

# INTRODUCTION TO TAX-EXEMPT BONDS

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# Agenda

	Page
<b>Tax-Exempt Bond Basics</b>	<b>1</b>
Basic Financing Options	7
Overview of Long-Term Financing Structures	13
Overview of Short-Term Financing Structures	16

## What types of organizations can issue tax-exempt bonds?

- All types of governmental entities (cities, states, water districts, electric utilities etc.) can directly issue tax-exempt bonds
- Not-for-profit organizations can also issue bonds through a “conduit issuer” such as an economic development authority or health and educational facilities authority. Examples of not-for-profit issuers include:
  - Not-for-profit hospitals
  - Research Institutes
  - Higher education institutions
  - Museums, cultural and entertainment organizations
  - Other not-for-profit organizations such as advocacy groups and service providers
- Under certain circumstances, private companies can also benefit from tax-exempt bonds
  - Developers of multi-family housing
  - Airlines constructing certain facilities at airports
  - Pollution control facilities

# The Federal Tax Code is very specific in describing permitted uses for tax-exempt bond proceeds

## What costs can be financed with tax-exempt bonds?

### Permitted uses include\*

- Capital costs
  - Construction costs (including “soft costs”)
  - Equipment purchases expected to be made in the next 3 years
  - Other capital improvements
- Capitalized interest
  - All interest payments due on the bonds during the construction period and up to 12 months after certificate of occupancy is signed
- Working capital
  - Up to 5% of the bond issue may be used for operating costs
- Bond insurance premium
- Costs of issuance (“COI”) - up to 2% of the par amount

## What costs are not eligible for tax-exempt bonds?

### Non-permitted uses include

- Operating costs (except those provided within the 5% working capital limit)
- Equipment that will not be purchased within three years
- Any buildings or equipment that will be used by a private company



\* This discussion is provided as a general overview. Bond Counsel will provide definitive authority on these matters.

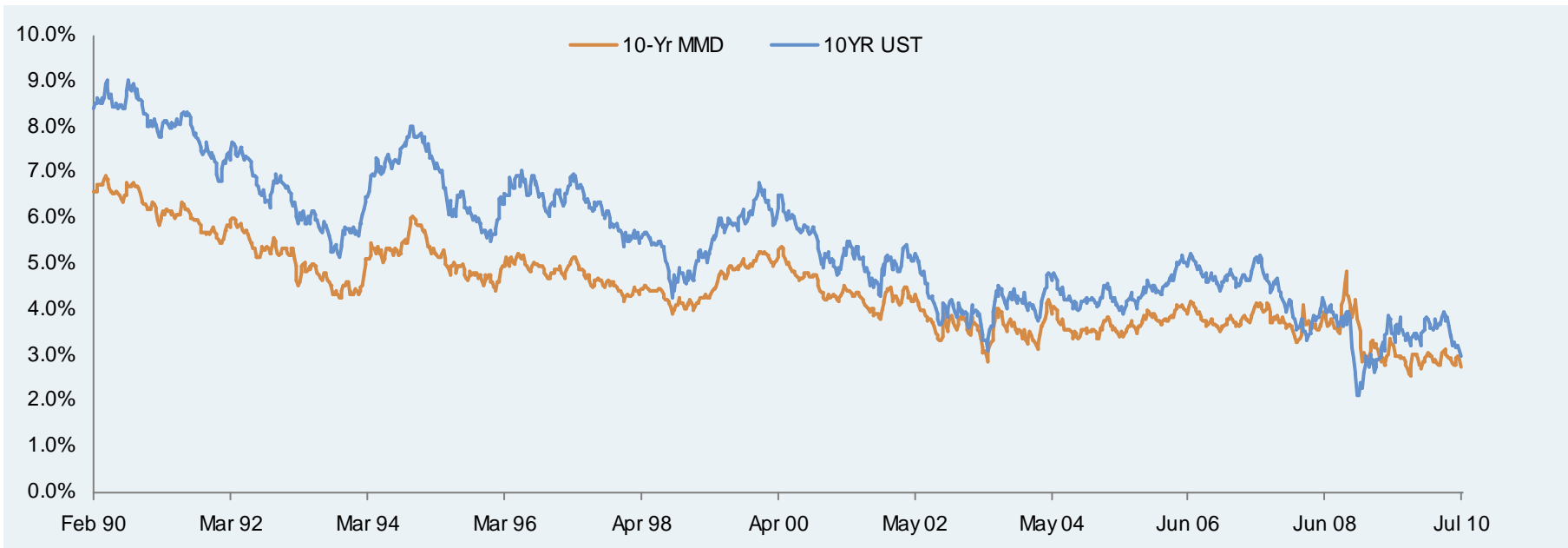
## Why choose to issue debt instead of paying today?

- Many issuers utilize debt to finance assets with a long useful life
  - Financing long life assets allows for future beneficiaries to bear in some of the cost of the asset
- Assets that provide an ongoing revenue stream are often financed
  - Transmission lines, power plants, toll roads, water/wastewater facilities
- Financing allows issuers to match payments with the useful life of the asset
  - Examples include schools, streets and city office buildings

## Why use tax-exempt debt vs. a taxable borrowing?

- Accessing the tax-exempt market offers issuers a lower cost of capital than they would otherwise be able to obtain in the taxable marketplace in the form of commercial loans
- In many ways, tax-exempt debt is a government benefit that can be used to great advantage by qualified borrowers – allowing them to access the capital markets at a lower cost than most other institutions

### History of tax-exempt vs. taxable rates



Source: MorganMarkets, as of July 2, 2010

# Accessing the tax-exempt market can offer several advantages over a traditional, bank loan

## Tax-exempt Debt

*In a **tax-exempt bond financing**, the borrower issues long-term, tax-exempt securities and may keep the bonds outstanding for the maximum allowable period.*

### Advantages

- Greater ability to match the life of the asset to the life of the liability
- Reduce costs by lowering interest rates as tax-exempt interest rates tend to be lower than taxable interest rates
- Ability to grow net assets due to the difference between taxable and tax-exempt interest rates

### Disadvantages

- Higher upfront costs of issuance
- Time and documentation requirements

## Taxable Debt

*In a **traditional bank loan**, the borrower draws funds from a line of credit with a commercial bank as needed and repays the loan as quickly as possible.*

### Advantages

- May be optimal for short-term interim financing
- Fewer upfront costs of issuance
- May provide financing for projects ineligible for tax-exempt financing

### Disadvantages

- Interest costs of a taxable financing exceed those of a tax-exempt financing
- Matching the life of the asset to the life of the liability can be difficult

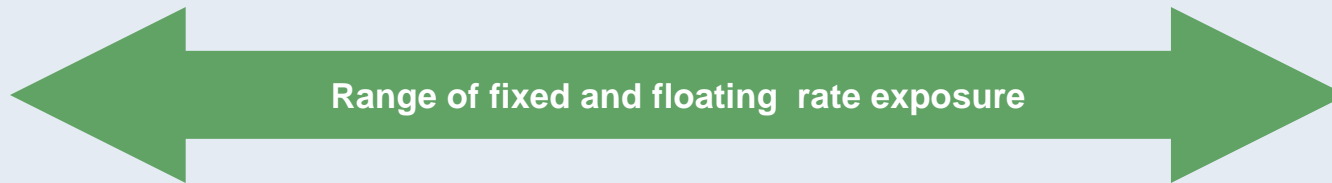
# Agenda

	Page
Tax-Exempt Bond Basics	1
<b>Basic Financing Options</b>	<b>7</b>
Overview of Long-Term Financing Structures	13
Overview of Short-Term Financing Structures	16

## Several factors will influence an Issuer's funding decisions

- An electric system's strategy regarding its fixed to floating interest rate mix should be influenced by:
  - Current interest rate environment
  - Relative credit spreads
  - Cost and availability of bank credit support
  - Available assets
  - Type of asset being financed
  - Structure of any existing debt

### Fixed/floating rate mix decision spectrum



#### **Conditions favoring fixed rate debt**

Low interest rate environment  
Tight credit spreads  
High cost of bank credit/liquidity support

#### **Conditions for variable rate debt**

High interest rate environment  
Wide credit spreads  
Affordable and available bank support

## Conventional fixed rate debt vs. floating rate debt

### Fixed Rate Debt

#### Advantages

- Provides budgetary certainty
- Known cost of capital until maturity
- No investor “put” features
- Committed funding

#### Disadvantages

- Higher cost of capital in a positive yield curve environment
- Typically, non-callable for 10 years
- Limited to one advance refunding
- Typically has negative arbitrage (or no positive arbitrage) in trustee-held funds

### Floating Rate Debt

#### Advantages

- Historically, lowest cost of funding
- Achieves greatest call flexibility
- Flexibility to change between interest rate modes
- Provides diversification relative to fixed rate bonds
- Viewed as offset to variable rate assets in context of risk management

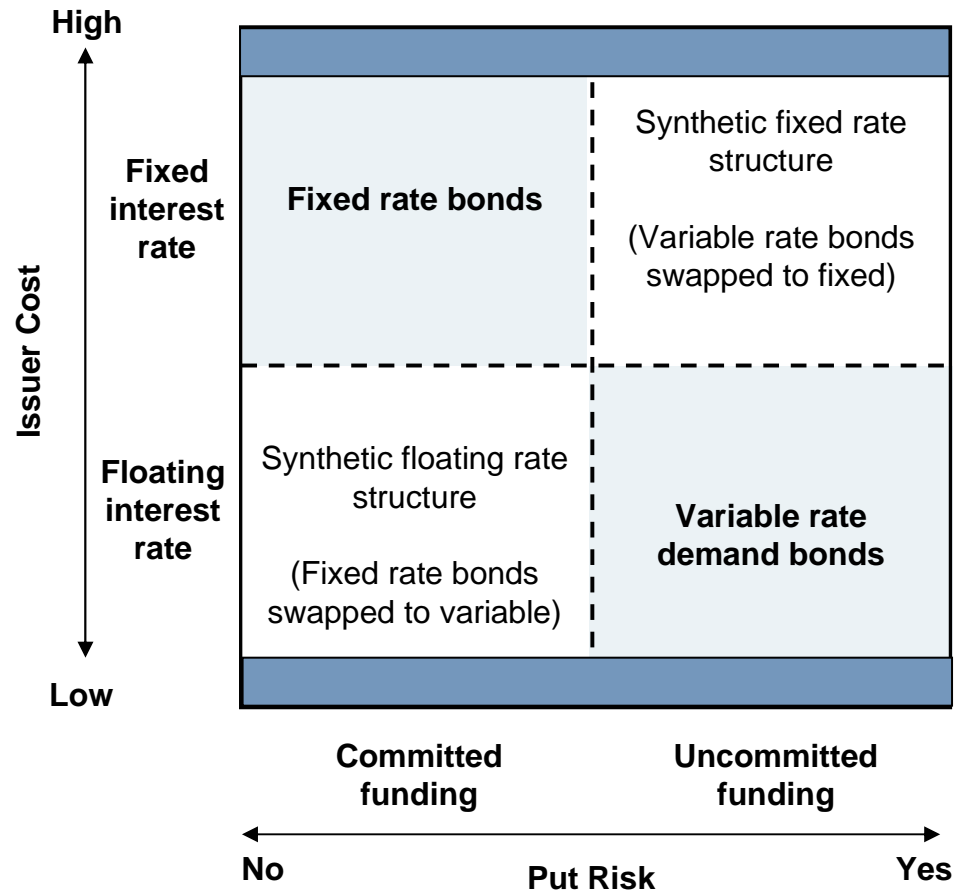
#### Disadvantages

- Subject to interest rate movements
- A rating downgrade, industry shock or change in state tax law may affect the interest rate
- Requires bank credit enhancement which is subject to renewal risk that may result in increased costs and diminished availability
- More difficult to provide budgetary certainty

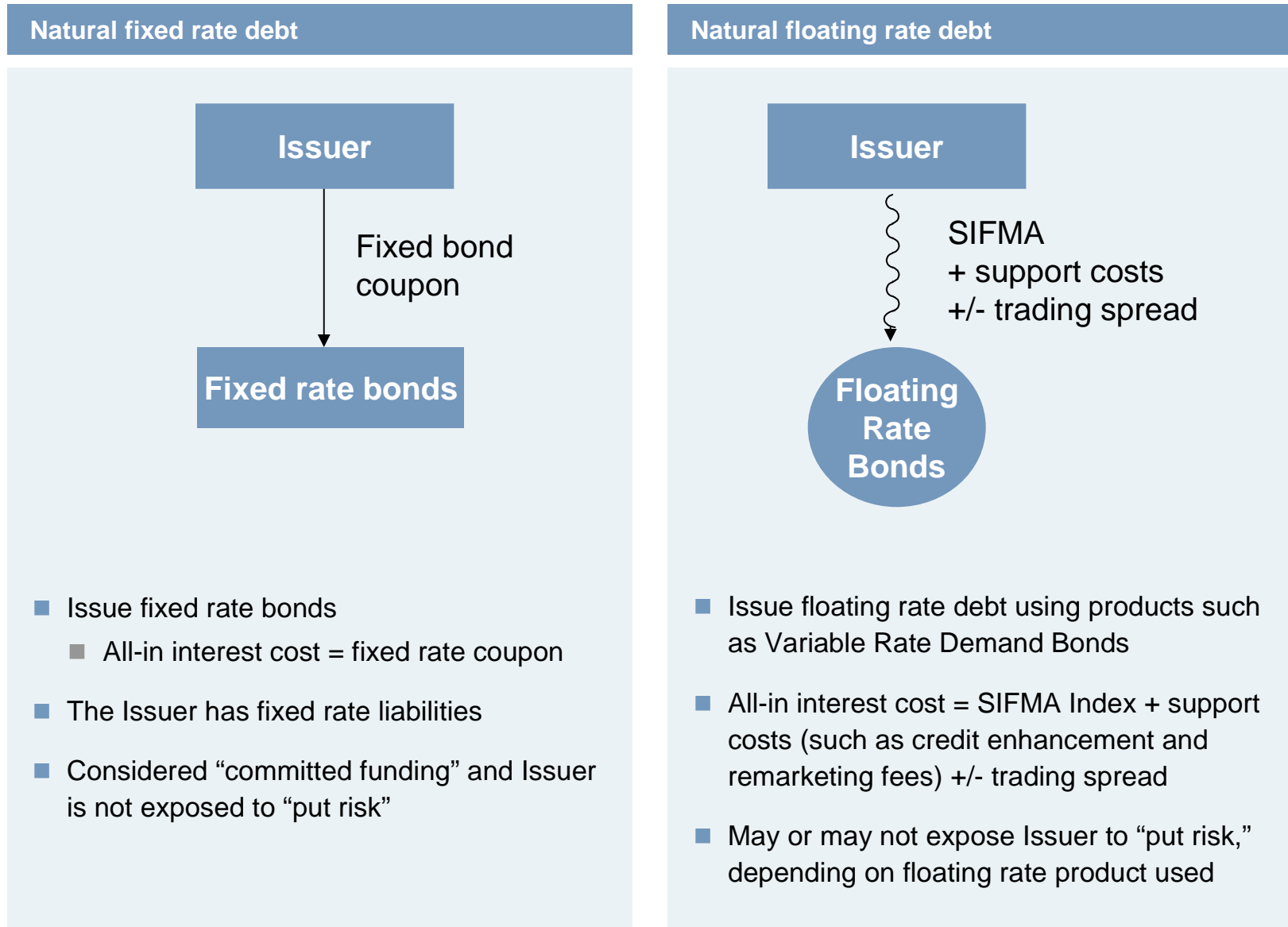
# Determining the most cost effective and flexible financing strategy

Note that at this time, JPMorgan does not enter new derivatives transactions, other than commodities derivatives transactions, with counterparties that are municipalities. However, JPMorgan continues to service all of its clients with existing municipal derivatives transactions through its tax-exempt derivatives desk.

- Financing Options
  - Fixed Rate Bonds
  - Variable Rate Bonds
  
- Combine risk management tools with debt issuance
  - Lock-in rate
  - Reduce cost of committed funding



## Illustration of conventional fixed and floating rate debt

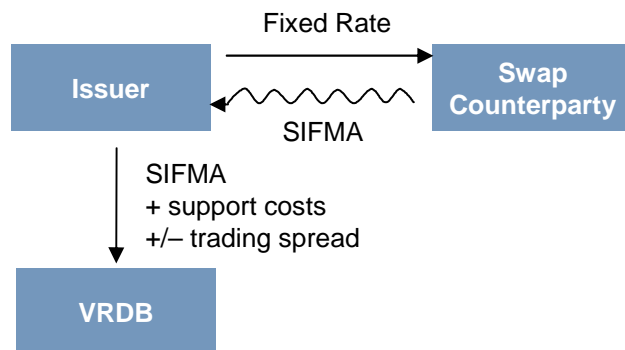


# Interest rate swaps allow the conversion of exposure from floating to fixed and vice versa

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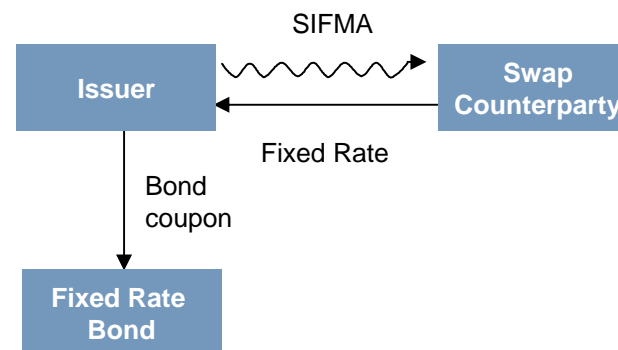
## Swap to fixed

- **Swaps to fixed** allow clients to:
  - Lock in fixed-rate funding cost for SIFMA-based bank borrowings or fix out a component of the risk of VRDBs
  - Pre-hedge fixed-rate debt issuance



## Swap to floating

- **Swaps to floating** are used to:
  - Create synthetic SIFMA-based floating exposure by swapping new or existing fixed-rate debt
  - Lock in return on a floating-rate asset



## Analysis of Debt Alternatives

Bonds Type	Fixed Rate	VRDB	Fixed Rate	VRDB
Swap	N/A	Swap to fixed	Swap to floating	N/A
Historical Cost	Most Expensive ←————→ Least Expensive			
Issuer Call	Yes	No*	Yes**	Yes
Committed Funding	Yes	No	Yes	No
Interest Rate Risk	No	No	Yes	Yes
SIFMA/LIBOR spread risk	No	No	Yes	Yes
Swap Termination Risk (Mark-to-market)	No	Yes	Yes	No
Sector Risk, Bank Facility Renewal Risk, Credit Risk	No	Yes	No	Yes

\* Unless purchased in swap; \*\* Swap must be unwound and termination payment made

# Agenda

	Page
Tax-Exempt Bond Basics	1
Basic Financing Options	7
<b>Overview of Long-Term Financing Structures</b>	<b>13</b>
Overview of Short-Term Financing Structures	16

## Overview of long-term municipal underwriting

- Municipal bond underwriting functions to price negotiated and competitive bond offerings in the primary market
  - Prices are derived by looking at comparable issues in the market, prior sales by the same issuer, market tone, and the depth of investor demand on the day of pricing
- When a competitive fixed rate deal is being bid, the underwriting desk coordinates with sales and trading and other co-managers in the syndicate to develop the best bid they want to make for a deal
- When a negotiated fixed rate deal is in the process of coming to market, the underwriting desk interacts extensively with the salesforce and trading desk to determine the optimal price and structure for the issuer

## Municipal Market Data (“MMD”) and Issuer Spreads to MMD

- MMD publishes a vast amount of information on muni rates each day, including the generic “AAA” curve and early, mid, and late MMD yields
- Issuer spreads to MMD are determined based on credit of the issuer, float of bonds, volume of recent issuance, use of bond insurance, steepness of the curve, and maturity month and day
- MMD is determined by surveying market makers, new issues, and large secondary trades
- MMD is by definition a lagging indicator

Municipal Yield Curves as of 07/02/2010

		General Obligations					"AAA" Coupon Range			
		"AAA"	PRE-RE	INSURED	"AA"	"A"	"BAA"	"LOW"	"HIGH"	
1	2011	0.30	0.29	0.53	0.37	0.69	2.00	5.00	5.00	
2	2012	0.50	0.48	0.96	0.65	1.13	2.43	5.00	5.00	
3	2013	0.82	0.80	1.35	1.01	1.49	2.77	5.00	5.00	
4	2014	1.15	1.13	1.76	1.35	1.85	3.11	5.00	5.00	
5	2015	1.52	1.50	2.18	1.72	2.26	3.49	5.00	5.00	
6	2016	1.90	1.88	2.61	2.11	2.69	3.89	5.00	5.00	
7	2017	2.18	2.16	2.93	2.39	3.01	4.18	5.00	5.00	
8	2018	2.38	2.36	3.15	2.59	3.24	4.38	5.00	5.00	
9	2019	2.58		3.35	2.79	3.44	4.58	5.00	5.00	
10	2020	2.76		3.53	2.98	3.62	4.76	5.00	5.00	
11	2021	2.89		3.67	3.11	3.76	4.89	5.00	5.00	
12	2022	3.01		3.80	3.23	3.88	4.99	5.00	5.00	
13	2023	3.13		3.93	3.35	4.00	5.07	5.00	5.00	
14	2024	3.23		4.01	3.45	4.09	5.13	5.00	5.00	
15	2025	3.33		4.10	3.55	4.17	5.18	5.00	5.00	
16	2026	3.42		4.19	3.64	4.25	5.23	5.00	5.00	
17	2027	3.51		4.25	3.73	4.32	5.27	5.00	5.00	
18	2028	3.58		4.31	3.80	4.38	5.31	5.00	5.00	
19	2029	3.65		4.35	3.86	4.44	5.34	5.00	5.00	
20	2030	3.72		4.40	3.92	4.50	5.38	5.00	5.00	
21	2031	3.79		4.43	3.99	4.54	5.40	5.00	5.00	
22	2032	3.84		4.44	4.04	4.56	5.41	5.00	5.00	
23	2033	3.89		4.46	4.09	4.59	5.43	5.00	5.00	
24	2034	3.92		4.50	4.12	4.61	5.45	5.00	5.00	
25	2035	3.95		4.53	4.15	4.63	5.47	5.00	5.00	
26	2036	3.96		4.54	4.16	4.64	5.48	5.00	5.00	
27	2037	3.97		4.55	4.17	4.65	5.49	5.00	5.00	
28	2038	3.98		4.56	4.18	4.66	5.50	5.00	5.00	
29	2039	3.99		4.57	4.19	4.67	5.51	5.00	5.00	
30	2040	4.00		4.58	4.20	4.68	5.52	5.00	5.00	

# Agenda

	Page
Tax-Exempt Bond Basics	1
Basic Financing Options	7
Overview of Long-Term Financing Structures	13
<b>Overview of Short-Term Financing Structures</b>	<b>16</b>

## Tax-Exempt Short-Term Market Characteristics

- Types of short-term debt instruments
  - Variable Rate Demand Bonds (“VRDBs”)
  - Commercial Paper (“CP”)
  - Floating rate notes
- Credit enhancement includes:
  - VRDBs
    - Letter of Credit
    - Bond Insurance/Standby Purchase Agreement (SBPA)
    - Dedicated liquidity facility
    - Issuer provided liquidity (self-liquidity)
  - CP
    - Letter of Credit
    - Dedicated liquidity facility
    - Self-liquidity
- AMT and Non-AMT Market

## Common indices for variable rate debt

- Taxable: LIBOR
  - London InterBank Offer Rate
    - The rate at which banks lend to each other
    - Commonly used index for taxable variable rates
    - Typically use 1-week, 1-month, or 3-month LIBOR
- Tax-exempt: SIFMA
  - Securities Industry and Financial Markets Association
    - Index from which municipal variable rates are benchmarked
    - Active market since the 1980s
    - Born of the merger between The Securities Industry Association and The Bond Market Association (previously called BMA)

## Variable Rate Demand Bonds: Overview

- Variable Rate Demand Bonds (“VRDBs”) are debt instruments with a long-term nominal maturity which bear interest at variable rates adjusted at predetermined intervals (daily, weekly, monthly)
- Short-term tender features give VRDBs the liquidity and principal preservation characteristics of money market paper, allowing for pricing at the short end of the yield curve
- Issuers and their Remarketing Agent can shift between pricing modes throughout the term of a VRDB financing
- The holder of a VRDB has the option to tender securities for purchase or, in some cases, tender for purchase is mandatory, such as upon conversion to a new interest rate mode or upon expiration of the credit/liquidity facility

## Commercial Paper (“CP”): Overview

- Short term obligations with maturities of 270 days or less which can be adjusted both in size and maturity
- CP programs are typically used for:
  - Working capital
  - Operating cash flow needs
  - New or active construction programs because of its “draw-as-you-go” flexibility
    - CP program has a flexible maturity schedule and could match irregular schedule of cash receipts throughout the year
    - CP can be issued prior to spending need or to reimburse spending
- Program is often long-term (i.e. several years) and does not require a definitive termination date
  - Issuers have the option to expand or contract a program over its life, or to retire the program at no additional cost
- Can be treated as a “line of credit” or permanent portion of the capital structure
- Final maturity of the program may not exceed 120% of average economic life of projects being financed
- Tax-exempt CP is often supported by a credit facility such as a LOC or liquidity facility and issuers with strong liquidity positions can provide self-liquidity

# Comparison of Variable Rate Funding Alternatives

	Alternative Variable Rate Structures	
	VRDBs	Commercial Paper
Associated Risks and Considerations		
Interest Rate Risk	Yes	Yes
Tax Risk	Yes	Yes
Credit Enhancement Required	Yes	Yes
Credit Renewal Risk	Yes	Yes
Failed Auction/ Remarketing Risk	Yes	Yes
Long term maturities	Yes	No
Draw flexibility	No	Yes