



# S-Network Municipal Bond Closed-End Fund Index

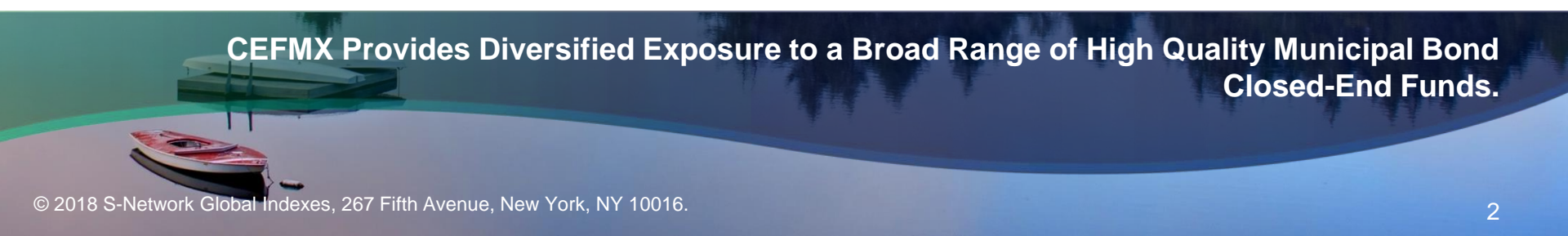
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Q3 2018

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CLOSED-END FUND  
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# Index Overview

- ❑ **A Diversified Portfolio of 66 Municipal Bond Closed-End Funds**
- ❑ **Targets Federal Income Tax Exempt Yield**
- ❑ **All US-Registered Funds**
- ❑ **Modified Net Asset-Weighted Methodology**
- ❑ **Multiple Qualitative Screens**
  - Discount
  - Expense Ratio
- ❑ **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 Expense Ratios**

**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

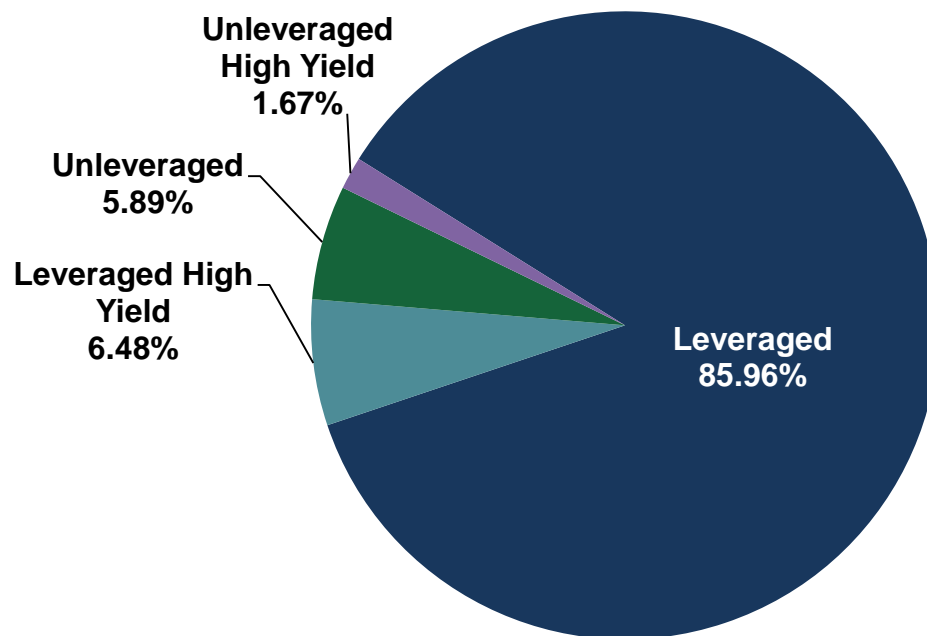
**S-Network Municipal Bond Closed-End Fund TR vs. S&P National AMT-Free Municipal Bond TR**  
 (8/31/2007–9/30/2018)



Source: Bloomberg as of 9/30/2018



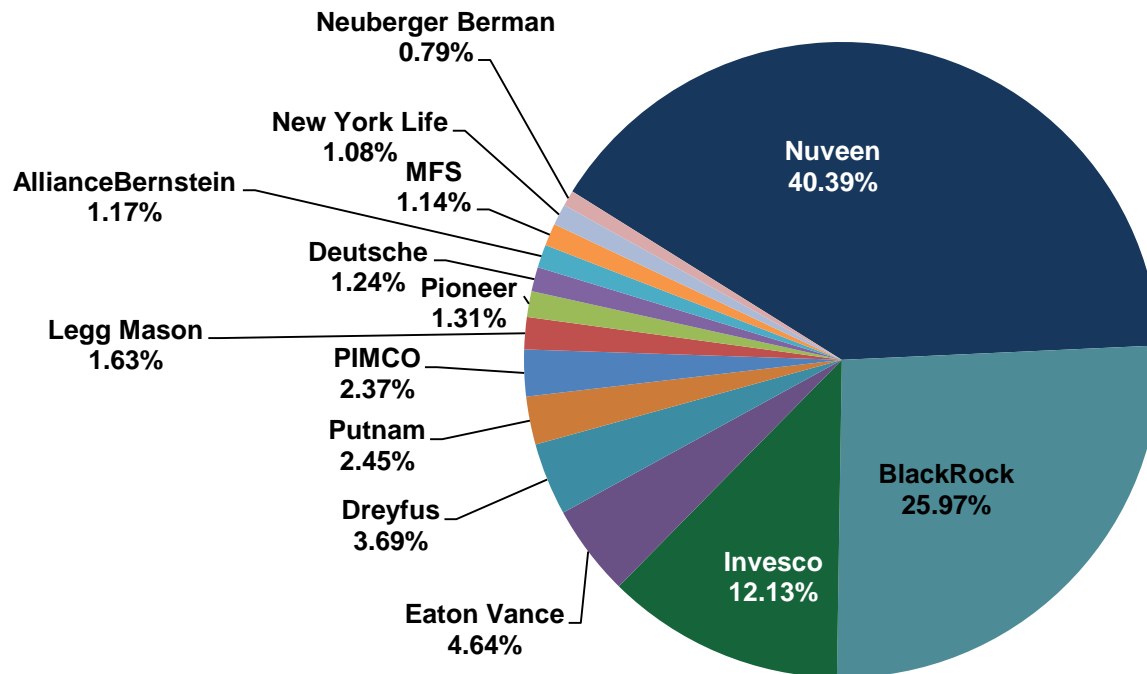
## S-Network Municipal Bond Closed-End Fund Index: Sector Distribution



Source: Bloomberg as of 9/30/2018

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

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



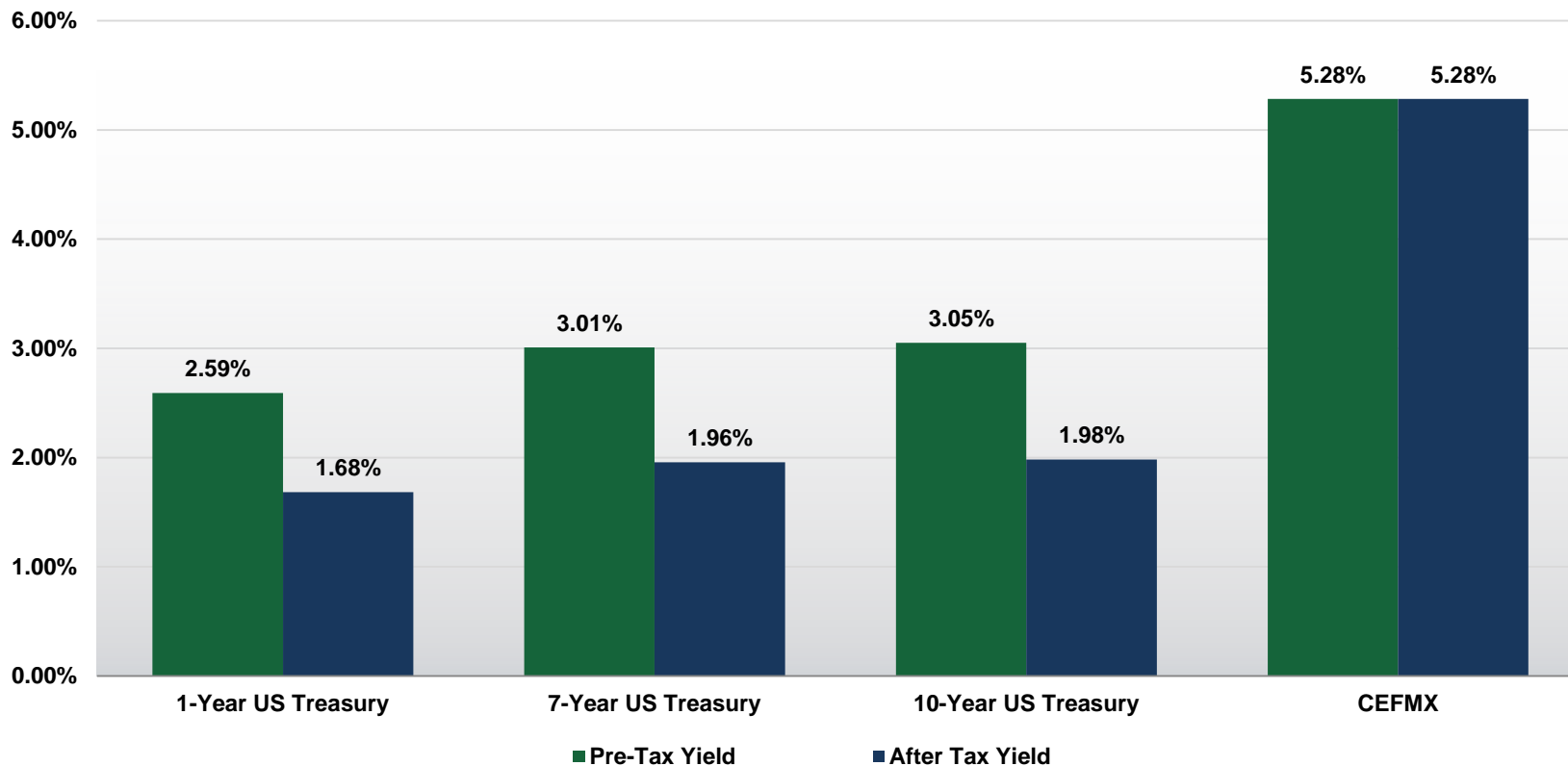
Source: Bloomberg as of 9/30/2018



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



## Current Yields

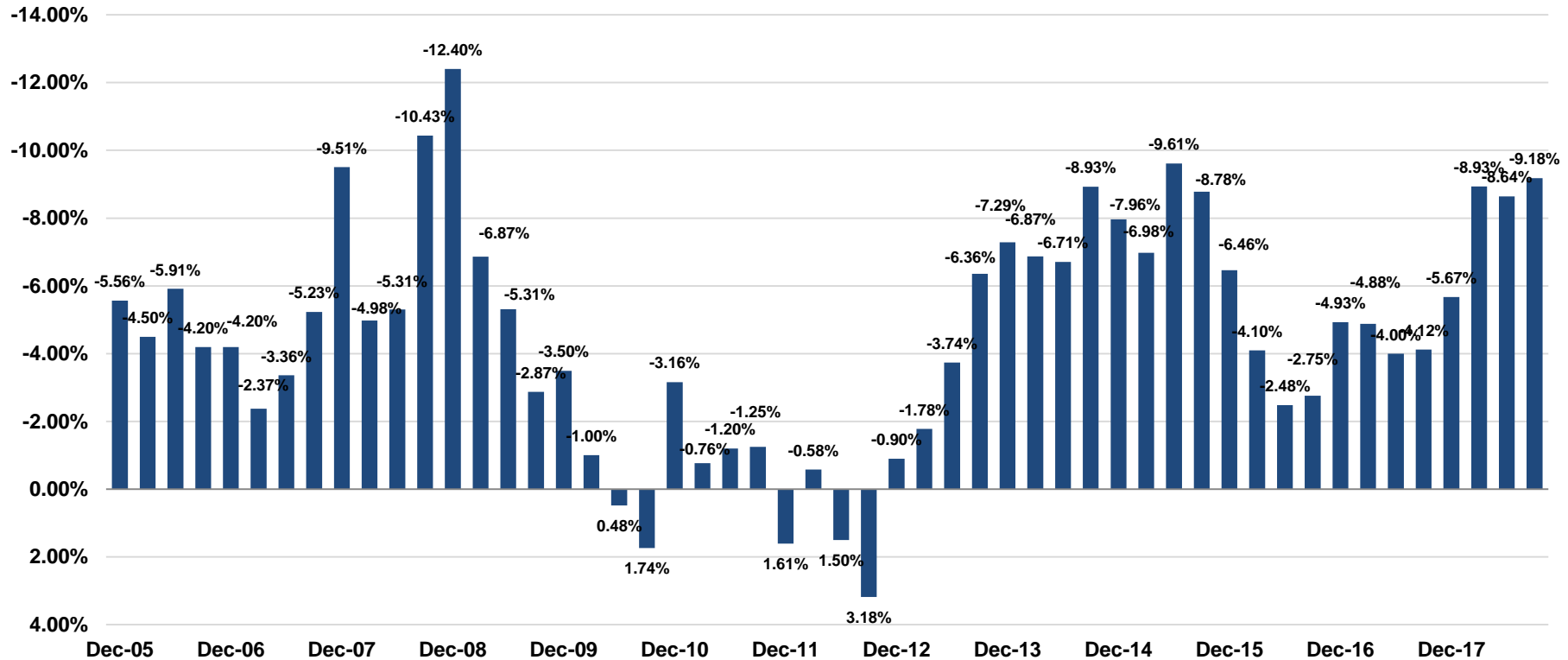


Source: US Dept. of the Treasury and GMS Group as of 9/30/2018

**With a Current Yield of 5.28%, 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



Source: Bloomberg as of 9/30/2018

**CEFMX's Current Market Value Trades at a Discount to Net Asset Value of -9.18%.**



# Index Construction

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# Index Construction – Eligibility

- ❑ **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)**
- ❑ **At Least 95% of Index Weight Must Be Allocated to Funds That Have 3-Month ADTV >\$500,000**
- ❑ **Total Expense Ratio Must Be Below Threshold**
  - Threshold Varies Depending Upon Prevailing Interest Rates (30-Day LIBOR)
  - Set at 2% at Inception Based on the Reference LIBOR of 0.25%
  - Increases or Decreases by a Factor of 30% of the Difference Between Reference LIBOR and That on Record Date
- ❑ **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 Quality Municipal Income Fund	NEA UN EQUITY	Leveraged	8.01%	3.33 Billion USD
Nuveen Quality Municipal Income Fund	NAD UN EQUITY	Leveraged	7.99%	2.58 Billion USD
Nuveen AMT-Free Municipal Credit Income Fund	NVG UN EQUITY	Leveraged	7.94%	2.95 Billion USD
Nuveen Enhanced Municipal Credit Income Fund	NZF UN EQUITY	Leveraged	5.77%	2.05 Billion USD
Nuveen Municipal Value Fund Inc	NUV UN EQUITY	Unleveraged	4.41%	1.94 Billion USD
BlackRock Municipal 2030 Target Term Trust	BTT UN EQUITY	Leveraged	4.33%	1.46 Billion USD
BlackRock MuniYield Quality Closed Fund III	MYI UN EQUITY	Leveraged	2.71%	822.86 Million USD
Eaton Vance Municipal Bond Closed Fund	EIM UN EQUITY	Leveraged	2.56%	785.98 Million USD
Invesco Municipal Opportunity Trust	VMO UN EQUITY	Leveraged	2.48%	771.22 Million USD
Invesco Value Municipal Income Closed Fund	IIM UN EQUITY	Leveraged	2.09%	651.26 Million USD

Source: S-Network as of 9/30/2018

**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>	66
<b>Total Market Capitalization</b>	37.34 Billion USD
<b>Largest Market Capitalization</b>	3.33 Billion USD
<b>Smallest Market Capitalization</b>	115.95 Million USD
<b>Average Market Capitalization</b>	565.78 Million USD
<b>Median Market Capitalization</b>	358.80 Million USD

Source: S-Network as of 9/30/2018

**With an Average Market Capitalization of Approximately \$565.78 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 5.28%, the CEFMX offers yields substantially higher than most fixed income investments.
<b>High Current Discount</b>	At -9.18%, the 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*	105.10%	54.27%
10 Year	134.32%	56.58%
5 Year	35.60%	18.24%
3 Year	12.15%	6.66%
1 Year	-4.33%	0.09%

Compound Annual Growth Rate		
	CEFMXTR	SPMUNUST
Since Inception*	6.70%	3.99%
10 Year	8.89%	4.59%
5 Year	6.28%	3.41%
3 Year	3.90%	2.17%
1 Year	-4.33%	0.09%

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

Source: S-Network as of 9/30/2018

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

Annualized Standard Deviation		
	CEFMXTR	SPMUNUST
Since Inception*	12.48%	4.72%
10 Year	11.45%	4.13%
5 Year	7.57%	2.98%
3 Year	7.33%	3.16%
1 Year	5.86%	2.22%

Sharpe Ratio		
	CEFMXTR	SPMUNUST
Since Inception*	0.5387	0.7385
10 Year	0.7718	1.0271
5 Year	0.7710	0.9547
3 Year	0.4351	0.4105
1 Year	-1.0155	-0.7112

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

Source: S-Network as of 9/30/2018

**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)
- ❑ Historic Data and Portfolio Snapshots at: [www.closedendfundindex.com](http://www.closedendfundindex.com) and various data vendors
- ❑ Constituent Data Available at: [www.closedendfundindex.com](http://www.closedendfundindex.com) and 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.

# S-Network Indexes – Company History

## □ S-Network Global Indexes

S-Network Global Indexes, Inc. is a publisher and developer of proprietary and custom indexes. Founded in 1997, S-Network publishes over 200 indexes, which serve as the underlying portfolios for financial products with over USD 7 billion in assets under management. S-Network indexes, which are supported by a state-of-the-art technology platform, are known for their transparency and efficiency.

S-Network is a leader in socially responsible investment, publishing best-practice benchmark indexes in collaboration with Thomson Reuters. S-Network published the first global alternative energy and water indexes, which today serve as the recognized benchmarks for those sectors worldwide. In addition to publishing socially responsible indexes, S-Network produces proprietary environmental, social and governance ratings on nearly 5,000 public companies worldwide.

S-Network publishes a comprehensive suite of benchmark indexes covering US, European, Pacific Basin and emerging markets companies and mirroring the performance characteristics of the most popular indexes. The benchmark series offers detailed historical data, including daily constituent level data, from December 31, 1999 to the present. S-Network benchmarks serve as starting universes for smart beta indexes, as institutional-quality performance benchmarks, and as bases for Separately Managed Accounts.

S-Network is a prominent provider of smart beta indexes that incorporate both standard market statistics, as well as unique and highly specialized proprietary data sets derived from non-traditional sources. Smart beta indexes developed by S-Network embrace powerful single-factor models as well as complex multi-factor models that incorporate over 200 discrete factors. All indexes developed by S-Network address and resolve issues such as liquidity, investability and index turnover characteristics.

For more information please visit <http://www.snetglobalindexes.com>

## □ Paul Mazzilli

Paul most recently served as an Executive Director at Morgan Stanley, which he joined in 1975. From 1997 to 2008, Paul was Director of Morgan Stanley's ETF Research team covering index-linked ETFs and actively managed closed-end fund companies. Paul also spent five years in Equity Capital Markets Services. Paul's team was the first to provide research coverage on index-linked ETFs and won many awards, including the Most Useful ETF Research in the U.S. Every Year Since Inception in 2004 at the annual ETF Global Awards Conference and the Best Research Team for Exchange-Traded Funds in 2007 at the 7<sup>th</sup> Annual Capital Link Forum on Closed-End Funds and ETFs in April 2008.

**CEFMX Was Developed by S-Network, a Leading Provider of Thematic Indexes and Paul Mazzilli, One of America's Leading Closed-End Fund Analysts.**