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 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$0.9 trillion) as of December 31, 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.

Where the redemption of your interest is implemented through a distribution of assets in kind, the effective date of the merger or replacement may vary from the target date due to the transition period, commencing either before or after the date that is required to liquidate or transition the assets for investment in the “new” Fund.

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-related 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
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 more-limited product lines 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 the underlying borrower fails to pay the loan included in the security.

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.

Regulation/Government Intervention The business of the issuer of an underlying security may be adversely impacted by new regulation or government intervention, impacting the price of the security. Direct government ownership of distressed assets in times of economic instability may subject the portfolio’s holdings to increased price volatility and liquidity risk.

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 Risk Portfolio Risk. A Target Risk Portfolio ("Lifestyle Fund") is a “fund of funds” which invests in a number of underlying funds. The portfolio managers control security selection and asset allocation. The Portfolio’s ability to achieve its investment objective will depend largely on the ability of the subadviser to select the appropriate mix of underlying funds and on the underlying funds’ ability to meet their investment objectives. There can be no assurance that either the Portfolio or the underlying funds will achieve their investment objectives. The Portfolio is subject to the same risks as the underlying funds in which it invests.

The Target Risk Portfolios available range from a conservative to aggressive investment strategy. Each seeks to maintain a consistent level of risk over time regardless of the market environment. Each Target Risk Portfolio is diversified across a mix of stocks, bonds and other capital preserving investments and while this may reduce the overall portfolio risk and volatility, diversification does not ensure a gain or guarantee a protection against a loss. For a more complete description of these and other risks, please refer to the Fund Sheet and the underlying fund’s prospectus, which is available upon request.
**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.
**Sub-Account Details**

Risk/Return Category **Risk/Return Category**

<table>
<thead>
<tr>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
<tr>
<td>High</td>
</tr>
</tbody>
</table>

**Asset Class/Investment Style**

Target Risk

Performance**

Returns (as of 3-31-20)

<table>
<thead>
<tr>
<th>Fund</th>
<th>Index¹</th>
<th>Index²</th>
<th>Peer Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>-4.11%</td>
<td>8.93%</td>
<td>-0.91% -5.78%</td>
</tr>
<tr>
<td>3 year</td>
<td>2.03%</td>
<td>4.82%</td>
<td>3.63% 0.86%</td>
</tr>
<tr>
<td>5 year</td>
<td>2.91%</td>
<td>3.36%</td>
<td>3.79% 1.63%</td>
</tr>
<tr>
<td>10 year</td>
<td>5.48%</td>
<td>3.88%</td>
<td>5.91% 4.55%</td>
</tr>
</tbody>
</table>

Expense Ratio (as of 3-31-20)****

<table>
<thead>
<tr>
<th>Expense Ratio ***</th>
<th>0.46%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Per $1,000</td>
<td>$460</td>
</tr>
</tbody>
</table>

**Sub-Account Inception Date:** October 2, 1997
<table>
<thead>
<tr>
<th>Underlying fund Inception Date:</th>
<th>October 14, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong></td>
<td>See important notes.</td>
</tr>
</tbody>
</table>

**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 participant-level charges, fees for guaranteed benefits if elected by participant, 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.**

Key statistics (as of 3-31-20 unless noted)

| Number of Holdings: | 51 |
| Sharpe Ratio: | 0.01 |
| Beta: | 0.24 | (BBgBarc US Agg Bond TR USD) |
| R²: | 0.93 | (BBgBarc US Agg Bond TR USD) |

**Investment Objective and Policies**

Seeks to achieve a balance between a high level of current income and growth of capital, with a greater emphasis on income by investing approximately 60% of the portfolio’s assets in underlying portfolios that invest primarily in fixed-income securities and 40% of its assets in portfolios that invest primarily in equity securities.

**Why Consider this Fund**

- You have a medium- to long-term investment horizon and seek a balance between a high level of current income and growth of capital with a greater emphasis on income. You can accept levels of risk greater than bonds, but less than that of than that of equity markets.
- You want instant and broad diversification with exposure to a wide range of asset classes and investment styles, including domestic and international stocks.

**Holdings, Weightings and Allocations of the underlying fund**

**Top Holdings (as of 3-31-20)**

| JH Funds2 Core Bond NAV | 13.4% |
| JH Hancock Bond NAV | 12.3% |
| JH Hancock Strategic Income Opps NAV | 8.9% |
| Fidelity® Inflation-Prot Bd Index | 5.2% |
| JH Hancock Emerging Markets Debt NAV | 5.0% |
| JHFunds2 Capital Appreciation Value NAV | 4.2% |
| JH Hancock International Stra Eq Allc NAV | 3.7% |
| JH Hancock Short Duration Credit Opps NAV | 3.0% |
| JH Hancock Floating Rate Income NAV | 2.9% |
| JH Hancock U.S. Sector Rotation NAV | 2.8% |

**Totals 61.4% of assets**

**Asset Allocation (as of 3-31-20)**

| US Bond | 42.5% |
| US Stock | 22.4% |
| Non US Bond | 13.8% |
| Non US Stock | 13.8% |
| Cash | 5.0% |
| Other | 1.0% |
| Preferred | 0.7% |

**Turnover (annualized):** 37.00

**Net Assets:** $2.6 billion

**Underlying fund expense ratios:**

- **Gross:** 0.94%
- **Net:** 0.94%
- **Market Cap (millions):** 45660.45

**Key Disclosures section of this booklet**
Important notes

Please call 1-800-395-1113 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.

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, or ETF; (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 the Web site 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 a combination of these. The ticker symbols shown are for the underlying mutual fund, collective trusts or ETFs in which sub-accounts are 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 guidelines.

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 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.jhineinvestments.com for plans domiciled in New York under the “modify year 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 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...
**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 the 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:

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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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).

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.

i15. Bloomberg Barclays US Aggregate Bond Index: Made up of bonds from the Treasury, Government-Related, Corporate, Mortgage-Backed Security, Asset-Backed Security and Commercial Mortgage-Backed Security sectors. These include securities that are of investment-grade quality or better and have at least one year to maturity.

i150. 28% Russell 3000/ 12% MSCI ACWI ex-US/ 48% BarCap Agg Bond/ 12% ICE BoFAML HY Master II Index: A combination of 28% Russell 3000/ 12% MSCI ACWI ex-US/ 48% BarCap Agg Bond/ 12% ICE BoFAML HY Master II Index

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.

p65. Allocation–30% to 50% Equity: Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures between 30% and 50%.

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 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 ‘AA’ 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.

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