

DAY THREE SESSION THREE

Marketing and Pricing

Municipal Debt Essentials
Accessing the Market
October 28, 2016

Presentation by:

Marc Hughes, Managing Director

Jay Murphy, Managing Director



Review

1

- On Days 1 and 2 you were given a broad brush of the market that laid the foundation for a bond financing. You learned:
 - ▣ how the market is evolving;
 - ▣ how to determine the optimal financing option, plan of finance and structure
 - ▣ how to select the professionals who will assist you in issuing bonds
 - ▣ the important role of rating agencies and bond insurers
- Earlier today you learned the importance of initial disclosure
 - ▣ All the parts that need to come together before you can raise capital

Now it's time to issue bonds!

What This Session Teaches

2

- In this session you will learn the basic concepts and processes associated with selling bonds in the primary market
- This session can be grouped into three broad categories
 1. Interest Rates
 2. How the Market Determines the Prices for Bonds
 3. Bond Sale Processes and Investors

Interest Rates

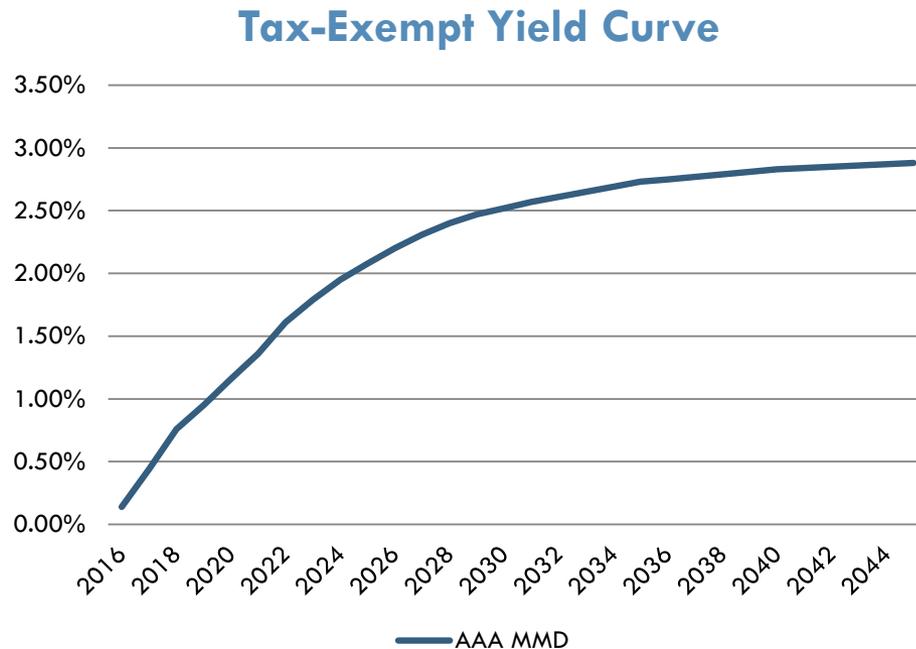
3

- We are going to discuss fixed rate, current interest bonds
- We're going to cover the big picture items with interest rates:
 1. Yield Curve
 2. Coupons
 3. Yields
 4. Prices
- We're going to apply this information to demonstrate how a municipal bond is priced and sold in the primary market

Yield Curve

4

The Yield Curve shows interest rates plotted over a set timeframe – typically 30-years



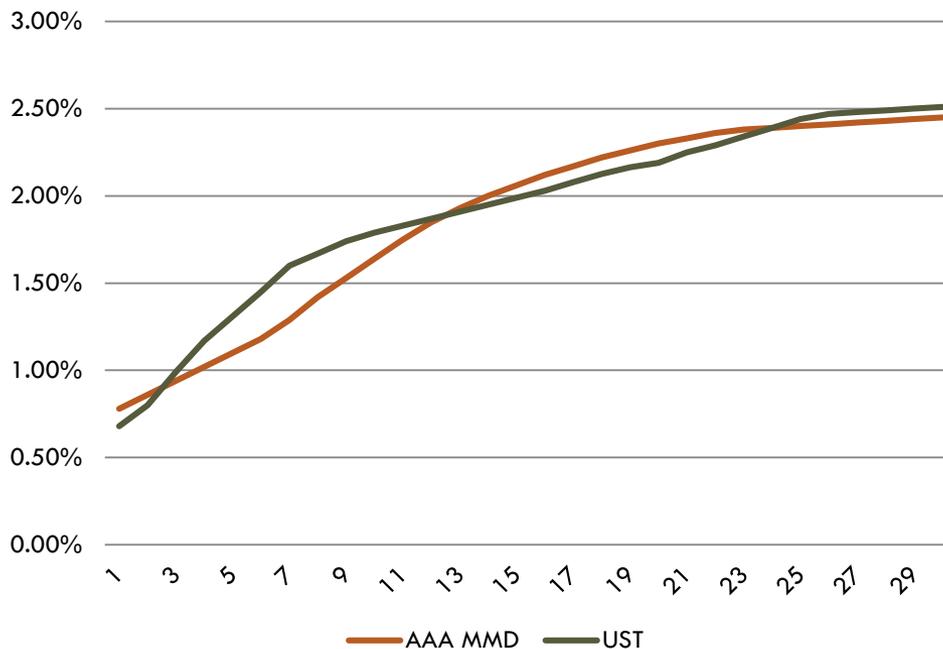
- The “shape” of the yield curve tells you the market’s expectations of future conditions
- A typical yield curve is upward sloping, with lower interest rates at the beginning of the curve and higher interest rates at the end of the curve

Yield Curve

5

Historically, tax-exempt interest rates have moved in sympathy with Treasury rates

AAA MMD vs. US Treasuries

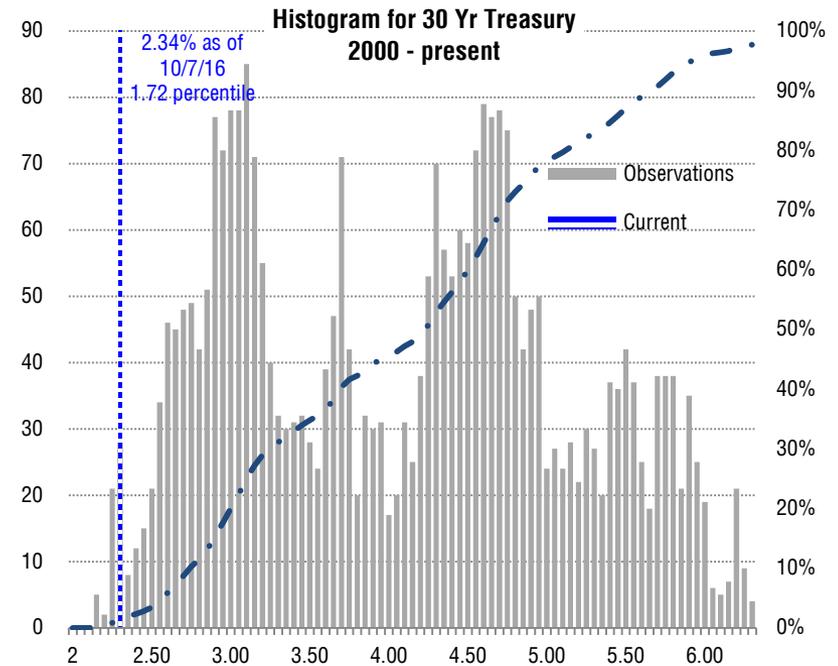
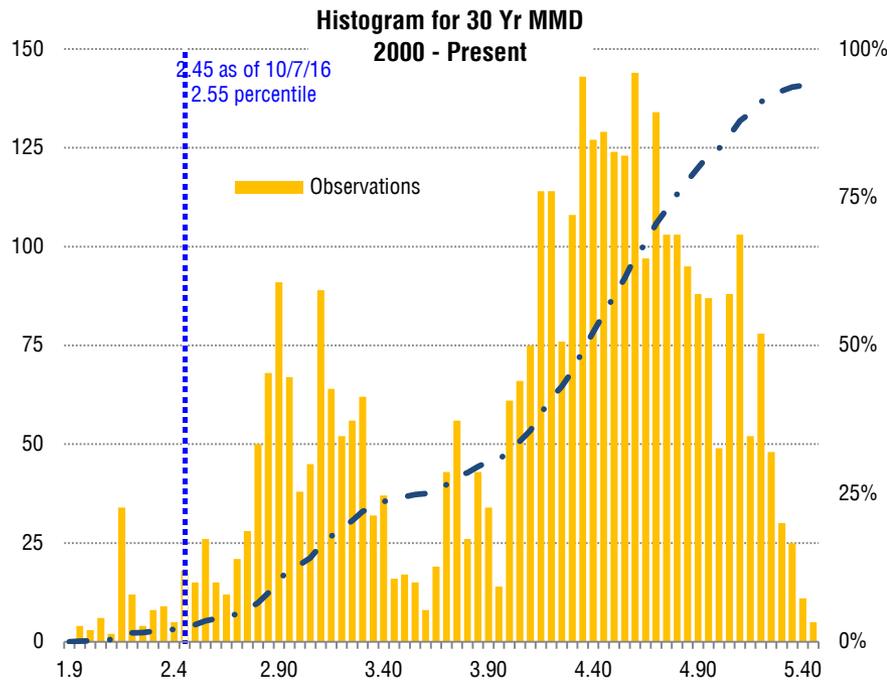


- The relationship of tax-exempt interest rates to Treasuries is worth noting
- Historically, tax-exempt interest rates are about 80% of comparable maturity Treasury rates
- Because of the low level of real interest rates, this relationship is currently distorted

Yield Curve

6

Both taxable and tax-exempt long-term interest rates are near their respective historical lows



Factors Influencing Yields

7

Multiple internal and external factors influence new issue yields

Fundamental

- Economics
- Inflationary Expectations
- Monetary Policy
- Global Events

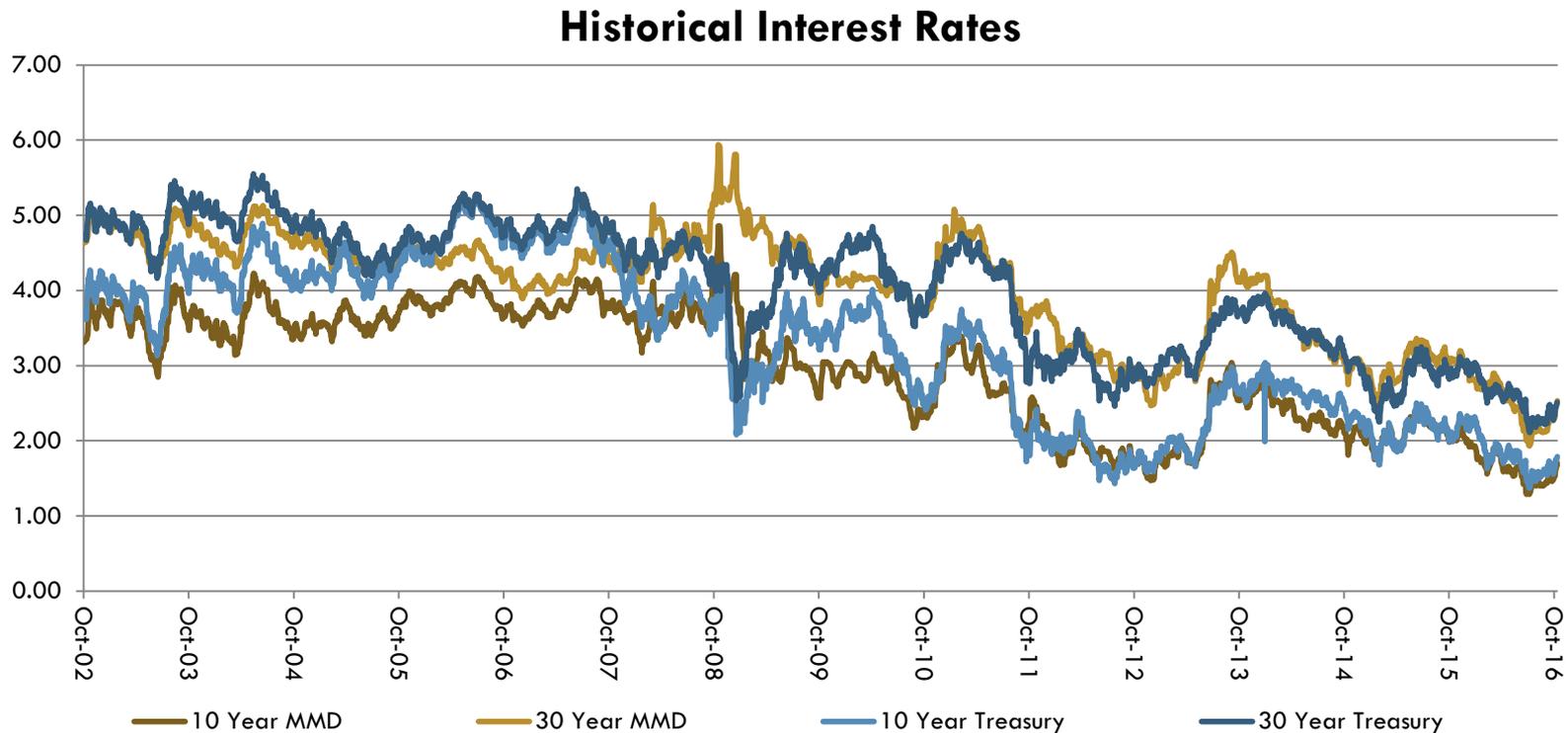
Technical

- Supply and Demand
- Sector
- Comparable Securities
- Specific Features of Financing

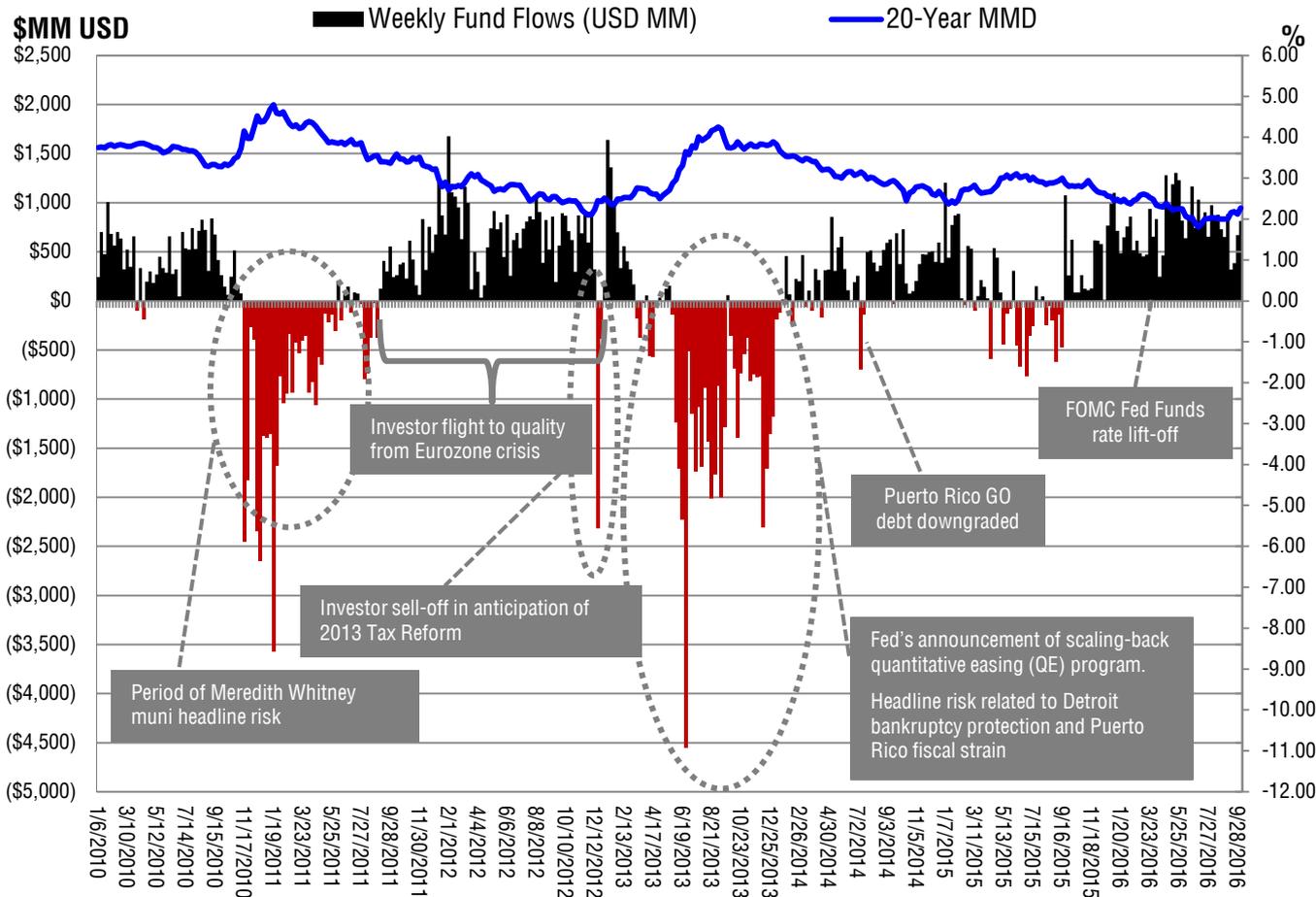
Historical Interest Rates

8

The yield curve continuously changes and impacts the optimal bond structure



Fund Flows Influence Yields



Trailing 16-Week Data		
Muni Fund Reporting Date	Weekly Fund Flow (\$MM USD)	20-Yr AAA MMD
6/22/2016	\$1,166.40	2.04%
6/29/2016	\$743.76	1.89%
7/6/2016	\$1,031.04	1.80%
7/13/2016	\$814.48	1.90%
7/20/2016	\$903.47	2.01%
7/27/2016	\$652.80	2.01%
8/3/2016	\$972.81	2.04%
8/10/2016	\$851.35	2.03%
8/17/2016	\$878.46	2.01%
8/24/2016	\$728.94	2.00%
8/31/2016	\$652.14	2.00%
9/7/2016	\$881.81	2.01%
9/14/2016	\$318.63	2.16%
9/21/2016	\$385.89	2.18%
9/28/2016	\$671.25	2.12%
10/05/2016	\$813.65	2.27%

Coupon, Price and Yield - Defined

- **Principal** is the corpus due each year on the loan
- **Coupon** is the interest rate the municipality pays on a particular bond with a particular maturity
- **Yield** is the annual return the investor receives on a bond
- **Price** (not shown) is the amount the investor pays to purchase the bond

MATURITY SCHEDULE

\$3,055,000 Serial Bonds

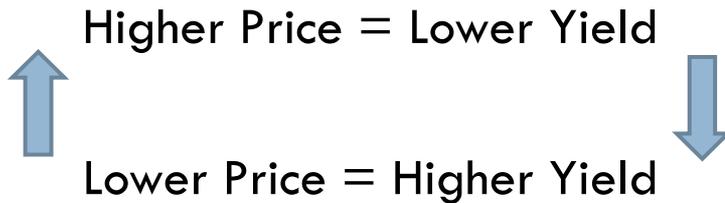
<u>Maturity Date</u> <u>(November 1)</u>	<u>Principal</u>	<u>Coupon</u>	<u>Yield</u>
2015	\$145,000	3.000%	0.250%
2016	150,000	3.000	0.450
2017	155,000	3.000	0.700
2018	160,000	3.000	0.980
2019	165,000	3.000	1.280
2020	170,000	4.000	1.580
2021	175,000	4.000	1.830
2022	185,000	4.000	2.080
2023	190,000	4.000	2.230
2024	200,000	4.000	2.380
2025	205,000	4.000	2.480 ^C
2026	215,000	4.000	2.590 ^C
2027	225,000	3.000	3.000
2028	230,000	3.000	3.044
2029	240,000	3.000	3.147
2030	245,000	3.125	3.205

\$1,065,000 3.500% Term Bonds due November 1, 2034, Yield 3.588%
 \$900,000 3.750% Term Bonds due November 1, 2037, Yield 3.783%
 \$1,010,000 4.000% Term Bonds due November 1, 2040, Yield 3.790%^C
 \$1,550,000 4.000% Term Bonds due November 1, 2044, Yield 3.850%^C

^C Priced to call at par on November 1, 2024.

Coupon, Price and Yield - Applied

Price and Yield move in opposite directions:



MATURITY SCHEDULE

\$3,055,000 Serial Bonds

Maturity Date (November 1)	Principal	Coupon	Yield
2015	\$145,000	3.000%	0.250%
2016	150,000	3.000	0.450
2017	155,000	3.000	0.700
2018	160,000	3.000	0.980
2019	165,000	3.000	1.280
2020	170,000	4.000	1.580
2021	175,000	4.000	1.830
2022	185,000	4.000	2.080
2023	190,000	4.000	2.230
2024	200,000	4.000	2.380
2025	205,000	4.000	2.480 ^C
2026	215,000	4.000	2.590 ^C
2027	225,000	3.000	3.000
2028	230,000	3.000	3.044
2029	240,000	3.000	3.147
2030	245,000	3.125	3.205

Examples:

Maturity	Principal	Coupon	Yield	Price
2026	\$215,000	4.000%	2.590%	113.444%
2027	\$225,000	3.000%	3.000%	100.000%
2028	\$230,000	3.000%	3.044%	99.500%

- 2026 is a **premium** bond
- 2027 is a **par** bond
- 2028 is a **discount** bond

\$1,065,000 3.500% Term Bonds due November 1, 2034, Yield 3.588%
 \$900,000 3.750% Term Bonds due November 1, 2037, Yield 3.783%
 \$1,010,000 4.000% Term Bonds due November 1, 2040, Yield 3.790%^C
 \$1,550,000 4.000% Term Bonds due November 1, 2044, Yield 3.850%^C

^C Priced to call at par on November 1, 2024.

Coupon, Price and Yield - Impact

12

Examples:

Maturity	Principal	Coupon	Yield	Price	
2026	\$215,000	4.000%	2.590%	113.444%	← premium bond
2027	\$225,000	3.000%	3.000%	100.000%	← par bond
2028	\$230,000	3.000%	3.044%	99.500%	← discount bond

Price X Principal = Amount Investor Pays and Amount Municipality Receives

Examples:

Maturity	Principal	Price	Dollar Price
2026	\$215,000	113.444%	\$243,904.60
2027	\$225,000	100.000%	\$225,000.00
2028	\$230,000	99.500%	\$228,850.00

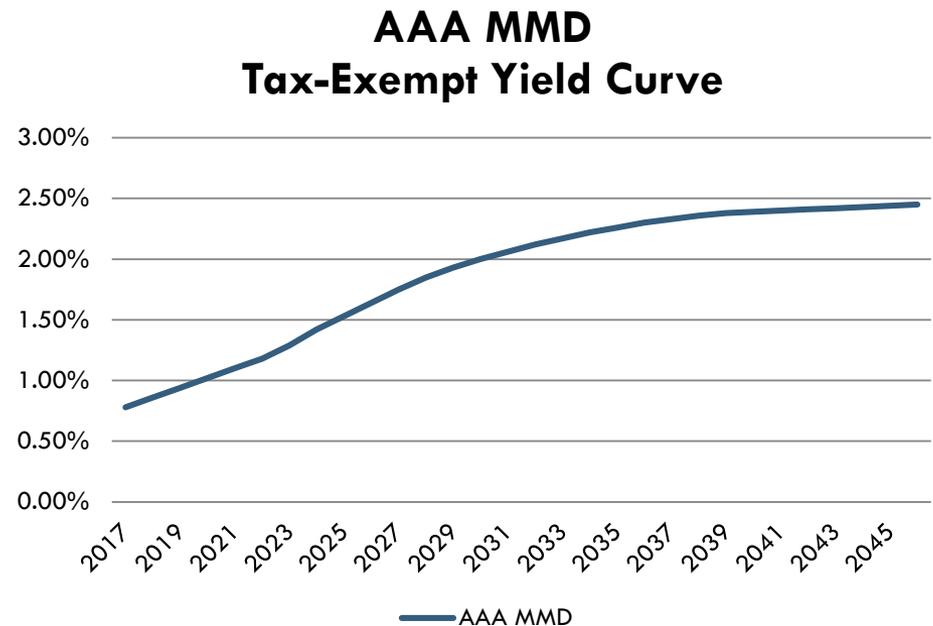
To a large degree, investor demand will determine how a particular financing is couponed

Municipal Market Data Yield Curve

13

Generally, the municipal market determines yields in the primary market based on a spread to Municipal Market Data (MMD)

- MMD is an index of theoretical AAA rated state general obligation bonds
- It is not a single security
- It's an opinion of value on which issues can be priced and compared
- Published each afternoon
- Proprietary and subscription based

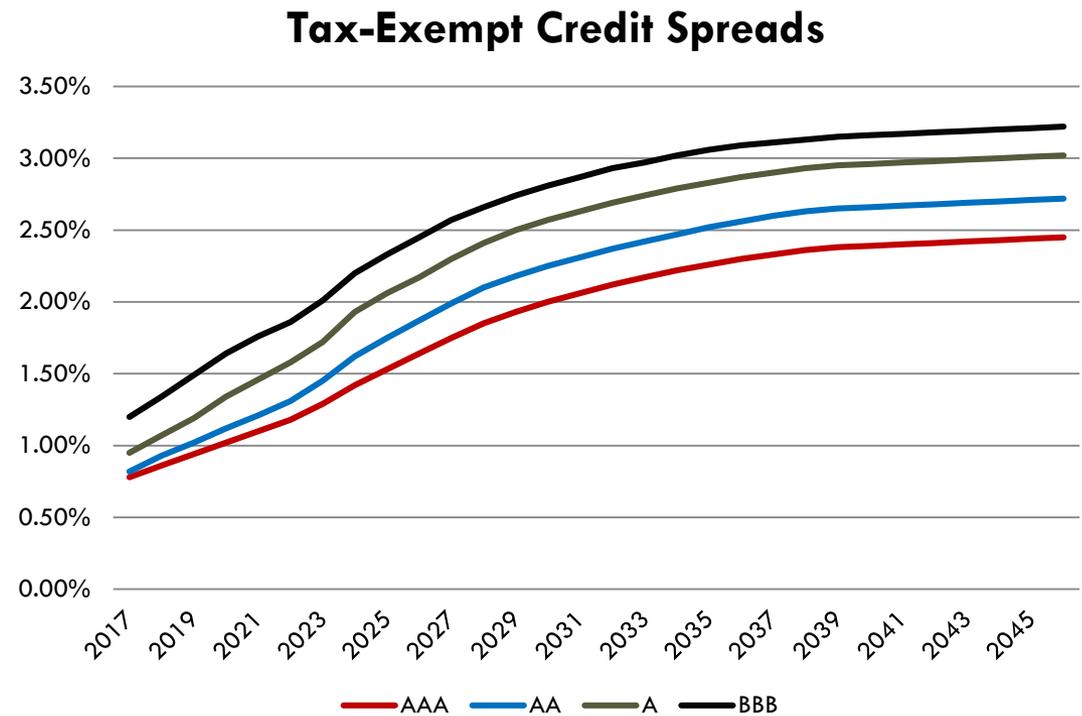


Credit Spreads Between Ratings

14

Credit spreads are a means of compensating investors as the level of perceived risk increases from the benchmark

- The lower the credit quality, the higher the credit spread
- Credit spreads are not constant and change over time
- Credit spreads can be different for similarly rated credits in different sectors



Credit Spreads Between Sectors

15

The municipal market has a variety of security structures and sectors and each prices differently

- General obligation bonds and essential service utilities have the “tightest” spreads
- Revenue bonds vary by sector based on pledged revenues
- Not-for-Profits, Health Care and Land Secured tend to have the highest spreads

	10-Year Spot for MMD		
	AA	A	BBB
General Obligation Bond	+20	+55	+80
Essential Service Utility	+35	+70	+90
Airport Revenue Bond	+50	+65	+90
Sales Tax Revenue Bond	+40	+60	+85
Tax Allocation Bond	+40	+75	+120
Certificates of Participation	+60	+75	+135
Lease Revenue Bond	+60	+75	+100
Not-for-Profit	+35	+65	+90
Health Care	+35	+75	+100

Comparables

16

- A “comparable” is another benchmark showing interest rates and spreads to MMD of similarly rated, often similarly secured transactions that have been recently priced in the primary market
- There is almost never a “perfect” comparable, although with certain security structures, such as general obligation bonds issued by California school districts, one can come close
- The more comparables one can find, the better
- The more “unique” a particular credit is, the more difficult it will be to find comparable securities

Comparables

Summary Terms of Offering

Issuer: Pajaro Valley Unified School District
 Issue: General Obligation Bonds Election of 2012, Series C
 Underlying Ratings (M/S/F): Aa2/A+/NR
 Size: \$40,000,000
 Amortization: 2017 - 2045
 Call Provision: Optional call on 02/01/2026 at par
 Award Date: 2/3/2016

Pricing Results

Maturity	Principal	Coupon	Yield	Spread to MMD
8/1/2017	\$1,385,000	2.000%	0.540%	0.00%
8/1/2018	\$1,525,000	3.000%	0.730%	0.00%
8/1/2019	\$400,000	4.000%	0.900%	0.07%
8/1/2023	\$100,000	5.000%	1.480%	0.16%
8/1/2024	\$190,000	5.000%	1.660%	0.18%
8/1/2025	\$325,000	5.000%	1.820%	0.20%
8/1/2026	\$470,000	5.000%	1.950%	0.23%
8/1/2027	\$625,000	5.000%	2.110%	0.30%
8/1/2028	\$745,000	5.000%	2.250%	0.35%
8/1/2029	\$845,000	5.000%	2.330%	0.35%
8/1/2030	\$950,000	5.000%	2.390%	0.35%
8/1/2031	\$1,065,000	5.000%	2.470%	0.35%
8/1/2032	\$1,190,000	5.000%	2.550%	0.35%
8/1/2033	\$1,320,000	5.000%	2.600%	0.35%
8/1/2035	\$3,050,000	4.000%	3.050%	0.70%
8/1/2040	\$10,410,000	5.000%	2.950%	0.32%
8/1/2045	\$15,405,000	4.000%	3.450%	0.74%

Summary Terms of Offering

Issuer: Torrance Unified School District
 Issue: General Obligation Bonds, Election of 2008, (Measure Y), Series 2016
 Underlying Ratings (M/S/F): Aa2/AA-/NR
 Size: \$65,375,000
 Amortization: 2018 - 2039
 Call Provision: Optional call on 8/1/2026 at par
 Award Date: 1/27/2016

Pricing Results

Maturity	Principal	Coupon	Yield	Spread to MMD
8/1/2018	\$1,275,000	2.000%	0.750%	0.07%
8/1/2019	\$725,000	4.000%	0.860%	0.05%
8/1/2020	\$590,000	2.000%	1.000%	0.06%
8/1/2021	\$285,000	3.000%	1.120%	0.07%
8/1/2021	\$370,000	2.000%	1.120%	0.07%
8/1/2022	\$350,000	4.000%	1.250%	0.07%
8/1/2023	\$235,000	2.250%	1.440%	0.10%
8/1/2024	\$1,070,000	4.000%	1.610%	0.11%
8/1/2025	\$220,000	4.000%	1.800%	0.16%
8/1/2026	\$915,000	4.000%	1.950%	0.20%
8/1/2027	\$3,485,000	5.000%	2.070%	0.22%
8/1/2028	\$3,850,000	4.000%	2.330%	0.39%
8/1/2029	\$3,945,000	4.000%	2.510%	0.48%
8/1/2030	\$3,915,000	4.000%	2.640%	0.52%
8/1/2031	\$2,100,000	4.000%	2.770%	0.57%
8/1/2032	\$2,670,000	3.000%	3.000%	0.72%
8/1/2033	\$1,170,000	3.000%	3.080%	0.75%
8/1/2034	\$995,000	3.000%	3.140%	0.76%
8/1/2035	\$4,655,000	3.000%	3.190%	0.76%
8/1/2036	\$4,990,000	4.000%	3.060%	0.58%
8/1/2037	\$5,420,000	4.000%	3.110%	0.58%
8/1/2039	\$22,145,000	4.000%	3.210%	0.58%

Pricing a Bond Issue

18

Recap of things covered so far...

- We covered interest rates and yield curve
- We covered coupon, price and yield
- We covered credit spreads
- We've covered comparables

Next we're going to walk through the process of a negotiated bond sale in the public markets...

What the Underwriter Considers

19

When structuring a transaction, the underwriter considers a variety of factors intended to generate the most demand and best prices for the bonds

- Credit quality
- The size of the transaction and the individual maturities
- The final maturity relative to the shape of the yield curve
- Redemption features
- Yields for comparable securities
- Likely investors in the bonds
- Attractive coupon structure for investors

Investors and Investor Classes

20

Maturity	Par	Coupon	Yield	Tier	Types of Investors	Attributes
10/1/2017	1,525	4.000%	1.180%	Tier III	<ul style="list-style-type: none"> • Small Bank Trust Depts. • High Net Worth • Directed Accounts • SMAs • Smaller Corporations 	<ul style="list-style-type: none"> • Buy Small Blocks • Least Sophisticated • Buy and Hold • Quality and Name Driven
10/1/2018	1,790	4.000%	1.310%			
10/1/2019	1,880	4.000%	1.440%			
10/1/2020	1,975	4.000%	1.570%			
10/1/2021	2,075	4.000%	1.700%			
10/1/2022	2,180	4.000%	1.830%			
10/1/2023	2,285	5.000%	1.970%	Tier II	<ul style="list-style-type: none"> • Smaller Mutual Funds • Smaller Insurance Cos. • Smaller Pension Funds • Smaller Money Mngrs. • Directed Accounts 	<ul style="list-style-type: none"> • Buy Medium Blocks • Sophisticated • Typically Buy and Hold
10/1/2024	2,400	5.000%	2.120%			
10/1/2025	2,520	5.000%	2.230%			
10/1/2026	2,645	5.000%	2.340%			
10/1/2027	2,780	5.000%	2.470%			
10/1/2028	2,920	5.000%	2.600%			
10/1/2029	3,065	5.000%	2.680%	Tier I	<ul style="list-style-type: none"> • Major Mutual Funds • Large Pension Funds • Insurance Companies • Large Trust Funds • Large Money Managers 	<ul style="list-style-type: none"> • Buy Large Blocks • Highly Sophisticated • Price and Duration • Actively Managed
10/1/2030	3,215	5.000%	2.750%			
10/1/2031	3,375	5.000%	2.810%			
10/1/2032	3,440	5.000%	2.870%			
10/1/2033	3,525	5.000%	2.920%			
10/1/2034	3,680	5.000%	2.970%			
10/1/2035	3,815	5.000%	3.010%			
10/1/2036	3,975	5.000%	3.050%			
10/1/2041	21,350	5.000%	3.190%			
10/1/2046	28,615	5.000%	3.300%			

Order Monitor

24

- Most underwriting firms subscribe to Ipreo, an electronic securities platform providing a number of tools for the capital markets
- Underwriters will use Ipreo to accept and monitor orders, among other things
- Issuers gain access to the platform on the internet through their underwriter, allowing them and their advisors to monitor the book of business as it's developing throughout the pricing

Order Monitor – Book of Business

25

Maturity	Amount	Total Member Retail (\$000's)	Total Member Non-Retail (\$000's)	Total Member (\$000's)	Total (\$000's)	Balance (\$000's)
08/01/2018 16	\$ 685.00	\$ -	\$ 2,190.00	\$ 2,190.00	\$ 2,190.00	\$ (1,505.00)
08/01/2019 16	\$ 470.00	\$ -	\$ 2,165.00	\$ 2,165.00	\$ 2,165.00	\$ (1,695.00)
08/01/2020 16	\$ 480.00	\$ -	\$ 1,115.00	\$ 1,115.00	\$ 1,115.00	\$ (635.00)
08/01/2021 16	\$ 265.00	\$ -	\$ 1,075.00	\$ 1,075.00	\$ 1,075.00	\$ (810.00)
08/01/2022 16	\$ 275.00	\$ -	\$ 650.00	\$ 650.00	\$ 650.00	\$ (375.00)
08/01/2023 16	\$ 285.00	\$ -	\$ 320.00	\$ 320.00	\$ 320.00	\$ (35.00)
08/01/2024 16	\$ 300.00	\$ -	\$ 515.00	\$ 515.00	\$ 515.00	\$ (215.00)
08/01/2025 16	\$ 310.00	\$ -	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ (890.00)
08/01/2026 16	\$ 320.00	\$ -	\$ 1,060.00	\$ 1,060.00	\$ 1,060.00	\$ (740.00)
08/01/2027 16	\$ 335.00	\$ -	\$ 1,185.00	\$ 1,185.00	\$ 1,185.00	\$ (850.00)
08/01/2028 16	\$ 350.00	\$ -	\$ 780.00	\$ 780.00	\$ 780.00	\$ (430.00)
08/01/2029 16	\$ 370.00	\$ -	\$ 200.00	\$ 200.00	\$ 200.00	\$ 170.00
08/01/2030 16	\$ 6,085.00	\$ -	\$ 13,140.00	\$ 13,140.00	\$ 13,140.00	\$ (7,055.00)
08/01/2031 16	\$ 6,385.00	\$ -	\$ 29,455.00	\$ 29,455.00	\$ 29,455.00	\$ (23,070.00)
08/01/2032 16	\$ 6,705.00	\$ -	\$ 25,755.00	\$ 25,755.00	\$ 25,755.00	\$ (19,050.00)
08/01/2033 16	\$ 7,045.00	\$ -	\$ 36,635.00	\$ 36,635.00	\$ 36,635.00	\$ (29,590.00)
08/01/2034 16	\$ 7,395.00	\$ -	\$ 31,685.00	\$ 31,685.00	\$ 31,685.00	\$ (24,290.00)
08/01/2035 16	\$ 7,765.00	\$ -	\$ 48,635.00	\$ 48,635.00	\$ 48,635.00	\$ (40,870.00)
08/01/2036 16	\$ 8,155.00	\$ -	\$ 76,490.00	\$ 76,490.00	\$ 76,490.00	\$ (68,335.00)
08/01/2042 16	\$ 56,760.00	\$ -	\$ 323,195.00	\$ 323,195.00	\$ 323,195.00	\$ (266,435.00)
08/01/2047 16	\$ 58,625.00	\$ -	\$ 298,550.00	\$ 298,550.00	\$ 298,550.00	\$ (239,925.00)
08/01/2019 B	\$ 2,325.00	\$ 6,125.00	\$ -	\$ 6,125.00	\$ 6,125.00	\$ (3,800.00)
08/01/2020 B	\$ 2,370.00	\$ 7,750.00	\$ -	\$ 7,750.00	\$ 7,750.00	\$ (5,380.00)
08/01/2021 B	\$ 2,415.00	\$ 3,430.00	\$ -	\$ 3,430.00	\$ 3,430.00	\$ (1,015.00)
08/01/2022 B	\$ 2,475.00	\$ 7,500.00	\$ -	\$ 7,500.00	\$ 7,500.00	\$ (5,025.00)
08/01/2023 B	\$ 3,800.00	\$ 12,265.00	\$ -	\$ 12,265.00	\$ 12,265.00	\$ (8,465.00)
08/01/2024 B	\$ 4,125.00	\$ 5,000.00	\$ -	\$ 5,000.00	\$ 5,000.00	\$ (875.00)
08/01/2025 B	\$ 4,605.00	\$ 5,350.00	\$ -	\$ 5,350.00	\$ 5,350.00	\$ (745.00)
08/01/2026 B	\$ 4,535.00	\$ 12,880.00	\$ -	\$ 12,880.00	\$ 12,880.00	\$ (8,345.00)
08/01/2027 B	\$ 4,900.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ (5,100.00)
08/01/2028 B	\$ 5,265.00	\$ 3,990.00	\$ -	\$ 3,990.00	\$ 3,990.00	\$ 1,275.00
08/01/2029 B	\$ 5,605.00	\$ 3,540.00	\$ -	\$ 3,540.00	\$ 3,540.00	\$ 2,065.00
08/01/2030 B	\$ 3,200.00	\$ 2,450.00	\$ -	\$ 2,450.00	\$ 2,450.00	\$ 750.00
08/01/2031 B	\$ 2,815.00	\$ 8,365.00	\$ 2,815.00	\$ 11,180.00	\$ 11,180.00	\$ (8,365.00)
08/01/2032 B	\$ 4,500.00	\$ 27,950.00	\$ 4,500.00	\$ 32,450.00	\$ 32,450.00	\$ (27,950.00)
08/01/2033 B	\$ 4,990.00	\$ 25,170.00	\$ 4,990.00	\$ 30,160.00	\$ 30,160.00	\$ (25,170.00)
08/01/2034 B	\$ 5,115.00	\$ 15,615.00	\$ 5,115.00	\$ 20,730.00	\$ 20,730.00	\$ (15,615.00)
08/01/2035 B	\$ 5,325.00	\$ 15,875.00	\$ 5,325.00	\$ 21,200.00	\$ 21,200.00	\$ (15,875.00)
08/01/2036 B	\$ 5,610.00	\$ 23,370.00	\$ 5,610.00	\$ 28,980.00	\$ 28,980.00	\$ (23,370.00)
08/01/2040 B	\$ 23,025.00	\$ 33,950.00	\$ 23,025.00	\$ 56,975.00	\$ 56,975.00	\$ (33,950.00)

Price Adjustments Before Award

- As the book of business develops through the order period, the underwriter may recommend adjusting prices to address demand
- These price adjustments are discussed and negotiated on the pricing call

2016 General Obligation Refunding Bonds								
<u>Maturity</u>	<u>Pre-Pricing Scale</u>			<u>Pricing Scale</u>			<u>Change</u>	
	<u>Coupon</u>	<u>Yield</u>	<u>Spread</u>	<u>Coupon</u>	<u>Yield</u>	<u>Spread</u>		
8/1/2018	4.00%	0.86%	20	4.00%	0.85%	19	0.01%	
8/1/2019	4.00%	1.04%	23	4.00%	1.03%	22	0.01%	
8/1/2020	4.00%	1.20%	23	4.00%	1.19%	22	0.01%	
8/1/2021	4.00%	1.41%	27	4.00%	1.40%	26	0.01%	
8/1/2022	4.00%	1.61%	29	4.00%	1.60%	28	0.01%	
8/1/2023	4.00%	1.84%	33	4.00%	1.84%	33	0.00%	
8/1/2024	4.00%	2.02%	36	4.00%	2.02%	36	0.00%	
8/1/2025	4.00%	2.20%	40	4.00%	2.20%	40	0.00%	
8/1/2026	4.00%	2.34%	42	4.00%	2.34%	42	0.00%	
8/1/2027	5.00%	2.43%	42	5.00%	2.42%	41	0.01%	
8/1/2028	5.00%	2.52%	42	5.00%	2.50%	40	0.02%	
8/1/2029	5.00%	2.60%	42	5.00%	2.57%	39	0.03%	
8/1/2030	5.00%	2.66%	42	5.00%	2.61%	37	0.05%	
8/1/2031	5.00%	2.74%	42	5.00%	2.69%	37	0.05%	
8/1/2032	5.00%	2.83%	42	5.00%	2.78%	37	0.05%	
8/1/2033	5.00%	2.88%	42	5.00%	2.83%	37	0.05%	
8/1/2034	5.00%	2.93%	42	5.00%	2.88%	37	0.05%	
8/1/2035	5.00%	2.98%	42	5.00%	2.93%	37	0.05%	
8/1/2036	5.00%	3.03%	42	5.00%	2.98%	37	0.05%	
8/1/2042*	4.00%	3.57%	70	4.00%	3.52%	70	0.05%	
8/1/2047*	4.00%	3.61%	70	4.00%	3.56%	70	0.05%	

*Term Bond

Allocation of Bonds to Investors

- In the example we've been sharing, the 2016 General Obligation Refunding Bonds received nearly \$900 million in orders from over 60 investors
- Large institutional investors put in orders for significant blocks of entire maturities
- Many smaller money managers, trust departments and separately managed accounts also placed orders for the bonds, ranging in size from \$60,000 to \$2,000,000, demonstrating the depth and breadth of investor demand for the bonds
- Bonds were allocated to 52 different investors

Investor	Total	Percentage
Wells Capital Management	\$51,410,000	30.47%
Black Rock	\$9,500,000	5.63%
Eaton Vance Management	\$7,565,000	4.48%
CNA/Lowes	\$6,000,000	3.56%
Mesirow Financial	\$6,000,000	3.56%
CRL Mgt Corp	\$5,770,000	3.42%
Northern Trust	\$5,545,000	3.29%
Capital Research	\$5,000,000	2.96%
RBC Bank Portfolio	\$5,000,000	2.96%
Deutsche Asset Management	\$5,000,000	2.96%
16th Amendment Advisors LLC	\$5,000,000	2.96%
Deutsche Bank AG	\$5,000,000	2.96%
Merrill Arb	\$5,000,000	2.96%
Barclays Global Investors	\$4,500,000	2.67%
Old Orchard Capital Mgmt	\$3,000,000	1.78%
Goldman Asset Management	\$2,865,000	1.70%
PIMCO	\$2,500,000	1.48%
Mackay Shields	\$2,500,000	1.48%
Good Hill Partners	\$2,500,000	1.48%
Putnam Funds	\$2,330,000	1.38%
RSW Investments LLC	\$2,010,000	1.19%
Concordia	\$2,000,000	1.19%
Napier Park Global Capital	\$2,000,000	1.19%
Vanguard	\$2,000,000	1.19%
Edward Jones	\$1,830,000	1.08%
Blackrock SMA	\$1,825,000	1.08%
Wells Fargo Private Asset Management	\$1,660,000	0.98%
McDonnell Investments	\$1,655,000	0.98%
Bess Investments	\$1,570,000	0.93%
Charles Schwab	\$1,500,000	0.89%
Wells Fargo Wealth Management	\$1,250,000	0.74%
Whitebox Advisors LLC	\$1,000,000	0.59%
RMR Asset Management	\$700,000	0.41%
City National	\$625,000	0.37%
Schroders	\$500,000	0.30%
Titan Lion Partners LLC	\$500,000	0.30%
Manulife Financial	\$500,000	0.30%
Rembrandt Capital	\$500,000	0.30%
UBS Financial Services, Inc.	\$450,000	0.27%
Raymond James	\$350,000	0.21%
Sterling Capital	\$300,000	0.18%
Goldman Sachs PWM	\$295,000	0.17%
Mesirow Financial	\$260,000	0.15%
McDonald Capital Investors, Inc.	\$250,000	0.15%
KCM Investment Advisors	\$250,000	0.15%
First Western Investment Management	\$250,000	0.15%
NexWave Capital Partners LLC	\$250,000	0.15%
Humboldt Capital	\$200,000	0.12%
First Empire Securities	\$100,000	0.06%
Williams Jones and Associates	\$95,000	0.06%
Ziegler Asset Management	\$25,000	0.01%
Fidelity Investors	\$25,000	0.01%
	\$168,710,000	100.00%

Conclusion

29

- We covered a lot of ground
 - ✓ Yield Curves
 - ✓ Coupons
 - ✓ Yields
 - ✓ Prices
 - ✓ Factors Influencing Prices
 - ✓ Credit Spreads
 - ✓ MMD and Comparables
 - ✓ Marketing Process
 - ✓ Order Books and Investors



Mesirow Financial[®]

Independent Minds.
Innovative Solutions.

Investment Management Capital Markets Consulting

Visit us on the Web at mesirowfinancial.com

Marc Hughes

415-623-7230

mhughes@mesirowfinancial.com

Jay Murphy

212-530-7661

smurphy@mesirowfinancial.com