Investment Insights

Implementing thoughtful risk management for a high yield municipal bond fund

Overview

- The Invesco Rochester® Municipal Opportunities Fund (ORNAX) has undergone an evolution in its approach to portfolio construction that seeks to optimize the shareholder experience while delivering long-term, yield-driven total return.
- Starting in 2010, the risk management program under which the fund operates was overhauled in support of this evolution.
- The portfolio has since been tested in real-world market events, with strong results.
- The fund's risk-reward metrics offer proof of the potential benefits of these changes.

LSEG Lipper Fund Awards Winner 2025 United States

Class Y shares (ORNYX): best-in-class among 38 High Yield Municipal Debt Funds for the 10-year period ended November 30, 2024 based on consistently strong risk-adjusted performance.

Investment thesis

When it comes to managing high yield municipal bond funds, the challenge is to find the right balance between risk (Net Asset Value (NAV) volatility) and reward (yield-driven total return). After the so-called "great recession" of 2007 – 2008, the Invesco Municipal Bond team observed high yield municipal bond investors placing a greater premium on managing the NAV volatility part of that equation. That drove the team to re-imagine the process of portfolio construction that leads to the ultimate goal of the fund: Long-term, yield-driven total return.

Mark Paris, Invesco Municipal Bond team Chief Investment Officer and Senior Portfolio Manager shared, "The goal was to create an investor experience that could be inline with the peer group in a down market without changing the potential of the fund to perform in a strong market."

"New" risk management program

The biggest change in the portfolio construction process was to the risk management program within which the portfolio managers operate, that started in 2010. The goal was to promote diversification within the portfolio in an effort to reduce the ability of a single position to create excess volatility. The key changes to the risk management program include:

- Reduced existing maximum per-sector exposure
- Reduced existing maximum per-issuer exposure

Added internal risk guidelines or limits on:

- Inverse floater exposure
- Non-rated exposure
- Per-state exposure
- Exposure to BBB- or lower-rated bonds at the time of purchase

Real-world tests, real-world results

The risk management program went through multiple iterations as it was fine-tuned and then implemented throughout the portfolio. But the real tests were the fund's performance during the last three periods of significant volatility in the municipal bond market.

- 2013: "Taper tantrum" and the beginning of the Puerto Rico debt crisis
- 2017: Hurricane Maria
- 2020: The COVID-19 pandemic

The steady improvement in the fund's relative performance rankings across these three periods of market volatility correlates to the portfolio being brought in line with the new risk program.

Invesco Rochester® Municipal Opportunities Fund (ORNAX)
Morningstar High Yield Municipal Category Percentile Ranking

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ORNAX Percentile Rank	22nd	35th	1st	69th	3rd	1st	14th	18th	56th	15th	78th
# Funds in Category	183	190	170	172	183	188	196	200	196	192	189

Source: Morningstar, as of March 31, 2025.

Invesco Rochester® Municipal Opportunities Fund Total Returns
Morningstar High Yield Municipal Category Rankings, as of March 31, 2025

	1-Year Cumulative Total Return (%)	Morningstar Category Percentile Rank	3-Year Cumulative Total Return (%)	Morningstar Category Percentile Rank	5-Year Cumulative Total Return (%)	Morningstar Category Percentile Rank	10-Year Cumulative Total Return (%)	Morningstar Category Percentile Rank
Class A at NAV	2.72	72	1.52	47	3.00	18	4.66	2
Class A with Max Load 4.25%	-1.58		0.06		2.10		4.20	

Source: Morningstar, as of March 31, 2025, the Invesco Rochester® Municipal Opportunities Fund ranked 138 out of 196 funds in the 1-year ranking, 85 out of 185 funds in the 3-year ranking, 30 out of 184 funds in the 5-year ranking, and 4 out of 151 funds in the 10-year ranking**. Morningstar rankings are based on total return, excluding sales charges and including fees and expenses versus all funds in the Morningstar category.** Open-end mutual funds and exchange-traded funds are considered a single population for comparison purposes. Had fees not been waived and/or expenses reimbursed currently or in the past, the ranking would have been lower.

Performance quoted is past performance and cannot guarantee comparable future results; current performance may be lower or higher. Visit invesco.com/performance for the most recent month-end performance. Performance figures reflect reinvested distributions and changes in net asset value (NAV). Investment return and principal value will vary, and you may have a gain or a loss when you sell shares. Fund performance reflects any applicable fee waivers and/or expense reimbursements. Had the adviser not waived fees and/or reimbursed expenses currently or in the past, returns would have been lower. See current prospectus for more information. As the result of a reorganization on May 24, 2019, the returns of the fund for periods on or prior to May 24, 2019, reflect performance of the Oppenheimer predecessor fund. Share class returns will differ from the predecessor fund due to a change in expenses and sales charges.

The intersection of risk and reward

Striking that balance between risk and reward can be demonstrated with risk measures designed to show risk-adjusted return (Sharpe and Sortino ratios) and the degree to which the portfolio participated in up and downturns in the municipal bond market (upside capture ratio and downside capture ratio). Over the past 10 years, ORNAX has achieved a strong risk/reward dynamic as compared to its peer group.

	Sharpe Ratio	Sortino Ratio	Upside Capture Ratio	Downside Capture Ratio
10-Year Risk Metrics, as of March 31, 2025				
ORNAX	0.35	0.50	158.65	135.00
Morningstar High Yield Municipal Category	0.14	0.18	125.05	123.51

Source: Morningstar, as of March 31, 2025.

Importantly, this risk management program is a permanent feature of how the Invesco Municipal Bond team intends to manage ORNAX. It is our opinion that shareholders will potentially benefit from this additional protection. Mark Paris shares this:

“We believe that taking risk should have the potential for greater reward – both for the portfolio managers or individual investors - especially in the high yield part of the market. We take this responsibility very seriously and operate in a stronger risk framework in which to execute it.”

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About risk

All or a portion of the fund's otherwise tax-exempt income may be subject to the federal alternative minimum tax.

The Fund may use leverage to seek to enhance income, which creates the likelihood of greater volatility of the Fund's shares and may also impair the ability to maintain its qualification for federal income tax purposes as a regulated investment company.

An issuer may be unable to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating.

Derivatives may be more volatile and less liquid than traditional investments and are subject to market, interest rate, credit, leverage, counterparty and management risks. An investment in a derivative could lose more than the cash amount invested.

Certain of the municipalities in which the Fund invests, including Puerto Rico, currently experience significant financial difficulties. Puerto Rico's economic problems increase the risk of investing in Puerto Rican municipal obligations, including the risk of potential issuer default, heightens the risk that the prices of Puerto Rican municipal obligations, and the Fund's net asset value, will experience greater volatility. See the prospectus for more information.

Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa.

Inverse floating rate obligations may be subject to greater price volatility than a fixed income security with similar qualities. When short-term interest rates rise, they may decrease in value and produce less or no income and are subject to risks similar to derivatives.

Junk bond values fluctuate more than high quality bonds and can decline significantly over a short time.

Leverage created from borrowing or certain types of transactions or instruments may impair liquidity, cause positions to be liquidated at an unfavorable time, lose more than the amount invested, or increase volatility.

The Fund may invest in municipal securities issued by entities having similar characteristics, which may make the Fund more susceptible to fluctuation.

Municipal securities have the risk that legislative or economic conditions could affect an issuer's ability to make principal and/or interest payments.

The value, interest rates, and liquidity of non-cash paying instruments, such as zero coupon and pay-in-kind securities, are subject to greater fluctuation than other types of securities.

There is no guarantee that the Fund's income will be exempt from federal and state income taxes.

Based on a Master Settlement Agreement ("MSA") with 46 states and six other US jurisdictions, large US tobacco manufacturers have agreed to make annual payments to government entities in exchange for the release of all litigation claims. Several states have sold bonds backed by those future payments, including (i) bonds that make payments only from a state's interest in the MSA and (ii) bonds that make payments from both the MSA revenue and from an "appropriation pledge" by the state which requires the state to pass a specific periodic appropriation to make the payments and is generally not an unconditional guarantee of payment by a state. Settlement payments are based on factors, including, but not limited to, annual domestic cigarette shipments, cigarette consumption, inflation and the financial capability of participating tobacco companies. Payments could be reduced if consumption decreases, if market share is lost to non-MSA manufacturers, or if there is a negative outcome in litigation regarding the MSA, including challenges by participating tobacco manufacturers regarding the amount of annual payments owed under the MSA.

The investment techniques and risk analysis used by the portfolio managers may not produce the desired results.

The Fund is subject to certain other risks. Please see the current prospectus for more information regarding the risks associated with an investment in the Fund.

An Inverse floater is a form of leverage issued in connection with municipal tender option bond (TOB) that has a coupon rate that varies inversely with a benchmark interest rate.

Taper tantrum refers to the 2013 collective reactionary panic that triggered a spike in U.S. Treasury yields, after investors learned that the Federal Reserve was slowly putting the breaks on its quantitative easing (QE) program.

In 2008, ORNAX ranked 98th out of 111 funds in the Morningstar High Yield Municipal Category; in 2013, ORNAX ranked 83rd ("Taper tantrum" and the beginning of the Puerto Rico debt crisis); in 2017 (Hurricane Maria), ORNAX ranked 69th; in 2020 (The COVID-19 pandemic), ORNAX ranked 14th.

Sharpe Ratio indicates the reward per unit of risk by using standard deviation and excess return. The higher the Sharpe ratio, the better the investment's historical risk-adjusted performance.

Sortino Ratio is a risk-adjustment metric used to determine the additional return for each unit of downside risk. A high Sortino ratio is preferred, as it indicates that an investor will earn a higher return for each unit of a downside risk.

Upside Capture Ratio measures a strategy's performance in up markets relative to an index. A value over 100 indicates that an investment has outperformed the benchmark during periods of positive returns for the benchmark.

Downside Capture Ratio measures a strategy's performance in down markets relative to the index. A value of less than 100 indicates that an investment has lost less than its benchmark during periods of negative returns for the benchmark.

A credit rating is an assessment provided by a nationally recognized statistical rating organization (NRSRO) of the creditworthiness of an issuer with respect to debt obligations, including specific securities, money market instruments or other debts. Ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest); ratings are subject to change without notice. NR indicates the debtor was not rated and should not be interpreted as indicating low quality. For more information on rating methodologies, please visit the following NRSRO websites: www.standardandpoors.com and select 'Understanding Credit Ratings' under Rating Resources 'About Ratings' on the homepage.; https://ratings.moodys.io/ratings and select 'Understanding Ratings' on the homepage.; www.fitchratings.com and select 'Ratings Definitions Criteria' under 'Resources' on the homepage. Then select 'Rating Definitions' under 'Resources' on the 'Contents' menu.

Diversification does not guarantee a profit or eliminate the risk of loss.

Before investing, investors should carefully read the prospectus and/or summary prospectus and carefully consider the investment objectives, risks, charges and expenses. For this and more complete information about the fund(s), investors should ask their financial professionals for a prospectus/summary prospectus or visit invesco.com/fundprospectus.

This does not constitute a recommendation of any investment strategy or product for a particular investor. Investors should consult a financial professional before making any investment decisions.

Note: Not all products, materials or services available at all firms. Financial professionals, please contact your home office.

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Past performance does not guarantee future results.