Manulife Investment Management

**Third Quarter 2022**

# Asian Bond Absolute Return 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.

# Asian Bond Absolute Return Strategy

## Third Quarter Overview

### Quarter's Overview – Asian Bond Absolute Return Strategy

#### Market Highlights

- US Treasury yields trended higher amid persistent inflation and a resilient job market. The Federal Reserve (Fed) hiked interest rates by 75bps in both July and September meeting. Over the quarter, the 10-year Treasury yield rose from 3.01% to 3.83%.
- Asian bond markets delivered negative performance in Q3 (JACI -3.51%, JADE Broad -5.39%).
  - Asian credit markets posted negative returns this quarter owing to higher US Treasury yields and wider credit spreads, though partially offset by the positive carry. In China property space, some consolidation are seen on the back of weaker sentiment and rating downgrades, as the market awaits signs of sector recovery from local government easing measures. In China asset management company (AMC) space, S&P downgraded all big four AMCs on deteriorating earnings prospects and revised their outlooks to stable.
  - Asian local bond markets posted negative returns amid rising US yields and monetary policy bias by some Asian central banks. Asian central banks such as India, Indonesia, and Thailand raised its interest rate over the period. On the other hand, the People's Bank of China (PBoC) lowered the 1-year medium-term lending facility rate and 7-day reverse repo rate by 10 basis points, as well as cut 1-year loan prime rate by 5bps and 5-year loan prime rate by 15bps.

#### Portfolio

- We establish macro-hedges amid growing recession and geopolitical risk. However, macro-hedges such as short USDJPY and AUDJPY positions did not work as expected, as policy divergence between BOJ-Fed and a shift higher in US yields weighed on JPY. In highlight, we took profit on the China sovereign CDS, a hedge for Asian credit, too early.
- Within interest rates, we added around 0.5yrs of KRW and USD duration amid relatively attractive yields and building recession risk for the global economy.
- Within currency, we closed the long KRW (c. 17%) and THB (c. 10%) positions amid broad USD strength. In addition, we established and took profit long USDCNH positions (c. 5%) over the period.
- Maintained long Asia credit position in view of upside potential from current valuations, with modest CDS protection.

#### Performance

- The Strategy returned -6.49% (gross) and -6.66% (net) in Q2.
- Main detractor to performance in absolute terms for the quarter came from exposure to Asian credit, as Asian credit markets saw negative returns amid global recession concerns, higher US yields and uncertainty surrounding China's zero-Covid policy.
- Main contributors to performance in absolute terms came short CNH positions vs USD, as monetary policy divergence between the Fed and PBoC continued to drive USDCNH to new highs

JACI = JP Morgan Asia Credit Index; it tracks total return performance of the Asia dollar bond market, reported in US dollar.
JADE Broad = J.P. Morgan Asia Diversified Broad Index; it tracks total return performance of the Asian local currency bond market, reported in US dollar.
Performance is shown in USD. Past performance is not indicative of future results. For complete performance please see page 10.

# Asian Bond Absolute Return Strategy

## Asian Local Currency Bond Market Underperformed Asian USD Credit Market

### Asia Fixed Income Market Review

#### Asian Rates

- China (onshore) rates outperformed on monetary policy easing and low correlation to global bond markets.
- Hong Kong and Singapore rates underperformed due to relative higher correlation with US Treasury yield.

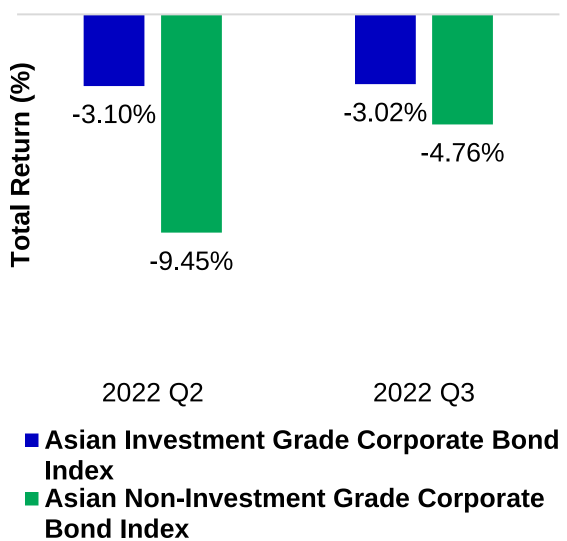
#### Asian Credit

- Asian IG credit traded on a cautious tone in line with global risk assets following hawkish central banks tightening.
- Asian high yield underperformed as China's property space saw consolidation on the back of weaker sentiment and rating downgrades.

#### Asian Currencies

- IDR outperformed supported by demand from strengthened domestic investor base.
- KRW underperformed amid domestic equity market outflows and broad US dollar strength.

| 10-Year Local Currency Bond | Q3-End % Yield | QTD Change (bps) |
|---|---|---|
| China (onshore) | 2.75% | -7 |
| India | 7.40% | -5 |
| Malaysia | 4.41% | 10 |
| Indonesia | 7.37% | 15 |
| Philippines | 7.17% | 22 |
| Australia | 3.89% | 23 |
| Taiwan | 1.60% | 35 |
| Thailand | 3.18% | 36 |
| New Zealand | 4.30% | 44 |
| South Korea | 4.08% | 46 |
| Singapore | 3.48% | 51 |
| Hong Kong | 3.57% | 56 |




| Currency (vs. USD) | | QTD Spot Return (%) |
|---|---|---|
| Hong Kong Dollar | HKD | -0.04 |
| Indonesian Rupiah | IDR | -2.17 |
| Indian Rupee | INR | -2.92 |
| Singapore Dollar | SGD | -3.12 |
| Malaysian Ringgit | MYR | -4.94 |
| Philippine Peso | PHP | -6.26 |
| Chinese Renminbi | CNH | -6.27 |
| Thai Baht | THB | -6.30 |
| Taiwanese Dollar | TWD | -6.45 |
| Australian Dollar | AUD | -7.29 |
| South Korean Won | KRW | -9.25 |
| New Zealand Dollar | NZD | -10.31 |

Source: Bloomberg, JP Morgan Asia Credit Index. Index performance data shown in US Dollar, as of 30 September 2022. Past performance is not indicative of future results. Asian Investment Grade Corporate Bond Index = JACI Investment Grade Corporate Index; it tracks total return performance of the investment grade Asia dollar bond market, reported in US dollar. Asian Non-Investment Grade Corporate Bond Index = JACI Non-Investment Grade Corporate Index; it tracks total return performance of the non-investment grade Asia dollar bond market, reported in US dollar.

# Asian Bond Absolute Return Strategy
## Added Asian Local & USD Duration and Reduced Asian Currency Positions

## Key Portfolio Changes

### Interest Rates

- Establish a pay China 5-year swap position and reduced CNY duration by around 1-year.
- Added around 0.5yrs of KRW and USD duration amid relatively attractive yields and building recession risk for the global economy.

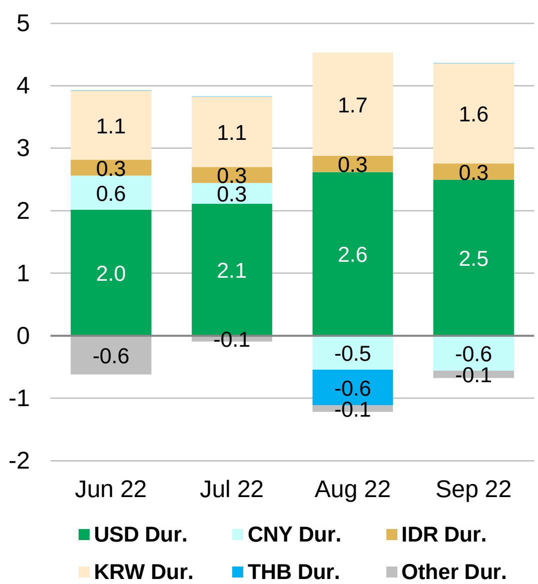
### Credit

- Maintained long Asia credit position in view of upside potential from current valuations; modest credit protection via CDS.
- Continued to actively monitored and adjusted portfolio's exposure to the China property sector.

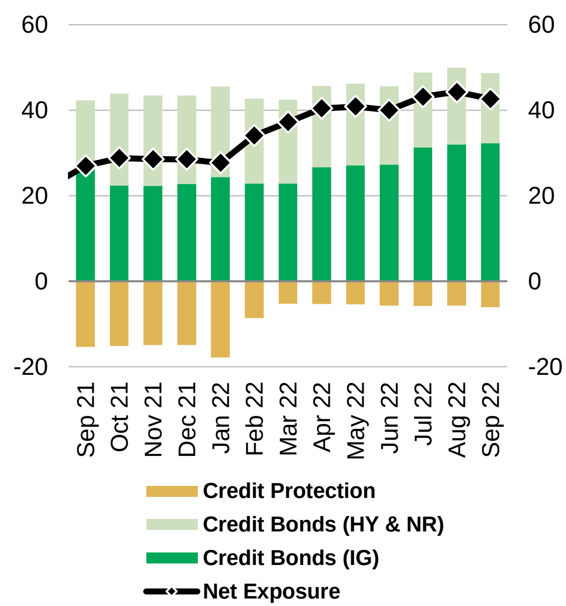
### Currencies

- Closed the long KRW (c. 17%) and THB (c. 10%) positions amid broad USD strength.
- Established and took profit long USDCNH positions (c. 5%) over the period.
- Macro-hedges such as short USDJPY and AUDJPY was closed.

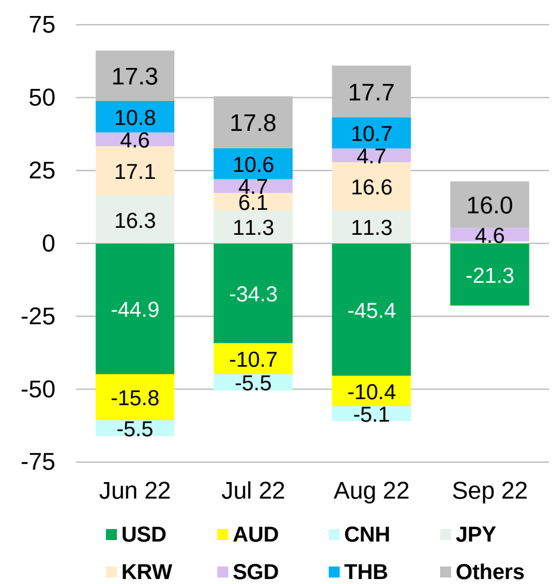
### Contribution to Duration (Years)




### Credit Changes (notional weights)



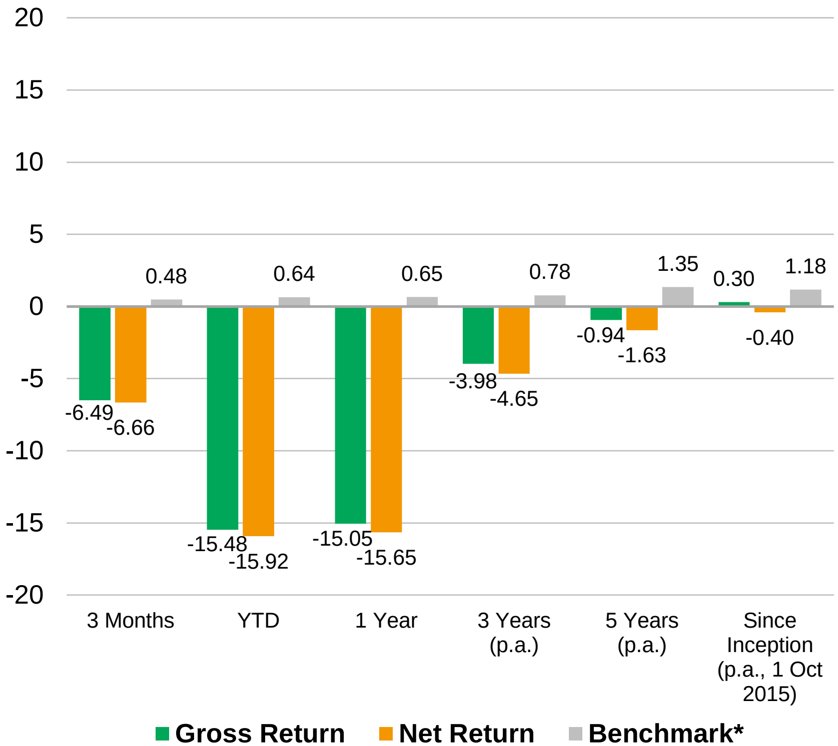

### Active Currency Exposure (%)



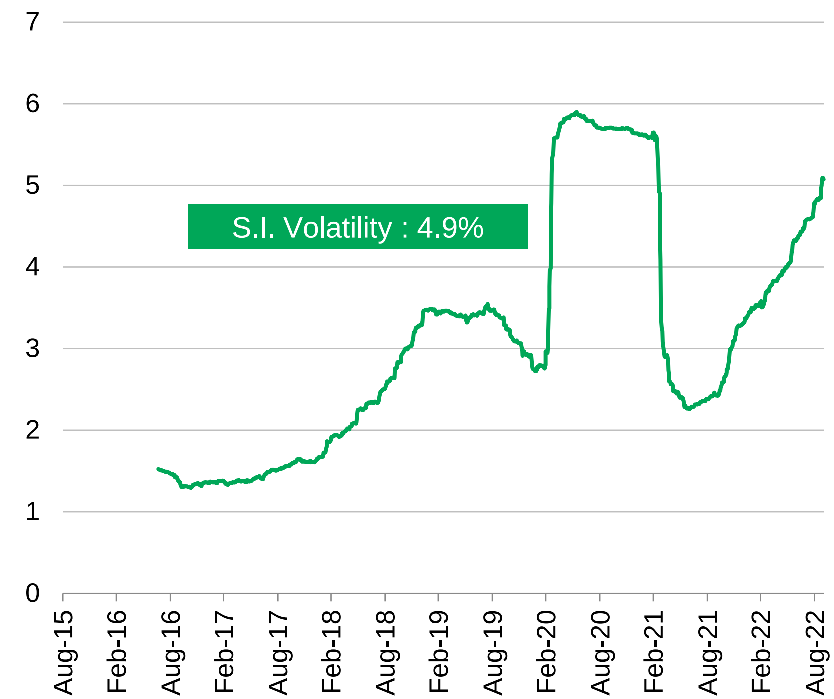

As of 30 September 2022.

# Asian Bond Absolute Return Composite
## Investment Results as of 30 September 2022

### Annualized Returns (%)




### Historical 260 Trading Day Volatility (%, p.a.)^




As of 30 September 2022. Performance is shown in US dollar.
* Benchmark: The benchmark changed from BofA Merrill Lynch LIBOR 3-month Constant Maturity Index (USD) to ICE BofA 0-3 Month Treasury Bill Index on 1 April 2021. Performance shown before this date relates to BofA Merrill Lynch LIBOR 3-month Constant Maturity Index (USD). Performance shown after 1 April 2021 relates to ICE BofA 0-3 Month Treasury Bill Index.
^ Ex-post annualized volatility is the historical annualized standard deviation, based on the past 260 business days observation of the representative account.
Returns greater than one year are annualized. Past performance is not indicative of future results. Gross performance results do not include advisory fees and other expenses an investor may incur, which when deducted will reduce returns. Net performance results reflect the application of the highest incremental rate of the standard investment advisory fee schedule to gross performance results. Changes in exchange rates may have adverse effects.

# Asian Bond Absolute Return Strategy
## Performance Attribution Q3

### Backdrop

- We establish macro-hedges amid growing recession and geopolitical risk. However, macro-hedges such as short USDJPY and AUDJPY positions did not work as expected, as policy divergence between BOJ-Fed and a shift higher in US yields weighed on JPY. In highlight, we took profit on the China sovereign CDS, a hedge for Asian credit, too early.

### Main Contributors

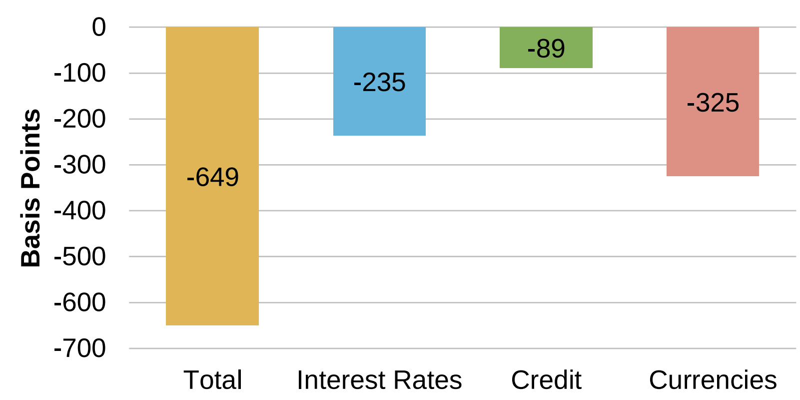
- Long USDCNH – monetary policy divergence between the Fed and PBoC continued to drive USDCNH to new highs, despite PBoC's efforts to dampen the pace of depreciation through stronger daily fixings.
- Pay China 5-year swap – the position contributed to performance as China onshore yields retracted to higher levels towards the end of the period.

### Main Detractors

- Long exposure to Asian credit – global recession concerns and higher US yields weighed on global risk sentiment. Despite additional stimulus and liquidity support from China authorities, China's property market stress persisted over the period amid downgrades and uncertainty surrounding China's zero-Covid policy.
- Long KRW and other Asian FX positions – the positions weighed on performance amid broad US dollar strength, hawkish Fed and global growth concerns; Korean won traded at a 13-year low versus USD despite BOK's intervention in FX markets.
- Korea front-end rates and receive Korean swap rates – positions negatively impacted performance as front-end rates in Korea traded at decade highs in September. Rates surged as markets repriced in more hikes by year end following a hawkish BOK meeting, Korean government bonds sold off amid sharp US Treasury move higher.

| Performance (%) | Q3 |
|---|---|
| Asian Bond Absolute Return Composite (Gross) | -6.49 |
| Asian Bond Absolute Return Composite (Net) | -6.66 |
| ICE BofA 0-3 Month T Bill Index* | 0.48 |
| **Excess return (Gross)** | **-6.97** |
| **Excess Return (Net)** | **-7.14** |

**Contribution to Return**




Source: Manulife Investment Management, Bloomberg PORT system, as of 30 September 2022.
*The benchmark changed from BofA Merrill Lynch LIBOR 3-month Constant Maturity (USD) to ICE BofA 0-3 Month T Bill Index on 1 April 2021. Performance shown before this date relates to BofA Merrill Lynch LIBOR 3-month Constant Maturity (USD). Performance shown after 1 April 2021 relates to ICE BofA 0-3 Month T Bill Index.
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# Asian Bond Absolute Return Strategy
## Asian Bond Markets Can Offer Opportunities For Active Managers

| Risk | Market Factors | Investment Theme | Positioning |
|---|---|---|---|
| **Interest Rates** | ▪ Aggressive Fed and DM central bank monetary policy response to fight inflationary pressures.<br>▪ Relatively benign inflation environment and resilient supply-chain in Asia, allow Asian central banks to tighten its monetary policy at a more gradual pace than developed markets. | **Volatile US yield environment**<br>**Add selectively to Asian local curves** | ▪ Tactical US rate positioning<br>▪ Exposure to Indonesia and South Korea rates, offering relatively attractive yields for their respective credit rating.<br>▪ Relative value spread trade opportunities e.g., short Malaysia rates versus Korean rates, to capitalize on volatile interest rate environment |
| **Credit** | ▪ Demand for high quality Asian credits is well supported<br>▪ Compelling valuations are emerging in the Asian high yield space amid China property slump and negative investors sentiment | **Embrace idiosyncratic credit opportunities rather than larger themes** | ▪ Focus on security selection<br>▪ Prefer Asian high yield corporate issuers with a straightforward business model, providing highly predictable liquidity profiles in various economic scenarios<br>▪ Moderate protection through Credit Default Swaps |
| **Currencies** | ▪ Fed's monetary tightening may provide dislocation opportunities in Asian currency bond markets.<br>▪ South Asian economies are opening their borders amid higher vaccination rates. | **South Asian economies may experience catch up in growth trajectories** | ▪ Relative value spread trade opportunities to capitalize on currency volatility; adding directional positions where attractive on a risk-adjusted basis<br>▪ Opportunistically adding Asian local currency bond exposure e.g. THB which is reopening its economy. |

As of 30 September 2022.

# Asia Fixed Income Outlook

- Aggressive DM central bank monetary policy tightening will likely weigh on global growth outlook with risk of recession building.
- China's zero-COVID policy is making the 5.5% GDP target more challenging to achieve. We expect more aggressive monetary and fiscal policy response. The physical property sector remains stressed leading to dramatic repricing to the China property credit market.
- Asia ex-China region has generally adopted more flexible pandemic policies, which is expansionary for economic activity. Some Asian economies initiated various measures such as subsides, tax cuts and trade restrictions to contain inflation. With relatively benign inflation environment and resilient supply-chain in Asia, we expect Asian central banks to tighten its monetary policy at a more gradual pace than developed markets.

**Asia ex-Japan Fixed Income Outlook**

| Market | Rates | Credit | Currencies |
|---|---|---|---|
| China | | | – |
| Hong Kong | | | |
| India | | | |
| Indonesia | + | + | |
| Malaysia | | | |
| Philippines | | – | |
| Singapore | | | |
| South Korea | + | + | + |
| Taiwan | – | | |
| Thailand | | + | + |
| Vietnam | | | |

| Key: |
|---|
| Positive outlook (+) |
| Neutral outlook |
| Negative outlook (–) |

For illustrative purposes only.
Source: Manulife Investment Management, as of 30 September 2022.

# Why Manulife Asian Bond Absolute Return Strategy?

### Why Asia Bonds?

- High quality, fast growing asset class in inefficient market structure

### Why This Strategy?

- A liquid alternative strategy seeking to exploit market inefficiencies aiming to deliver positive returns, low correlation, whilst employing downside risk control

### Why Manulife IM?

- We offer leading Asia fixed income capabilities leveraging the deep local expertise of our investment professionals

Diversification does not guarantee a profit nor protect against loss in any market.
Past performance is not indicative of future results.

# Manulife Investment Management
## Asian Bond Absolute Return Composite

**GIPS® Report**

Creation Date: January 1, 2018 | Inception Date: October 1, 2015 | 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) |
|---|---|---|---|---|---|---|---|---|---|
| 2021 | -0.03 | -0.73 | 0.09 | 5.58 | 0.35 | <=5 | N/A | 100 | 455,705 |
| 2020 | 3.29 | 2.57 | 1.08 | 5.64 | 0.28 | <=5 | N/A | 99 | 421,097 |
| 2019 | 7.68 | 6.92 | 2.60 | 2.71 | 0.20 | <=5 | N/A | 41 | 422,034 |
| 2018 | 1.16 | 0.45 | 2.08 | 1.99 | 0.19 | <=5 | N/A | 28 | 392,058 |
| 2017 | 1.74 | 1.03 | 1.11 | N/A | N/A | <=5 | N/A | 27 | N/A |
| 2016 | 4.09 | 3.36 | 0.66 | N/A | N/A | <=5 | N/A | 26 | N/A |
| Partial 2015 | 1.42 | 1.24 | 0.03 | N/A | N/A | <=5 | N/A | 25 | 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 (%) |
|---|---|---|---|---|---|---|---|---|---|
| 12/31/21 | Composite | -0.03 | 2.73 | N/A | 3.07 | -0.73 | 2.02 | N/A | 2.35 |

| Date | Return | 1 Year | 5 Year | 10 Year | SI |
|---|---|---|---|---|---|
| 12/31/21 | Benchmark | 0.09 | 1.39 | N/A | 1.22 |

**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.

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**Composite Description:** The Asian Bond Absolute Return strategy aims to provide a positive absolute return from a combination of capital appreciation and income generation by investing primarily in corporate and government bonds issued in the Asia Pacific region. In seeking to achieve its objective, the strategy has the flexibility to implement long and short positions via financial derivative instruments. There is a US$5 million asset requirement to be eligible for inclusion in the strategy. As of December 31, 2015 the percentage of strategy assets that were non fee-paying affiliated seed capital was 100%, as of December 31, 2016 the percentage of strategy assets that were non fee-paying affiliated seed capital was 98.29%, as of December 31, 2017 the percentage of strategy assets that were non fee-paying affiliated seed capital was 96.77%, as of December 31, 2018 the percentage of strategy assets that were non fee-paying affiliated seed capital was 93.53%, as of December 31, 2019 the percentage of strategy assets that were non fee-paying affiliated seed capital was 68.68% and as of December 31, 2020 the percentage of strategy assets that were non-fee paying affiliated seed capital was 82.11%.

**Fee Schedule:** This report is intended for institutional investors and the standard investment advisory fee schedule is 0.70% on the first $20 million; and 0.65% thereafter. From inception to June 30, 2019 the standard investment advisory fee schedule was 0.70% on the first $50 million; 0.60% on the next $50 million; and 0.50% thereafter

**Benchmark Description:** ICE BofA Merrill Lynch LIBOR® with a constant to zero to three-Month Average Maturity Index: This index represents the London interbank offered rate (LIBOR) with a constant three-month average maturity. Published by the British Bankers' Association, LIBOR is a composite of the rates of interest at which banks borrow from one another in the London market.

**Derivatives Disclosure:** As part of the investment process, financial derivatives may be used to manage risk, and enhance returns. The strategy may engage in financial derivatives, such as forwards, futures and options for investment and hedging purposes. The strategy may employ a variety of hedging strategies with respect to specific portfolio holdings, or to the entire portfolio, or to both. Such strategies include "cross-hedging" and "proxy hedging." The strategy may also engage in exchange-traded financial derivatives, such as interest rate futures and options for investment and hedging purposes. Derivative instruments are only used when and as guidelines and regulations permit. The use of leverage magnifies both the favorable and unfavorable effects of price movements in an investment. To the extent that a strategy employs leverage, it will be subject to substantial risk of loss. The strategy may enter into repurchase and reverse repurchase agreements, and invest and trade in futures contracts, forward contracts, options, swaps and other derivative transactions, both for investment and hedging purposes.

# Investment Considerations

A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange-trading suspensions and closures, and affect portfolio performance. For example, the novel coronavirus disease (COVID-19) has resulted in significant disruptions to global business activity. The impact of a health crisis and other epidemics and pandemics that may arise in the future, could affect the global economy in ways that cannot necessarily be foreseen at the present time. A health crisis may exacerbate other pre-existing political, social and economic risks. Any such impact could adversely affect the portfolio's performance, resulting in losses to your investment.

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. Net performance results reflect the application of the highest incremental rate of the standard investment advisory fee schedule to gross performance results. 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.

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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.

**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.

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