# Debt 2 <br> Session Five <br> <br> Marketing and <br> <br> Marketing and Pricing 

 Pricing}

# Municipal Debt Essentials <br> Accessing the Market <br> March 18, 2015 <br> Riverside, CA 

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## Review

- On Day 1 you were given a broad brush of the market that laid the foundation for a bond financing
- You learned that the market is evolving and the legal and regulatory environment has changed significantly in the last two years
- You learned the importance of good disclosure
- Earlier today you learned debt capacity, affordability, and structure and credit quality
- All the parts that need to come together before you can raise capital


## Now it's time to issue bonds!

## What This Session Teaches

- 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 Methods, Processes and Investors

## Interest Rates

- 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

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

Tax-Exempt Yield Curve


- 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

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

Treasury vs. AAA MMD


- The relationship of taxexempt interest rates to Treasuries is worth noting
- Historically, tax-exempt interest rates are about 80\% of comparable maturity Treasury rates
- Currently, after about the 10-year spot, municipals are attractive compared to Treasuries


## Factors Influencing Yields

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

The yield curve continuously changes and impacts the optimal bond structure

Historical Interest Rates


## Fund Flows Influence Yields



| Muni Fund <br> Reporting Date | Fund Flow <br> (\$MMUSD) | 20-Yr AAA <br> MMD |
| :---: | ---: | ---: |
| $11 / 5 / 2014$ | $\$ 201.70$ | $2.78 \%$ |
| $11 / 12 / 2014$ | $\$ 375.00$ | $2.80 \%$ |
| $11 / 1 / 1 / 2014$ | $\$ 474.76$ | $2.81 \%$ |
| $11 / 26 / 2014$ | $\$ 472.23$ | $2.77 \%$ |
| $12 / 3 / 2014$ | $\$ 498.61$ | $2.73 \%$ |
| $12 / 10 / 2014$ | $\$ 502.59$ | $2.61 \%$ |
| $12 / 17 / 2014$ | $\$ 398.49$ | $2.58 \%$ |
| $12 / 24 / 2014$ | $\$ 595.99$ | $2.68 \%$ |
| $12 / 31 / 2014$ | $\$ 386.62$ | $2.58 \%$ |
| $1 / 7 / 2015$ | $\$ 1,202.25$ | $2.46 \%$ |
| $1 / 14 / 2014$ | $\$ 440.95$ | $2.37 \%$ |
| $1 / 21 / 2015$ | $\$ 772.99$ | $2.44 \%$ |
| $1 / 28 / 2015$ | $\$ 870.15$ | $2.38 \%$ |
| $2 / 04 / 2015$ | $\$ 887.23$ | $2.47 \%$ |
| $2 / 11 / 2015$ | $\$ 27.89$ | $2.69 \%$ |
| $2 / 18 / 2015$ | $-\$ 37.89$ | $2.73 \%$ |
| $2 / 25 / 2015$ | $\$ 560.83$ | $2.71 \%$ |

[^0]
## 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

| Maturity Date <br> 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 | $2.480^{\mathrm{C}}$ |
| 2026 | 215,000 | 4.000 | $2.590^{\mathrm{C}}$ |
| 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\% $\$ 900,0003.750 \%$ Term Bonds due November 1, 2037, Yield 3.783\% $\$ 1,010,0004.000 \%$ Term Bonds due November 1, 2040, Yield 3.790\% ${ }^{\text {C }}$
$\$ 1,550,0004.000 \%$ Term Bonds due November 1, 2044, Yield $3.850 \%{ }^{\text {C }}$

[^1]
## Coupon, Price and Yield - Applied

Price and Yield move in opposite directions:


Lower Price $=$ Higher Yield
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

[^2]
## Coupon, Price and Yield - Impact

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 | $\$ 225,000$ | $100.000 \%$ | $\$ 255,000.00$ |
| 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

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

- MMD is an index of 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

Tax-Exempt Yield Curve


## Credit Spreads Between Ratings

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

Tax-Exempt Credit Spreads


## Credit Spreads Between Sectors

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


## Comparables

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

| State | California |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Issuer | Torrance Unified School District |  |  |  |
| Dated | 2/26/2015 |  |  |  |
| Sale Date | 2/11/2015 |  |  |  |
| Series | 2015 (Measure T) |  |  |  |
| Amount | \$164,210,000 |  |  |  |
| Tax Status | Tax Exempt |  |  | $\bigcirc$ |
| Rating | Aa2/AA-/NR |  |  | $\bigcirc$ |
| Sale Method |  |  |  |  |
| Maturity date | Par Amount | Retail Coupon | Yield | Spread |
| 8/1/2016 | 2,940,000 | 4.0000 | 0.250 | +11.0 |
| 8/1/2017 | 2,650,000 | 5.0000 | 0.500 | +9.0 |
| 8/1/2018 | 3,000,000 | 5.0000 | 0.740 | +7.0 |
| $8 / 1 / 2019$  <br> 8  |  |  |  |  |
|  |  |  |  |  |
| 8/1/2021 |  |  |  |  |
| 8/1/2022 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 8/1/2024 |  |  |  |  |
| 8/1/2025 |  |  |  |  |
| 8/1/2026 | 1,010,000* | 5.0000 | 2.380 | +22.0 |
| 8/1/2027 | 1,280,000* | 5.0000 | 2.510 | +24.0 |
| 8/1/2028 | 1,675,000* | 3.0000 | 3.130 | +77.0 |
| 8/1/2029 | 2,065,000* | 3.0000 | 3.230 | +81.0 |
| 8/1/2030 | 2,480,000* | 3.0000 | 3.300 | +83.0 |
| 8/1/2031 | 2,920,000* | 4.0000 | 3.230 | +71.0 |
| 8/1/2032 | 3,420,000* | 4.0000 | 3.310 | +74.0 |
| 8/1/2033 | 3,905,000* | 4.0000 | 3.360 | +75.0 |
| 8/1/2034 | 4,475,000* | 4.0000 | 3.410 | +76.0 |
| 8/1/2035 | 5,085,000* | 4.0000 | 3.470 | +78.0 |
| 8/1/2036 |  |  |  |  |
| 8/1/2037 |  |  |  |  |
| $8 / 1 / 2038$$8 / 1 / 2039$ |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 8/1/2040 | 36,095,000* | 4.0000 | 3.650 | +85.0 |


| State | California |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Issuer | Yucaipa Valley Wtr Dist |  |  |  |
| Dated | 2/26/2015 |  |  |  |
| Sale Date | 2/12/2015 |  |  |  |
| Series | 2015 |  |  |  |
| Amount | \$30,810,000 |  |  |  |
| Tax Status | Tax Exempt |  |  |  |
| Rating | NR/A+/AA- |  |  |  |
| Sale Method | Negotiated |  |  |  |
| Maturity date | Par Amount | Retail Coupon | Yield | Spread |
| 9/1/2015 | 980,000 | 3.0000 | 0.250 | +15.0 |
| 9/1/2016 | 1,030,000 | 3.0000 | 0.370 | +23.0 |
| 9/1/2017 | 1,065,000 | 4.0000 | 0.670 | +24.0 |
| 9/1/2018 | 1,115,000 | 5.0000 | 1.000 | +29.0 |
| 9/1/2019 | 1,170,000 | 5.0000 | 1.240 | +33.0 |
| 9/1/2020 | 1,230,000 | 5.0000 | 1.480 | +37.0 |
| 9/1/2021 | 1,290,000 | 4.0000 | 1.740 | +42.0 |
| 9/1/2022 | 1,335,000 | 3.0000 | 2.040 | +47.0 |
| 9/1/2023 | 1,390,000 | 5.0000 | 2.240 | +49.0 |
| 9/1/2024 | 1,455,000 | 5.0000 | 2.400 | +49.0 |
| 9/1/2025 | 1,535,000 | 5.0000 | 2.560 | +52.0 |
| 9/1/2026 | 1,610,000* | 5.0000 | 2.730 | +57.0 |
| 9/1/2027 | 1,695,000* | 5.0000 | 2.840 | +57.0 |
| 9/1/2028 | 1,765,000* | 3.0000 | 3.230 | +87.0 |
| 9/1/2029 | 1,825,000* | 4.0000 | 3.200 | +78.0 |
| 9/1/2030 | 1,895,000* | 3.2500 | 3.420 | +95.0 |
| 9/1/2031 | 1,975,000* | 5.0000 | 3.070 | +55.0 |
| 9/1/2032 | 2,065,000* | 4.0000 | 3.470 | +90.0 |
| 9/1/2033 | 2,145,000* | 3.5000 | 3.640 | +103.0 |
| 9/1/2034 | 2,240,000* | 5.0000 | 3.200 | +55.0 |


| State | California |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Issuer | West Valley Mission |  |  |  |
| Dated | 2/25/2015 |  |  |  |
| Sale Date | 2/11/2015 |  |  |  |
| Series | 2015B |  |  |  |
| Amount | \$178,100,000 |  |  |  |
| Tax Status | Tax Exempt |  |  |  |
| Rating | Aaa/AAA/NR |  |  | ภ |
| Sale Method | Negotiated |  |  | ) |
| Maturity date | Par Amount | Retail Coupon | Yield | Spread |
| 8/1/2016 | 6,500,000 | 3.0000 | 0.300 | +16.0 |
| 8/1/2017 | 7,000,000 | 3.0000 | 0.460 | +5.0 |
| 8/1/2018 | 3,000,000 | 3.0000 | 0.660 | -1.0 |
| 8/1/2020 | 330,000 | 3.0000 | 1.090 | +1.0 |
| 8/1/2021 | 665,000 | 4.0000 | 1.330 | +3.0 |
| 8/1/2022 | 1,025,000 | 4.0000 | 1.590 | +4.0 |
| 8/1/2023 | 1,410,000 | 4.0000 | 1.790 | +4.0 |
| 8/1/2024 | 1,820,000 | 4.0000 | 1.940 | +3.0 |
| 8/1/2025 | 2,265,000 | 5.0000 | 2.060 | +2.0 |
| 8/1/2026 | 2,760,000* | 5.0000 | 2.240 | +8.0 |
| 8/1/2027 | 3,290,000* | 5.0000 | 2.390 | +12.0 |
| 8/1/2028 | 3,860,000* | 5.0000 | 2.500 | +14.0 |
| 8/1/2029 | 4,480,000* | 5.0000 | 2.570 | +15.0 |
| 8/1/2030 | 5,140,000* | 5.0000 | 2.620 | +15.0 |
| 8/1/2031 | 5,850,000* | 5.0000 | 2.670 | +15.0 |
| 8/1/2032 | 6,615,000* | 4.0000 | 3.100 | +53.0 |
| 8/1/2033 | 7,365,000* | 4.0000 | 3.140 | +53.0 |
| 8/1/2034 | 8,160,000* | 4.0000 | 3.180 | +53.0 |
| 8/1/2035 | 9,005,000* | 4.0000 | 3.220 | +53.0 |
| 8/1/2040 | 69,460,000* | 4.0000 | 3.380 | +58.0 |

## Pricing a Bond Issue

Recap of things covered so far...

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

Now it's time to sell bonds... But how should we sell our bonds?

## Investors and Investor Classes

| Maturity | Par | Coupon | Yield | Tier | Types of Investors | Attributes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5/1/2016 | 1,525 | 4.000\% | 0.650\% | Lier III <br>  <br> Tier II <br> Tier I | - Small Bank Trust Depts. <br> - High Net Worth <br> - Directed Accounts <br> - SMAs <br> - Smaller Corporations | - Buy Small Blocks <br> - Least Sophisticated <br> - Buy and Hold <br> - Quality and Name Driven |
| 5/1/2017 | 1,790 | 4.000\% | 0.950\% |  |  |  |
| 5/1/2018 | 1,880 | 4.000\% | 1.200\% |  |  |  |
| 5/1/2019 | 1,975 | 4.000\% | 1.420\% |  |  |  |
| 5/1/2020 | 2,075 | 4.000\% | 1.630\% |  |  |  |
| 5/1/2021 | 2,180 | 4.000\% | 1.870\% |  |  |  |
| 5/1/2022 | 2,285 | 5.000\% | 2.100\% |  | - Smaller Mutual Funds <br> - Smaller Insurance Cos. <br> - Smaller Pension Funds <br> - Smaller Money Mngrs. <br> - Directed Accounts | - Buy Medium Blocks <br> - Sophisticated <br> - Typically Buy and Hold |
| 5/1/2023 | 2,400 | 5.000\% | 2.260\% |  |  |  |
| 5/1/2024 | 2,520 | 5.000\% | 2.390\% |  |  |  |
| 5/1/2025 | 2,645 | 5.000\% | 2.480\% |  |  |  |
| 5/1/2026 | 2,780 | 5.000\% | 2.600\% |  |  |  |
| 5/1/2027 | 2,920 | 5.000\% | 2.730\% |  |  |  |
| 5/1/2028 | 3,065 | 5.000\% | 2.810\% |  |  |  |
| 5/1/2029 | 3,215 | 5.000\% | 2.860\% |  |  |  |
| 5/1/2030 | 3,375 | 5.000\% | 2.910\% |  |  |  |
| 5/1/2031 | 3,440 | 5.000\% | 2.960\% |  | - Major Mutual Funds | - Buy Large Blocks |
| 5/1/2032 | 3,525 | 5.000\% | 3.010\% |  | - Large Pension Funds | - Highly Sophisticated |
| 5/1/2033 | 3,680 | 5.000\% | 3.050\% |  | - Insurance Companies | - Price and Duration |
| 5/1/2034 | 3,815 | 5.000\% | 3.090\% |  | - Large Trust Funds | - Actively Managed |
| 5/1/2035 | 3,975 | 5.000\% | 3.130\% |  | - Large Money Managers |  |
| 5/1/2040 | 21,350 | 5.000\% | 3.290\% |  |  |  |
| 5/1/2045 | 28,615 | 5.000\% | 3.390\% |  |  |  |

## Methods of Sale

Municipal bonds are sold either through a competitive process or through negotiated sale

## Competitive Sale

- Municipality takes bids at a certain time on a predetermined date
- Underwriter offering best (highest) price wins


## Negotiated Sale

- Underwriter often selected through RFP
- Municipality and underwriter negotiate a price for the bonds


## Competitive Sales

In a competitive bid, the municipality accepts bids, typically through an electronic platform, at a certain time on a predetermined date and the underwriter offering best (highest) price wins the bonds

## Advantages

- Multiple potential bidders
- Generally between 3-10 bidders
- Best price on the bid date wins


## Disadvantages

- Fixes the sale to a set date
- More difficult for "story" bonds
- Limited pre-marketing period
- No retail order period


## Competitive Underwriting Process

In a competitive bid, the underwriter takes a slightly different approach to preparing a bid than he does with a negotiated sale

- Limited time to pre-market the issue
- Looking for "anchor" buyer to set scale
- Create an appealing coupon structure
- Evaluation of risk versus reward
- Capital commitment


## Competitive Sales: Timeline

## Example Timeline for Competitive Sales Transaction



## Competitive Calendar

- Underwriters have a wide variety of issuers to choose from
- For example, on March 2, 2015, 106 records of competitive transactions were up for bid

| <HELP> for explanation. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
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## Negotiated Sales

In a negotiated sale, the municipality negotiates the price for each maturity with the underwriter

## Advantages

- Greater opportunity to engage investors
- Greater flexibility to respond to changing market conditions
- Ability to select underwriter(s)

Disadvantages

- No comparable TIC to evaluate price
- May come with politics
- In-fighting among underwriters


## Negotiated Pricing: Timeline

## Example Timeline for Negotiated Sales Transaction



## Negotiated Underwriting Process

In a negotiated sale, the underwriter will begin thinking about investors and structure a week or two in advance

- Optimal structure to maximize investor interest
- Premiums, Discounts, Term Bonds, Call Features
- Build momentum through investor indications
- Seeks to position the credit versus other deals in the market
- Create competition for bonds among investors


## Marketing Process

Most negotiated sales follow a similar process...

- Market Update Call-7-10 Days Prior to the issue A. Market overview - supply/demand technicals
- Premarketing Period
A. POS Mailed
B. Credit Education
C. Pre-Marketing - price thoughts and establish initial rates
- Bond Pricing
A. Retail Order Period - Day 1 (if used)
B. Institutional Day - Day 2
- Underwriting Commitment - recommended changes and offer to buy bonds


## Structure Wire

- Three or four days prior to the sale date, the underwriter will put out a "structure wire"
- The wire goes out electronically to all other underwriters on the transaction as well as investors
- The primary purpose is to give the market a sense of maturity structure, rating and call features



## Retail/Pre-Marketing Scale

- The second wire is the retail wire (if there's a retail order period) or the pre-pricing scale
- The primary purpose is to take retail orders (if there's a retail order period) and to aggressively seek institutional investor feedback

| \$37,635,000 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Example Community College District No. 555 Example CountyGeneral Obligation Bonds Series 2014 |  |  |  |  |  |
| MOODY's | $S \& P:$ | FITCH: |  |  |  |
| DATED: | 10/16/2014 | FIRST | COUPON: | 6/1/2015 | TAKEDOWN |
|  |  |  |  |  |  |
| MATURITY | Y Amount* | COUPON | YIELD | PRICE | (Pts) |
| 6/1/2016 | 61.565 M | 2.500\% | $0.410 \%$ | \$103.381 | 1/4 |
| 6/1/2017 | $71,605 \mathrm{M}$ | 3.000\% | $0.600 \%$ | \$106.240 | 1/4 |
| 6/1/2018 | 8 1,650M | $3.000 \%$ | $0.970 \%$ | \$107.213 | 1/4 |
| 6/1/2019 | 9 1,700M | $4.000 \%$ | 1.310\% | \$112.032 | 3/8 |
| 6/1/2020 | 1,770M | 5.000\% | 1.650\% | \$117.923 | 3/8 |
| 6/1/2021 | 1 1,860M | 5.000\% | 1.960\% | \$118.798 | 3/8 |
| 6/1/2022 | 21.950 M | 5.000\% | 2.250\% | \$119.167 | 3/8 |
| 6/1/2023 | 3 2,050M | $5.000 \%$ | $2.450 \%$ | \$119.714 | 3/8 |
| 6/1/2024 | 4 2,150M | 5.000\% | 2.530\% | \$120.010 | 3/8 |
| 6/1/2025 | 5 2,260M | 5.000\% | $2.660 \%$ | \$118.845 | 3/8 |
| 6/1/2026 | 6 2,370M | 5.000\% | $2.790 \%$ | \$117.692 | 3/8 |
| 6/1/2027 | 7 2,490M | 5.000\% | 2.930\% | \$116.466 | 3/8 |
| 6/1/2028 | 2,615M | $3.000 \%$ | 3.030\% | \$99.665 | 3/8 |
| 6/1/2029 | 2, 250 M | $3.000 \%$ | $3.100 \%$ | \$98.829 | 1/2 |
| 6/1/2030 | 1,015M | $3.000 \%$ | 3.170\% | \$97.915 | 1/2 |
| 6/1/2031 | 1 1,070M | 3.125\% | $3.230 \%$ | \$98.655 | 1/2 |
| 6/1/2032 | - 1,125M | $3.125 \%$ | 3.290\% | \$97.804 | 1/2 |
| 6/1/2033 | 3 1,180M | 3.250\% | 3.340\% | \$98.756 | 1/2 |
| 6/1/2034 | 1,235M | 5.000\% | 3.390\% | \$112.541 | 1/2 |
| 6/1/2035 | 3,525M | 5.000\% | 3.440\% | \$112.124 | 1/2 |

## Preliminary Pricing Wire

- The preliminary pricing wire - which is published first thing on the morning of pricing - officially opens the order period to all investors
- The underwriter will accept orders for bonds at these prices and yields
- Market demand may alter coupon or yield for any given maturity


## RE:

 \$37,635,000Example Community College District No. 555 Example County General Obligation Bonds Series 2014

MOODY's Aal S\&P: FITCH:

DATED: 10/16/2014 FIRST COUPON: 6/1/2015

| MATURITY | AMOUNT* | COUPON | YIELD | PRICE | TAKEDOWN (Pts) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6/1/2016 | 1,565M | 2.500\% | 0.410\% | \$103.381 | $1 / 4$ |
| 6/1/2017 | 1,605M | 3.000\% | 0.600\% | \$106.240 | 1/4 |
| 6/1/2018 | 1,650M | 3.000\% | $0.970 \%$ | \$107.213 | 1/4 |
| $6 / 1 / 2019$ | 1,700M | 4.000\% | 1.310\% | \$112.032 | 3/8 |
| 6/1/2020 | 1,770M | $4.000 \%$ | 1.650\% | \$112.572 | 3/8 |
| 6/1/2021 | 1,860M | $4.000 \%$ | 1.960\% | \$112.614 | 3/8 |
| 6/1/2022 | 1,950M | 5.000\% | 2.250\% | \$119.167 | 3/8 |
| 6/1/2023 | 2,050M | 5.000\% | 2.450\% | \$119.714 | 3/8 |
| 6/1/2024 | 2,150M | 5.000\% | 2.530\% | \$120.010 | 3/8 |
| 6/1/2025 | 2,260M | $5.000 \%$ | 2.660\% | \$118.845 | 3/8 |
| 6/1/2026 | 2,370M | 5.000\% | $2.790 \%$ | \$117.692 | 3/8 |
| 6/1/2027 | 2,490M | 5.000\% | 2.930\% | \$116.466 | 3/8 |
| 6/1/2028 | NMO* | NMO* | NMO * | \$99.665 | 3/8 |
| 6/1/2029 | NMO* | NMO* | NMO* | \$98.829 | 1/2 |
| 6/1/12030 | NMO* | NMO* | NMO * | \$97.915 | 1/2 |
| $6 / 1 / 2031$ | 1,070M | 3.125\% | 3.230\% | \$98.655 | 1/2 |
| 6/1/2032 | 1,125M | 3.125\% | 3.290\% | \$97.804 | 1/2 |
| 6/1/2033 | 1,180M | 3.250\% | 3.340\% | \$98.756 | 1/2 |
| 6/1/2034 | 1,235M | 5.000\% | 3.390\% | \$112.541 | 1/2 |
| 6/1/2035 | 3,525M | 5.000\% | 3.440\% | \$112.124 | 1/2 |

## Final/Commitment Wire

- The final/commitment wire shows the final, negotiated structure and prices for the bonds


## RE:

\$37,635,000
Example Community College District No. 555 Example County General Obligation Bonds Series 2014

Execution Time 12:00EST Friday 9/26/14
Settlement Date 10/16/2014 \$37,635,000

MOODY's Aal S\&P: FITCH:

DATED: 10/16/2014 FIRST COUPON: 6/1/2015

|  |  |  |  | TAKEDOWN |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MATURITY | AMOUNT* | COUPON | YIELD | PRICE | $($ PLS $)$ |
| $6 / 1 / 2016$ | $1,565 \mathrm{M}$ | $2.500 \%$ | $0.410 \%$ | $\$ 103.381$ | $1 / 4$ |
| $6 / 1 / 2017$ | $1,605 \mathrm{M}$ | $3.000 \%$ | $0.600 \%$ | $\$ 106.240$ | $1 / 4$ |
| $6 / 1 / 2018$ | $1,650 \mathrm{M}$ | $3.000 \%$ | $0.970 \%$ | $\$ 107.213$ | $1 / 4$ |
| $6 / 1 / 2019$ | $1,700 \mathrm{M}$ | $4.000 \%$ | $1.310 \%$ | $\$ 112.032$ | $3 / 8$ |
| $6 / 1 / 2020$ | $1,770 \mathrm{M}$ | $4.000 \%$ | $1.650 \%$ | $\$ 112.572$ | $3 / 8$ |
| $6 / 1 / 2021$ | $1,860 \mathrm{M}$ | $4.000 \%$ | $1.960 \%$ | $\$ 112.614$ | $3 / 8$ |
| $6 / 1 / 2022$ | $1,950 \mathrm{M}$ | $5.000 \%$ | $2.250 \%$ | $\$ 119.167$ | $3 / 8$ |
| $6 / 1 / 2023$ | $2,050 \mathrm{M}$ | $5.000 \%$ | $2.450 \%$ | $\$ 119.714$ | $3 / 8$ |
| $6 / 1 / 2024$ | $2,150 \mathrm{M}$ | $5.000 \%$ | $2.530 \%$ | $\$ 120.010$ | $3 / 8$ |
| $6 / 1 / 2025$ | $2,260 \mathrm{M}$ | $5.000 \%$ | $2.660 \%$ | $\$ 118.845$ | $3 / 8$ |
| $6 / 1 / 2026$ | $2,370 \mathrm{M}$ | $5.000 \%$ | $2.790 \%$ | $\$ 117.692$ | $3 / 8$ |
| $6 / 1 / 2027$ | $2,490 \mathrm{M}$ | $5.000 \%$ | $2.930 \%$ | $\$ 116.466$ | $3 / 8$ |
| $6 / 1 / 2028$ | $2,615 \mathrm{M}$ | $3.000 \%$ | $3.030 \%$ | $\$ 99.665$ | $3 / 8$ |
| $6 / 1 / 2029$ | $2,450 \mathrm{M}$ | $3.000 \%$ | $3.100 \%$ | $\$ 98.829$ | $1 / 2$ |
| $6 / 1 / 2030$ | $1,015 \mathrm{M}$ | $3.000 \%$ | $3.170 \%$ | $\$ 97.915$ | $1 / 2$ |
| $6 / 1 / 2031$ | $1,070 \mathrm{M}$ | $3.125 \%$ | $3.230 \%$ | $\$ 98.655$ | $1 / 2$ |
| $6 / 1 / 2032$ | $1,125 \mathrm{M}$ | $3.125 \%$ | $3.290 \%$ | $\$ 97.804$ | $1 / 2$ |
| $6 / 1 / 2033$ | $1,180 \mathrm{M}$ | $3.250 \%$ | $3.340 \%$ | $\$ 98.756$ | $1 / 2$ |
| $6 / 1 / 2035$ | $4,760 \mathrm{M}$ | $4.000 \%$ | $3.400 \%$ | $\$ 108.839$ | $1 / 2$ |

## Conclusion

- We covered a lot of ground
$\checkmark$ Yield Curves
$\checkmark$ Coupons
$\checkmark$ Yields
$\checkmark$ Prices
$\checkmark$ Factors Influencing Prices
$\checkmark$ Credit Spreads
$\checkmark$ MMD and Comparables
$\checkmark$ Competitive and Negotiated Sales
$\checkmark$ Marketing Process


## Mesirow Financial

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[^0]:    As of the weekly reporting date of 2/25/2015
    Data Source: EPFR Global Fund Flows and Allocations Data - All Muni Funds (Retail and Institutional Funds).

[^1]:    ${ }^{\text {C }}$ Priced to call at par on November 1, 2024.

[^2]:    ${ }^{C}$ Priced to call at par on November 1, 2024

