

John Hancock Managed Account Shares Non-Investment-Grade Municipal Bond Portfolio

Non-Investment-Grade Municipal Bond Portfolio/JHFMX

ANNUAL SHAREHOLDER REPORT | MAY 31, 2024

This annual shareholder report contains important information about the John Hancock Managed Account Shares Non-Investment-Grade Municipal Bond Portfolio (the fund) for the period of June 1, 2023 to May 31, 2024. You can find additional information about the fund at jhinvestments.com/underlying-funds. You can also request this information by contacting us at 800-247-0278.

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	Costs of a \$10,000 investment	Costs paid as a percentage of a \$10,000 investment
Non-Investment-Grade Municipal Bond Portfolio/JHFMX	\$0	0.00%

Management's Discussion of Fund Performance

SUMMARY OF RESULTS

Managed Account Shares Non-Investment-Grade Municipal Bond Portfolio (Non-Investment-Grade Municipal Bond Portfolio/JHFMX) returned 8.73% for the year ended May 31, 2024. The municipal bond market posted a gain in the annual period. Bond prices experienced volatility due to the combination of persistent inflation and uncertainty as to when the U.S. Federal Reserve would begin to cut interest rates, but total returns were positive thanks to a sizable contribution from income. Municipal securities were further boosted by the combination of steady economic growth, healthy issuer fundamentals, and positive supply-and-demand conditions. High-yield municipals were particularly strong performers at a time of robust investor risk appetites.

TOP PERFORMANCE CONTRIBUTORS

Holdings in virtually all sectors | While market performance was broad-based, some of the best returns came from the multifamily housing, charter schools, and continuing care retirement sectors.

Positions in economic and industrial development bonds | This sector was home to a number of the fund's top individual performers for the period.

TOP PERFORMANCE DETRACTORS

Montana Facility Finance Authority | This issuer, which provides not-for-profit health care providers with access to low-cost capital, was one of only a few holdings to experience a loss.

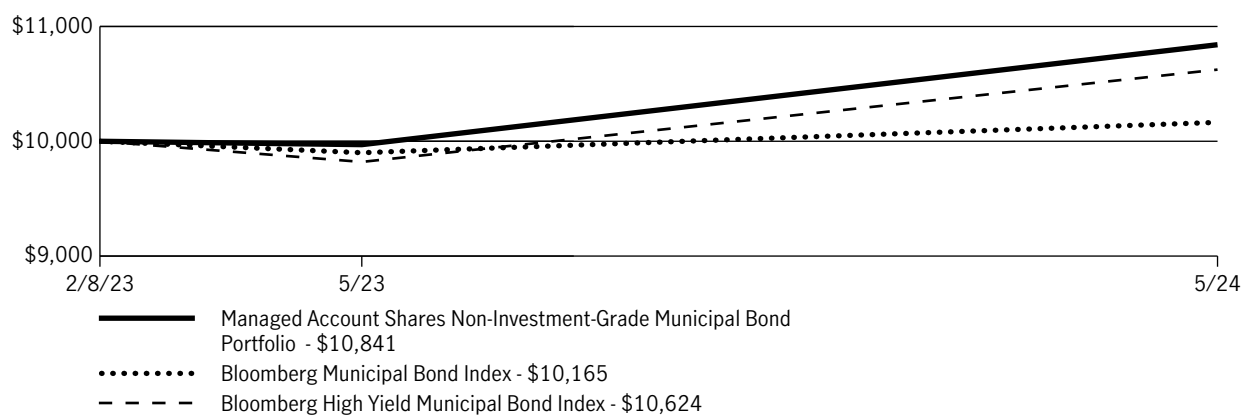
South Carolina Jobs – Economic Development Authority | The issuer defaulted on its debt due in part to the lingering effects of COVID-19.

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	Since inception
Managed Account Shares Non-Investment-Grade Municipal Bond Portfolio (Non-Investment-Grade Municipal Bond Portfolio/JHFMX)	8.73%	10.00%
Bloomberg Municipal Bond Index	2.67%	1.25%
Bloomberg High Yield Municipal Bond Index	8.19%	4.72%

The Fund has designated Bloomberg Municipal Bond Index as its broad-based securities market index in accordance with the revised definition for such an index.

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	\$20,466,611
Total number of portfolio holdings	93
Total advisory fees paid (net)	\$0
Portfolio turnover rate	13%

Graphical Representation of Holdings

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

SECTOR COMPOSITION	
General obligation bonds	6.1%
Revenue bonds	92.2%
Development	22.6%
Health care	19.1%
Education	16.4%
Other revenue	12.8%
Transportation	4.9%
Housing	3.9%
Tobacco	3.7%
Utilities	3.1%
Water and sewer	2.5%
Airport	2.5%
Pollution	0.7%
Short-term investments and other	1.7%

QUALITY COMPOSITION	
AA	1.2%
A	5.2%
BBB	27.9%
BB	23.5%
B	1.0%
Not rated	39.5%
Short-term investments and other	1.7%

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 5-31-24 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

Effective 10-1-23 the fund changed its objective from "To seek as high a level of interest income exempt from federal income tax as is consistent with preservation of capital." to "To seek a high level of interest income exempt from federal income tax."

For more complete information, please refer to the fund's prospectus. The currently effective prospectus is available at jhinvestments.com/underlying-funds or by calling 800-247-0278.

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

You can also request this information by contacting us at 800-247-0278.

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 02116-5010, 800-225-5291, jhinvestments.com
Manulife, Manulife Investment Management, Stylized M Design, and Manulife Investment Management & Stylized M Design are trademarks of The Manufacturers Life Insurance Company and are used by it, and by its affiliates under license.

NOT FDIC INSURED. MAY LOSE VALUE. NO BANK GUARANTEE. NOT INSURED BY ANY GOVERNMENT AGENCY.

A company of  **Manulife** Investment Management

MF3619775

319A- 5/24 7/24