

**John Hancock Investment Trust
John Hancock Alternative Risk Premia Fund (the fund)**

Supplement dated March 25, 2021 to the current Summary Prospectus and Statutory Prospectus, as may be supplemented

At its meeting held on March 22 – 25, 2021, the Board of Trustees of John Hancock Investment Trust (the Board) approved the closing and liquidation of the fund pursuant to a Plan of Liquidation approved by the Board. The Board determined that continuation of the fund is not in the best interests of the fund or its shareholders as a result of factors or events adversely affecting the fund's ability to conduct its business and operations in an economically viable manner. The fund generally will not accept orders to purchase shares of the fund beginning on or about March 25, 2021 except at the fund's sole discretion; however, certain accounts affiliated with the fund's advisor may continue to purchase shares of the fund after that date. On or about May 10, 2021 (the Liquidation Date), the fund will distribute pro rata all of its assets to its shareholders, and all outstanding shares will be redeemed and cancelled as of the close of business on the Liquidation Date.

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

475R6SPS_3/25/21

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**John Hancock Investment Trust
John Hancock Alternative Risk Premia Fund (the fund)**

Supplement dated March 11, 2021 to the current Summary Prospectus and Statutory Prospectus, as may be supplemented

The following information supplements and supersedes any information to the contrary relating to Class R6 shares offered by John Hancock Alternative Risk Premia Fund contained in the Summary Prospectus and Statutory Prospectus relating to that share class of the fund.

Effective after the close of business on March 11, 2021 (the "Effective Date"), no Class R6 shares of the fund may be purchased or acquired by new investors. After the Effective Date, any investment received by the fund that is intended for Class R6 shares will be rejected. After the Effective Date, a shareholder of the fund owning Class R6 shares may continue to hold those shares until the shareholder redeems such Class R6 shares.

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

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John Hancock Alternative Risk Premia Fund

Summary prospectus 3/1/21

Before you invest, you may want to review the fund's prospectus, which contains more information about the fund and its risks. You can find the fund's prospectus and other information about the fund, including the Statement of Additional Information and most recent reports, online at www.jhinvestments.com/prospectuses. You can also get this information at no cost by calling 888-972-8696 or by sending an email request to info@jhinvestments.com. The fund's prospectus and Statement of Additional Information, both dated 3/1/21, as may be supplemented, and most recent financial highlights information included in the shareholder report, dated 10/31/20, are incorporated by reference into this summary prospectus.

TICKERS

R6: JRPSX

INVESTMENT OBJECTIVE

To seek long-term positive absolute returns.

FEES AND EXPENSES

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

	R6
Shareholder fees (fees paid directly from your investment)	
Maximum front-end sales charge (load)	None
Maximum deferred sales charge (load)	None
Annual fund operating expenses (%) (expenses that you pay each year as a percentage of the value of your investment)	
Management fee	1.00
Other expenses	0.44
Total annual fund operating expenses	1.44
Contractual expense reimbursement ¹	-0.01
Total annual fund operating expenses after expense reimbursements	1.43

¹ The advisor 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 the fiscal period from December 18, 2019 (commencement of operations) to October 31, 2020, the fund's reimbursement amounted to 0.01% of the fund's average daily net assets. This agreement expires on July 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.

EXPENSE EXAMPLE

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

Expenses (\$)	R6
1 year	146
3 years	455
5 years	786
10 years	1,723

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 the fiscal period from December 18, 2019 (commencement of operations) through October 31, 2020, the fund's portfolio turnover rate was 318% of the average value of its portfolio.

John Hancock Alternative Risk Premia Fund

PRINCIPAL INVESTMENT STRATEGIES

The fund pursues its investment objective by seeking to provide exposure to a diversified range of alternative investment styles (Alternative Risk Premia) using both long and short positions within a variety of asset classes globally. Alternative Risk Premia are multi-asset, quantitatively driven investment strategies that seek to capture diversified sources of return. The Alternative Risk Premia can be classified into the following groups: "Carry," "Trend," "Value," and "Equity Factor."

The manager will allocate to Alternative Risk Premia across a range of asset classes comprising equities, fixed income, credit, foreign currencies, and commodities. Exposure to these asset classes may be implemented directly or indirectly by investing in (i) global equity and fixed-income securities; (ii) unaffiliated investment companies, including exchange-traded funds (ETFs); (iii) affiliated investment companies, including ETFs, that currently exist or that may become available for investment in the future for which John Hancock or an affiliate (now or in the future) acts as investment adviser or principal underwriter; and (iv) derivative instruments, including futures (including index futures, equity futures, interest rate futures, bond futures and commodity futures), currency futures and forward contracts, options (including written and purchased options on equities, bonds, commodities, and equity and bond futures, including futures on indices), swaps (including equity swaps, bond swaps, interest rate swaps, swaps on index futures, total return swaps, inflation swaps and credit default swaps on indices) and commodity-linked notes.

The fund's exposure to equities includes securities of U.S. and non-U.S. issuers and equity indices representing the U.S. and non-U.S. countries, including emerging markets. The manager will consider, but is not limited to, the MSCI market classifications in determining whether a country is a developed or emerging market country. The fund will have exposure to U.S. Government securities and sovereign debt issued by other developed countries and bond indices representing such securities. The fund has no limits with respect to credit rating, maturity or duration of the debt securities in which it may invest and may invest in debt securities of any credit rating, maturity or duration, including high yield or "junk" bonds. From time to time, the fund may have significant exposure to non-U.S. dollar denominated currencies.

The fund is generally intended to have a low correlation to the equity, bond and credit markets. The fund also is not designed to match the performance of any hedge fund index or benchmark. In order to minimize market impact and reduce trading costs, where applicable, the manager will utilize a proprietary approach to algorithmic trading.

The main Alternative Risk Premia employed by the fund are, but are not limited to:

Carry: Carry styles seek to capitalize on the tendency for a higher-yielding asset (e.g., a below investment grade bond (a "junk bond")) to outperform a lower-yielding asset (e.g., an investment grade bond).

Trend: Trend styles seek to exploit the tendency for recent price movements to continue in the near future.

Value: Value styles seek to capitalize on the tendency for assets with low or high market prices and valuations to revert to their fundamental or intrinsic levels.

Equity Factor: Equity Factor styles seek to capitalize on various tendencies related to stock investments including but not limited to value, size, trend, quality, momentum, and low volatility.

The fund is actively managed and the fund's exposures to the various Alternative Risk Premia and asset classes will vary over time based on the manager's proprietary investment model and its ongoing evaluation of investment opportunities. The fund expects, under normal market conditions, to maintain exposure to all Alternative Risk Premia at all times; however, not all styles are represented within each asset class.

The fund's use of derivatives will have the economic effect of financial leverage. Financial leverage magnifies exposure to the swings in prices of an asset class underlying an instrument and results in increased volatility, which means the fund will have the potential for greater gains as well as the potential for greater losses than if the fund does not use instruments that have a leveraging effect.

The fund, on average, will target an annualized volatility of approximately 8%. Volatility is a statistical measurement of the dispersion of returns of a security or fund or index, as measured by the annualized standard deviation of returns. The fund's actual or realized volatility level for longer or shorter periods of time may be materially higher or lower depending on market conditions.

Investment in the Subsidiary. The fund may gain exposure to the commodities markets by investing up to 25% of its total assets in a wholly owned subsidiary of the fund organized as a company under the laws of the Cayman Islands: John Hancock Alternative Risk Premia Offshore Subsidiary Fund, Ltd. (the Subsidiary). The Subsidiary is advised by the subadvisor, under the supervision of the advisor, and seeks to gain commodities exposure.

The Subsidiary primarily obtains its commodity exposure by investing in commodity-linked derivative instruments, which may include but are not limited to total return swaps, commodity (U.S. or foreign) futures and commodity-linked notes. Neither the fund nor the Subsidiary intends to invest directly in physical commodities. The Subsidiary may also invest in other instruments, including fixed-income securities, either as investments or to serve as margin or collateral for its swap positions, and foreign currency transactions (including forward contracts).

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. In addition, although the manager aims to maximize absolute return, there is no guarantee that the fund will generate positive returns. 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.

John Hancock Alternative Risk Premia Fund

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 6 of the prospectus.*

Absolute return risk. Although a manager may aim to maximize absolute return, there is no guarantee that a fund will generate positive returns.

Asset allocation risk. Although allocation among asset categories generally limits exposure to any one category, the management team may favor a category that performs poorly relative to the others.

Cash and cash equivalents risk. Under certain market conditions, such as during a rising stock market, rising interest rate or rising credit spread markets, the use of cash and/or cash equivalents, including money market instruments, could have a negative effect on the fund's ability to achieve its investment objective and may negatively impact the fund's performance.

Commodity risk. Commodity prices may be volatile due to fluctuating demand, supply disruption, speculation, and other factors. Certain commodity investments may have no active trading market at times.

Credit and counterparty risk. The issuer or guarantor of a fixed-income security, the counterparty to an over-the-counter derivatives contract, or a borrower of fund securities may not make timely payments or otherwise honor its obligations. 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.

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

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

Equity securities risk. The price of equity securities may decline due to changes in a company's financial condition or overall market conditions. Securities the manager believes are undervalued may never realize their full potential value, and in certain markets value stocks may underperform the market as a whole.

Exchange-traded funds risk. An ETF generally reflects the risks of the underlying securities of the index it is designed to track. However, at times, an ETF's portfolio composition and performance may not match that of such index. A fund bears ETF fees and expenses indirectly.

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. 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. The risks of investing in foreign securities are magnified in emerging markets. Any depositary receipts are subject to most of the risks associated with investing in foreign securities directly because the value of a depositary receipt is dependent upon the market price of the underlying foreign equity security. Depositary receipts are also subject to liquidity risk.

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

High portfolio turnover risk. Trading securities actively and frequently can increase transaction costs (thus lowering performance) and taxable distributions.

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

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

Leveraging risk. Using derivatives may result in a leveraged portfolio. Leveraging tends to magnify, sometimes significantly, the effect of any increase or decrease in the fund's exposure to an asset class and may cause the fund's net asset value per share (NAV) to experience greater volatility. Leveraging long exposures increases a fund's losses when the value of its investments declines. Some derivatives have the potential for unlimited loss, regardless of the size of the initial investment.

Liquidity risk. The extent (if at all) to which a security may be sold or a derivative position closed without negatively impacting its market value may be impaired by reduced market activity or participation, legal restrictions, or other economic and market impediments. Liquidity risk may be magnified in rising interest rate environments due to higher than normal redemption rates. Widespread selling of fixed-income securities to satisfy redemptions during periods of

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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.

Lower-rated and high-yield fixed-income securities risk. Lower-rated and high-yield fixed-income securities (junk bonds) are subject to greater credit quality risk, risk of default, and price volatility than higher-rated fixed-income securities, may be considered speculative, and can be difficult to resell.

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

Short sales risk. In a short sale, a fund pays interest on a borrowed security. The fund will lose money if the price of the borrowed security increases between the short sale and the replacement date.

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

Subsidiary investment risk. By investing in the Subsidiary, the fund is indirectly exposed to the risks associated with the Subsidiary's investments and operations. The Subsidiary is not subject to U.S. laws, including securities laws and their protections. Because the Subsidiary is not registered under U.S. law, it may not be able to negotiate terms with its counterparties equivalent to those negotiated by a registered fund. Changes in applicable law could result in the inability of the Subsidiary to operate as described, and could adversely affect the fund's investment approach.

Tax risk. The tax treatment of commodity-related investments and income from the Subsidiary may be adversely affected by future U.S. tax legislation, regulation, or guidance.

PAST PERFORMANCE

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

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

Calendar year total returns—Class R6 (%)

	2020
	-17.55

Best quarter: Q3 2020, 0.24%

Worst quarter: Q1 2020, -12.64%

Average annual total returns (%)—as of 12/31/20	1 year	Since inception (12/18/19)
Class R6 (before tax)	-17.55	-17.17
after tax on distributions	-17.55	-17.18
after tax on distributions, with sale	-10.39	-13.08
ICE Bank of America 0-3 month U.S. Treasury Bill Index	0.54	0.59

INVESTMENT MANAGEMENT

Investment advisor John Hancock Investment Management LLC

Subadvisor Unigestion (UK) Limited (Unigestion UK)

John Hancock Alternative Risk Premia Fund

PORTFOLIO MANAGEMENT

Olivier Blin

Portfolio Manager

Managed the fund since 2019

Joan Lee, CFA

Portfolio Manager

Managed the fund since 2019

Jérôme Teiletche

Head of Cross Asset Solutions

Managed the fund since 2019

PURCHASE AND SALE OF FUND SHARES

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

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

TAXES

The fund's distributions are 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.

