

John Hancock  
Alternative Asset Allocation Fund

Quarterly portfolio holdings 5/31/2022

*John Hancock*<sup>®</sup> Investment Management

# Fund's investments

## As of 5-31-22 (unaudited)

	Shares	Value
<b>Affiliated investment companies (A) 60.4%</b>		<b>\$354,205,126</b>
(Cost \$338,787,598)		
<b>Absolute return strategies 33.4%</b>		<b>195,647,775</b>
Absolute Return Currency, Class NAV, JHF II (First Quadrant) (B)	4,660,849	44,511,109
Credit Suisse Managed Futures Strategy Fund (C)	2,608,671	30,391,019
Diversified Macro, Class NAV, JHIT (Graham)	4,347,166	45,123,578
Multi-Asset Absolute Return, Class NAV, JHF II (NIMNAI) (B)	7,547,113	75,622,069
<b>Alternative investment approaches 19.6%</b>		<b>114,898,093</b>
Seaport Long/Short, Class NAV, JHIT (Wellington)	5,653,431	64,844,856
Strategic Income Opportunities, Class NAV, JHF II (MIM US) (D)	4,916,821	50,053,237
<b>Alternative markets 7.4%</b>		<b>43,659,258</b>
Infrastructure, Class NAV, JHIT (Wellington)	1,987,653	28,204,800
Invesco DB Gold Fund (B)(C)	296,703	15,454,458
<b>Unaffiliated investment companies 39.3%</b>		<b>\$230,496,148</b>
(Cost \$221,231,980)		
<b>Absolute return strategies 23.7%</b>		<b>139,017,539</b>
Calamos Market Neutral Income Fund	2,431,792	33,801,911
IQ Merger Arbitrage ETF (B)(E)	733,989	23,186,713
The Arbitrage Fund, Class I	3,544,462	46,255,226
Victory Market Neutral Income Fund	3,714,817	35,773,689
<b>Alternative investment approaches 12.7%</b>		<b>74,618,814</b>
JPMorgan Hedged Equity Fund	3,033,285	74,618,814
<b>Alternative markets 2.9%</b>		<b>16,859,795</b>
Invesco Optimum Yield Diversified Commodity Strategy No. K-1 ETF (E)	511,765	9,984,535
Vanguard Real Estate ETF	69,398	6,875,260
	<b>Yield (%)</b>	<b>Shares</b>
<b>Short-term investments 2.8%</b>		<b>\$16,195,487</b>
(Cost \$16,195,641)		
<b>Short-term funds 2.8%</b>		<b>16,195,487</b>
John Hancock Collateral Trust (F)	0.8437(G)	1,587,106
State Street Institutional U.S. Government Money Market Fund, Premier Class	0.7415(G)	326,491
<b>Total investments (Cost \$576,215,219) 102.5%</b>		<b>\$600,896,761</b>
<b>Other assets and liabilities, net (2.5%)</b>		<b>(14,632,124)</b>
<b>Total net assets 100.0%</b>		<b>\$586,264,637</b>

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 fund's investments.

(D) The subadvisor is an affiliate of the advisor.

(E) All or a portion of this security is on loan as of 5-31-22. The value of securities on loan amounted to \$15,557,241.

(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 5-31-22.

**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)

## Notes to Fund's investments (unaudited)

**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 May 31, 2022, all investments are categorized as Level 1 under the hierarchy described above.

**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.

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	4,660,849	\$31,992,526	\$17,325,207	\$(1,997,373)	\$(111,227)	\$(2,698,024)	—	—	\$44,511,109
Absolute Return Opportunities	—	20,432,695	368,038	(20,826,910)	(388,652)	414,829	—	—	—
Diversified Macro	4,347,166	38,425,952	8,814,382	(6,693,210)	(190,844)	4,767,298	\$1,349,222	—	45,123,578
Infrastructure	1,987,653	23,084,974	7,674,306	(1,215,026)	100,270	(1,439,724)	577,954	\$777,167	28,204,800
John Hancock Collateral Trust	1,587,106	6,545,743	72,370,243	(63,036,471)	(8,810)	(1,709)	70,053	3,665	15,868,996
Multi-Asset Absolute Return	7,547,113	58,527,229	21,991,483	(2,836,373)	77,312	(2,137,582)	—	—	75,622,069
Seaport Long/Short	5,653,431	55,845,495	21,160,627	(4,029,448)	(98,545)	(8,033,273)	—	3,588,697	64,844,856
Strategic Income Opportunities	4,916,821	56,545,046	3,937,660	(4,519,633)	75,570	(5,985,406)	1,412,569	—	50,053,237
					<b>\$(544,926)</b>	<b>\$(15,113,591)</b>	<b>\$3,409,798</b>	<b>\$4,369,529</b>	<b>\$324,228,645</b>

**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 period ended May 31, 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	2,608,671	\$22,257,796	\$13,421,177	\$(8,067,064)	\$ 866,622	\$ 1,912,488	\$ 2,226,817	—	\$ 30,391,019
Invesco DB Gold Fund	296,703	12,934,526	4,741,424	(2,239,590)	(101,798)	119,896	—	—	15,454,458
					<b>\$764,824</b>	<b>\$2,032,384</b>	<b>\$2,226,817</b>	<b>—</b>	<b>\$45,845,477</b>

For additional information on the fund's significant accounting policies and risks, please refer to the fund's most recent semiannual or annual shareholder report and prospectus.