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

Non-Investment-Grade Municipal Bond Portfolio/JHFMX

ANNUAL SHAREHOLDER REPORT | MAY 31, 2026

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, 2025 to May 31, 2026. 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 7.29% for the year ended May 31, 2026. The broader U.S. bond market delivered positive total returns in the annual period. Much of the gain occurred before the start of the war in Iran in early March, reflecting confidence that moderate inflation would allow the U.S. Federal Reserve (Fed) to continue cutting interest rates. The conflict caused the market to give back some of its prior gains in the final three months of the period, however, as higher oil prices raised the prospect of reaccelerating inflation and less accommodative Fed policy. Municipal bonds outperformed the taxable investment-grade market, reflecting positive supply-and-demand conditions, attractive yields relative to U.S. Treasuries, and stable credit trends. High-yield municipal issues slightly underperformed the broader tax-exempt category.

TOP PERFORMANCE CONTRIBUTORS

Continuing care retirement and charter schools | The fund's holdings in these areas made the largest contribution to absolute performance due to the combination of positive total returns and their sizable portfolio weightings.

Other notable sectors | Positions in the tax increment/financing, toll roads/bridges/tunnels, and hospitals sectors also helped results.

Strong performing individual securities | Beaver County Industrial Development Authority was a top contributor, as were bonds issued by the City of Henderson, Kentucky.

TOP PERFORMANCE DETRACTORS

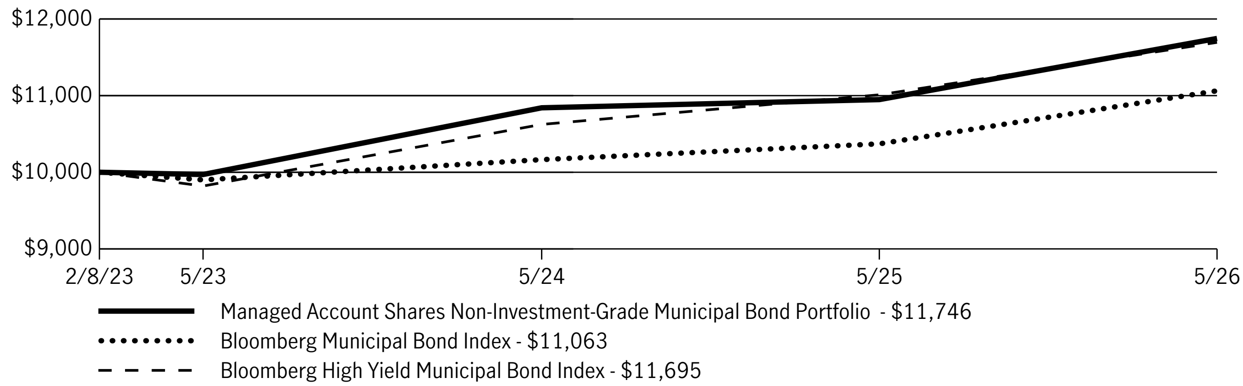
Economic and industrial revenue bonds | Although a number of individual issues performed well, the fund's holdings in this category posted losses in the aggregate. Bonds issued by Polk County, Florida and Brazoria County, Texas detracted from results, as did the Nevada Department of Business & Industry.

The views expressed in this report are those of the portfolio management team 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)	7.29%	4.98%
Bloomberg Municipal Bond Index	6.67%	3.10%
Bloomberg High Yield Municipal Bond Index	6.21%	4.84%

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	$20,057,257
Total number of portfolio holdings	106
Total advisory fees paid (net)	$0
Portfolio turnover rate	16%

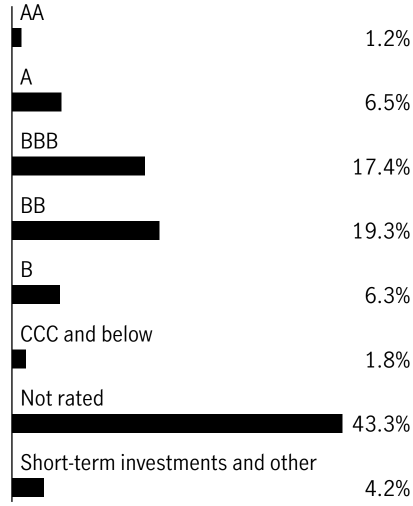
Graphical Representation of Holdings

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

PORTFOLIO COMPOSITION

General obligation bonds	**6.4%**
Revenue bonds	**89.4%**
Education	19.4%
Development	19.2%
Other revenue	17.7%
Health care	16.1%
Transportation	4.6%
Airport	4.1%
Tobacco	4.0%
Housing	3.0%
Water and sewer	1.2%
Pollution	0.1%
Short-term investments and other	**4.2%**

QUALITY COMPOSITION



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 5-31-26 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.

Manulife Investments | John Hancock

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