Important Information

This information is for the exclusive use of the intended institutional investors or their agents and may not be transmitted, reproduced or used in whole or in part for any other purpose, nor may it be disclosed or made available, directly or indirectly, in whole or in part, to any other person without our prior written consent.

About Manulife Investment Management

Manulife Investment Management is the brand for the global wealth and asset management segment of Manulife Financial Corporation. Our mission is to make decisions easier and lives better by empowering investors for a better tomorrow. Serving more than 17 million individuals, institutions, and retirement plan members, we believe our global reach, complementary businesses, and the strength of our parent company position us to help investors capitalize on today's emerging global trends. We provide our clients access to public and private investment solutions across equities, fixed income, multi-asset, alternative, and sustainability-linked strategies, such as natural capital, to help them make more informed financial decisions and achieve their investment objectives. Not all offerings are available in all jurisdictions. For additional information, please visit manulifeim.com.

This material has not been reviewed by, is not registered with any securities or other regulatory authority, and may, where appropriate, be distributed by the following Manulife entities in their respective jurisdictions. Additional information about Manulife Investment Management may be found at manulifeim.com/institutional

Australia: Manulife Investment Management Timberland and Agriculture (Australasia) Pty Ltd, Manulife Investment Management (Hong Kong) Limited. **Canada:** Manulife Investment Management Limited, Manulife Investment Management Distributors Inc., Manulife Investment Management (North America) Limited, Manulife Investment Management Private Markets (Canada) Corp. **Mainland China**: Manulife Overseas Investment Fund Management (Shanghai) Limited Company. **European Economic Area:** Manulife Investment Management (Ireland) Ltd. which is authorised and regulated by the Central Bank of Ireland **Hong Kong:** Manulife Investment Management (Hong Kong) Limited. **Indonesia:** PT Manulife Aset Manajemen Indonesia. **Japan:** Manulife Investment Management (Japan) Limited. **Malaysia:** Manulife Investment Management (M) Berhad 200801033087 (834424-U) **Philippines**: Manulife Investment Management and Trust Corporation. **Singapore:** Manulife Investment Management (Singapore) Pte. Ltd. (Company Registration No. 200709952G) **South Korea:** Manulife Investment Management (Hong Kong) Limited. **Switzerland:** Manulife IM (Switzerland) LLC. **Taiwan:** Manulife Investment Management (Taiwan) Co. Ltd. **United Kingdom:** Manulife Investment Management (Europe) Ltd**.** which is authorised and regulated by the Financial Conduct Authority **United States:** John Hancock Investment Management LLC, Manulife Investment Management (US) LLC, Manulife Investment Management Private Markets (US) LLC and Manulife Investment Management Timberland and Agriculture Inc. **Vietnam:** Manulife Investment Fund Management (Vietnam) Company Limited.

No Manulife entity makes any representation that the contents of this presentation are appropriate for use in all locations, or that the transactions, securities, products, instruments or services discussed in this presentation are available or appropriate for sale or use in all jurisdictions or countries, or by all investors or counterparties. All recipients of this presentation are responsible for compliance with applicable laws and regulations.

This material is intended for the exclusive use of recipients in jurisdictions who are allowed to receive this information under their applicable law. The opinions expressed are those of the author(s) and are subject to change without notice. Our investment teams may hold different views and make different investment decisions. These opinions may not necessarily reflect the views of Manulife Investment Management or its affiliates There can be no assurance that actual outcomes will match the assumptions or that actual returns will match any expected returns. The information and/or analysis contained in this material has been compiled or arrived at from sources believed to be reliable, but Manulife Investment Management does not make any representation as to their accuracy, correctness, usefulness or completeness and does not accept liability for any loss arising from the use of the information and/or analysis contained here. Neither Manulife Investment Management or its affiliates, nor any of their directors, officers or employees shall assume any liability or responsibility for any direct or indirect loss or damage or any other consequence of any person acting or not acting in reliance on the information contained here.

The information in this material may contain projections or other forward-looking statements regarding future events, targets, management discipline or other expectations, and is only current as of the date indicated. The information in this material including statements concerning financial market trends, are based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons. This material was prepared solely for informational purposes and does not constitute, and is not intended to constitute, a recommendation, professional advice, an offer, solicitation or an invitation by or on behalf of Manulife Investment Management or its affiliates to any person to buy or sell any security or to adopt any investment strategy, and shall not form the basis of, nor may it accompany nor form part of, any right or contract to buy or sell any security or to adopt any investment strategy. Nothing in this material constitutes investment, legal, accounting, tax or other advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. Neither Manulife Investment Management nor its affiliates provide legal or tax advice, and you are encouraged to consult your own lawyer, accountant, or other advisor before making any financial decision. Prospective investors should take appropriate professional advice before making any investment decision. In all cases where historical performance is presented, note that past performance does not guarantee future results and you should not rely on it as the basis for making an investment decision.

Important Information (continued)

The distribution of the information contained in this presentation may be restricted by law and persons who access it are required to comply with any such restrictions. The contents of this presentation are not intended for distribution to, or use by, any person or entity in any jurisdiction or country in which such distribution or use would be contrary to any applicable laws or regulations. By accepting this material, you confirm that you are aware of the laws in your own jurisdiction relating to the provision and sale of the funds, portfolios or other investments discussed in this presentation and you warrant and represent that you will not pass on or use the information contained in this presentation in a manner that could constitute a breach of such laws by any Manulife entity or any other person.

Australia: Manulife Investment Management (Hong Kong) Limited (Manulife IM (HK)) is exempt from the requirement to hold an Australian financial services license under the Corporations Act in respect to the financial services being offered in this material. Manulife IM (HK) is regulated by the Securities and Futures Commission of Hong Kong ("SFC") under Hong Kong laws, which differ from Australian laws. This presentation is directed at wholesale investors only.

Mainland China: This material is prepared solely for informational purposes and does not constitute an offer to sell or the solicitation of an offer to buy any securities in Mainland China to any person to whom it is unlawful to make the offer or solicitation in Mainland China. The securities may not be offered, sold or delivered, or offered or sold or delivered to any person for reoffering or resale or redelivery, in any such case directly or indirectly, in Mainland China in contravention of any applicable laws.

The issuer does not represent that this material may be lawfully distributed, or that any securities may be lawfully offered, in compliance with any applicable registration or other requirements in Mainland China, or pursuant to an exemption available thereunder, or assume any responsibility for facilitating any such distribution or offering. In particular, no action has been taken by the issuer which would permit a public offering of any securities or distribution of this material in Mainland China. Accordingly, the securities are not being offered or sold within Mainland China by means of this material or any other document. Neither this material nor any advertisement or other offering material may be distributed or published in Mainland China, except under circumstances that will result in compliance with any applicable laws and regulations.

Further, neither this material nor any funds/strategies mentioned in this material (if any) has been submitted to or approved by the China Securities Regulatory Commission or other relevant Chinese government authorities (which, for the purposes of this paragraph, does not include the authorities in Hong Kong SAR, Macau SAR or Taiwan Region), unless otherwise expressly indicated. Securities denominated in foreign exchange or with the underlying investments in the offshore markets may only be offered or sold to investors of Mainland China that are authorized and qualified to buy and sell such securities. Prospective investors resident in Mainland China are responsible for obtaining all relevant and necessary approvals from the Chinese government authorities, including but not limited to the State Administration of Foreign Exchange (if needed), before investing.

Hong Kong: This material is provided to Professional Investors, as defined in the Hong Kong Securities and Futures Ordinance and the Securities and Futures (Professional Investor) Rules, in Hong Kong only. It is not intended for and should not be distributed to, or relied upon, by members of the public or retail investors.

Malaysia: This material was prepared solely for informational purposes and is not an offer or solicitation by anyone in any jurisdictions or to any person to whom it is unlawful to make such an offer or solicitation.

Singapore: This material is intended for Accredited Investors and Institutional Investors as defined in the Securities and Futures Act.

South Korea: This material is intended for Qualified Professional Investors under the Financial Investment Services and Capital Market Act ("FSCMA"). Manulife Investment Management does not make any representation with respect to the eligibility of any recipient of these materials to acquire any interest in any security under the laws of Korea, including, without limitation, the Foreign Exchange Transaction Act and Regulations thereunder. An interest may not be offered, sold or delivered directly or indirectly, or offered, sold or delivered to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea, except in compliance with the FSCMA and any other applicable laws and regulations. The term “resident of Korea” means any natural person having his place of domicile or residence in Korea, or any corporation or other entity organized under the laws of Korea or having its main office in Korea.

Switzerland: This material is intended for Professional Clients, including Institutional Clients, as defined in the Federal Financial Services Act ("FinSA") and its implementing ordinance, at the exclusion of Professional Clients with an opting-out pursuant to Art. 5 (1) FinSA ("Opting-Out Clients"), and/or Qualified Investors pursuant to the Federal Collective Investment Schemes Act ("CISA") and its implementing ordinances, at the exclusion of Opting-Out Clients and Managed/Advisory Retail Clients pursuant to Art. 10 (3ter) CISA where relevant. The information provided in this material is for information purpose only and does not constitute an offer, a solicitation or a recommendation to contract a financial instrument or a financial service as defined under FinSA. This material does not constitute an implicit or explicit investment advice. The information provided herein is general in nature and does not constitute an advertisement of financial products in Switzerland pursuant to FinSA and its implementing ordinance.

United Kingdom: This communication is directed only at investment professionals and any investment or investment activity to which it relates is available only to such persons.

European Economic Area The data and information presented is directed solely at persons who are Professional Investors in accordance with the Markets in Financial Instruments Directive (2004/39/EC) as transposed into the relevant jurisdiction. Further, the information and data presented does not constitute, and is not intended to constitute, "marketing" as defined in the Alternative Investment Fund Managers Directive.

United States: Manulife Investment Management (US) LLC (Manulife IM US) and Manulife Investment Management (North America) Limited (Manulife IM NA) are indirect wholly owned subsidiaries of Manulife. John Hancock Investment Management LLC and Manulife Investment Management (US) LLC are affiliated SEC-registered investment advisors using the brand name John Hancock Investment Management. This material is not intended to be, nor shall it be interpreted or construed as, a recommendation or providing advice, impartial or otherwise.