

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

Non-Investment-Grade Municipal Bond Portfolio/JHFMX

ANNUAL SHAREHOLDER REPORT | MAY 31, 2025

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, 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 800-247-0278.

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 0.99% for the year ended May 31, 2025. Municipal bonds posted positive absolute returns in the annual period, with the contribution from income outweighing the effect of mixed price action. The category lagged the broader fixed-income market due in part to a high level of new-issue supply. In addition, the asset class experienced elevated volatility in early 2025 after the protectionist shift in U.S. trade policy began to fuel concerns about the economic outlook.

TOP PERFORMANCE CONTRIBUTORS

Charter schools | The fund’s holdings in this area made the largest contribution to absolute performance due to the combination of positive total returns and a sizable portfolio weighting.

Hospitals | This sector also made a positive contribution to performance, as did holdings in tax increment finance and special assessment securities.

Strong performing individual securities | Ohio Air Quality Development Authority was a top contributor, as was Florida Development Finance Corp.

TOP PERFORMANCE DETRACTORS

Resource recovery and economic / industrial development bonds | These two categories were the most significant detractors from absolute performance.

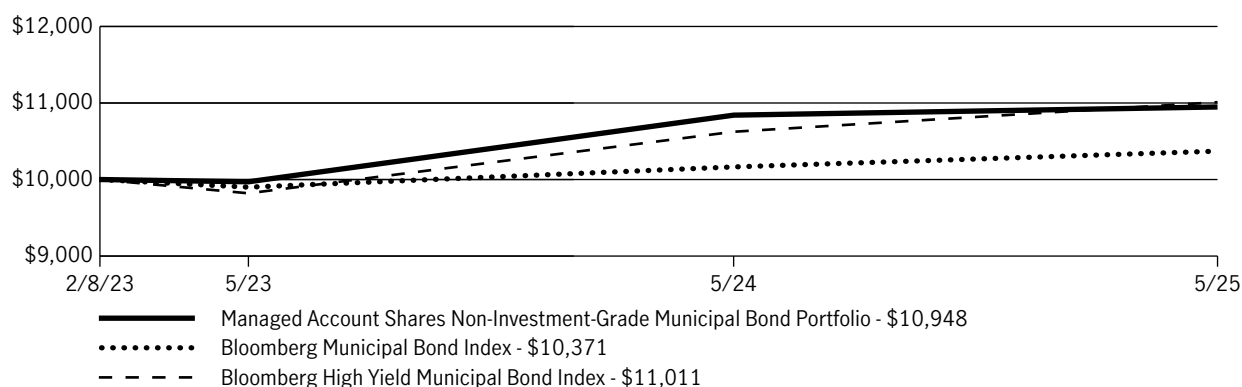
Specific securities | Indiana Finance Authority and Polk County Industrial Development Authority were meaningful detractors from performance.

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)	0.99%	4.00%
Bloomberg Municipal Bond Index	2.03%	1.59%
Bloomberg High Yield Municipal Bond Index	3.64%	4.26%

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	\$19,660,971
Total number of portfolio holdings	101
Total advisory fees paid (net)	\$0
Portfolio turnover rate	30%

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	
General obligation bonds	4.7%	AA	1.2%
Revenue bonds	93.1%	A	6.4%
Development	21.7%	BBB	21.0%
Education	19.1%	BB	20.9%
Health care	17.4%	B	3.5%
Other revenue	15.7%	CCC and below	0.7%
Airport	4.8%	Not rated	44.1%
Transportation	4.7%	Short-term investments and other	2.2%
Housing	4.4%		
Tobacco	3.9%		
Water and sewer	1.2%		
Pollution	0.2%		
Short-term investments and other	2.2%		

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.

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.



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