

John Hancock High Yield Fund

Class NAV

ANNUAL SHAREHOLDER REPORT | MAY 31, 2025

This annual shareholder report contains important information about the John Hancock High Yield Fund (the fund) for the period of June 1, 2024 to May 31, 2025. You can find additional information about the fund at jhinvestments.com/underlying-funds. You can also request this information by contacting us at 800-344-1029.

This report describes changes to the fund that occurred during the reporting period.

What were the fund costs during the last year?

(Based on a hypothetical \$10,000 investment)

| Fund (Class) | Costs of a \$10,000 investment | Costs paid as a percentage of a \$10,000 investment |
|--------------------------------|--------------------------------|---|
| High Yield Fund (Class NAV) | \$57 | 0.55% |

Management’s Discussion of Fund Performance

SUMMARY OF RESULTS

High Yield Fund (Class NAV) returned 8.05% for the year ended May 31, 2025. High-yield bonds delivered strong total returns in the annual period, with the benefit of income offsetting a small increase in yield spreads. The category was helped by the combination of steady economic growth, positive corporate earnings, and accommodative U.S. Federal Reserve policy. However, high-yield debt experienced meaningful volatility in March and April 2025 due to uncertainty related to U.S. trade policy.

TOP PERFORMANCE CONTRIBUTORS

Technology | Holdings in this industry group made the largest contribution to absolute performance, led by Microstrategy, Inc.

Cable & satellite services | CCO Holdings LLC, the issuing entity of Charter Communications, Inc., was the leading contributor in the industry.

Individual security contributors | The fund’s position in the bonds of the media company iHeart Communications, Inc. made the largest contribution to performance at the individual security level. Level 3 Financing, Inc. also aided returns.

TOP PERFORMANCE DETRACTORS

Sector detractors | Retail was one of the few sectors in which the fund’s holdings suffered negative returns, primarily as a result of a loss for the bonds of Saks Global Enterprises LLC. The chemicals and paper industries were also modest detractors.

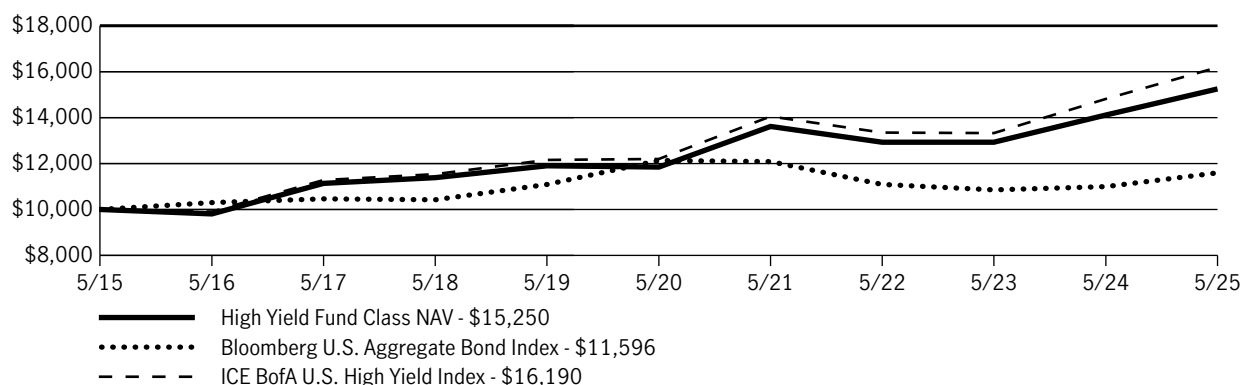
Individual security detractors | Holdings in Liberty Media and Liberty Communications Puerto Rico were also notable detractors, as were the chemical producer Trinseo Materials and the building materials producer JELD-WEN, Inc.

The views expressed in this report are exclusively those of the portfolio management team at Manulife Investment Management (US) LLC, and are subject to change. They are not meant as investment advice.

Fund Performance

The following graph compares the initial and subsequent account values at the end of each of the most recently completed 10 fiscal years of the fund (or for the life of the fund, if shorter). It assumes a \$10,000 initial investment in the fund and in an appropriate, broad-based securities market index for the same period.

GROWTH OF \$10,000



| AVERAGE ANNUAL TOTAL RETURN | 1 Year | 5 Years | 10 Years |
|-------------------------------------|--------|---------|----------|
| High Yield Fund (Class NAV) | 8.05% | 5.18% | 4.31% |
| Bloomberg U.S. Aggregate Bond Index | 5.46% | (0.90)% | 1.49% |
| ICE BofA U.S. High Yield Index | 9.28% | 5.82% | 4.94% |

Performance figures assume all distributions have been reinvested and reflect the beneficial effect of any expense reductions. Past performance does not guarantee future results. 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. The graph and table do not reflect the deduction of taxes that a shareholder would pay on fund distributions or redemption of fund shares. It is not possible to invest directly in an index.

Fund Statistics

| | |
|------------------------------------|-----------------|
| Fund net assets | \$1,398,078,990 |
| Total number of portfolio holdings | 393 |
| Total advisory fees paid (net) | \$6,186,805 |
| Portfolio turnover rate | 54% |

Graphical Representation of Holdings

The tables below show the investment makeup of the fund, representing a percentage of the total net assets of the fund.

| PORTFOLIO COMPOSITION | | QUALITY COMPOSITION | |
|--|-------|----------------------------------|-------|
| Corporate bonds | 85.5% | U.S. Government Agency | 0.3% |
| Term loans | 7.5% | A | 0.5% |
| Asset-backed securities | 1.9% | BBB | 6.1% |
| Preferred securities | 1.0% | BB | 36.3% |
| U.S. Government Agency | 0.3% | B | 42.1% |
| Collateralized mortgage obligations – Commercial and residential | 0.1% | CCC and below | 8.7% |
| Short-term investments and other | 3.7% | Not rated | 2.3% |
| | | Short-term investments and other | 3.7% |

Ratings are from Moody's Investors Service, Inc. If not available, we have used S&P Global Ratings. In the absence of ratings from these agencies, we have used Fitch Ratings, Inc. "Not rated" securities are those with no ratings available from these agencies. All ratings are as of 5-31-25 and do not reflect subsequent downgrades or upgrades, if any.

Holdings may not have been held by the fund for the entire period and are subject to change without notice. Portfolio composition is subject to review in accordance with the fund's investment strategy and may vary in the future. Current and future portfolio holdings are subject to risk and may change at any time.

The fund is subject to various risks as described in the fund's prospectus. For more information, please refer to the "Principal risks" section of the prospectus.

Material Fund Changes

On January 15, 2025, the shareholders of John Hancock Funds II High Yield Fund (the Acquired Fund) voted to approve an Agreement and Plan of Reorganization pursuant to which the Acquired Fund transferred all of its assets to the fund (the Acquiring Fund) in exchange for corresponding shares of the Acquiring Fund. The effective time of the reorganization occurred immediately after the close of regularly scheduled trading on the New York Stock Exchange on February 7, 2025.

This is a summary of certain changes to the fund since 6-1-24. For more complete information, please refer to the fund's prospectus. The currently effective prospectus is available at jhinvestments.com/documents or by calling 800-225-5291.

Availability of Additional Information



At jhinvestments.com/underlying-funds, you can find additional information about the fund, including the fund's:

- Prospectus
- Financial information
- Fund holdings
- Proxy voting information

This report is for the information of the shareholders in this fund. It is not authorized for distribution to prospective investors unless preceded or accompanied by the fund's prospectus.



John Hancock Investment Management Distributors LLC, Member FINRA, SIPC, 200 Berkeley Street, Boston, MA 02116, 800-225-5291, jhinvestments.com
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