

Summary prospectus

John Hancock ESG Core Bond Fund

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 800-225-5291 (Class A) or 888-972-8696 (Class I and Class R Suite) or by sending an email request to info@jhinvestments.com. The fund's prospectus and Statement of Additional Information, both dated 10/1/22, as may be supplemented, and most recent financial highlights information included in the shareholder report, dated 5/31/22, are incorporated by reference into this summary prospectus.

Tickers

A: JBOAX I: JBOIX R6: JBORX

Investment objective

To seek total return consisting of income and capital appreciation consistent with preservation of capital and maintenance of liquidity.

Fees and expenses

This table describes the fees and expenses you may pay if you buy, hold, and sell shares of the fund. **You may pay other fees, such as brokerage commissions and other fees to financial intermediaries, which are not reflected in the tables and examples below.** You may qualify for sales charge discounts on Class A shares if you and your family invest, or agree to invest in the future, at least \$100,000 in the John Hancock family of funds. Intermediaries may have different policies and procedures regarding the availability of front-end sales charge waivers or contingent deferred sales charge (CDSC) waivers (See Appendix 1 - Intermediary sales charge waivers, which includes information about specific sales charge waivers applicable to the intermediaries identified therein). More information about these and other discounts is available from your financial professional and on pages 20 to 22 of the prospectus under "Sales charge reductions and waivers" or pages 113 to 117 of the fund's Statement of Additional Information under "Sales Charges on Class A and Class C Shares."

Shareholder fees (%) (fees paid directly from your investment)

	A	I	R6
Maximum front-end sales charge (load) on purchases, as a % of purchase price	4.00	None	None
Maximum deferred sales charge (load) as a % of purchase or sale price, whichever is less	1.00 (on certain purchases, including those of \$1 million or more)	None	None
Small account fee (for fund account balances under \$1,000) (\$)	20	None	None

Annual fund operating expenses (%) (expenses that you pay each year as a percentage of the value of your investment)

	A	I	R6
Management fee	0.45	0.45	0.45
Distribution and service (Rule 12b-1) fees	0.25	0.00	0.00
Other expenses	0.40	0.40	0.30
Total annual fund operating expenses	1.10	0.85	0.75
Contractual expense reimbursement ¹	-0.29	-0.29	-0.29
Total annual fund operating expenses after expense reimbursements	0.81	0.56	0.46

¹ The advisor contractually agrees to reduce its management fee or, if necessary, make payment to the fund in an amount equal to the amount by which expenses of the fund exceed 0.45% of average daily net assets of the fund. For purposes of this agreement, "expenses of the fund" means all fund expenses, excluding (a) taxes, (b) brokerage commissions, (c) interest expense, (d) litigation and indemnification expenses and other extraordinary expenses not incurred in the ordinary course of the fund's business, (e) class-specific expenses, (f) borrowing costs, (g) prime brokerage fees, (h) acquired fund fees and expenses paid indirectly, and (i) short dividend expense. This agreement expires on September 30, 2023, unless renewed by mutual agreement of the advisor and the fund based upon a determination that this is appropriate under the circumstances at that time. The advisor also contractually agrees to waive a portion of its management fee and/or reimburse expenses for the fund and certain other John Hancock funds according to an asset level breakpoint schedule that is based on the aggregate net assets of all the funds participating in the waiver or reimbursement. This waiver is allocated proportionally among the participating funds. During its most recent fiscal year, the fund's reimbursement amounted to 0.01% of the fund's average daily net assets. This agreement expires on July 31, 2024, 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 (\$)	A	I	R6
Shares			
1 year	479	57	47
3 years	708	242	211
5 years	955	443	388
10 years	1,662	1,022	903

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 47% of the average value of its portfolio.

Principal investment strategies

Under normal circumstances, the fund invests at least 80% of its net assets (plus any borrowings for investment purposes) in investment-grade bonds and other fixed-income securities that meet the manager’s sustainability criteria. The manager seeks to invest in companies meeting its sustainability criteria, including companies with strong (including above-average and/or improving) environmental, social, and governance (ESG) risk profiles. The manager seeks to maintain an effective duration within approximately six months of the portfolio duration of the securities comprising the fund’s benchmark index, the Bloomberg U.S. Intermediate Government/Credit Index. As of June 30, 2022, the duration of the fund’s benchmark index was 3.96 years. A debt security is investment grade when assigned a credit rating of BBB– or higher by S&P Global Ratings, or an equivalent rating by another nationally recognized statistical rating organization, including Moody’s Investors Service or Fitch Ratings, or if unrated, considered to be of comparable credit quality by the fund’s subadvisor. The fund’s investment policies are based on credit ratings at the time of purchase.

Based on the manager’s discretion, the fund may at times continue to own securities that have been downgraded to a below-investment-grade credit rating, such as when the security in question is nearing maturity. Under normal circumstances, the fund’s portfolio will maintain an average credit rating of investment grade.

The fund invests primarily in a broad range of investment grade bonds and fixed-income securities, including, but not limited to, corporate bonds and debentures, municipal securities (both taxable and tax-exempt) issued by local government authorities, mortgage-backed and asset-backed securities, securities issued by the U.S. government or its related agencies, securities issued by foreign governments and corporations, and securities issued by supranational entities.

The fund may invest in U.S. dollar-denominated securities of foreign governments and corporations. Under normal conditions, the fund does not anticipate investing more than 20% of its total assets in U.S. dollar-denominated foreign securities.

The fund’s manager utilizes an investment process that combines fundamental credit research with analysis of ESG metrics. Environmental assessment involves issues such as carbon emissions, pollution, and renewable energy. Social assessment involves issues such as supply chain, discrimination, and human rights. Governance assessment involves issues such as executive compensation, ownership and control, and diverse and independent directors.

The fund’s manager has an investment committee that sets duration parameters, yield curve positioning/maturity distribution, and asset allocation parameters for the fund. The manager primarily allocates fund assets among corporate bonds, municipal bonds, asset-backed securities, mortgage-backed securities, and government-related securities according to these parameters. Asset allocation decisions are paired with the manager’s fundamental credit research and ESG analysis to determine which securities the fund will invest in. Under normal circumstances, the manager expects to allocate a portion of the fund’s portfolio to each of corporate bonds, municipal bonds, asset-backed securities, mortgage-backed securities, and government-related securities.

Potential corporate bond investments are evaluated using a proprietary framework that aggregates ESG metrics and data from external research providers and other third-party sources. The manager selects corporate bond investments that it considers to be best in class relative to their peers based on a set of factors specific to each sector, such as technology, energy, or financials. Corporate bond investments the manager views as best in class are those that have an above-average or improving ESG profile relative to their peers. Factors resulting in a “best in class” ESG profile may include low or improving pollution or emissions, exemplary health and safety records, minimal risk related to controversies, strong disclosure and

transparency policies, and independent board member representation among others. The manager may also elect to purchase corporate bonds where the proceeds of those bonds are specifically earmarked to fund projects or initiatives with an environmental and/or social focus.

Potential municipal bond investments are evaluated according to the manager's assessment of material ESG issues relevant to a specific sector, such as school districts, public utilities, or hospitals. The manager selects municipal bond investments that it considers to be best in class relative to their peers, based on a set of factors specific to each sector and an evaluation of the issuer's use of proceeds. Factors resulting in a "best in class" ESG profile may include environmental initiatives, income distribution and median income trends, employment sector diversity, and access to high-quality and affordable school systems, housing, and healthcare.

Potential mortgage-backed securities eligibility is based on the proceeds of the bonds which are used to provide stability, affordability, and liquidity to the U.S. housing market and foster sustainable homeownership. The manager incorporates key climate risk data points that allow for a more complete assessment of the risks faced from the acceleration of mortgage prepayments, as the result of natural disasters. Examples of material metrics include, but are not limited to, GSE buyout policies related to natural disasters, examining the regional breakdown of the MBS pool and the assessment of climate risks including flooding, water stress, heat stress and hurricanes. Potential commercial mortgage-backed securities eligibility is based on the proceeds of the bonds which are used to provide stability, affordability, and liquidity to the U.S. commercial real estate market including agency programs that support multifamily housing.

Potential asset-backed securities (ABS) are evaluated according to the manager's assessment of material ESG issues for the ABS sectors. The assessment utilizes sector specific metrics across ESG categories, insights from third-party data providers, our analysts' qualitative assessment and a sector-level risk evaluation. Examples of material metrics incorporated in the framework include energy use and waste management policies, health and safety policies and the level of Board independence for a given ABS issuer. ABS investments that the manager views as "best in class" are those where the issuer has an above-average ESG risk profile relative to their peers. The manager may also elect to purchase ABS bonds where the proceeds of those bonds are specifically earmarked to fund projects or initiatives with an environmental and/or social focus.

The manager may elect to upgrade or downgrade its opinion of an issuer's ESG risk profile, which could impact whether the manager buys or sells a bond issued by that particular entity.

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 7 of the prospectus.*

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

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

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.

ESG investing risk. Incorporating ESG criteria and investing primarily in instruments that have certain ESG characteristics, as determined by the manager, carries the risk that the fund may perform differently, including underperforming, funds that do not utilize an ESG investment strategy, or funds that utilize different ESG criteria.

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. If applicable, 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.

Liquidity risk. The extent (if at all) to which a security may be sold 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.

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

Operational and cybersecurity 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.

Taxable and non-taxable municipal bond risk. Taxable municipal bond prices can decline if the issuer's credit quality declines. Revenue bond prices can decline if related projects become unprofitable. An insured municipal bond is subject to the risk that the insurer may be unable to pay claims and is not insured with respect to the market value of the obligation. The interest earned on taxable municipal securities is fully taxable at the federal level and may be subject to tax at the state level.

U.S. Government agency obligations risk. U.S. government-sponsored entities such as Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal Home Loan Banks, although chartered or sponsored by Congress, are not funded by congressional appropriations and the debt securities that they issue are neither guaranteed nor issued by the U.S. government. Such debt securities are subject to the risk of default on the payment of interest and/or principal, similar to the debt securities of private issuers. The maximum potential liability of the issuers of some U.S. government obligations may greatly exceed their current resources, including any legal right to support from the U.S. government. Although the U.S. government has provided financial support to Fannie Mae and Freddie Mac in the past, there can be no assurance that it will support these or other government-sponsored entities in the future.

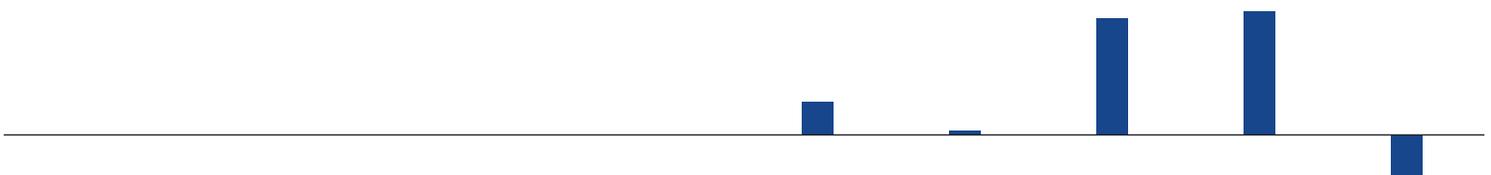
Past performance

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 800-225-5291 (Class A), Monday to Thursday, 8:00 A.M.—7:00 P.M., and Friday, 8:00 A.M.—6:00 P.M., Eastern time, or 888-972-8696 (Class I and Class R6) between 8:30 A.M. and 5:00 P.M., Eastern time, on most business days.

Please note that after-tax returns (shown for Class A shares only) 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. After-tax returns for other share classes would vary.

Calendar year total returns (%)—Class A (sales charges are not reflected in the bar chart and returns would have been lower if they were)

	2017	2018	2019	2020	2021
	1.66	0.20	5.89	6.21	-2.19



Year-to-date total return. The fund's total return for the six months ended June 30, 2022, was -7.25%.

Best quarter: 2020, Q2, 3.08%

Worst quarter: 2021, Q1, -2.05%

Average annual total returns (%)—as of 12/31/21	1 year	5 Year	Since inception (12/14/16)
Class A (before tax)	-6.09	1.47	1.58
after tax on distributions	-6.88	0.63	0.74
after tax on distributions, with sale	-3.48	0.79	0.87
Class I	-1.94	2.56	2.66
Class R6	-1.84	2.66	2.77
Bloomberg U.S. Intermediate Government/Credit Index (reflects no deduction for fees, expenses, or taxes)	-1.44	2.91	2.93

Investment management

Investment advisor John Hancock Investment Management LLC

Subadvisor Breckinridge Capital Advisors, Inc.

Portfolio management

The following individuals are jointly and primarily responsible for the day-to-day management of the fund's portfolio.

Matthew C. Buscone

Co-Portfolio Manager

Managed the fund since 2016

Sara Chanda

Co-Portfolio Manager

Managed the fund since 2016

Khurram Gillani

Co-Portfolio Manager

Managed the fund since 2016

Jeffrey M. Glenn, CFA

Co-Portfolio Manager

Managed the fund since 2016

Purchase and sale of fund shares

The minimum initial investment requirement for Class A shares is \$1,000 (\$250 for group investments), except that there is no minimum for certain group retirement plans, certain fee-based or wrap accounts, or certain other eligible investment product platforms. The minimum initial investment requirement for Class I shares is \$250,000, except that the fund may waive the minimum for any category of investors at the fund's sole discretion. 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 any of these share classes.

Class A, Class I, and 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: 800-225-5291 (Class A); 888-972-8696 (Class I and Class R6).

Taxes

The fund's distributions are 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.

Payments to broker-dealers and other financial intermediaries

If you purchase the fund through a broker-dealer or other financial intermediary (such as a bank, registered investment advisor, financial planner, or retirement plan administrator), the fund and its related companies may pay the broker-dealer or other intermediary for the sale of fund shares and related services. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary and your salesperson to recommend the fund over another investment. These payments are not applicable to Class R6 shares. Ask your salesperson or visit your financial intermediary's website for more information.



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200 Berkeley Street Boston, MA 02116
800-225-5291, jihinvestments.com

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