

# Structuring the Financing

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## The Mechanics of a Bond Sale

California Debt and Investment Advisory Commission

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# Introduction

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**At this point, the Issuer has made several decisions:**

- ◆ Identified a need to borrow money.
- ◆ Identified a revenue stream to pay debt service.
- ◆ Assembled a finance team.
  - Bond counsel
  - Investment banker
  - Financial advisor

**Its now time to *STRUCTURE THE FINANCING!***

# Topics

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- ◆ **Types of Debt Obligations**
- ◆ **Sizing the Bond Issue**
- ◆ **Debt Service Structure**
- ◆ **Refunding Bonds**
- ◆ **Ratings**
- ◆ **Variable Rate Debt**

# Types of Debt Obligations

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There are many types of debt that California governments issue:

- ◆ General Obligation Bonds
- ◆ TRANs
- ◆ Lease Revenue Bonds
- ◆ Certificates of Participation
- ◆ Revenue Bonds
- ◆ Sales Tax Bonds
- ◆ Pension Bonds
- ◆ Special Tax Bonds
- ◆ Tax Allocation Bonds
- ◆ Assessment Bonds

# Types of Debt Obligations

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**Structuring a bond issue is directly affected by the type of debt being issued.**

- ◆ Reserve Fund Requirement
- ◆ Additional Bonds Test
- ◆ Debt Service Coverage Requirements
- ◆ Term
- ◆ Tax Treatment
- ◆ Call Features
- ◆ Leased Assets

# Sizing the Bond Issue

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Project or Construction Fund

Capitalized Interest Fund

Debt Service Reserve Fund

Costs of Issuance

Underwriting Discount

# The Project Fund

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## **Funds acquisition of the asset or construction of the project.**

- ◆ **Based on actual costs or reliable estimates.**
  
- ◆ **Net Funded or Gross Funded?**
  - **Gross Funded – Deposit exact amount required to pay for asset or project.**
  
  - **Net Funded – Amount deposited plus interest earnings sufficient to fund project.**

# The Capitalized Interest Fund

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**Bond proceeds used to pay interest for a finite period of time.**

- ◆ **Interest is capitalized for a number of reasons:**
  - **Until a project/asset can produce revenue.**
  - **Until the government has beneficial use (COPs, Lease Revenue Bonds)**
  - **Until revenue is projected to be sufficient to pay debt service.**



# The Debt Service Reserve Fund

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## **Provides additional security for investors.**

- ◆ Found in most credits with the exception of GO Bonds.
- ◆ Sizing limited to the lesser of:
  - Maximum Annual Debt Service
  - 125% of Average Annual Debt Service
  - 10% of Par Amount
- ◆ Fund is invested with earnings usually going as an offset to debt service.
- ◆ Can often be satisfied by purchasing a Debt Service Reserve Fund Surety Policy.

# Costs of Issuance

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**Bond proceeds may be used to pay certain eligible costs.**

## **Professional Services**

- **Bond Counsel and/or Disclosure Counsel**
- **Financial Advisor and Trustee/Paying Agent**
- **Rating Agencies**
- **Appraisal, Feasibility Study, Engineer's Report**
- **Special Tax Consultant**
- **Title Insurance**

## **Credit Enhancement**

- **Bond Insurance and/or Surety Bond Premium**
- **Letter of Credit fees**

# Underwriting Discount

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## Underwriter's compensation and expenses.

### Components

- Average Takedown
- Management Fee
- Expenses

### Funding Method

- At closing, Underwriter pays for bonds an amount less the underwriting discount.

\$100,000,000	Par
(650,000)	Less discount of 6.50/\$1,000
<hr/>	<hr/>
\$ 99,350,000	Purchase Price

### Other Considerations

- Expressed as dollars per thousand dollars of bonds (e.g., \$6.50/\$1,000)

# Sizing Example

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Net Funded Construction Fund

Capitalized Interest Fund

Debt Service Reserve Fund

Costs of Issuance

Underwriting Discount

# Sizing Assumptions – Uranium Springs Water District

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<b>Project Cost and Draw Schedule</b>	4/1/2007	\$ 10,000,000	
	10/1/2007	\$ 10,000,000	
	4/1/2008	\$ 10,000,000	
	10/1/2008	<u>\$ 10,000,000</u>	
		\$ 40,000,000	<b>Total Project Cost</b>
<b>Bonds Dated:</b>	1/1/2007		
<b>Final Maturity:</b>	1/1/2039		

## Sizing Assumptions – Uranium Springs Water District

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### Costs of Issuance

\$200,000

Legal, FA, Trustee  
Ratings, Printing, Misc.

### Bond Insurance

40 bps

Bond Insurance Premium  
(Total Debt Service x .40%)

### Underwriting Discount

\$6.50/bond

Takedown, Management Fee,  
Expenses

# Sizing Assumptions – Uranium Springs Water District

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## Debt Service Reserve Fund

Lesser of:

Maximum Annual Debt Service

125% of Average Annual Debt Service

10% of Par Amount

## Capitalized Interest

Through  
1/1/09

2-year Construction Period

# Sizing Assumptions – Uranium Springs Water District

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<b>Reinvestment Assumptions</b>	<u>Earnings Go To:</u>		
<b>Capitalized Interest Fund:</b>	<b>2.50%</b>	<b>Construction Fund</b>	
<b>Construction Fund:</b>	<b>2.50%</b>	<b>Construction Fund</b>	
<b>Debt Service Reserve Fund:</b>	<b>5.0% (Bond Yield)</b>	<b>Construction Fund</b>	



# Sizing Example – Net Funded Project Fund

## Sources of Funds:

Par Amount:	\$ 46,390,000
<b>Total Sources of Funds:</b>	<b>\$ 46,390,000</b>

## Uses of Funds:

<b>Project Fund</b>	<b>\$ 38,723,636</b>
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$
Rounding:	\$ 301,535
<b>Total Uses of Funds:</b>	<b>\$ 46,390,000</b>

**1/1/07 Initial Deposit: \$ 38,723,636**

Project Fund Earnings \$ 968,704

Cap Interest Fund Earnings: \$ 112,609

Debt Service Reserve Fund Earnings \$ 195,051

**Total Project Cost \$ 40,000,000**

# Sizing Example – Capitalized Interest Fund

## Sources of Funds:

Par Amount:	\$ 46,390,000
<b>Total Sources of Funds:</b>	<b>\$ 46,390,000</b>

## Uses of Funds:

Project Fund	\$ 38,723,636
<b>Cap Interest Fund:</b>	<b>\$ 4,008,591</b>
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
<b>Total Uses of Funds:</b>	<b>\$ 46,390,000</b>

**1/1/07 Initial Deposit: \$ 4,008,591**

7/1/07 Interest Payment: (\$ 1,005,697)

1/1/08 Interest Payment: (\$ 1,005,697)

7/1/08 Interest Payment: (\$ 998,599)

1/1/09 Interest Payment: (\$ 998,599)

Fund Balance on 1/1/09: \$ 0

# Sizing Example – Debt Service Reserve Fund

**Sources of Funds:**

Par Amount:	\$ 46,390,000
<b>Total Sources of Funds:</b>	<b>\$ 46,390,000</b>

**Uses of Funds:**

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
<b>Debt Service Reserve Fund:</b>	<b>\$ 2,795,850</b>
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$
Rounding:	\$ 301,535
<b>Total Uses of Funds:</b>	<b>\$ 46,390,000</b>

**Lesser of:**

<b>Maximum Annual Debt Service</b>	<b>\$ 2,795,850</b>
125% of Average Annual Debt Service	\$ 3,491,698
10% of Par Amount	\$ 4,639,000

# Sizing Example – Bond Insurance Premium

## Sources of Funds:

Par Amount:	\$ 46,390,000
<b>Total Sources of Funds:</b>	<b>\$ 46,390,000</b>

## Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
<b>Bond Insurance:</b>	<b>\$ 357,550</b>
COI:	\$ 200,000
Underwriter's Discount:	\$
Rounding:	\$ 301,538
<b>Total Uses of Funds:</b>	<b>\$ 46,390,000</b>

Total Principal & Interest: \$ 89,387,448

x.40%

**Bond Insurance Premium**

\$

357,550

# Sizing Example – Costs of Issuance

## Sources of Funds:

Par Amount:	\$ 46,390,000
<b>Total Sources of Funds:</b>	<b>\$ 46,390,000</b>

## Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
<b>COI:</b>	<b>\$ 200,000</b>
Underwriter's Discount:	\$
Rounding:	\$ 301,538
<b>Total Uses of Funds:</b>	<b>\$ 46,390,000</b>

## Costs of Issuance:

Bond Counsel:	\$ 100,000
Financial Advisor:	\$ 50,000
Trustee:	\$ 5,000
Rating Agencies:	\$ 30,000
Printing:	\$ 7,500
Miscellaneous:	\$ 7,500
<b>Total COI:</b>	<b>\$ 200,000</b>

# Sizing Example – Underwriting Discount

## Sources of Funds:

Par Amount:	\$ 46,390,000
<b>Total Sources of Funds:</b>	<b>\$ 46,390,000</b>

## Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
<b>Underwriter's Discount:</b>	<b>\$ 301,535</b>
Rounding:	\$ 2,838
<b>Total Uses of Funds:</b>	<b>\$ 46,390,000</b>

## Underwriting Discount:

Takedown (\$3.50/bond):	\$ 162,365
Management Fee (\$1.00/bond):	\$ 46,390
Expenses (\$2.00/bond):	\$ 92,780
<b>Underwriter's Discount (\$6.50/bond):</b>	<b>\$ 301,535</b>

# Debt Service Structure

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**Sample Structures**

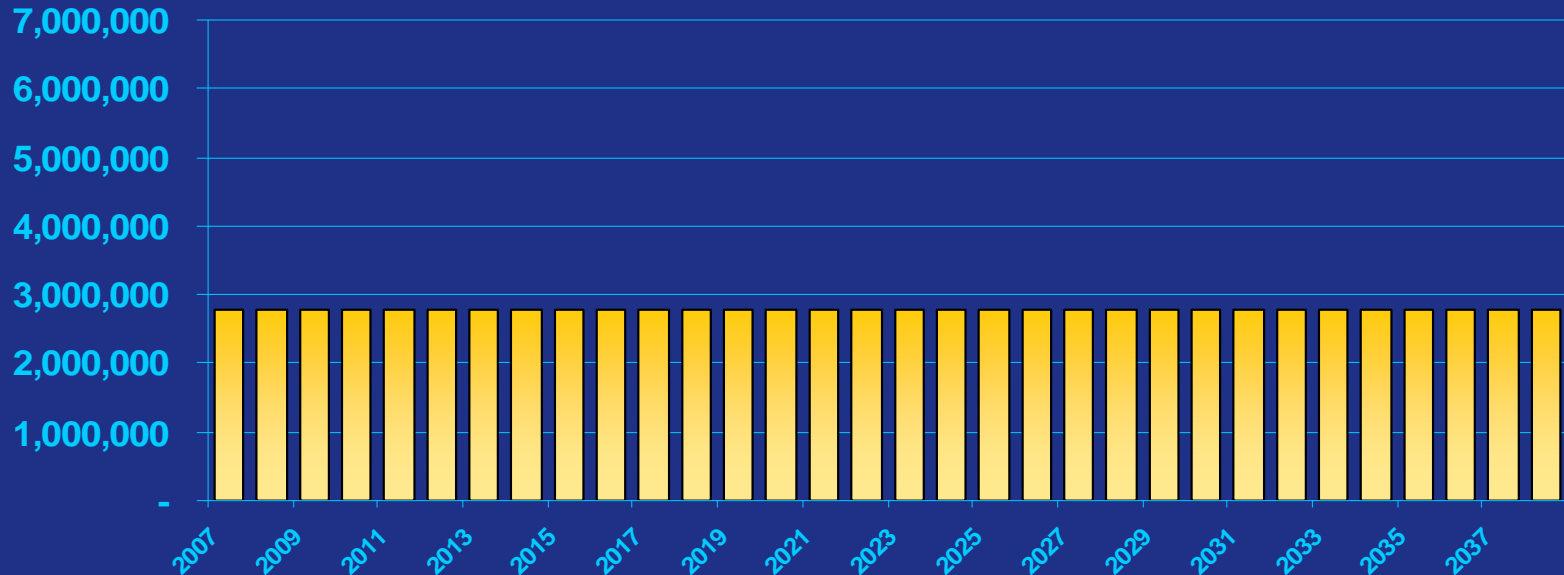
**Current Interest vs. Deferred Interest**

**Optional Redemption**

**Refunding Considerations**

# Level Debt Service

**\$46,390,000**  
**Uranium Springs Water District**  
**Revenue Bonds**



**DSRF Implications**

**Bond Insurance Implications**

Lesser of:

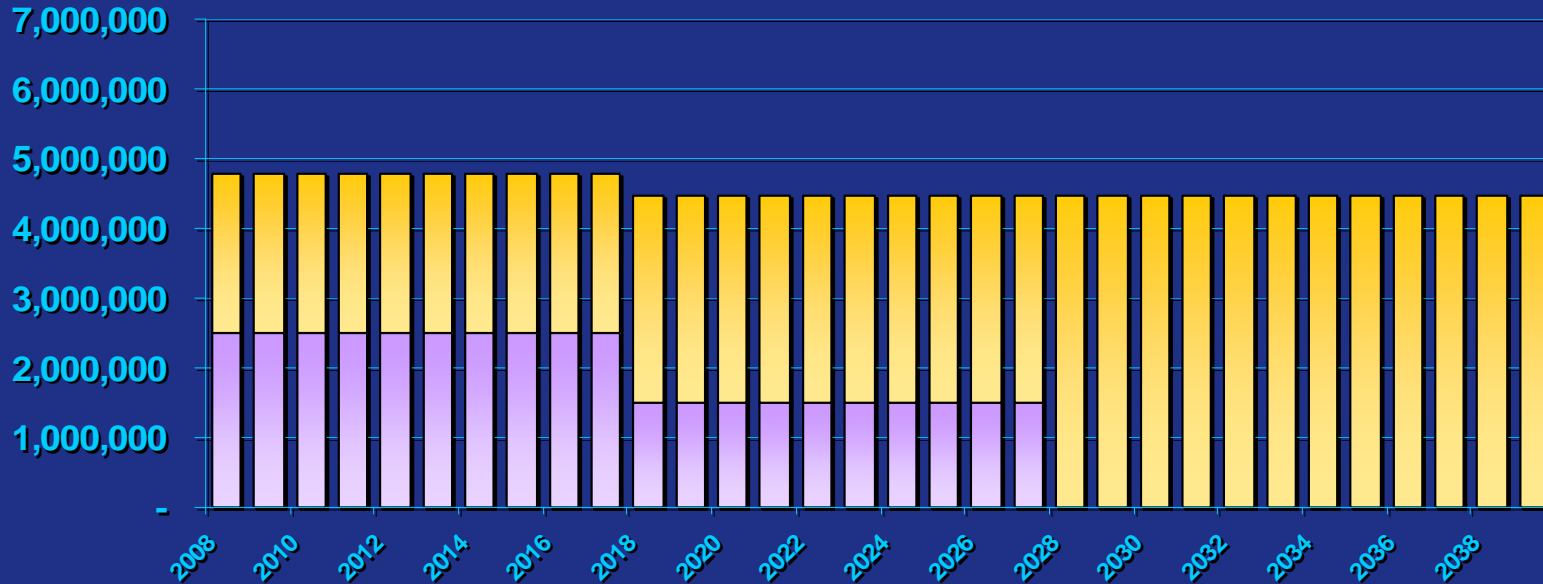
<b>Maximum Annual Debt Service</b>	<b>\$ 2,795,850</b>	<b>Total Principal &amp; Interest</b>	<b>\$ 89,387,448</b>
<b>125% of Average Annual Debt Service</b>	<b>\$ 3,491,698</b>		<b>x.40%</b>
<b>10% of Par Amount</b>	<b>\$ 4,630,000</b>	<b>Insurance Premium</b>	<b>\$</b>

**357,550**



# "Wrapped" Debt Service

**\$48,255,000**  
**Uranium Springs Water District**  
**Revenue Bonds**



DSRF Implications

Bond Insurance Implications

Lesser of:

Maximum Annual Debt Service \$ 4,469,658

125% of Average Annual Debt Service \$ 4,144,838

10% of Par Amount \$ 4,825,500

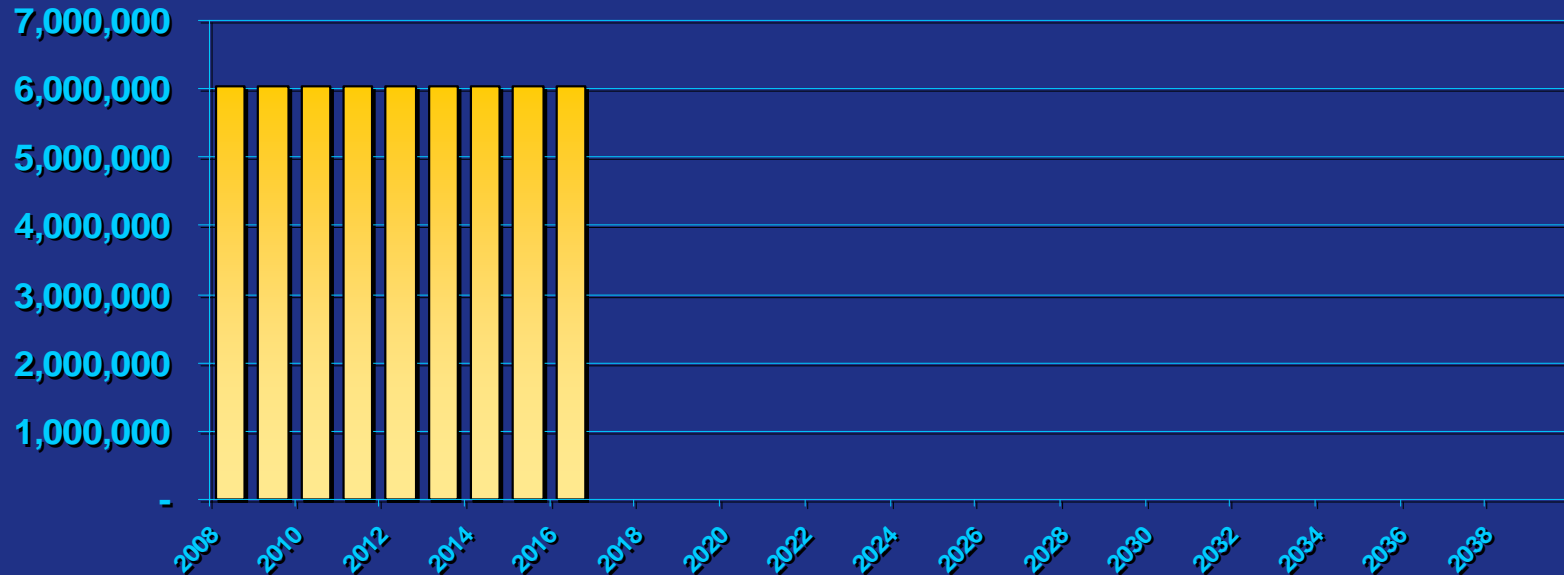
Total Principal & Interest \$ 106,107,854

x.40%

Insurance Premium \$

# Short Maturity

**\$46,630,000**  
**Uranium Springs Water District**  
**Revenue Bonds**



## DSRF Implications

## Bond Insurance Implications

Lesser of:

Maximum Annual Debt Service \$ 6,041,629

125% of Average Annual Debt Service \$ 7,549,914

**10% of Par Amount \$ 4,663,000**

Total Principal & Interest \$ 54,359,382

x.40%

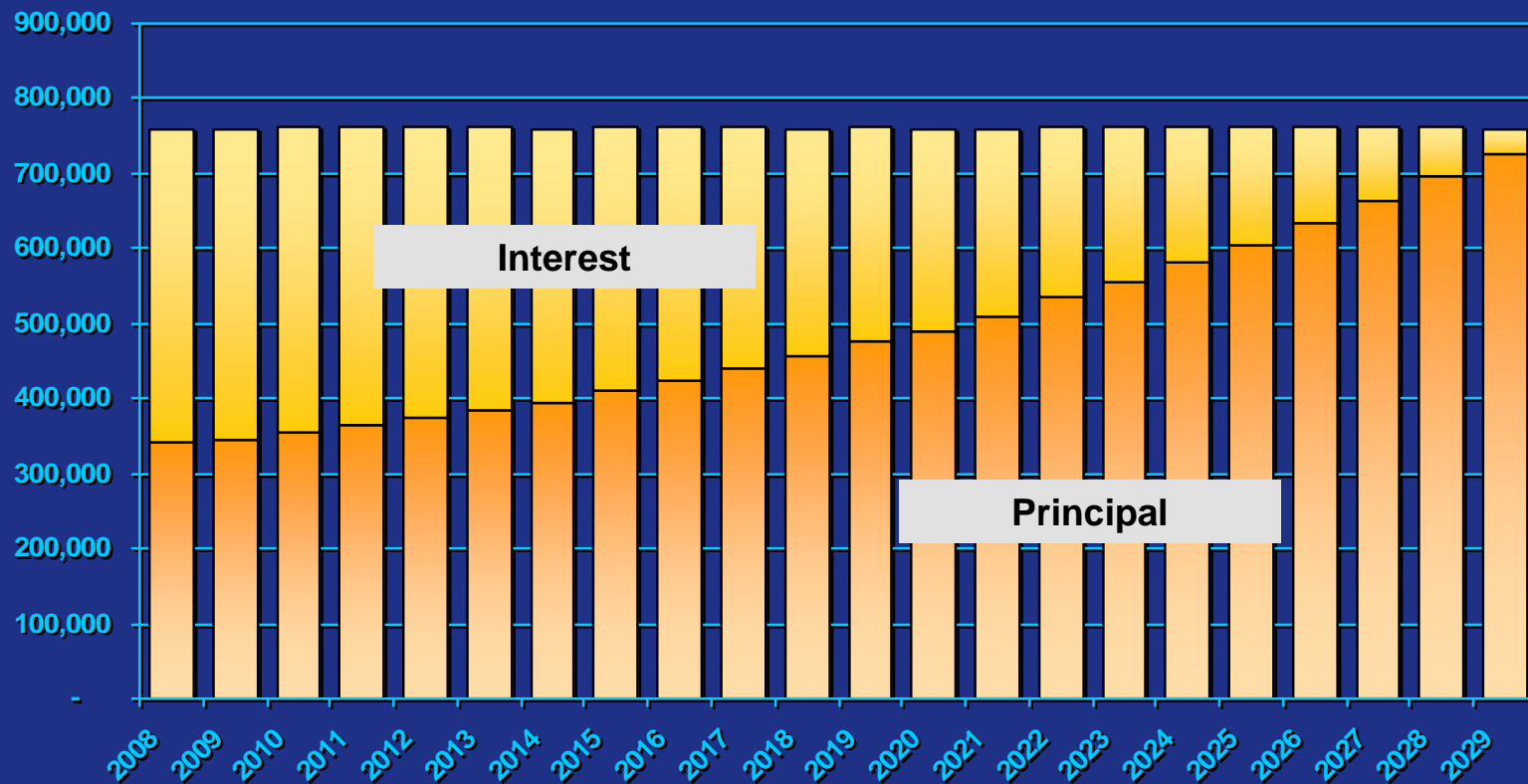
**Insurance Premium \$**



# Current or Deferred Interest Bonds

## Current Interest Bonds

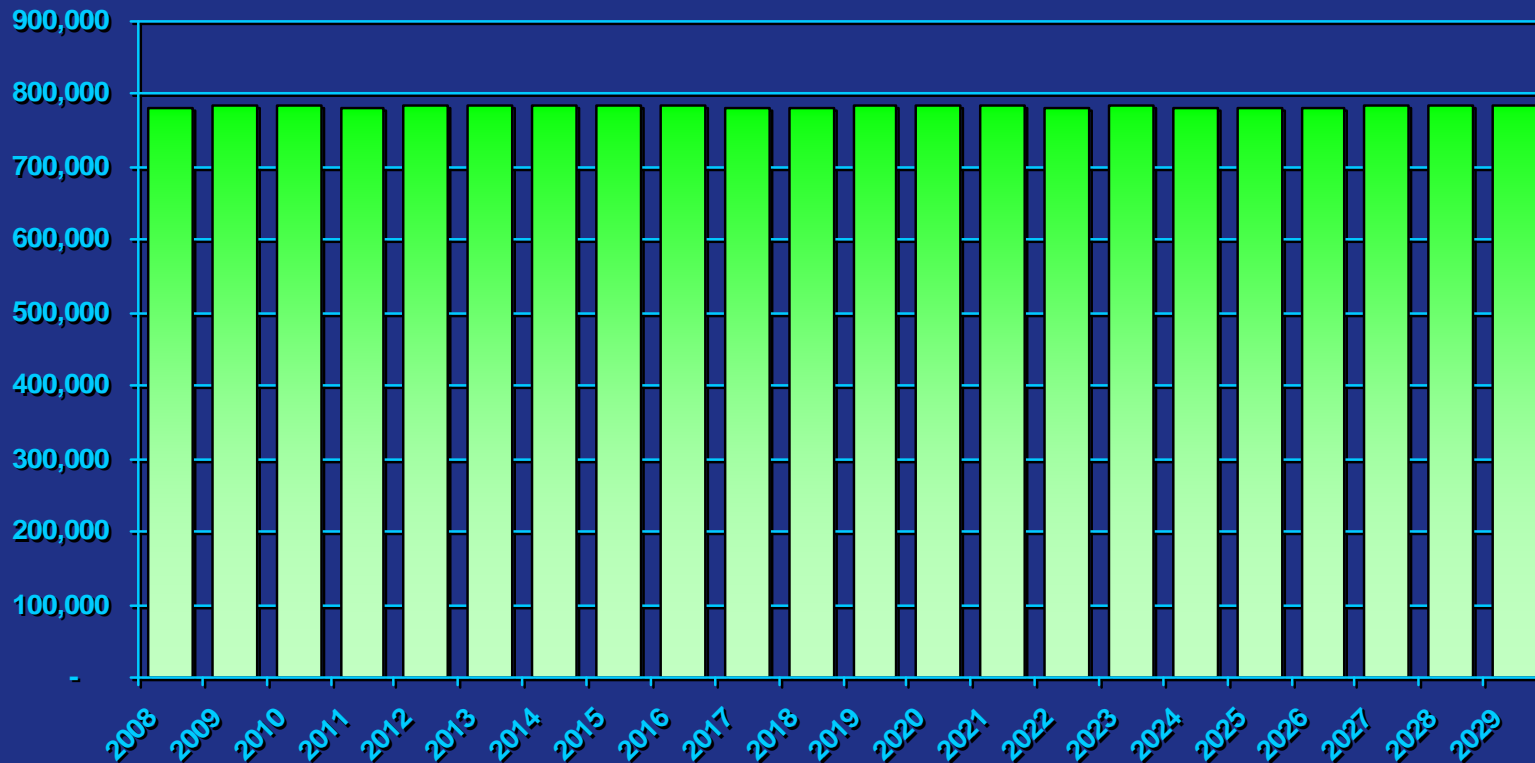
- Pay interest at stated coupon.
- Interest typically paid every 6 months.
- May be sold at par, at a premium or at a discount.
- Investor's yield determined by price paid for the Bond.



# Current or Deferred Interest Bonds

## Capital Appreciation Bonds

- “Zero” coupon or deferred interest bonds.
- Interest accretes to maturity.
- Sold at a deep discount.
- Investor’s yield determined by price paid for the Bond.



# Other Considerations

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## ◆ Optional Redemption

- Standard optional redemption period is 10 years.
- Callable bonds generally have a higher yield than non-callable bonds.

## ◆ Par Bonds, Original Issue Discount Bonds, and Original Issue Premium Bonds

	<u>Coupon</u>	<u>Yield</u>	<u>Price</u>
■ Par Bond	5.00%	5.00%	100%
■ Discount Bond	5.00%	5.10%	98% (est)
■ Premium Bond	5.00%	4.90%	100.9% (est)

# Refunding Considerations

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## Advance Refunding

- Old Bonds are not currently subject to optional redemption.
- New Bond proceeds are used to fund an escrow that defeases old bonds to call date.
- Escrow invested in Treasury (SLGs) with maximum permitted yield equal to bond arbitrage yield.
- Can only advance refund one time.

## Current Refunding

- Old bonds are currently subject to optional redemption.
- New bond proceeds used to redeem old bonds.

# Ratings and Credit Enhancement

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**The Rating Agencies**

**Rating Agency Packages**

**Obtaining a Rating**

**Credit Enhancement – Bond Insurance**

**Credit Enhancement – Letters of Credit**



# The Rating Agencies



**Moody's**



**S&P**

**FitchRatings Fitch**

**Long-Term**

Aaa  
Aa1, Aa2, Aa3  
A1, A2, A3  
Baa1, Baa2, Baa3  
Ba1, Ba2, Ba3

AAA  
AA+, AA, AA-  
A+, A, A-  
BBB+, BBB, BBB-  
BB+, BB, BB-

AAA  
AA+, AA, AA-  
A+, A, A-  
BBB+, BBB, BBB-  
BB+, BB, BB-

**Short-Term**

MIG-1, MIG-2, MIG-3  
(Notes)

VMIG-1, VMIG-2,  
VMIG-3 (Commercial  
Paper and VRDBs)

SP-1+, SP-1, SP-2,  
SP-3 (Notes)

A-1, A-2, A-3  
(Commercial Paper  
and VRDBs)

F-1+, F-1, F-2, F-3  
(Notes)

LOC (Commercial  
Paper and  
VRDBs)

# Obtaining a Rating

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## ◆ A typical rating agency package might include:

- 3 years of audited financial statements
- Current and proposed budget
- Bond Documents, including:
  - Trust Indentures
  - Lease Agreements
  - Installment Sale Agreements
  - Redevelopment Loan Agreements
- Preliminary Official Statement
- Special Reports
- Sizing and Debt Service Schedules
- Timing and Responsibility Schedule
- Distribution List

# Obtaining a Rating

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- ◆ **It is often useful to meet with the rating analysts to:**
  - **Describe the project**
  - **Get feedback on the structure**
  - **Describe salient aspects of security**
  - **Review demographics and economics of service area**
  - **On-site or at rating agency offices**

# Variable Rate Bonds

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Historical Interest Rates

Structuring Options

Pros and Cons of Alternative Structures

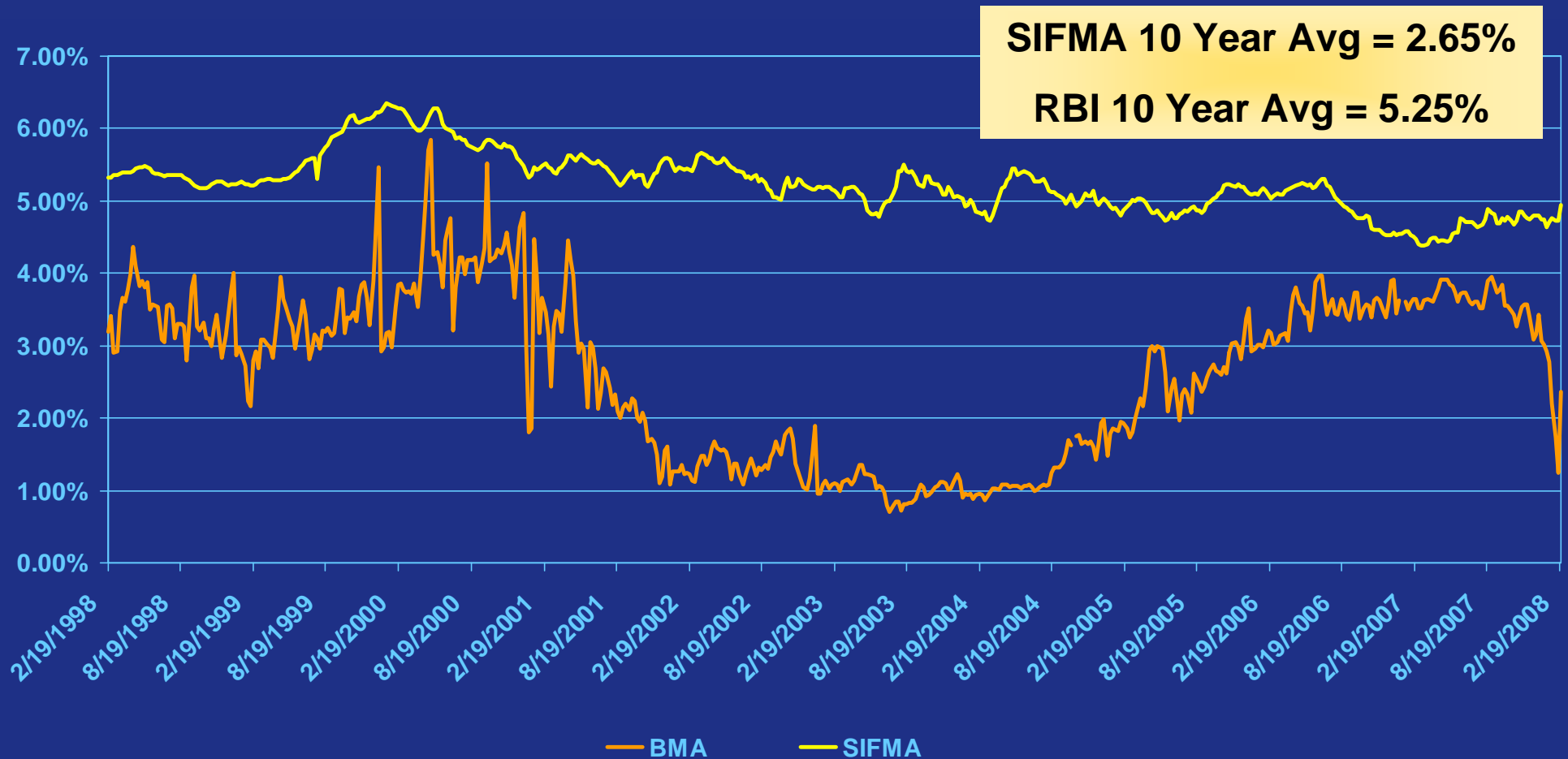
The Dutch Auction Process

ARS vs. VRDBs

# Variable Rate vs. Fixed Rate

Securities Industry and Financial Markets Association (SIFMA) Index (formerly BMA)  
vs. Bond Buyer Revenue Bond Index (RBI)

A Ten Year History



# Introduction to Variable Rate Structures

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- ◆ **There are three primary variable rate structures used in the municipal market:**
  - **Commercial Paper**
  - **Variable Rate Demand Bonds**
  - **Auction Rate Securities**

# Variable Rate Structuring Options

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## **Commercial Paper**

- **Can be drawn down and paid back as needed.**
- **Outstanding CP is remarketed for a maximum of 270 days.**
- **Bank credit facility required for liquidity.**
- **Money Market Funds are the primary investor.**

# Variable Rate Structuring Options

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## Variable Rate Demand Bonds

- Long-term bond with rate that resets periodically (daily, weekly, monthly, etc.).
- Investor can “put” bonds on short notice (allows bond to trade at par).
- Bank credit facility required to support put.



# Variable Rate Structuring Options

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## Auction Rate Securities

- Long-term bond with rate that resets periodically (weekly, monthly, etc.).
- No “put” feature and thus, no bank facility.
- Rate reset via Dutch Auction process.

# Pros vs. Cons of Alternative Structures

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## PROS

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## CONS

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Fixed Rate

- Debt Service certainty

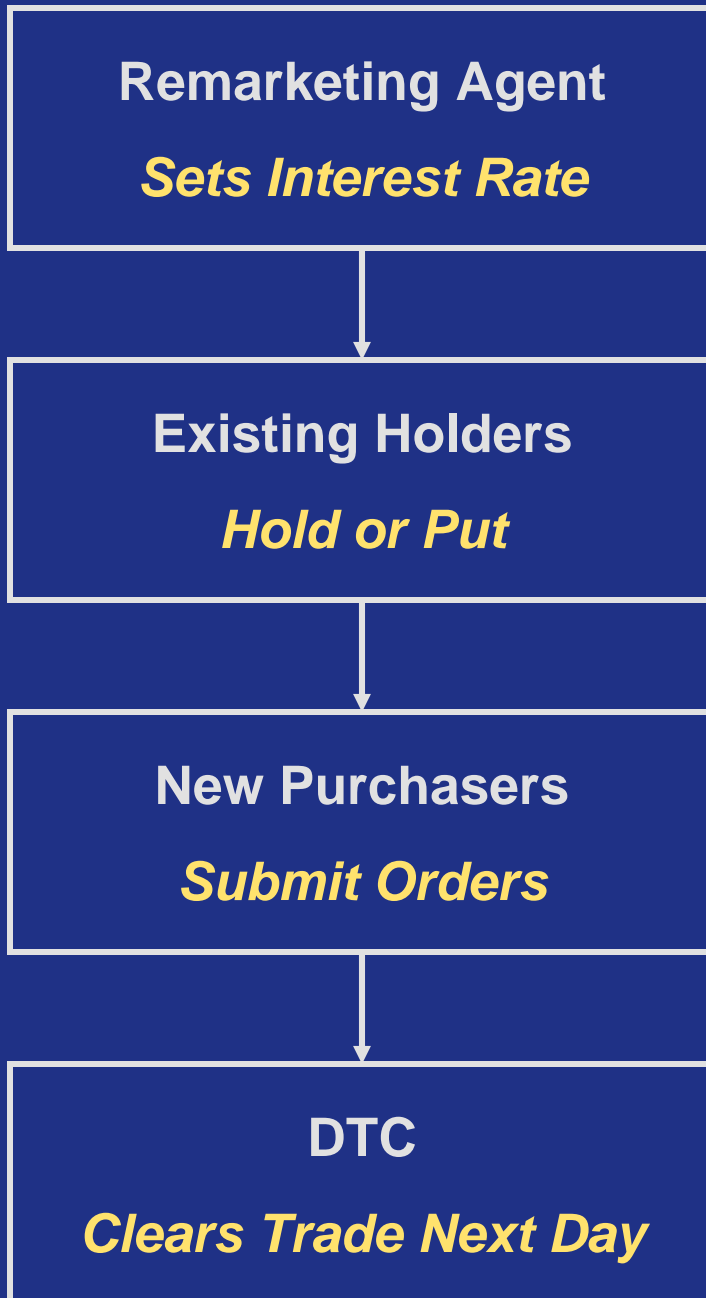
- Less flexibility to refinance if rates go down.

Variable Rate

- Lower rates
- More flexibility to restructure/refinance.

- Interest rates may rise.
- Takes more time to manage.

# VRDB Process



## Remarketing Agent

- Establishes interest rate at periodic intervals (i.e., daily, weekly, monthly)

## Existing Holders

- May hold bonds or “put” bonds back to Remarketing Agent.

## New Purchasers

- Submit orders for any bonds that have been “put” back to the Remarketing Agent.

# Dutch Auction Process

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## Broker-Dealer

- Passes orders to Auction Agent

## Auction Agent

- Assembles bids in ascending order.
- Determines highest bid to clear auction, which is interest rate applied to issue until next auction.

# Dutch Auction Orders

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## Bid Order

- Hold ARS provided that the reset interest rate is not less than that specified by the bid of the current ARS holder.
- If the rate is below, the ARS are sold.

## Hold at Market

- Hold ARS regardless of reset interest rate.

## Potential Bid

- Minimum rate acceptable to buy additional ARS.

## Sell Order

- Sell ARS without regard to the reset interest rate.

*Potential investors can submit bid orders to buy ARS at a specified rate.*

# ARS vs. VRDBs At-A-Glance

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	ARS	VRDBs
Short End of Yield Curve	✓	✓
Flexible Reset Intervals	✓	✓
Ability to Enter into Swaps	✓	✓
Callable Anytime	✓	✓
Investor Tender Option		✓
Requires LOC or Liquidity Facility		✓
Requires Bond Insurance	✓	
Interest Rate determined by Dutch Auction	✓	