



**PRESENTATION TO:**  
**SOUTH FLORIDA GOVERNMENT FINANCE OFFICERS**  
**ANNUAL INVESTMENT SEMINAR**

1. MARKET UPDATE
2. CURRENT MARKET'S IMPACT ON BOND FINANCINGS
3. RATING AGENCY APPROACH FROM AN ISSUER'S PERSPECTIVE

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August 18, 2016



# STIFEL

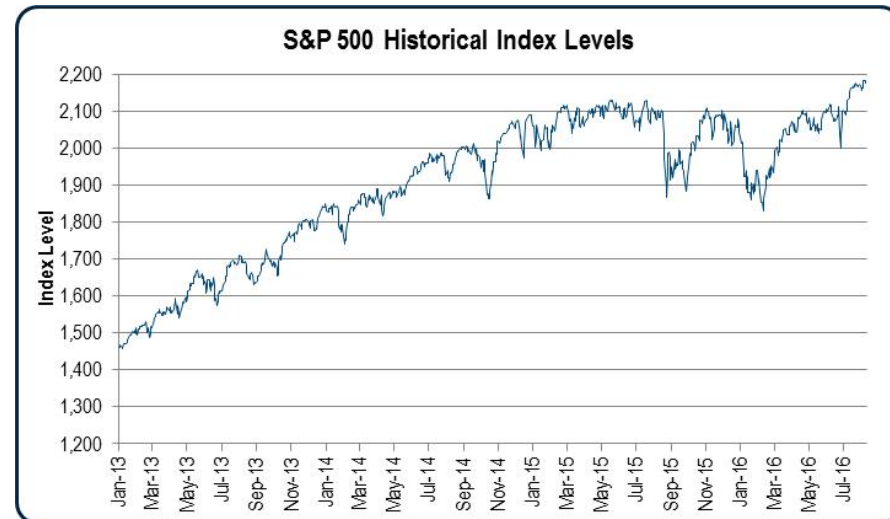
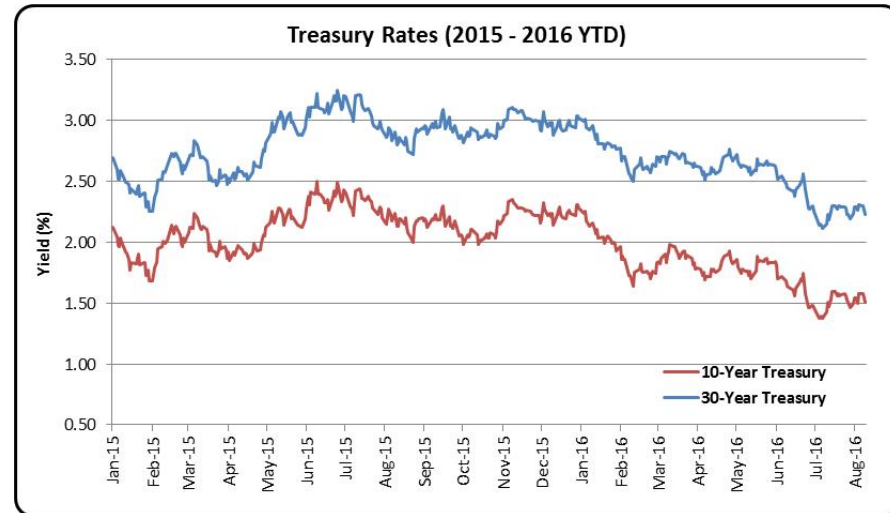
**Section I: Market Update**

Section II: Current Market's Impact on Bond Financings

Section III: Rating Agency Approach from an Issuer's Perspective

# FINANCIAL MARKETS: OVERVIEW

- Domestic economic performance consists of a resilient housing sector in tandem with weaker manufacturing and stagnant employment
- **Macroeconomic events (such as Brexit vote) have caused a recent shift to safe assets, spurring flight to U.S. assets and appreciating the U.S. dollar**
- When will next Fed Funds rate hike occur?
  - FOMC increased Fed Funds rate to 0.50% at December 2015 meeting
  - FOMC has yet to raise Fed Funds rates again because of weaker-than-expected global economy and disappointing jobs reports
  - Market consensus indicates next rate hike is likely to occur early next year



# FINANCIAL MARKETS: INTEREST RATE OUTLOOK

- Stifel's Fixed Income Strategy Department (FISD) agrees with the market consensus that FOMC rate increases will be deferred to early 2017 given recent FOMC forward guidance
- Stifel's FISD believes that global economic headwinds and uneasy financial markets likely will delay successive rate hikes
- The market implied probability of a December rate hike according to Fed Funds Futures currently sits at 35-40%
- Stifel's FISD expects interest rates across the board to remain lower over the next 18 months than market consensus projections**

Stifel's Interest Rate Projections					
	Current	3Q16	4Q16	2Q17	4Q17
Fed Funds	0.50%	0.50%	0.50%	0.75%	0.75%
2-Year Tres	0.69%	0.50%	0.60%	0.80%	1.00%
5-Year Tres	1.07%	0.90%	1.05%	1.30%	1.50%
<b>10-Year Tres</b>	<b>1.49%</b>	<b>1.25%</b>	<b>1.45%</b>	<b>1.65%</b>	<b>1.90%</b>
30-Year Tres	2.22%	2.00%	2.15%	2.35%	2.65%
Spread (2 vs 30)	1.53%	1.50%	1.55%	1.55%	1.65%

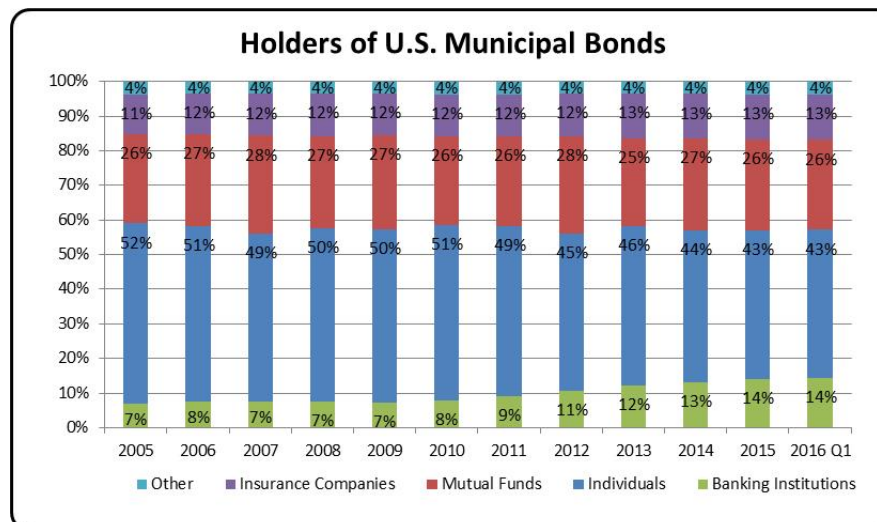
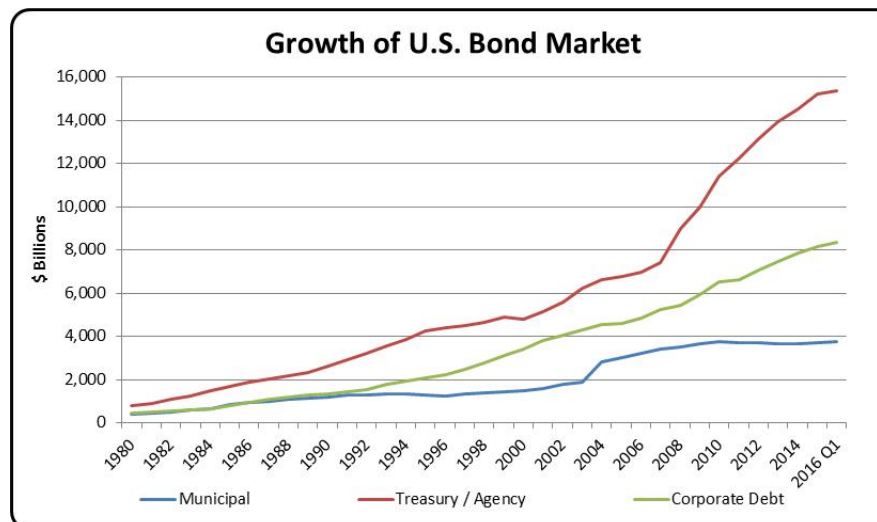
Market Consensus Interest Rate Projections					
	Current	3Q16	4Q16	2Q17	4Q17
Fed Funds	0.50%	0.55%	0.70%	0.95%	1.25%
2-Year Tres	0.69%	0.71%	0.83%	1.06%	1.42%
5-Year Tres	1.07%	n/a	n/a	n/a	n/a
<b>10-Year Tres</b>	<b>1.49%</b>	<b>1.58%</b>	<b>1.70%</b>	<b>1.97%</b>	<b>2.20%</b>
30-Year Tres	2.22%	2.34%	2.48%	2.73%	2.92%
Spread (2 vs 30)	1.53%	1.63%	1.65%	1.67%	1.50%

*\*Stifel projections as of 07/11/16.*

*\*\*Market consensus and current market rates as of 08/12/16.*

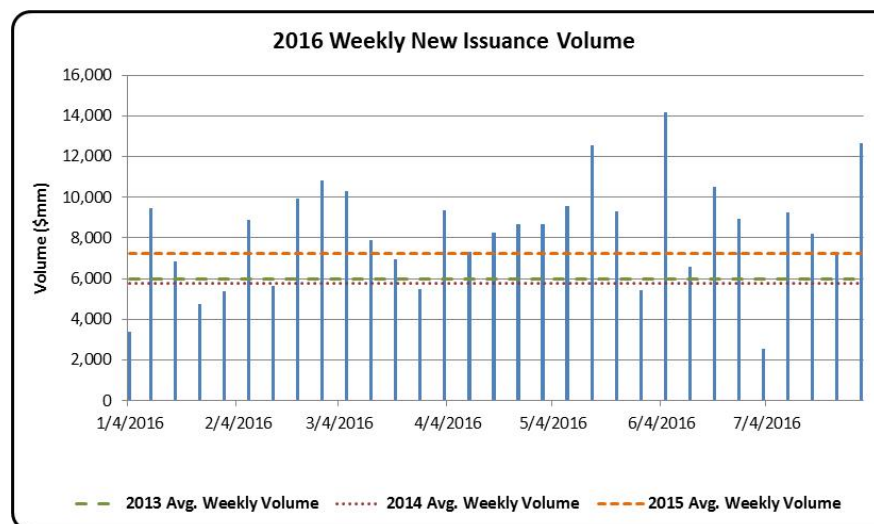
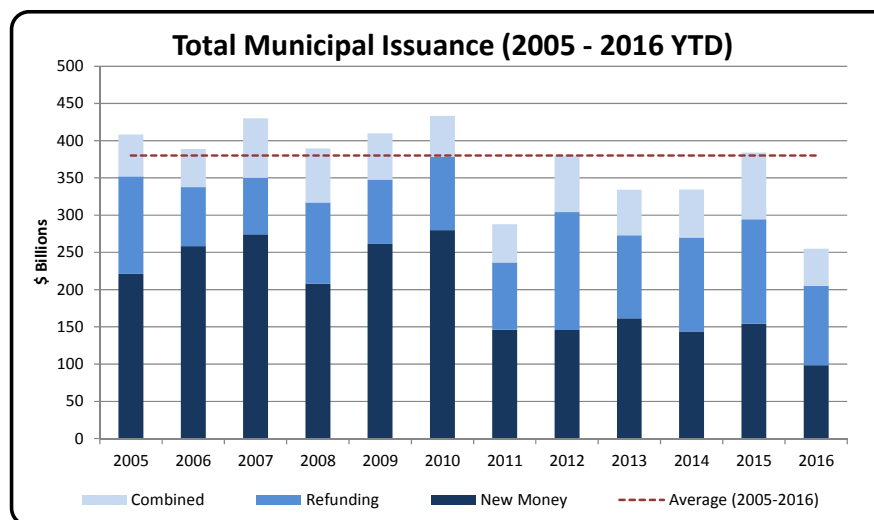
# MUNICIPAL MARKET: TRENDS IN DEBT ISSUANCE

- The municipal bond market is approximately \$3.7 trillion in size, compared to the \$14.6 trillion U.S. Treasury and agency market and the \$8.1 trillion U.S. corporate debenture market
- After contracting for four straight years (more redemptions than issuance), the municipal market grew slightly in 2015
- Banking institutions have increased their presence in the placement of municipal debt securities
  - 6.9% market share in 2005
  - As of 1Q16, banks' share had grown to 14.2%
- Retail investors are not as active in buying municipal bonds as they have been in the past due to historically low interest rates



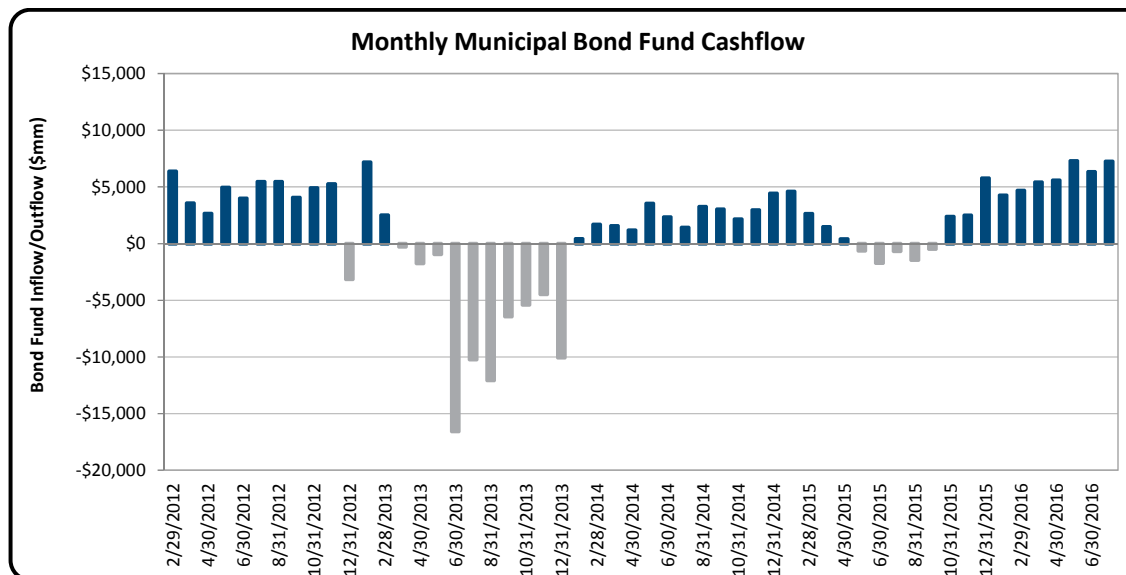
# MUNICIPAL MARKET: NEW ISSUANCE SUPPLY

- New municipal issuance supply increased significantly in 2015 when compared to levels seen in 2013 and 2014
- 2016 new issuance supply is on pace with 2015 levels (approximately \$400 billion expected)
- **2016 volume has been dominated by refundings (AGAIN!) and the overall market is expected to eventually contract as a result of refunded and maturing bonds outpacing new issuance supply**
- Past three months saw an increase in new issuance supply when compared to the same period last year – this increase in supply was well absorbed by the market



# MUNICIPAL MARKET: MUNICIPAL BOND FUNDS

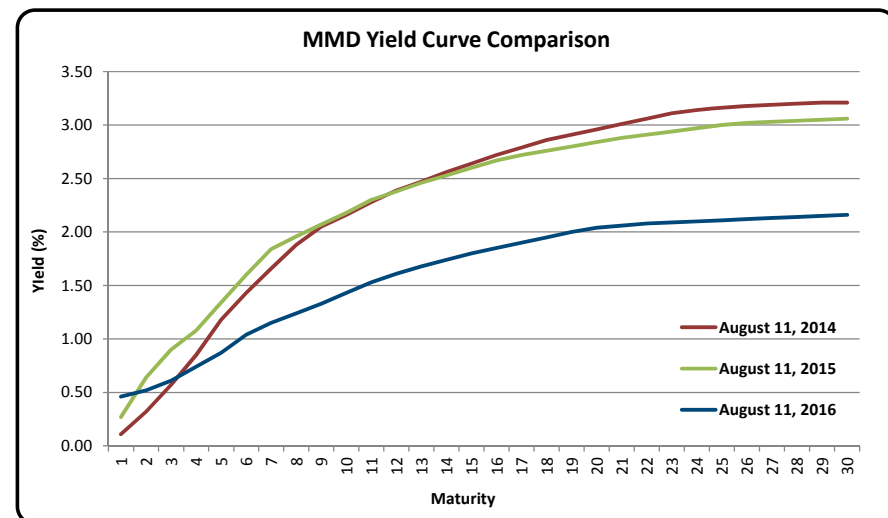
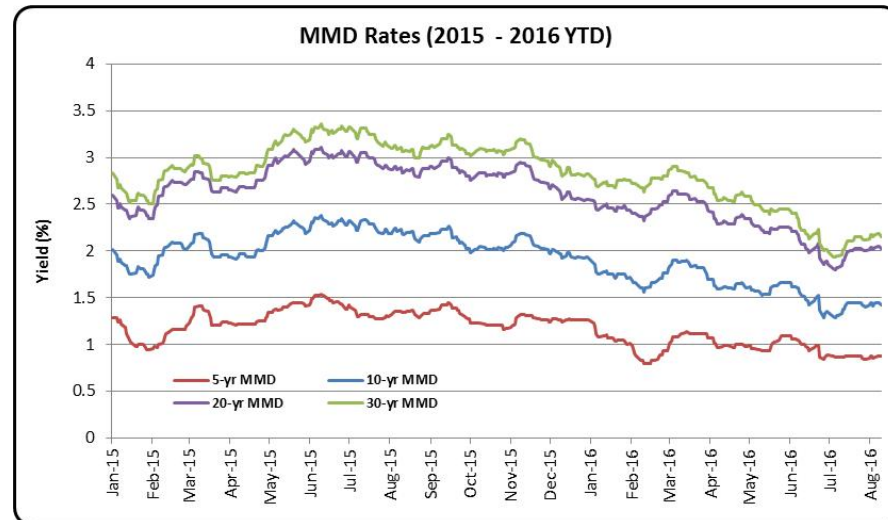
- Municipal bond funds have realized significant inflows since October 2015
- **44 consecutive weeks of inflows over this time period have brought nearly \$53 billion into municipal bond funds**
- Traditionally, months of heavy inflows (or outflows) have coincided with significant decreases (or increases) in municipal interest rates



Bond Fund Cashflow and Correlating Interest Rate Movement			
Time Period	Muni Bond Inflows (Outflows)	Change in 10-Year MMD	Change in 30-Year MMD
Jan. 2009 - Oct. 2010	+\$101 B	- 102 bps	- 119 bps
Nov. 2010 - May 2011	-\$44 B	+ 14 bps	+ 44 bps
Jun. 2011 - Feb. 2013	+\$70 B	- 82 bps	- 135 bps
Mar. 2013 - Dec. 2013	-\$68 B	+ 99 bps	+ 129 bps
Jan. 2014 - Apr. 2015	+\$37 B	- 67 bps	- 115 bps
May 2015 - Sep. 2015	-\$5.3 B	+ 3 bps	+ 14 bps
Oct 2015 - July 2016	+\$53 B	-61 bps	-89 bps

# MUNICIPAL MARKET: FLATTENING YIELD CURVE

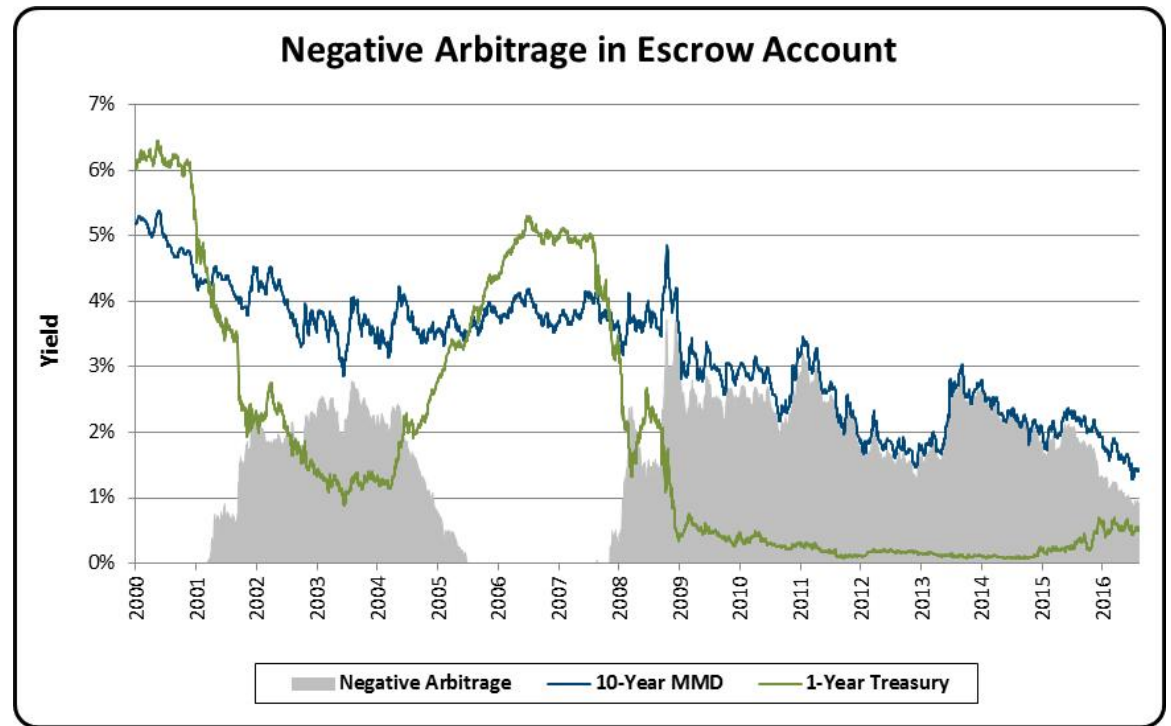
- After the Brexit vote, municipal yields lowered across nearly all maturities in sync with investors' "flight-to-quality"
- In more recent weeks, the municipal market has settled down, causing municipal interest rates to rise slightly from historic lows reached just a few weeks ago
- **Compared to the last few years, the current tax-exempt interest rate yield curve is significantly flatter, giving rise to long escrowed advance refundings**
- The current market environment is favorable for municipalities looking to enter the bond market





# MUNICIPAL MARKET: NEGATIVE ARBITRAGE (ESCROW)

- Difference between interest paid on the bonds and interest earned on the securities purchased from bond proceeds
- Federal tax laws prohibit positive arbitrage in the escrow account associated with tax-exempt refunding bonds -- something we have not had to worry about over the past nine years
- The greater the negative arbitrage in the escrow account, the less savings that will be realized through an advanced refunding





# STIFEL



Section I: Market Update

**Section II: Current Market's Impact on Bond Financings**

Section III: Rating Agency Approach from an Issuer's Perspective

# IMPACT ON NEW MONEY BONDS (GENERIC COMPARISON)

- Assumes a 30-year generic financing issued to provide funds for \$50 million in capital expenditures
- Only difference between the three scenarios is the tax-exempt yield curve used (MMD curve)
- As with all level debt service structures, more principal matures in the later years therefore long-term interest rates have a greater impact on the financing than short-term interest rates
- Financing would cost the issuer \$5.7 million less in total debt service over the life of the deal today than it would have two years ago based solely on the drop in interest rates**

New Money Analysis (Impact of Current Market Conditions)			
<i>Summary of New Money Bonds:</i>	2014 Issuance	2015 Issuance	2016 Issuance
Assumed Ratings	Aa3 / AA- / AA-	Aa3 / AA- / AA-	Aa3 / AA- / AA-
Project Fund	\$50,000,000	\$50,000,000	\$50,000,000
New Issuance Par Amount	\$43,785,000	\$43,495,000	\$40,880,000
Final Maturity	10/1/2044	10/1/2045	10/1/2046
Assumed Dated Date	10/1/2014	10/1/2015	10/1/2016
Rates as of	8/11/2014	8/11/2015	8/11/2016
Spread to MMD	30 bps	30 bps	30 bps
Arbitrage Yield	3.73%	3.67%	3.14%
Average Annual Debt Service	\$2,846,313	\$2,828,032	\$2,657,593
Maximum Annual Debt Service	\$2,849,000	\$2,830,250	\$2,660,250
Total Gross Debt Service	\$85,389,400	\$84,840,950	\$79,727,800

# IMPACT ON ADVANCE REFUNDINGS (GENERIC COMPARISON)

- Assumes original generic bonds were issued in 2009 with \$50 million par amount, 25-year level debt service and 10-year call option
- Only difference between the three scenarios is the tax-exempt yield curve used (MMD curve) and the short-term investment rates in the escrow
- Refundings have benefitted over the past two years due to lower long-term interest rates and increased escrow earnings due to higher short-term interest rates
- Advance refunding in 2016 produces \$1.9 million more in PV savings and escrow efficiency goes up from 14% to 56% compared to 2014 levels**

Advance Refunding Analysis (Impact of Current Market Conditions)			
Summary of Refunded Bonds:	2014 Refunding	2015 Refunding	2016 Refunding
Par Amount Refunded	\$36,745,000	\$36,745,000	\$36,745,000
Maturities Refunded	2020 - 2034	2021 - 2035	2022 - 2036
Call Date of Refunded Bonds	10/1/2019	10/1/2020	10/1/2021
Assumed Ratings	Aa3 / AA- / AA-	Aa3 / AA- / AA-	Aa3 / AA- / AA-
Summary of Refunding Results:			
Refunding Par Amount	\$36,560,000	\$36,460,000	\$35,035,000
Assumed Dated Date	10/1/2014	10/1/2015	10/1/2016
Rates as of	8/11/2014	8/11/2015	8/11/2016
Spread to MMD	30 bps	30 bps	30 bps
Arbitrage Yield	2.81%	2.78%	2.01%
Average Annual Savings (Refunded Years)	<b>\$29,833</b>	<b>\$27,433</b>	<b>\$164,717</b>
Total Gross Savings	<b>\$525,000</b>	<b>\$482,750</b>	<b>\$2,898,250</b>
Net PV Savings (\$)	<b>\$389,101</b>	<b>\$361,102</b>	<b>\$2,325,270</b>
Net PV Savings (%)	<b>1.06%</b>	<b>0.98%</b>	<b>6.33%</b>
Negative Arbitrage	\$2,296,658	\$2,363,956	\$1,844,386
Escrow Efficiency	14.49%	13.25%	55.77%



# STIFEL



Section I: Market Update

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**Section III: Rating Agency Approach from an Issuer's Perspective**

# RATING AGENCY PROCESS: INTRODUCTION

- **What is a credit rating?**

- A credit rating is comparable to your own personal credit score -- the higher the rating/score, the lower the borrowing cost
- “A credit rating reflects a rating agency’s opinion, as of a specific date, of the creditworthiness of a particular company, security, or obligation” – Securities and Exchange Commission
- Rating agencies generally designate ratings of long-term debt through the following variations:

	Moody's	S&P	Fitch	Kroll	
Investment Grade Ratings	Aaa	AAA	AAA	AAA	← Almost no risk of loss
	Aa1	AA+	AA+	AA+	← Minimal risk of loss
	Aa2	AA	AA	AA	
	Aa3	AA-	AA-	AA-	
	A1	A+	A+	A+	← High quality with small risk of loss
	A2	A	A	A	
	A3	A-	A-	A-	
	Baa1	BBB+	BBB+	BBB+	← Medium quality with some risk of loss
	Baa2	BBB	BBB	BBB	
	Baa3	BBB-	BBB-	BBB-	
Below Investment Grade					

- **Why are credit ratings more important today than in the past?**

- Since the 2007/2008 financial crisis, which led to the de-commoditization of municipal bonds, credit ratings have become even more important in distinguishing issuers and securities

# RATING AGENCY PROCESS: APPROACH TO RATING AGENCIES

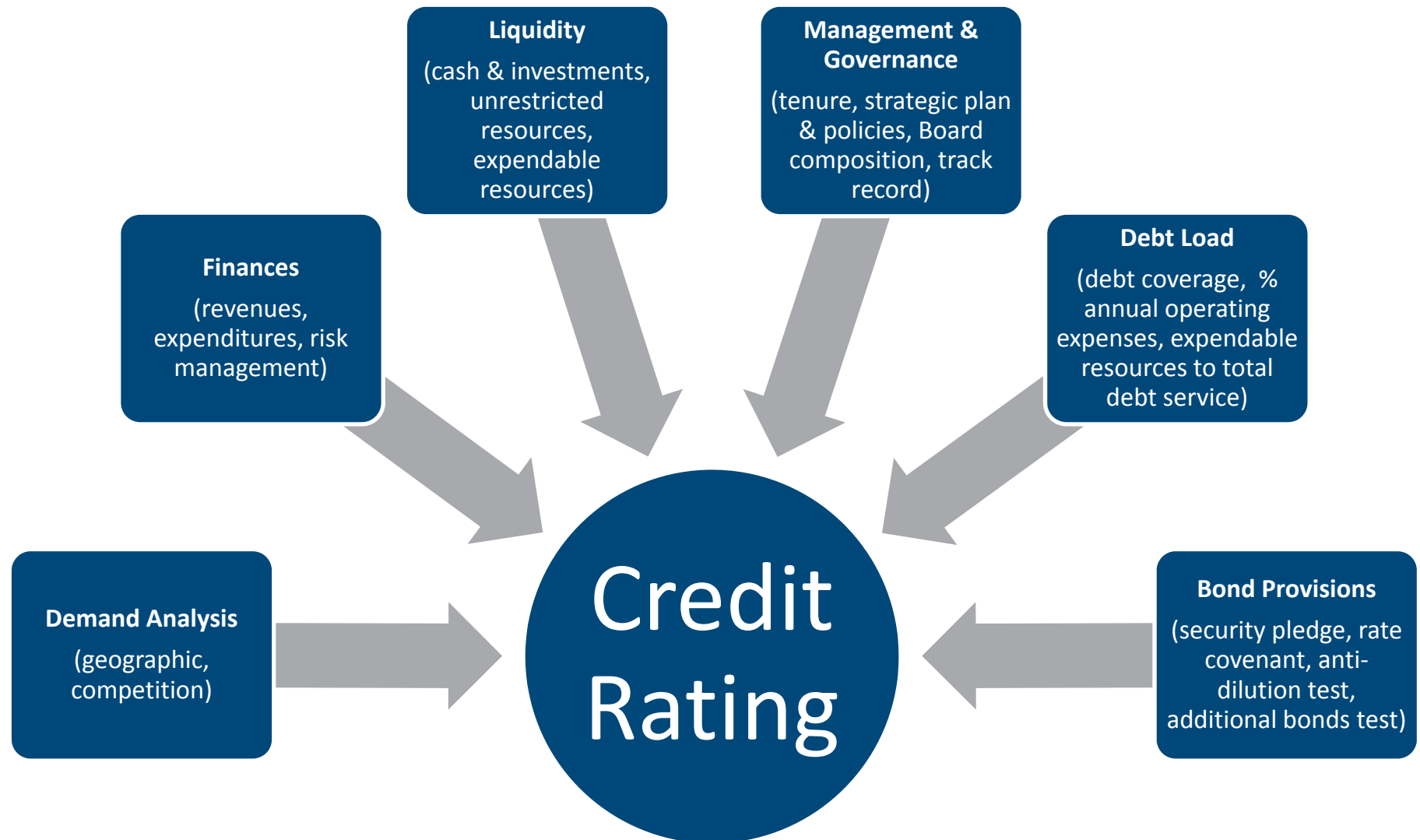
- **Duties of the Rating Agencies**

- The MSRB defines the rating agencies' role as: 1) assess the credit quality of the bonds, 2) assign a rating to the bond issue, and 3) update ratings periodically while debt is outstanding
- An issuer's general credit quality is the likelihood of timely payments of principal and interest on the bond – therefore, a rating is **not** an investment recommendation
- Although rating agencies fees are paid for by the issuer, their responsibility is to the bondholders
- The credit rating analyst will gather information necessary for credit considerations and will then present the credit package to the rating committee; who will then, by majority vote, assign a rating

- **Ways to Approach Rating Agencies**

- Issuer will share information and data with assigned analyst (quantitative, qualitative and legal analysis) typically via their financial advisor and/or senior managing underwriter
  - Audited financials for the last three years
  - Draft preliminary official statement
  - Resolution related to bond issuance / trust indenture
  - Capital plan
  - Strategic planning
  - Budget process
  - Debt and financial policies
- Meetings with rating agencies can be via conference call, face-to-face meetings at rating agency offices or site visits (typically used for large, new money projects)

# RATING AGENCY PROCESS: CREDIT CRITERIA





# RATING AGENCY PROCESS: SPECIAL TAX SCORECARD

- Each rating agency has their own standardized process they use when assigning a rating
- In an effort for enhanced transparency, Moody's released their "ratings scorecards" which provide valuable insight into how key credit factors are weighted
- **These scorecards are used only as an approximation and are subject to further adjustments by the rating analyst and credit committee**
- Scorecards are based on historical results, while an issuer's true rating is based on past results and forward-looking expectations – as a result a scorecard-indicated rating may not match actual ratings
- The special tax methodology applies to a wide variety of general fund non-ad valorem revenues
- The primary factors that go into determining an issuer's special tax rating include: 1) characteristics of the tax base, 2) legal provisions governing the bonds, and 3) financial strength and metrics of security pledge

Special Revenue Bond Scorecard Factors			
Broad Scorecard Factors	Factor Weighting	Scorecard Subfactor	Subfactor Weighting
Taxable Base And Pledge	30%	Economic Strength	15%
		Nature of the Special Tax Pledge	15%
Legal Structure	30%	Additional Bonds Test (ABT)	20%
		Debt Service Reserve Fund (DSRF) Requirement	10%
Financial Metrics	40%	Maximum Annual Debt Service Coverage Ratio	20%
		Revenue Trend	10%
		Revenue Volatility	10%
<b>Total</b>	<b>100%</b>	<b>Total</b>	<b>100%</b>

Indicated Rating for Weighted Score	
Indicated Rating	Overall Weighted Score
Aaa	0.0 to 1.90
Aa1	1.91 to 2.90
Aa2	2.91 to 3.90
Aa3	3.91 to 4.91
A1	4.91 to 5.90
A2	5.91 to 6.90
A3	6.91 to 7.90
Baa1	7.91 to 8.90
Baa2	8.91 to 9.90
Baa3	9.91 to 10.90

Source: Moody's – U.S. Public Finance Special Tax Rating Methodology

# SPECIAL TAX SCORECARD: CREDIT INPUTS

## Sales Tax Scorecard Example: City of Seaside, Florida

- The City of Seaside is located in an urban area on the west coast of Florida, has favorable demographics and above average per capita income and median family income levels
- Despite being a stand-alone revenue pledge, a direct sales tax pledge is traditionally considered a broad pledge by the rating agencies due to the fact that it is levied on a wide array of transactions throughout an area

Taxable Base and Pledge					
Rating Category	Aaa	Aa	A	Baa	Ba or Below
<b>Economic Strength (15%)</b>	Very strong and very well diversified economic base with solid growth OR PCI/MFI is 200% or greater of national median for primarily residential bases	Strong and well diversified economic base with solid growth OR PCI/MFI is 125% - 200% of national median for primarily residential bases	Developed and reasonably diversified economic base with average growth OR PCI/MFI is 75% - 125% of national median for primarily residential bases	Small to evolving economy with modest diversification and some concentration with slow to declining growth OR PCI/MFI is 50% to 75% of national median for primarily residential bases	Deteriorating economic base with very little diversification or significant concentration with declining growth OR PCI/MFI is 50% or below of national median for primarily residential bases
<b>Nature of the Special Tax Pledge (15%)</b>	Very Broad (e.g. Sales, Utility, Income, and Gas Taxes, Motor Vehicle Registration Fees; Fixed Payments from the State depending on State's Rating)	Broad (e.g. Sales, Utility, Income, and Gas Taxes, Motor Vehicle Registration Fees; Fixed Payments from the State depending on State's Rating)	Average (e.g. Sales, Utility, Income, and Gas Taxes, Motor Vehicle Registration Fees)	Narrow (e.g. Hotel, Car Rental, Meals, Lottery, Liquor, and Cigarette Taxes)	Very Narrow (e.g. Document Stamp, Hotel, Car Rental, Meals, Lottery, Liquor, and Cigarette Taxes)

# SPECIAL TAX SCORECARD: CREDIT INPUTS

## Sales Tax Scorecard Example: City of Seaside, Florida

- The City of Seaside's legal structure is considered adequate with a 1.50x additional bonds test and a debt service reserve fund backed by a "AA" rated surety provider
- Financial metrics are considered mixed as the City benefits from a strong 3.4x debt service coverage, but historical sales tax collections have been volatile, falling over 11% during the financial crisis

Legal Structure					
Rating Category	Aaa	Aa	A	Baa	Ba or Below
<b>Additional Bonds Test (20%)</b>	3.0x and higher OR a closed lien	1.76x to 2.99x	1.26x to 1.75x	1.0x to 1.25x	No limit
<b>Debt Service Reserve Fund Requirement (10%)</b>	DSRF funded at level greater than 1-year of Maximum Annual Debt Service (MADS)	DSRF funded at 1-year of Maximum Annual Debt Service (MADS)	DSRF funded at lesser of standard 3-prong test	DSRF funded at level less than 3-prong test or a springing DSRF	NO DSRF (or DSRF funded with low rated or speculative grade surety provider)

Financial Metrics					
Rating Category	Aaa	Aa	A	Baa	Ba or Below
<b>Maximum Annual Debt Service Coverage (20%)</b>	Over 4.5x	2.51x to 4.5x	1.51x to 2.5x	1.1x to 1.5x	Less than 1.1x
<b>Revenue Trend (10%)</b>	Significantly improving with one to no historic decline	Generally improving with few historic declines	Stable with some historic declines	Declining	Rapidly Declining
<b>Revenue Volatility (10%)</b>	Has never declined	Negative fluctuations generally within 0% to 5%	Negative fluctuations generally within 5% to 10%	Negative fluctuations generally within 10% to 15%	Negative fluctuations greater

Source: Moody's – U.S. Public Finance Special Tax Rating Methodology

# SPECIAL TAX SCORECARD: CREDIT OUTPUT

## Sales Tax Scorecard Example: City of Seaside, Florida

- Based on the rating scorecard, the City of Seaside would have a sales tax credit rating of “Aa3”
- The City scored favorably due to its high levels of debt service coverage and broad nature of its sales tax pledge, but its overall financial metrics were adjusted due to the volatility of sales tax collections during economic downturns
- The scorecard is a summary of some of the factors that go into assigning a credit rating, but does not include every rating consideration and therefore is not 100% accurate
- Each factor is subject to adjustments by the analyst and credit committee, therefore during the ratings process, it is important for issuers to specifically highlight those characteristics that enhance their credit worthiness

Special Revenue Bond Scorecard Factors				
Broad Scorecard Factors	Factor Weighting	Scorecard Subfactor	Subfactor Weighting	Score
Taxable Base And Pledge	30%	Economic Strength	15%	<b>1.02</b>
		Nature of the Special Tax Pledge	15%	<b>0.30</b>
Legal Structure	30%	Additional Bonds Test (ABT)	20%	<b>1.29</b>
		Debt Service Reserve Fund (DSRF) Requirement	10%	<b>0.49</b>
Financial Metrics	40%	Maximum Annual Debt Service Coverage Ratio	20%	<b>0.71</b>
		Revenue Trend	10%	<b>0.34</b>
		Revenue Volatility	10%	<b>0.58</b>
<b>Total</b>	<b>100%</b>	<b>Total</b>	<b>100%</b>	<b>4.74</b>

Indicated Rating for Weighted Score	
Indicated Rating	Overall Weighted Score
Aaa	0.00 to 1.90
Aa1	1.91 to 2.90
Aa2	2.91 to 3.90
<b>Aa3</b>	<b>3.91 to 4.91</b>
A1	4.91 to 5.90
A2	5.91 to 6.90
A3	6.91 to 7.90
Baa1	7.91 to 8.90
Baa2	8.91 to 9.90
Baa3	9.91 to 10.90

# RATING AGENCY PROCESS: ENTERPRISE FUND SCORECARD

- Moody's utility revenue debt rating methodology applies to water & sewer, gas, electric, stormwater and solid waste credits
- The primary factors that go into determining an issuer's utility rating include: 1) size and health of the system and demographics of service area, 2) legal provisions governing the bonds, 3) financial strength of operations, and 4) ability to raise rates and history with regulatory compliance

Utility Bond Scorecard Factors			
Broad Scorecard Factors	Factor Weighting	Scorecard Subfactor	Subfactor Weighting
System Characteristics	30%	Asset Condition (Remaining Useful Life)	10%
		Service Area Wealth (Median Family Income)	12.5%
		System Size (O&M)	7.5%
Legal Provisions	10%	Rate Covenant	5%
		Debt Service Reserve Fund (DSRF) Requirement	5%
Financial Strength	40%	Annual Debt Service Coverage	15%
		Days Cash on Hand	15%
		Debt to Operating Revenues	10%
Management	20%	Rate Management	10%
		Regulatory Compliance and Capital Planning	10%
<b>Total</b>	<b>100%</b>	<b>Total</b>	<b>100%</b>

Indicated Rating for Weighted Score	
Indicated Rating	Overall Weighted Score
Aaa	0.50 to 1.50
Aa1	1.51 to 1.83
Aa2	1.84 to 2.17
Aa3	2.18 to 2.50
A1	2.51 to 2.83
A2	2.84 to 3.17
A3	3.18 to 3.50
Baa1	3.51 to 3.83
Baa2	3.84 to 4.17
Baa3	4.18 to 4.50

# ENTERPRISE FUND SCORECARD: CREDIT INPUTS

## Utility Scorecard Example: Town of Mosquito Bay, Florida

- The Town of Mosquito Bay has below average demographics and a water and sewer system that is of average size with assets that are considered to be in modest condition
- Legal covenants on the Town of Mosquito Bay's water and sewer bonds include a 1.20x rate covenant and no debt service reserve fund

System Characteristics							
Rating Category		Aaa	Aa	A	Baa	Ba	B and Below
Asset Condition (10%)	Net Fixed Assets / Annual Depreciation:	> 75 years	75 years $\geq$ n > 25 years	25 years $\geq$ n > 12 years	12 years $\geq$ n > 9 years	9 Years $\geq$ n > 6 Years	$\leq$ 6 Years
System Size (7.5%)	Water and/or Sewer and Solid Waste:	O&M > \$65M	\$65M $\geq$ O&M > \$30M	\$30M $\geq$ O&M > \$10M	\$10M $\geq$ O&M > \$3M	\$3M $\geq$ O&M > \$1M	O&M $\leq$ \$1M
	Stormwater:	O&M > \$30M	\$30M $\geq$ O&M > \$15M	\$15M $\geq$ O&M > \$8M	\$8M $\geq$ O&M > \$2M	\$2M $\geq$ O&M > \$750K	O&M $\leq$ \$750K
	Gas or Electric:	O&M > \$100M	\$100M $\geq$ O&M > \$50M	\$50M $\geq$ O&M > \$20M	\$20M $\geq$ O&M > \$8M	\$8M $\geq$ O&M > \$3M	O&M $\leq$ \$3M
Service Area Wealth (12.5%)		> 150% of US median	150% $\geq$ US median > 90%	90% $\geq$ US median > 75%	75% $\geq$ US median > 50%	50% $\geq$ US median > 40%	$\leq$ 40% of US median

Legal Provisions						
Rating Category	Aaa	Aa	A	Baa	Ba	B and Below
Rate Covenant (5%)	> 1.3x	1.3x $\geq$ n > 1.20x	1.20x $\geq$ n > 1.10x	1.10x $\geq$ n > 1.00x	$\leq$ 1.00x	
Debt Service Reserve Requirement (5%)	DSRF funded at MADS	DSRF funded at lesser of standard 3-prong test	DSRF funded at less than 3-prong test OR springing DSRF	NO explicit DSRF; OR funded with speculative grade surety	NO explicit DSRF; OR funded with speculative grade surety	NO explicit DSRF; OR funded with speculative grade surety

# ENTERPRISE FUND SCORECARD: CREDIT INPUTS

## Utility Scorecard Example: Town of Mosquito Bay, Florida

- The system's financial strength is favorable with the following attributes: 2.71x coverage, 170 days cash on hand, 1.8x debt-to-revenues
- Management flexibility is considered to be average when compared to the system's peer group

Financial Strength						
Rating Category	Aaa	Aa	A	Baa	Ba	B or Below
Annual Debt Service Coverage (15%)	> 2.00x	2.00x ≥ n > 1.70x	1.70x ≥ n > 1.25x	1.25x ≥ n > 1.00x	1.00x ≥ n > 0.70x	≤ 0.70x
Days Cash on Hand (15%)	> 250 Days	250 Days ≥ n > 150 Days	150 Days ≥ n > 35 Days	35 Days ≥ n > 15 Days	15 Days ≥ n > 7 Days	≤ 7 Days
Debt to Operating Revenues (10%)	< 2.00x	2.00x < n ≤ 4.00x	4.00x < n ≤ 7.00x	7.00x < n ≤ 8.00x	8.00x < n ≤ 9.00x	≥ 9.00x

Management						
Rating Category	Aaa	Aa	A	Baa	Ba	B or Below
Rate Management (10%)	Excellent rate-setting record; no material political, practical, or regulatory limits on rate increases	Strong rate-setting record; little political, practical, or regulatory limits on rate increases	Average rate-setting record; some political, practical, or regulatory limits on rate increases	Adequate rate-setting record; political, practical, or regulatory impediments place material limits on rate increases	Below average rate-setting record; political, practical, or regulatory impediments place substantial limits on rate increases	Record of insufficiently adjusting rates; political, practical, or regulatory obstacles prevent implementation of necessary rate increases
Regulatory compliance and capital planning (10%)	Fully compliant OR proactively addressing compliance issues; Maintains sophisticated and manageable Capital Improvement Plan that addresses more than a 10-year period	Actively addressing minor compliance issues; Maintains comprehensive and manageable 10-year Capital Improvement Plan	Moderate violations with adopted plan to address issues; Maintains manageable 5-year Capital Improvement Plan	Significant compliance violations with limited solutions adopted; Maintains single year Capital Improvement Plan	Not fully addressing compliance issues; Limited or weak capital planning	Not addressing compliance issues; No capital planning

Source: Moody's – U.S. Public Finance Municipal Utility Rating Methodology

# ENTERPRISE FUND SCORECARD: CREDIT OUTPUT

## Utility Scorecard Example: Town of Mosquito Bay, Florida

- Based on the rating scorecard, the Town of Mosquito Bay would have a water and sewer system rating of “Aa3”
- The Town’s score was helped considerably by the system’s favorable financial strength which is the most heavily weighted category in the utility scorecard
- Again, the scorecard is a summary of some of the factors that go into assigning a credit rating, but does not include every rating consideration and therefore is not 100% accurate
- Each factor is subject to adjustments by the analyst and credit committee, therefore during the ratings process, it is important for issuers to specifically highlight those characteristics that enhance their credit worthiness

Utility Bond Scorecard Factors				
Broad Scorecard Factors	Factor Weighting	Scorecard Subfactor	Subfactor Weighting	Score
System Characteristics	30%	Asset Condition (Remaining Useful Life)	10%	<b>0.33</b>
		Service Area Wealth (Median Family Income)	12.5%	<b>0.55</b>
		System Size (O&M)	7.5%	<b>0.19</b>
Legal Provisions	10%	Rate Covenant	5%	<b>0.08</b>
		Debt Service Reserve Fund (DSRF) Requirement	5%	<b>0.34</b>
Financial Strength	40%	Annual Debt Service Coverage	15%	<b>0.14</b>
		Days Cash on Hand	15%	<b>0.25</b>
		Debt to Operating Revenues	10%	<b>0.25</b>
Management	20%	Rate Management	10%	<b>0.13</b>
		Regulatory Compliance and Capital Planning	10%	<b>0.20</b>
<b>Total</b>	<b>100%</b>	<b>Total</b>	<b>100%</b>	<b>2.46</b>

Indicated Rating for Weighted Score	
Indicated Rating	Overall Weighted Score
Aaa	0.50 to 1.50
Aa1	1.51 to 1.83
Aa2	1.84 to 2.17
<b>Aa3</b>	<b>2.18 to 2.50</b>
A1	2.51 to 2.83
A2	2.84 to 3.17
A3	3.18 to 3.50
Baa1	3.51 to 3.83
Baa2	3.84 to 4.17
Baa3	4.18 to 4.50



# RATING AGENCY PROCESS: CONCLUSION

- **Best practices when meeting with the rating agencies:**
  - Talk with your financial advisor and/or underwriter to determine the number of rating agencies to use on a financing and which rating agencies may be best
  - Work with your financial advisor and/or underwriter prior to any specific discussions with the rating agencies to determine what credit concerns there may be and have information available as to how you will be targeting those concerns in the future
  - Accentuate the positives, but do not ignore the negatives
  - Have a presentation prepared for the analysts in addition to simply providing them a packet of information
  - Speak to the overall demographics of the community even when they may not be a direct factor on the security pledged to the bonds
  - Remember that the analysts want to hear from the management (and possibly the elected officials), not from the financing team members
  - Answer all questions that the rating agencies may have in a timely manner and provide all information that was not available during the initial call as soon as possible
  - Be prepared to answer questions regarding “hot topics” such as pension liabilities, bank loan disclosures, information about derivative products, and other general information relating to any formally adopted fund balance and debt management policies
  - For large projects (especially new money projects), consider bringing the analysts for a site visit rather than relying on a traditional conference call

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