

Semiannual report

John Hancock Alternative Asset Allocation Fund

Alternative

February 28, 2022

A message to shareholders



Dear shareholder,

While the U.S. and international stock markets largely posted gains for the last months of 2021, the start of 2022 has been a different story. Overall, stocks declined for the full period of six months ended February 28, 2022, rocked by concern over Russia's aggression in Ukraine, high inflation, and the U.S. Federal Reserve's aggressive stance on interest-rate increases. The fact that Russia and Ukraine are major suppliers of the world's wheat supply—and Russia is a key exporter of oil, natural gas, and coal—further escalated supply chain and inflation fears.

The global bond markets continued to decline as bond yields remained on an upward trajectory. Rising inflation, driven primarily by surging energy and food prices, remained a key factor pushing global bond yields higher as investors priced in inflation-fighting interest rate increases by many of the world's central banks. The conflict between Russia and Ukraine halted the climb in global bond yields as economic sanctions against Russia and an uncertain outcome to the war fueled investor demand for the relative safety of government bonds.

In these uncertain times, your financial professional can assist with positioning your portfolio so that it's sufficiently diversified to help meet your long-term objectives and to withstand the inevitable bouts of market volatility along the way.

On behalf of everyone at John Hancock Investment Management, I'd like to take this opportunity to welcome new shareholders and thank existing shareholders for the continued trust you've placed in us.

Sincerely,

A handwritten signature in black ink that reads "Andrew Arnott". The signature is fluid and cursive, with the first name "Andrew" and last name "Arnott" clearly legible.

Andrew G. Arnott
President and CEO,
John Hancock Investment Management
Head of Wealth and Asset Management,
United States and Europe

This commentary reflects the CEO's views as of this report's period end and are subject to change at any time. Diversification does not guarantee investment returns and does not eliminate risk of loss. All investments entail risks, including the possible loss of principal. For more up-to-date information, you can visit our website at jihinvestments.com.

John Hancock Alternative Asset Allocation Fund

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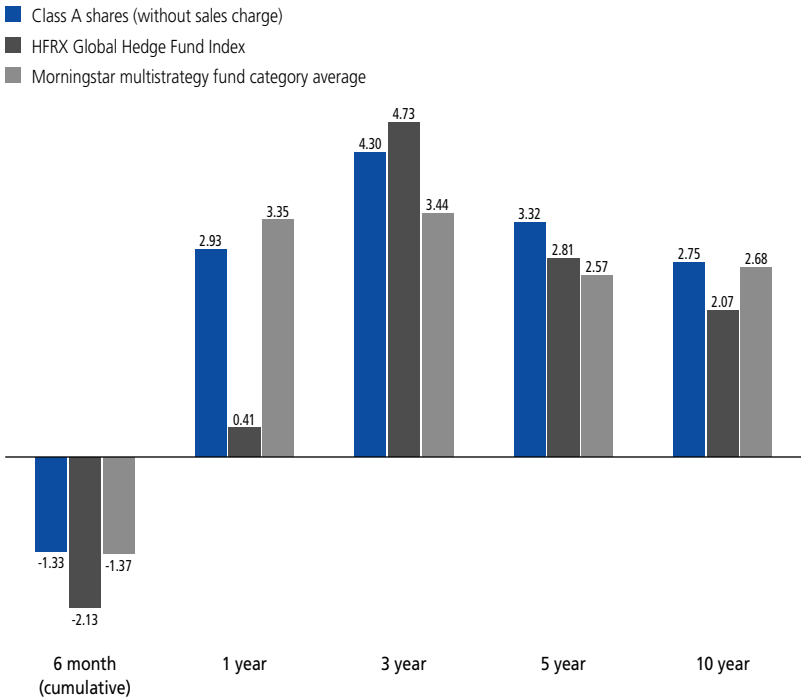
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Your fund at a glance

INVESTMENT OBJECTIVE

The fund seeks long-term growth of capital.

AVERAGE ANNUAL TOTAL RETURNS AS OF 2/28/2022 (%)



The HFRX Global Hedge Fund Index comprises funds representing all main hedge fund strategies, with underlying asset-weighted strategies based on the distribution of assets in the hedge fund industry. It is not possible to invest directly in an index. Index figures do not reflect expenses or sales charges, which would result in lower returns.

The fund's Morningstar category average is a group of funds with similar investment objectives and strategies and is the equal-weighted return of all funds per category. Morningstar places funds in certain categories based on their historical portfolio holdings. Figures from Morningstar, Inc. include reinvested distributions and do not take into account sales charges. Actual load-adjusted performance is lower.

The past performance shown here reflects reinvested distributions and the beneficial effect of any expense reductions, and does not guarantee future results. Performance of the other share classes will vary based on the difference in the fees and expenses of those classes. Shares will fluctuate in value and, when redeemed, may be worth more or less than their original cost. Current month-end performance may be lower or higher than the performance cited, and can be found at jhinvestments.com or by calling 800-225-5291. For further information on the fund's objectives, risks, and strategy, see the fund's prospectus.

Portfolio summary

ASSET ALLOCATION AS OF 2/28/2022 (% of net assets)

Affiliated investment companies	62.3
Absolute return strategies	34.2
Alternative investment approaches	20.7
Alternative markets	7.4
Unaffiliated investment companies	37.2
Absolute return strategies	21.8
Alternative investment approaches	12.6
Alternative markets	2.8
Short-term investments and other	0.5

Notes about risk

The fund is subject to various risks as described in the fund's prospectus. Political tensions and armed conflicts, including the Russian invasion of Ukraine, and any resulting economic sanctions on entities and/or individuals of a particular country could lead such a country into an economic recession. The COVID-19 disease has resulted in significant disruptions to global business activity. A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange trading suspensions and closures, which may lead to less liquidity in certain instruments, industries, sectors or the markets generally, and may ultimately affect fund performance. For more information, please refer to the "Principal risks" section of the prospectus.

A look at performance

TOTAL RETURNS FOR THE PERIOD ENDED FEBRUARY 28, 2022

	Average annual total returns (%) with maximum sales charge			Cumulative total returns (%) with maximum sales charge		
	1-year	5-year	10-year	6-month	5-year	10-year
Class A	-2.20	2.27	2.23	-6.29	11.87	24.64
Class C	1.15	2.58	2.03	-2.67	13.61	22.23
Class I ¹	3.17	3.62	3.08	-1.23	19.48	35.39
Class R2 ¹	2.77	3.21	2.62	-1.36	17.11	29.54
Class R4 ^{1,2}	3.10	3.48	2.88	-1.23	18.63	32.83
Class R6 ¹	3.28	3.73	3.15	-1.19	20.09	36.38
Index ¹	0.41	2.81	2.07	-2.13	14.86	22.74

Performance figures assume all distributions are reinvested. Figures reflect maximum sales charges on Class A shares of 5% and the applicable contingent deferred sales charge (CDSC) on Class C shares. Class C shares held for less than one year are subject to a 1% CDSC. Sales charges are not applicable to Class I, Class R2, Class R4, and Class R6 shares.

The expense ratios of the fund, both net (including any fee waivers and/or expense limitations) and gross (excluding any fee waivers and/or expense limitations), are set forth according to the most recent publicly available prospectuses for the fund and may differ from those disclosed in the Financial highlights tables in this report. Net expenses reflect contractual fee waivers and expense limitations in effect until December 31, 2022 and are subject to change. Had the contractual fee waivers and expense limitations not been in place, gross expenses would apply. The expense ratios are as follows:

	Class A	Class C	Class I	Class R2	Class R4	Class R6
Gross (%)	1.88	2.58	1.58	1.98	1.83	1.48
Net (%)	1.65	2.35	1.35	1.75	1.50	1.25

Please refer to the most recent prospectus and annual or semiannual report for more information on expenses and any expense limitation arrangements for each class.

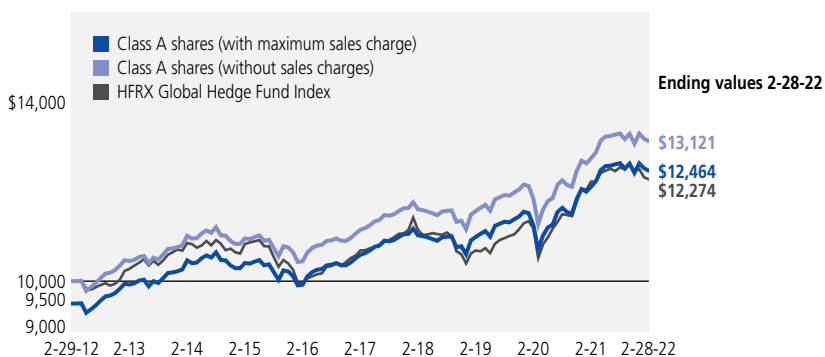
The returns reflect past results and should not be considered indicative of future performance. The return and principal value of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original cost. Due to market volatility and other factors, the fund's current performance may be higher or lower than the performance shown. For current to the most recent month-end performance data, please call 800-225-5291 or visit the fund's website at jihinvestments.com.

The performance table above and the chart on the next page do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. The fund's performance results reflect any applicable fee waivers or expense reductions, without which the expenses would increase and results would have been less favorable.

¹ Index is the HFRX Global Hedge Fund Index.

See the following page for footnotes.

This chart and table show what happened to a hypothetical \$10,000 investment in John Hancock Alternative Asset Allocation Fund for the share classes and periods indicated, assuming all distributions were reinvested. For comparison, we've shown the same investment in the HFRX Global Hedge Fund Index.



	Start date	With maximum sales charge (\$)	Without sales charge (\$)	Index (\$)
Class C ³	2-29-12	12,223	12,223	12,274
Class I ¹	2-29-12	13,539	13,539	12,274
Class R2 ¹	2-29-12	12,954	12,954	12,274
Class R4 ^{1,2}	2-29-12	13,283	13,283	12,274
Class R6 ¹	2-29-12	13,638	13,638	12,274

The HFRX Global Hedge Fund Index comprises funds representing all main hedge fund strategies, with underlying asset-weighted strategies based on the distribution of assets in the hedge fund industry. It is not possible to invest directly in an index. Index figures do not reflect expenses or sales charges, which would result in lower returns.

Footnotes related to performance pages

¹ For certain types of investors, as described in the fund's prospectus.

² Class R4 shares were first offered on 6-27-13. Returns prior to this date are those of Class A shares that have not been adjusted for class-specific expenses; otherwise, returns would vary.

³ The contingent deferred sales charge is not applicable.

Your expenses

These examples are intended to help you understand your ongoing operating expenses of investing in the fund so you can compare these costs with the ongoing costs of investing in other mutual funds.

Understanding fund expenses

As a shareholder of the fund, you incur two types of costs:

- **Transaction costs**, which include sales charges (loads) on purchases or redemptions (varies by share class), minimum account fee charge, etc.
- **Ongoing operating expenses**, including management fees, distribution and service fees (if applicable), and other fund expenses.

We are presenting only your ongoing operating expenses here.

Actual expenses/actual returns

The first line of each share class in the table on the following page is intended to provide information about the fund's actual ongoing operating expenses, and is based on the fund's actual return. It assumes an account value of \$1,000.00 on September 1, 2021, with the same investment held until February 28, 2022.

Together with the value of your account, you may use this information to estimate the operating expenses that you paid over the period. Simply divide your account value at February 28, 2022, by \$1,000.00, then multiply it by the "expenses paid" for your share class from the table. For example, for an account value of \$8,600.00, the operating expenses should be calculated as follows:

Example

$$\left[\frac{\text{My account value}}{\$8,600.00} / \$1,000.00 = 8.6 \right] \times \$ \left[\begin{array}{c} \text{"expenses paid"} \\ \text{from table} \end{array} \right] = \text{My actual expenses}$$

Hypothetical example for comparison purposes

The second line of each share class in the table on the following page allows you to compare the fund's ongoing operating expenses with those of any other fund. It provides an example of the fund's hypothetical account values and hypothetical expenses based on each class's actual expense ratio and an assumed 5% annualized return before expenses (which is not the class's actual return). It assumes an account value of \$1,000.00 on September 1, 2021, with the same investment held until February 28, 2022. Look in any other fund shareholder report to find its hypothetical example and you will be able to compare these expenses. Please remember that these hypothetical account values and expenses may not be used to estimate the actual ending account balance or expenses you paid for the period.

Remember, these examples do not include any transaction costs, therefore, these examples will not help you to determine the relative total costs of owning different funds. If transaction costs were included, your expenses would have been higher. See the prospectus for details regarding transaction costs.

SHAREHOLDER EXPENSE EXAMPLE CHART

		Account value on 9-1-2021	Ending value on 2-28-2022	Expenses paid during period ended 2-28-2022 ¹	Annualized expense ratio ²
Class A	Actual expenses/actual returns	\$1,000.00	\$ 986.70	\$3.45	0.70%
	Hypothetical example	1,000.00	1,021.30	3.51	0.70%
Class C	Actual expenses/actual returns	1,000.00	983.10	6.88	1.40%
	Hypothetical example	1,000.00	1,017.90	7.00	1.40%
Class I	Actual expenses/actual returns	1,000.00	987.70	1.97	0.40%
	Hypothetical example	1,000.00	1,022.80	2.01	0.40%
Class R2	Actual expenses/actual returns	1,000.00	986.40	3.94	0.80%
	Hypothetical example	1,000.00	1,020.80	4.01	0.80%
Class R4	Actual expenses/actual returns	1,000.00	987.70	2.76	0.56%
	Hypothetical example	1,000.00	1,022.00	2.81	0.56%
Class R6	Actual expenses/actual returns	1,000.00	988.10	1.48	0.30%
	Hypothetical example	1,000.00	1,023.30	1.51	0.30%

¹ Expenses are equal to the annualized expense ratio, multiplied by the average account value over the period, multiplied by 181/365 (to reflect the one-half year period).

² Ratios do not include fees and expenses indirectly incurred by the underlying funds and can vary based on mixed of underlying funds held by the fund.

Fund's investments

AS OF 2-28-22 (unaudited)

	Shares	Value	
Affiliated investment companies (A) 62.3%		\$331,606,524	
(Cost \$317,085,012)			
Absolute return strategies 34.2%		182,107,908	
Absolute Return Currency, Class NAV, JHF II (First Quadrant) (B)	4,040,569	39,476,356	
Credit Suisse Managed Futures Strategy Fund (C)	2,998,204	30,791,558	
Diversified Macro, Class NAV, JHIT (Graham)	4,666,528	43,025,385	
Multi-Asset Absolute Return, Class NAV, JHF II (NIMNAI) (B)	6,681,030	68,814,609	
Alternative investment approaches 20.7%		109,996,467	
Seaport Long/Short, Class NAV, JHIT (Wellington)	4,866,624	57,815,495	
Strategic Income Opportunities, Class NAV, JHF II (MIM US) (D)	4,872,173	52,180,972	
Alternative markets 7.4%		39,502,149	
Infrastructure, Class NAV, JHIT (Wellington)	1,807,588	25,288,154	
Invesco DB Gold Fund (B)(C)	260,903	14,213,995	
Unaffiliated investment companies 37.2%		\$198,099,447	
(Cost \$184,695,979)			
Absolute return strategies 21.8%		116,133,700	
Calamos Market Neutral Income Fund	1,696,715	24,229,096	
IQ Merger Arbitrage ETF (B)(E)	653,721	20,847,163	
The Arbitrage Fund, Class I	3,159,708	41,581,762	
Victory Market Neutral Income Fund	3,041,866	29,475,679	
Alternative investment approaches 12.6%		66,863,112	
JPMorgan Hedged Equity Fund	2,573,638	66,863,112	
Alternative markets 2.8%		15,102,635	
Invesco Optimum Yield Diversified Commodity Strategy No. K-1 ETF	552,349	8,937,007	
Vanguard Real Estate ETF	60,129	6,165,628	
	Yield (%)	Shares	Value
Short-term investments 2.3%			\$12,385,408
(Cost \$12,386,673)			
Short-term funds 2.3%			12,385,408
John Hancock Collateral Trust (F)	0.0896(G)	1,205,722	12,059,031
State Street Institutional U.S. Government Money Market Fund, Premier Class	0.0265(G)	326,377	326,377
Total investments (Cost \$514,167,664) 101.8%			\$542,091,379
Other assets and liabilities, net (1.8%)			(9,797,443)
Total net assets 100.0%			\$532,293,936

The percentage shown for each investment category is the total value of the category as a percentage of the net assets of the fund.

Security Abbreviations and Legend

JHF II John Hancock Funds II

JHIT John Hancock Investment Trust

- (A) The underlying funds' subadvisor is shown parenthetically.
- (B) Non-income producing.
- (C) The fund owns 5% or more of the outstanding voting shares of the issuer and the security is considered an affiliate of the fund. For more information on this security refer to the Notes to financial statements.
- (D) The subadvisor is an affiliate of the advisor.
- (E) All or a portion of this security is on loan as of 2-28-22.
- (F) Investment is an affiliate of the fund, the advisor and/or subadvisor. This security represents the investment of cash collateral received for securities lending.
- (G) The rate shown is the annualized seven-day yield as of 2-28-22.

At 2-28-22, the aggregate cost of investments for federal income tax purposes was \$524,863,498. Net unrealized appreciation aggregated to \$17,227,881, of which \$19,576,202 related to gross unrealized appreciation and \$2,348,321 related to gross unrealized depreciation.

Subadvisors of Affiliated Underlying Funds

First Quadrant, LLC	(First Quadrant)
Graham Capital Management, L.P.	(Graham)
Manulife Investment Management (US) LLC	(MIM US)
Nordea Investment Management North America, Inc.	(NIMNAI)
Wellington Management Company LLP	(Wellington)

Financial statements

STATEMENT OF ASSETS AND LIABILITIES 2-28-22 (unaudited)

Assets	
Unaffiliated investments, at value (Cost \$185,022,356) including \$11,824,000 of securities loaned	\$198,425,824
Affiliated investments, at value (Cost \$329,145,308)	343,665,555
Total investments, at value (Cost \$514,167,664)	542,091,379
Dividends and interest receivable	161,456
Receivable for fund shares sold	4,026,401
Receivable for investments sold	29,778
Receivable for securities lending income	9,813
Receivable from affiliates	6,652
Other assets	91,913
Total assets	546,417,392
Liabilities	
Due to custodian	40,882
Payable for investments purchased	1,382,675
Payable for fund shares repurchased	461,850
Payable upon return of securities loaned	12,064,124
Payable to affiliates	
Accounting and legal services fees	17,529
Transfer agent fees	42,172
Distribution and service fees	394
Trustees' fees	155
Other liabilities and accrued expenses	113,675
Total liabilities	14,123,456
Net assets	\$532,293,936
Net assets consist of	
Paid-in capital	\$554,117,751
Total distributable earnings (loss)	(21,823,815)
Net assets	\$532,293,936

STATEMENT OF ASSETS AND LIABILITIES (continued)

Net asset value per share	
Based on net asset value and shares outstanding - the fund has an unlimited number of shares authorized with no par value	
Class A (\$70,955,727 ÷ 4,659,866 shares) ¹	\$15.23
Class C (\$14,692,748 ÷ 961,510 shares) ¹	\$15.28
Class I (\$420,621,482 ÷ 27,611,274 shares)	\$15.23
Class R2 (\$906,939 ÷ 59,625 shares)	\$15.21
Class R4 (\$69,873 ÷ 4,583 shares)	\$15.25
Class R6 (\$25,047,167 ÷ 1,644,121 shares)	\$15.23
Maximum offering price per share	
Class A (net asset value per share ÷ 95%) ²	\$16.03

¹ Redemption price per share is equal to net asset value less any applicable contingent deferred sales charge.
² On single retail sales of less than \$50,000. On sales of \$50,000 or more and on group sales the offering price is reduced.

STATEMENT OF OPERATIONS For the six months ended 2-28-22 (unaudited)

Investment income	
Dividends from affiliated investments	\$5,062,113
Dividends	3,709,470
Interest	59
Securities lending	37,752
Total investment income	8,809,394
Expenses	
Investment management fees	999,702
Distribution and service fees	180,683
Accounting and legal services fees	31,195
Transfer agent fees	263,750
Trustees' fees	3,342
Custodian fees	17,137
State registration fees	53,770
Printing and postage	30,784
Professional fees	28,533
Other	21,195
Total expenses	1,630,091
Less expense reductions	(470,239)
Net expenses	1,159,852
Net investment income	7,649,542
Realized and unrealized gain (loss)	
Net realized gain (loss) on	
Unaffiliated investments	608,251
Affiliated investments	(518,086)
Capital gain distributions received from unaffiliated investments	206,018
Capital gain distributions received from affiliated investments	4,369,530
	4,665,713
Change in net unrealized appreciation (depreciation) of	
Unaffiliated investments	(4,621,075)
Affiliated investments	(13,978,334)
	(18,599,409)
Net realized and unrealized loss	(13,933,696)
Decrease in net assets from operations	\$(6,284,154)

STATEMENTS OF CHANGES IN NET ASSETS

	Six months ended 2-28-22 (unaudited)	Year ended 8-31-21
Increase (decrease) in net assets		
From operations		
Net investment income	\$7,649,542	\$3,199,428
Net realized gain	4,665,713	6,079,191
Change in net unrealized appreciation (depreciation)	(18,599,409)	30,170,429
Increase (decrease) in net assets resulting from operations	(6,284,154)	39,449,048
Distributions to shareholders		
From earnings		
Class A	(1,158,179)	(483,892)
Class C	(144,223)	(19,302)
Class I	(7,749,131)	(3,660,140)
Class R2	(15,564)	(5,324)
Class R4	(1,362)	(547)
Class R6	(444,124)	(236,228)
Total distributions	(9,512,583)	(4,405,433)
From fund share transactions	66,529,368	(16,257,115)
Total increase	50,732,631	18,786,500
Net assets		
Beginning of period	481,561,305	462,774,805
End of period	\$532,293,936	\$481,561,305

Financial highlights

CLASS A SHARES Period ended	2-28-22 ¹	8-31-21	8-31-20	8-31-19	8-31-18	8-31-17
Per share operating performance						
Net asset value, beginning of period	\$15.70	\$14.57	\$14.66	\$14.51	\$14.55	\$13.96
Net investment income ^{2,3}	0.22	0.07	0.09	0.25	0.13	0.10
Net realized and unrealized gain (loss) on investments	(0.43)	1.17	0.31	0.17	0.01	0.60
Total from investment operations	(0.21)	1.24	0.40	0.42	0.14	0.70
Less distributions						
From net investment income	(0.24)	(0.03)	(0.27)	(0.17)	(0.11)	(0.08)
From net realized gain	(0.02)	(0.08)	(0.22)	(0.10)	(0.07)	(0.03)
Total distributions	(0.26)	(0.11)	(0.49)	(0.27)	(0.18)	(0.11)
Net asset value, end of period	\$15.23	\$15.70	\$14.57	\$14.66	\$14.51	\$14.55
Total return (%)^{4,5}	(1.33)⁶	8.55	2.74	3.05	0.95	5.03
Ratios and supplemental data						
Net assets, end of period (in millions)	\$71	\$68	\$62	\$73	\$95	\$136
Ratios (as a percentage of average net assets):						
Expenses before reductions ⁷	0.89 ⁸	0.88	0.88	0.77	0.72	0.72
Expenses including reductions ⁷	0.70 ⁸	0.66	0.66	0.64	0.59	0.59
Net investment income ³	1.56 ⁸	0.47	0.63	1.73	0.86	0.71
Portfolio turnover (%)	9	25	37	39	18	10

¹ Six months ended 2-28-22. Unaudited.

² Based on average daily shares outstanding.

³ Net investment income is affected by the timing and frequency of the declaration of dividends by the underlying funds in which the fund invests.

⁴ Total returns would have been lower had certain expenses not been reduced during the applicable periods.

⁵ Does not reflect the effect of sales charges, if any.

⁶ Not annualized.

⁷ Ratios do not include expenses indirectly incurred from underlying funds and can vary based on the mix of underlying funds held by the fund.

⁸ Annualized.

CLASS C SHARES Period ended	2-28-22¹	8-31-21	8-31-20	8-31-19	8-31-18	8-31-17
Per share operating performance						
Net asset value, beginning of period	\$15.70	\$14.58	\$14.67	\$14.51	\$14.56	\$13.97
Net investment income (loss) ^{2,3}	0.16	(0.03)	(0.01)	0.15	0.02	— ⁴
Net realized and unrealized gain (loss) on investments	(0.42)	1.16	0.31	0.18	0.01	0.60
Total from investment operations	(0.26)	1.13	0.30	0.33	0.03	0.60
Less distributions						
From net investment income	(0.14)	—	(0.17)	(0.07)	(0.01)	—
From net realized gain	(0.02)	(0.01)	(0.22)	(0.10)	(0.07)	(0.01)
Total distributions	(0.16)	(0.01)	(0.39)	(0.17)	(0.08)	(0.01)
Net asset value, end of period	\$15.28	\$15.70	\$14.58	\$14.67	\$14.51	\$14.56
Total return (%)^{5,6}	(1.69)⁷	7.77	2.04	2.37	0.19	4.30
Ratios and supplemental data						
Net assets, end of period (in millions)	\$15	\$17	\$31	\$42	\$57	\$72
Ratios (as a percentage of average net assets):						
Expenses before reductions ⁸	1.59 ⁹	1.58	1.58	1.47	1.42	1.42
Expenses including reductions ⁸	1.40 ⁹	1.36	1.36	1.34	1.29	1.29
Net investment income (loss) ³	0.71 ⁹	(0.21)	(0.06)	1.02	0.17	— ¹⁰
Portfolio turnover (%)	9	25	37	39	18	10

¹ Six months ended 2-28-22. Unaudited.

² Based on average daily shares outstanding.

³ Net investment income is affected by the timing and frequency of the declaration of dividends by the underlying funds in which the fund invests.

⁴ Less than \$0.005 per share.

⁵ Total returns would have been lower had certain expenses not been reduced during the applicable periods.

⁶ Does not reflect the effect of sales charges, if any.

⁷ Not annualized.

⁸ Ratios do not include expenses indirectly incurred from underlying funds and can vary based on the mix of underlying funds held by the fund.

⁹ Annualized.

¹⁰ Less than 0.005%.

CLASS I SHARES Period ended	2-28-22¹	8-31-21	8-31-20	8-31-19	8-31-18	8-31-17
Per share operating performance						
Net asset value, beginning of period	\$15.73	\$14.59	\$14.68	\$14.53	\$14.58	\$13.99
Net investment income ^{2,3}	0.24	0.12	0.14	0.29	0.17	0.14
Net realized and unrealized gain (loss) on investments	(0.43)	1.17	0.30	0.18	— ⁴	0.60
Total from investment operations	(0.19)	1.29	0.44	0.47	0.17	0.74
Less distributions						
From net investment income	(0.29)	(0.07)	(0.31)	(0.22)	(0.15)	(0.12)
From net realized gain	(0.02)	(0.08)	(0.22)	(0.10)	(0.07)	(0.03)
Total distributions	(0.31)	(0.15)	(0.53)	(0.32)	(0.22)	(0.15)
Net asset value, end of period	\$15.23	\$15.73	\$14.59	\$14.68	\$14.53	\$14.58
Total return (%)⁵	(1.23)⁶	8.92	3.04	3.39	1.18	5.34
Ratios and supplemental data						
Net assets, end of period (in millions)	\$421	\$374	\$347	\$423	\$510	\$495
Ratios (as a percentage of average net assets):						
Expenses before reductions ⁷	0.59 ⁸	0.58	0.58	0.49	0.42	0.40
Expenses including reductions ⁷	0.40 ⁸	0.36	0.36	0.35	0.30	0.28
Net investment income ³	1.83 ⁸	0.76	0.95	2.04	1.16	1.01
Portfolio turnover (%)	9	25	37	39	18	10

¹ Six months ended 2-28-22. Unaudited.

² Based on average daily shares outstanding.

³ Net investment income is affected by the timing and frequency of the declaration of dividends by the underlying funds in which the fund invests.

⁴ Less than \$0.005 per share.

⁵ Total returns would have been lower had certain expenses not been reduced during the applicable periods.

⁶ Not annualized.

⁷ Ratios do not include expenses indirectly incurred from underlying funds and can vary based on the mix of underlying funds held by the fund.

⁸ Annualized.

CLASS R2 SHARES Period ended	2-28-22¹	8-31-21	8-31-20	8-31-19	8-31-18	8-31-17
Per share operating performance						
Net asset value, beginning of period	\$15.67	\$14.55	\$14.64	\$14.49	\$14.53	\$13.95
Net investment income ^{2,3}	0.22	0.06	0.08	0.24	0.11	0.08
Net realized and unrealized gain (loss) on investments	(0.43)	1.16	0.31	0.17	0.01	0.60
Total from investment operations	(0.21)	1.22	0.39	0.41	0.12	0.68
Less distributions						
From net investment income	(0.23)	(0.02)	(0.26)	(0.16)	(0.09)	(0.07)
From net realized gain	(0.02)	(0.08)	(0.22)	(0.10)	(0.07)	(0.03)
Total distributions	(0.25)	(0.10)	(0.48)	(0.26)	(0.16)	(0.10)
Net asset value, end of period	\$15.21	\$15.67	\$14.55	\$14.64	\$14.49	\$14.53
Total return (%)⁴	(1.36)⁵	8.41	2.65	2.95	0.85	4.87
Ratios and supplemental data						
Net assets, end of period (in millions)	\$1	\$1	\$1	\$2	\$3	\$4
Ratios (as a percentage of average net assets):						
Expenses before reductions ⁶	0.99 ⁷	0.95	0.96	0.87	0.83	0.82
Expenses including reductions ⁶	0.80 ⁷	0.74	0.75	0.74	0.70	0.69
Net investment income ³	1.50 ⁷	0.38	0.54	1.67	0.78	0.60
Portfolio turnover (%)	9	25	37	39	18	10

¹ Six months ended 2-28-22. Unaudited.

² Based on average daily shares outstanding.

³ Net investment income is affected by the timing and frequency of the declaration of dividends by the underlying funds in which the fund invests.

⁴ Total returns would have been lower had certain expenses not been reduced during the applicable periods.

⁵ Not annualized.

⁶ Ratios do not include expenses indirectly incurred from underlying funds and can vary based on the mix of underlying funds held by the fund.

⁷ Annualized.

CLASS R4 SHARES Period ended	2-28-22¹	8-31-21	8-31-20	8-31-19	8-31-18	8-31-17
Per share operating performance						
Net asset value, beginning of period	\$15.73	\$14.60	\$14.69	\$14.54	\$14.58	\$13.99
Net investment income ^{2,3}	0.25	0.10	0.07	0.27	0.15	0.12
Net realized and unrealized gain (loss) on investments	(0.44)	1.16	0.35	0.18	0.01	0.60
Total from investment operations	(0.19)	1.26	0.42	0.45	0.16	0.72
Less distributions						
From net investment income	(0.27)	(0.05)	(0.29)	(0.20)	(0.13)	(0.10)
From net realized gain	(0.02)	(0.08)	(0.22)	(0.10)	(0.07)	(0.03)
Total distributions	(0.29)	(0.13)	(0.51)	(0.30)	(0.20)	(0.13)
Net asset value, end of period	\$15.25	\$15.73	\$14.60	\$14.69	\$14.54	\$14.58
Total return (%)⁴	(1.23)⁵	8.70	2.91	3.22	1.10	5.18
Ratios and supplemental data						
Net assets, end of period (in millions)	\$— ⁶	\$— ⁶	\$— ⁶	\$— ⁶	\$1	\$5
Ratios (as a percentage of average net assets):						
Expenses before reductions ⁷	0.85 ⁸	0.83	0.81	0.73	0.67	0.66
Expenses including reductions ⁷	0.56 ⁸	0.51	0.50	0.50	0.44	0.44
Net investment income ³	1.85 ⁸	0.68	0.45	1.76	1.05	0.85
Portfolio turnover (%)	9	25	37	39	18	10

¹ Six months ended 2-28-22. Unaudited.

² Based on average daily shares outstanding.

³ Net investment income is affected by the timing and frequency of the declaration of dividends by the underlying funds in which the fund invests.

⁴ Total returns would have been lower had certain expenses not been reduced during the applicable periods.

⁵ Not annualized.

⁶ Less than \$500,000.

⁷ Ratios do not include expenses indirectly incurred from underlying funds and can vary based on the mix of underlying funds held by the fund.

⁸ Annualized.

CLASS R6 SHARES Period ended	2-28-22¹	8-31-21	8-31-20	8-31-19	8-31-18	8-31-17
Per share operating performance						
Net asset value, beginning of period	\$15.74	\$14.60	\$14.69	\$14.54	\$14.58	\$13.99
Net investment income ^{2,3}	0.25	0.13	0.14	0.32	0.18	0.16
Net realized and unrealized gain (loss) on investments	(0.43)	1.18	0.32	0.16	0.02	0.60
Total from investment operations	(0.18)	1.31	0.46	0.48	0.20	0.76
Less distributions						
From net investment income	(0.31)	(0.09)	(0.33)	(0.23)	(0.17)	(0.14)
From net realized gain	(0.02)	(0.08)	(0.22)	(0.10)	(0.07)	(0.03)
Total distributions	(0.33)	(0.17)	(0.55)	(0.33)	(0.24)	(0.17)
Net asset value, end of period	\$15.23	\$15.74	\$14.60	\$14.69	\$14.54	\$14.58
Total return (%)⁴	(1.19)⁵	9.02	3.15	3.49	1.34	5.45
Ratios and supplemental data						
Net assets, end of period (in millions)	\$25	\$21	\$22	\$26	\$18	\$15
Ratios (as a percentage of average net assets):						
Expenses before reductions ⁶	0.49 ⁷	0.48	0.46	0.37	0.32	0.31
Expenses including reductions ⁶	0.30 ⁷	0.26	0.25	0.24	0.20	0.18
Net investment income ³	1.91 ⁷	0.88	1.01	2.23	1.26	1.11
Portfolio turnover (%)	9	25	37	39	18	10

¹ Six months ended 2-28-22. Unaudited.

² Based on average daily shares outstanding.

³ Net investment income is affected by the timing and frequency of the declaration of dividends by the underlying funds in which the fund invests.

⁴ Total returns would have been lower had certain expenses not been reduced during the applicable periods.

⁵ Not annualized.

⁶ Ratios do not include expenses indirectly incurred from underlying funds and can vary based on the mix of underlying funds held by the fund.

⁷ Annualized.

Notes to financial statements (unaudited)

Note 1 — Organization

John Hancock Alternative Asset Allocation Fund (the fund) is a series of John Hancock Funds II (the Trust), an open-end management investment company organized as a Massachusetts business trust and registered under the Investment Company Act of 1940, as amended (the 1940 Act). The investment objective of the fund is to seek long-term growth of capital.

The fund operates as a “fund of funds”, investing in affiliated underlying funds of the Trust, other series of the Trust, other funds in John Hancock group of funds complex, non-John Hancock funds and certain other permitted investments.

The fund may offer multiple classes of shares. The shares currently outstanding are detailed in the Statement of assets and liabilities. Class A and Class C shares are offered to all investors. Class I shares are offered to institutions and certain investors. Class R2 and Class R4 shares are available only to certain retirement and 529 plans. Class R6 shares are only available to certain retirement plans, institutions and other investors. Class C shares convert to Class A shares eight years after purchase (certain exclusions may apply). Shareholders of each class have exclusive voting rights to matters that affect that class. The distribution and service fees, if any, and transfer agent fees for each class may differ.

The accounting policies of the John Hancock underlying funds in which the fund invests are outlined in the underlying funds’ shareholder reports, which include the underlying funds’ financial statements, available without charge by calling 800-344-1029 or visiting jhinvestments.com, on the Securities and Exchange Commission (SEC) website at sec.gov or at the SEC’s public reference room in Washington, D.C. The underlying funds are not covered by this report.

Note 2 — Significant accounting policies

The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (US GAAP), which require management to make certain estimates and assumptions as of the date of the financial statements. Actual results could differ from those estimates and those differences could be significant. The fund qualifies as an investment company under Topic 946 of Accounting Standards Codification of US GAAP.

Events or transactions occurring after the end of the fiscal period through the date that the financial statements were issued have been evaluated in the preparation of the financial statements. The following summarizes the significant accounting policies of the fund:

Security valuation. Investments are stated at value as of the scheduled close of regular trading on the New York Stock Exchange (NYSE), normally at 4:00 P.M., Eastern Time. In case of emergency or other disruption resulting in the NYSE not opening for trading or the NYSE closing at a time other than the regularly scheduled close, the net asset value (NAV) may be determined as of the regularly scheduled close of the NYSE pursuant to the fund’s Valuation Policies and Procedures.

In order to value the securities, the fund uses the following valuation techniques: Investments by the fund in underlying affiliated funds and other open-end mutual funds, including John Hancock Collateral Trust (JHCT), are valued at their respective NAVs each business day. ETFs held by the fund are valued at the last sale price or official closing price on the exchange or principal market where the security trades. In the event there were no sales during the day or closing prices are not available, the securities are valued using the last available bid price.

In certain instances, the Pricing Committee may determine to value equity securities using prices obtained from another exchange or market if trading on the exchange or market on which prices are typically obtained did not open for trading as scheduled, or if trading closed earlier than scheduled, and trading occurred as normal on another exchange or market.

Other portfolio securities and assets, for which reliable market quotations are not readily available, are valued at fair value as determined in good faith by the fund's Pricing Committee following procedures established by the Board of Trustees. The frequency with which these fair valuation procedures are used cannot be predicted and fair value of securities may differ significantly from the value that would have been used had a ready market for such securities existed.

The fund uses a three-tier hierarchy to prioritize the pricing assumptions, referred to as inputs, used in valuation techniques to measure fair value. Level 1 includes securities valued using quoted prices in active markets for identical securities, including registered investment companies. Level 2 includes securities valued using other significant observable inputs. Observable inputs may include quoted prices for similar securities, interest rates, prepayment speeds and credit risk. Prices for securities valued using these inputs are received from independent pricing vendors and brokers and are based on an evaluation of the inputs described. Level 3 includes securities valued using significant unobservable inputs when market prices are not readily available or reliable, including the fund's own assumptions in determining the fair value of investments. Factors used in determining value may include market or issuer specific events or trends, changes in interest rates and credit quality. The inputs or methodology used for valuing securities are not necessarily an indication of the risks associated with investing in those securities. Changes in valuation techniques and related inputs may result in transfers into or out of an assigned level within the disclosure hierarchy.

As of February 28, 2022, all investments are categorized as Level 1 under the hierarchy described above.

Security transactions and related investment income. Investment security transactions are accounted for on a trade date plus one basis for daily NAV calculations. However, for financial reporting purposes, investment transactions are reported on trade date. Interest income is accrued as earned. Capital gain distributions from underlying funds are recorded on ex-date. Dividend income is recorded on ex-date, except for dividends of certain foreign securities where the dividend may not be known until after the ex-date. In those cases, dividend income, net of withholding taxes, is recorded when the fund becomes aware of the dividends. Non-cash dividends, if any, are recorded at the fair market value of the securities received. Gains and losses on securities sold are determined on the basis of identified cost and may include proceeds from litigation. Return of capital distributions from underlying funds, if any, are treated as a reduction of cost.

Securities lending. The fund may lend its securities to earn additional income. The fund receives collateral from the borrower in an amount not less than the market value of the loaned securities. The fund may invest its cash collateral in JHCT, an affiliate of the fund, which has a floating NAV and is registered with the SEC as an investment company. JHCT invests in short-term money market investments. The fund will receive the benefit of any gains and bear any losses generated by JHCT with respect to the cash collateral. Effective November 19, 2021, JHCT converted to a prime money market fund.

The fund has the right to recall loaned securities on demand. If a borrower fails to return loaned securities when due, then the lending agent is responsible and indemnifies the fund for the lent securities. The lending agent uses the collateral received from the borrower to purchase replacement securities of the same issue, type, class and series of the loaned securities. If the value of the collateral is less than the purchase cost of replacement securities, the lending agent is responsible for satisfying the shortfall but only to the extent that the shortfall is not due to any decrease in the value of JHCT.

Although the risk of loss on securities lent is mitigated by receiving collateral from the borrower and through lending agent indemnification, the fund could experience a delay in recovering securities or could experience a lower than expected return if the borrower fails to return the securities on a timely basis. During the existence of the loan, the fund will receive from the borrower amounts equivalent to any dividends, interest or other distributions on the loaned securities, as well as interest on such amounts. The fund receives compensation for lending its securities by retaining a portion of the return on the investment of the collateral and compensation

from fees earned from borrowers of the securities. Securities lending income received by the fund is net of fees retained by the securities lending agent. Net income received from JHCT is a component of securities lending income as recorded on the Statement of operations.

Obligations to repay collateral received by the fund are shown on the Statement of assets and liabilities as Payable upon return of securities loaned and are secured by the loaned securities. As of February 28, 2022, the fund loaned securities valued at \$11,824,000 and received \$12,064,124 of cash collateral.

Overdraft. The fund may have the ability to borrow from banks for temporary or emergency purposes, including meeting redemption requests that otherwise might require the untimely sale of securities. Pursuant to the fund's custodian agreement, the custodian may loan money to the fund to make properly authorized payments. The fund is obligated to repay the custodian for any overdraft, including any related costs or expenses. The custodian may have a lien, security interest or security entitlement in any fund property that is not otherwise segregated or pledged, to the extent of any overdraft, and to the maximum extent permitted by law. Overdrafts at period end are presented under the caption Due to custodian in the Statement of assets and liabilities.

Line of credit. The fund and other affiliated funds have entered into a syndicated line of credit agreement with Citibank, N.A. as the administrative agent that enables them to participate in a \$1 billion unsecured committed line of credit. Excluding commitments designated for a certain fund and subject to the needs of all other affiliated funds, the fund can borrow up to an aggregate commitment amount of \$750 million, subject to asset coverage and other limitations as specified in the agreement. A commitment fee payable at the end of each calendar quarter, based on the average daily unused portion of the line of credit, is charged to each participating fund based on a combination of fixed and asset-based allocations and is reflected in Other expenses on the Statement of operations. For the six months ended February 28, 2022, the fund had no borrowings under the line of credit. Commitment fees for the six months ended February 28, 2022 were \$2,651.

Expenses. Within the John Hancock group of funds complex, expenses that are directly attributable to an individual fund are allocated to such fund. Expenses that are not readily attributable to a specific fund are allocated among all funds in an equitable manner, taking into consideration, among other things, the nature and type of expense and the fund's relative net assets. Expense estimates are accrued in the period to which they relate and adjustments are made when actual amounts are known.

Class allocations. Income, common expenses and realized and unrealized gains (losses) are determined at the fund level and allocated daily to each class of shares based on the net assets of the class. Class-specific expenses, such as distribution and service fees, if any, and transfer agent fees, for all classes, are charged daily at the class level based on the net assets of each class and the specific expense rates applicable to each class.

Federal income taxes. The fund intends to continue to qualify as a regulated investment company by complying with the applicable provisions of the Internal Revenue Code and will not be subject to federal income tax on taxable income that is distributed to shareholders. Therefore, no federal income tax provision is required.

For federal income tax purposes, as of August 31, 2021, the fund has a short-term capital loss carryforward of \$11,356,922 and a long-term capital loss carryforward of \$31,649,560 available to offset future net realized capital gains. These carryforwards do not expire.

As of August 31, 2021, the fund had no uncertain tax positions that would require financial statement recognition, derecognition or disclosure. The fund's federal tax returns are subject to examination by the Internal Revenue Service for a period of three years.

Distribution of income and gains. Distributions to shareholders from net investment income and net realized gains, if any, are recorded on the ex-date. The fund generally declares and pays dividends annually. Capital gain distributions, if any, are typically distributed annually.

Distributions paid by the fund with respect to each class of shares are calculated in the same manner, at the same time and in the same amount, except for the effect of class level expenses that may be applied differently to each class.

Such distributions, on a tax basis, are determined in conformity with income tax regulations, which may differ from US GAAP. Distributions in excess of tax basis earnings and profits, if any, are reported in the fund's financial statements as a return of capital. The final determination of tax characteristics of the fund's distribution will occur at the end of the year and will subsequently be reported to shareholders. Short-term gains from underlying funds are treated as ordinary income for tax purposes.

Capital accounts within the financial statements are adjusted for permanent book-tax differences. These adjustments have no impact on net assets or the results of operations. Temporary book-tax differences, if any, will reverse in a subsequent period. Book-tax differences are primarily attributable to partnerships and wash sale loss deferrals.

Note 3 — Guarantees and indemnifications

Under the Trust's organizational documents, its Officers and Trustees are indemnified against certain liabilities arising out of the performance of their duties to the Trust, including the fund. Additionally, in the normal course of business, the fund enters into contracts with service providers that contain general indemnification clauses. The fund's maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the fund that have not yet occurred. The risk of material loss from such claims is considered remote.

Note 4 — Fees and transactions with affiliates

John Hancock Investment Management LLC (the Advisor) serves as investment advisor for the fund. John Hancock Investment Management Distributors LLC (the Distributor), an affiliate of the Advisor, serves as principal underwriter of the fund. The Advisor and the Distributor are indirect, principally owned subsidiaries of John Hancock Life Insurance Company (U.S.A.), which in turn is a subsidiary of Manulife Financial Corporation.

Management fee. The fund pays the Advisor a management fee for its services to the fund. Manulife Investment Management (US) LLC, a division of Manulife Asset Management (US) LLC, acts as the fund's sole subadvisor. The fund is not responsible for payment of the subadvisory fees.

The management fee has two components: (1) a fee on assets invested in a fund of the Trust or John Hancock Funds III (JHF III); and (2) a fee on assets invested in investments other than a fund of the Trust or JHF III (Other assets).

Management fees are determined in accordance with the following schedule:

	First \$5.0 billion of aggregate net assets	Excess over \$5.0 billion of aggregate net assets
Assets in a fund of the Trust or JHF III	0.100%	0.075%
Other assets	0.550%	0.525%

The Advisor has contractually agreed to reduce its management fee and/or make payment to the fund in an amount equal to the amount by which "Other expenses" of the fund exceed 0.04% of the average net assets of the fund. "Other expenses" means all of the expenses of the fund, excluding: advisory fees, taxes, brokerage commissions, interest expense, litigation and indemnification expenses and other extraordinary expenses not incurred in the ordinary course of the fund's business, class specific expenses, underlying fund expenses (acquired fund fees), and short dividend expense. The current expense limitation agreement expires on December 31, 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.

The Advisor has contractually agreed to reduce its management fee by 0.05% of the fund's average daily net assets up to \$5 billion, and by 0.025% of the fund's average daily net assets over \$5 billion. The current expense limitation agreement expires on December 31, 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.

The Advisor has contractually agreed to waive its management fee for the fund so that the aggregate advisory fee retained by the Advisor with respect to both the fund and its underlying investments (after payment of subadvisory fees) does not exceed 0.55% of the fund's first \$5 billion of average daily net assets and 0.525% of the fund's average daily net assets in excess of \$5 billion. This agreement expires on December 31, 2022, unless renewed by mutual agreement of the fund and the adviser based upon a determination that this is appropriate under the circumstances at that time.

For the six months ended February 28, 2022, the expense reductions described above amounted to the following:

Class	Expense reduction	Class	Expense reduction
Class A	\$64,604	Class R4	\$65
Class C	14,546	Class R6	20,354
Class I	369,729	Total	\$470,205
Class R2	907		

Expenses waived or reimbursed in the current fiscal period are not subject to recapture in future fiscal periods.

The investment management fees, including the impact of the waivers and reimbursements as described above, incurred for the six months ended February 28, 2022, were equivalent to a net annual effective rate of 0.21% of the fund's average daily net assets.

Accounting and legal services. Pursuant to a service agreement, the fund reimburses the Advisor for all expenses associated with providing the administrative, financial, legal, compliance, accounting and recordkeeping services to the fund, including the preparation of all tax returns, periodic reports to shareholders and regulatory reports, among other services. These expenses are allocated to each share class based on its relative net assets at the time the expense was incurred. These accounting and legal services fees incurred, for the six months ended February 28, 2022, amounted to an annual rate of 0.01% of the fund's average daily net assets.

Distribution and service plans. The fund has a distribution agreement with the Distributor. The fund has adopted distribution and service plans for certain classes as detailed below pursuant to Rule 12b-1 under the 1940 Act, to pay the Distributor for services provided as the distributor of shares of the fund. In addition, under a service plan for certain classes as detailed below, the fund pays for certain other services. The fund may pay up to the following contractual rates of distribution and service fees under these arrangements, expressed as an annual percentage of average daily net assets for each class of the fund's shares:

Class	Rule 12b-1 Fee	Service fee
Class A	0.30%	—
Class C	1.00%	—
Class R2	0.25%	0.25%
Class R4	0.25%	0.10%

The fund's Distributor has contractually agreed to waive 0.10% of Rule 12b-1 fees for Class R4 shares. The current waiver agreement expires on December 31, 2022, unless renewed by mutual agreement of the fund and the Distributor based upon a determination that this is appropriate under the circumstances at the time. This contractual waiver amounted to \$34 for Class R4 shares for the six months ended February 28, 2022.

Sales charges. Class A shares are assessed up-front sales charges, which resulted in payments to the Distributor amounting to \$21,017 for the six months ended February 28, 2022. Of this amount, \$3,331 was retained and used for printing prospectuses, advertising, sales literature and other purposes and \$17,686 was paid as sales commissions to broker-dealers.

Class A and Class C shares may be subject to contingent deferred sales charges (CDSCs). Certain Class A shares purchased, including those that are acquired through purchases of \$1 million or more, and redeemed within one year of purchase are subject to a 1.00% sales charge. Class C shares that are redeemed within one year of purchase are subject to a 1.00% CDSC. CDSCs are applied to the lesser of the current market value at the time of redemption or the original purchase cost of the shares being redeemed. Proceeds from CDSCs are used to compensate the Distributor for providing distribution-related services in connection with the sale of these shares. During the six months ended February 28, 2022, CDSCs received by the Distributor amounted to \$106 for Class C shares. There were no CDSCs received by the Distributor for Class A shares.

Transfer agent fees. The John Hancock group of funds has a complex-wide transfer agent agreement with John Hancock Signature Services, Inc. (Signature Services), an affiliate of the Advisor. The transfer agent fees paid to Signature Services are determined based on the cost to Signature Services (Signature Services Cost) of providing recordkeeping services. It also includes out-of-pocket expenses, including payments made to third-parties for recordkeeping services provided to their clients who invest in one or more John Hancock funds. In addition, Signature Services Cost may be reduced by certain fees that Signature Services receives in connection with retirement and small accounts. Signature Services Cost is calculated monthly and allocated, as applicable, to five categories of share classes: Retail Share and Institutional Share Classes of Non-Municipal Bond Funds, Class R6 Shares, Retirement Share Classes and Municipal Bond Share Classes. Within each of these categories, the applicable costs are allocated to the affected John Hancock affiliated funds and/or classes, based on the relative average daily net assets.

Class level expenses. Class level expenses for the six months ended February 28, 2022 were as follows:

Class	Distribution and service fees	Transfer agent fees
Class A	\$101,650	\$37,804
Class C	76,515	8,541
Class I	—	216,463
Class R2	2,395	40
Class R4	123	3
Class R6	—	899
Total	\$180,683	\$263,750

Trustee expenses. The fund compensates each Trustee who is not an employee of the Advisor or its affiliates. The costs of paying Trustee compensation and expenses are allocated to the fund based on its net assets relative to other funds within the John Hancock group of funds complex.

Note 5 — Fund share transactions

Transactions in fund shares for the six months ended February 28, 2022 and for the year ended August 31, 2021 were as follows:

	Six Months Ended 2-28-22		Year Ended 8-31-21	
	Shares	Amount	Shares	Amount
Class A shares				
Sold	766,215	\$11,778,139	1,121,979	\$17,005,972
Distributions reinvested	72,236	1,116,043	31,159	465,517
Repurchased	(521,854)	(8,037,996)	(1,054,756)	(15,897,317)
Net increase	316,597	\$4,856,186	98,382	\$1,574,172
Class C shares				
Sold	142,092	\$2,170,534	54,169	\$826,562
Distributions reinvested	9,254	143,625	1,277	19,165
Repurchased	(287,460)	(4,468,408)	(1,072,669)	(16,159,190)
Net decrease	(136,114)	\$(2,154,249)	(1,017,223)	\$(15,313,463)
Class I shares				
Sold	6,765,386	\$104,711,085	6,380,955	\$96,946,750
Distributions reinvested	487,798	7,536,474	239,814	3,582,824
Repurchased	(3,428,502)	(53,071,632)	(6,630,884)	(100,658,322)
Net increase (decrease)	3,824,682	\$59,175,927	(10,115)	\$(128,748)
Class R2 shares				
Sold	4,258	\$65,955	12,863	\$195,010
Distributions reinvested	882	13,616	307	4,586
Repurchased	(7,017)	(107,464)	(14,052)	(209,438)
Net decrease	(1,877)	\$(27,893)	(882)	\$(9,842)
Class R4 shares				
Sold	1,893	\$29,677	415	\$6,349
Distributions reinvested	88	1,362	37	547
Repurchased	(452)	(6,949)	(1,388)	(21,087)
Net increase (decrease)	1,529	\$24,090	(936)	\$(14,191)
Class R6 shares				
Sold	487,748	\$7,504,559	476,262	\$7,256,957
Distributions reinvested	28,746	444,124	15,812	236,228
Repurchased	(211,987)	(3,293,376)	(650,200)	(9,858,228)
Net increase (decrease)	304,507	\$4,655,307	(158,126)	\$(2,365,043)
Total net increase (decrease)	4,309,324	\$66,529,368	(1,088,900)	\$(16,257,115)

Affiliates of the fund owned 1% of shares of Class R6 on February 28, 2022. Such concentration of shareholders' capital could have a material effect on the fund if such shareholders redeem from the fund.

Note 6 — Purchase and sale of securities

Purchases and sales of securities, other than short-term investments, amounted to \$111,515,607 and \$43,571,156, respectively, for the six months ended February 28, 2022.

Note 7 — Investment in affiliated underlying funds

The fund invests primarily in affiliated underlying funds that are managed by the Advisor and its affiliates. The fund does not invest in the affiliated underlying funds for the purpose of exercising management or control; however, the fund's investment may represent a significant portion of each underlying funds' net assets. At February 28, 2022, the fund held 5% or more of the net assets of the underlying funds shown below:

Fund	Underlying fund's net assets
JHF II Multi-Asset Absolute Return Fund	11.4%
JHF Diversified Macro Fund	8.3%
JHF II Absolute Return Currency Fund	7.2%
JHF Seaport Long/Short Fund	5.3%

Information regarding the fund's fiscal year to date purchases and sales of the affiliated underlying funds as well as income and capital gains earned by the fund, if any, is as follows:

Affiliate	Ending share amount	Beginning value	Cost of purchases	Proceeds from shares sold	Realized gain (loss)	Change in unrealized appreciation (depreciation)	Dividends and distributions		Ending value
							Income distributions received	Capital gain distributions received	
Absolute Return Currency	4,040,569	\$31,992,526	\$10,946,806	\$(1,393,481)	\$(32,336)	\$(2,037,159)	—	—	\$39,476,356
Absolute Return Opportunities	—	20,432,695	368,038	(20,826,910)	(388,652)	414,829	—	—	—
Diversified Macro	4,666,528	38,425,952	6,499,628	(1,236,409)	(121,872)	(541,914)	\$1,349,222	—	43,025,385
Infrastructure	1,807,588	23,084,974	4,708,114	(715,274)	89,585	(1,879,245)	534,192	\$777,167	25,288,154
John Hancock Collateral Trust*	1,205,722	6,545,743	35,968,248	(30,447,924)	(4,216)	(2,820)	37,752	3,665	12,059,031
Multi-Asset Absolute Return	6,681,030	58,527,229	13,252,962	(2,836,373)	77,312	(206,521)	—	—	68,814,609
Seaport Long/Short	4,866,624	55,845,495	12,011,196	(4,029,448)	(98,545)	(5,913,203)	—	3,588,698	57,815,495
Strategic Income Opportunities	4,872,173	56,545,046	3,476,974	(4,519,633)	75,570	(3,396,985)	951,882	—	52,180,972
					\$(403,154)	\$(13,563,018)	\$2,873,048	\$4,369,530	\$298,660,002

* Refer to the Securities lending note within Note 2 for details regarding this investment.

Note 8 — Transactions in securities of affiliated issuers

Affiliated issuers, as defined by the 1940 Act, are those in which the fund's holdings of an issuer represent 5% or more of the outstanding voting securities of the issuer. A summary of the fund's transactions in the securities of these issuers during the six months ended February 28, 2022, is set forth below:

Affiliate	Ending share amount	Beginning value	Cost of purchases	Proceeds from shares sold	Realized gain (loss)	Change in unrealized appreciation (depreciation)	Dividends and distributions		Ending value
							Income distributions received	Capital gain distributions received	
Credit Suisse Managed Futures Strategy Fund	2,998,204	\$22,257,796	\$10,605,021	\$(875,264)	\$13,365	\$(1,209,360)	\$2,226,817	—	\$30,791,558
Invesco DB Gold Fund	260,903	12,934,526	2,190,254	(1,576,532)	(128,297)	794,044	—	—	14,213,995
					\$(114,932)	\$(415,316)	\$2,226,817	—	\$45,005,553

Note 9 — Coronavirus (COVID-19) pandemic

The COVID-19 disease has resulted in significant disruptions to global business activity. A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange trading suspensions and closures, which may lead to less liquidity in certain instruments, industries, sectors or the markets generally, and may ultimately affect fund performance.

More information

Trustees

Hassell H. McClellan, *Chairperson*
Steven R. Pruchansky, *Vice Chairperson*
Andrew G. Arnott[†]
James R. Boyle
Peter S. Burgess*
William H. Cunningham*
Grace K. Fey
Marianne Harrison[†]
Deborah C. Jackson
Frances G. Rathke*
Gregory A. Russo

Officers

Andrew G. Arnott
President
Charles A. Rizzo
Chief Financial Officer
Salvatore Schiavone
Treasurer
Christopher (Kit) Sechler
Secretary and Chief Legal Officer
Trevor Swanberg
Chief Compliance Officer

[†] Non-Independent Trustee

* Member of the Audit Committee

The fund's proxy voting policies and procedures, as well as the fund proxy voting record for the most recent twelve-month period ended June 30, are available free of charge on the Securities and Exchange Commission (SEC) website at sec.gov or on our website.

All of the fund's holdings as of the end of the third month of every fiscal quarter are filed with the SEC on Form N-PORT within 60 days of the end of the fiscal quarter. The fund's Form N-PORT filings are available on our website and the SEC's website, sec.gov.

We make this information on your fund, as well as **monthly portfolio holdings**, and other fund details available on our website at jhinvestments.com or by calling 800-225-5291.

You can also contact us:

800-225-5291

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Subadvisor

Manulife Investment Management (US) LLC

Portfolio Managers

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Christopher Walsh, CFA

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Blue Chip Growth
Classic Value
Disciplined Value
Disciplined Value Mid Cap
Equity Income
Financial Industries
Fundamental All Cap Core
Fundamental Large Cap Core
Mid Cap Growth
New Opportunities
Regional Bank
Small Cap Core
Small Cap Growth
Small Cap Value
U.S. Global Leaders Growth
U.S. Growth

INTERNATIONAL EQUITY FUNDS

Disciplined Value International
Emerging Markets
Emerging Markets Equity
Fundamental Global Franchise
Global Environmental Opportunities
Global Equity
Global Shareholder Yield
Global Thematic Opportunities
International Dynamic Growth
International Growth
International Small Company

FIXED-INCOME FUNDS

Bond
California Tax-Free Income
Emerging Markets Debt
Floating Rate Income
Government Income
High Yield
High Yield Municipal Bond
Income
Investment Grade Bond
Money Market
Municipal Opportunities
Opportunistic Fixed Income
Short Duration Bond
Strategic Income Opportunities

ALTERNATIVE FUNDS

Absolute Return Currency
Alternative Asset Allocation
Diversified Macro
Infrastructure
Multi-Asset Absolute Return
Real Estate Securities
Seaport Long/Short

A fund's investment objectives, risks, charges, and expenses should be considered carefully before investing. The prospectus contains this and other important information about the fund. To obtain a prospectus, contact your financial professional, call John Hancock Investments at 800-225-5291, or visit our website at jhinvestments.com. Please read the prospectus carefully before investing or sending money.

EXCHANGE-TRADED FUNDS

John Hancock Corporate Bond ETF
John Hancock Mortgage-Backed Securities ETF
John Hancock Multifactor Consumer Discretionary ETF
John Hancock Multifactor Consumer Staples ETF
John Hancock Multifactor Developed International ETF
John Hancock Multifactor Emerging Markets ETF
John Hancock Multifactor Energy ETF
John Hancock Multifactor Financials ETF
John Hancock Multifactor Healthcare ETF
John Hancock Multifactor Industrials ETF
John Hancock Multifactor Large Cap ETF
John Hancock Multifactor Materials ETF
John Hancock Multifactor Media and Communications ETF
John Hancock Multifactor Mid Cap ETF
John Hancock Multifactor Small Cap ETF
John Hancock Multifactor Technology ETF
John Hancock Multifactor Utilities ETF
John Hancock Preferred Income ETF

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE FUNDS

ESG Core Bond
ESG International Equity
ESG Large Cap Core

ASSET ALLOCATION/TARGET DATE FUNDS

Balanced
Multi-Asset High Income
Multi-Index Lifestyle Portfolios
Multi-Index Lifetime Portfolios
Multi-Index Preservation Portfolios
Multimanager Lifestyle Portfolios
Multimanager Lifetime Portfolios
Retirement Income 2040

CLOSED-END FUNDS

Financial Opportunities
Hedged Equity & Income
Income Securities Trust
Investors Trust
Preferred Income
Preferred Income II
Preferred Income III
Premium Dividend
Tax-Advantaged Dividend Income
Tax-Advantaged Global Shareholder Yield

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 Investment Management

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