



# S-Network Municipal Bond Closed-End Fund Index

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Q1 2021

**S%NET**  
CLOSED-END FUND  
INDEXES

# Index Overview

- ❑ **A Diversified Portfolio of 61 Municipal Bond Closed-End Funds**
- ❑ **Targets Federal Income Tax Exempt Yield**
- ❑ **All US-Registered Funds**
- ❑ **Modified Net Asset-Weighted Methodology**
- ❑ **Multiple Qualitative Screens**
  - Discount
  - Management Fee
- ❑ **Screened for Liquidity**
- ❑ **Designed to Take Advantage of Inefficiencies in the Closed-End Fund Market**

**CEFMX Provides Diversified Exposure to a Broad Range of High Quality Municipal Bond Closed-End Funds.**


# Key Features

- Diversification**
- Professional Management**
- Efficient Portfolio Management**
- Periodic Distributions**
- Yield Exempt From Federal Income Taxes**
- Opportunity to Buy at a Discount**
- Leverage Potential**
- Lower Management Fees**

**CEFMX Provides an Effective Benchmark for US Municipal Bond Closed-End Funds.**

# Index Rationale

- ❑ **Diversification by Asset Class**
- ❑ **Diversification by Investment Strategy**
- ❑ **Diversification by Manager**
- ❑ **High Current Yield**
- ❑ **Yield Exempt From Federal Income Taxes**
- ❑ **High Current Discount to NAV**



**CEFMX Substantially Diminishes the Risks Implied in Owning a Single Municipal Bond Closed-End Fund While Providing High Current Yields Tax Free.**



## Index Constituents and Performance

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# Historical Performance vs. Benchmark

**S-Network Municipal Bond Closed-End Fund TR vs. S&P National AMT-Free Municipal Bond TR**  
(8/31/2007–03/31/2021)

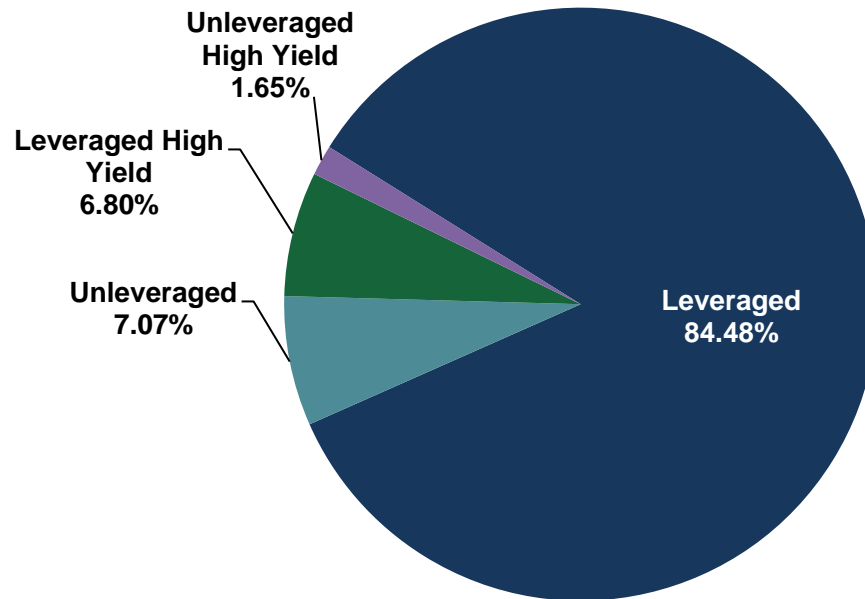


Source: Bloomberg as of 3/31/2021



# Index Rationale – Sector Breakdown

**S-Network Municipal Bond Closed-End Fund Index:  
Sector Distribution**

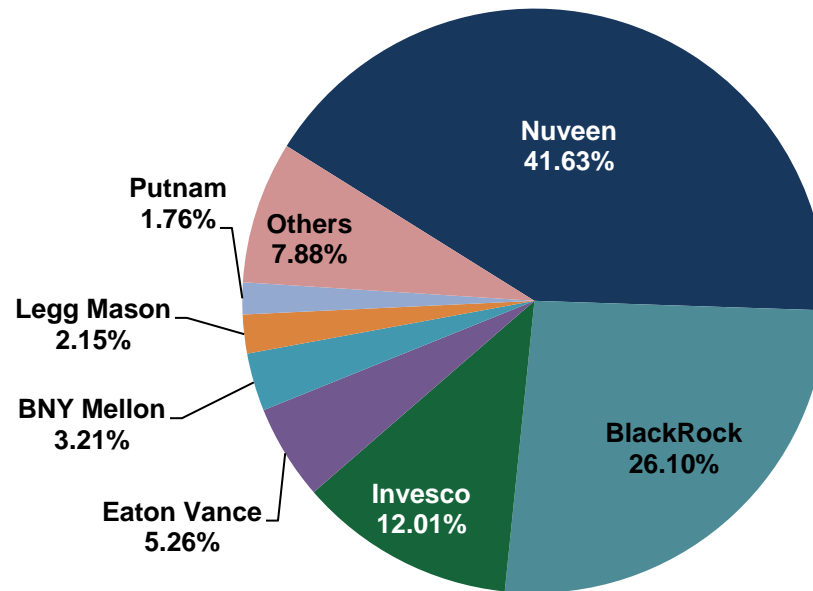


Source: Bloomberg as of 3/31/2021

**CEFMX Diversifies Risk by Including Municipal Bond Closed-End Funds that Employ Differing Investment Strategies and Use Different Levels of Leverage to Increase Yield.**

# Index Rationale – Manager Breakdown

**S-Network Municipal Bond Closed-End Fund Index:  
Manager Distribution**

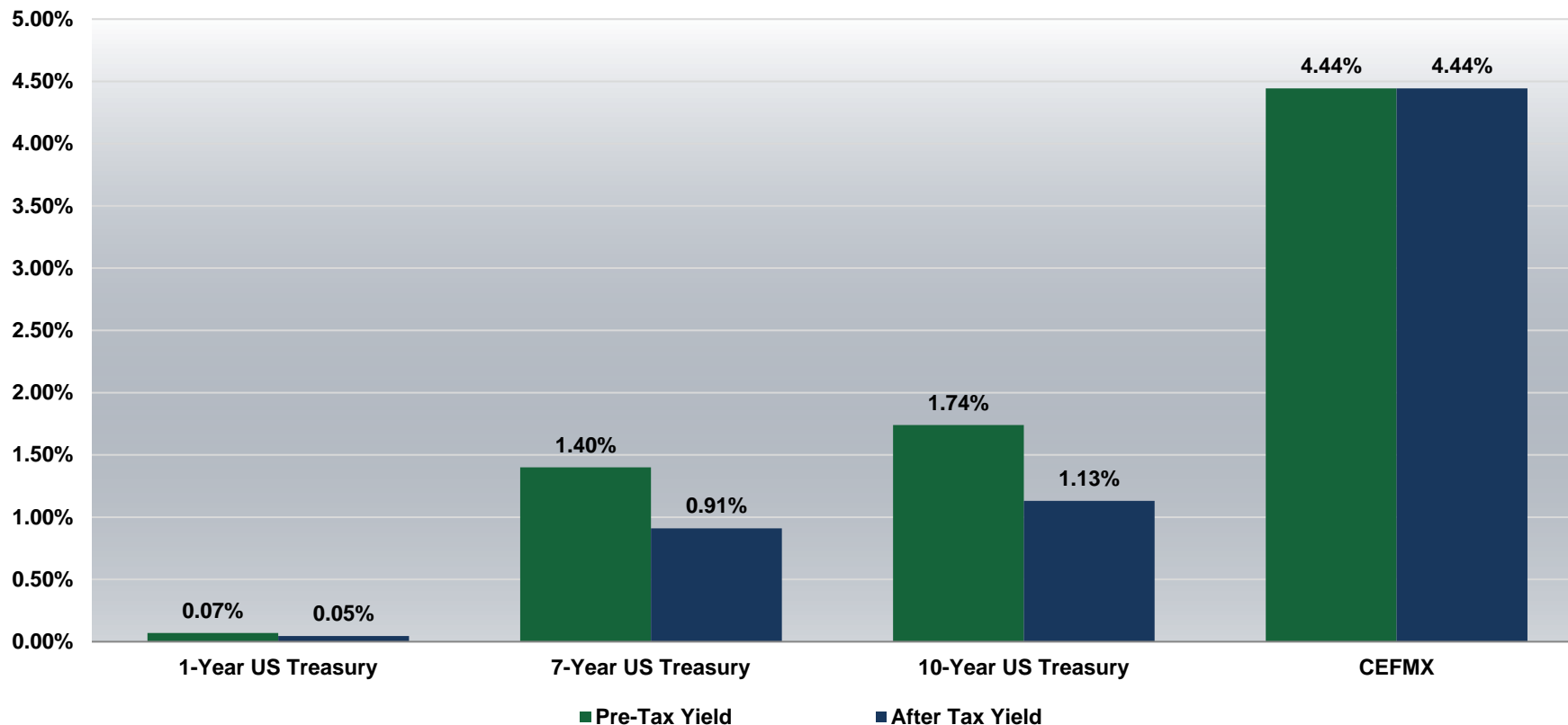


Source: Bloomberg as of 3/31/2021

**CEFMX Also Diversifies Risk by Manager and Includes the Leading Fixed Income Closed-End Fund Managers in the US.**



## Current Yields

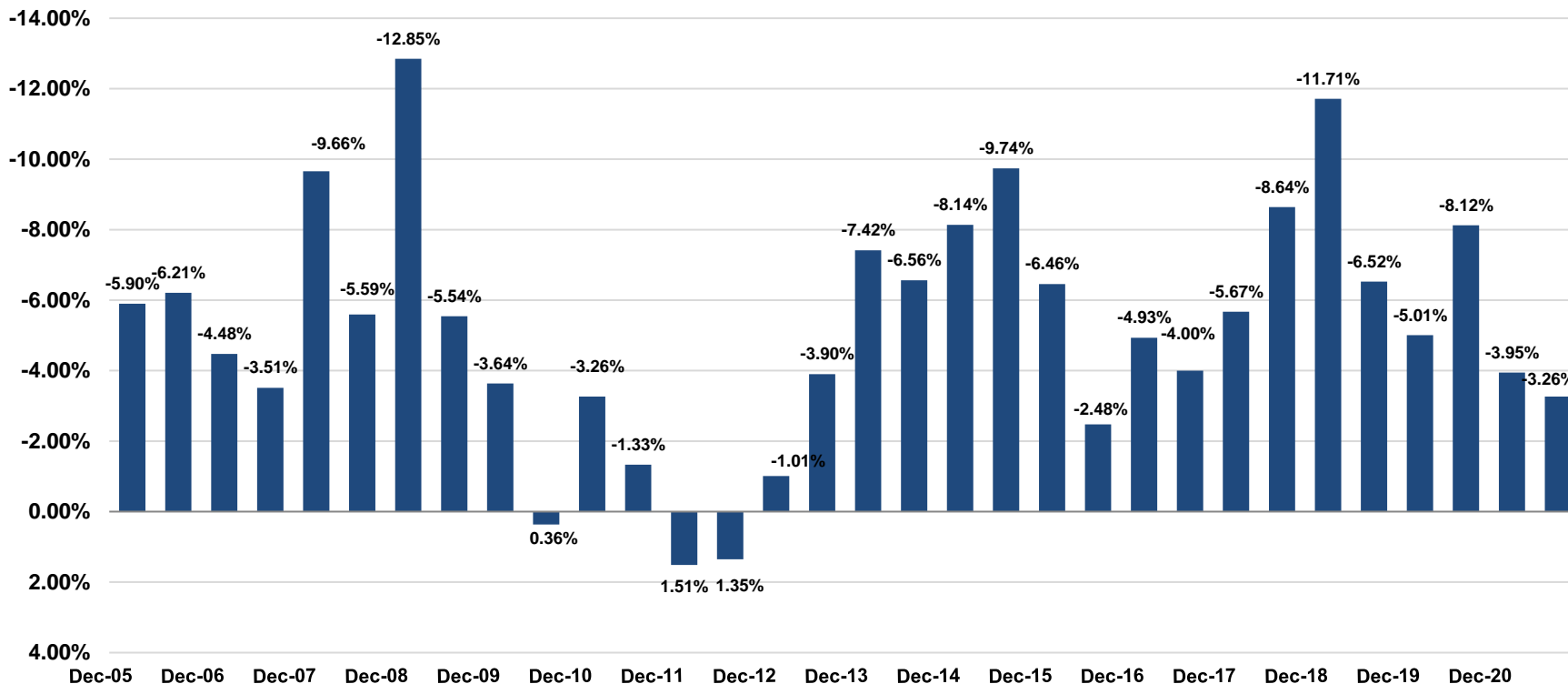


Source: US Dept. of the Treasury as of 3/31/2021

**With a Current Yield of 4.44%, CEFMX Indicates a Higher Yield Tax Free than Most Other Classes of Fixed Income Investments, Including Government and Corporate Bonds.**

# Index Rationale – Discount/Premium

**S-Network Municipal Bond Closed-End Fund Index: Historical Discounts/Premiums**  
12/31/2005–3/31/2021



Source: Bloomberg as of 3/31/2021

**CEFMX's Current Market Value Trades at a Discount to Net Asset Value of -3.26%.**



# Index Construction

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# Index Construction – Eligibility

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- ❑ **A Total Universe of ~100 Municipal Bond Closed-End Funds**
- ❑ **Must Be Registered in the United States**
- ❑ **Minimum Market Capitalization for Inclusion = \$100 million**
- ❑ **Fund Must be Listed on Regulated Exchange (No OTCs)**
- ❑ **Total Management Fee Less Than 1.25%**
- ❑ **Funds Trading at Premiums > 20% Eliminated**



**CEFMX is Rules Based, Providing a Fair and Accurate Measure of the Municipal Bond Closed-End Fund Sector.**

# Index Construction – Weighting

- ❑ **Weights Based on Net Assets**
- ❑ **Net Assets Adjusted for Premium/Discount**
  - ❑ **Increases in Fund Net Assets for Funds Trading at a Discount\***
    - Discount > 6% = 30% Increase in Net Assets
    - Discount > 3% and < 6% = 20% Increase in Net Assets
    - Discount > 0% and < 3% = 10% Increase in Net Assets
  - ❑ **Decreases in Fund Net Assets for Funds Trading at a Premium\***
    - Premium > 6% = 30% Decrease in Net Assets
    - Premium > 3% and < 6% = 20% Decrease in Net Assets
    - Premium > 0% and < 3% = 10% Decrease
- ❑ **Funds Capped at 8% Index Weight**
- ❑ **Combined Weight of Funds with Weights over 5% Capped at 45%**

**CEFMX's Unique Weighting Methodology Accords Higher Weights to Municipal Bond Closed-End Funds that Trade at Discounts.**

# Top Ten Holdings

Fund Name	Ticker	Sector	Weight	AUM
Nuveen AMT-Free Municipal Credit Income Fund	NVG UN EQUITY	Leveraged	8.05%	3.61 Billion USD
Nuveen Quality Municipal Income Fund	NAD UN EQUITY	Leveraged	8.02%	3.20 Billion USD
Nuveen AMT-Free Quality Municipal Income Fund	NEA UN EQUITY	Leveraged	8.01%	4.43 Billion USD
Nuveen Municipal Credit Income Fund	NZF UN EQUITY	Leveraged	5.83%	2.30 Billion USD
BlackRock Municipal 2030 Target Term Trust	BTT UN EQUITY	Leveraged	4.61%	1.79 Billion USD
Nuveen Municipal Value Fund Inc	NUV UN EQUITY	Unleveraged	3.47%	2.31 Billion USD
BlackRock MuniYield Quality Closed Fund III	MYI UN EQUITY	Leveraged	2.83%	971.83 Million USD
Eaton Vance Municipal Bond Closed Fund	EIM UN EQUITY	Leveraged	2.74%	1.01 Billion USD
BlackRock MuniHoldings Fund	MHD UN EQUITY	Leveraged	2.45%	227.36 Million USD
Invesco Municipal Opportunity Trust	VMO UN EQUITY	Leveraged	2.25%	888.52 Million USD

Source: Bloomberg as of 3/31/2021

**CEFMX Includes Many of the Largest Municipal Bond Closed-End Funds on the Market Today.**

<b>S-Network Municipal Bond Closed-End Fund Index: Market Capitalization Profile</b>	
<b>Number of Constituents</b>	61
<b>Total Market Capitalization</b>	43.14 Billion USD
<b>Largest Market Capitalization</b>	4.43 Billion USD
<b>Smallest Market Capitalization</b>	160.76 Million USD
<b>Average Market Capitalization</b>	707.25 Million USD
<b>Median Market Capitalization</b>	418.66 Million USD

Source: Bloomberg as of 3/31/2021

**With an Average Market Capitalization of Approximately \$707.25 Million, CEFMX Offers a Broad Spectrum of Fund Sizes.**

# Summary – Index Features and Benefits

<b>Feature</b>	<b>Benefit</b>
<b>Asset Diversification</b>	Index constituents hold various types of municipal bond closed-end funds, including leveraged, unleveraged, leveraged high yield and unleveraged high yield.
<b>Strategy Diversification</b>	Index constituents employ a wide range of trading strategies that diversify specific fund risk.
<b>Manager Diversification</b>	Constituent municipal bond closed-end funds employ a wide range of managers, including some of the leading fixed income managers in the world.
<b>High Current Yield</b>	At 4.44%, CEFMX offers yields substantially higher than most fixed income investments.
<b>High Current Discount</b>	At -3.26%, CEFMX currently trades at a low valuation – exceeded only in times of severe market disruption.



**CEFMX Offers Multiple Forms of Diversification that Help Diminish Specific Risks, while Providing High Current Yield and High Current Discount.**





# Statistical Profiles



Total Return Appreciation		
	CEFMXTR	SPMUNUST
Since Inception*	166.85%	75.94%
10 Year	105.96%	53.48%
5 Year	30.64%	17.75%
3 Year	31.20%	14.74%
1 Year	17.67%	4.98%

Compound Annual Growth Rate		
	CEFMXTR	SPMUNUST
Since Inception*	7.49%	4.25%
10 Year	7.49%	4.38%
5 Year	5.49%	3.32%
3 Year	9.47%	4.69%
1 Year	17.67%	4.98%

\*S&P AMT National AMT-Free Municipal Bond Index inception date of 8/31/2007

Source: Bloomberg as of 3/31/2021



**CEFMX Includes Many of the Largest Closed-End Funds on the Market Today.**

Annualized Standard Deviation		
	CEFMXTR	SPMUNUST
Since Inception*	12.12%	4.63%
10 Year	9.12%	3.76%
5 Year	9.18%	3.84%
3 Year	9.81%	3.95%
1 Year	10.62%	4.51%

Sharpe Ratio		
	CEFMXTR	SPMUNUST
Since Inception*	0.5627	0.7726
10 Year	0.7555	1.0020
5 Year	0.4734	0.5668
3 Year	0.8256	0.8383
1 Year	1.6540	1.0808

\*S&P AMT National AMT-Free Municipal Bond Index inception date of 8/31/2007

Source: Bloomberg as of 3/31/2021

**CEFMX Includes Many of the Largest Closed-End Funds on the Market Today.**

# Data Sources and Availability

- ❑ Rule Book Available at: [www.closedendfundindex.com](http://www.closedendfundindex.com)
- ❑ Historical Data at: [www.closedendfundindex.com](http://www.closedendfundindex.com) and various data vendors
- ❑ Constituent Data Available from various data vendors
- ❑ Back Test Data from December 31, 2005
- ❑ Live Data from October 29, 2009
- ❑ Real Time Price Index Values in USD
- ❑ EOD Total Return Index Values in USD

Extensive and Detailed Data Will be Available on CEFMX to Support Analysis and Investment.

# Alerian and S-Network Indexes – Company History

## ❑ Alerian and S-Network Global Indexes

Alerian is a leading independent index provider focused on building innovative, index-based investment strategies. The firm acquired S-Network Global Indexes in 2020, expanding their index offerings and services to partners. Combined, the firm serves the global investment community through indexing, benchmarking and calculation services. Built on a foundation of data rigor and specialty research, Alerian and S-Network Global Indexes offer a comprehensive family of energy, income, and thematic indexes. Today, the firms cumulatively have over \$23 billion in total assets tracking its indexes and over 200 customers world-wide.

### David LaValle

David is the chief executive officer of Alerian, a leading independent index provider focused on building innovative, index-based investment strategies with over \$23 billion in total assets tracking its indexes. David has over 20 years of experience in the financial markets. Most recently, David was the US Head of SPDR ETF Capital Markets and a member of the senior leadership team at State Street Global Advisors, a \$2.8 trillion dollar global asset manager. Prior to State Street, David led Nasdaq's Exchange Traded Product Marketplace where he was responsible for all aspects of strategy and business development for Nasdaq's ETF listing and trading businesses. Before joining Nasdaq, David was a member of the New York Stock Exchange and American Stock Exchange where he managed trading businesses. David earned his Bachelor of Arts degree from Georgetown University, served on the Security Traders Association of New York (STANY) Board and holds FINRA Series 7, 24, 55, and 63 licenses.

### Robert Hughes

Robert is responsible for managing and developing sales strategies for Alerian's indexing, benchmarking and calculation services. His expertise helps to advance the global footprint of the firm's energy infrastructure, thematic, and smart beta indexes. Rob received his BA in Political Science from The University of Notre Dame. Prior to Alerian, Rob served as the first head of sales for three other companies, most recently as the global head of index and advisor solutions for Nasdaq Global Indexes. He has also served as a director for the Independent Research Network (IRN), a joint venture co-owned by Nasdaq and Reuters.

### Patrick Shaddow

Patrick is responsible for the development, production and maintenance of all S-Network indexes, including indexes that serve as the underlying for financial products holding over \$23 billion in AUM. He is also responsible for the oversight of product-centered company IT. Patrick started at S-Network in 2007 and has engaged directly in every facet of the index business. He oversees development and production of domestic and international equity indexes as well as indexes that include 40-Act funds, futures and options.

Patrick has been responsible for the development of S-Network's Benchmark Index Series and the Refinitiv/S-Network ESG Best Practices Indexes and Ratings, as well as a number of smart beta and thematic indexes. Patrick is a member of the IADB Sustainable Index Committee.

Prior to joining S-Network, Patrick worked as a Research Analyst for Dow Jones Indexes, where he was a member of the custom index quarterly review. Patrick earned a Bachelor of Science Degree in Finance with a concentration in Management Information Systems from Rutgers University School of Business.



**CEFMX Was Developed by S-Network, a Leading Provider of Thematic Indexes.**