

Prospectus Supplement

**John Hancock Funds II
John Hancock Retirement Income 2040 Fund (the fund)**

Supplement dated December 13, 2021 to the current Summary Prospectus (the Summary Prospectus), as may be supplemented

At its meeting held on December 6–9, 2021, the Board of Trustees of John Hancock Funds II (the Board) approved the closing and liquidation of the fund pursuant to a Plan of Liquidation approved by the Board. The Board determined that continuation of the fund is not in the best interests of the fund or its shareholders, as a result of factors or events adversely affecting the fund's ability to conduct its business and operations in an economically viable manner. The fund generally will not accept orders to purchase shares of the fund beginning on or about January 13, 2022, except at the fund's sole discretion; however, discretionary fee-based advisory programs and/or certain retirement accounts that include the fund as an investment option as of that date, may continue to make shares of the fund available to new and existing accounts. As of the close of business on or about April 22, 2022 (the Liquidation Date), it is expected that there will not be any shareholders in the fund, however, to the extent shareholders remain in the fund, the fund will distribute pro rata all of its assets to any remaining shareholders, all outstanding shares will be redeemed and cancelled, and the fund will be liquidated as of the close of business on the Liquidation Date.

For more information, please call John Hancock Investment Management at 800-225-5291.

You should read this Supplement in conjunction with the Summary Prospectus and retain it for your future reference.

621R6SPS_12/13/21

Prospectus Supplement

**John Hancock Funds II
John Hancock Retirement Income 2040 Fund (the fund)**

Supplement dated December 9, 2021 to the current Summary Prospectus (the Summary Prospectus), as may be supplemented

At its meeting held on December 6–9, 2021, the Board of Trustees of John Hancock Funds II (the Board) approved the closing and liquidation of the fund pursuant to a Plan of Liquidation approved by the Board. The Board determined that continuation of the fund is not in the best interests of the fund or its shareholders, as a result of factors or events adversely affecting the fund's ability to conduct its business and operations in an economically viable manner. As of the close of business on or about April 22, 2022, there are not expected to be any shareholders in the fund, and the fund will be liquidated on such date.

For more information, please call John Hancock Investment Management at 800-225-5291.

You should read this Supplement in conjunction with the Summary Prospectus and retain it for your future reference.

621R6SPS_12/9/21

John Hancock Retirement Income 2040 Fund

Summary prospectus 5/1/21

Before you invest, you may want to review the fund's prospectus, which contains more information about the fund and its risks. You can find the fund's prospectus and other information about the fund, including the Statement of Additional Information and most recent reports, online at www.jhinvestments.com/prospectuses. You can also get this information at no cost by calling 888-972-8696 or by sending an email request to info@jhinvestments.com. The fund's prospectus and Statement of Additional Information, both dated 5/1/21, as may be supplemented, and most recent financial highlights information included in the shareholder report, dated 12/31/20, are incorporated by reference into this summary prospectus.

TICKERS

R6: JRIFX

INVESTMENT OBJECTIVE

To maintain and maximize regular cash distributions through December 2040 and to grow such distributions over time.

FEES AND EXPENSES

This table describes the fees and expenses you may pay if you buy, hold, and sell shares of the fund.

Shareholder fees (fees paid directly from your investment)	R6
Maximum front-end sales charge (load)	None
Maximum deferred sales charge (load)	None
Annual fund operating expenses (%) (expenses that you pay each year as a percentage of the value of your investment)	R6
Management fee	0.40
Other expenses	0.57
Acquired fund fees and expenses ¹	0.07
Total annual fund operating expenses²	1.04
Contractual expense reimbursement ³	-0.55
Total annual fund operating expenses after expense reimbursements	0.49

- ¹ "Acquired fund fees and expenses" are based on indirect net expenses associated with the fund's investments in underlying investment companies.
- ² The "Total annual fund operating expenses" shown may not correlate to the fund's ratios of expenses to average daily net assets shown in the "Financial highlights" section of the fund's prospectus, which does not include "Acquired fund fees and expenses."
- ³ To the extent that expenses of Class R6 shares exceed 0.42% of average annual net assets (on an annualized basis) attributable to Class R6 shares (expense limitation), the advisor contractually agrees to reduce its management fee or, if necessary, make payment to the class in an amount equal to the amount by which expenses of the share class exceed the expense limitation. Expenses means all fund-level and class-specific operating expenses, excluding (a) taxes, (b) brokerage commissions, (c) interest expense, (d) acquired fund fees and expenses paid indirectly, (e) litigation and indemnification expenses and other extraordinary expenses not incurred in the ordinary course of the fund's business; (f) borrowing costs; (g) prime brokerage; and (h) short dividend expense. The expense limitation expires on April 30, 2022, unless renewed by mutual agreement of the fund and the advisor based upon a determination that this is appropriate under the circumstances at that time.

EXPENSE EXAMPLE

This example is intended to help you compare the cost of investing in the fund with the cost of investing in other mutual funds. Please see below a hypothetical example showing the expenses of a \$10,000 investment for the time periods indicated and then assuming you sell all of your shares at the end of those periods. The example assumes a 5% average annual return and that fund expenses will not change over the periods. Although your actual costs may be higher or lower, based on these assumptions, your costs would be:

Expenses (\$)	R6
Shares	
1 year	50
3 years	276
5 years	521
10 years	1,221

PORTFOLIO TURNOVER

The fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the fund's performance. During its most recent fiscal year, the fund's portfolio turnover rate was 26% of the average value of its portfolio.

John Hancock Retirement Income 2040 Fund

PRINCIPAL INVESTMENT STRATEGIES

Under normal market conditions, the fund invests in one or more underlying funds and other investments according to a “spend-down” (self-liquidating) distribution strategy designed to provide shareholders with regular cash distributions through December 2040. Distributions may include income, capital gains, and a return of capital. The fund anticipates that such distributions will be made on a quarterly basis, but the fund may increase or decrease distribution frequency in the future.

The fund may allocate investments among asset classes including, but not limited to, equity, fixed-income, and cash and cash equivalents (including money market funds), as well as underlying funds that invest in such securities. The fund may invest in securities of domestic and foreign issuers of any market capitalization. The fund’s asset allocation strategy is designed to accommodate the fund’s investment objective of maintaining and potentially increasing cash distributions through December 2040. The fund is not a traditional target date fund, in that it does not seek total return driven by a target retirement date. Rather, the manager uses a quantitative liability-driven investment (LDI) approach that seeks to manage duration and balance investment risk and return while providing distribution payments through December 2040. The fund’s investment allocations may vary. The fund may focus its investments in a particular sector or sectors of the economy.

The fund expects to allocate its assets broadly in its earlier years of operation. The manager intends to hold significant exposures to investment-grade fixed-income securities, combined with a smaller weighting of equity investments.

The fund intends to gain exposure to fixed-income investments with a wide range of durations. The fund anticipates that the average duration of fixed-income holdings across the portfolio will be longer initially than it will be as the fund approaches its investment horizon, with average duration decreasing over time. The fund typically will have a greater exposure to fixed-income securities than to equity securities, although these allocations are not static and may be changed at the manager’s discretion. The fund’s exposure to equity securities is designed to provide growth of capital, which may result in increased distributions over time. The fund may be exclusively or nearly exclusively exposed to fixed-income securities or cash and cash equivalents as it nears its investment horizon.

The fund does not guarantee that any particular level of distributions will be maintained until December 2040. The target distribution amount per share for the fund’s scheduled distributions will be determined in advance based on considerations including fund performance and market conditions, although it may vary from year to year or more frequently at the manager’s discretion. While the fund seeks to generate a stable distribution with potential periodic increases over time, distribution amounts are not fixed and may not be the same for each distribution. In addition, the fund’s net assets are expected to decline over the life of the fund, with all or substantially all of the fund’s assets being distributed by December 2040.

The fund anticipates that distributions will consist primarily of investment income, short-term and/or long-term capital gains, and return of capital. The portion of distributions treated as a return of capital for tax purposes may increase over time, particularly as the fund nears its investment horizon. A return of capital is the return of all or a portion of a shareholder’s investment in the fund. The fund may make one or more additional distributions annually consisting wholly or in part of realized capital gains, consistent with applicable law, to satisfy the requirements for eligibility as a regulated investment company that is accorded special tax treatment under the Internal Revenue Code of 1986, as amended, (the “Code”) and to reduce or eliminate tax at the fund-level. For the strategy to work as intended, any such additional distribution should be reinvested in the fund. For more information about the fund’s distribution policies, see “Dividends and Account Policies” on page 25 of this prospectus.

The fund may engage in derivative transactions, including foreign currency forward contracts, futures contracts, swaps, and options, to reduce risk, obtain efficient market exposure, and/or enhance investment returns.

PRINCIPAL RISKS

An investment in the fund is not a bank deposit and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Many factors affect performance, and fund shares will fluctuate in price, meaning you could lose money. The fund’s investment strategy may not produce the intended results.

During periods of heightened market volatility or reduced liquidity, governments, their agencies, or other regulatory bodies, both within the United States and abroad, may take steps to intervene. These actions, which could include legislative, regulatory, or economic initiatives, might have unforeseeable consequences and could adversely affect the fund’s performance or otherwise constrain the fund’s ability to achieve its investment objective.

The fund’s main risks are listed below in alphabetical order, not in order of importance. *Before investing, be sure to read the additional descriptions of these risks beginning on page 8 of the prospectus.*

Changing distribution levels risk. The fund may cease or reduce the level of its distribution or make a greater return of capital if income or dividends paid from its investments declines.

Credit and counterparty risk. The issuer or guarantor of a fixed-income security, the counterparty to an over-the-counter derivatives contract, or a borrower of fund securities may not make timely payments or otherwise honor its obligations. A downgrade or default affecting any of the fund’s securities could affect the fund’s performance.

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

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

Equity securities risk. The price of equity securities may decline due to changes in a company’s financial condition or overall market conditions.

John Hancock Retirement Income 2040 Fund

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

Foreign securities risk. Less information may be publicly available regarding foreign issuers, including foreign government issuers. Foreign securities may be subject to foreign taxes and may be more volatile than U.S. securities. Currency fluctuations and political and economic developments may adversely impact the value of foreign securities. Any depositary receipts are subject to most of the risks associated with investing in foreign securities directly because the value of a depositary receipt is dependent upon the market price of the underlying foreign equity security. Depositary receipts are also subject to liquidity risk.

Fund of funds risk. The fund's ability to achieve its investment objective will depend largely, in part, on: (i) the underlying funds' performance, expenses and ability to meet their investment objectives; and (ii) properly rebalancing assets among underlying funds and different asset classes. The fund is also subject to risks related to: (i) layering of fees of the underlying funds; and (ii) conflicts of interest associated with the subadvisor's ability to allocate fund assets without limit to other funds it advises and/or other funds advised by affiliated subadvisors. There is no assurance that either the fund or the underlying funds will achieve their investment objectives. A fund bears underlying fund fees and expenses indirectly.

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

Investment company securities risk. Underlying fund fees and expenses associated with investments in other investment companies are borne by fund shareholders.

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

Liquidity risk. The extent (if at all) to which a security may be sold or a derivative position closed without negatively impacting its market value may be impaired by reduced market activity or participation, legal restrictions, or other economic and market impediments. Liquidity risk may be magnified in rising interest rate environments due to higher than normal redemption rates. Widespread selling of fixed-income securities to satisfy redemptions during periods of reduced demand may adversely impact the price or salability of such securities. Periods of heavy redemption could cause the fund to sell assets at a loss or depressed value, which could negatively affect performance. Redemption risk is heightened during periods of declining or illiquid markets.

Quantitative modeling risk. Quantitative models may not accurately predict future market movements or characteristics, which may negatively impact performance. Models also may perform differently than expected due to implementation problems, technological malfunction, or programming or data inaccuracies, among other possible issues.

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

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

Spend-down risk. The fund is designed for investors in retirement who intend to spend down their holdings in the fund. However, the fund is not a complete retirement program, there is no guarantee that the fund will provide sufficient retirement income, and the target distribution amount per share may vary. The fund's distributions are expected to result in a significant reduction in fund assets over time, which could result in an increase to the fund's expense ratio as fixed fund expenses are spread over a smaller asset base.

The fund is not a traditional target date fund and the fund's risk profile may be more or less aggressive from year to year or compared to any given time. Your risk tolerance may change over time and the manager may change the fund's long-term risk and return target for various reasons, including, but not limited to, in response to fund performance. For example, to the extent the fund underperforms (or outperforms) the long term risk and return target for a given year, it may lead to a decrease (or increase) in the target distribution rate or an increase (or decrease) in the long-term risk and return target in subsequent years.

Because the manager anticipates setting the target distribution amount periodically, it may not reflect any subsequent changes to the assumptions upon which it is calculated, including changes in the manager's assumptions regarding future market performance. The manager may modify the target distribution amount during the year at its discretion.

The fund's distributions are expected to include a return of capital to shareholders, and the fund expects that the amount of assets available for investment by the fund will decrease over time.

An investment in the fund could lose money over any time horizon because the fund allocates assets across different asset classes and investments with different risk and return characteristics.

PAST PERFORMANCE

The following information illustrates the variability of the fund's returns and provides some indication of the risks of investing in the fund by showing changes in the fund's performance from year to year and by showing how the fund's average annual returns compared with a broad-based market index. Past performance (before and after taxes) does not indicate future results. All figures assume dividend reinvestment. Performance information is updated daily, monthly, and quarterly and may be obtained at our website, jhinvestments.com, or by calling 888-972-8696 between 8:30 A.M. and 5:00 P.M., Eastern time, on most business days.

Please note that after-tax returns reflect the highest individual federal marginal income-tax rate in effect as of the date provided and do not reflect any state or local taxes. Your actual after-tax returns may be different. After-tax returns are not relevant to shares held in an IRA, 401(k), or other tax-advantaged investment plan.

John Hancock Retirement Income 2040 Fund

Calendar year total returns (%)—Class R6

	2018	2019	2020
	-4.08	15.15	10.45

A bar chart showing the calendar year total returns for Class R6. The x-axis represents the years 2018, 2019, and 2020. The y-axis represents the percentage return. The bars are dark red. The 2018 bar is below the zero line, indicating a negative return of -4.08%. The 2019 bar is above the zero line, indicating a positive return of 15.15%. The 2020 bar is also above the zero line, indicating a positive return of 10.45%.

Year-to-date total return. The fund's total return for the three months ended March 31, 2021, was -5.20%.

Best quarter: Q1 2019, 6.15%

Worst quarter: Q4 2018, -2.37%

Average annual total returns (%)—as of 12/31/20	1 year	Since inception (07/06/17)
Class R6 (before tax)	10.45	7.21
after tax on distributions	9.22	5.46
after tax on distributions, with sale	6.18	4.92
Bloomberg Barclays U.S. Aggregate Bond Index (reflects no deduction for fees, expenses, or taxes)	7.51	4.97

INVESTMENT MANAGEMENT

Investment advisor John Hancock Investment Management, LLC

Subadvisor Manulife Investment Management (North America) Limited

PORTFOLIO MANAGEMENT

Sonia Chatigny, MSc, CFA

Managing Director and Portfolio Manager

Managed fund since 2017

Jean-François Giroux, MSc, FRM, CFA

Managing Director and Portfolio Manager

Managed fund since 2017

Serge Lapierre, BSc, FCIA, FSA

Senior Managing Director, Global Head of

Liability Driven Investments

Managed fund since 2017

Nadia Live, MScA, CFA

Managing Director and Portfolio Manager

Managed fund since 2017

Nicholas Scipio del Campo, BSc, MSc, CFA

Managing Director and Portfolio Manager

Managed fund since 2017

PURCHASE AND SALE OF FUND SHARES

The minimum initial investment requirement for Class R6 shares is \$1 million, except that there is no minimum for: qualified and nonqualified plan investors; certain eligible qualifying investment product platforms; Trustees, employees of the advisor or its affiliates, employees of the subadvisor, members of the fund's portfolio management team and the spouses and children (under age 21) of the aforementioned. There are no subsequent minimum investment requirements for Class R6 shares.

Class R6 shares may be redeemed on any business day by mail: John Hancock Signature Services, Inc., P.O. Box 219909, Kansas City, MO 64121-9909; or for most account types through our website: jhinvestments.com; or by telephone: 888-972-8696.

TAXES

The fund's distributions are generally taxable, and will be taxed as ordinary income and/or capital gains, unless you are investing through a tax-deferred arrangement, such as a 401(k) plan or individual retirement account. Withdrawals from such tax-deferred arrangements may be subject to tax at a later date. Amounts treated as dividends will be taxed as ordinary income and/or capital gains. A significant portion of the fund's distributions may be treated as returns of capital. A return of capital is generally not taxable, but it reduces your tax basis in your shares, thus increasing any gain or reducing any loss on a subsequent taxable disposition of your shares. Once a shareholder's cost basis in his or her shares has been reduced to zero, any balance of such distributions will be treated as a capital gain.

RETIREMENT INVESTING

Many investors entering retirement face decisions regarding the best use of their accumulated savings. Many retirees plan to use their savings to meet regular expenses but would also like to grow their distributions over time. Traditionally, these investors have had limited investment options at retirement to generate income from their accumulated savings to meet expenses, including:

- A "planned withdrawal program," in which the retiree withdraws a pre-determined amount of assets over a specified period while investing remaining assets for long-term growth or other goals.
- A "guaranteed income option," in which the retiree transfers accumulated savings to an insurance company or other provider, which then offers guaranteed income over a set period of time.

John Hancock Retirement Income 2040 Fund

- A “spend-only-the-income strategy,” in which the retiree receives the dividend and interest income generated by his or her portfolio to meet regular expenses, but seeks to maintain the principal amount at a constant level over time.

The fund includes elements of a planned withdrawal program in that it aims to generate regular payments to help retirees meet retirement expenses. The fund is not an annuity and does not provide any guarantees.

INVESTING IN THE RETIREMENT INCOME 2040 FUND

This prospectus provides information about the John Hancock Retirement Income 2040 Fund, which combines a “spend-down” self-liquidating distribution policy with an LDI strategy designed to maximize regular cash distributions through December 2040 and to grow such distributions over time, each to the extent the manager believes consistent with the maintenance of such distributions through December 2040. While the fund seeks to generate stable and potentially increasing distributions over time, amounts distributed per share are not fixed and may not be the same for each distribution. There can be no assurance, and there is no guarantee, that the fund will provide a fixed or steady cash distribution rate over time. An investment in the fund could lose money over short, intermediate, or even long periods of time.

In deciding whether the fund is an appropriate investment for you, it is important to consider how the fund is expected to perform over time, among other key considerations. There is no guarantee that the fund will achieve its investment objective or that its investment strategies will succeed. The fund generally expects to distribute to shareholders substantially all of its net income (for example, interest and dividends) as well as substantially all of its net capital gains (for example, from the sale of its holdings or capital gain dividends from other funds it holds). In addition, the fund expects that its distributions may include a return of capital.

Self-Liquidating Funds. Self-liquidating funds such as the fund are specifically designed to make regular cash distributions sourced from investment returns and return of capital, gradually resulting in a market value close to zero by a scheduled termination date.

Retirement Investing: “Real” Returns versus “Nominal” Returns. Many retirees utilize an investment portfolio to meet current and future spending needs. A retiree may be able to generate enough cash to meet current spending needs through accumulated retirement savings; however, he or she should consider how inflation can diminish the purchasing power of a retirement portfolio over time. Inflation, which can be described generally as the increase in the price of goods and services, can greatly reduce a long-term investor’s purchasing power. Unless the investment returns of a retirement portfolio keep pace with inflation, the purchasing power associated with the retirement portfolio will decline over time, with the risk that the portfolio ultimately fails to generate high enough cash distributions to cover a retiree’s expenses. Given that the effects of inflation increase over time, inflation is a particularly important issue for investors that seek to generate income over a long period of time.

As a result of inflationary pressure, a retirement-oriented investment portfolio should be evaluated not only for its expected absolute total return (the “nominal” return) but also for its inflation-adjusted return (the “real” return). Note that, because some services such as health care may make up a large portion of personal spending in retirement, it may not be appropriate to base investment decisions on a broad inflation average, such as the consumer price index. Ideally, an investor should seek real returns that match his or her expected retirement spending rate that accounts for predicted (and unplanned) expenses that may occur during retirement.

Distributions. Investors are entitled to their portion of the fund’s income generated from interest, dividends, and other sources as well as capital gains from the fund’s sale of investments. Income may consist of dividends from the fund’s stock holdings and interest the fund receives from its money market and bond investments. The fund realizes capital gains when it sells its investments for more than it paid for such investments or when the fund receives certain distributions or allocations from underlying funds it holds. Capital gains from underlying funds are classified as either short-term or long-term, depending on whether the fund held the applicable investment in the underlying fund for one year or less or for more than one year. The portion of distributions treated as a return of capital for tax purposes may increase over time, particularly as the fund nears the date of its expected final distribution in December 2040.

Return of Capital. The fund expects to make distributions that are at least partially treated as return of capital, which represents the return of an investor’s original investment in the fund. A return of capital is generally not taxable to an investor, but it reduces the investor’s cost basis in its shares of the fund, thus increasing any gain or reducing any loss on a subsequent taxable disposition of the investor’s shares, and will decrease (and may eventually exhaust) the value of the shares held by the investor.

John Hancock Retirement Income 2040 Fund

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