SECTION

Asset manager profiles

John Hancock USA

All financial obligations under the group annuity contract are the sole obligation of John Hancock Life Insurance Company (U.S.A.).

- John Hancock is a unit of Manulife Financial Corporation, a leading international financial services provider that helps people make their decisions easier and lives better by providing financial advice, insurance, and wealth and asset management solutions. Manulife Financial Corporation trades as MFC on the TSX, NYSE, and PSE, and under 945 on the SEHK. Manulife can be found at manulife.com.
- One of the largest life insurers in the United States, John Hancock supports more than ten million Americans with a broad range of financial products, including life insurance and annuities. John Hancock also supports US investors by bringing leading investment capabilities and retirement planning and administration expertise to individuals and institutions. Additional information about John Hancock may be found at johnhancock.com.

John Hancock Trust Company

John Hancock Trust Company LLC ("JHTC") is a New Hampshire-chartered nondepository trust company that maintains a broad range of collective investment trusts ("CITs"). CITs are not offered to the public but are sold only to qualified employee benefit plans. John Hancock Trust Company is a subsidiary of Manulife Financial Corporation, a leading Canadian-based financial services group serving millions of customers in 21 countries and territories worldwide. Operating as Manulife Financial in Canada and Asia, and primarily through John Hancock in the United States, the Company offers clients a diverse range of financial protection products and wealth management services through its extensive network of employees, agents and distribution partners.

SECTION



Allocating assets to only one or a small number of the investment options (other than the Target Date 'Lifecycle' or Target Risk 'Lifestyle' options) should not be considered a balanced investment program. In particular, allocating assets to a small number of options concentrated in particular business or market sectors will subject your account to increased risk and volatility. Examples of business or market sectors where this risk may be particularly high include: a) technology-related businesses, including Internet-related businesses, b) small-cap securities and c) foreign securities. John Hancock does not provide advice regarding appropriate investment allocations.

Risk Disclosures: Additional Risks

Credit and Counterparty Risk. The issuer or guarantor of a fixed-income security, the counterparty to an over-the-counter derivatives contract, or a borrower of a fund securities may not make timely payments or otherwise honor its obligations. U.S. government securities are subject to varying degrees of credit risk depending upon the nature of their support. A downgrade or default affecting any of a fund's securities could affect the fund's performance.

Cybersecurity and Operational Risk. Cybersecurity breaches may allow an unauthorized party to gain access to fund assets, customer data, or proprietary information, or cause a fund or its service providers to suffer data corruption or lose operational functionality. Similar incidents affecting issuers of a fund's securities may negatively impact performance. Operational risk may arise from human error, error by third parties, communication errors, or technology failures, among other causes.

Defaulted Debt Risk. Investing in defaulted debt securities is speculative and involves substantial risks in addition to those of non-defaulted high-yield securities. Defaulted debt securities generally do not generate interest payments. Principal on defaulted debt might not be repaid, and a fund could lose up to its entire investment.

Economic and Market Events Risk. Events in the U.S. and global financial markets, including actions taken by the U.S. Federal Reserve or foreign central banks to stimulate or stabilize economic growth, may at times result in unusually high market volatility, which could negatively impact performance. Reduced liquidity in credit and fixed-income markets could adversely affect issuers worldwide. Banks and financial services companies could suffer losses if interest rates rise or economic conditions deteriorate.

Emerging-Market Risk. The risks of investing in foreign securities are magnified in emerging markets. Emerging-market countries may experience higher inflation, interest rates, and unemployment and greater social, economic, and political uncertainties than more developed countries.

Equity Securities Risk. The price of equity securities may decline due to changes in a company's financial condition or overall market conditions. Securities the manager believes are undervalued may never realize their full potential value, and in certain markets value stocks may underperform the market as a whole.

Fixed-Income Securities Risk. A rise in interest rates typically causes bond prices to fall. The longer the average maturity or duration of the bonds held by a fund, the more sensitive it will likely be to interest-rate fluctuations. An issuer may not make all interest payments or repay all or any of the principal borrowed. Changes in a security's credit quality may adversely affect fund performance.

Foreign Securities Risk. Less information may be publicly available regarding foreign issuers. Foreign securities may be subject to foreign taxes and may be more volatile than U.S. securities. Currency fluctuations and

political and economic developments may adversely impact the value of foreign securities.

Fund of Funds Risk. The Fund's ability to achieve its investment objective will depend largely, in part, on: (i) the underlying funds' performance, expenses and ability to meet their investment objectives; and (ii) properly rebalancing assets among underlying funds and different asset classes. There is no assurance that either the Fund or the underlying funds will achieve their investment objectives. A fund bears underlying fund expenses indirectly.

Hedging, Derivatives, and Other Strategic Transactions Risk. Hedging, derivatives, and other strategic transactions may increase a fund's volatility and could produce disproportionate losses, potentially more than the fund's principal investment. Risks of these transactions are different from and possibly greater than risks of investing directly in securities and other traditional instruments. Under certain market conditions, derivatives could become harder to value or sell and may become subject to liquidity risk (i.e., the inability to enter into closing transactions). Derivatives and other strategic transactions that the fund intends to utilize include: credit default swaps, foreign currency forward contracts, futures contracts, interest-rate swaps, and options. Foreign currency forward contracts, futures contracts, options, and swaps generally are subject to counterparty risk. In addition, swaps may be subject to interest-rate and settlement risk, and the risk of default of the underlying reference obligation. Derivatives associated with foreign currency transactions are subject to currency risk.

Illiquid and Restricted Securities Risk. Illiquid and restricted securities may be difficult to value and may involve greater risks than liquid securities. Illiquidity may have an adverse impact on a particular security's market price and the fund's ability to sell the security.

Initial Public Offerings Risk. IPO share prices are frequently volatile and may significantly impact fund performance.

Large Company Risk. Larger companies may grow more slowly than smaller companies or be slower to respond to business developments. Large-capitalization securities may underperform the market as a whole.

Lifecycle Risk. Managers might not correctly predict market or economic conditions, and you could lose money even close to, during, or after the Fund's designated retirement year.

Liquidity Risk. The extent (if at all) to which a security may be sold or a derivative position closed without negatively impacting its market value may be impaired by reduced market activity or participation, legal restrictions, or other economic and market impediments.

Lower-Rated and High-Yield Fixed-Income Securities Risk. Lower-rated and high-yield fixed-income securities (junk bonds) are subject to greater credit quality risk, risk of default, and price volatility than higher-rated fixed-income securities, may be considered speculative, and can be difficult to resell.

Merger and Replacement Transition Risk for Sub-Account. Once the plan fiduciary has been notified and unless they elect otherwise, in the case of fund mergers and replacements, the affected funds that are being merged or replaced may implement the redemption of your interest by payment in cash or by distributing assets in kind. In either case, the redemption of your interest by the affected fund, as well as the investment of the redemption proceeds by the "new" fund, may result in transaction costs to the funds because the affected funds may find it necessary to sell securities and the "new" funds will find it necessary to invest the redemption proceeds. Also, the redemption and reinvestment processes, including any transition period that may be involved in completing such mergers and replacements, could be subject to market gains or losses, including those from currency exchange rates. The

Risk disclosures continued

transaction costs and potential market gains or losses could have an impact on the value of your investment in the affected fund and in the "new" fund, and such market gains or losses could also have an impact on the value of any existing investment that you or other investors may have in the "new" fund. Although there can be no assurances that all risks can be eliminated, John Hancock Trust Company as manager of the underlying funds will use its best efforts to manage and minimize such risks and costs.

Mortgage-Backed and Asset-Backed Securities Risk. Mortgage-backed and asset-backed securities are subject to different combinations of prepayment, extension, interest-rate, and other market risks. Factors that impact the value of these securities include interest rate changes, the reliability of available information, credit quality or enhancement, and market perception.

Preferred and Convertible Securities Risk. Preferred stock dividends are payable only if declared by the issuer's board. Preferred stock may be subject to redemption provisions. The market values of convertible securities tend to fall as interest rates rise and rise as interest rates fall. Convertible preferred stock's value can depend heavily upon the underlying common stock's value.

Sector Risk. When a fund focuses its investments in certain sectors of the economy, its performance may be driven largely by sector performance and could fluctuate more widely than if the fund were invested more evenly across sectors.

Small and Mid-Sized Company Risk. Small and mid-sized companies are generally less established and may be more volatile than larger companies. Small and/or mid-capitalization securities may underperform the market as a whole.

SVGI Risk. While SVGI carries relatively low risk, there are some risks associated with the SVGI group annuity contract, including, but not limited to: (1) the risk that John Hancock Life Insurance Company (USA)will default on its obligations under the contract or that other events could render the contract invalid; (2) the risk that the contract is terminated and, as a result, payments from the contract are subject to a negative market value adjustment or are paid over an extended period of time, depending on the terms of the particular contract; or (3) the risk that certain withdrawals and transfers may be subject to payment restrictions, withdrawal charges or negative market value adjustments.

Target Allocation Risk. The Fund's risk profile will change due to reallocation or rebalancing of portfolio assets as the fund approaches its target date.

Value Investment Risk. Value stocks may underperform the market as a whole, which may cause value-oriented funds to underperform equity funds with other investment strategies. Securities the manager believes are undervalued may never perform as expected.

Warrants Risk. The prices of warrants may not precisely reflect the prices of their underlying securities. Warrant holders do not receive dividends or have voting or credit rights. A warrant ceases to have value if not exercised prior to its expiration date.

Sub-Account Details

Asset Class/Investment Style^{5A}

Target Date

Performance**

Returns (as of 9-30-24)

	Fund	Index	Peer Group
1 year 3 year Since inception	30.91% 6.55% 9.91%	28.68% 7.45% n/a	28.86% 6.42% n/a

Expense Ratio (as of 9-30-24)****

Expense Ratio****	0.15%
Cost Per \$1,000	\$1.50

Sub-Account Inception Date: November 4, 2022 Underlying fund Inception Date: November 13,

¥See important notes.

**The performance_data presented represents past performance. Past performance is no guarantee of future results and current performance may be results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the sub-account's underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying collective trust or other investment vehicle in which the sub-account invests. These in which the sub-account invests. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website myplan.johnhancock.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

Depending on the Funds selected or recommended by the plan fiduciaries (and whether or not any Funds are recommended or selected), John Hancock and its affiliates may receive additional compensation from the Funds, in the form of 12b-1 fees, transfer agent fees, investment management fees, or otherwise. If the John Hancock Stable Value Guaranteed John Hancock Stable Value Guaranteed Investment Fund ('SVGIF') is selected or if the Fund selected invests in the SVGIF, John Hancock may earn more from amounts invested in its general account via SVGIF than the interest amount it credits to SVGIF contract holders, depending on investment and market conditions affecting the general account, in which case this 'spread' revenue is retained by John Hancock. The total revenue John Hancock and its affiliates receive from a fund advised or subadvised by John Hancock affiliates; is higher than those John Hancock affiliates is higher than those advised or subadvised exclusively by unaffiliated

The Index is S&P Target Date 2050.i119

The peer group is Target-Date 2050.p53

Principal risks include:defaulted; fixed-income; warrants; illiquid and restricted securities; sector; lifecycle; credit and counterparty; svoji; fund of funds; value investment; small and mid-sized company; ipo; hedging, derivatives and other company, ipo, neuging, centratives and other strategic transactions; equity; economic and market events; preferred and convertible securities; liquidity; merger and replacement transition; large company; lower-rated; mortgagebacked; foreign; cybersecurity; target allocation and emerging. For more details, see Risk Disclosures section of this booklet.



John Hancock Lifetime Blend 2050 CIT

Investing solely in John Hancock Lifetime Blend 2050 Trust (Class R2) Maintained by John Hancock Trust Company

Fund Highlights

Investment Objective and Policies ➤ Seeks high total return consistent with its asset mix, with a greater focus on income beyond the target date - the year 2050. Total return, commonly understood as the combination of income and capital appreciation, includes interest, capital gains, dividends, and distributions realized over a given period of time. The Fund is designed for retirement plan participants who reached retirement age at or near the year 2050 or who have a risk tolerance consistent with the Fund's multi-asset strategies.

Why Consider this Fund

- You look for the opportunity to remain in the same portfolio after the target date is reached
- You seek one-step diversification with exposure to domestic stocks, international stocks, fixed-income securities, and a stable value fund (John Hancock Stable Value Guaranteed Income Fund (JHSVGI))
- You have considered your risk tolerance and look for your asset allocation to become more conservative over time, but still provide growth after your retirement date.

Holdings, Weightings and Allocations of the underlying fund

Top Holdings (as of 07-31-24)¤

JHancock 500 Index Trust X	29.8%
JHancock U.S. Large Cp Sctr Rtn Trust X	19.8%
JHancock International L&MC Idx Tr X	19.4%
JHancock U.S. Sm & Mid Cp Idx Trust X	17.0%
JHancock Emerging Mkts Eq Idx Trust X	10.4%
Totals 96.4% of assets	

Asset Allocation (as of 07-31-24)¤

US Stock	29.3%
Non US Stock	27.4%
Other	19.9%
Cash	19.7%
US Bond	3.0%
Non US Bond	0.6%

Top Country Holdings (as of 07-31-24)¤

United States	53.6%	
Japan	6.5%	
Taiwan	4.3%	
India	4.2%	
China	3.8%	

Top Sector Weightings (as of 07-31-24)¤



Key Statistics (as of 9-30-24 unless noted)¤

- Number of Holdings: 13
- Beta: 1.12 (S&P Target Date 2050 TR USD)
- R²: 99.57 (S&P Target Date 2050 TR USD)
- Net Assets: \$788.9 million
- Underlying fund expense ratios:
- Gross* 0.15%
- Net* 0.15%
- Market Cap (millions): 132075.50

The Fund is a "fund of funds," meaning that it seeks to achieve its objective by investing in other passively- and actively managed collective investment funds maintained by John Hancock Trust Company (JHTC) (the underlying collective investment funds) that represent a variety of major asset classes and investment styles. The Fund invests using an asset allocation strategy designed for investors who retired or plan to retire around the target date. The Trustee allocates assets among the underlying funds according to an asset allocation strategy that becomes increasingly conservative over time. To help reduce investment risk and volatility in the postretirement years, the asset allocation strategy will change over time according to a predetermined "glide path". The allocations reflected in the glide path are referred to as target allocations because they do not reflect active decisions made by the Trustee to produce an overweight or an underweight position in a particular asset class. Under normal circumstances, any deviation from the target allocation is not expected to be greater than plus or minus 10%. The Fund has a specific target allocation to the JHSVGI but, unlike other underlying investments, JHTC will have no discretion to actively deviate from the target allocations to JHSVGI shown in the Fund offering documents. JHTC will have no discretion to actively deviate from the target allocations to JHSVGI shown in the Fund offering documents. JHTC will have no discretion to actively deviate from the target allocations to JHSVGI shown in the Fund offering documents. JHTC will have no discretion to actively deviate from the target allocations to JHSVGI shown in the Fund offering documents. JHTC will have no discretion to actively deviate from the target allocations to JHSVGI guaranteed interest rate (as of July 1, 2024) is 4.00%.

Crediting Rate is set on January 1 and July 1 of each year. If the weighted value of certain indexes changes by more than 2%, John Hancock reserves the right to reset the crediting

^{*} The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^A

¥ Important notes

Please call 800-395-1113 to obtain the Fund Sheet for the group annuity investment option sub-accounts and/or to obtain a prospectus (or Offering Memorandum/Trust Document) for the sub-accounts' underlying fund, that are available on request. The prospectuses (or Offering Memorandum/Trust Documents) for the sub-accounts' underlying funds contain complete details on investment objectives, risks, fees, charges and expenses as well as other information about the underlying funds which should be carefully considered before investing.

John Hancock conducts business in English.

Fees and expenses are only one of several factors that you should consider when making investment decisions. The cumulative effect of fees and expenses can substantially reduce the growth of your retirement account. You can visit the Employee Benefit Security Administration's Web site for an example demonstrating the long-term effect of fees and expenses.

Contributions under a group annuity contract issued by John Hancock Life Insurance Company (U.S.A.) (John Hancock USA) are allocated to investment options which: (a) invest solely in shares of an underlying mutual fund, collective trust, ETF, or other investment vehicle in which the sub-account invests; (b) invest in a combination of these; or (c) are Guaranteed Interest Accounts and which will be held in the John Hancock USA general account. For more information on a particular investment option, please refer to John Hancock USA's fund sheets, available through our web site myplan.johnhancock.com or your John Hancock USA representative.

Allocating assets to only one or a small number of the investment options (other than an asset allocation investment option such as a target date or target risk option) should not be considered a balanced investment program. In particular, allocating assets to a small number of investment options concentrated in particular business or market sectors could subject an account to increased risk and volatility.

* When contributions are allocated to funds under your employer's group annuity contract with John Hancock, they will be held in a sub-account (also referred to as "Fund"), which invests in shares of the specified underlying mutual fund, collective trust, ETF, or other investment vehicle in which the sub-account invests. The ticker symbols shown are for the underlying mutual fund, collective trusts, ETFs, or other investment vehicle in which the sub-account is invested. The ticker symbols do not directly apply to the John Hancock sub-account and therefore any public information accessed using these symbols will not reflect the unit value of the subaccount, nor will such information reflect sub-account, contract-level or participant-level charges under your plan's group annuity contract.

Information Concerning John Hancock's Short-Term Trading Policy

The group annuity contract is not designed for short-term trading. The effect of short-term trading may disrupt or be potentially disruptive to the management of the fund underlying an investment option and may thereby adversely impact the underlying fund's performance, either by impacting fund management practices or by increasing fund transaction costs. These impacts are absorbed by other fund investors, including retirement plan participants. For the protection of the participants, account changes are subject to the following short-term trading guidelines when exchanging investment options under your company's qualified retirement plan account with John Hancock. Requests may be cancelled if not within our quidelines.

Participants are allowed a maximum of two exchanges per calendar month. An exchange is defined as the full rebalance of a participant's account, or single or multiple fund-to-fund transfers that involve multiple investment options (also referred to as "inter-account transfers") on one day, and may be made online or with a client account representative.

Recognizing that there may be extreme market or other circumstances requiring a participant to make a further change, John Hancock will allow a participant to move 100% of their assets to a Money Market or Stable Value Fund (as available under the contract) after the exchange limit has been reached;

no subsequent exchanges may be made for 30 days. Once the 30-day hold has expired, participants can trade again in accordance with the above guidelines.

The guidelines do not apply to regular allocations, loans, or withdrawals.

In addition, on an ongoing basis, participant account activity is reviewed for trading activity that, though within the monthly exchange limit, could be detrimental to an underlying fund and/or contrary to its exchange policies, as described in the fund's prospectus. As a result of this review, or if requested by a fund company, additional restrictions may be imposed on a participant's retirement account, including but not limited to:

- •Applying redemption fees and/or trade restrictions as requested by the underlying fund manager. Such trade restrictions may be more restrictive than the above quidelines
- •Restricting the number of exchanges made during a defined period
- Restricting the dollar amount of exchange
- •Restricting the method used to submit exchanges (e.g., requiring exchange requests to be submitted in writing via U.S. mail)
- •Restricting exchanges into and out of certain investment options

Participants can read about the short-term trading policy at myplan.johnhancock.com under the "modify your account - change account" feature. Redemption fees or market value adjustments associated with exchanges from particular investment options are described on applicable fund sheets, which are available online. For more information or to order prospectuses for the underlying investments, call 800-395-1113 and speak to a client account representative.

±Weightings - Applicable to only the Target Date (Lifecycle Portfolio) and Target Risk (Lifestyle Portfolios)

Each Target Risk/Target Date Portfolio has a target percentage allocation designed to meet the investment objectives of a corresponding investment orientation. Allocation percentages may vary or be adjusted due to market or economic conditions or other reasons as set out in the prospectus. Due to abnormal market conditions or redemption activity the fund may temporarily invest in cash and cash equivalents.

The underlying mutual fund, collective trust, ETF, or other investment vehicle in which the sub-account invests has the right to restrict trade activity without prior notice if a participant's trading is determined to be in excess of their exchange policy, as stated in an underlying fund's offering document.

all information shown is based on the most recent available information for the underlying mutual fund, collective trust, ETF, or other investment vehicle in which the sub-account invests (collectively referred to as underlying fund) as of the date of printing and is subject to change. Listed holdings do not represent all of the holdings in the underlying fund.

^GAverage Credit Quality is from a Nationally Recognized Statistical Rating Organization (NRSRO).

1A. Your company's qualified retirement plan offers participants the opportunity to contribute to investment options available under a group annuity contract with John Hancock Life Insurance Company (U.S.A.) (John Hancock USA). These investment options may be sub-accounts (pooled funds) investing directly in underlying mutual fund, collective trusts, ETFs, or other investment vehicles, or they may be Guaranteed Interest Accounts.

The funds offered on the JH Signature platform are classified into five risk categories. The risk category in which a fund is placed is determined based on where the 10 year Standard Deviation (defined below) of the underlying fund's Morningstar Category falls on the following scale: if the 10 year Standard

Deviation of the underlying fund's Morningstar Category is 17.00 or higher, the Fund is classified as "Aggressive;" between 11.50 and 16.99 as "Growth;" between 7.00 and 11.49 as "Growth & Income;" between 2.50 and 6.99 as "Income;" and 2.49 and below as "Conservative." If a 10 year Standard Deviation is not available for a Morningstar Category, then the 5 year Standard Deviation of the underlying fund's Morningstar Category is used to determine the Fund's risk category. If a 5 year Standard Deviation is not available for a Morningstar Category, then the 5 year Standard Deviation of the underlying fund's Morningstar Category Index is used to determine the Fund's risk category. Standard Deviation is defined by Morningstar as a statistical measurement of dispersion about an average, which, for an underlying fund, depicts how widely the returns varied over a certain period of time.

The placement of each investment option's risk/return category is subject to change. This information is not intended as investment advice and there can be no assurance that any investment option will achieve its objectives or experience less volatility than another.

2A. Manager or Sub-Adviser refers to the manager of the underlying fund, or to the sub-adviser of the underlying John Hancock Trust, John Hancock Funds II, or John Hancock Funds III fund in which the sub-account invests. "Underlying fund" includes the underlying mutual fund, collective trust, ETF, or other investment vehicle in which a sub-account invests.

3A. Date sub-account or Guaranteed Interest Account first available under group annuity contract. The Signature Menu was introduced December 8, 2014. If the sub-account inception date is after December 8, 2014, then the Signature Menu introduction date is the same as the sub-account inception date.

4A. The performance data for a sub-account for any period prior to the sub-account Inception Date is hypothetical based on the performance of the underlying investment since inception of the underlying investment. All other performance data is actual (except as otherwise indicated). Returns for any period greater than one year are annualized. Performance data reflects changes in the prices of a sub-account's investments (including the shares of an underlying mutual fund, collective trust, or ETF), reinvestment of dividends and capital gains and deductions for the sub-account charges.

The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the sub-account's underlying fund and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or participant-level charges, fees for guaranteed benefits if elected by participant, or any redemption fees imposed by an underlying mutual fund, collective trust or ETF. These charges, if included, would otherwise reduce the total return for a participant's account. Performance current to the most recent month-end is available at myplan.johnhancock.com.

5A. Asset class/Investment style: Asset class refers to the broad category of investments the portfolio, or underlying fund, currently holds. Fixed income, or bond funds are often categorized by the duration and credit quality of the bonds held in the underlying fund. Equity, or stock underlying funds may be categorized by the size of the securities in which the fund invests (market capitalization). Investment style tells you whether the underlying fund invests in securities of companies that exhibit growth-style characteristics, such as above-average revenue and earnings growth, or in securities that exhibit value-style characteristics, such as shares considered to be underpriced in relation to fundamental measures such as revenues, earnings and assets.

****Expense Ratio (ER)

This material shows expenses for a specific unit class for investment options available under a John Hancock group annuity contract. The Expense Ratio ("ER") shown represents the total annual operating expenses for the investment options made available by John Hancock. It is made up of John Hancock's (i) "Revenue from Sub-account", and (ii) the expenses of the underlying fund (based on expense ratios reported in the most recent prospectuses available as of the date of

printing; "FER"). In the case where an underlying fund has either waived a portion of, or capped, its fees, the FER used to determine the ER of the sub-account that invests in the underlying fund is the net expense ratio of the underlying fund. "Underlying fund" or "fund" refers to the underlying mutual fund, collective trust, or exchanged traded fund ("ETF") in which the investment option invests. The FER is determined by the underlying fund and may be subject to fluctuation. Any change in the FER of an underlying fund will affect the Expense Ratio of the investment option which invests in the underlying fund.

The ER applies daily at a rate equivalent to the annual rate shown, and may vary to reflect changes in the expenses of an underlying fund and other factors. For Expense Ratio information current as of the most recent quarter end, please refer to the monthly "Return and Fees" listing available from John Hancock upon request. For more information, please contact your financial representative.

** Performance of the Sub-account

The performance data for a sub-account for any period prior to the sub-account Inception Date is hypothetical based on the performance of the underlying portfolio.* The Signature Menu was introduced December 8, 2014. If the sub-account inception date is after December 8, 2014, then the Signature Menu introduction date is the same as the sub-account inception date. Returns for any period greater than one year are annualized. Performance data reflects changes in the prices of a sub-account's investments (including the shares of an underlying fund), reinvestment of dividends and capital gains and deductions for the Expense Ratio (ER). Performance does not reflect any applicable contract-level or certain participant-level charges, fees for guaranteed benefits if elected by participant under the group annuity contract or redemption fees imposed by the underlying portfolio. These charges, if included, would otherwise reduce the total return for a participant's account. All performance calculations shown have been prepared solely by John Hancock USA. The underlying fund company has not reviewed the sub-account's performance.

6A. Morningstar Category:

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Morningstar assigns categories by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor Morningstar uses as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

***Morningstar Portfolio Ratings

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¥ Important notes continued

quarter-end. Although gathered from reliable sources, the information is not represented or warranted by Morningstar to be accurate, correct, complete or timely.

AThe amounts displayed represent the gross and net expense ratios of the underlying fund in which the sub-account invests. Where the figures are different, the underlying fund has either waived a portion of, or capped its fees, and the result of such fee waiver or cap is reflected in the net expense ratio. The waiver or cap is subject to expiration, in which case the Expense Ratio and performance of the sub account may be impacted. Refer to the prospectus of the underlying fund for details.

When calculating the Expense Ratio of the sub-account, the net expense ratio of the underlying fund is used. Returns shown reflect the Expense Ratio of the sub-account.

- 114. If John Hancock has been provided with your date of birth and no investment instructions at the time of enrollment, then, on the date of your enrollment, you will be default enrolled into a Target Date (Lifecycle Portfolio) based on your year of birth and a retirement age of 67, and subject to the Target Date then in existence
- 224. This Fund is not a mutual fund, it is a Collective Investment Trust maintained by John Hancock Trust Company LLC ("JHTC"), a New Hampshire non-depository trust company. The Fund invests directly other CIT's maintained by JHTC and in the John Hancock Stable Value Guaranteed Income Fund, a stable value group annuity contract issued by John Hancock Life Insurance Company (USA).
- 249. Depending on the Funds selected or recommended by the plan fiduciaries (and whether or not any Funds are recommended or selected), John Hancock and its affiliates may receive additional compensation from the Funds, in the form of 12b-1 fees, transfer agent fees, investment management fees, or otherwise. If the John Hancock Stable Value Guaranteed Investment Fund ('SVGIF') is selected or if the Fund selected invests in the SVGIF, John Hancock may earn more from amounts invested in its general account via SVGIF than the interest amount it credits to SVGIF contract holders, depending on investment and market conditions affecting the general account, in which case this 'spread' revenue is retained by John Hancock. The total revenue John Hancock and its affiliates receive from a fund advised or subadvised by John Hancock affiliates is higher than those advised or subadvised exclusively by unaffiliated entities.
- 250. Effective on or about March 31, 2023, this sub-account invests in the R2 share class of the underlying collective investment trust. It previously invested in the R4 share class of the same underlying collective investment trust. Performance shown for periods prior to March 31, 2023 is based on the performance of the prior share class (R4), which had a higher expense ratio than the current share class (R2). Because the prior share class (R4) had a higher expense ratio, the performance shown would have been higher had the sub-account been invested in the R2 share class for the periods prior to March 31, 2023.
- 251. Account balance reported may include assets transferred from another Fund, which was permanently closed on or about July 14, 2023. Please contact your John Hancock representative for more information.
- 254. The name of this sub-account changed effective on or about July 14, 2023.

Index Performance:

With respect to the Funds that display an index performance. Index performance shown is for a broad-based securities market index. Indexes are unmanaged and cannot be invested in directly. Index returns were prepared using Morningstar Direct. The performance of an Index does not include any portfolio or insurance-related charges. If these charges were reflected, performance would be lower. Past performance is not a guarantee of future results.

i119. S&P Target Date 2050 Index: The S&P Target Date® Series comprises multiasset class indices, each corresponding to a particular target retirement date. Each index provides varying levels of exposure to equities and fixed income. Each target date allocation is created and retired according to a pre-determined schedule related to the respective target date.

Peer Group Performance:

With respect to the Funds that display a Peer Group Performance. Source: Morningstar Direct for Mutual Funds, as of the most recent month end. Morningstar data is ©2024 by Morningstar, Inc. All rights reserved. Although gathered from reliable sources, the information is not represented or warranted by Morningstar to be accurate, correct, complete or timely. Peer groups are unmanaged and cannot be invested in directly.

p53. Target-Date 2050: Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2046-2050) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Key Statistics

§The Turnover Ratio shown is based on the most recent available financial statements for the underlying mutual fund, collective trust, ETF, or other investment vehicle in which the sub-account invests, as of the date of printing and is subject to change.

*Wrap Provider Exposure

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Credit ratings of AA- or better are considered to be high credit quality; credit ratings of BBB- are good credit quality and the lowest category of investment grade; credit ratings BB+ and below are lower-rated securities ("junk bonds"); and credit ratings of CCC+ or below have high default risk. The credit quality breakdown does not give effect to the impact of any credit derivative investments made by the fund.

Moody's

The rating scale, running from a high of Aaa to a low of C, comprises 21 notches. It is divided into two sections, investment grade and speculative grade. The lowest investment-grade rating is Baa3. The highest speculative-grade rating is Ba1. Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa.

Financial Strength Rating[‡]

A.M. Best Rating

AM Best's methodologies for rating is a comprehensive overview of the credit rating process, which consists of quantitative and qualitative evaluations of balance sheet strength, operating performance, business profile, and enterprise risk management.

Fitch Ratings

The terms "investment grade" and "speculative grade" have established themselves over time as shorthand to describe the categories 'AAA' to 'BBB' (investment grade) and 'BB' to 'D' (speculative grade). The terms investment grade and speculative grade are market conventions and do not imply any recommendation or endorsement of a specific security for investment purposes. Investment grade categories indicate relatively low to moderate credit risk, while ratings in the speculative categories either signal a higher level of credit risk or that a default has already occurred.

S&I

Credit ratings of AA- or better are considered to be high credit quality; credit ratings of BBB- are good credit quality and the lowest category of investment grade; credit ratings BB+ and below are lower-rated securities ("junk bonds"); and credit ratings of CCC+ or below have high default risk. The credit quality breakdown does not give effect to the impact of any credit derivative investments made by the fund.

Moody's

The rating scale, running from a high of Aaa to a low of C, comprises 21 notches. It

is divided into two sections, investment grade and speculative grade. The lowest investment-grade rating is Baa3. The highest speculative-grade rating is Ba1. Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa.

Fund availability subject to regulatory approval and may vary from state to state. The availability of products, funds and contract features may be subject to broker-dealer firm approval, state approval, broker licensing requirements, tax law requirements, or other contract-related requirements. From time to time, changes are made to funds, and the availability of these changes may be subject to state approvals or other compliance requirements. Please confirm with your local John Hancock Representative if you have any questions about product, fund or contract feature availability.

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