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 group that helps people make their decisions easier and lives better. We operate primarily as John Hancock in the United States, and Manulife globally, including Canada, Asia and Europe. We provide financial advice, insurance and wealth and asset management solutions for individuals, groups and institutions. Assets under management and administration by Manulife and its subsidiaries were over CAD $1.2 trillion (US$881 billion) as of September 30, 2019. 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 10 million Americans with a broad range of financial products, including life insurance, annuities, investments, 401(k) plans, and college savings plans. Additional information about John Hancock may be found at johnhancock.com.
 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.

Risks Applicable to All Funds

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 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 will use its best efforts to manage and minimize such risks and costs.

Risk of increase in expenses for Sub-Account. Your actual costs of investing in the fund may be higher than the expenses shown in “Annual fund operating expenses” for a variety of reasons. For example, expense ratios may be higher than those shown if a fee limitation is changed or terminated or if average net assets decrease. Net assets are more likely to decrease and fund expense ratios are more likely to increase when markets are volatile.

Risk Disclosures: Additional Risks

Commodity Investments in commodity-related instruments are subject to the risk that the performance of the overall commodities market declines and that weather, disease, political, tax, and other regulatory developments adversely impact the value of commodities, which may result in a loss of principal and interest. Commodity-linked investments face increased price volatility and liquidity, credit, and issuer risks compared with their underlying measures.

Conflict of Interest A conflict of interest may arise if the advisor makes an investment in certain underlying funds based on the fact that those funds are also managed by the advisor or an affiliate or because certain underlying funds may pay higher fees to the advisor do than others. In addition, an advisor’s participation in the primary or secondary market for loans may be deemed a conflict of interest and limit the ability of the investment to acquire those assets.

Convertible Securities Investments in convertible securities may be subject to increased interest-rate risks, rising in value as interest rates decline and falling in value when interest rates rise, in addition to their market value depending on the performance of the common stock of the issuer. Convertible securities, which are typically unrated or rated lower than other debt obligations, are secondary to debt obligations in order of priority during a liquidation in the event the issuer defaults.

Credit and Counterparty The issuer or guarantor of a fixed-income security, counterparty to an OTC derivatives contract, or other borrower may not be able to make timely principal, interest, or settlement payments on an obligation. In this event, the issuer of a fixed-income security may have its credit rating downgraded or defaulted, which may reduce the potential for income and value of the portfolio.

Derivatives Investments in derivatives may be subject to the risk that the advisor does not correctly predict the movement of the underlying security, interest rate, market index, or other financial asset, or that the value of the derivative does not correlate perfectly with either the overall market or the underlying asset from which the derivative’s value is derived. Because derivatives usually involve a small investment relative to the magnitude of liquidity and other risks assumed, the resulting gain or loss from the transaction will be disproportionately magnified. These investments may result in a loss if the counterparty to the transaction does not perform as promised.

Equity Securities The value of equity securities, which include common, preferred, and convertible preferred stocks, will fluctuate based on changes in their issuers’ financial conditions, as well as overall market and economic conditions, and can decline in the event of deteriorating issuer, market, or economic conditions.

ETF Investments in exchange-traded funds generally reflect the risks of owning the underlying securities they are designed to track, although they may be subject to greater liquidity risk and higher costs than owning the underlying securities directly because of their management fees. Shares of ETFs are subject to market trading risk, potentially trading at a premium or discount to net asset value.

ETN Investments in exchange-traded notes may be subject to the risk that their value is reduced because of poor performance of the underlying index or a downgrade in the issuer’s credit rating, potentially resulting in default. The value of these securities may also be impacted by time to maturity, level of supply and demand, and volatility and lack of liquidity in underlying markets, among other factors. The portfolio bears its proportionate share of fees and expenses associated with investment in ETNs, and its decision to sell these holdings may be limited by the availability of a secondary market.

Fixed-Income Securities The value of fixed-income or debt securities may be susceptible to general movements in the bond market and are subject to interest-rate and credit risk.

Foreign Securities Investments in foreign securities may be subject to increased volatility as the value of these securities can change more rapidly and extremely than can the value of U.S. securities. Foreign securities are subject to increased issuer risk because foreign issuers may not experience the same degree of regulation as U.S. issuers do and are held to different reporting, accounting, and auditing standards. In addition, foreign securities are subject to increased costs because there are generally higher commission rates on transactions, transfer taxes, higher custodial costs, and the potential for foreign tax charges on dividend and interest payments. Many foreign markets are relatively small, and securities issued in less-developed countries face the risks of nationalization, expropriation or confiscatory taxation, and adverse changes in investment or exchange control regulations, including

SECTION 2 Risk disclosures
Risk disclosures CONTINUED

suspension of the ability to transfer currency from a country. Economic, political, social, or diplomatic developments can also negatively impact performance.

**Hedging Strategies** The advisor’s use of hedging strategies to reduce risk may limit the opportunity for gains compared with unhedged investments, and there is no guarantee that hedges will actually reduce risk.

**High-Yield Securities** Investments in below-investment-grade debt securities and unrated securities of similar credit quality, commonly known as "junk bonds" or "high-yield securities," may be subject to increased interest, credit, and liquidity risks.

**Industry and Sector Investing** Concentrating assets in a particular industry, sector of the economy, or markets may increase volatility because the investment will be more susceptible to the impact of market, economic, regulatory, and other factors affecting that industry or sector compared with a more broadly diversified asset allocation.

**IPO** Investing in initial public offerings may increase volatility and have a magnified impact on performance. IPO shares may be sold shortly after purchase, which can increase portfolio turnover and expenses, including commissions and transaction costs. Additionally, IPO shares are subject to increased market, liquidity, and issuer risks.

**Large Cap** Concentrating assets in large-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Large-cap companies may be unable to respond as quickly as small- and mid-cap companies can to new competitive pressures and may lack the growth potential of those securities. Historically, large-cap companies do not recover as quickly as smaller companies do from market declines.

**Loss of Money** Because the investment’s market value may fluctuate up and down, an investor may lose money, including part of the principal, when he or she buys or sells the investment.

**Management** Performance is subject to the risk that the advisor’s asset allocation and investment strategies do not perform as expected, which may cause the portfolio to underperform its benchmark, other investments with similar objectives, or the market in general. The investment is subject to the risk of loss of income and capital invested, and the advisor does not guarantee its value, performance, or any particular rate of return.

**Market/Market Volatility** The market value of the portfolio’s securities may fall rapidly or unpredictably because of changing economic, political, or market conditions, which may reduce the value of the portfolio.

**Mid-Cap** Concentrating assets in mid-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Mid-cap companies may be subject to increased liquidity risk compared with large-cap companies and may experience greater price volatility than do those securities because of limited product lines, management experience, market share, or financial resources, among other factors.

**Mortgage-Backed and Asset-Backed Securities** Investments in mortgage-backed and asset-backed securities may be subject to increased price volatility because of changes in interest rates, issuer information availability, credit quality of the underlying assets, market perception of the issuer, availability of credit enhancement, and prepayment of principal. The value of ABS and MBS may be adversely affected if interest rates rise and the underlying credit issuers experience difficulty meeting their debt obligations.

**Nondiversification** A nondiversified investment, as defined under the Investment Act of 1940, may have an increased potential for loss because its portfolio includes a relatively small number of investments. Movements in the prices of the individual assets may have a magnified effect on a nondiversified portfolio. Any sale of the investment’s large positions could adversely affect stock prices if those positions represent a significant part of a company’s outstanding stock.

**Not FDIC Insured** The investment is not a deposit or obligation of, or guaranteed or endorsed by, any bank and is not insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other U.S. governmental agency.

**Other** The investment’s performance may be impacted by its concentration in a certain type of security, adherence to a particular investing strategy, or a unique aspect of its structure and costs.

**Preferred Stocks** Investments in preferred stocks may be subject to the risks of deferred distribution payments, involuntary redemptions, subordination to debt instruments, a lack of liquidity compared with common stocks, limited voting rights, and sensitivity to interest-rate changes.

**Restricted/Illiquid Securities** Restricted and illiquid securities may fall in price because of an inability to sell the securities when desired. Investing in restricted securities may subject the portfolio to higher costs and liquidity risk.

**Short Sale** Selling securities short may be subject to the risk that an advisor does not correctly predict the movement of the security, resulting in a loss if a security must be purchased on the market above its initial borrowing price to return to the lender, in addition to interest paid to the lender for borrowing the security.

**Small Cap** Concentrating assets in small-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Smaller, less-seasoned companies may be subject to increased liquidity risk compared with mid- and large-cap companies and may experience greater price volatility than do those securities because of limited product lines, management experience, market share, or financial resources, among other factors.

**Target Date Portfolio Risk.** A Target Date Portfolio is an investment option comprised of “fund of funds” which allocate their investments among multiple assets classes which can include U.S. and foreign equity and fixed income securities. The “target date” in a target date portfolio is the approximate date an investor plans to start withdrawing money. The Portfolio’s ability to achieve its investment objective will depend largely on the ability of the sub-adviser to select the appropriate mix of underlying funds and on the underlying funds’ ability to meet their investment objectives. The portfolio managers control selection and asset allocation. There can be no assurance that either a Fund or the underlying funds will achieve their investment objectives. An investor should examine the asset allocation of the fund to ensure it is consistent with their own risk tolerance.

A Fund is subject to the same risks as the underlying funds in which it invests. Because target date funds are managed to specific retirement dates, investors may be taking on greater risk if the actual year of retirement differs dramatically from the original estimated date. Target date funds generally shift to a more conservative investment mix over time. While this may help to manage risk, it does not guarantee earnings growth nor is the fund’s principal value guaranteed at any time including at the target date. An investment in a target-date fund is not guaranteed, and you may experience losses, including losses near, at, or after the target date. There is no guarantee that the fund will provide adequate income at and through retirement. Consider the investment objectives, risks, charges, and expenses of the fund carefully before investing.
For a more complete description of these and other risks, please review the fund’s prospectus.

**Target Date** Target-date funds, also known as lifecycle funds, shift their asset allocation to become increasingly conservative as the target retirement year approaches. Still, investment in target-date funds may lose value near, at, or after the target retirement date, and there is no guarantee they will provide adequate income at retirement.

**Underlying Fund/Fund of Funds** A portfolio’s risks are closely associated with the risks of the securities and other investments held by the underlying or subsidiary funds, and the ability of the portfolio to meet its investment objective likewise depends on the ability of the underlying funds to meet their objectives. Investment in other funds may subject the portfolio to higher costs than owning the underlying securities directly because of their management fees.
John Hancock Multi-Index 2035
Preservation Portfolio

Investing solely in John Hancock Funds II - Multi-Index 2035 Preservation Portfolio (Class 1)
Sub-advised by John Hancock Investment Management

Ticker Symbol*: JRYOX

Fund Highlights

Investment Objective and Policies
- Seeks high total return until its target retirement date, with a greater focus on income as the target date approaches.

Why Consider this Fund
- You anticipate that you will re-evaluate your asset allocation strategy at your retirement date
- You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- You’ve considered your risk tolerance and want your asset allocation to become more conservative over time such that your capital is protected near your retirement date

Holdings, Weights and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund (“fund”) in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund’s investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund’s investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 12-31-19)

<table>
<thead>
<tr>
<th>Ticker Symbol</th>
<th>Name of Security</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>JHFunds2 Strategic Equity Alloc NAV</td>
<td>57.7%</td>
<td></td>
</tr>
<tr>
<td>Vanguard Total Bond Market ETF</td>
<td>9.2%</td>
<td></td>
</tr>
<tr>
<td>Vanguard Intern-Term Corp Bd ETF</td>
<td>5.0%</td>
<td></td>
</tr>
<tr>
<td>SPDR® Portfolio Short Term Corp Bd ETF</td>
<td>3.8%</td>
<td></td>
</tr>
<tr>
<td>Vanguard Intern-Term Bond ETF</td>
<td>3.1%</td>
<td></td>
</tr>
<tr>
<td>iShares US High Yield Corp Bd ETF</td>
<td>2.6%</td>
<td></td>
</tr>
<tr>
<td>Vanguard FTSE Emerging Markets ETF</td>
<td>2.2%</td>
<td></td>
</tr>
<tr>
<td>SPDR® Barclays High Yield Bd ETF</td>
<td>2.2%</td>
<td></td>
</tr>
<tr>
<td>iShares MSCI Min Vol USA ETF</td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>Invesco Senior Loan ETF</td>
<td>1.7%</td>
<td></td>
</tr>
</tbody>
</table>

Totals 89.5% of assets

Asset Allocation (as of 12-31-19)

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Stock</td>
<td>38.8%</td>
</tr>
<tr>
<td>Non US Stock</td>
<td>25.4%</td>
</tr>
<tr>
<td>US Bond</td>
<td>24.8%</td>
</tr>
<tr>
<td>Cash</td>
<td>6.2%</td>
</tr>
<tr>
<td>Non US Bond</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

Top Country Holdings (as of 12-31-19)

<table>
<thead>
<tr>
<th>Country</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>61.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>4.7%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3.0%</td>
</tr>
<tr>
<td>China</td>
<td>2.7%</td>
</tr>
<tr>
<td>Canada</td>
<td>2.3%</td>
</tr>
<tr>
<td>France</td>
<td>2.0%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.8%</td>
</tr>
<tr>
<td>Australia</td>
<td>1.3%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.2%</td>
</tr>
<tr>
<td>Germany</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Top Sector Holdings (as of 12-31-19)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Services</td>
<td>11.1%</td>
</tr>
<tr>
<td>Technology</td>
<td>9.8%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>7.7%</td>
</tr>
<tr>
<td>Industrials</td>
<td>6.5%</td>
</tr>
<tr>
<td>Consumer Cyclical</td>
<td>5.9%</td>
</tr>
<tr>
<td>Consumer Defensive</td>
<td>5.4%</td>
</tr>
<tr>
<td>Communication Services</td>
<td>4.7%</td>
</tr>
<tr>
<td>Energy</td>
<td>3.6%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>2.9%</td>
</tr>
<tr>
<td>Basic Materials</td>
<td>2.9%</td>
</tr>
<tr>
<td>Utilities</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Key Statistics (as of 12-31-19 unless noted)

- Number of Holdings: 23
- Sharpe Ratio: 0.98
- Beta: 0.99 (S&P Target Date To 2035 TR)
- R²: 99.20 (S&P Target Date To 2035 TR)
- Turnover (annualized): 19.00
- Net Assets: $1.2 billion
- Underlying fund expense ratios:
  - Gross: 0.71%
  - Net: 0.41%
- Market Cap (millions): 49092.24

* 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.

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 12-31-19)

<table>
<thead>
<tr>
<th>Fund</th>
<th>Index¹</th>
<th>Index²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>21.10%</td>
<td>20.59%</td>
</tr>
<tr>
<td>3 year</td>
<td>10.06%</td>
<td>9.49%</td>
</tr>
<tr>
<td>5 year</td>
<td>7.50%</td>
<td>7.18%</td>
</tr>
<tr>
<td>Since inception</td>
<td>8.62%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Expense Ratio (as of 12-31-19)****

Expense Ratio **** 0.17%

Cost Per $1,000 $1.70

Sub-Account Inception Date: May 7, 2010
Underlying fund Inception Date: April 30, 2010

*See important notes.

** 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 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 fund company. 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 www.jhpensions.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.

The total revenue John Hancock receives on this sub-account is comprised of a base fee and any additional fee for sub-advisory services for the underlying fund. For these services, John Hancock and its affiliates receive additional fees which are included in the underlying fund expense ratio (i.e. Fund Expense Ratio or FER).

The Index¹ is S&P Target Date To 2035.

The Index² is JHFunds2 Strategic Equity Alloc.

The peer group is Target-Date 2035.

Principal risks include: convertible securities, preferred stocks, mortgage-backed and asset-backed securities, market/market volatility, mid-cap, high-yield securities, underlying fund/fund of funds, hedging strategies, short sale, ETF, equity securities, restricted/limited securities, industry and sector investing, risk of increase expenses, management, credit and counterparty risk.

Top Holdings (as of 12-31-19)

JHFunds2 Strategic Equity Alloc NAV 57.7%
Vanguard Total Bond Market ETF 9.2%
Vanguard Intern-Term Corp Bd ETF 5.0%
SPDR® Portfolio Short Term Corp Bd ETF 3.8%
Vanguard Intern-Term Bond ETF 3.1%
Xtrackers USD High Yield Corp Bd ETF 2.6%
Vanguard FTSE Emerging Markets ETF 2.2%
SPDR® Barclays High Yield Bd ETF 2.2%
iShares MSCI Min Vol USA ETF 2.0%
Invesco Senior Loan ETF 1.7%

Totals 89.5% of assets

Asset Allocation (as of 12-31-19)

US Stock 38.8%
Non US Stock 25.4%
US Bond 24.8%
Cash 6.2%
Non US Bond 4.3%

Top Country Holdings (as of 12-31-19)

United States 61.9%
Japan 4.7%
United Kingdom 3.0%
China 2.7%
Canada 2.3%
France 2.0%
Switzerland 1.8%
Australia 1.3%
Netherlands 1.2%
Germany 1.1%

Top Sector Holdings (as of 12-31-19)

Financial Services 11.1%
Technology 9.8%
Healthcare 7.7%
Industrials 6.5%
Consumer Cyclical 5.9%
Consumer Defensive 5.4%
Communication Services 4.7%
Energy 3.6%
Real Estate 2.9%
Basic Materials 2.9%
Utilities 2.8%
Participants are allowed a maximum of two exchanges per calendar month. An exchange is defined as the full rebalancing 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 over the Web, by fax, courier or mail, through our toll-free participant services line, 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 guidelines
- 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 www.jhpensions.com or www.jhny.pensions.com (for plans domiciled in New York) 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 1-800-395-1113 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, or ETF 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 the prospectus or offering memorandum.

The information shown is based on the most recent available information for the underlying mutual fund, collective trust, or ETF (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.

Average Credit Quality is from a Nationally Recognized Statistically 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, or ETFs, 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 14.70 or higher, the Fund is classified as “Aggressive;” between 10.00 and 14.69 as “Growth;” between 6.40 and 9.99 as “Growth & Income;” between 2.50 and 6.39 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, or ETF 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 www.jhpensions.com.

****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 is 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: © 2020 Morningstar. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Past performance is no guarantee of future results.

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 All Morningstar data is © 2020 by Morningstar, Inc. All rights reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. For each underlying fund with at least a three-year history, Morningstar calculates a Morningstar Rating™ based on a Morningstar Risk-Adjusted Return measure that accounts for variation in the underlying fund’s monthly performance (does not include the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. Exchange traded funds and open-ended mutual funds are considered a single population for comparative purposes. Funds with scores in the top 10% of each category receive 5 stars (highest); the next 22.5%, 4 stars (above average); the next 35%, 3 stars (average); the next 22.5%, 2 stars (below average); and the bottom 10%, 1 star (lowest). Morningstar ratings are applicable to the underlying only and reflect historical risk-adjusted performance as of the most recent calendar quarter-end. Although gathered from reliable sources, the information is not represented or warranted by Morningstar to be accurate, correct, complete or timely.

*The amounts displayed below 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.

*The amounts displayed below 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.

13. The total revenue John Hancock receives on this Fund is higher than those advised or sub-advised exclusively by unaffiliated entities. John Hancock and its affiliates provide exclusive advisory and sub-advisory services for the underlying fund. For these services, John Hancock and its affiliates receive additional fees which are included in the underlying fund expense ratio (i.e. Fund Expense Ratio or FER).

111. The underlying fund changed its name effective on or about November 2, 2012. Performance shown for periods prior to that date reflect the results under its former name. The name of this sub-account changed effective on or about November 2, 2012 to more accurately reflect the name of the underlying fund.

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.

125. The name of this sub-account changed effective on or about May 3, 2014.

179. The underlying fund changed its name effective on or about February 1, 2017. Performance shown for periods prior to that date reflect the results under its former name. The name of this sub-account changed effective on or about May 6, 2017 to more accurately reflect the name of the underlying fund.

**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.

i185. S&P Target Date To 2035: The S&P Target Date Style Indices are designed to help defined contribution plan sponsors screen, select and monitor appropriate target date funds.

i286. 34.0% S&P 500/ 9.8% Russell 2500/ 13.0% MSCI World ex-U.S./ 6.2% MSCI EM/ 10.0% ICE BofAML Long U.S. Treasury Principal STRIPS/ 20.3% BBgBarc U.S. Agg/ 2.7% ICE BofAML U.S. High Yield/ 2.8% JP Morgan EMBI Global/ 0.4% S&P U.S. REIT/ 0.1% S&P Global ex-U.S./ 0.1% S&P Global Infrastructure/ 0.4% MSCI World Energy/ 0.2% MSCI World Metals & Mining: A combination of 34.0% S&P 500/ 9.8% Russell 2500/ 13.0% MSCI World ex-U.S./ 6.2% MSCI EM/ 10.0% ICE BofAML Long U.S. Treasury Principal STRIPS/ 20.3% BBgBarc U.S. Agg/ 2.7% ICE BofAML U.S. High Yield/ 2.8% JP Morgan EMBI Global/ 0.4% S&P U.S. REIT/ 0.1% S&P Global ex-U.S./ 0.1% S&P Global Infrastructure/ 0.4% MSCI World Energy/ 0.2% MSCI World Metals & Mining. See 'Target Date Benchmark History'.

**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 ©2020 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.

p40. Target-Date 2035: 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 2031-2035) 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.

**Target Date Benchmark History**

**JH Multi-Index Preservation Portfolios**

Target Date 2035: 34.0% S&P 500/ 9.8% Russell 2500/ 13.0% MSCI World ex-U.S./ 6.2% MSCI EM/ 10.0% ICE BofAML Long U.S. Treasury Principal STRIPS/ 20.3% BBgBarc U.S. Agg/ 2.7% ICE BofAML U.S. High Yield/ 2.8% JP Morgan EMBI Global/ 0.4% S&P U.S. REIT/ 0.1% S&P Global ex-U.S./ 0.1% S&P Global Infrastructure/ 0.4% MSCI World Energy/ 0.2% MSCI World Metals & Mining: A combination of 34.0% S&P 500/ 9.8% Russell 2500/ 13.0% MSCI World ex-U.S./ 6.2% MSCI EM/ 10.0% ICE BofAML Long U.S. Treasury Principal STRIPS/ 20.3% BBgBarc U.S. Agg/ 2.7% ICE BofAML U.S. High Yield/ 2.8% JP Morgan EMBI Global/ 0.4% S&P U.S. REIT/ 0.1% S&P Global ex-U.S./ 0.1% S&P Global Infrastructure/ 0.4% MSCI World Energy/ 0.2% MSCI World Metals & Mining.

The weightings of the indices in the Custom Benchmark are adjusted annually to reflect changes in the fund's target asset allocation in accordance with the annual roll-down of the glide path described above.

**Key Statistics**

*The Turnover Ratio shown is based on the most recent available financial statements for the underlying mutual fund, collective trust, or ETF as of the date of printing and is subject to change.

**Wrap Provider Exposure**

S&P 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 Aaa. The highest speculative-grade rating is Ba1. Moody's adds 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.

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.

S&P
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.

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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