

**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](http://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](http://johnhancock.com).

**Dimensional Fund Advisors, Inc. (DFA)**

- ▶ Working years ahead of the industry, Dimensional forged a new way to invest. The firm inaugurated its strategies in 1981 with early research into the stronger performance of small cap stocks. Later, a comprehensive analysis of stock prices worldwide deepened the strategy repertoire and set a new standard for portfolio design. This evolution reflects an abiding belief in financial science and the efficacy of capital markets.

**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 as manager of the underlying funds 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

**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.

**Lending** Investing in loans creates risk for the borrower, lender, and any other participants. A borrower may fail to make payments of principal, interest, and other amounts in connection with loans of cash or securities or fail to return a borrowed security in a timely manner, which may lead to impairment of the

collateral provided by the borrower. Investments in loan participations may be subject to increased credit, pricing, and liquidity risks, with these risks intensified for below investment-grade loans.

**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.

**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.

**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.

**Value Investing** Value securities may be subject to the risk that these securities cannot overcome the adverse factors the advisor believes are responsible for their low price or that the market may not recognize their fundamental value as the advisor predicted. Value securities are not expected to experience significant earnings growth and may underperform growth stocks in certain markets.

## Sub-Account Details

### Risk/Return Category<sup>1A</sup>

Aggressive Growth

Low  High

### Asset Class/Investment Style<sup>5A</sup>

Domestic Equity

			Large
			Medium
			Small
Value	Blend	Growth	

### Performance\*\*

Returns (as of 9-30-22)

	Fund	Index	Peer Group
1 year	-9.34%	-17.69%	-14.77%
3 year	9.82%	4.72%	5.92%
5 year	5.45%	2.87%	3.34%
10 year	9.68%	7.94%	7.84%

### Expense Ratio (as of 9-30-22)\*\*\*\*

Expense Ratio****	0.29%
Cost Per \$1,000	\$2.90

Sub-Account Inception Date: November 2, 2007  
Underlying fund Inception Date: February 23, 2000

¥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 [myplan.johnhancock.com](http://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.

The Index is Russell 2000 Value.<sup>i49</sup>

The peer group is Small Value.<sup>p26</sup>

Principal risks include: risk of increase expenses, equity securities, market/market volatility, not FDIC insured, loss of money, management, lending, mid-cap, small cap, value investing, derivatives, merger and replacement and other. For more details, see Risk Disclosures section of this booklet



# DFA U.S. Targeted Value Fund

Investing solely in DFA U.S. Targeted Value Portfolio (Institutional Class)

Managed by Dimensional Fund Advisors, Inc. (DFA)

Ticker Symbol\*: DFFVX

## Fund Highlights

**Investment Objective and Policies** ▶ Seeks long-term capital appreciation.

### Why Consider this Fund

- ▶ You want long-term growth of capital and can accept the relatively high levels of risk and volatility that typically accompany investments in small and mid-sized company stocks
- ▶ You want exposure to a highly diversified portfolio of U.S. small and midcap value companies.

## Holdings, Weightings and Allocations of the underlying fund

### Top Holdings (as of 08-31-22)<sup>α</sup>

S+p500 Emini Fut Sep22 Xcme	
20220916	1.2%
Reliance Steel & Aluminum Co	0.8%
Steel Dynamics Inc	0.7%
First Horizon Corp	0.7%
AutoNation Inc	0.6%
Arrow Electronics Inc	0.6%
BorgWarner Inc	0.6%
Range Resources Corp	0.6%
HF Sinclair Corp	0.6%
Knight-Swift Transportation Holdings Inc Class A	0.6%

Totals 7.0% of assets

### Asset Allocation (as of 08-31-22)<sup>α</sup>

US Stock	97.4%
Non US Stock	2.3%
Cash	0.2%
Preferred	0.1%

### Top Country Holdings (as of 08-31-22)<sup>α</sup>

United States	96.3%
Puerto Rico	0.8%
Singapore	0.4%
Canada	0.3%
Marshall Islands	0.2%
China	0.2%
United Kingdom	0.1%
Chile	0.1%
Hong Kong	0.1%
Israel	0.1%

### Top Sector Weightings (as of 08-31-22)<sup>α</sup>

Financial Services	27.2%
Industrials	17.3%
Consumer Cyclical	12.5%
Technology	9.9%
Energy	9.3%
Basic Materials	8.4%
Healthcare	5.2%
Consumer Defensive	4.8%
Communication Services	2.7%
Real Estate	0.8%
Utilities	0.5%

## Key Statistics (as of 9-30-22 unless noted)<sup>α</sup>

- ▶ **Number of Holdings:** 1400
- ▶ **Sharpe Ratio:** 0.46
- ▶ **Beta:** 1.05 (Russell 2000 Value TR USD)
- ▶ **R<sup>2</sup>:** 97.66 (Russell 2000 Value TR USD)
- ▶ **Turnover (annualized)<sup>β</sup>:** 13.00
- ▶ **Net Assets:** \$10.5 billion
- ▶ **Underlying fund expense ratios:**
  - Gross\* 0.29%
  - Net\* 0.29%
- ▶ **Market Cap (millions):** 3014.15

## Morningstar Information\*\*\* (as of 9-30-22)<sup>α</sup>

- ▶ **Overall Morningstar Rating™:** ★ ★ ★ ★
- ▶ **Overall # of Funds in Category:** 443
- ▶ **Morningstar Category<sup>6A</sup>:** Small Value
- ▶ **No. of funds:** 3yr 443; 5yr 417; 10yr 316

The Overall Morningstar Rating™ for the underlying fund is derived from a weighted average of the performance figures associated with its three-, five- and 10-year (if applicable) Morningstar Rating™ metrics. The rating formula most heavily weights the three year rating, using the following calculation: 100% three-year rating for 36-59 months of total returns, 60% five-year rating/40% three-year rating for 60-119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. Rating does not include the effects of sales charges, loads, and redemption fees. Past performance does not guarantee future results. Ratings are as follows: 3yr=4; 5yr=4; 10yr=4. See Important Notes for the rating criteria.

\* 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.<sup>A</sup>

# ¥ 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.

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 [myplan.johnhancock.com](http://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, 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.

⁶Average Credit Quality is from a Nationally Recognized Statistical Rating Organization (NRSRO).

## John Hancock conducts business in English

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 15.00 or higher, the Fund is classified as "Aggressive;" between 13.00 and 14.99 as "Growth;"

between 7.00 and 12.99 as "Growth & Income;" between 2.00 and 6.99 as "Income;" and 1.99 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 [myplan.johnhancock.com](http://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 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:

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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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<sup>A</sup>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.

#### 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.

i49. Russell 2000 Value Index: The index measures the performance of small-cap value segment of the US equity universe. It includes those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values. It is market-capitalization weighted. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

#### 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 ©2022 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.

p26. Small Value: Small-value portfolios invest in small U.S. companies with valuations and growth rates below other small-cap peers. Stocks in the bottom 10% of the capitalization of the U.S. equity market are defined as small-cap. Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

#### Key Statistics

<sup>5</sup>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<sup>†</sup>

##### 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&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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**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.**

Group annuity contracts and recordkeeping agreements are issued by John Hancock Life Insurance Company (U.S.A.), Boston, MA (not licensed in New York). John Hancock Life Insurance Company (U.S.A.) makes available a platform of investment alternatives to sponsors or administrators of retirement plans without regard to the individualized needs of any plan. Unless otherwise specifically stated in writing, John Hancock Life Insurance Company (U.S.A.) does not, and is not undertaking to, provide impartial investment advice or give advice in a fiduciary capacity. Securities are offered through John Hancock Distributors LLC, member FINRA, SIPC.

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