

**CPIM**

CENTER FOR PUBLIC INVESTMENT MANAGEMENT



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**ROBERT SPRAGUE**

OHIO TREASURER

# FIN 109: Basics of Borrowing

# Your Presenters

- Allison Binkley  
Partner  
Squire Patton Boggs (US) LLP  
(614) 365-2799  
allison.binkley@squirepb.com
- Brian Cooper  
Director  
Baker Tilly Municipal Advisors, LLC  
(614) 353-7457  
brian.cooper@bakertilly.com

# Topics To Be Discussed

- Debt & Debt Limits
- General Obligations
- Revenue (Special) Obligations
- Components of a Bond
- State Law Issues
- Federal Securities Law Issues
- Federal Tax Law Issues

# Debt

Q: What is debt?

- *Webster's Dictionary*: “something owed ... obligation”
- A duty or obligation to pay money, deliver goods or render service under an express or implied agreement
  - Example: obligation to make annual payments, plus interest for the cost associated with the reconstruction of a City street
- Repayment terms evidenced by a Note

Q: How does an Ohio political subdivision borrow money?

Q: Can I go to the local bank and get a loan?



# Debt



## ***The Ohio Constitution (Article XII, Section 11) says:***

“No bonded indebtedness of the state, or any political subdivisions thereof, shall be incurred or renewed unless, in the legislation under which such indebtedness is incurred or renewed, provision is made for levying and collecting annually by taxation an amount sufficient to pay the interest on said bonds, and to provide a sinking fund for their final redemption at maturity.”

## **State law dictates the rules for most issuers:**

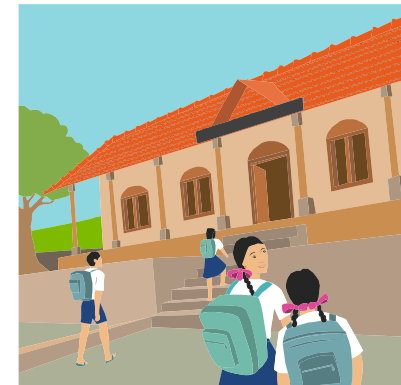
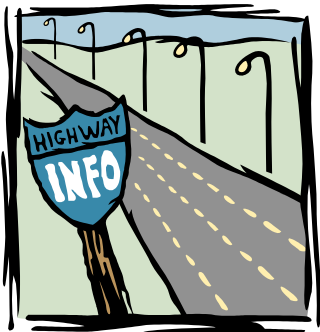
- Limits amount of debt that can be issued
- Places fiscal responsibility on its officials
- Protects taxpayers from unlimited debt burden
- Legislation required to authorize borrowing
- Legislation must authorize security, source of repayment and other terms

# Question

- What are three examples of governmental assets that are commonly financed with Bonds in Ohio?

# State Law – Purpose

Subdivisions may issue bonds to finance projects of all types. Many projects such as airports, roads, sewers, and schools are secured by payments from tax collections or project revenues.



# Eligible projects

- Water and sanitary sewer improvements
- Park land, greenspace, land for road construction
- Administration buildings, maintenance buildings
- Fire and police stations
- Community, recreation and convention centers
- Road and street improvements, extensions
- Fire equipment, fire trucks, road equipment, trucks
- Landscaping, furniture, office equipment
- Energy conservation, 911 systems



# Questions

- Who can name two common security structures that are used when issuing bonds?
- What other financing structures are available to issuers other than the issuance of bonds?

# Types of Debt

- Notes and Bonds
  - General Obligation
  - Revenue Obligation
- Lease obligations
  - Capital lease obligations
  - Operating lease obligations
  - Lease purchase (appropriation) agreements
- Loans

# What Are General Obligations?

- Ohio Revised Code Chapter 133
- Permanent Improvements
- Security and Sources of Payment
  - Ad Valorem Property Taxes
- Debt Limitations
  - Voted
  - Unvoted

# Security & Sources of Payment

- General Obligations are secured by property taxes (and all other resources of issuer)
- Source of repayment may come from other sources such as
  - Municipal Income Tax
  - Special Assessments for the Project Financed
  - Other Nontax Revenues (Enterprise Funds)
- Limited obligations provide for a specific pledge
  - Taxes Limited to Particular Purpose
  - Pledged Utility Revenues
  - Special assessments for specific projects

# Question

- What are two types of general obligation debt limitations?

# Debt Limitations

- Applies only to the debt of the Issuer
- Direct Debt Limitations, Based on Assessed Valuation
  - Apply to “Net Indebtedness” (with some exceptions)
  - Direct Debt Limitations vary by type of subdivision
- Exemptions
  - “Self-Supporting”
  - Municipal – Income Tax Covenant
  - Utility Revenue and Other Non-General Obligation Debt
  - County – County Jails
  - Township – Fire Protection

# Debt Limitations - Direct

- Direct Debt Limitations example
  - City of Grandview Heights
  - Assessed value of \$337,168,710
  - Voted and unvoted debt limit of 10.5% - \$35,402,714
  - Unvoted debt limit of 5.5% - \$18,544,279

# Direct Debt Limitation

<b>A.</b>	Total Debt		<b>\$17,250,000</b>
<b>B.</b>	Exempt debt:		
	Category	Outstanding Principal Amount	
	Nontax Revenue Securities	<b>\$13,250,000</b>	
	Municipal Income Tax	<b>\$700,000</b>	
	Total exempt debt:		<b>\$13,950,000</b>
<b>C.</b>	Total <u>nonexempt</u> debt [A minus B]:		<b>\$3,300,000</b>
<b>D.</b>	5½% of tax (assessed) valuation (unvoted nonexempt debt limitation):		<b>\$13,608,732</b>
<b>E.</b>	Total nonexempt limited tax bonds and notes outstanding:		
	Bonds (including the Bonds)	<b>\$3,300,000</b>	
	Notes	-	<b>\$3,300,000</b>
<b>F.</b>	Debt leeway within 5½% unvoted debt limitation [D minus E]:		<b>\$10,308,732</b>
<b>G.</b>	10½% of tax (assessed) valuation (voted and unvoted debt limitation):		<b>\$25,980,306</b>
<b>H.</b>	Total nonexempt bonds and notes outstanding:		
	Bonds (including the Bonds)	<b>\$3,300,000</b>	
	Notes	-	<b>\$3,300,000</b>
<b>I.</b>	Debt leeway within 10½% debt limitation [G minus H]:		<b>\$22,680,306</b>



# Debt Limitations - Indirect

- Indirect Debt Limitation – aka “10-Mill Limitation”
  - Applies to Unvoted General Obligation debt
  - Constitution and Revised Code
  - Applies to all Overlapping Subdivisions
- Grandview Heights – overlapping subdivisions
  - Franklin County
  - Columbus City School District
  - Grandview Heights City School District
  - Grandview Heights Library District

# Indirect Debt Limitation

## TEN MILL CERTIFICATE RELATING TO THE ISSUANCE OF UNVOTED GENERAL OBLIGATION BONDS AND NOTES

Overlapping Subdivisions	Assessed Valuation	Present Principal Amount	Debt charges for calendar year in which <u>they will be the highest (2020)</u>		Required Tax Rate in Mills for Two Previous Columns
			For Principal	For Interest	
County	\$26,642,445,640	\$269,561,959	\$15,767,655	\$11,217,851	1.0129 mills
City	\$266,530,900	\$4,205,000	\$215,000	\$148,675	1.3645 mills
School District	\$8,897,475,930	\$27,076,675	\$3,027,665	\$928,797	0.4447 mills
JVSD	\$0	\$0	\$0	\$0	0.0000 mills
Special District (or Township if overlaps with City)	\$27,907,630,030	\$98,165,000	\$7,240,000	\$4,263,324	0.4122 mills
				Total	3.2342 mills

County Auditor

# Question

- Who can name three types of revenues that are typically used to finance infrastructure or utility projects?

# Revenue (Special) Obligations

- Revenue obligations pledge a specific revenue
  - Utilities
  - Income Tax
  - Sales Tax
- Projects and Systems Have Identifiable Users
- Sold Without Voter Approval
- Debt Service Reserve Fund (DSRF)

# Revenue (Special) Obligations

- Coverage Covenants
- Additional Bonds Test
- Debt Limitations
- Market limitations

# Lease Appropriation Financing

- Annually Renewable Lease
- Subject to Annual Appropriation
- Not “Debt” for state law purposes
  - Can help borrowers stay within debt limits
- Appropriation measure is less secure than a general obligation or revenue pledge
- Typically lease obligations are a higher interest rate
- Used for essential assets of issuer

# Types of Securities

## *Bond Anticipation Notes*

- Issued in anticipation of specified revenues or permanent financing.
- Usually mature within 13 months.
- Can be marketed quickly and inexpensively.
- Low interest rates.
- Deferment of permanent financing.

# Types of Securities

## *Bonds*

- Permanent financing
- Usually mature over longer period (20 years)
- Marketing that takes longer and more expensive
- Higher interest rates



# Components of a Bond

- Principal/Par Amount
- Maturity Dates
- Interest Rates
- Call provisions
  - Par Call
  - Premium Call
  - Make Whole Call

# Debt Service Schedule

## Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
12/01/2019	640,000.00	5.000%	820,615.59	1,460,615.59
12/01/2020	635,000.00	5.000%	829,287.50	1,464,287.50
12/01/2021	665,000.00	5.000%	797,537.50	1,462,537.50
12/01/2022	700,000.00	2.500%	764,287.50	1,464,287.50
12/01/2023	715,000.00	3.000%	746,787.50	1,461,787.50
12/01/2024	735,000.00	3.000%	725,337.50	1,460,337.50
12/01/2025	760,000.00	5.000%	703,287.50	1,463,287.50
12/01/2026	800,000.00	3.000%	665,287.50	1,465,287.50
12/01/2027	820,000.00	5.000%	641,287.50	1,461,287.50
12/01/2028	860,000.00	5.000%	600,287.50	1,460,287.50
12/01/2029	905,000.00	5.000%	557,287.50	1,462,287.50
12/01/2030	950,000.00	5.000%	512,037.50	1,462,037.50
12/01/2031	1,000,000.00	5.000%	464,537.50	1,464,537.50
12/01/2032	1,050,000.00	5.000%	414,537.50	1,464,537.50
12/01/2033	1,100,000.00	5.000%	362,037.50	1,462,037.50
12/01/2034	1,155,000.00	5.000%	307,037.50	1,462,037.50
12/01/2035	1,215,000.00	5.000%	249,287.50	1,464,287.50
12/01/2036	1,275,000.00	4.121%	188,537.50	1,463,537.50
12/01/2037	1,325,000.00	5.000%	136,000.00	1,461,000.00
12/01/2038	1,395,000.00	5.000%	69,750.00	1,464,750.00
<b>Total</b>	<b>\$18,700,000.00</b>	<b>-</b>	<b>\$10,555,053.09</b>	<b>\$29,255,053.09</b>

# Pricing Summary

## Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Maturity Value	Price	YTM	Call Date	Call Price	Dollar Price
12/01/2019	Serial Coupon	5.000%	1.930%	640,000.00	102.883%	-	-	-	658,451.20
12/01/2020	Serial Coupon	5.000%	2.030%	635,000.00	105.657%	-	-	-	670,921.95
12/01/2021	Serial Coupon	5.000%	2.090%	665,000.00	108.289%	-	-	-	720,121.85
12/01/2022	Serial Coupon	2.500%	2.210%	700,000.00	101.091%	-	-	-	707,637.00
12/01/2023	Serial Coupon	3.000%	2.280%	715,000.00	103.353%	-	-	-	738,973.95
12/01/2024	Serial Coupon	3.000%	2.350%	735,000.00	103.590%	-	-	-	761,386.50
12/01/2025	Serial Coupon	5.000%	2.430%	760,000.00	116.348%	-	-	-	884,244.80
12/01/2026	Serial Coupon	3.000%	2.520%	800,000.00	103.438%	-	-	-	827,504.00
12/01/2027	Serial Coupon	5.000%	2.600%	820,000.00	119.057%	-	-	-	976,267.40
12/01/2028	Serial Coupon	5.000%	2.680%	860,000.00	120.148%	-	-	-	1,033,272.80
12/01/2029	Serial Coupon	5.000%	2.760%	905,000.00	119.376%	c 2.920%	12/01/2028	100.000%	1,080,352.80
12/01/2030	Serial Coupon	5.000%	2.830%	950,000.00	118.706%	c 3.114%	12/01/2028	100.000%	1,127,707.00
12/01/2031	Serial Coupon	5.000%	2.880%	1,000,000.00	118.230%	c 3.263%	12/01/2028	100.000%	1,182,300.00
12/01/2032	Serial Coupon	5.000%	2.920%	1,050,000.00	117.851%	c 3.384%	12/01/2028	100.000%	1,237,435.50
12/01/2033	Serial Coupon	5.000%	2.980%	1,100,000.00	117.285%	c 3.505%	12/01/2028	100.000%	1,290,135.00
12/01/2034	Serial Coupon	5.000%	3.050%	1,155,000.00	116.629%	c 3.619%	12/01/2028	100.000%	1,347,064.95
12/01/2035	Serial Coupon	5.000%	3.100%	1,215,000.00	116.162%	c 3.707%	12/01/2028	100.000%	1,411,368.30
12/01/2036	Serial Coupon	5.000%	3.150%	585,000.00	115.699%	c 3.787%	12/01/2028	100.000%	676,839.15
12/01/2036	Serial Coupon	3.375%	3.580%	690,000.00	97.300%	-	-	-	671,370.00
12/01/2037	Serial Coupon	5.000%	3.190%	1,325,000.00	115.329%	c 3.853%	12/01/2028	100.000%	1,528,109.25
12/01/2038	Serial Coupon	5.000%	3.230%	1,395,000.00	114.961%	c 3.913%	12/01/2028	100.000%	1,603,705.95
<b>Total</b>	-	-	-	<b>\$18,700,000.00</b>	-	-	-	-	<b>\$21,135,169.35</b>

### Bid Information

Par Amount of Bonds	\$18,700,000.00
Reoffering Premium or (Discount)	2,435,169.35
Gross Production	\$21,135,169.35
Total Underwriter's Discount (0.428%)	\$(80,113.18)
Bid (112.594%)	21,055,056.17
Total Purchase Price	\$21,055,056.17
Bond Year Dollars	\$222,221.94
Average Life	11.884 Years
Average Coupon	4.7497798%
Net Interest Cost (NIC)	3.6900032%
True Interest Cost (TIC)	3.3845328%

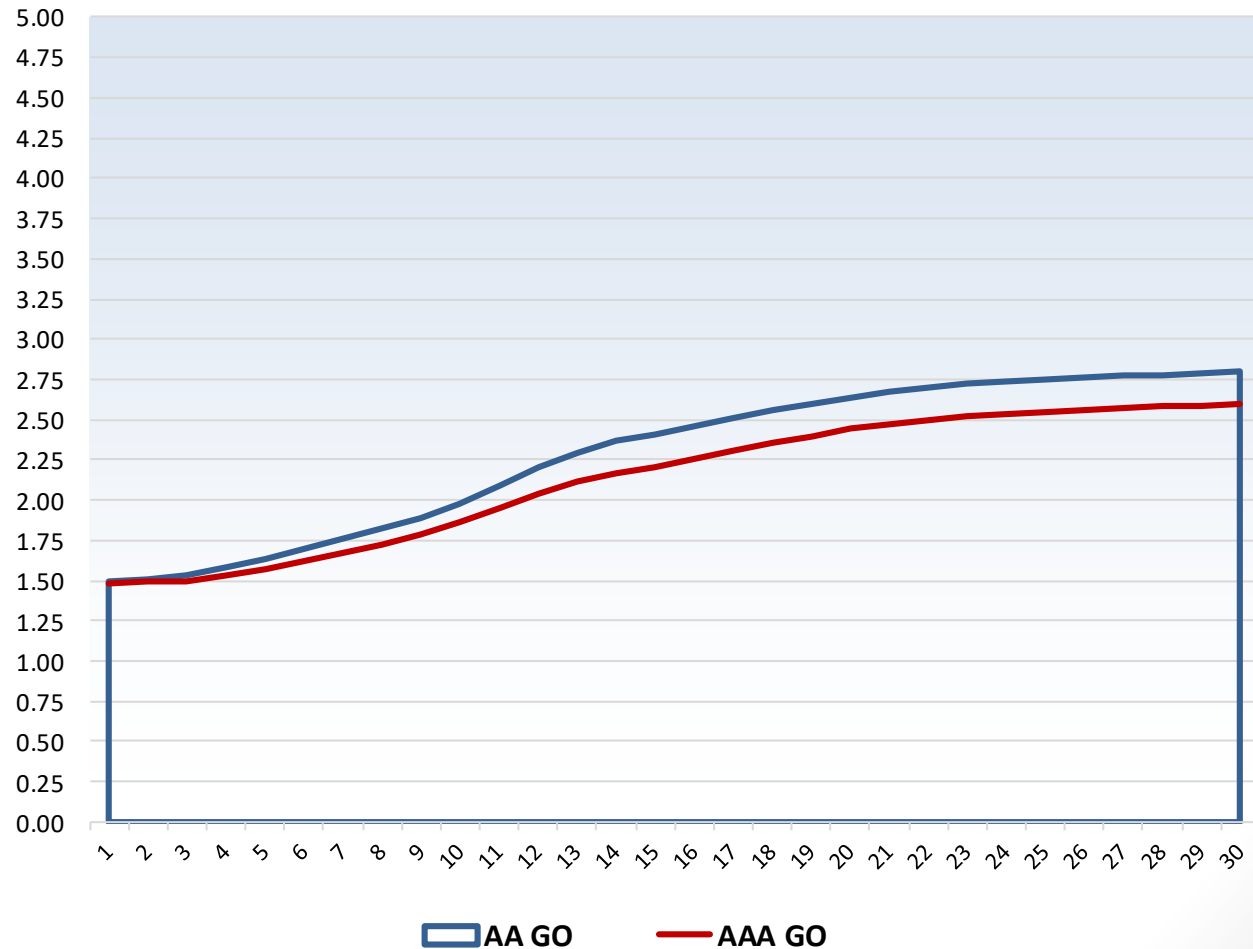
# Interest Rates & Yield Curves

## AAA GO MMD vs. AA GO MMD

As of 3/28/2019

SOURCE: Thompson Reuters

Years	AAA GO	AA GO
1	1.48	1.49
2	1.49	1.51
3	1.50	1.53
4	1.53	1.58
5	1.57	1.63
6	1.62	1.70
7	1.67	1.76
8	1.72	1.82
9	1.78	1.89
10	1.86	1.98
11	1.95	2.09
12	2.04	2.20
13	2.11	2.29
14	2.17	2.37
15	2.21	2.41
16	2.26	2.46
17	2.31	2.51
18	2.36	2.56
19	2.40	2.60
20	2.44	2.64
21	2.47	2.67
22	2.50	2.70
23	2.52	2.72
24	2.54	2.74
25	2.55	2.75
26	2.56	2.76
27	2.57	2.77
28	2.58	2.78
29	2.59	2.79
30	2.60	2.80



# Marketing the Bonds

- How does an issuer sell its bonds?
  - Negotiated
  - Competitive
  - Private Placement
- Who assists the issuer with this process?
- The **Official Statement** (OS) is the primary disclosure document of the issuer.
  - Contains all material information including financial terms, issuer information and historical financial information.
  - A **Preliminary Official Statement** (POS) is sent to prospective investors and typically omits certain information such as interest rates, underwriting spread and (occasionally) call dates.
  - The **final Official Statement** is distributed after all financial terms of the bonds have been set.
- Potential investors: Retail, Institutional

# Negotiated Sale

- Underwriting firm is selected well in advance of the proposed sale date.
- Underwriter also proposes an amount of compensation known as underwriter's discount.
- The underwriting firm takes the lead in marketing the bonds to investors.
- Underwriter proposes interest rates at which various maturities will be offered to investors.
- Upon approval by the issuer, underwriter will approach investors to determine whether bonds can be sold at the proposed rates.
- Adjustments are made to the interest rate scale until final terms are reached reflecting the supply and demand of the bonds.
- Once terms for the sale have been reached a bond purchase agreement is signed by the issuer and underwriter (purchaser) agreeing to the terms.

# Competitive Sale

- In a competitive sale, the issuer solicits bids from underwriting firms to purchase its bonds.
- Issuer determines the size and other essential characteristics of the issue prior to soliciting bids.
- A Notice of Sale containing bid parameters and terms of the issue is distributed to underwriters.
- Each bid takes into account both the interest rate paid to investors and the amount of compensation paid to the underwriting firm for selling the bonds.
- Bonds are awarded to the firm or syndicate offering the lowest interest rate (highest price) bid.
- Final terms and underwriter who will purchase the bonds are outlined in the Certificate of Award and purchase agreement.

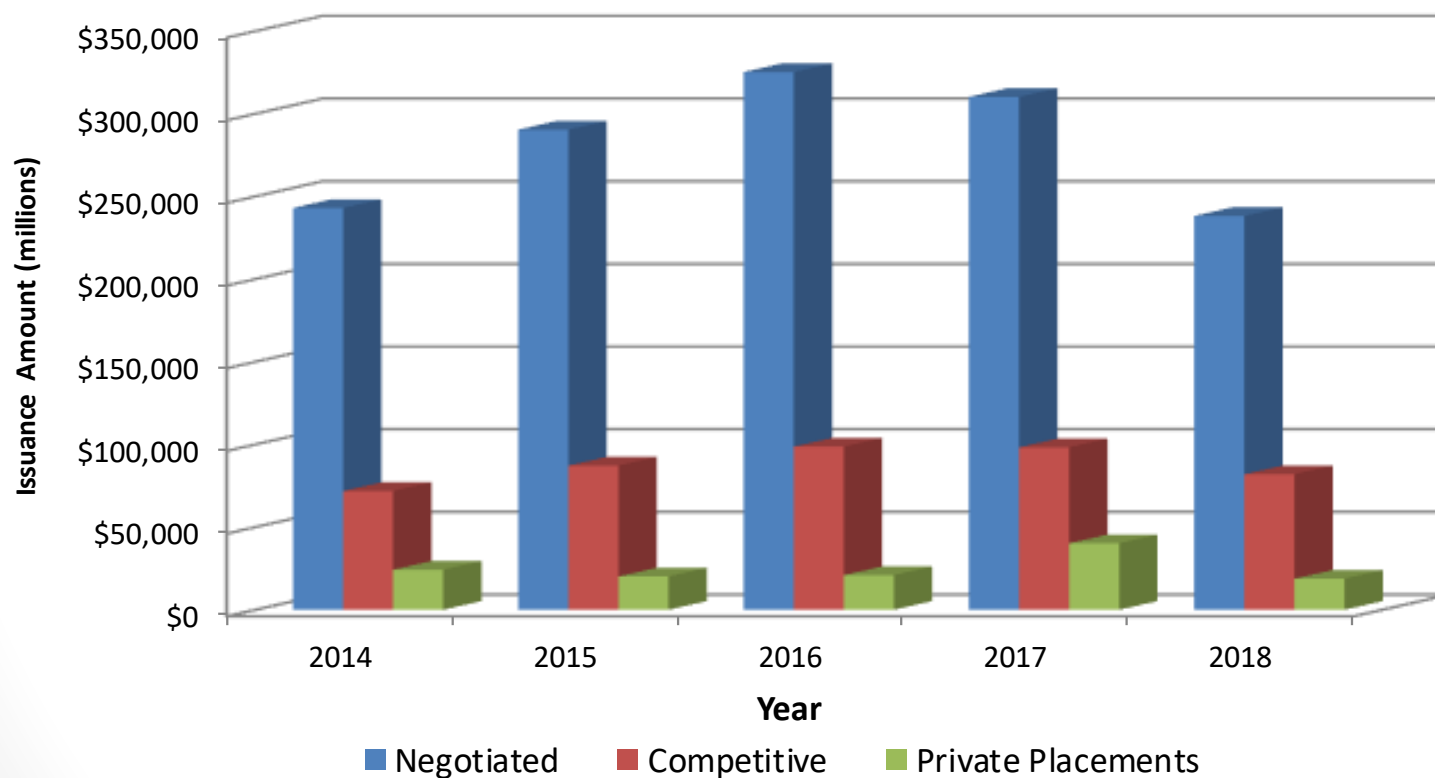
# Private Placement or Direct Purchase

- Method of sale in which the issuer sells bonds directly to a limited number of sophisticated investors or financial institution without a public offering.
- For governmental issues bonds are typically sold to a bank.
- Financial institution may hold the securities in its investment portfolio until maturity.
- Bonds may also have provisions to sell or transfer the bond to another sophisticated investor.
- Common for financings with shorter terms (weighted average maturity of approximately 10 years or less)
- Typically no offering document or rating, CUSIP or DTC
- Private Placements require investor letters (big boy letters)
- Can be sold to 35 or fewer investors



# Negotiated vs. Competitive Sale

## Negotiated, Competitive & Private Placement Issuance 2014 - 2018



Source: Bond Buyer

# What Is A Rating?

- Provide an analysis (and rating) of the issuer's credit quality.
- There are three primary rating agencies:
  - Standard & Poor's (S&P)
  - Moody's
  - Fitch

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**S&P Global**

**MOODY'S**  
INVESTORS SERVICE

**FitchRatings**

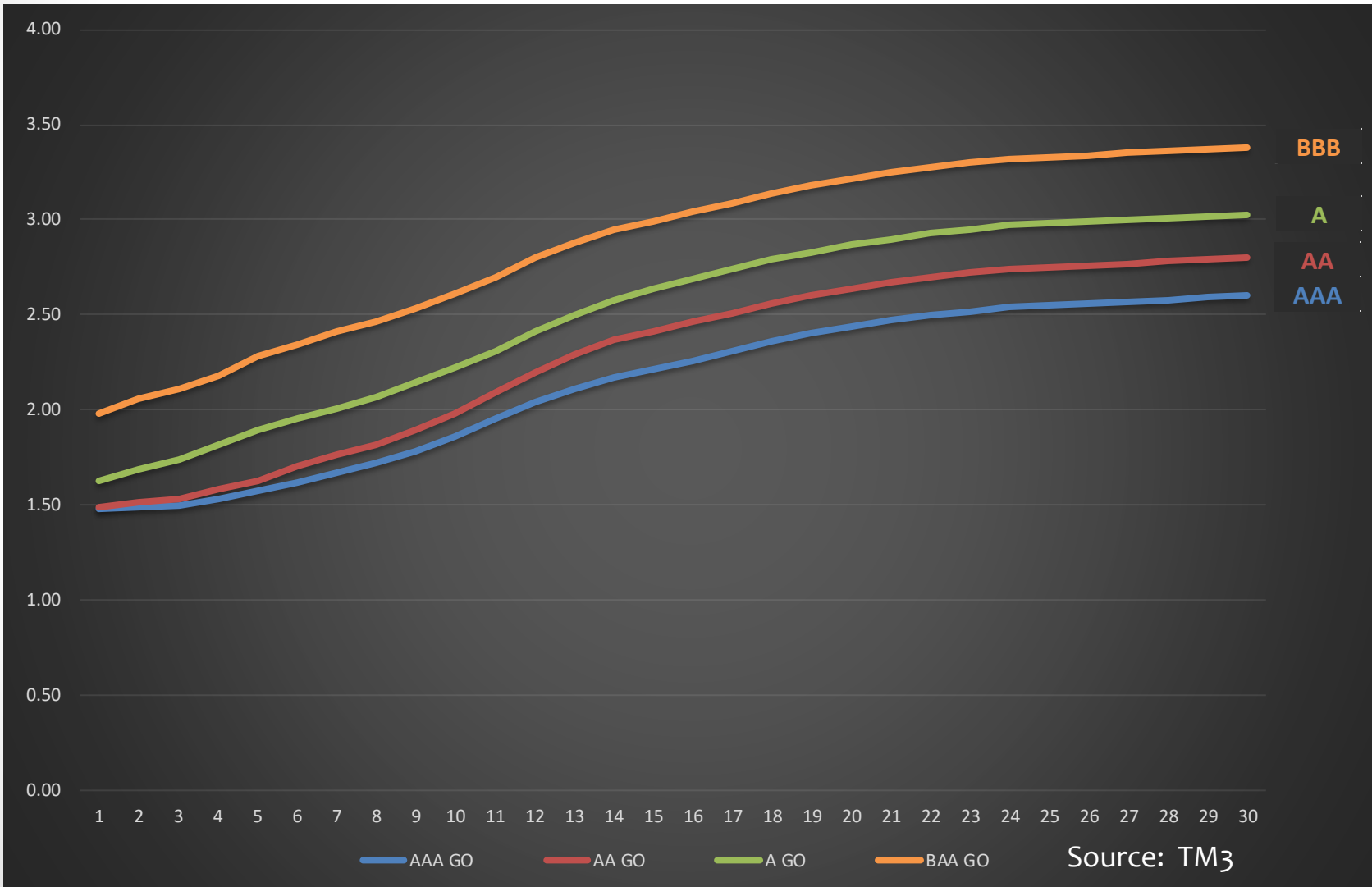
# Question

- What is the highest non-investment grade rating category from S&P, Moody's and Fitch Ratings?

# Credit Rating

	<b>MOODY'S</b> INVESTORS SERVICE	<b>S&amp;P Global</b>	<b>FitchRatings</b>	<b>Description</b>
Investment Grade	Aaa	AAA	AAA	Highest Quality
	Aa1	AA+	AA+	High Quality
	Aa2	AA	AA	
	Aa3	AA-	AA-	
	A1	A+	A+	Good Quality
	A2	A	A	
	A3	A-	A-	
	Baa1	BBB+	BBB+	Below Average
	Baa2	BBB	BBB	
Baa3	BBB-	BBB-		
Below Investment Grade	Ba1, Ba2, Ba3	BB+, BB, BB-	BB+, BB, BB-	Speculative
	B, Caa	B, CCC, CC	B, CCC, CC, C	Very Speculative
	Ca, C	D	DDD, DD, D	Default

# Ratings & Interest Rates



# Credit Ratings

- Rating agencies review the overall health of issuers
  - Economy
  - Finances
  - Management
  - Debt burden



# New Money vs. Refunding

- New Money bonds issued in order to obtain the initial funding necessary for a particular project.
- Refunding involves issuing new bonds to retire existing bonds.
- Refundings are done to reduce interest expense (savings threshold), eliminate restrictive covenants or restructure existing debt
  - Current refunding – call date of bonds being refunded is 90 days or less
  - Advance refunding – call date of bonds being refunded is more than 90 days (eliminated by Tax Cuts and Jobs Act of 2017)

# Legal Considerations: Bond Issuance

- Federal Tax Law – “Tax-Exempt”
  - Use of Tax-Exempt Financed Facility – Private Use
  - Payment of Debt Service – Private Payment
  - Bank Qualification – QTEO
  - Arbitrage /Rebate
- Federal Securities Law
  - No Omission or Misstatement of Material Facts
  - Primary Disclosure in Offering Documents
  - Rule 15c2-12 – Continuing Disclosure Obligations





# SEC Disclosure: Bond Issuance

- Some issuers send periodic credit updates to bondholders.
- Others send an annual report to bondholders.
- Continuing disclosure materials **MUST** be sent to rating agencies and MSRB's EMMA system.

# Working Group

- Issuer
  - Financial Advisor
  - Bond Counsel
  - Underwriter(s)
  - Underwriters' Counsel
  - Rating Agencies
  - Bond Insurer
  - Trustee, Registrar, Paying Agent
- Verification Agent
  - Escrow Agent
  - Bond Printer
  - Bondholders

# Questions?



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