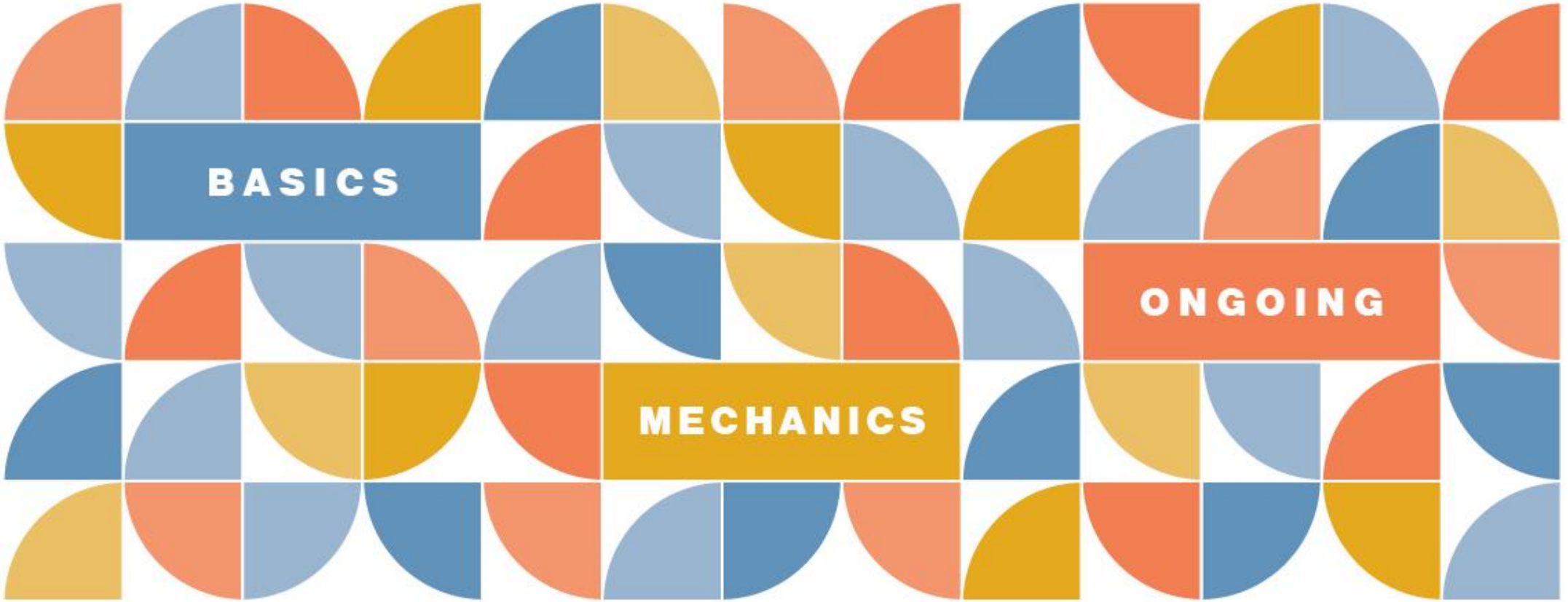
MUNICIPAL DEBT ESSENTIALS



Bond Concepts

Craig Hill, Managing Principal, NHA Advisors, LLC

Table of Contents

- Introduction to Bonds
- Process of Issuing Bonds
- Basic Bond Math

Introduction to Bonds

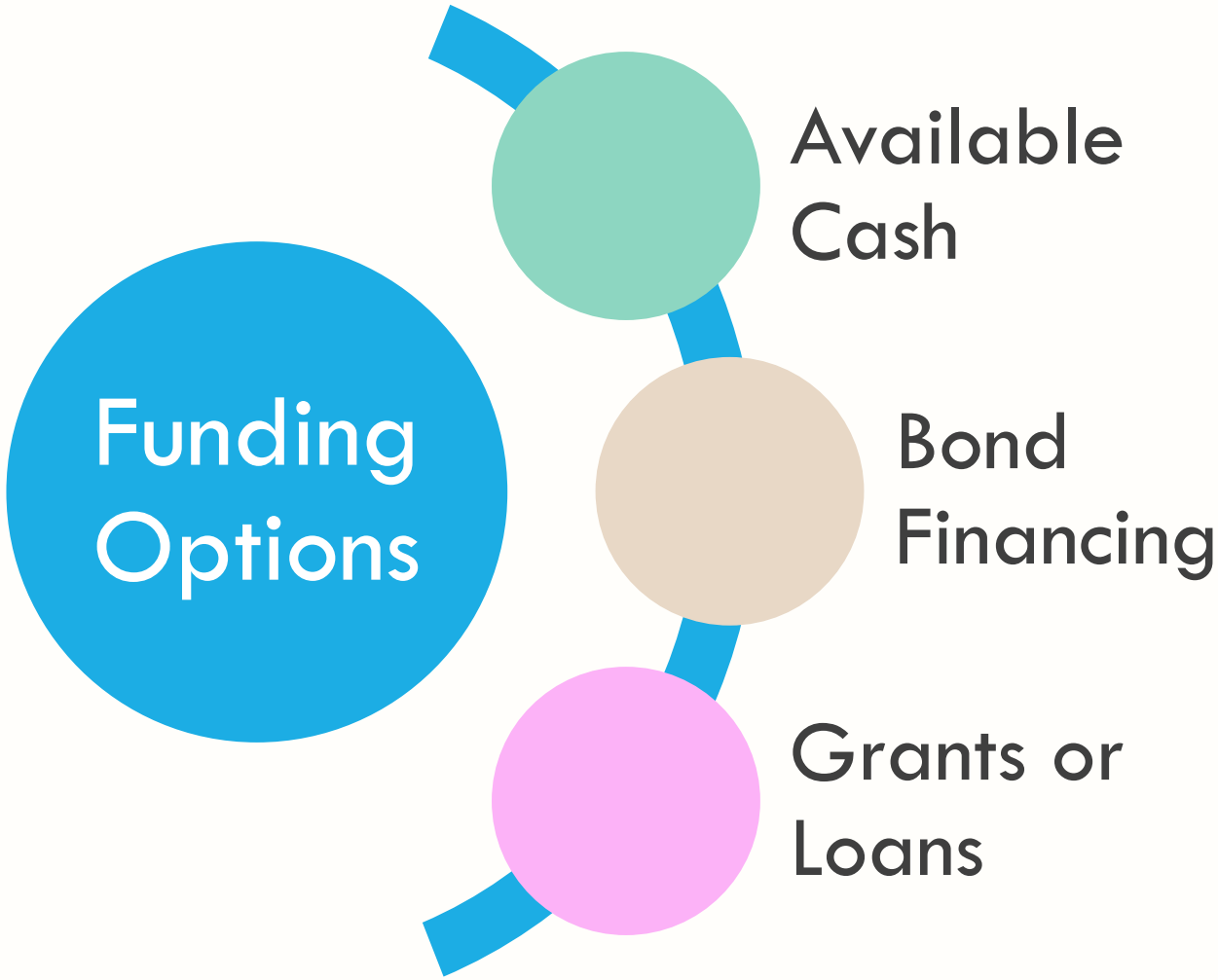
Purpose of Municipal Bonds

Infrastructure

Capital Improvement Projects

- Spread out the cost of constructing the asset over the life of the asset
- Ensures the benefits are paid for by those who enjoy them

Ways to Fund Projects



Common Objectives

Project Financing

- Capital improvement projects
- Infrastructure development

Refinancing

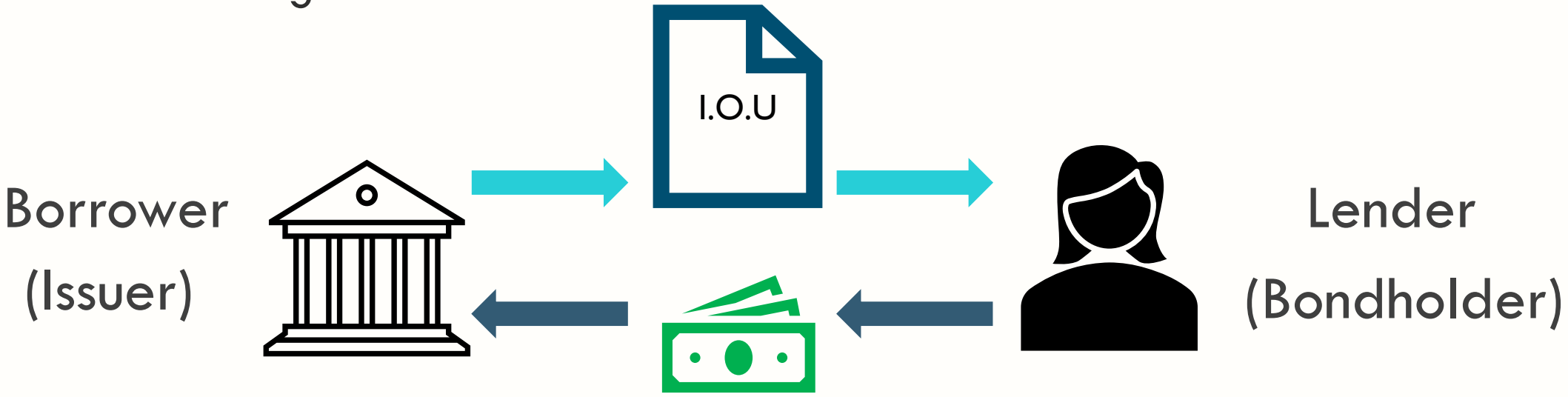
- Lower Interest rates
- Consolidate debt and facilitate budget predictability

Cash Flow

- Tax Revenue Anticipation Notes (TRAN)
- Bond Anticipation Notes (BAN)

What Is A Bond?

- Issuer: Entity that issues the bonds
  - Borrows the money
- Bondholder: Owner of the bonds
  - Receives the bonds (lends money)
- Financing mechanism where the borrower receives a payment upfront from a lender in exchange for future repayments made to the lender
  - Simply put: “a loan”
- Can be thought of as an IOU between lender and borrower



Elements Of A Bond

Issuer

Face Value

Coupon

"Clipping the Coupon"

Maturity Schedule

Issuer	Gotham City
Deal	2022 General Obligation Bonds
Par	$4,120,000
Tax Status	Tax-Exempt
Rating	AAA
Par Call Date	12/1/2032
Underwriter	Wayne Enterprises
Municipal Advisor	NHA Advisors

Maturity	PAR AMOUNT	COUPON RATE	YIELD
2023	$175,000	5.00	2.85
2024	$185,000	5.00	2.95
2025	$190,000	5.00	3.10
2026	$200,000	5.00	3.20
2027	$205,000	5.00	3.40
2028	$350,000		
2029	$380,000		
2030	$400,000		
2031	$420,000		
2032	$450,000	4.25	4.50

Serial Bonds

Sinking Fund

Term Bond

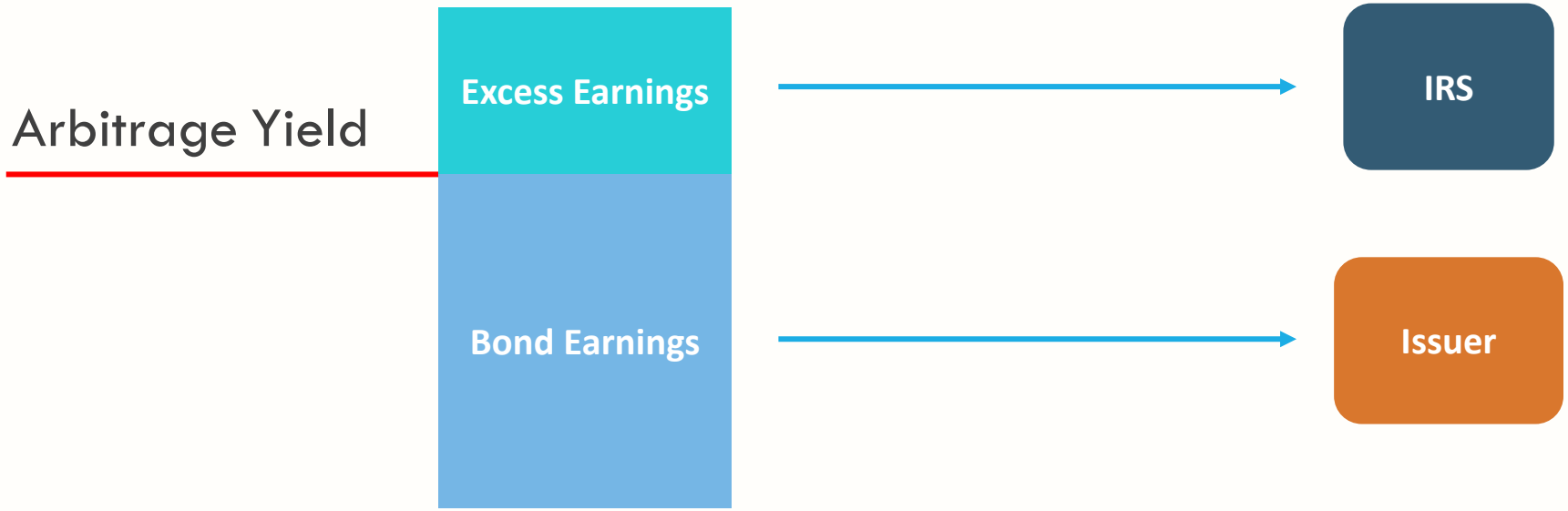
Sources and Uses

Sources Of Funds	
Par Amount of Bonds	$5,000,000
Total Sources	$5,000,000

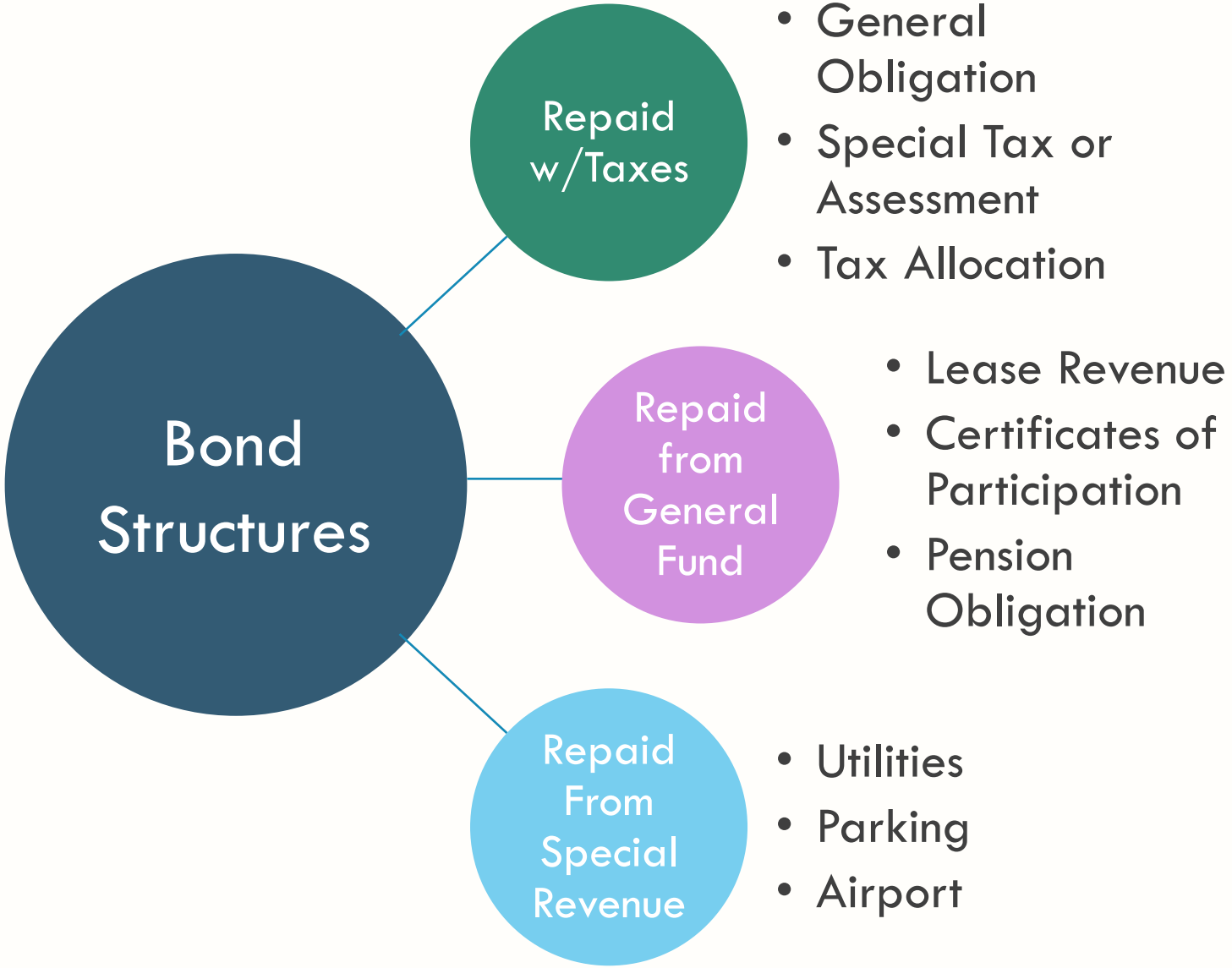
Uses Of Funds	
Costs of Issuance	$200,000
Project Fund	$4,800,000
Total Uses	$5,000,000

Tax-Exempt Nature of Municipal Bonds

- Majority of Municipal Bonds are issued for public use projects and so are **Tax-Exempt**
  - IRS requires that bonds issued for private purposes must be issued on a **taxable basis**
- Issuers are not allowed to earn more on the bond proceeds than the calculated yield ("**arbitrage**")

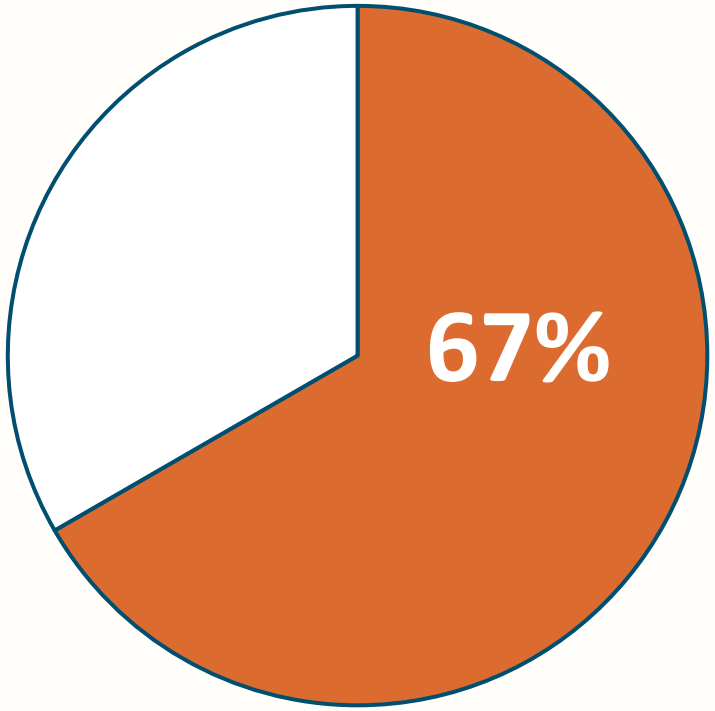


Bond Structures

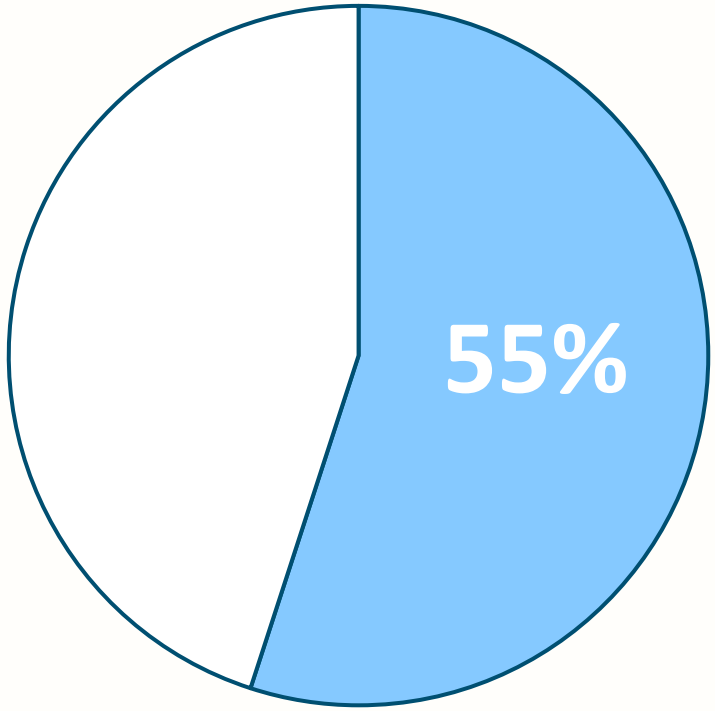


Voter Approval

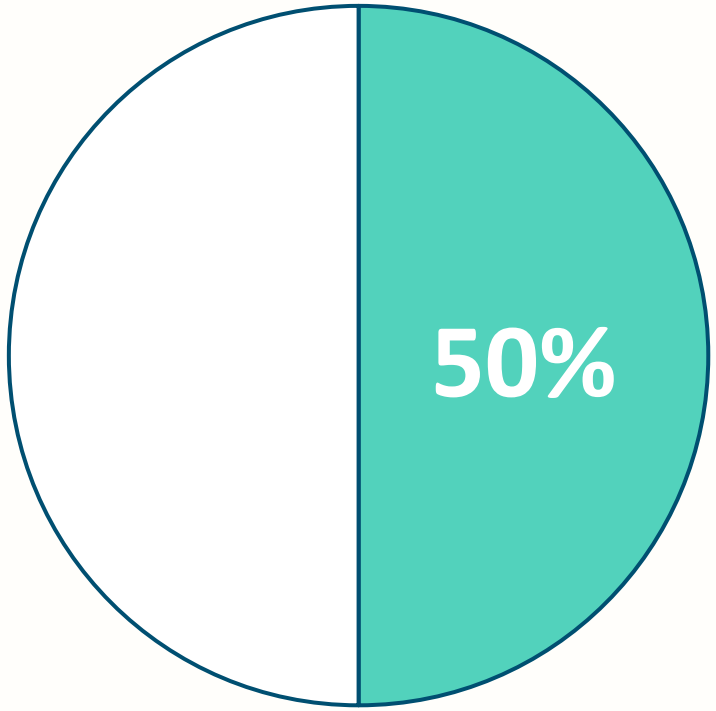
Local Agencies



School District Bonds



State Bonds



Thank YOU Proposition 13…

Voter Approval Exceptions

General Fund Lease Revenue Bonds

Utility Revenue Bonds

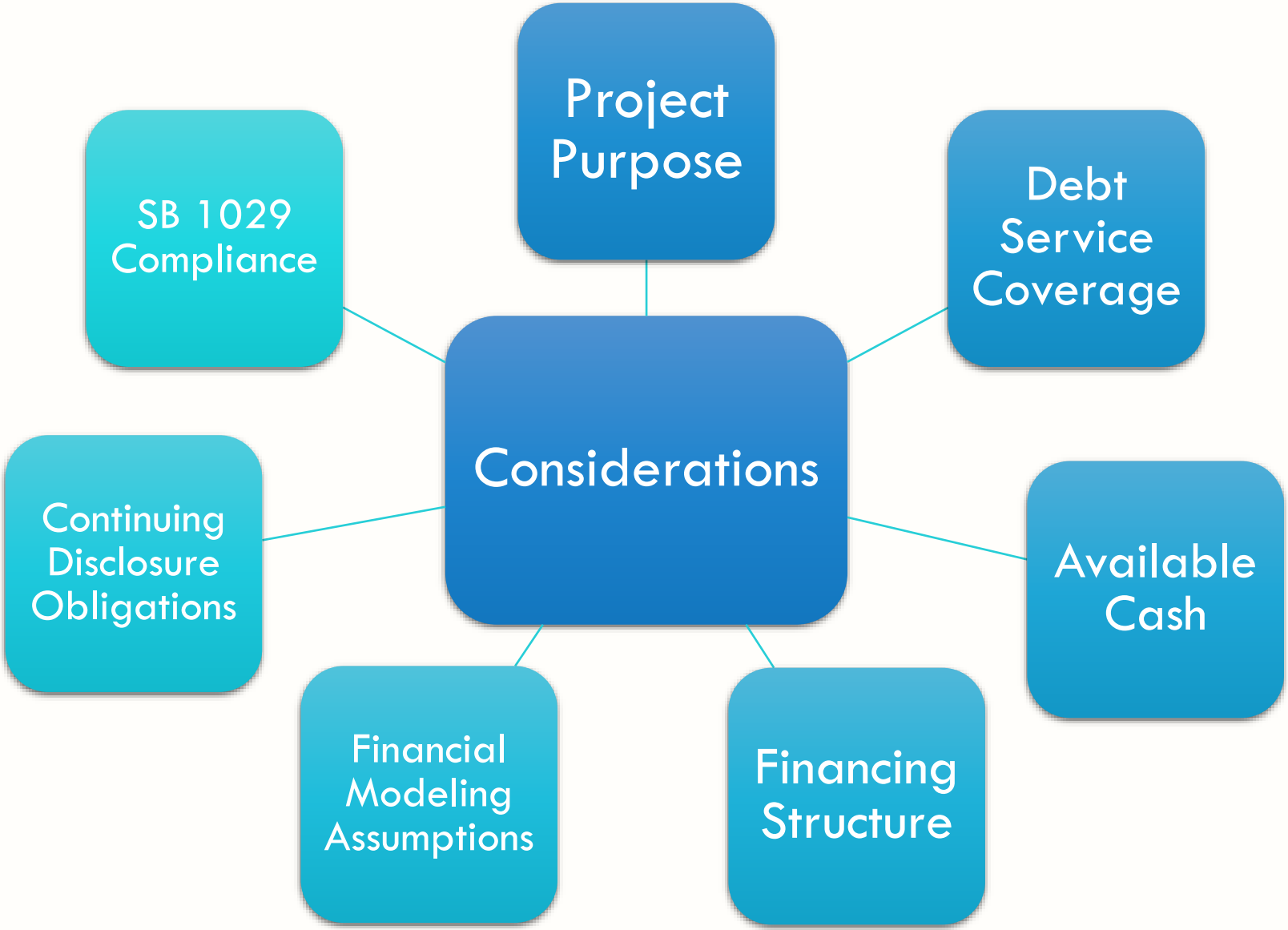
Obligations Imposed by Law

Process of Issuing a Bond

Developing the Financing Plan

- Identify Project Needs
- Quantify Available Cash
- Repayment Sources
- Develop Financial Model

Debt Policy Considerations



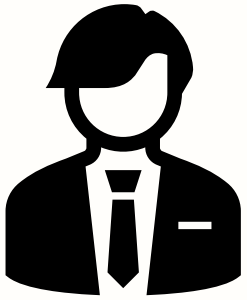
Assembling the Financing Team (Public Offering)

Issuer

Municipal Advisor

Bond/Disclosure Counsel

Underwriter

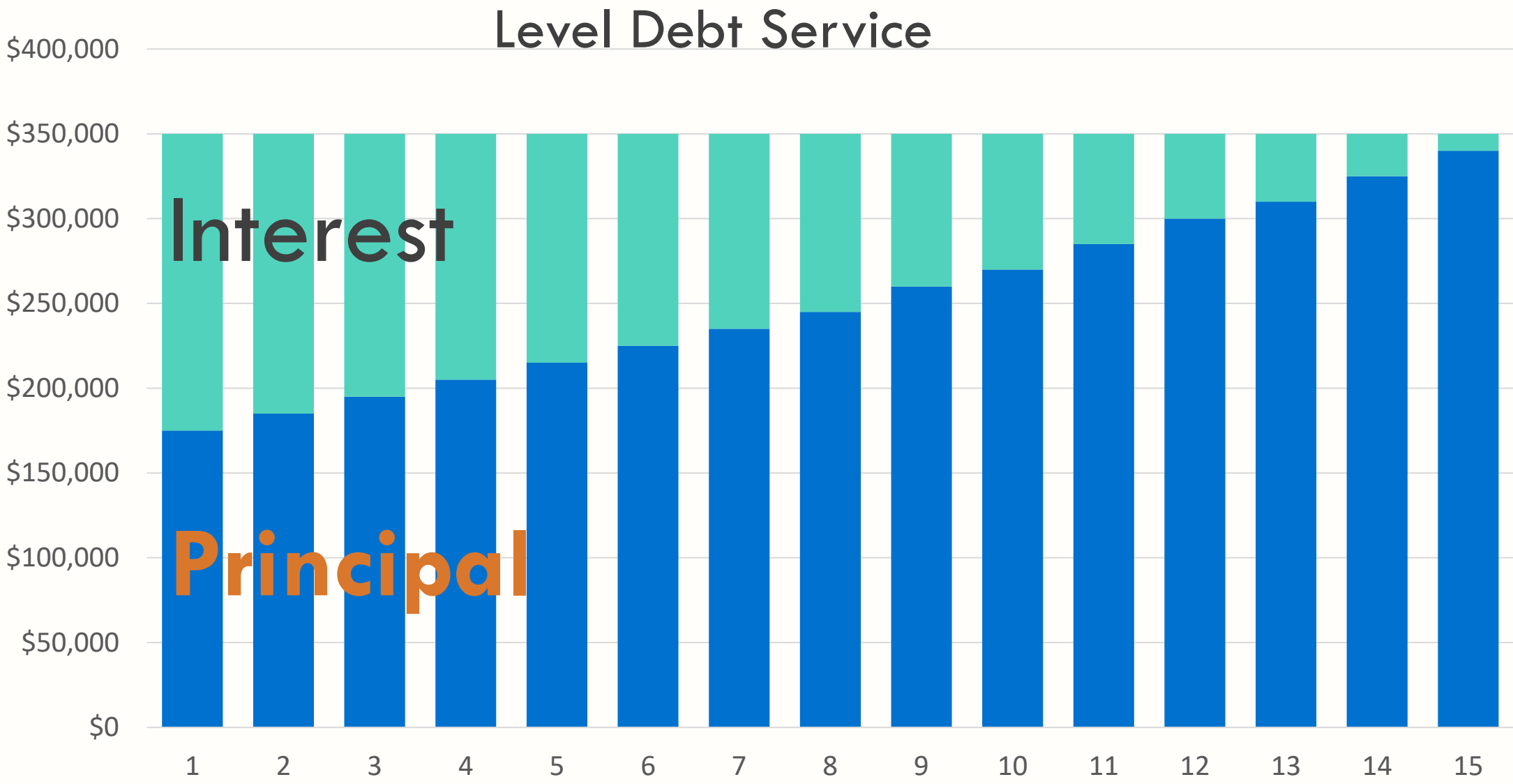


Trustee/Paying Agent

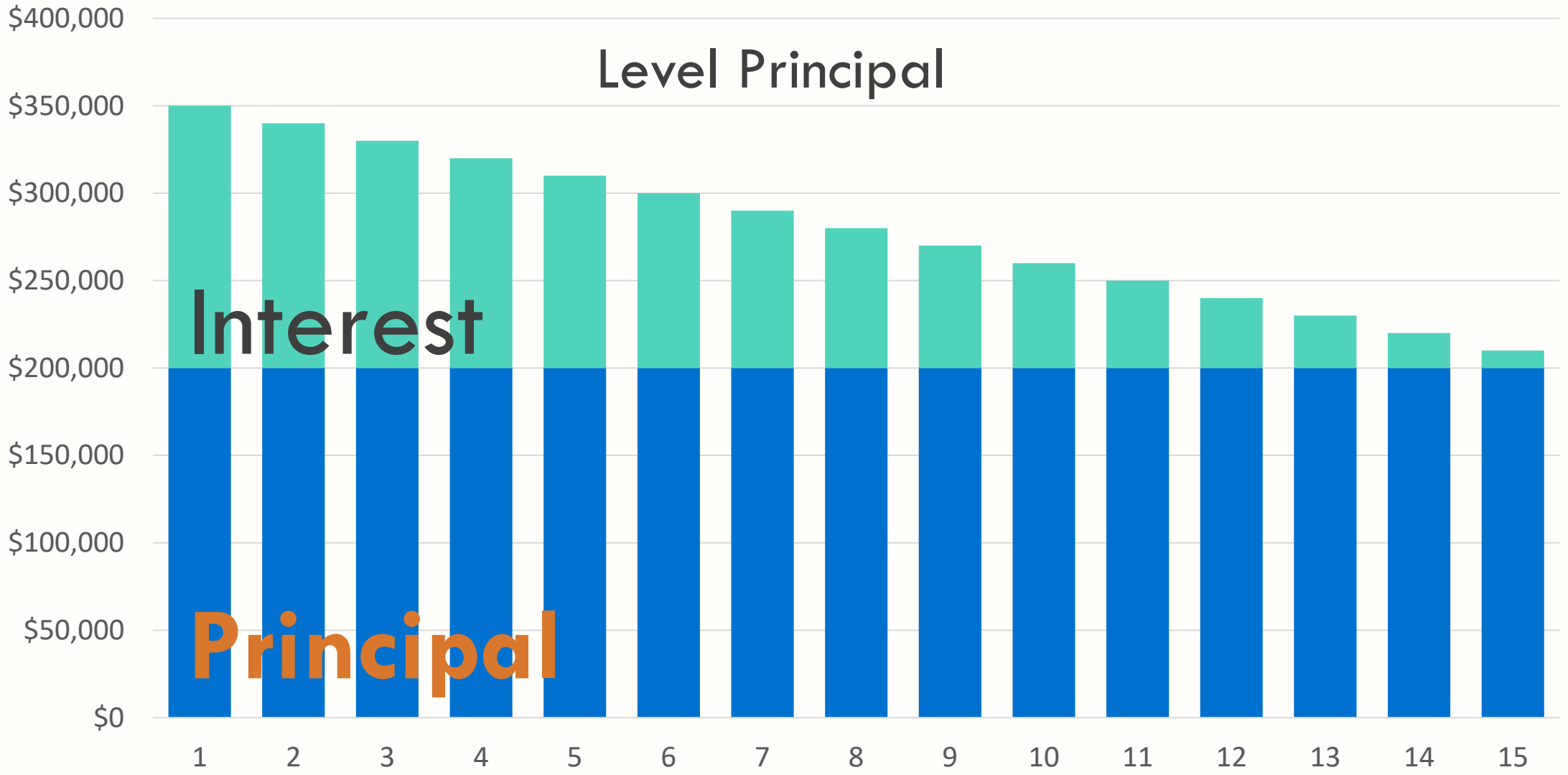
Rating Agency

A+

Debt Structures

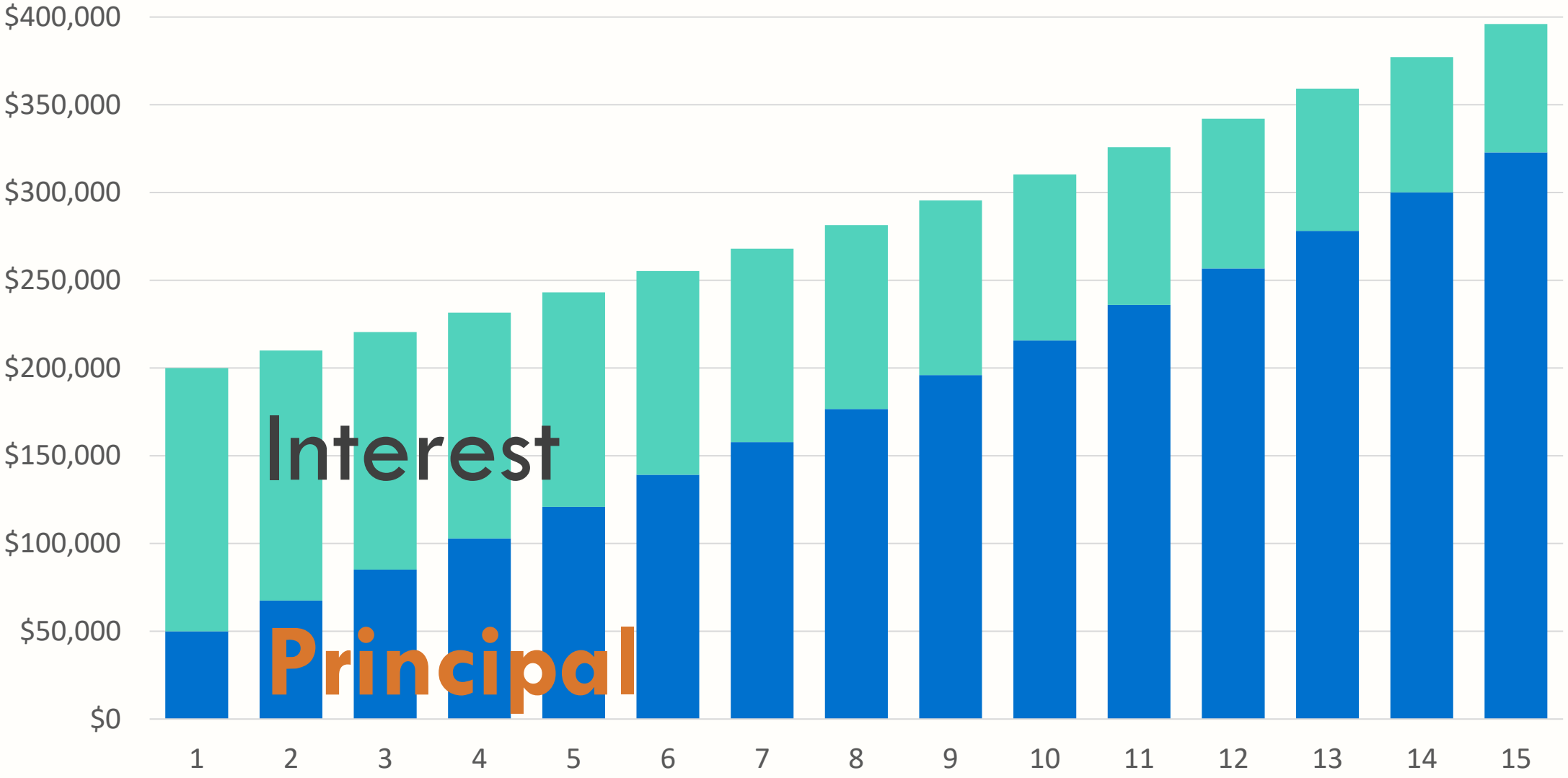


Debt Structures

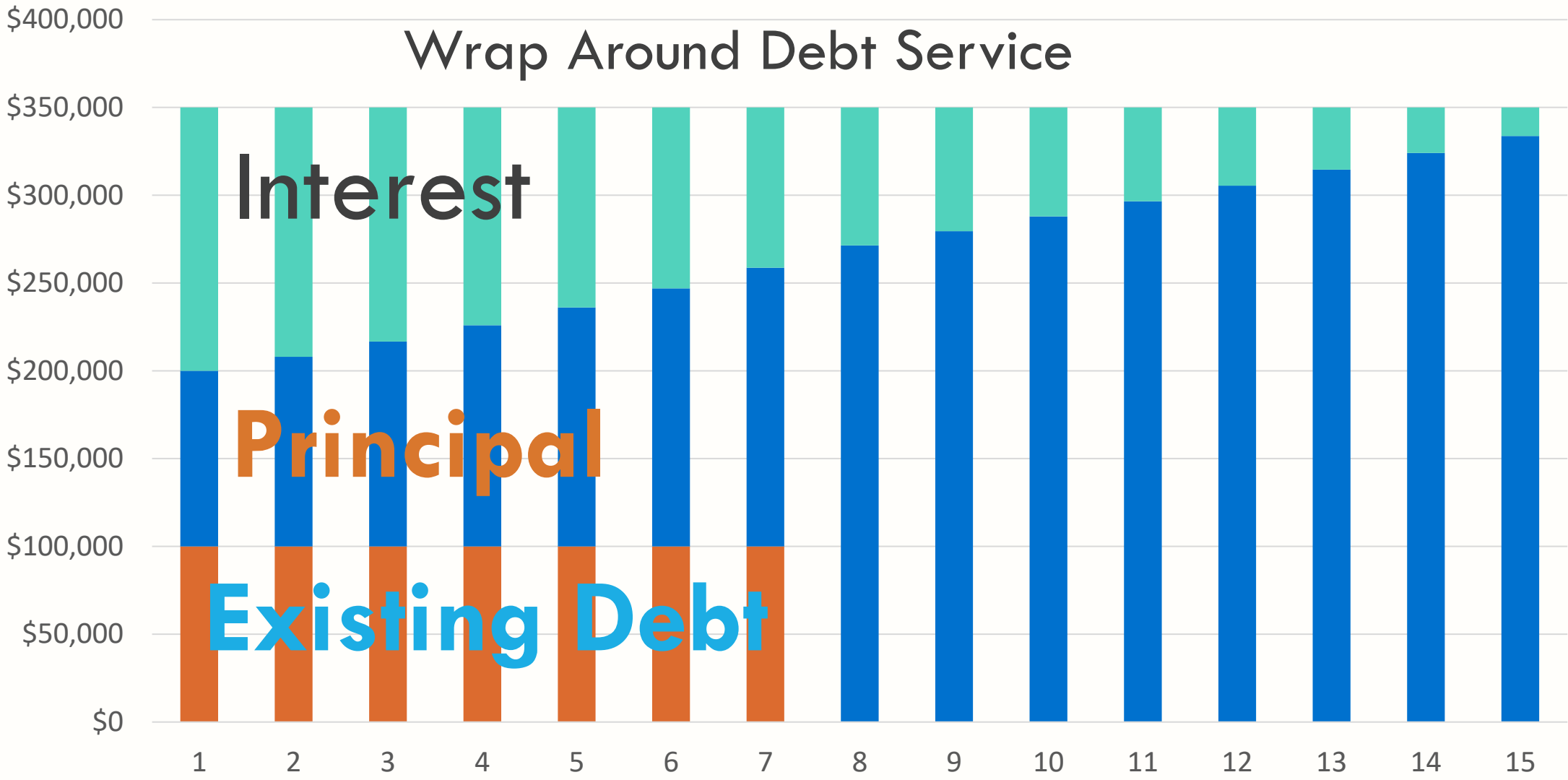


Debt Structures

Ascending Debt Service

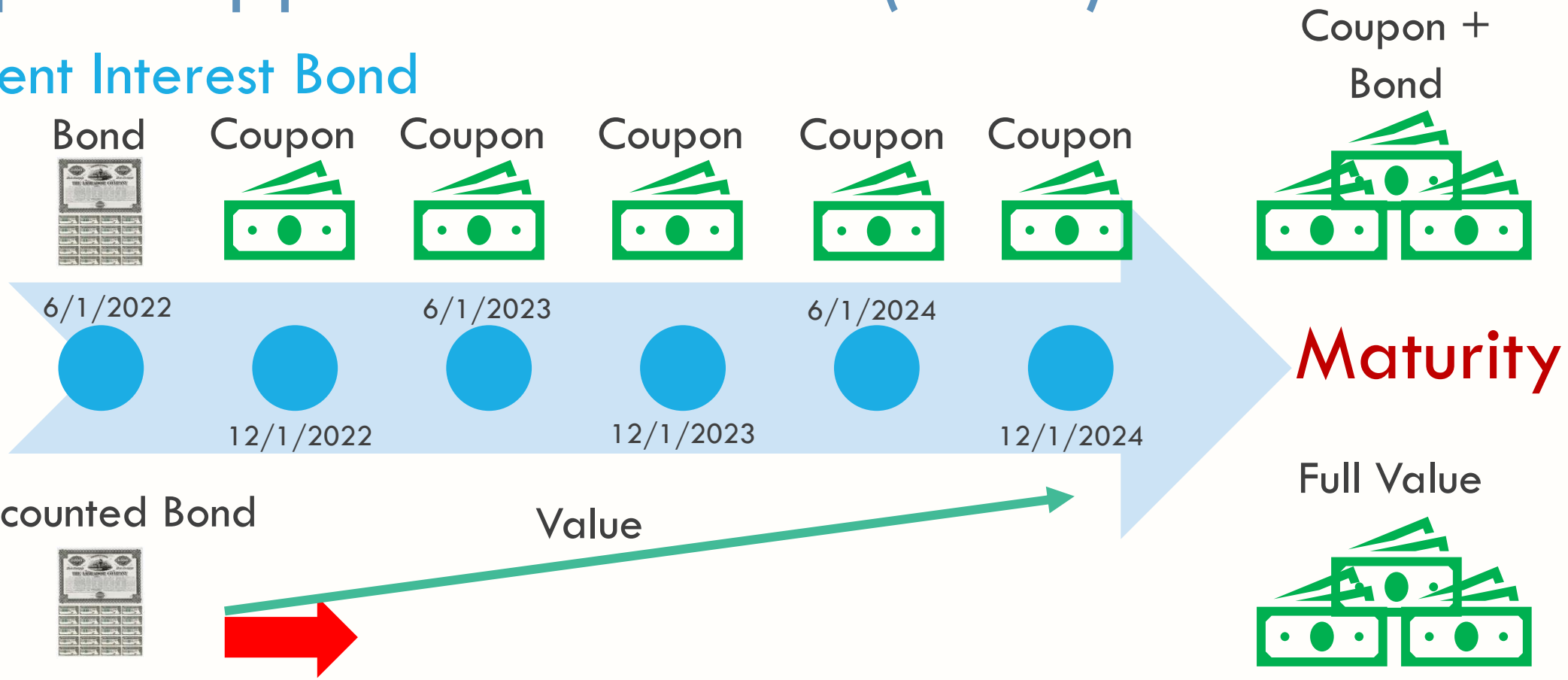


Debt Structures



Capital Appreciation Bonds (CABs)

Current Interest Bond



Capital Appreciation Bond

Methods of a Bond Sale

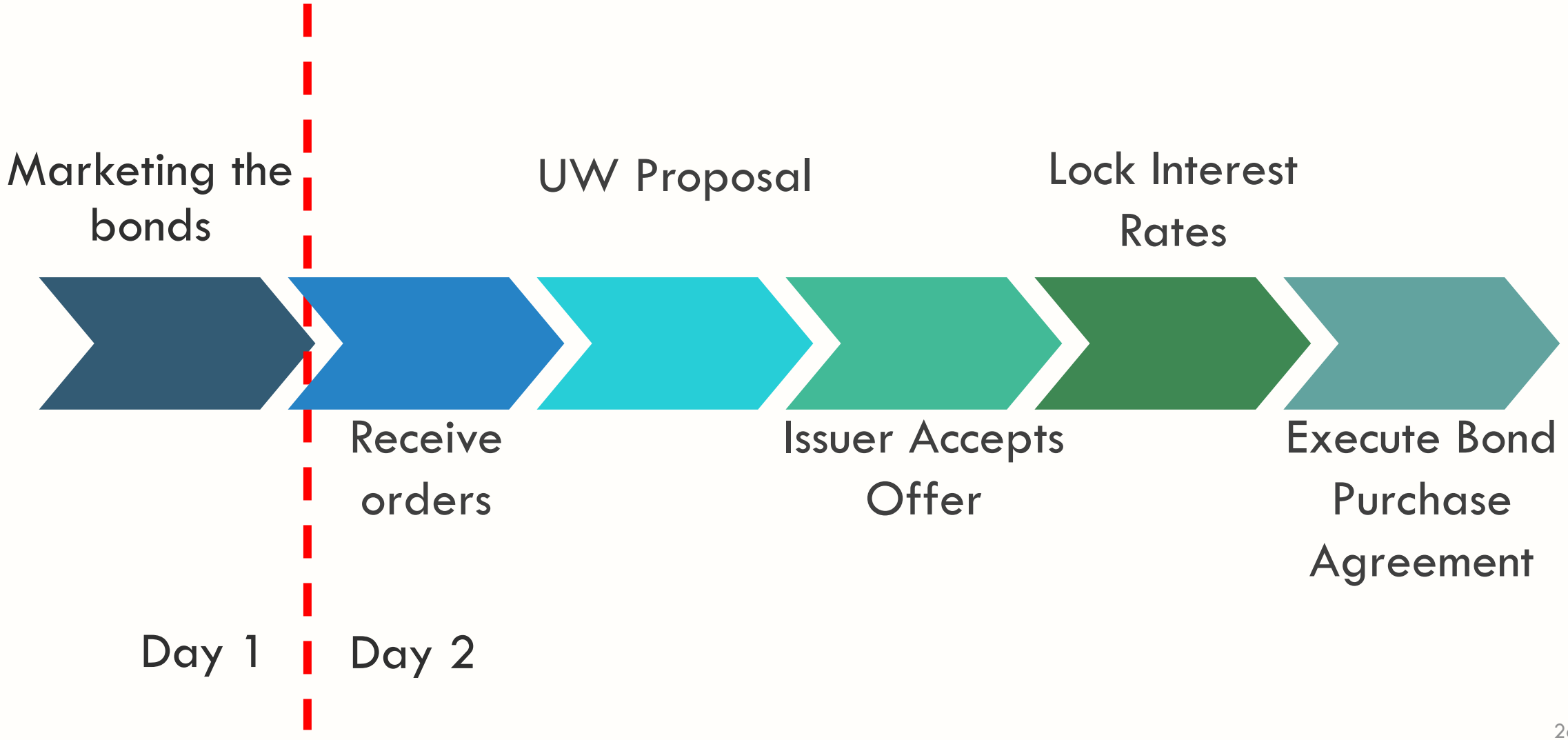
Competitive

- Structured without UW
- UW services bid completely
- Traditional bonds or high rating

Negotiated

- UW selected by issuer before sale
- Structured with UW
- Unique Transactions

Underwriting Process



Official Statement

MATURITY SCHEDULE

$30,000,000
CITY OF CAMPBELL
ELECTION OF 2018 GENERAL OBLIGATION BONDS,
SERIES 2022
(Base CUSIP†: 134105)

Maturity Date (September 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP† No.
2022	$2,000,000	5.000%	1.600%	100.644	JF3
2023	1,710,000	5.000	1.900	103.632	JG1
2024	1,010,000	5.000	2.150	106.066	JH9
2025	495,000	5.000	2.310	108.227	JJ5
2026	520,000	5.000	2.380	110.389	JK2
2027	545,000	5.000	2.470	112.253	JL0
2028	575,000	5.000	2.580	113.762	JM8
2029	605,000	5.000	2.710	114.868	JN6
2030	635,000	5.000	2.780	116.159	JP1
2031	665,000	5.000	2.860	115.525 C	JQ9
2032	700,000	5.000	2.910	115.131 C	JR7
2033	730,000	5.000	3.020	114.269 C	JS5
2034	770,000	5.000	3.090	113.725 C	JT3
2035	805,000	5.000	3.180	113.030 C	JU0
2036	850,000	5.000	3.250	112.492 C	JV8
2037	890,000	5.000	3.300	112.110 C	JW6
2038	935,000	5.000	3.350	111.730 C	JX4
2039	980,000	5.000	3.400	111.351 C	JY2
2040	1,030,000	5.000	3.460	110.898 C	JZ9
2041	1,080,000	5.000	3.500	110.597 C	KA2
2042	1,135,000	5.000	3.520	110.448 C	KB0

$6,585,000 – 5.000% Term Bonds maturing September 1, 2047; Yield: 3.550%; Price: 110.223C; CUSIP†: KC8

$4,750,000 – 4.000% Term Bonds maturing September 1, 2050; Yield: 4.050%; Price: 99.159; CUSIP†: KD6

C Priced to the first optional redemption date of September 1, 2030.

† CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services ("CGS"), managed on behalf of the American Bankers Association by FactSet Research Systems Inc. © 2022 CUSIP Global Services. All rights reserved. CUSIP® data herein is provided by CUSIP Global Services. This data is not intended to create a database and does not serve in any way as a substitute for the CGS database. CUSIP® numbers are provided for convenience only. Neither of the City nor the Underwriter takes any responsibility for the accuracy of such numbers.

Negotiated Underwriting Flow of Funds

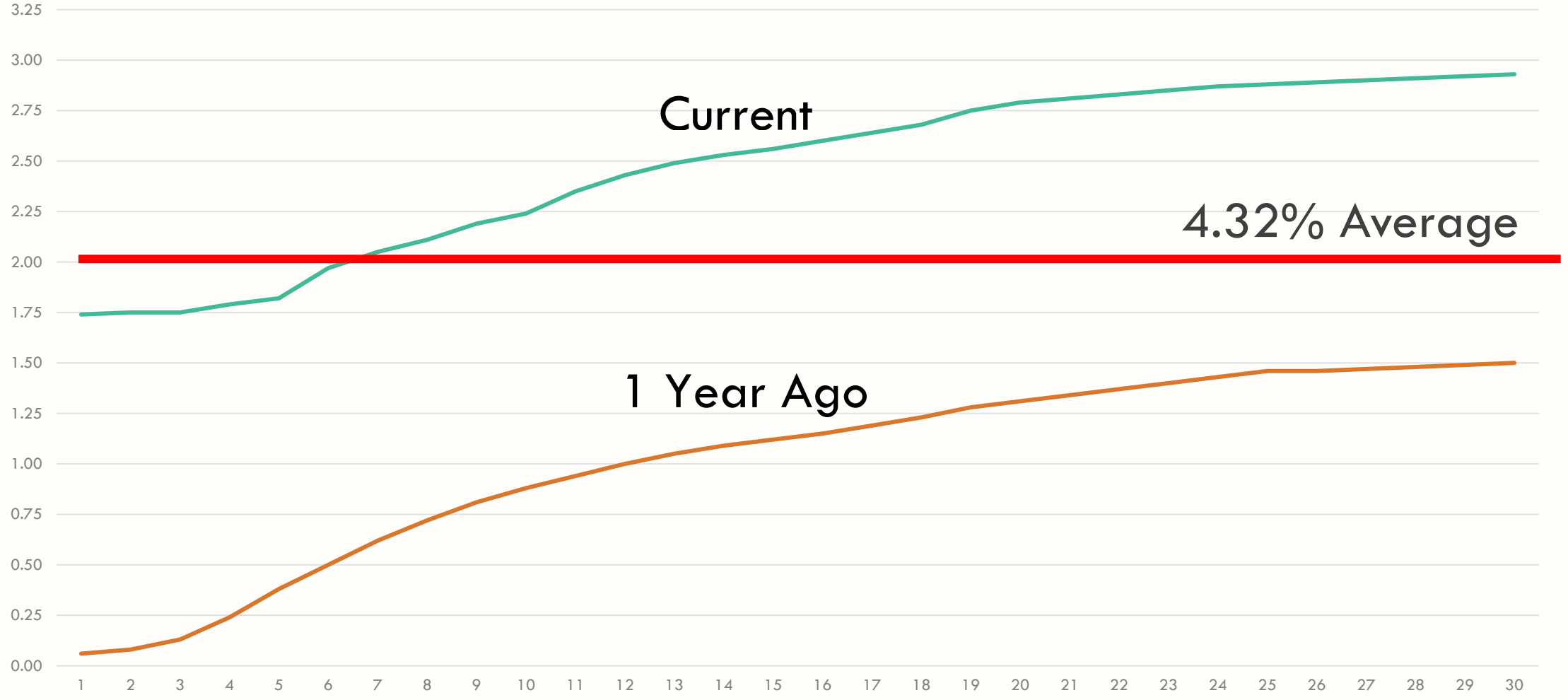
Issuer

Underwriter

Bondholders

Municipal Market Data (MMD) Yield Curve

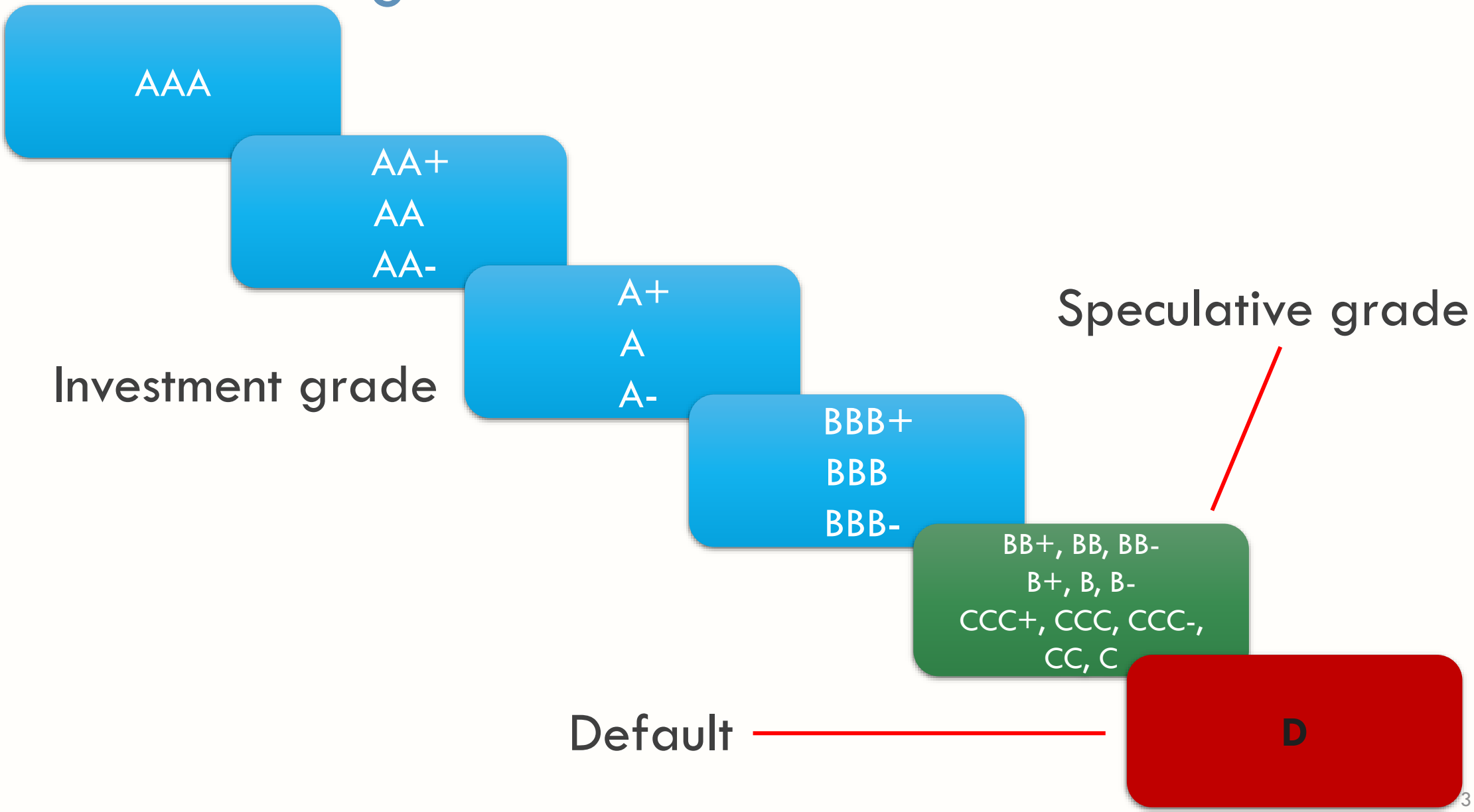
- Thomson Reuters Index
- Benchmark for "AAA" rated General Obligation Bonds



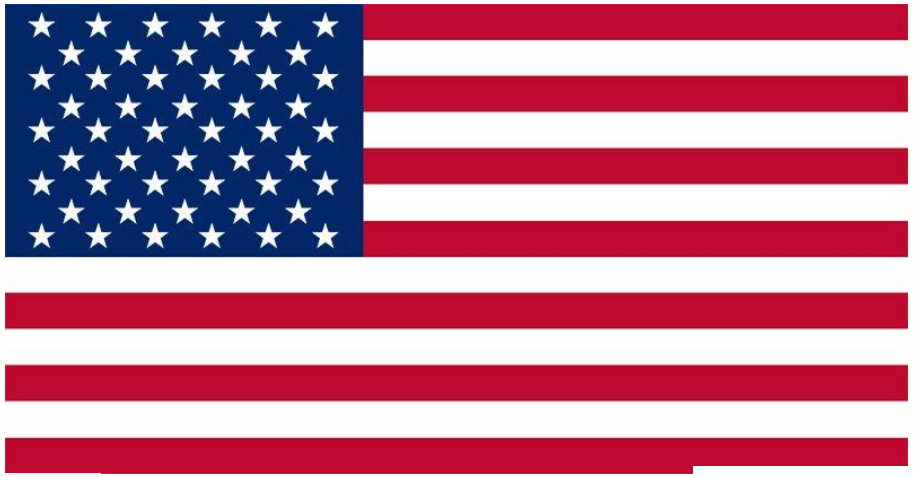
Municipal Market Data (MMD) Yield Curve

- Thomson Reuters Index
- Benchmark for "AAA" rated General Obligation Bonds

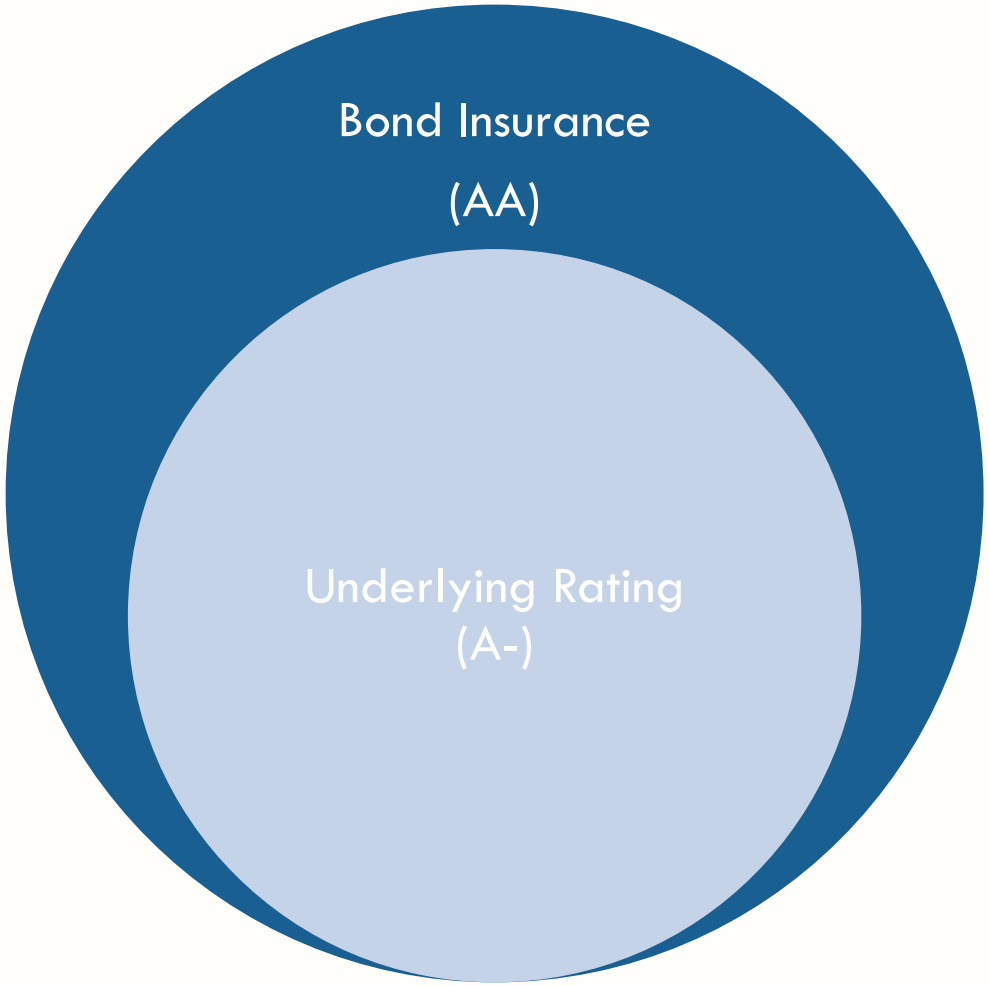
Credit Ratings



What's the Credit Rating?

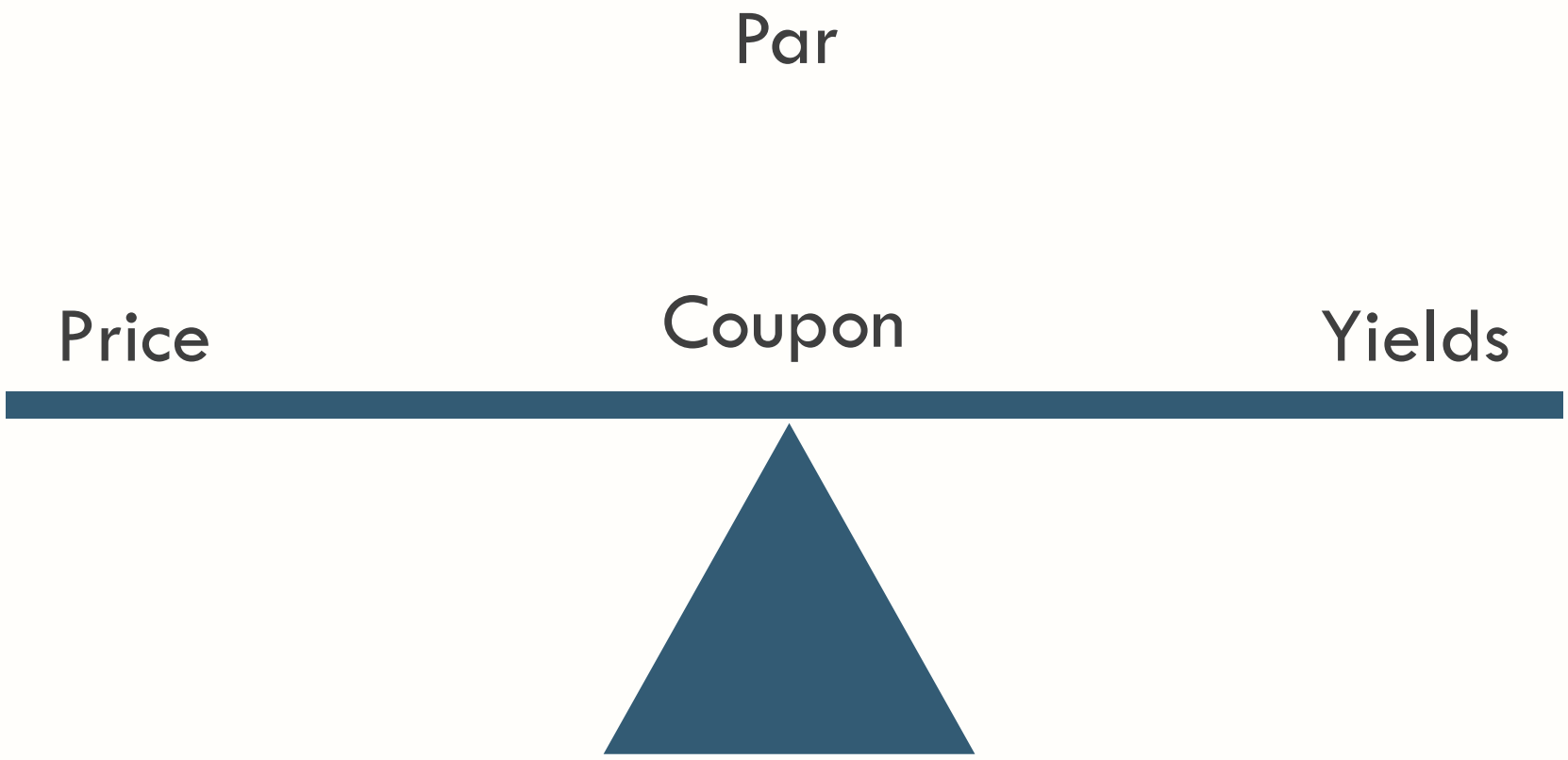


Credit Enhancements



Bond Pricing & Yield

- Prices and yields are inversely correlated



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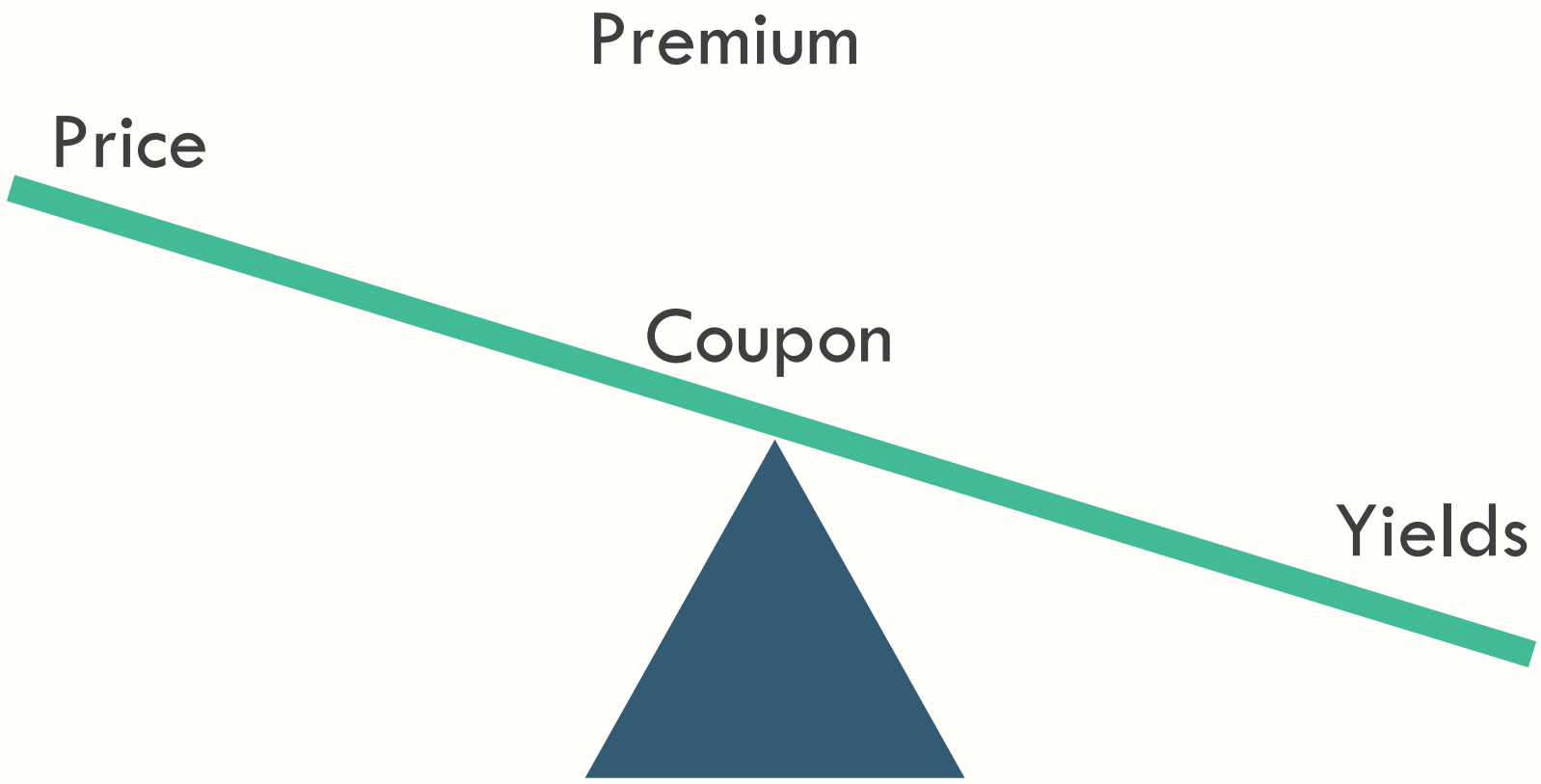

Bond Pricing & Yield

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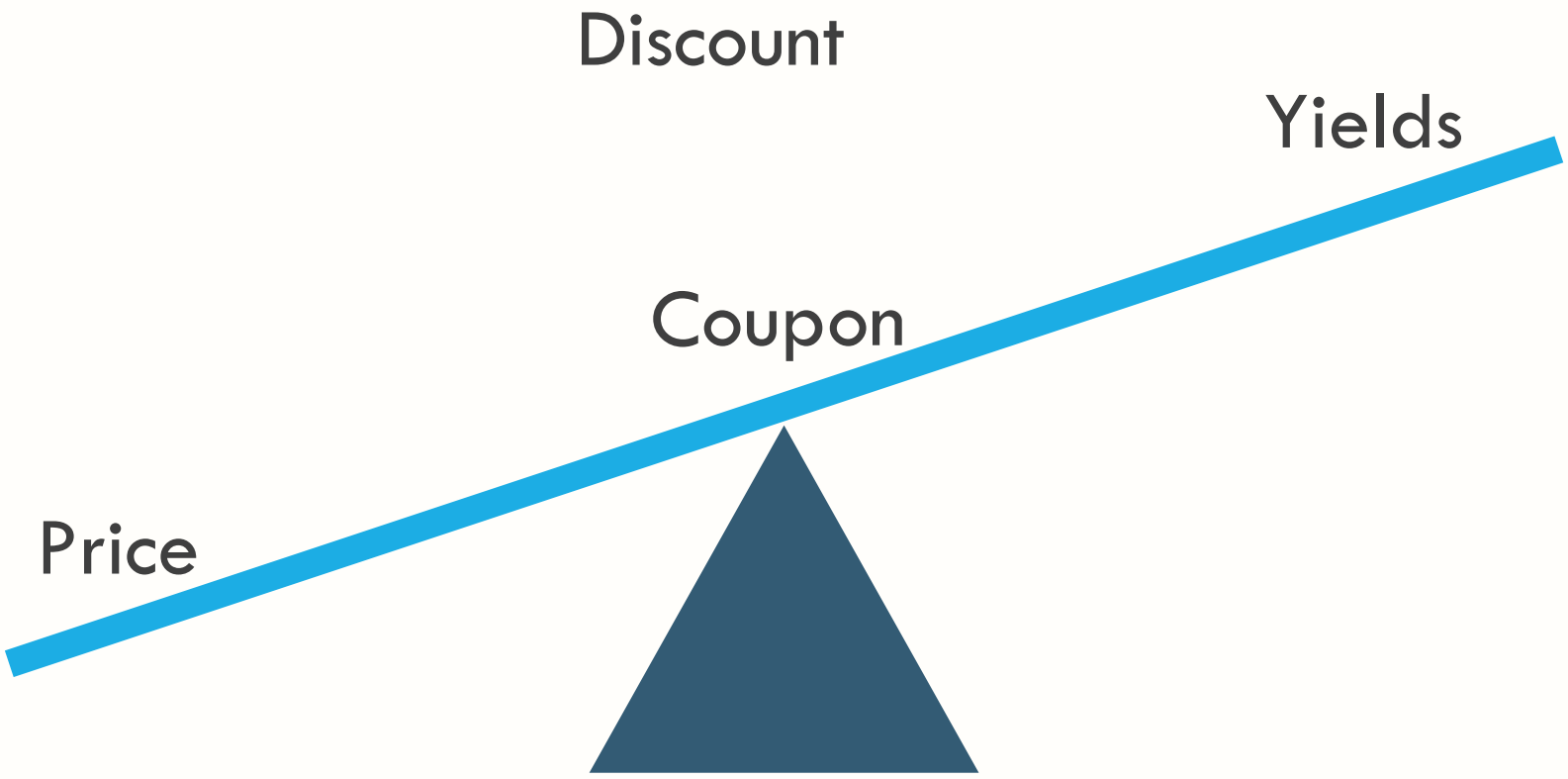
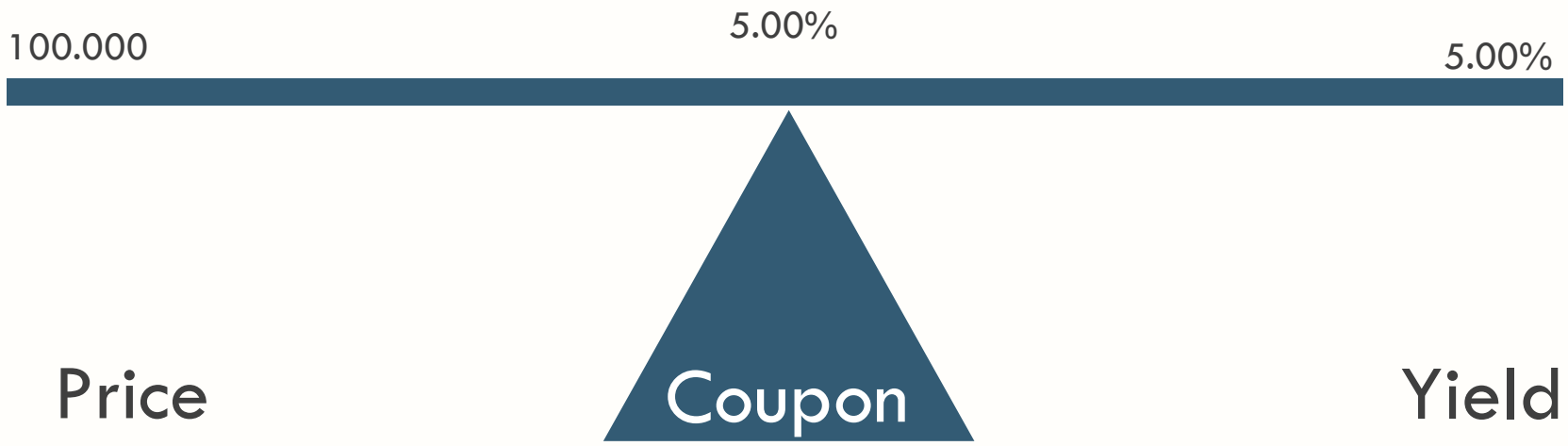


Pricing the Bonds

Maturity Date	Coupon		Market Yield	Price
12/1/2023	5.00%		4.50%	102.195
12/1/2024	5.00%	=	5.00%	100.000
12/1/2025	5.00%		5.50%	97.865

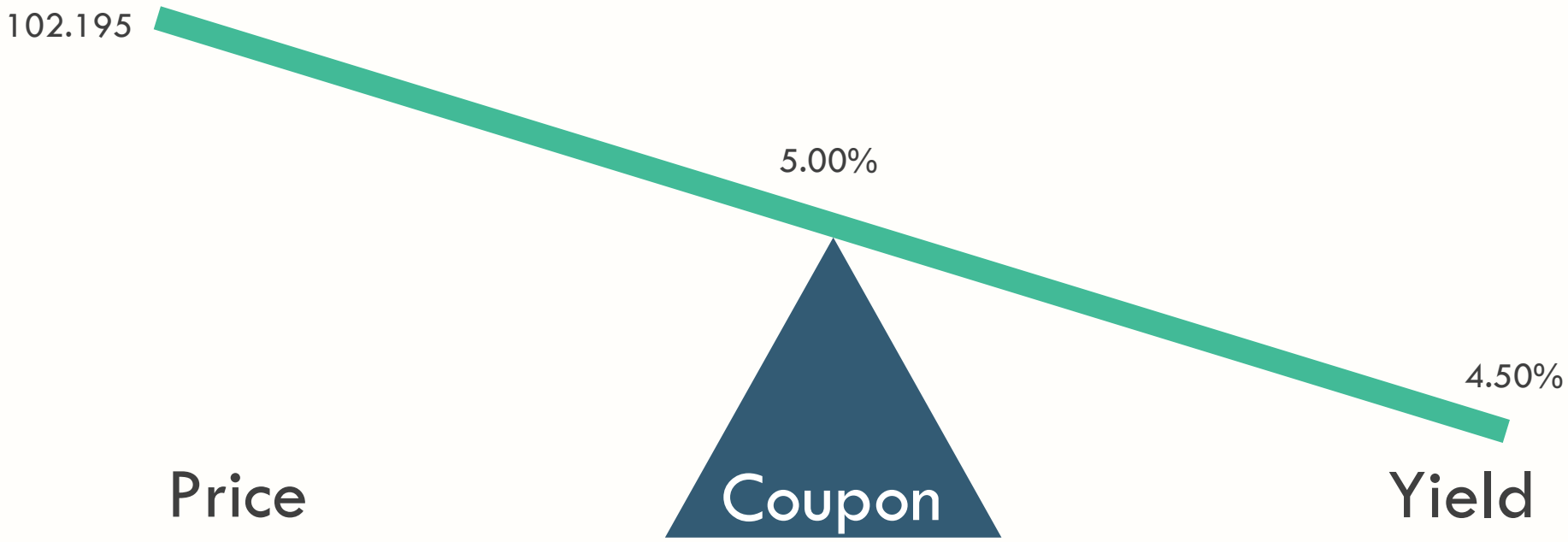
Par



Pricing the Bonds

Premium

Maturity Date	Coupon	Market Yield	Price
12/1/2023	5.00%	4.50%	102.195
12/1/2024	5.00%	5.00%	100.000
12/1/2025	5.00%	5.50%	97.865



Pricing the Bonds

Maturity Date	Coupon	Market Yield	Price
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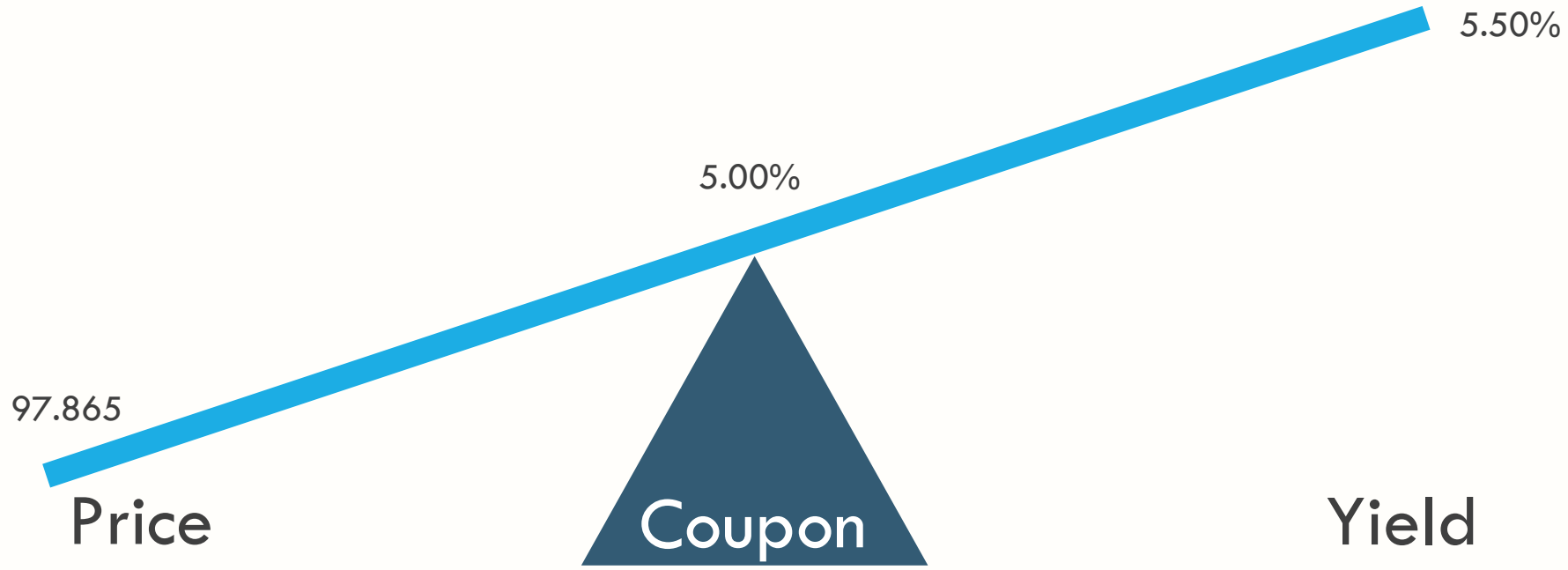
Discount



Investor Preferences

Issuer

Type of Bond

Size of Bond

Credit Rating

Retail

Serial vs Term

Professional Retail/SMA

Premium vs Discount

Institutional

Issuer	Gotham City
Deal	2022 General Obligation Bonds
Par	$4,120,000
Tax Status	Tax-Exempt
Rating	AAA
Par Call Date	12/1/2032
Underwriter	Wayne Enterprises
Municipal Advisor	NHA Advisors

Maturity	PAR AMOUNT	COUPON RATE	YIELD
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2024	$185,000	5.00	2.95
2025	$190,000	5.00	3.10
2026	$200,000	5.00	3.20
2027	$205,000	5.00	3.40
2028			
2029			
2030			
2031			
2032	$2,000,000	4.25	4.50

Continuing Disclosure

- Issuers have the obligation to repay the bonds AND provide periodic reporting to investors
- Annual reporting and significant events reporting
  - Will be discussed in more detail on Day 3

Basic Bond Math

Bond Price

- **Bond Price**: Price at which the bond is sold to investors
- **Equation**:

$$\text{Bond Price} = \frac{C}{(1+i)} + \frac{C}{(1+i)^2} + \ldots + \frac{C}{(1+i)^n} + \frac{M}{(1+i)^n}$$

  - **C** = Coupon payment
  - **i** = Interest rate (required yield)
  - **M** = Value at maturity
  - **n** = Number of payments

- **Excel 'PRICE' Function**:
  - =PRICE(delivery date, maturity date, coupon, yield, value at maturity, frequency of coupons, day count basis)

Inputs	Values
Delivery Date (settlement)	9/1/2022
Maturity Date	9/1/2032
Coupon (rate)	5.00%
Yield	4.50%
Maturity Value (redemption)	$100
Coupon Payments/Year	2
Day Count Basis	0
PRICE function	**$103.99**

Yield to Maturity

- **Yield to Maturity (YTM)**: Total return anticipated on a bond if held until maturity
- **Equation**:

$$\text{Bond Price} = \frac{\text{Cashflow 1}}{(1+\text{yield})^1} + \frac{\text{Cashflow 2}}{(1+\text{yield})^2} + \ldots + \frac{\text{Last Cashflow}}{(1+\text{yield})^n}$$

  - Back-solves bond price equation to determine yield, given bond price and coupon:

- **Excel 'YIELD' Function**:

=YIELD(delivery date, maturity date, coupon, price, value at maturity, coupon payments per year, day count basis)

Inputs	Values
Delivery Date (settlement)	9/1/2022
Maturity Date	9/1/2032
Coupon (rate)	5.00%
Purchase Price	$110
Maturity Value (redemption)	$100
Coupon Payments/Year	2
Day Count Basis	0
YIELD function	**3.79%**

True Interest Cost

- **True Interest Cost (TIC)**: Rate necessary to discount the amounts payable on the bond to the purchase price received
  - Effective borrowing rate on Bond inclusive of P&I and all costs associated with Bond issuance
  - Proxied by internal rate of return (IRR)

- **Excel 'IRR' function**:

=IRR(values, guess)

  - Values: Series of payments (first cash inflow must have negative value)
  - Guess: Gives Excel a place to start solving

Principal and Interest Payment Date	Annual Debt Service Amount
Issue Bonds	**$(10,000,000)**
12/1/2023	$1,500,000
12/1/2024	$1,500,000
12/1/2025	$1,500,000
12/1/2026	$1,500,000
12/1/2027	$1,500,000
12/1/2028	$1,500,000
12/1/2029	$1,500,000
12/1/2030	$1,500,000
12/1/2031	$1,500,000
12/1/2032	$1,500,000
IRR Function (TIC)	**8.14%**

Debt Service Payments

- If public agency needs to issue Bonds to pay for a police station, knowing the expected cost of the station, how can you approximate the yearly debt service?

- Excel Function

=PMT(Interest rate, Number of Periods, Present Value, Future Value, Payment Due Period)

Inputs	Values
Coupon (rate)	5.00%
Years to Maturity (nper)	30
Present Value (PV)	$30,000,000
Face Value (FV)	$0
Payment Due period	0
PMT Function (Annual DS)	**($1,951,543)**

- "PMT" value returned is negative to show cash payments going out

Case Study

Campbell – Session 2

Fun Stats

California County Ratings

15 AAA Rated Counties in California

20 AA Rated Counties in California

**The state of California has a AA- rating*

Source: S&P Global Ratings as of September 2022

California City Ratings

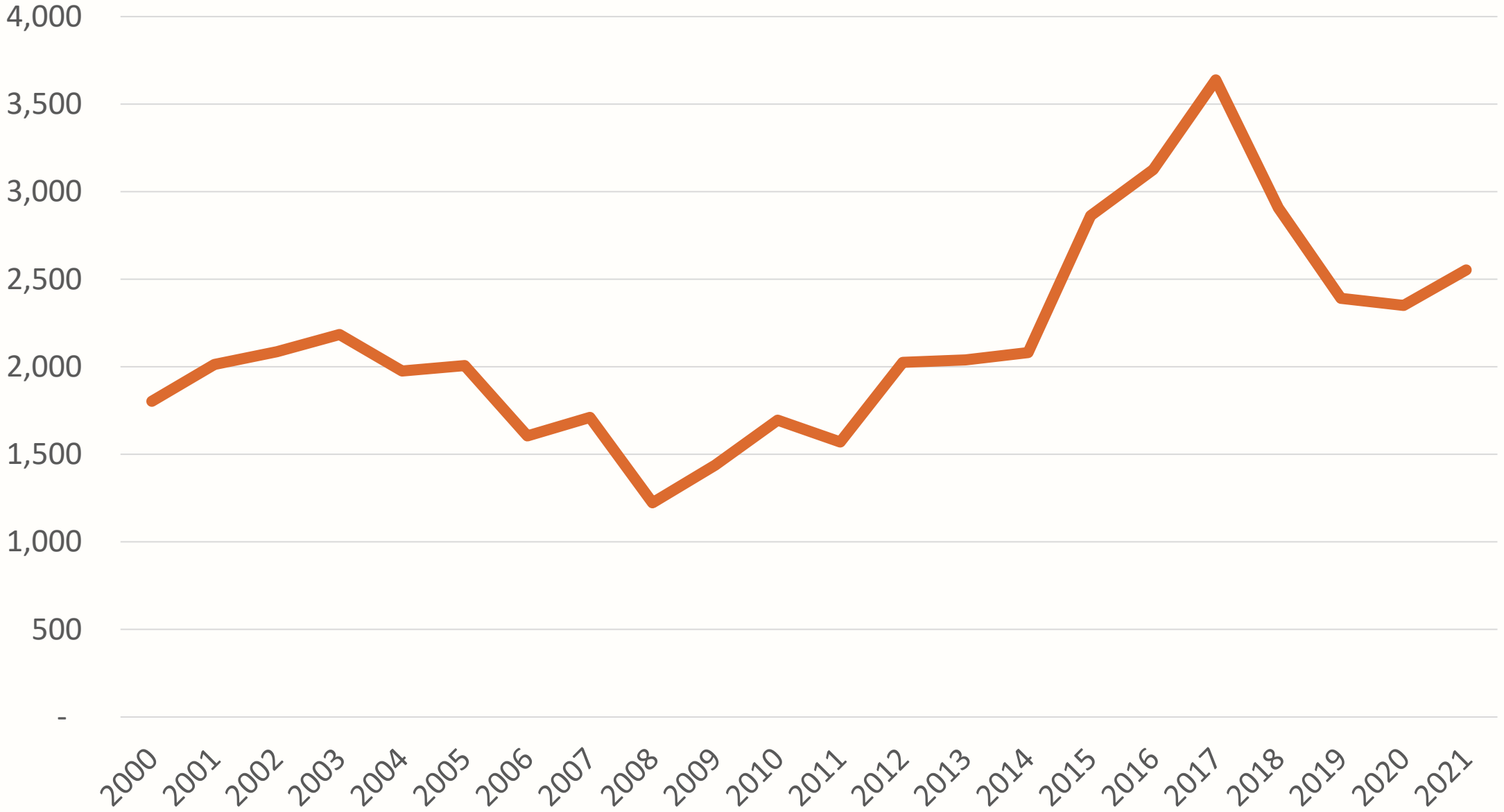
62 AAA Rated Municipalities in California

Roughly 130 AA Rated Municipalities in California

**The state of California has a AA- rating*

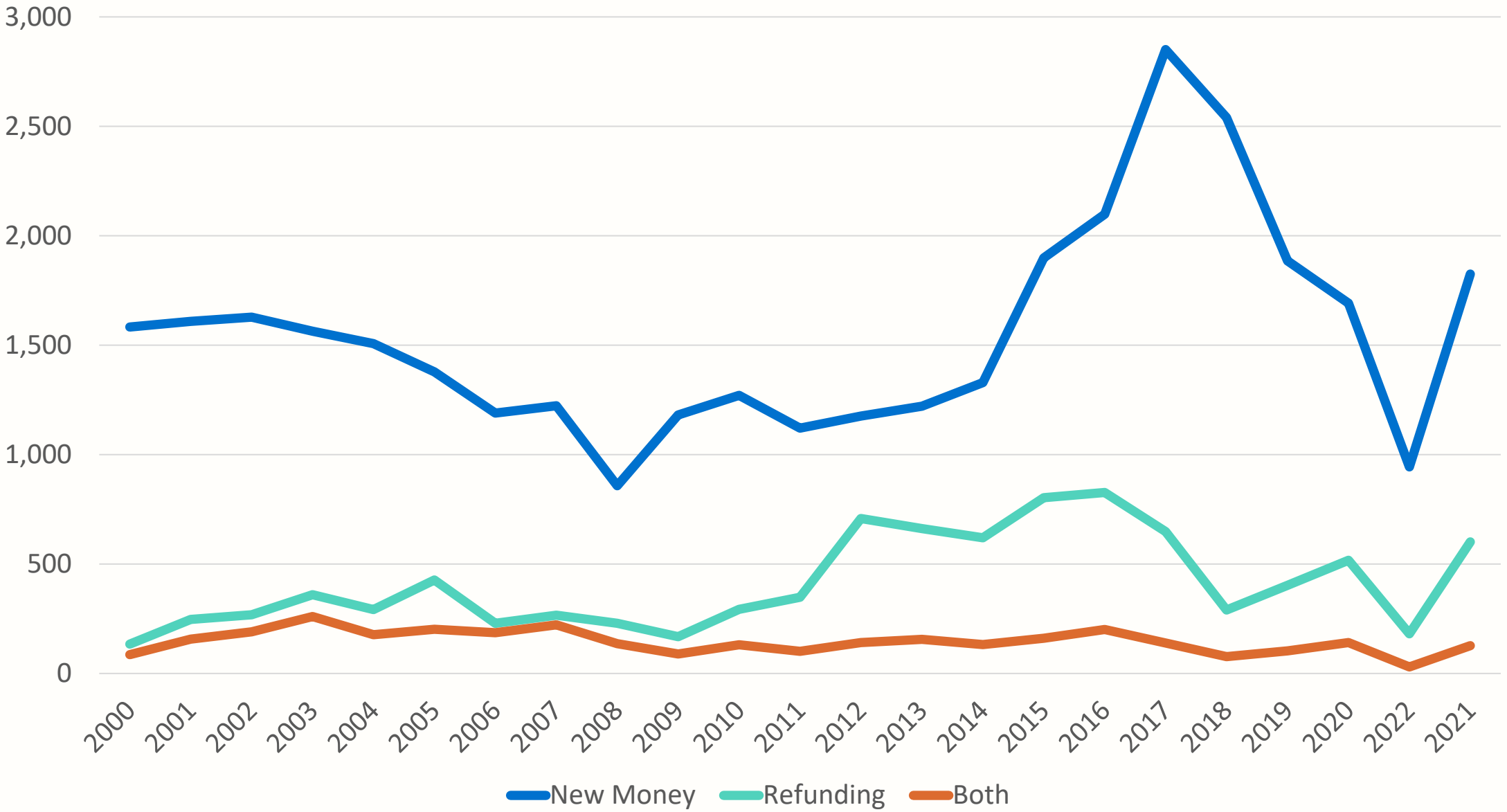
Source: S&P Global Ratings as of September 2022

Bond Transactions Per Year - Since 2000



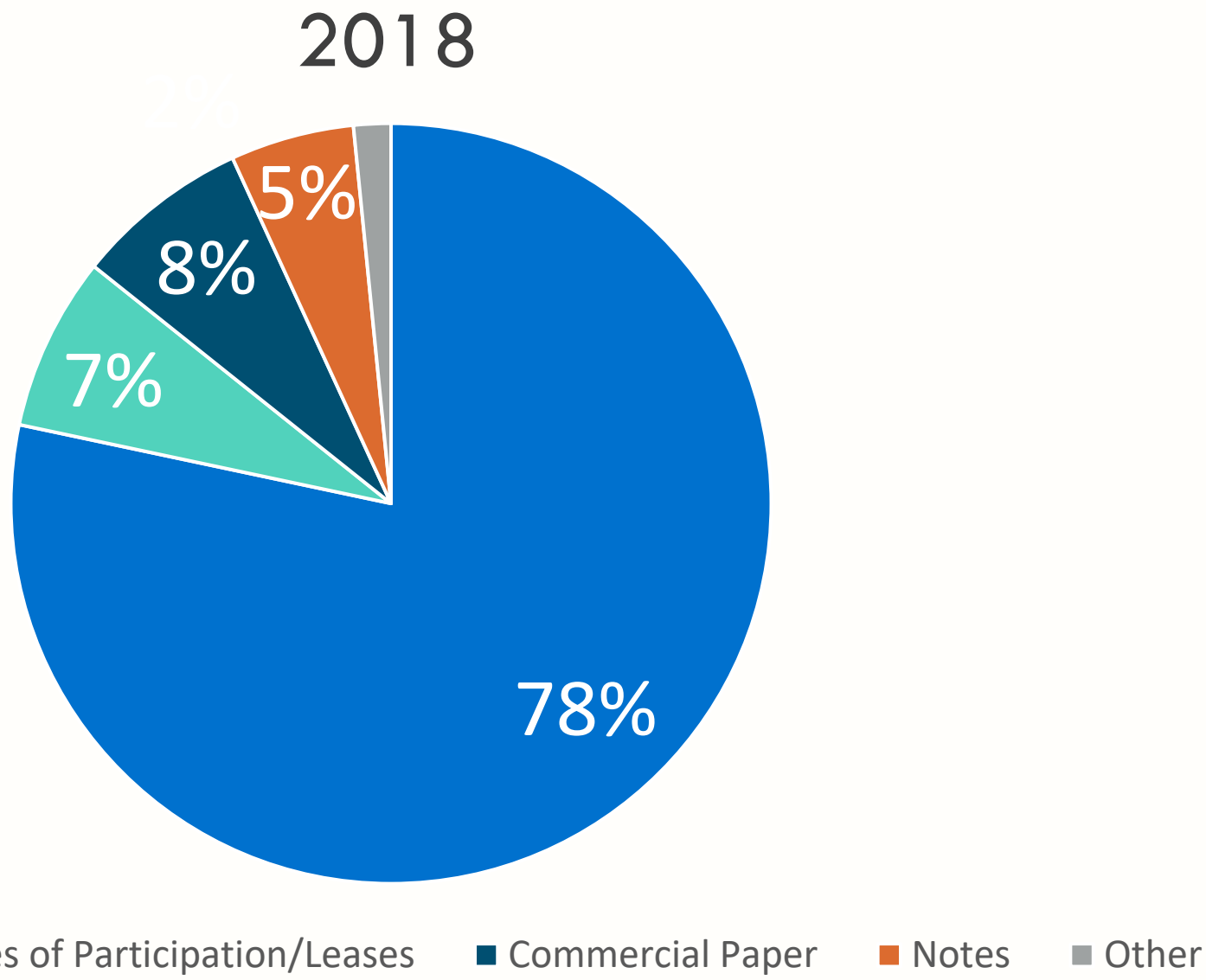
Source: CDIAC data as of August 2022

Transaction Types – Since 2000



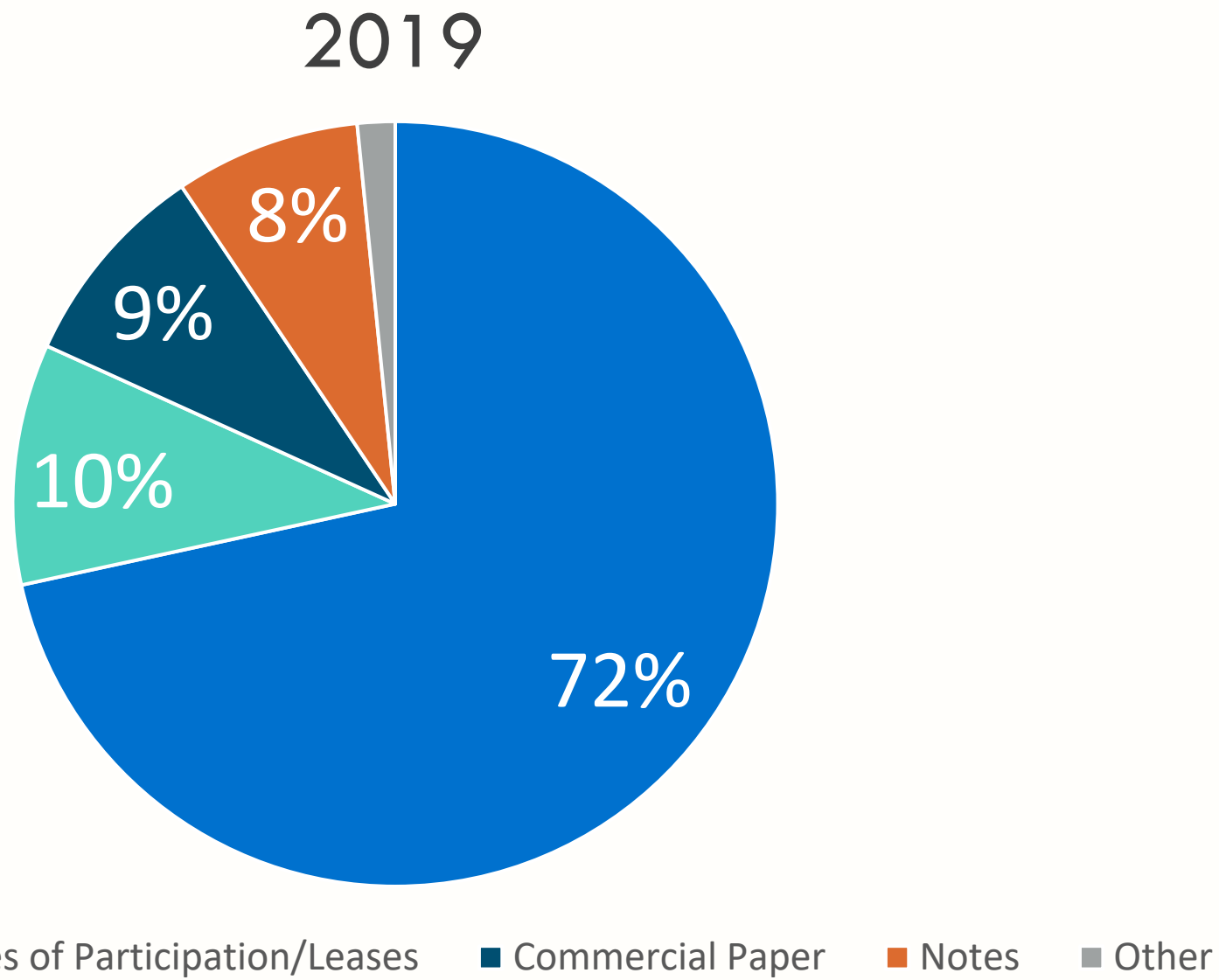
Source: CDIAC data as of August 2022

Types of Transactions

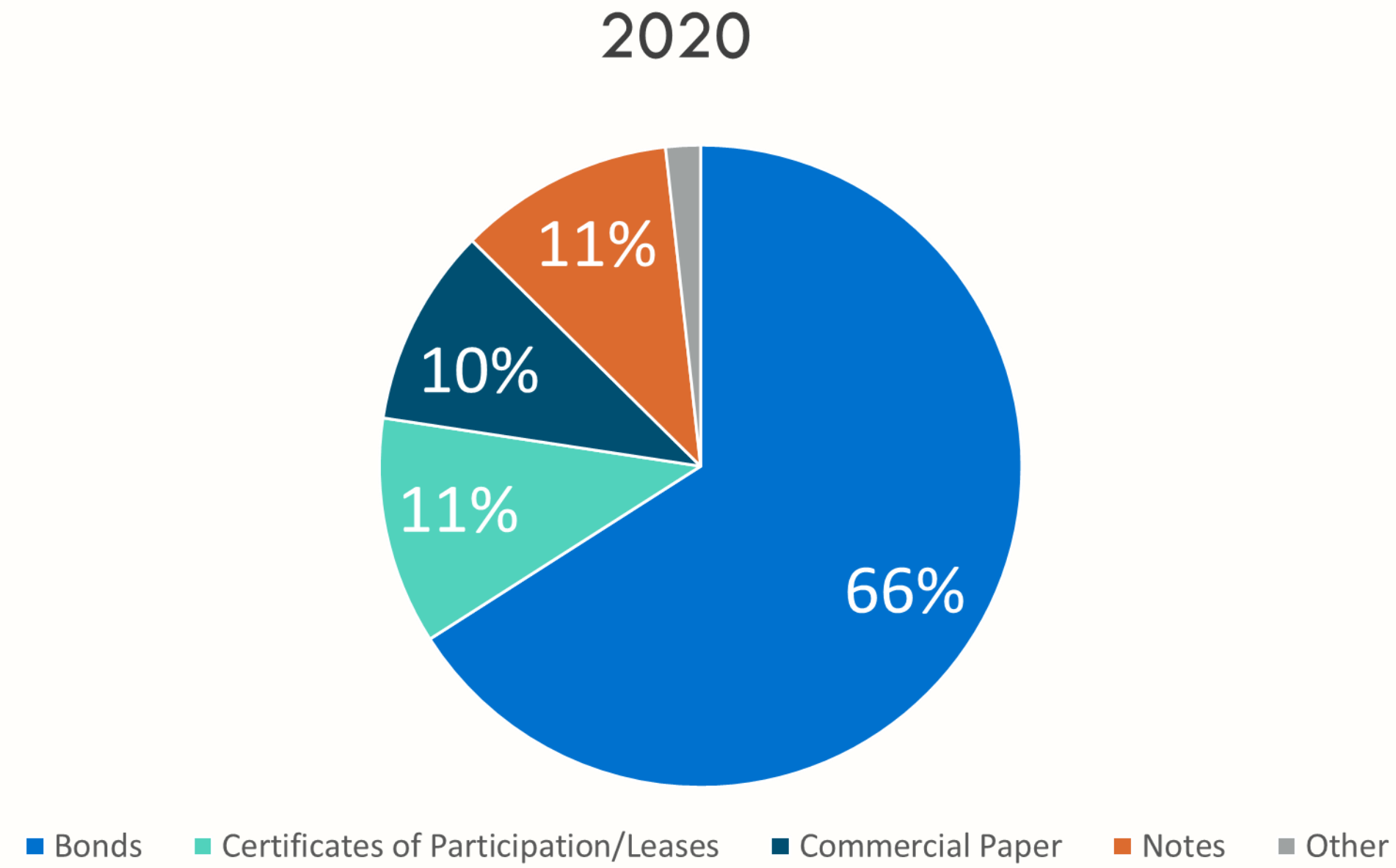


Source: CDIAC data as of August 2022

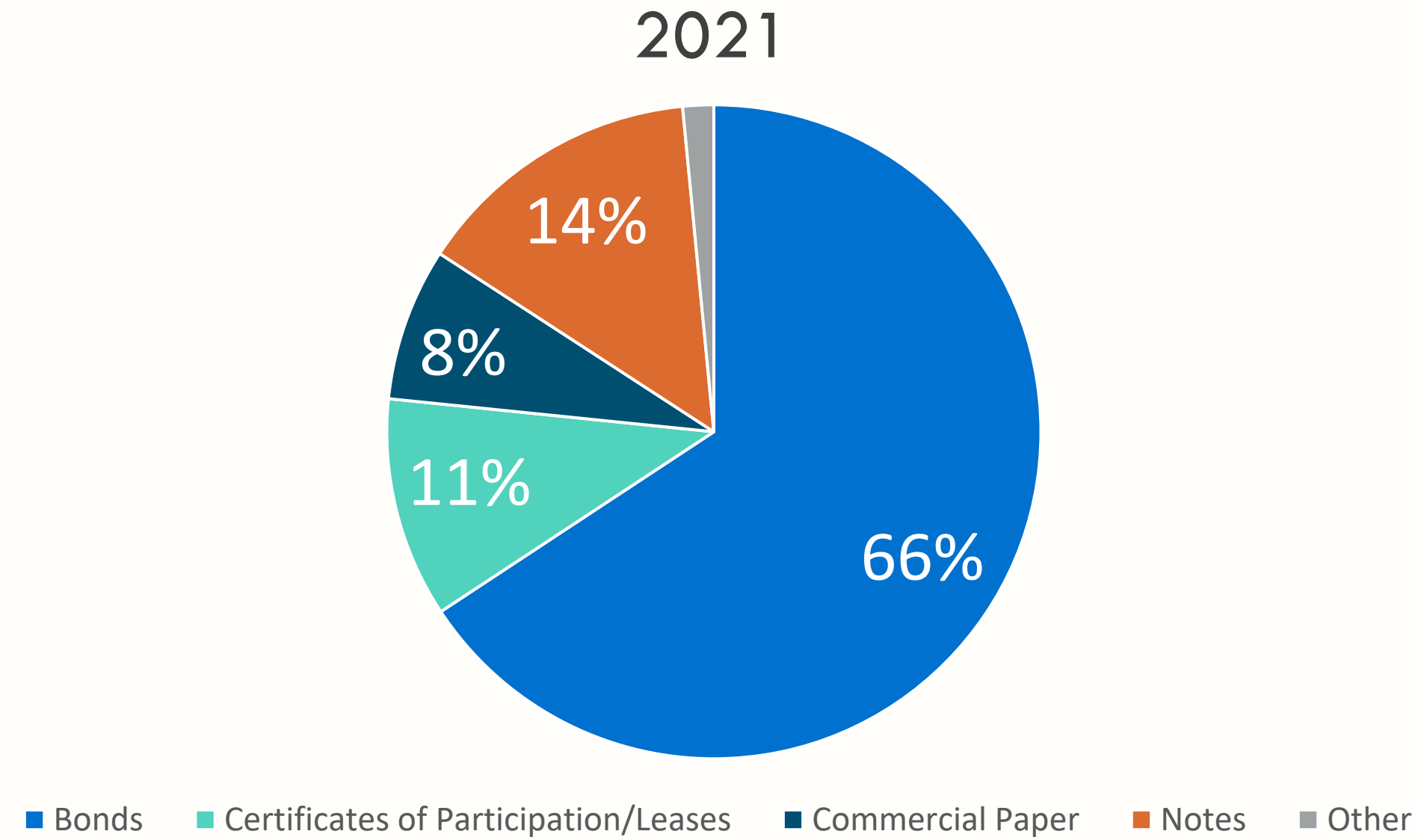
Types of Transactions



Types of Transactions

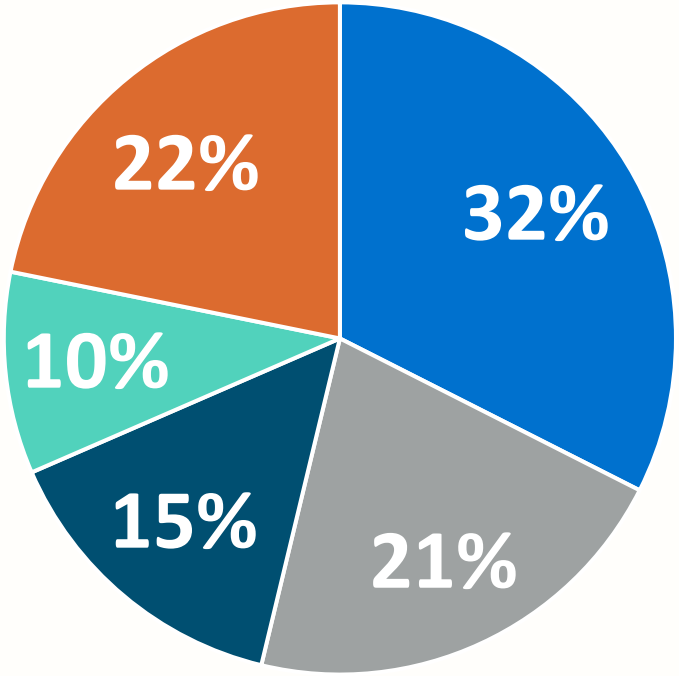


Types of Transactions



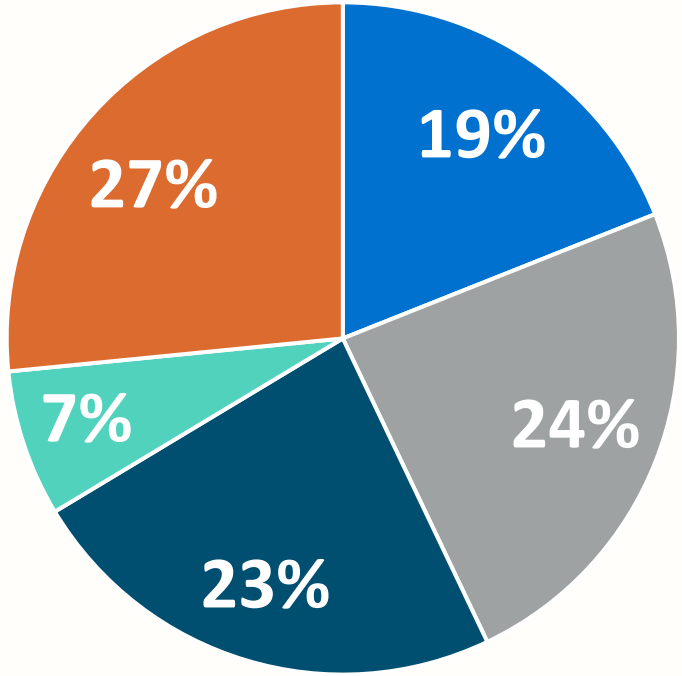
Issuer Type - 2018

Transactions



- K-14 Schools
- Cities
- State of California
- Special Districts
- All Others

Volume

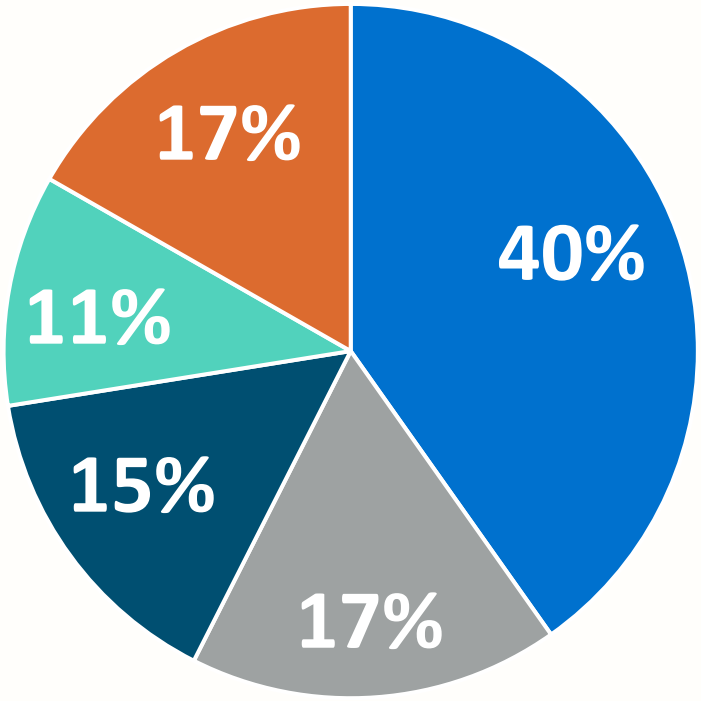


- K-14 Schools
- Cities
- State of California
- Special Districts
- All Others

Source: CDIAC data as of August 2022

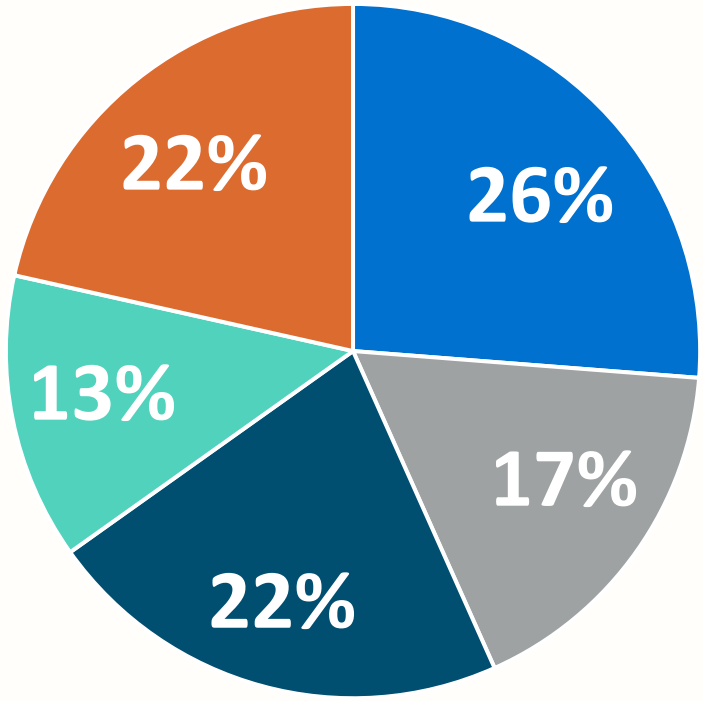
Issuer Type - 2019

Transactions



- K-14 Schools
- Cities
- State of California
- Special Districts
- All Others

Volume

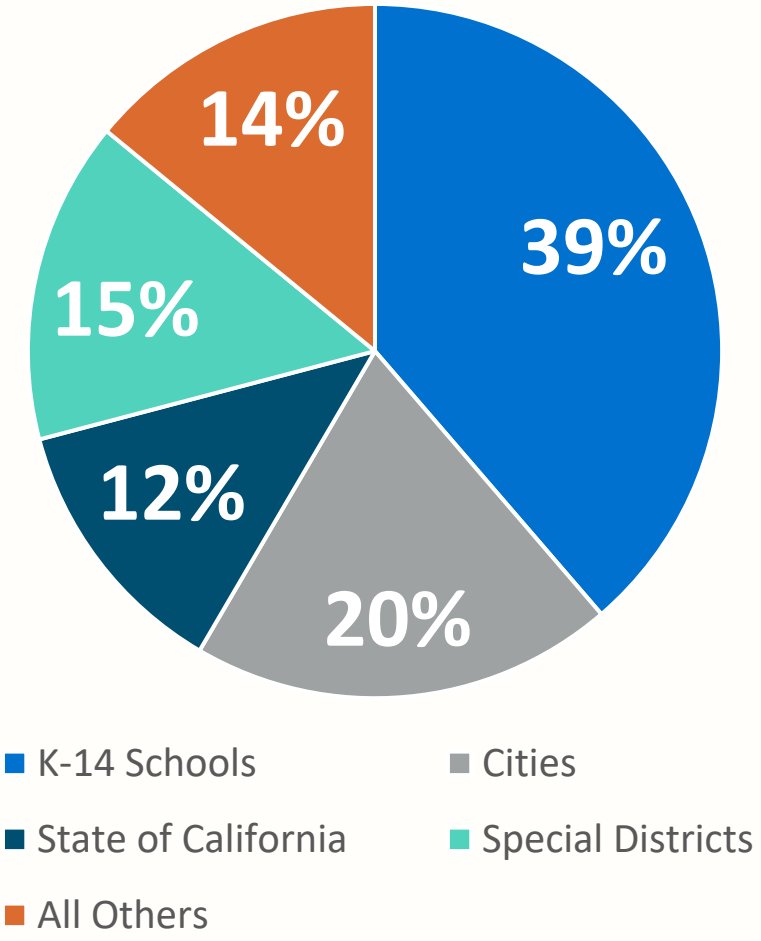


- K-14 Schools
- Cities
- State of California
- Special Districts
- All Others

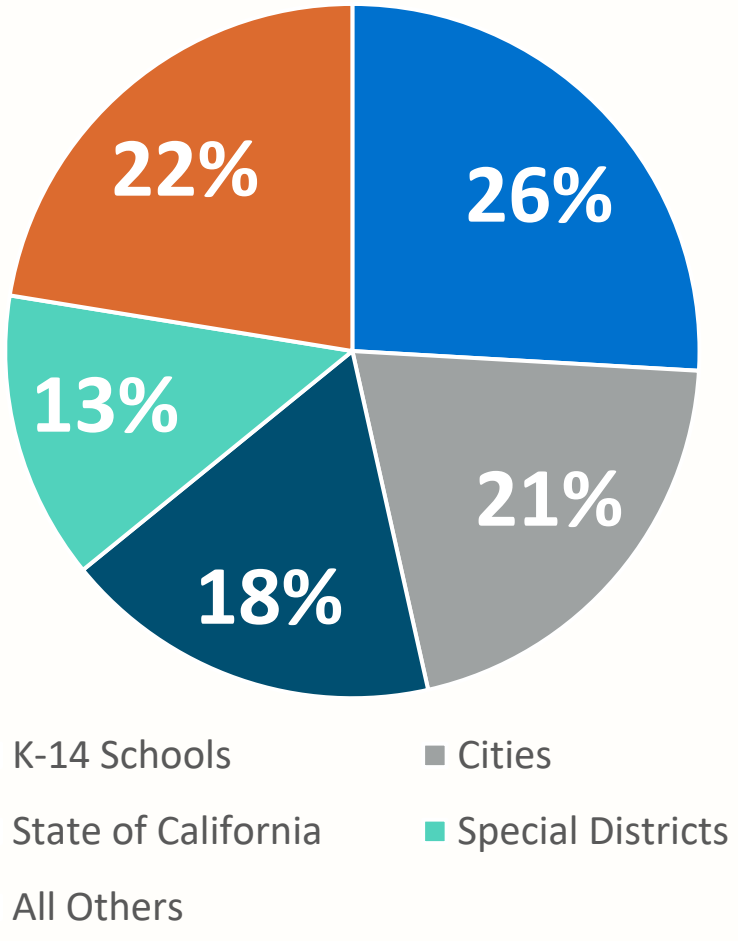
Source: CDIAC data as of August 2022

Issuer Type - 2020

Transactions



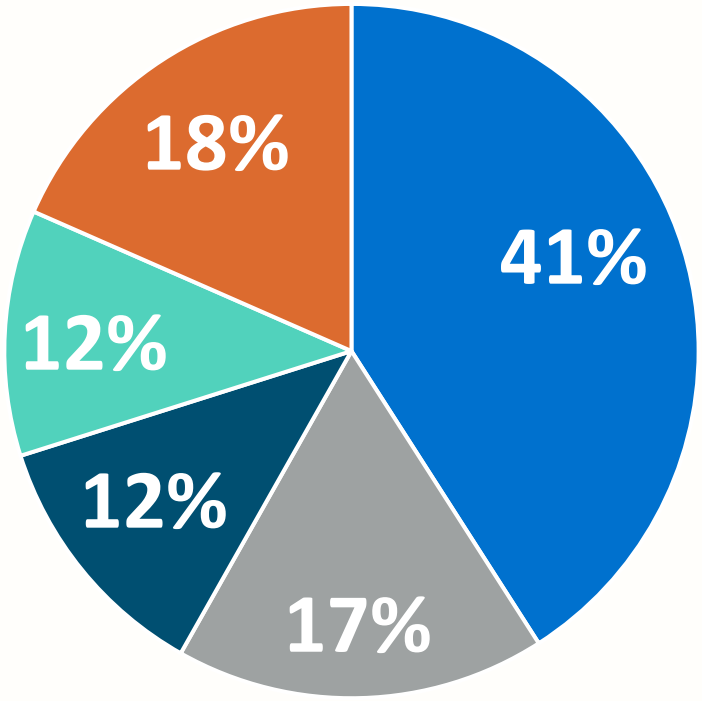
Volume



Source: CDIAC data as of August 2022

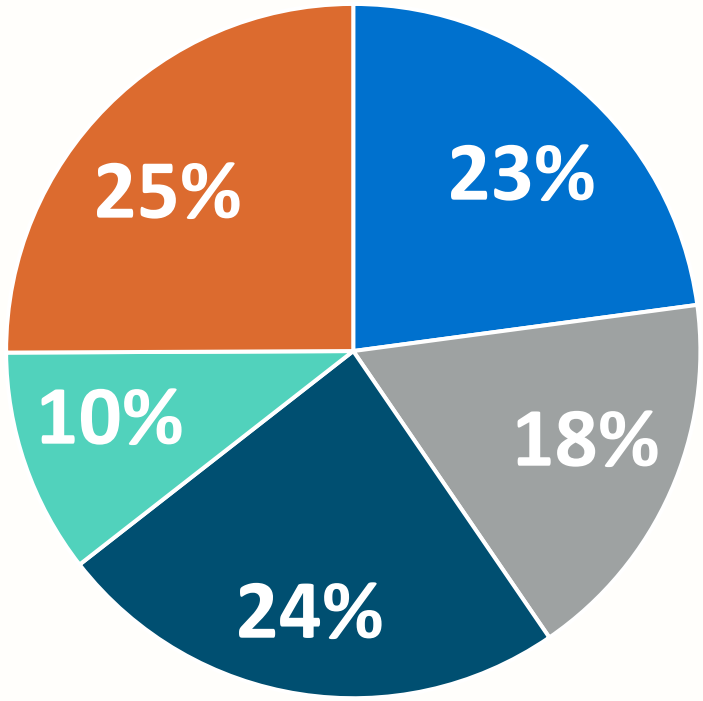
Issuer Type - 2021

Transactions



- K-14 Schools
- Cities
- State of California
- Special Districts
- All Others

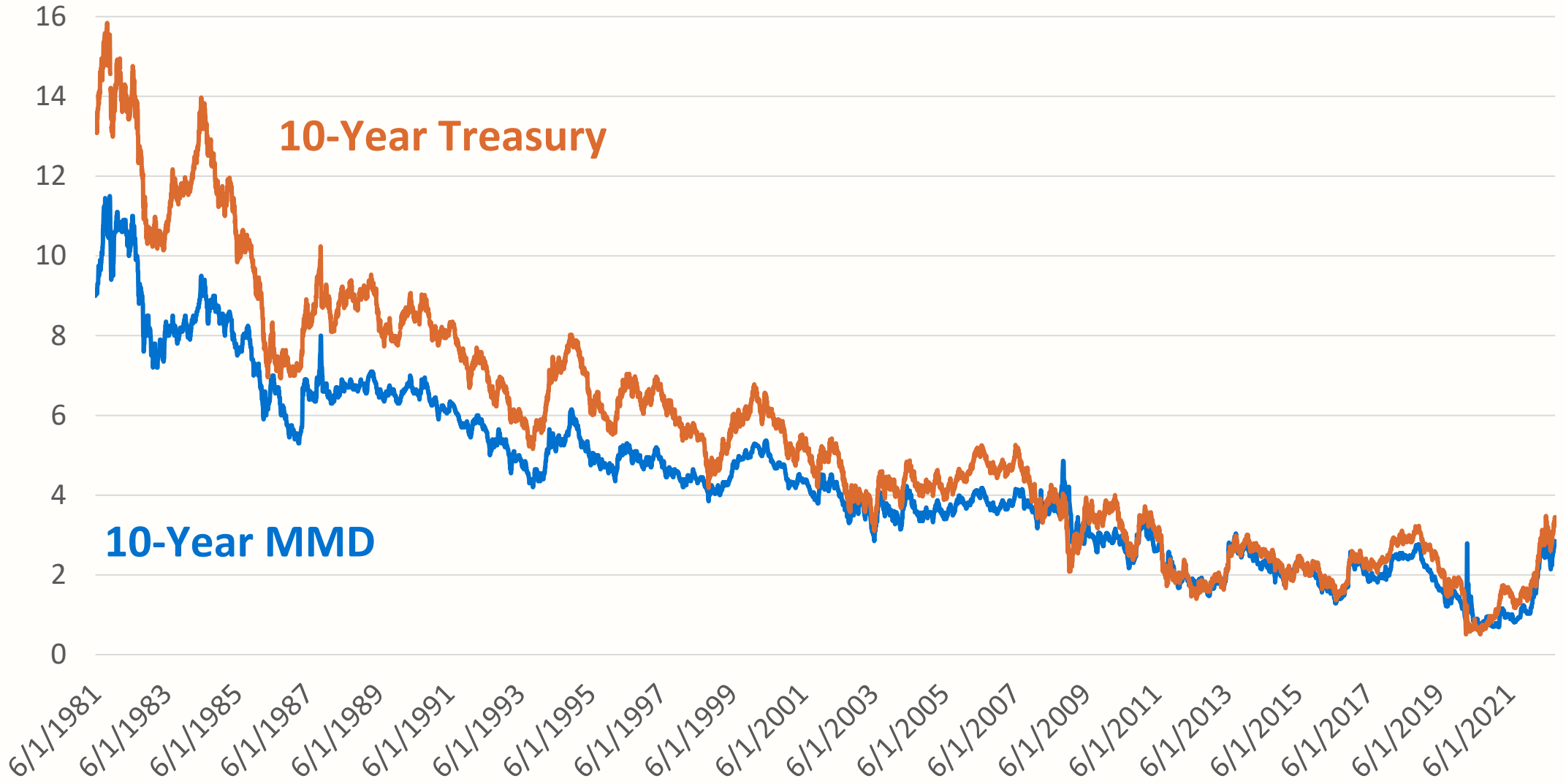
Volume



- K-14 Schools
- Cities
- State of California
- Special Districts
- All Others

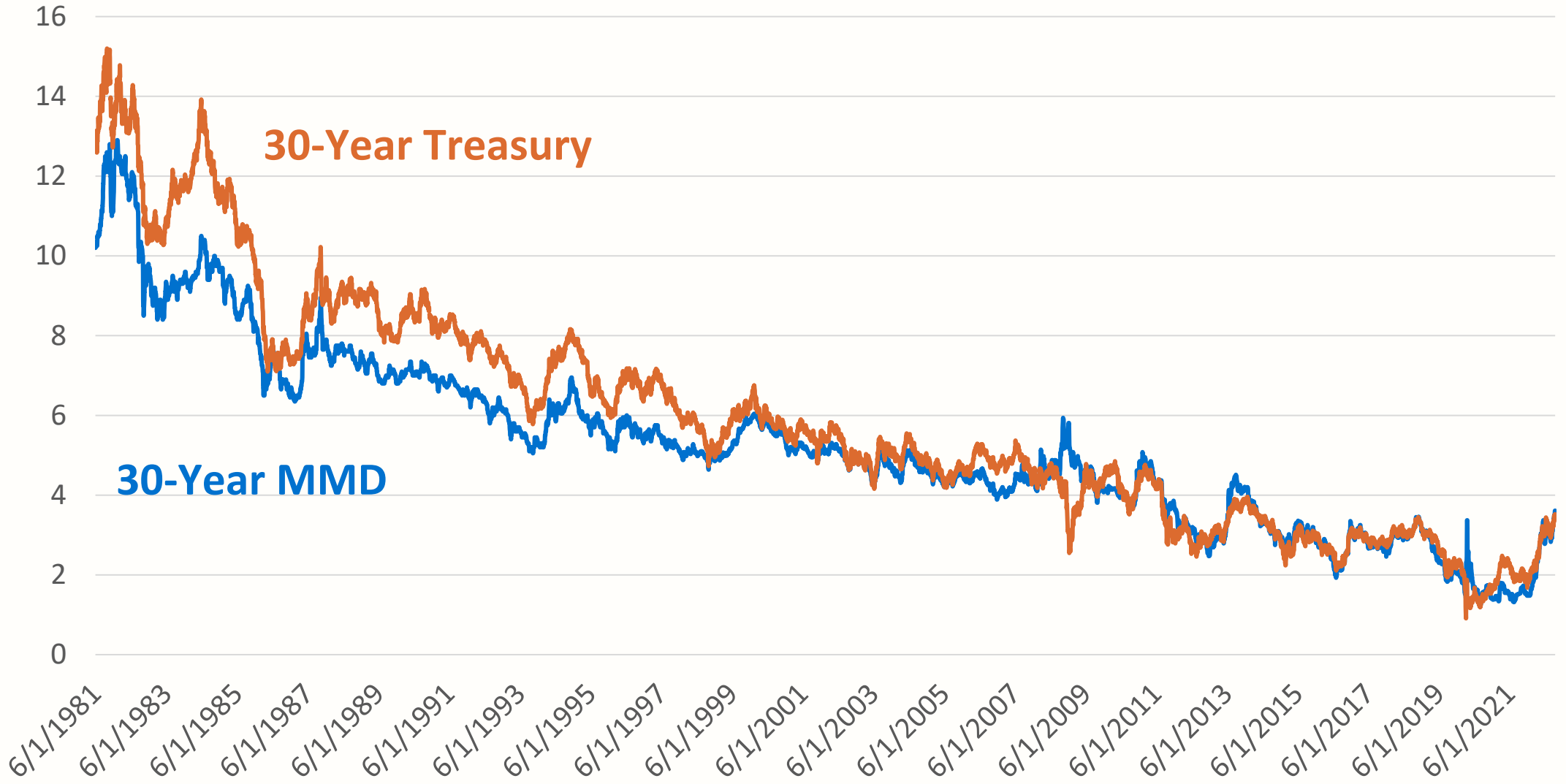
Source: CDIAC data as of August 2022

10-Year MMD & Treasury Rates 1981 – Present



Source: Refinitiv TM3 data as of September 2022

30-Year MMD & Treasury Rates 1981 – Present



Source: Refinitiv TM3 data as of September 2022

Questions?

Bond Financing Example

Process from concept to completion of the City of Campbell Civic Center Project Financing – Measure O

Introduction of Presenters

Todd Capurso – Director of Public Works, City of Campbell

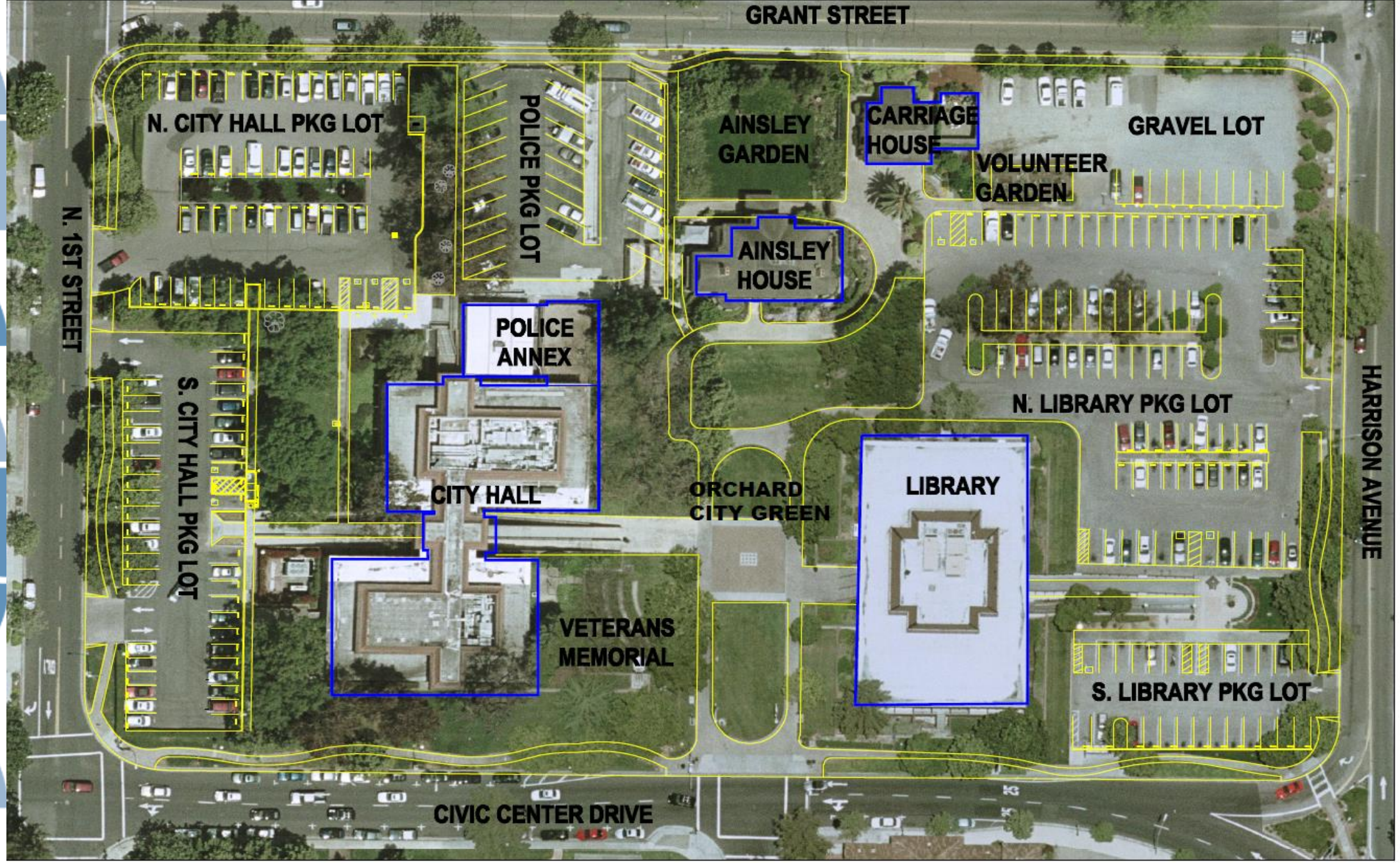
Katie Dobson – Bond and Disclosure Counsel, Jones Hall

Craig Hill – Municipal Advisor, NHA Advisors, LLC

Section 1: The Project

Civic Center Facilities & Deficiencies

- Existing City Facilities constructed in early 1970's
- Police Department working out of City Hall and modular unit
- Library Building - structural, mechanical, accessibility issues
  - Water, Lighting, Elevators, Ramps, Inefficient Use of Space
- City Hall – structural, mechanical issues



CIVIC CENTER COMPLEX

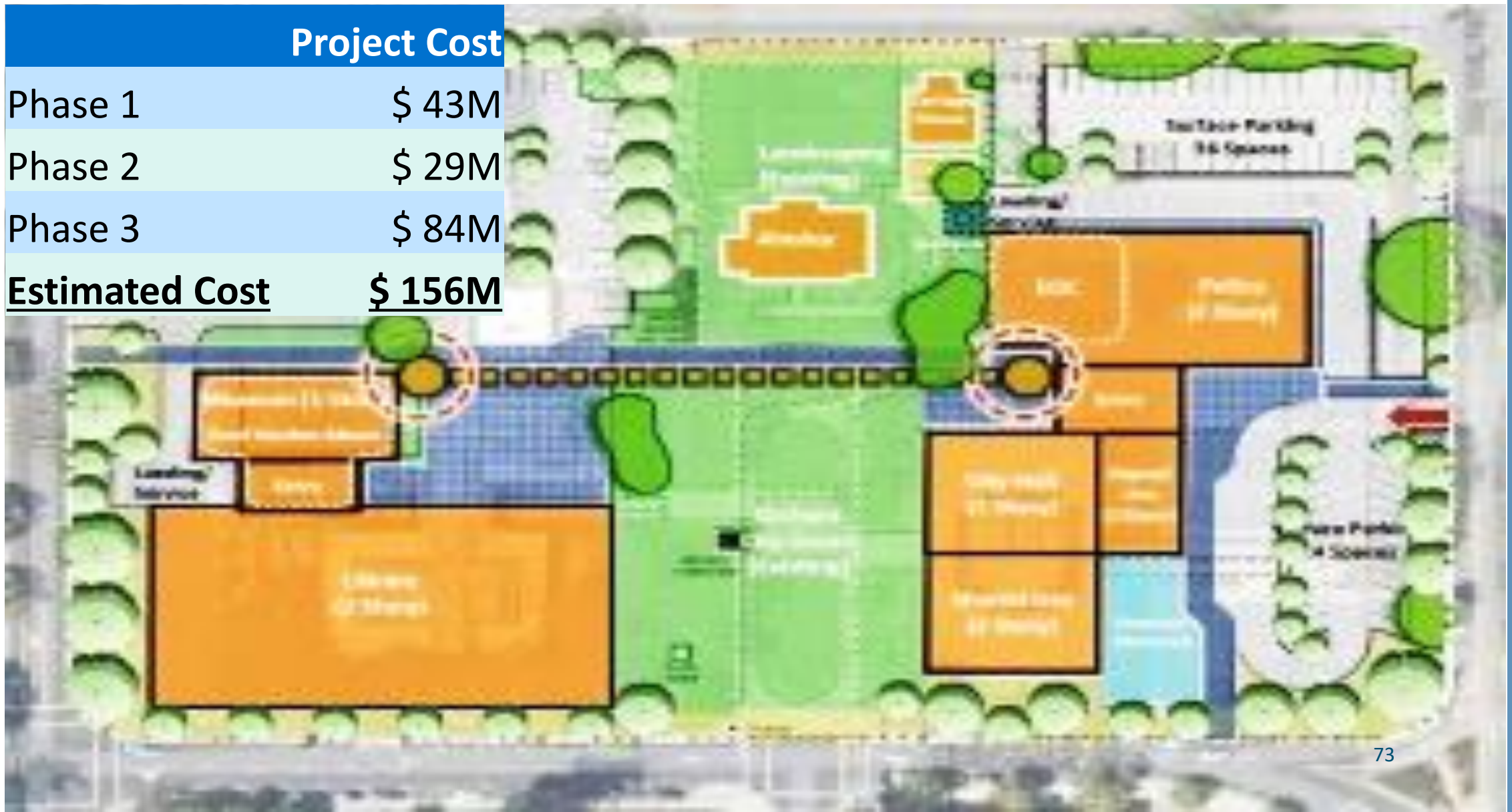

Campbell
POLICE
1350


CAMPBELL
LIBRARY


Quiet Study Area
REFERENCE
DIVERT PLEASE

Initial Design Concept

	Project Cost
Phase 1	$ 43M
Phase 2	$ 29M
Phase 3	$ 84M
Estimated Cost	**$ 156M**



Evolution of the Project

Initial Estimates $156M
City Council Directs Staff
to $50M Target

Refined Project
Removes City Hall
Component

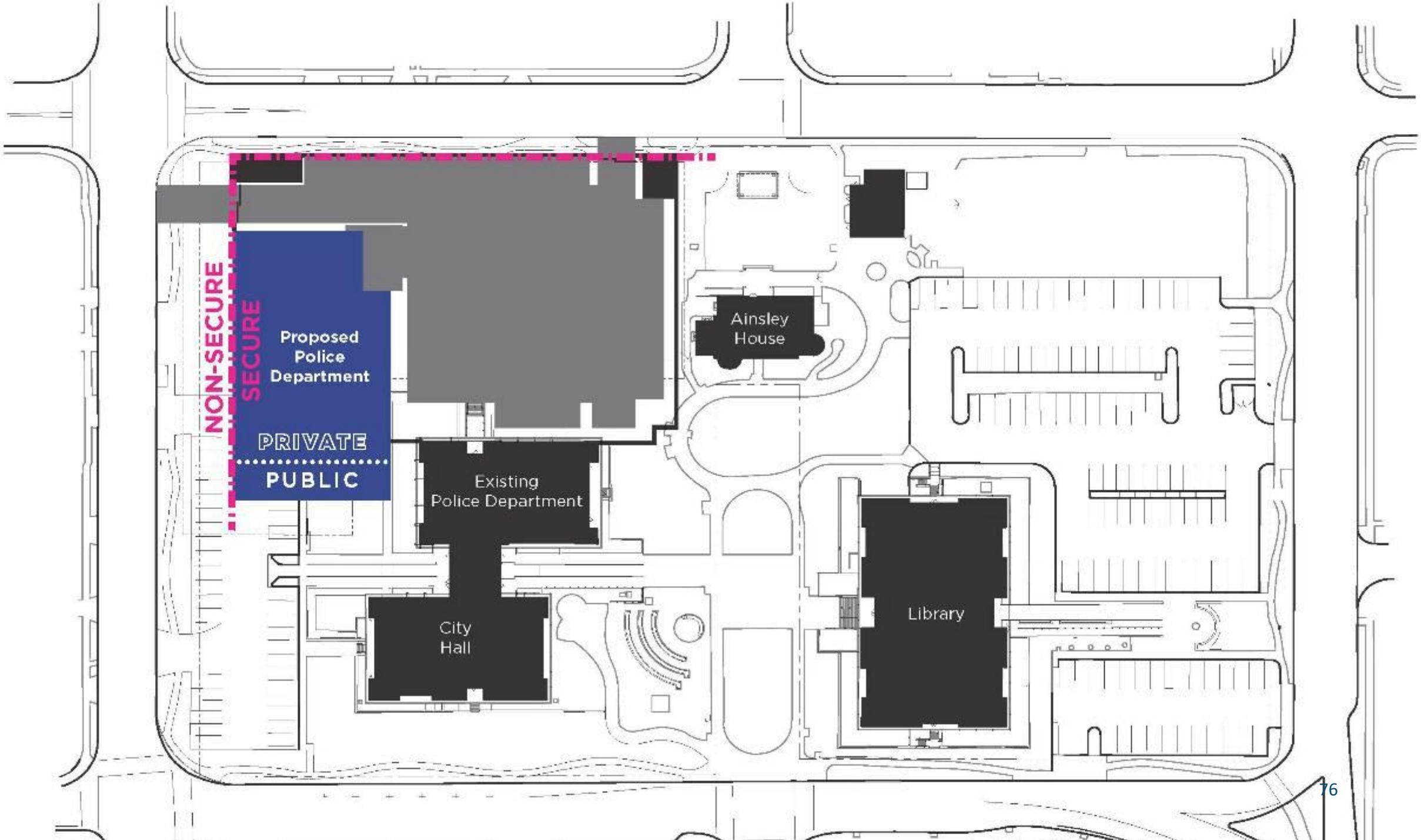
Library & Police
Building Priority

New Designs &
Cost Estimates
(Iterations)

Alternate Project
Delivery Methods
considered

Revised Project Scope - $50M

- Construct new Police Operations Building
- Complete Renovation of Library Building
- Renovation of existing PD space in City Hall for:
  - Support Services
  - Evidence Storage
- Site Improvements:
  - Parking
  - Access and Lighting


NON-SECURE
SECURE
Proposed
Police
Department
PRIVATE
PUBLIC
Ainsley
House
Existing
Police Department
City
Hall
Library


CAMPBELL
POLICE
DEPARTMENT

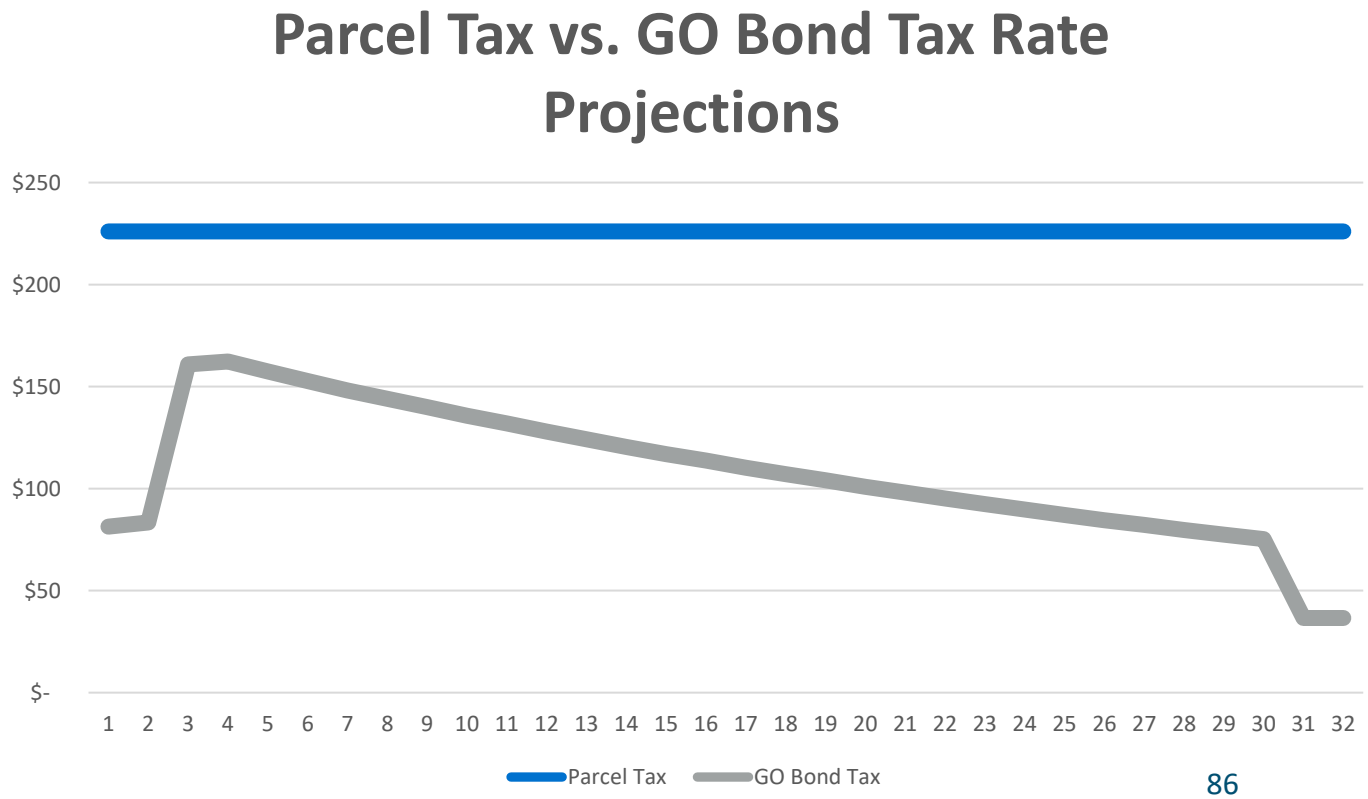

Campbell
LIBRARY
77 Harrison St.


CAMPBELL LIBRARY

Section 2: Community Support

Parcel Tax or General Obligation Bonds

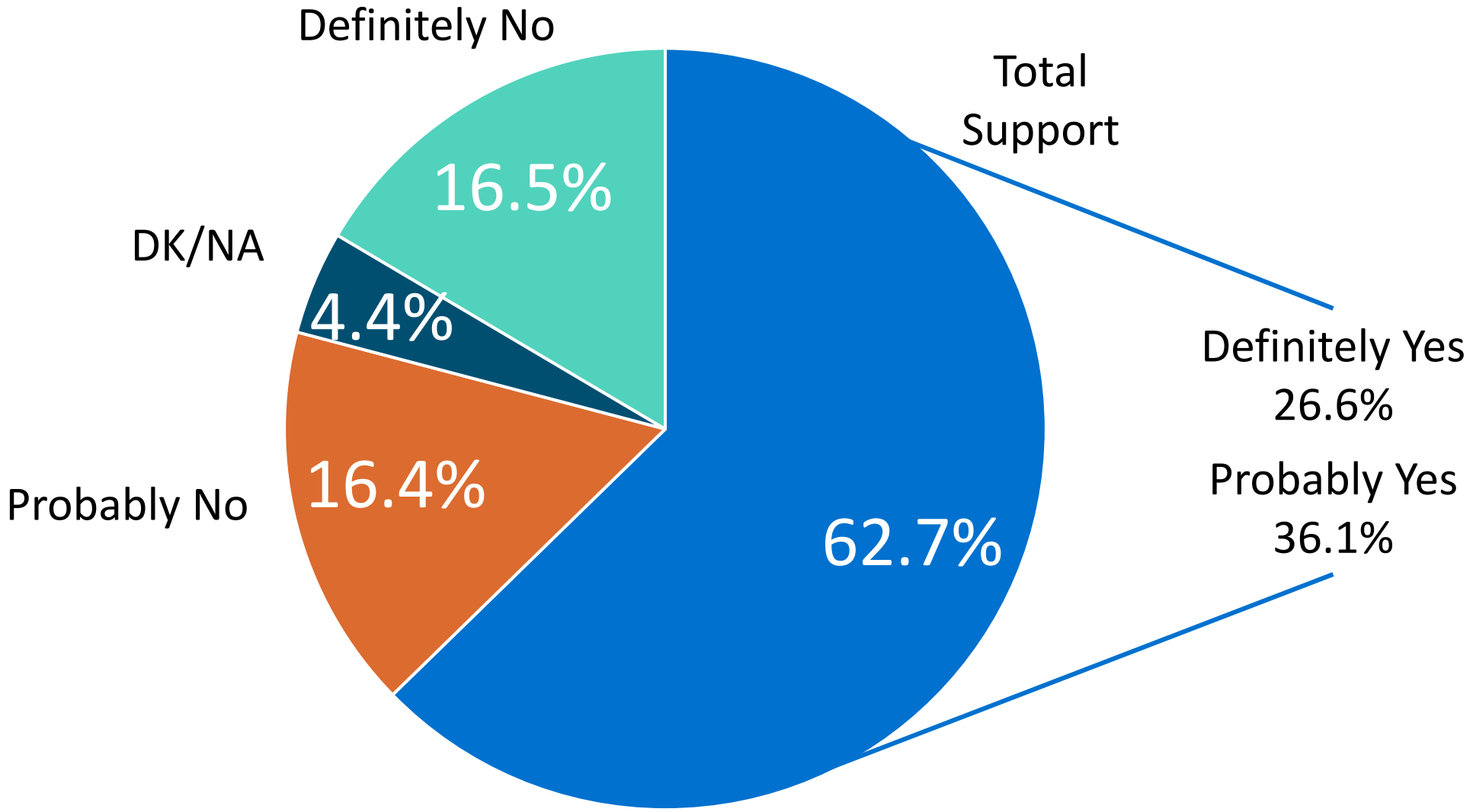
- Parcel Tax Concept = Balanced Tax on Similar Properties
  - ~$225/Home
- GO Bond Concept = Tax Based on Assessed Value
  - ~$108/year average
  - Year 1 - $168 declining to $36



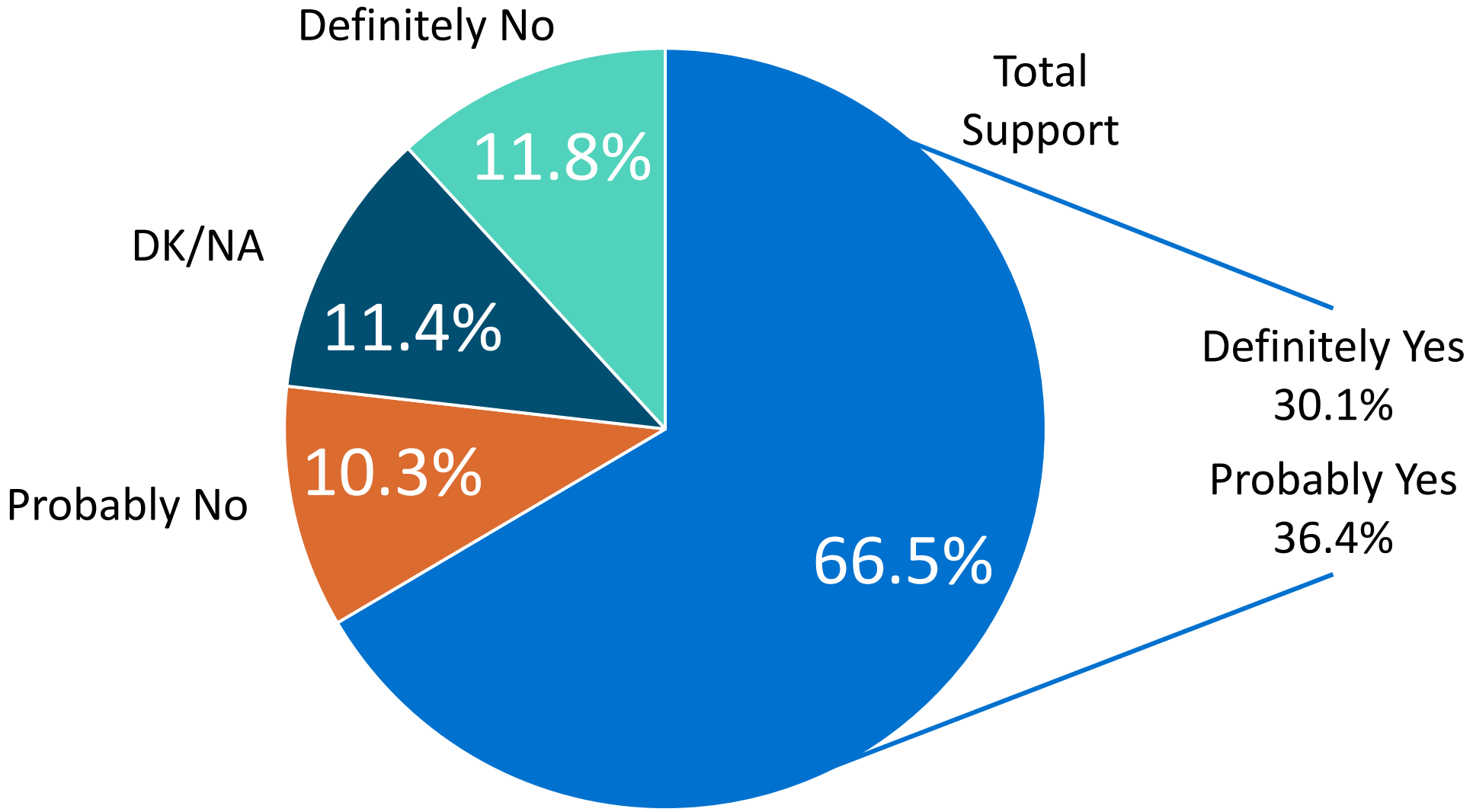
2018 Poll Results

- City polled $20M, $40M, and $60M Projects
  - Tested projected tax burden for each
- Consensus by City Council was $50M Project
  - Provided greatest amount for Project with highest tax tolerance capable of still achieving 2/3rds voter approval

Uninformed Support for Hybrid Parcel Tax



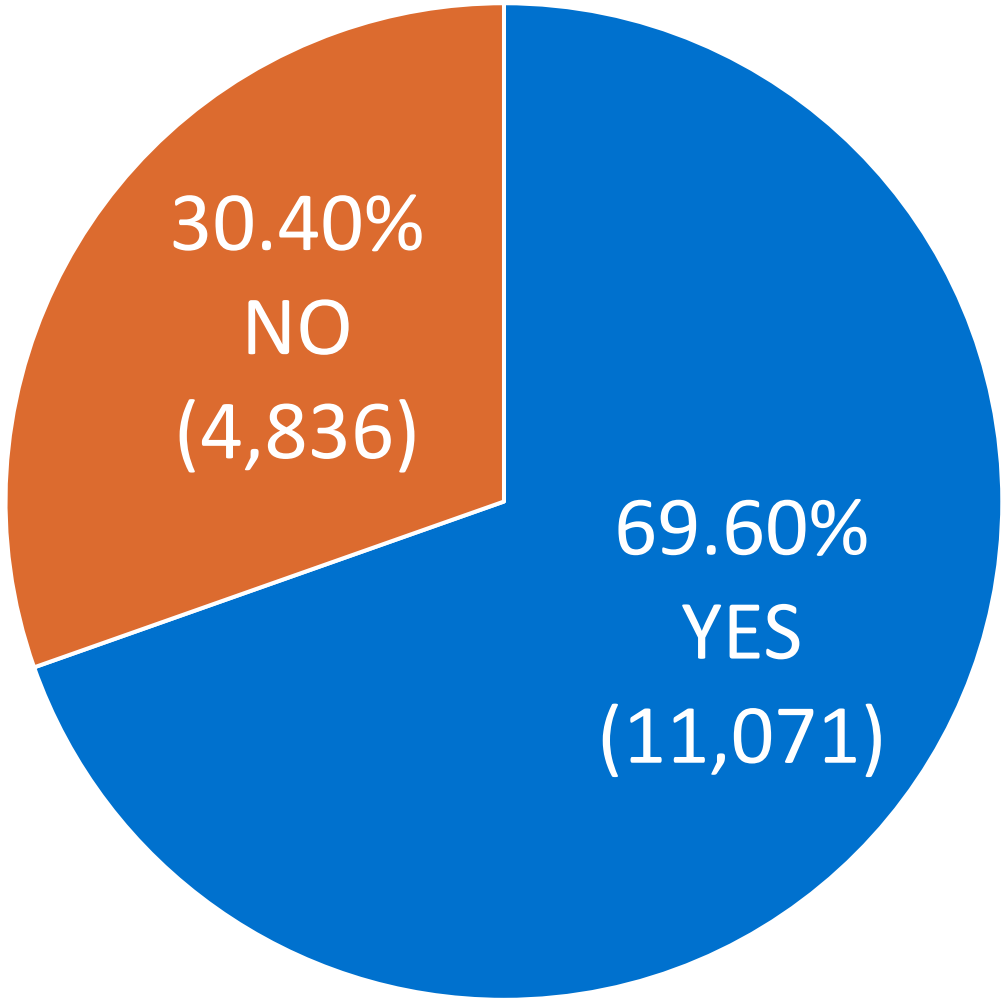
Uninformed Support for GO Bond Measure



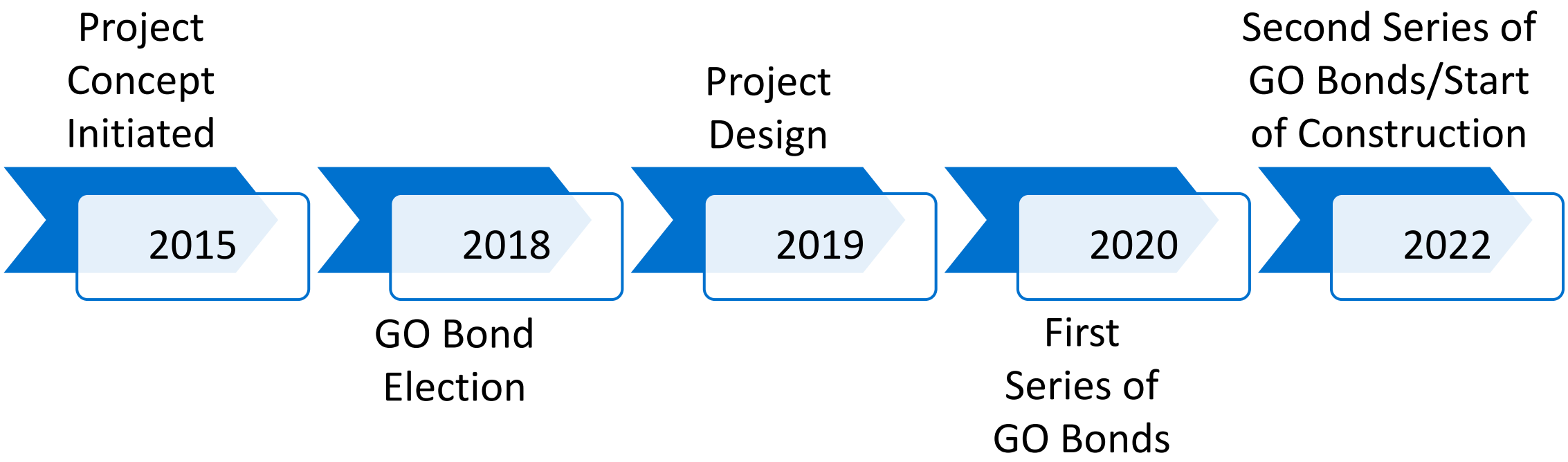
Why General Obligation Bond?

- Polling results indicated a higher change of success given:
  - Project
  - Tax Burden on Residents and Property Owners
- Downside
  - GO Bond proceeds can only cover construction costs
    - No Furniture, Fixtures and Equipment
  - Annual tax revenues can only be applied towards bond debt service

2018 Measure O GO Bond Election Results



Project Timeline



Section 3: Bond Issuance Process

Overview of Bond Sale Process

- Assemble the Financing Team
  - Bond/Disclosure Counsel
  - Municipal Advisor
  - Underwriter
    - Negotiated Bond Sale vs. Competitive Bond Sale
- Determine Bond Terms
  - Length of Maturity
  - Interest Rates
  - Principal Amortization

Bond Financing Documentation

- Bond & Disclosure Documents
  - Resolution
  - Notice of Sale or Bond Purchase Agreement
  - Preliminary and Final Official Statement

Bond Financing Approvals

- Bond Credit Rating Process

NEW ISSUE - FULL BOOK-ENTRY

RATING: S&P: "AAA"
See "RATING".

In the opinion of Jones Hall, A Professional Law Corporation, San Francisco, California, Bond Counsel, subject, however to certain qualifications described herein, under existing law, the interest on the Bonds is excluded from gross income for federal income tax purposes and such interest is not an item of tax preference for purposes of the federal alternative minimum tax. In the further opinion of Bond Counsel, such interest is exempt from California personal income taxes. Bond Counsel expresses no opinion regarding any other tax consequences caused by the ownership or disposition of, or the accrual or receipt of interest on, the Bonds. See "LEGAL MATTERS – Tax Exemption."

$30,000,000
CITY OF CAMPBELL
ELECTION OF 2018 GENERAL OBLIGATION BONDS,
SERIES 2022

Dated: **Date of Delivery** **Due**: **September 1, as shown on inside cover**

Cover Page. This cover page contains information for quick reference only. It is not a summary of all the provisions of the Bonds. Investors must read the entire official statement to obtain information essential to making an informed investment decision.

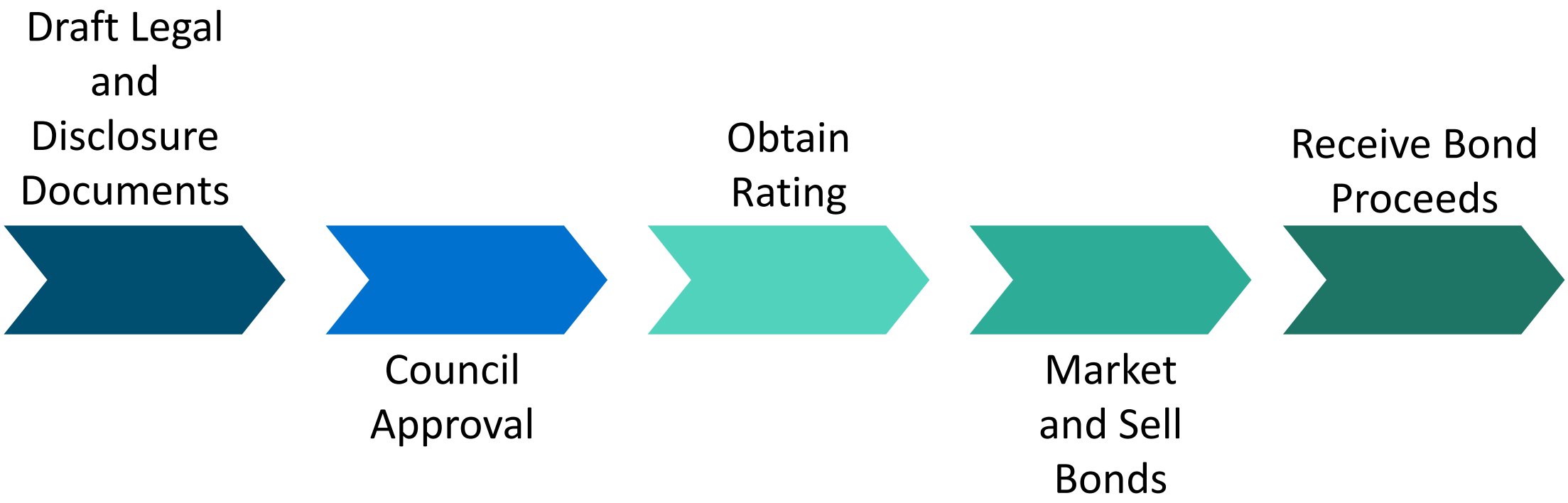
Authority and Purpose. The captioned Election of 2018 General Obligation Bonds, Series 2022 (the "Bonds"), are being issued by the City of Campbell (the "City") pursuant to certain provisions of the California Government Code and resolutions of the City Council of the City adopted on May 17, 2022. The Bonds were authorized at an election of the registered voters of the City held on November 6, 2018, which authorized the issuance of general obligation bonds for the purpose of financing the acquisition and improvement of a police emergency operations center and a public library. The initial series of bonds under the 2018 authorization was issued in 2020. See "THE BONDS – Authority for Issuance" and "THE FINANCING PLAN" herein.

- City Council Approval

Bond Sale Process

- Release POS and Market Bonds
  - Underwriter markets to potential investors
- Bond Sale (Set Interest Rates)
  - All bonds sold to Underwriter
- Finalize Bond Documents
- Fund Project Fund

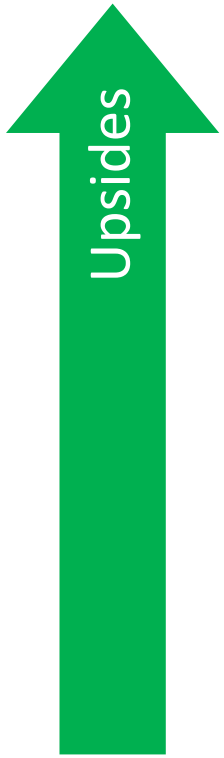
Issuance Timeline



Measure O GO Bond Program Budget

	2020 Series A	2022 Series B	Total
Bond Amount	**$ 20,000,000**	**$ 30,000,000**	**$ 50,000,000**
Financing Costs	$ 275,000	$ 310,000	$ 585,000
Project Fund	$ 19,725,000	$ 29,690,000	$ 49,415,000
Total Uses	**$ 20,000,000**	**$ 30,000,000**	**$ 50,000,000**

Strategy Behind Multiple Series



- "Dollar cost averaging the TIC"
- Ease in property tax increases as construction happens
- Federal tax law considerations

- Higher cost of issuance
- Greater interest rate risk

Ongoing City Responsibilities (Post Bond Closing)

- Expenditure of Bond Proceeds
- Annual Tax Rate Approval
  - Ad Valorem Property Tax used ***only*** for Bond Debt Service
- Annual Continuing Disclosure Filing

Lessons Learned???

Lessons Learned

- Never too early to start planning!
- Manage Council expectations – Dreams vs. Reality
- Design project to fixed dollar amount vs. funding the desired project
- Bring in Project Management resources early
- Creative financing structures that died
- Significant difference in cost of funds
  - Issued at historical low in 2020
  - Should have pushed for doing more at that time and less when rates were back up

Questions?

Long Term Financing Options

CDIAC Municipal Debt Essentials

Andrea Greenwald
Attorney
Orrick, Herrington & Sutcliffe LLP

Jason Chung
Financial Advisor
Fieldman, Rolapp & Associates Inc.

Table of Contents

I. Considerations for Issuing Debt

II. Financing Tools

- General Fund Borrowings
- General Obligation Bonds
- Land Secured Bonds
- Revenue Bonds – Enterprise & Sales Tax
- Direct Lending

III. Policy Considerations

SECTION I

Considerations for Issuing Debt

Funding Infrastructure in California

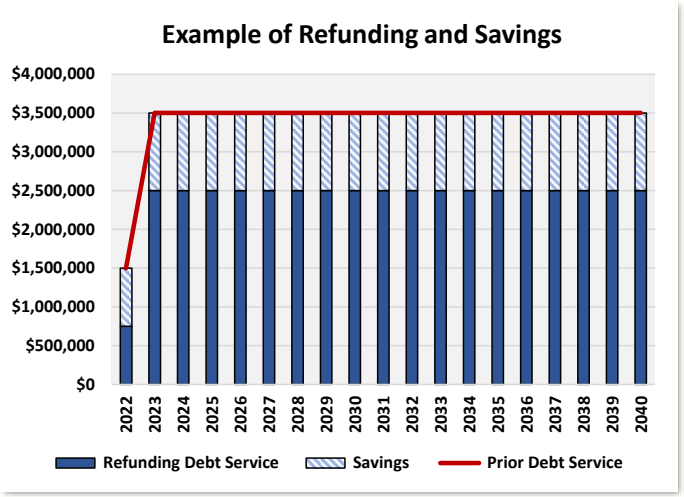
- **Pay As You Go: Utilize reserves or ongoing revenues**
  - Requires ample cash reserves and manageable capital program
  - Policy objectives may favor
- **Beg: Secure state or federal grants or low-interest loans**
  - Requires available funding on attractive terms
  - Timing delays and program restrictions can offset subsidy
- **Borrow: Issue debt**
  - Spreads cost over useful life of asset, current and future users pay
  - Can accelerate phased projects, capture cost savings
  - Preserves cash reserves for other things

Key Considerations for Issuing Bonds

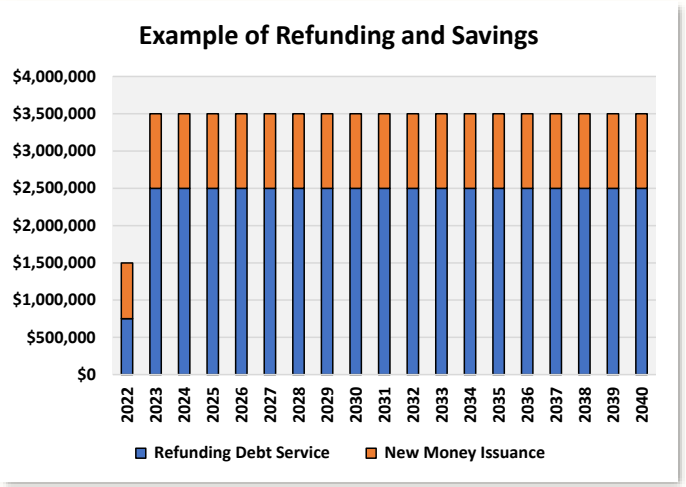
- **Issuer's Objectives**
  - What projects are planned? When are funds needed?
  - What revenues are available - or could be raised - to repay debt?
  - How much payment flexibility does the issuer need?
- **Legal and Other Constraints**
  - Which debt instruments is the issuer legally authorized to utilize?
  - Of the available debt instruments, which best accomplishes the issuer's goals and can be implemented on the issuer's timing?
  - What approvals are required (e.g. governing body or electorate)?
  - Are there any other political constraints to consider?
- **Financing Options**
  - How much debt can revenue support? How strong is the credit?
  - Is any other debt outstanding? Any parity debt requirements? Can existing debt be refinanced?
  - Which debt option provides the best balance of cost and flexibility?

•Annual "revenue stream" of $3.5 million

•Refunding frees up revenues for either savings or new debt



New debt can be issued to fill to revenue stream



SECTION II

Financing Tools

Debt Repayment Revenues

Historical Taxes	
Ad Valorem Real Property Taxes	An issuer's portion of the 1% general fund property tax levy on assessed value (AV) may be used as a source of repayment for tax and revenue anticipation notes (TRANs) and leases, including certificates of participation (COPs).
Taxes Requiring Approval of Voters	
Ad Valorem Real Property Taxes Securing Debt Obligations	An issuer may seek voter approval for tax levy on AV above the 1% CA Constitutional limit. For most issuers, requires approval by 2/3 of voters; school districts and community college districts (subject to certain requirements), requires approval by 55% of voters.
General Taxes	Tax levy levied by a city or county for a general purpose. New, extended or increased general taxes require approval by a 2/3 vote of the taxing entity's governing board members and a majority of voters. May be used as a source of repayment for general fund obligations such as TRANs and leases.
Special Taxes	Special tax levy (including parcel tax) for a specific purpose or by special districts. Levies generally require approval by a majority of the taxing entity's governing board and 2/3 of voters. Typically used as a source of repayment for Mello-Roos bonds or sales tax revenue bonds.

Debt Repayment Revenues (cont.)

Charges Requiring Approval Under Procedural Requirements	
Assessments	Levy of charges on real property assessed in proportion to a special benefit, with burden of proof on the levying public agency. Procedural requirements for assessments include public hearings and approval by majority vote of governing board members and property owners. Typically used as a source of repayment for assessment bonds.
Fees & Charges	Typically used as a source of repayment for enterprise revenue bonds, including water, wastewater and solid waste utility revenue bonds. Two-part analysis: 1) Fee or charge does not exceed governmental entity's reasonable costs to provide the benefit, privilege or service AND that costs allocated to a particular payor bear a fair and reasonable relationship to the burden on the local government or the benefit that the payor receives from the governmental entity. 2) If "Property-Related Fee or Charge" then additional requirements apply under Article XIID of the CA Constitution.

Limits on Municipal Borrowing: California Constitutional Debt Limit

- Article XVI, Section 18: No county, city, town, township, board of education, or school district, shall incur any indebtedness or liability in any manner or for any purpose exceeding in any year the income and revenue provided for such year, without the assent of 2/3 of the voters of the public entity voting at an election to be held for that purpose.
- Exceptions:
  - *Current fiscal year exception* – typically applied to TRANs and revenue anticipation notes (RANs)
  - *Annual appropriation exception* – not commonly used given the Lease exception
  - *Lease exception* – public agency only has to make payments if it has use of the leased facility that year; typically applied to lease revenue bonds or COPs
  - *Special fund exception* – repayment source is solely a special fund of the agency and no reliance on the general fund, and there must be a nexus between the purpose of the debt and the special fund from which the debt is payable; typically used in water, wastewater, solid waste, and toll revenue bonds.
  - *Contingent obligation exception* – no payment obligation in any fiscal year unless the other party is providing benefits or services; commonly applied to service contracts, interest rate swaps, and other financial products.
  - *Obligation imposed by law exception* – payment of a liability must be mandated by law; commonly applied to judgment bonds and pension obligation bonds.

Limits on Municipal Borrowing: Federal Tax Law Constraints

- Under Internal Revenue Code, interest on bonds issued by a state or local government is generally excluded from gross income for federal income tax purposes.
  - This means that investors in tax-exempt bonds will not pay federal income tax on the interest they receive as a bondholder. As a result, investors will purchase the bonds at a lower interest rate than if the interest on the bonds were taxable.
- Additional Requirements:
  - Bonds must finance capital expenditures or cash flow working capital borrowings.
  - Bond must not be an issue of private activity bonds unless *qualified private activity bonds*.
  - Bonds must not be "arbitrage bonds" –Issuer cannot borrow at a lower federally tax-exempt interest rate and invest the proceeds at a higher rate.
- When federal tax law requirements cannot be met, taxable bonds are an alternative.
- California Constitution provides that interest on bonds issued by the State or a local government in the State is exempt from taxes on income.

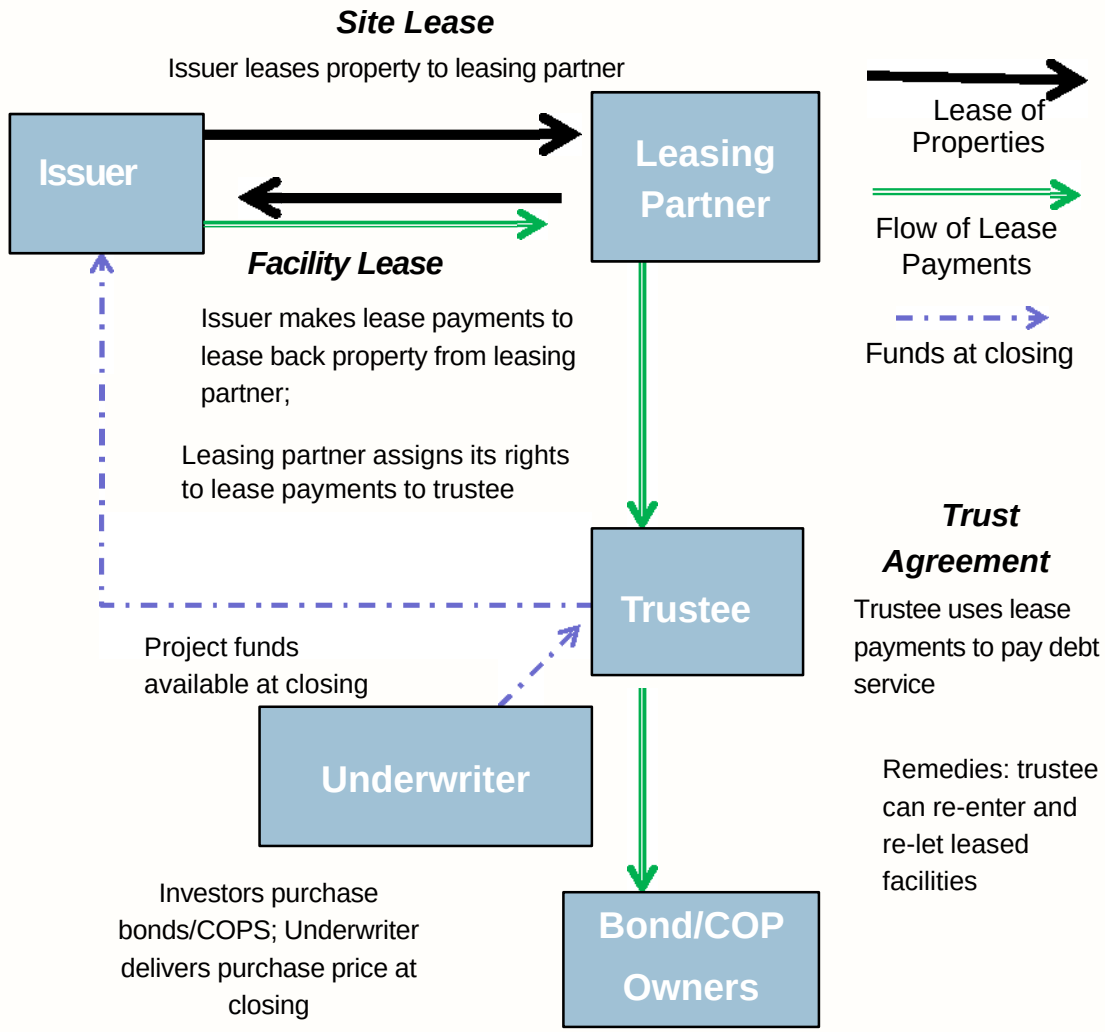
General Fund Borrowings

General Fund Lease Financings

- **Lease Financing**
  - Uses lease-leaseback structure with nonprofit corp. or JPA as leasing partner
  - Issuer covenants to appropriate annual lease payments from legally available funds
  - Viewed as a general fund credit
  - May be structured as lease revenue bonds or COPs
  - Not subject to CA constitutional debt limits per lease exception
- **Advantages**
  - No voter approval required
- **Disadvantages**
  - Requires unencumbered leasable assets
  - Debt payments compete with other general fund priorities
- **When Used?**
  - When bond financing is unavailable or undesirable
  - For projects of general community benefit that produce no revenue of their own
  - To indirectly leverage a general fund revenue stream (i.e. sales tax increase)

Lease-Leaseback Structure

1. Issuer leases an essential asset to a nonprofit corp. or JPA as leasing partner
2. Issuer then subleases asset back, and agrees to make lease payments for use of property
3. Lease payments serve as debt service on bonds or COPs
4. Requires issuer have beneficial use and occupancy of leased asset (or abatement of lease payments)
5. Trustee can re-enter and re-let asset if issuer doesn't make payments



General Fund Lease Considerations

- **Considerations**
  - Nature of general fund revenues
    - Type and diversity
  - Current and historic revenue trends
  - General fund debt burden
  - Value and "essentiality" of leased assets

- **Capacity Constraints**
  - Requires available, unencumbered assets for lease
  - Value of leased asset must equal borrowing
  - New project funded by bonds can be leased but requires either capitalized interest or asset transfer

General Fund Lease Credits

- General credit factors
  - Economic and demographic
  - Management
  - Liquidity
  - Budget performance
  - Budget flexibility
  - Debt and contingent liabilities
  - Institutional framework
- Essentiality and Project Risk
  - Nature of pledged asset
  - Seismic considerations
  - Insurance coverage
- Security Features
  - Construction risk
  - Value and useful life of asset
  - Reserve fund
  - Capitalized Interest

General Obligation Bonds

General Obligation Bonds

- **Overview – PROPOSITION 46**
  - Available to cities, counties, school districts, community college districts, and some special districts
  - Proceeds of bonds can only be used for the acquisition or improvement of real property
  - Property tax levy on AV in an amount sufficient to cover debt service on the bonds
  - Requires a 2/3 voter approval
  - Voters approve total bond authorization and use of proceeds, not tax rate or annual payment
- **Overview – PROPOSITION 39**
  - Available to school districts and CCDs ONLY
  - Proceeds of bonds can be used for construction, reconstruction, rehabilitation, or replacement of school facilities, including the furnishing and equipping of school facilities, or the acquisition or lease of real property for school facilities
  - Requires 55% voter approval
  - Requires a list of the specific school facilities projects to be funded
  - Requires a certification that the board has evaluated safety, class size reduction, and information technology needs in developing that list
  - Requires annual, independent financial and performance audits
  - Requires formation of citizens' oversight committee, with the authority to audit and review the bond program and advise the public

General Obligation Bonds (cont.)

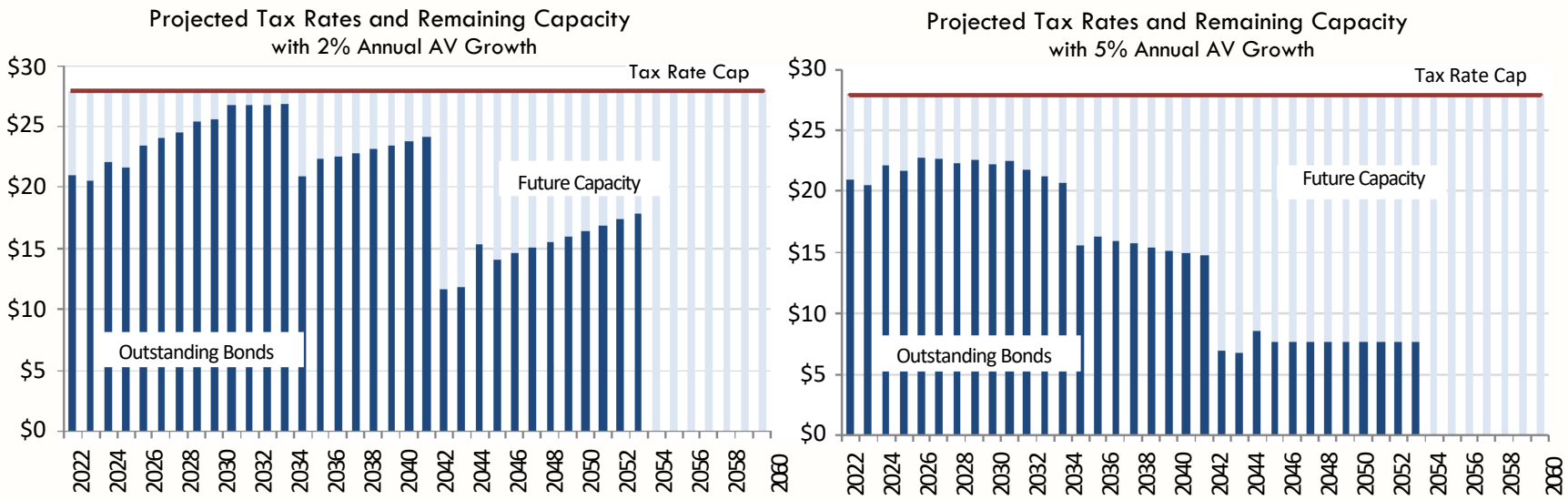
- **Advantages**
  - Broad-based tax support for public improvements
  - Lowest interest cost due to *ad valorem* security and unlimited tax pledge
  - Generates new revenue source to repay debt; no support from general fund
  - Wide investor acceptance
- **Disadvantages**
  - Time, expense and uncertain outcome of election
  - Property tax increase
  - Many financing terms dictated by statute
- **When Used?**
  - Typically for projects with broad political support – varies by community

General Obligation Debt Considerations

- Statutory debt limits
  - Varies by type of issuers: 1.25% of assessed value for counties, elementary or high school districts; 2.50% for unified school districts and CCDs; 3.75% for general law cities
- Maximum authorized principal based on voter approval
- Assessed property values and target tax rates
  - Growth trends and forecast
  - Tax base diversity
  - Level or descending tax rate
- Tax rate limitations
  - Unlimited tax - levy of *ad valorem* property taxes (through the county treasurer) at the rate necessary to repay the principal and interest due on the bonds
  - Many general obligation bond issuers – except school districts – set the levy rate (e.g., counties and cities) by adopting a resolution annually
- Debt structure
  - Level or escalating debt service
  - Repayment term and principal amortization
  - Current interest or capital appreciation bonds

AV Growth, Tax Rate Caps and GO Bond Capacity

- **Tax Rate based on Outstanding debt service ÷ District assessed valuation**
  - Requires projection of future assessed value trends
  - AV growth rate > expectations => lower than forecast tax rate
  - AV growth rate < expectations => higher than forecast tax rate
- **Tax Rate Limits**
  - Constraint on bond capacity and sensitive to future growth estimates



* Tax Rates presented per $100,000 of Assessed Valuation.

Land Secured Bonds

Land Secured Finance Overview

- **Basic premise**
  - Public agency sponsors creation of special district - Property owners agree to put lien on property to fund certain facilities
- **Bond financing**
  - Bonds generate up-front funds for capital projects
  - Repaid with special taxes or assessments levied annually on property tax bill
  - Issuer may foreclose on delinquent parcels
  - In the event of a foreclosure, land value serves as ultimate collateral securing repayment
- **Advantages**
  - New revenue stream created for projects
  - No payment obligation for public agency
- **Disadvantages**
  - Requires formation of district, which takes time
  - Development projects can be risky in early stages
  - Assessment spreads vulnerable to legal challenge

Two Types of Districts

Community Facilities District

Mello-Roos Act

2/3rds approval

Flexible tax spread

⇒ Most frequently used option

Assessment District

1915 Act

50+% support

Proportional allocation of "special benefit"

⇒ Burden of proof on issuer results in potential litigation risk

Land Secured Finance Overview

- **Bond capacity constraints**
  - Eligible public facilities identified
  - Land value relative to debt
    - Minimum 3-to-1 value-to-debt standard – Tax burden on end-user
    - All-in effective tax of 2% for residential
- **Considerations**
  - Issuer goals and policies
  - Developer may post letter of credit
  - Capitalized interest up to 2 years
  - Phased bond issuances
    - Land use entitlements and development momentum at issuance
    - Ability to refinance debt at lower rates once development is complete

Land Secured Credits

- ***Issuer:*** reputation and experience
- ***Local Economy:*** real estate cycle, sales activity
- ***Property:*** location, attractiveness, environmental condition, value
- ***Strength of the Developer(s):*** financial resources, equity invested, development experience
- ***Development Plan:*** entitlements, development schedule, approvals, absorption schedule, product mix
- ***Product Demand:*** demographics of competing projects
- ***Tax Levy:*** burden on property, debt service coverage, value-to-lien
- ***Legal Structure and Covenants:*** foreclosure provisions, reserve fund, type of debt

Comparison of Land-Secured Districts

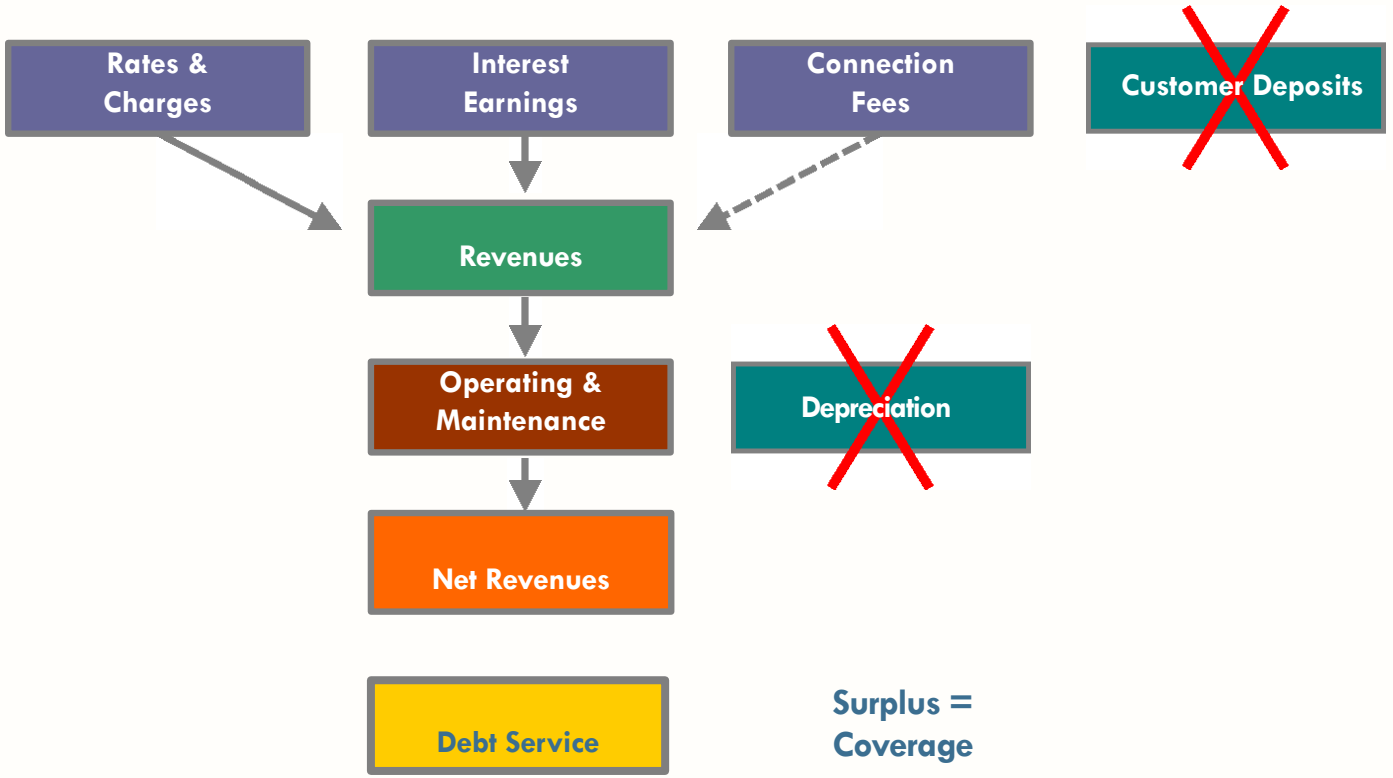
	Community Facilities District (CFD)	Assessment District (AD)
Statute	Mello-Roos Act of 1982	1915 Act/1913 Act
Security	Annual special tax on property tax roll	Annual assessment levied on property tax roll
Vote	2/3rds vote of property owners (Election)	Less than 50% Majority Protest (Protest Hearing)
Scope	Capital projects with "specific capital projects and maintenance benefits" only	Direct and special benefit improvements, no general public benefit
Spread of Lien	"Reasonable" spread of costs in special tax formula Dynamic payment obligation, can change as development proceeds	Spread must be proportional based on benefit Fixed payment obligation

Revenue Bonds

Enterprise Revenue Bond Overview

- **Overview**
  - Specific revenue stream pledged to bonds, often for a separate enterprise fund or separate agency supported by user fees
  - Enterprise can consist of an entire revenue-generating system or a single revenue-generating facility
  - Not subject to CA constitutional debt limit under special fund exception
- **Enterprise Revenue Pledge**
  - Used by a variety of issuers, including electric, water or sewer utilities, airports, ports, bridges, parking garages, stadiums or convention centers
  - ***Net Revenue Pledge***: all fees and charges of enterprise after payment of operations and maintenance (excluding depreciation); no security interest in physical assets of enterprise
  - ***Rate Covenant***: issuer commits to charge rates sufficient to pay debt service with a coverage cushion; may require rate increases in future with Proposition 218 process
  - ***Additional Bonds Test***: limits subsequent financings secured by same revenues

Enterprise Revenue Based Pledge



Capital project costs paid after debt service

Enterprise Revenue Bond Considerations

- **Credit considerations**
  - Breadth and depth of revenue base
  - Stability and predictability of revenues
  - Essentiality of service, elasticity of demand
  - Ability to raise rates as necessary
  - Local economic factors
  - Liquidity
- **Capacity constraints**
  - Current and projected revenues and expenses
  - Current or planned rate increases
  - Cash flow for capital, reserves
  - Debt service coverage cushion
  - Other outstanding debt and parity debt limits

Enterprise Credit Criteria

- Customer Profile
  - Customer mix and concentration
  - Current and future demand
- Operational Factors
  - Management ability
  - Capacity and condition of assets
  - Regulatory compliance
- Rate Criteria
  - Construction risk
  - Value and useful life of asset
  - Reserve fund
  - Capitalized Interest
- Financial Data
  - Stability and consistency
  - Debt service coverage
  - Liquidity
  - Collections history

Sales Tax Revenue Bonds

- **Overview**
  - Sales tax revenue bonds are payable from and secured by revenues from the imposition of a sales and use tax, or a transactions and use tax, on retail transactions within the issuer's boundaries
  - Sales tax revenues are collected by the California Department of Tax and Fee Administration (CDTFA) and remitted to issuer
- **Advantages**
  - Broad-based tax support for public improvements
  - Generates new revenue source to repay debt; no support from general fund
  - Wide investor acceptance
- **Disadvantages**
  - Time, expense and uncertain outcome of election
  - Voter authorization of sales tax required: general tax (majority voter approval) v. special tax (2/3 voter approval)
  - Sales tax increase
- **When Used?**
  - Only public agencies with the statutory authority to impose a sales tax may issue sales tax revenue bonds
  - Although cities and counties may impose sales taxes and issue sales tax revenue bonds, most sales tax revenue bonds are issued by transportation authorities.
  - Typically for projects with broad political support – varies by community

Direct Lending

Private Placement Alternative to Public Bond Sale

- **Overview**
  - A privately negotiated extension of credit from a commercial lender – or institutional investor - that does its own (regulated) diligence before making the loan
  - Sophisticated investor assesses credit on its own without the need for a separate disclosure document in most instances
- **Considerations**
  - Interest rates can be higher or lower than available in public markets
  - Benefits may include limited documentation, quick completion time and lower costs of issuance
    - May eliminate need for bond ratings, Official Statement, and/or debt service reserve fund – Issuer may take on additional risks, such as tax risk
  - Investor credit parameters and purchasing interests vary
    - Term may be limited to 10 years or shorter, but some lenders willing to go longer
    - Less interest in transactions paid from general fund appropriation
    - Sometimes large par amounts are not conducive to private placements

SECTION III

Policy Considerations

Questions to Ask Before Issuing Bonds

- **Can you afford the debt?**
  - Adequate revenues?
  - Adequate reserves?
  - Adequate coverage?
  - What could go wrong?
- **Who's helping you?**
  - Get good advice from respected professionals
- **Is disclosure adequate?**
  - Official Statement ("OS") is the issuer's document
  - Have you told investors everything they need to know in the OS?
  - Have you kept up with continuing disclosure obligations?

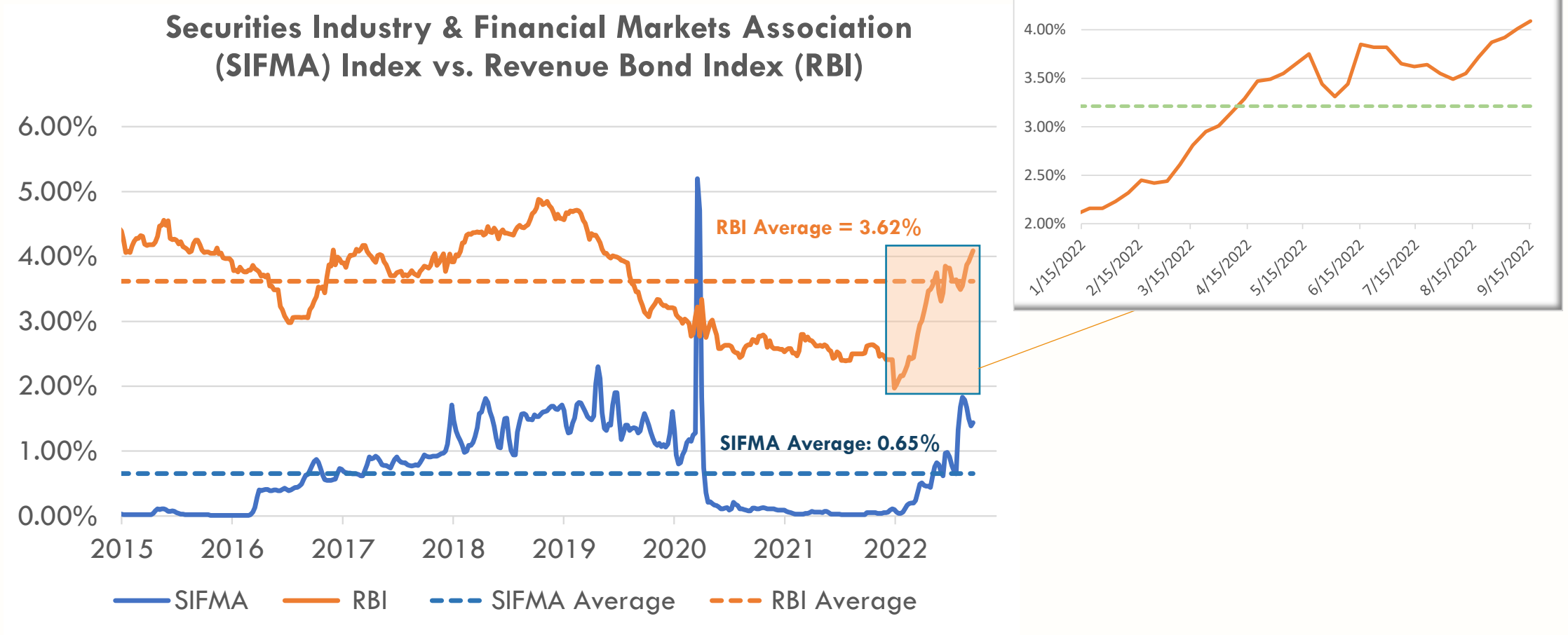
Securities Exchange Act of 1934 Rule 10b-5:

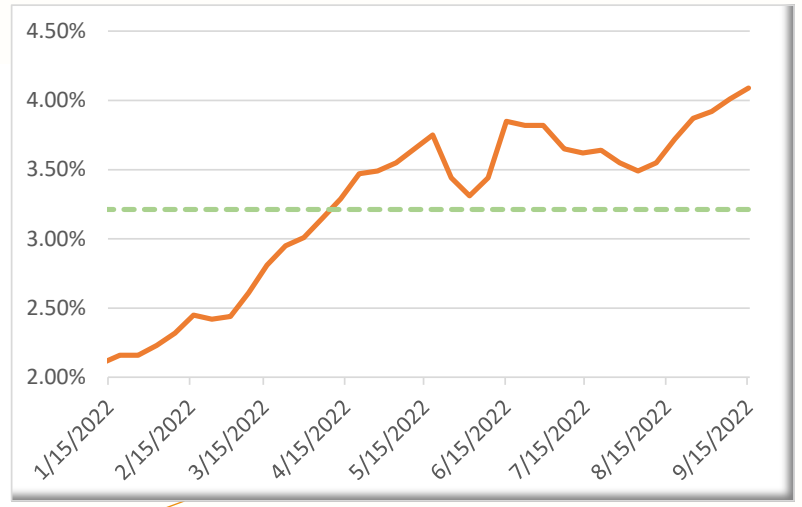
"It shall be unlawful for any person…

a. to employ any device, scheme or artifice to defraud,

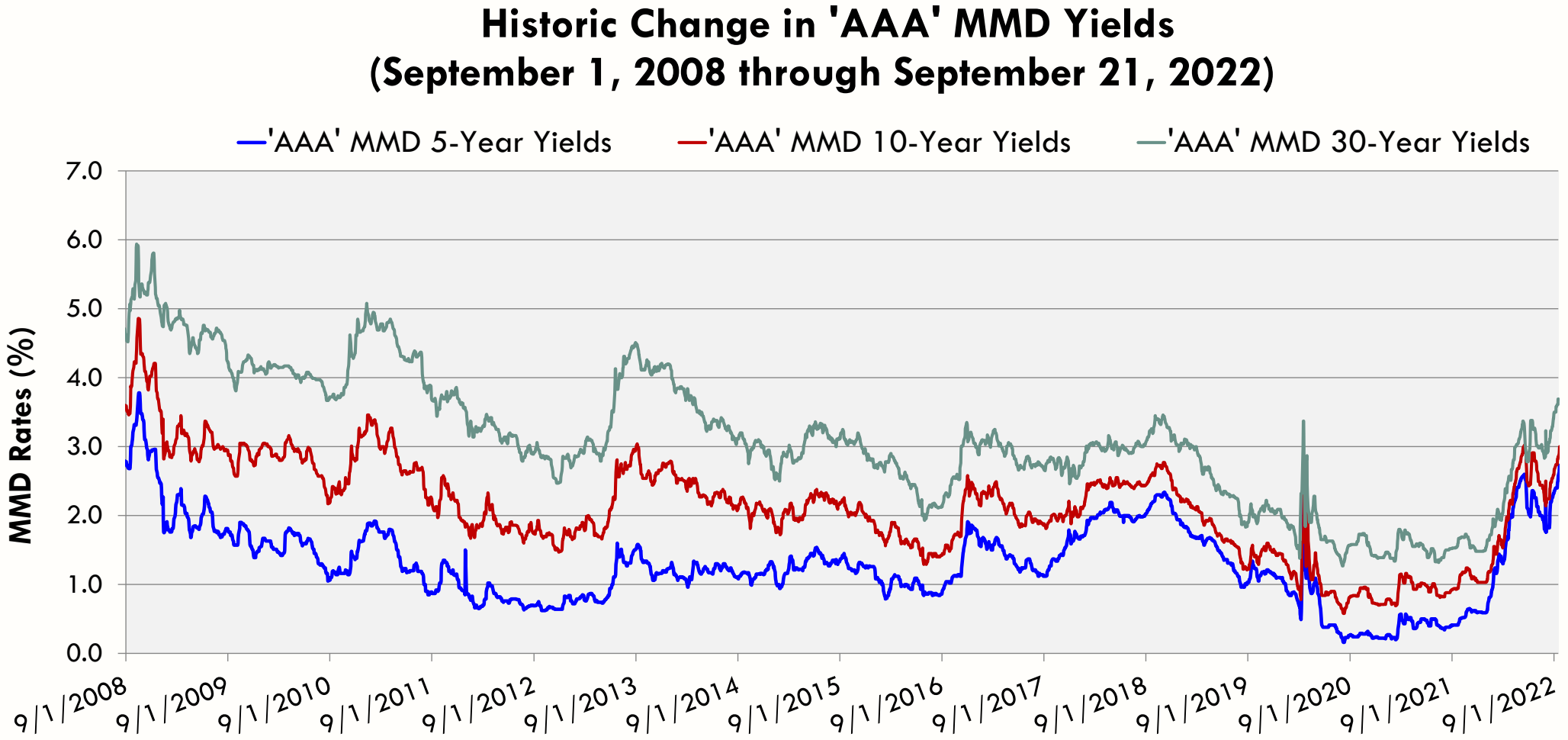
b. to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading. . ."

Current Bond Market Conditions





AAA MMD Rate History



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Short Term Instruments

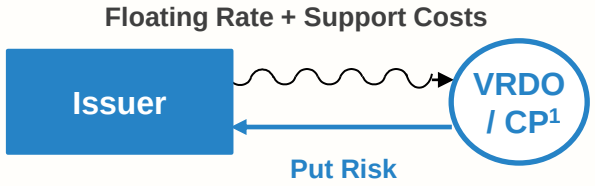
Ronda Chu – Capital Finance Director, Airport Commission of the City and County of San Francisco

Taylar Hart – Executive Director, J.P. Morgan

Why use short-term or variable rate debt?

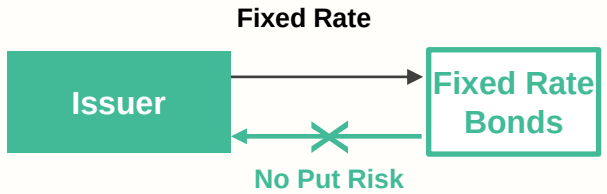
- Offers issuers diversification relative to fixed rate debt (e.g. interest cost, timing considerations, investor base)
- Historically has provided the lowest cost of capital and can avoid locking in rates for long tenors in unfavorable markets
- Provides an asset / liability balance – short-term investments naturally hedge variable rate liabilities
- May provide prepayment flexibility; remarketed securities often have flexible redemption or draw terms
- Can allow for the deferral of all or most debt service until projects are completed

Traditional Floating Rate Bonds



- ✓ Historically lowest cost of capital
- ✓ Generally achieves greatest redemption flexibility and flexibility to change between modes (multi-modal documents)
- ✗ Uncommitted funding
- ✗ Investor has put option[2]
- ✗ Uncertain total expense
- ✗ Maintenance of self liquidity may become onerous over time

Fixed Rate Bonds



- ✓ Committed funding – cost certainty until final maturity with no investor put
- ✓ Inexpensive optional redemption feature
- ✓ Liquidity / bank facility not required
- ✗ Higher cost in positive yield curve environment
- ✗ Can incur negative arbitrage (or no positive arbitrage) in trustee-held funds

Note: [1]Variable Rate Demand Obligations (VRDO) and Commercial Paper (CP) are traditional floating rate products; [2]Put options enable the investor (bondholder) to tender (or sell) the issue back to the borrower within a specified timeframe, generally the interest reset date (for VRDOs) or maturity (for CP)

Primary Types of Short-Term Financings

Cashflow Financings	• Provide working capital to pay operating expenses, typically at fixed short-term rates
	• Types of cashflow financings:
	  • Tax and Revenue Anticipation Notes (TRANs)
	  • Revenue Anticipation Notes (RANs)

Bridge Financings	• Provide interim / short-term financing for capital projects, at either fixed or floating rates
	• Types of bridge financings:
	  • Bond or Grant Anticipation Notes (BANs or GANs)
	  • Commercial Paper (CP)
	  • Put Bonds

Permanent Financings	• Provide long-term funding at short-term interest rates by pairing a long, nominal maturity(s) with a floating interest rate
	• Types of permanent financings:
	  • Variable Rate Demand Obligations (VRDOs) (Daily or Weekly Reset)
	  • Floating Rate Notes (FRNs)

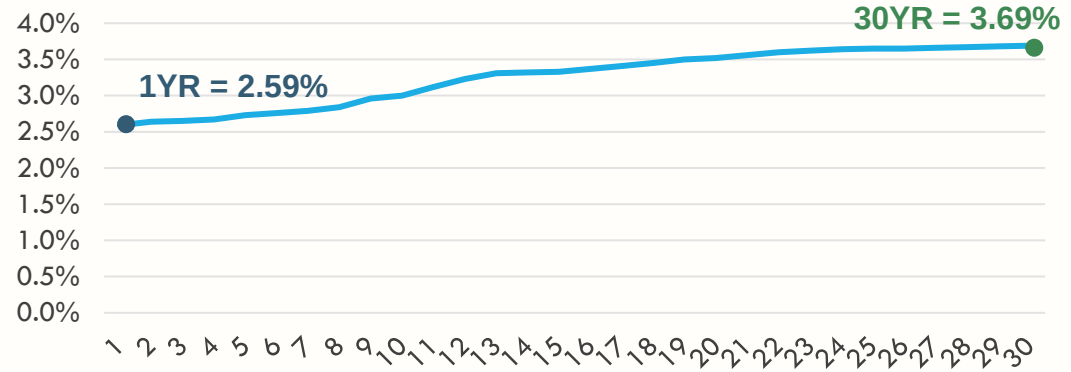
Primary Short-Term Borrowing Products

	Daily VRDO	Weekly VRDO	Commercial Paper	Floating Rate Note	Put Bond
Product Overview	• Bonds with a long-term nominal maturity bearing interest at variable rates adjusted at ***daily or weekly*** intervals • VRDO holders have the option to tender securities for purchase to the issuer • 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		• Short-term product that matures anywhere from 1 to 270 days • Does not contain an investor put option but has a stated maturity date • Effective tool to finance construction costs and working capital, provide interim / bridge financing and provide back-up liquidity	• Alternative to traditional variable rate products (CP or VRDBs) to generate committed floating rate funding • Interest is paid monthly at the index plus a spread, which is set at pricing and fixed through maturity or mandatory tender date	• Fixed rate bonds that have a long-term nominal maturity with a mandatory investor put prior to maturity • Priced to the put date, allowing issuers to lock in rates at the shorter end of the yield curve
Approx. Market Size	$33bn	$83bn	$25-40bn	$28bn	$72bn
Predominant Buyer	Money Market Fund	Money Market Fund	Money Market Fund	Short Duration Intermediate	Short Duration Intermediate
Size Flexibility	No	No	Yes	No	No
Maturity	Long-term (e.g. 30Y)	Long-term (e.g. 30Y)	1-270 days	Long-term (e.g. 30Y)	Long-term (e.g. 30Y)
Tender / Put Tenor	Daily	Weekly	N/A	1-10 Years	1-10 Years
Rate Reset Period	Daily	Weekly	At maturity	Spread locked until tender date	On put date
Liquidity Required?	Yes	Yes	Yes	No	No
Pricing / Benchmark	~SIFMA	~SIFMA	~SIFMA	SIFMA + Spread % SOFR/L + Spread	MMD + Spread (+ Put Premium)

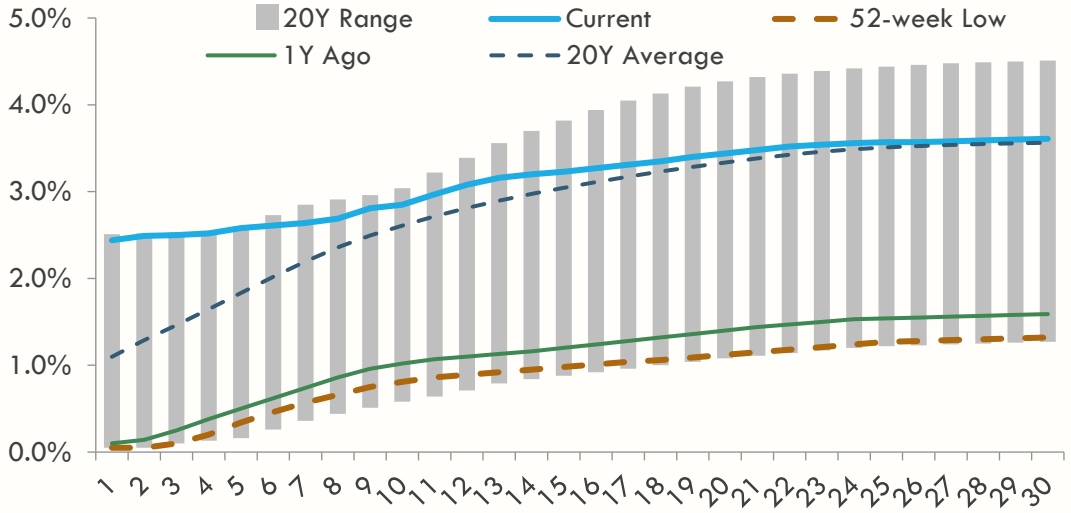
Length of Put

Short vs. Long-Term Rates

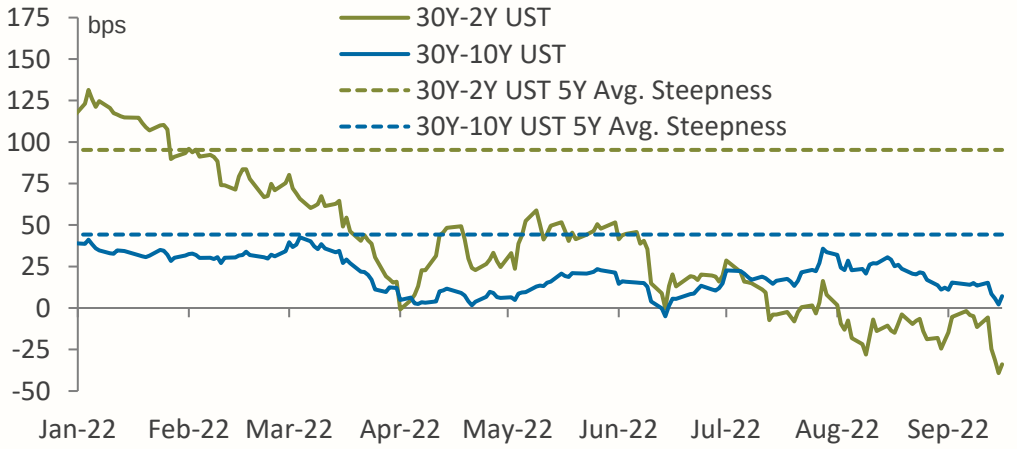
Illustrative 'Aaa' MMD Curve (09/20/22)

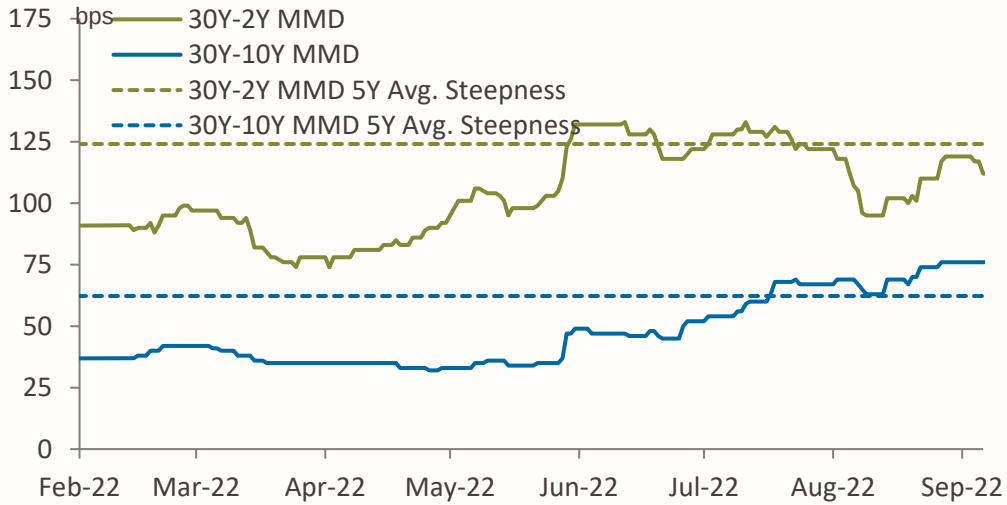


With the MMD being flatter than normal, it is near historical highs at the short end of the curve



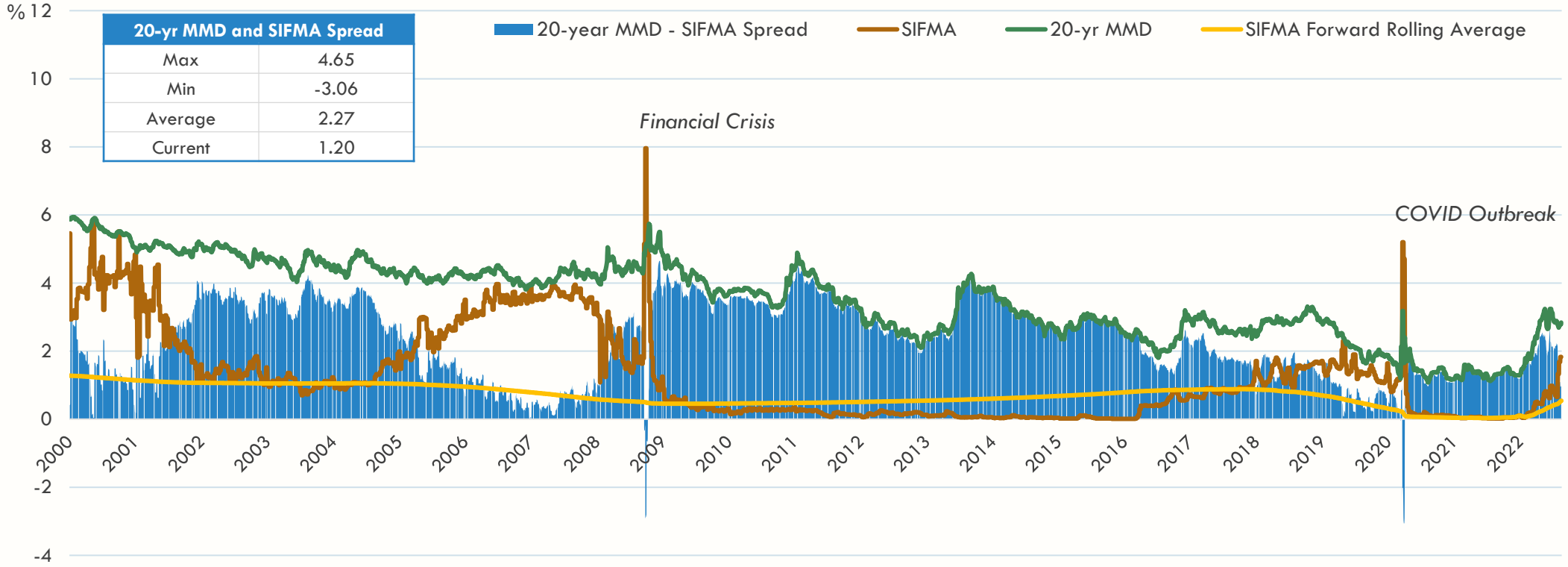
The MMD and UST yield curves remain far flatter or even inverted, versus historical trends





Variable Rate Bonds Can Provide Interest Savings

Short-term borrowing has provided savings over the last 20 years, but rates have seen significant spikes in periods of volatility



20-yr MMD and SIFMA Spread	
Max	4.65
Min	-3.06
Average	2.27
Current	1.20

- The **yellow line** indicates that variable rate bonds have been more cost effective than long-term fixed rates in most cases over the last 20 years
  - The SIFMA forward rolling average represents the average SIFMA rate from that point forward through today

Cashflow Borrowings

Tax Revenue or Grant Anticipation Notes (TRANs, RANs or GANs)

Purpose	Cashflow borrowing or capital projects
Benefit(s)	Smooths-out inconsistent revenue stream, such as property taxes or grants
Risk(s)	Short tenor and mandatory repayment require careful forecasting of future cashflows to appropriately time payment date(s)
Interest Rate	**Fixed** at time of sale
Primary Buyer(s)	The investor base has shifted away from Money Market Funds (“MMF”) towards and short duration bond funds
Requirement(s)	Statutory and tax limits

Examples

- City relies heavily on property tax receipts due in December and April while expenses are fairly evenly spread throughout year
- Without sufficient reserves, cashflow shortfall peaks after early December payroll payment
- TRAN proceeds bolster cash position in July to cover peak deficits in fall; balances are restored and funds are set aside to repay TRANs throughout winter and spring, before June TRAN maturity
- Credit rating is based on predictability of revenues, accuracy of projections, expected liquidity (and alternatives) at maturity, and ability to withstand less favorable results

Bond Anticipation Bonds ("BANs")

Bond Anticipation Notes ("BANs")

Purpose	Capital projects
Benefit(s)	Can provide seed financing in advance of a planned long-term financing
Risk(s)	Hard maturity requires a high-degree of certainty around take-out mechanism
Interest Rate	**Fixed** at time of sale
Primary Buyer(s)	The investor base has shifted away from Money Market Funds ("MMF") towards separately managed accounts ("SMAs") and short duration bond funds

Examples

- **Scenario A:** Sales tax authorization approved by voters but revenue collections don't begin for another two years
- **Scenario B:** Transportation authority has secured a TIFIA loan but wants to capture short-term rates now (vs. 30Y UST) and delay draw on TIFIA until a future date

- Transportation authority can issue BANs now to tap future debt capacity
- BANs are repaid with long-term financing
- Credit ratings are typically based on expected terms of future take-out and assessment of future market access

Commercial Paper ("CP")

Commercial Paper ("CP")

Purpose	Can be used for a wide range of needs, including: • **Construction**: Financing day-to-day costs of a construction project in which the issuer needs cash on hand in order to pay contractors and suppliers • **Working Capital**: Financing short-term obligations involved in daily operations, such as funding accounts payable and inventory needs • **Interim financing**: Providing the issuer with liquidity leading up to a larger and longer term bond issue • **Back up liquidity**: Serving as a standing, revolving credit facility that the issuer can draw on if in need of immediate liquidity
Benefit(s)	Offers flexibility to create template for borrowing program and then draw down project funds as needed with streamlined approvals
Risk(s)	• **Interest rate risk** related to rate reset process • Typically requires third-party (bank) liquidity, for issuers not rated highly enough to provide self-liquidity
Interest Rate	**Liquidity costs + Fixed rate** set to a stated maturity date between 1 and 270 days
Primary Buyer(s)	Money Market Funds

CP Rate Reset Process

- CP does not contain an investor put option, but rather has a stated maturity date
- On the stated maturity date, CP can be "rolled", meaning the dealer will sell more CP to cover the outstanding, maturing CP
- When rolling CP, the dealer will generally offer current investors "right of first refusal," which gives the current investors the first option to reinvest in the new CP, before the dealer offers it to new investors
- The dealer will reset the rate for the new CP on the stated maturity date of the rolled CP
- A related credit or liquidity facility may be drawn in the event the CP cannot be rolled on any given stated maturity date

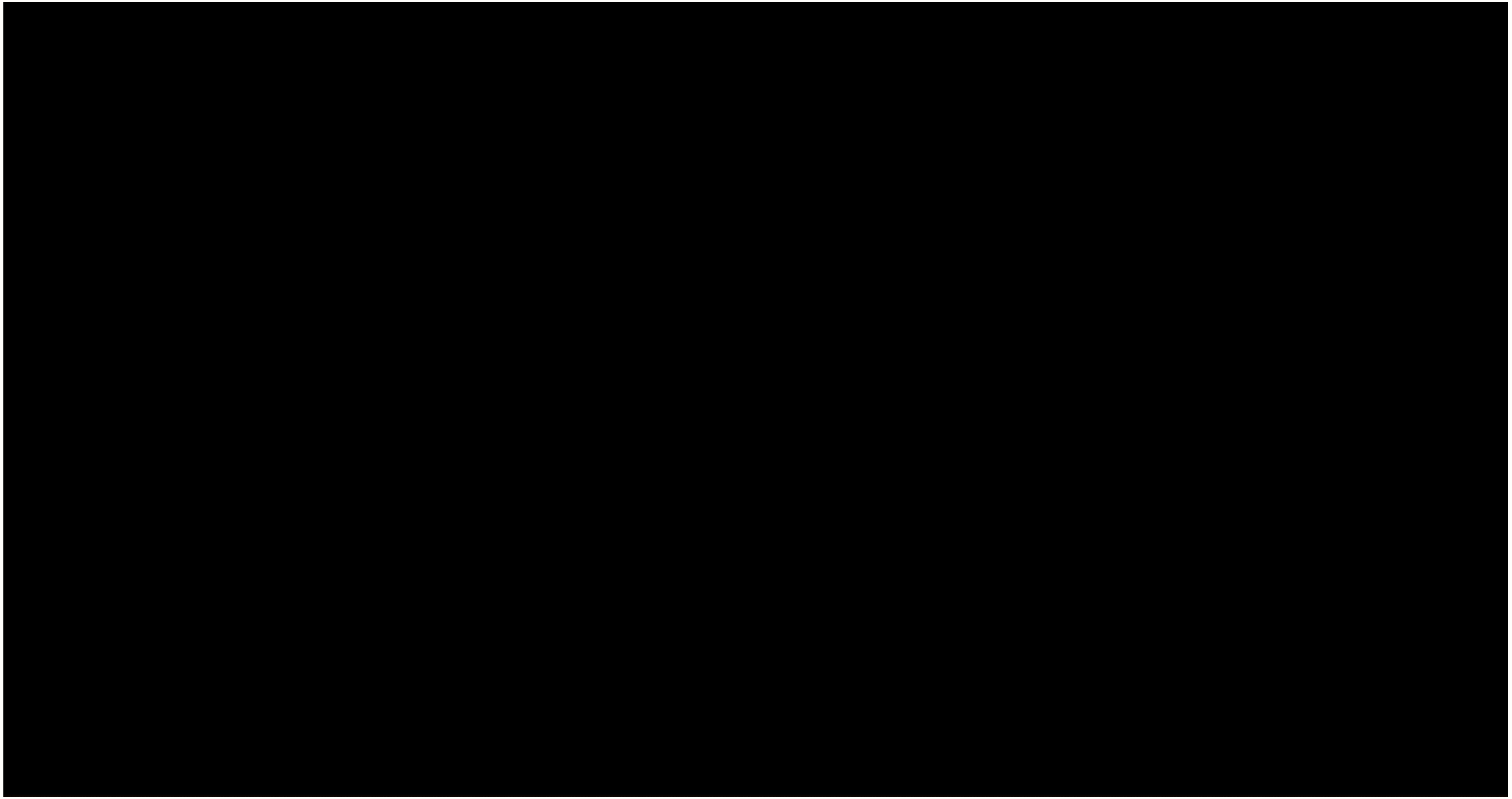
Top 5 Tax-Exempt Money Market Funds

Rank	Fund Family	Amount ($ mm)	Market Share (%)
1	Fidelity	23,771	25.1%
2	Vanguard	20,993	22.2%
3	Schwab	17,895	18.9%
4	JP Morgan	13,986	14.8%
5	Federated	7,289	7.7%
Top 5 Total		**83,934**	**88.7%**

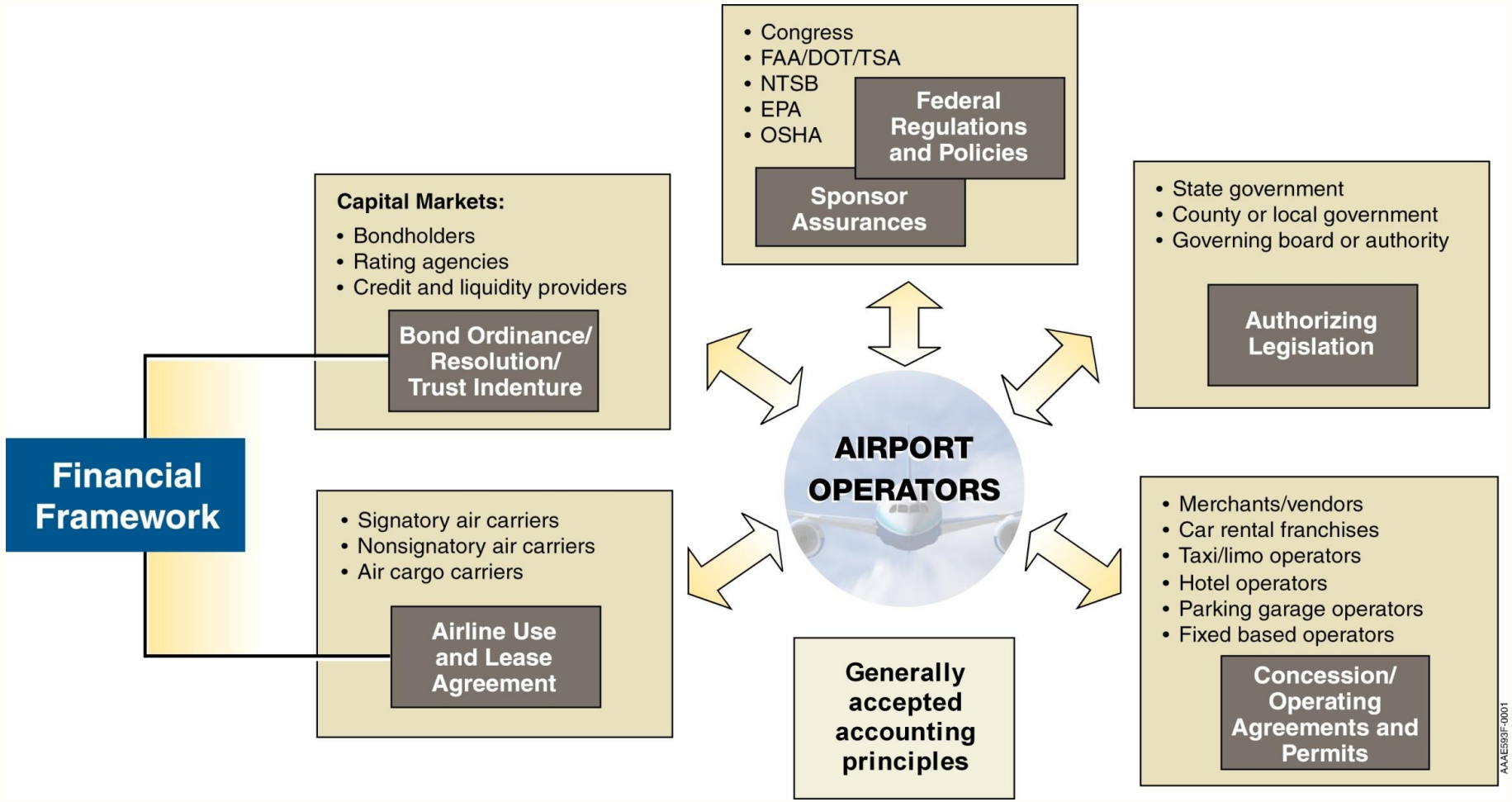
Source: Crane T-E MMF AUM; as of 7/31/22

Commercial Paper Case Study: SFO

- Owned and operated by the City of San Francisco
- Principal commercial service airport for the San Francisco Bay Area
- Located 14 miles south of downtown San Francisco in an unincorporated area of San Mateo County between the Bayshore Freeway (U.S. Highway 101) and the San Francisco Bay
- Major point-to-point traffic in the United States
- Nation's principal gateways for Pacific traffic and serves as a domestic hub and Pacific gateway for United Airlines
- Prior to the pandemic, passenger traffic increased from approximately 38 million in Fiscal Year 2009-10 to approximately 57 million in Fiscal Year 2018-19
- ***Video***



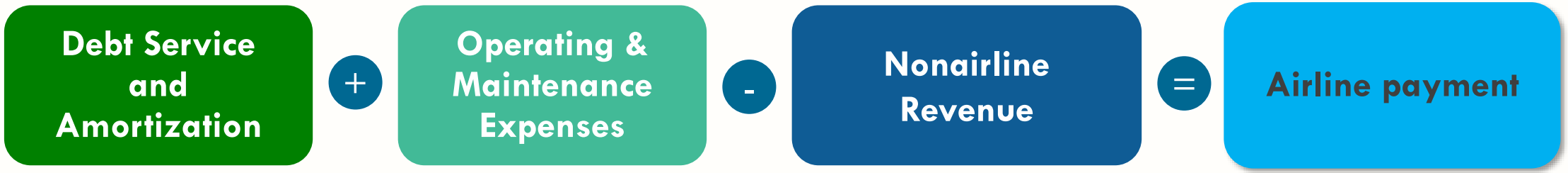
Commercial Paper Case Study: SFO
SFO Legal/Financial Framework



Commercial Paper Case Study: SFO
Balancing the Budget

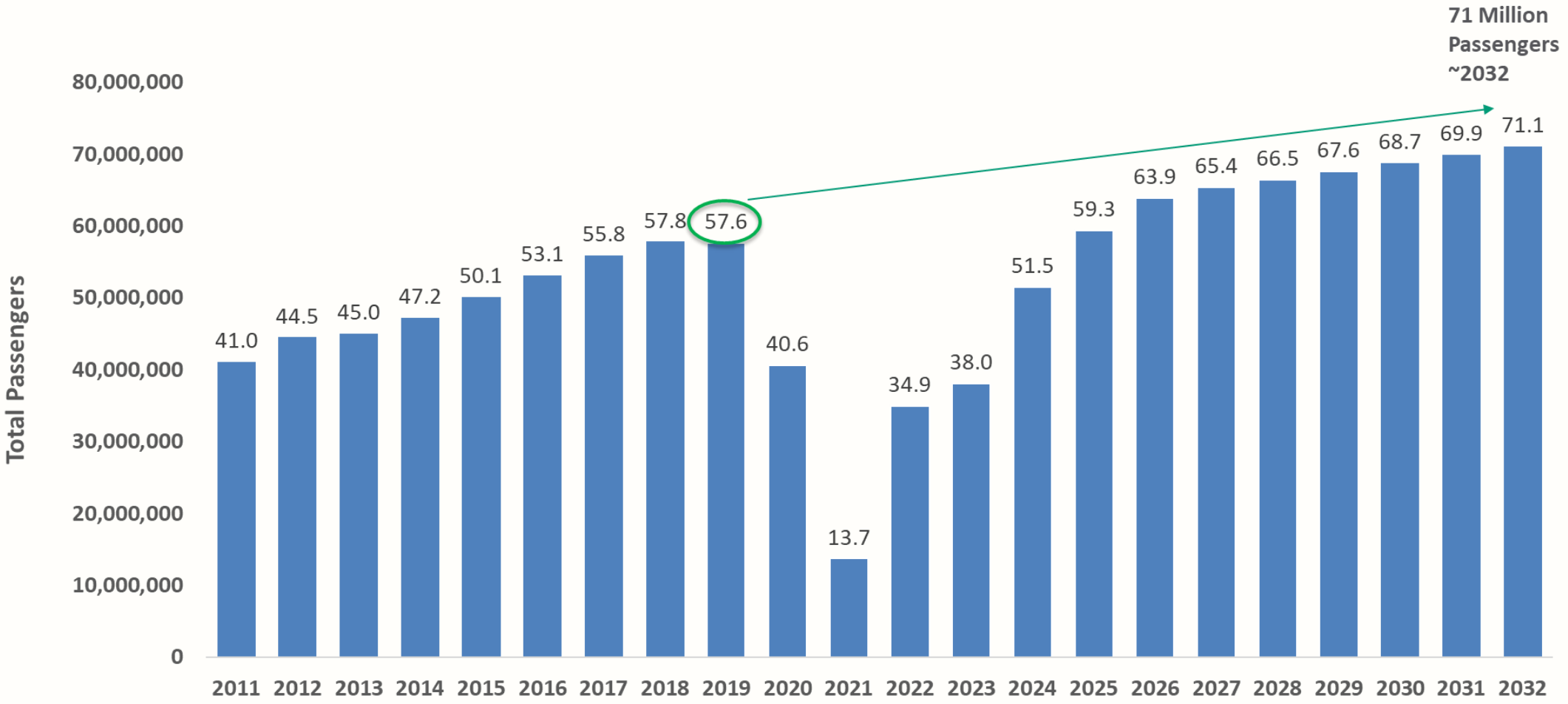
Project Costs
Less:
Other sources
= ***Revenue Bonds***

SFO's Lease and Use Agreement with the Airlines provides basis for cost consideration



Commercial Paper Case Study: SFO

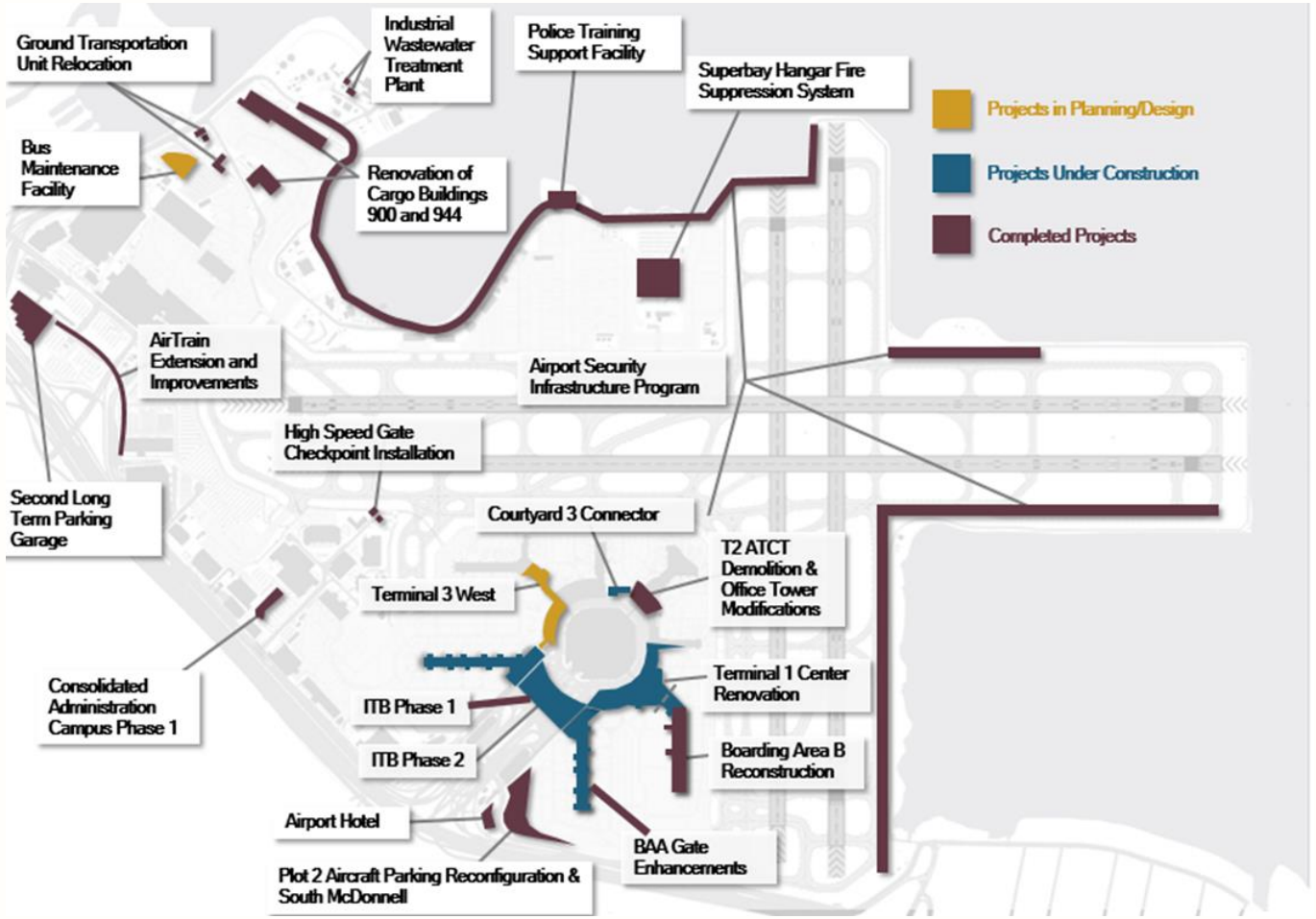
Traffic base underscores the importance of prudent financial management



Source: LeighFisher forecasts as of November 2021 for 2023 – 2027, then LeighFisher Annual growth rate beyond 2027

Commercial Paper Case Study: SFO
Interim financing of capital funding needs

Status of Major SFO Projects (November 2021)

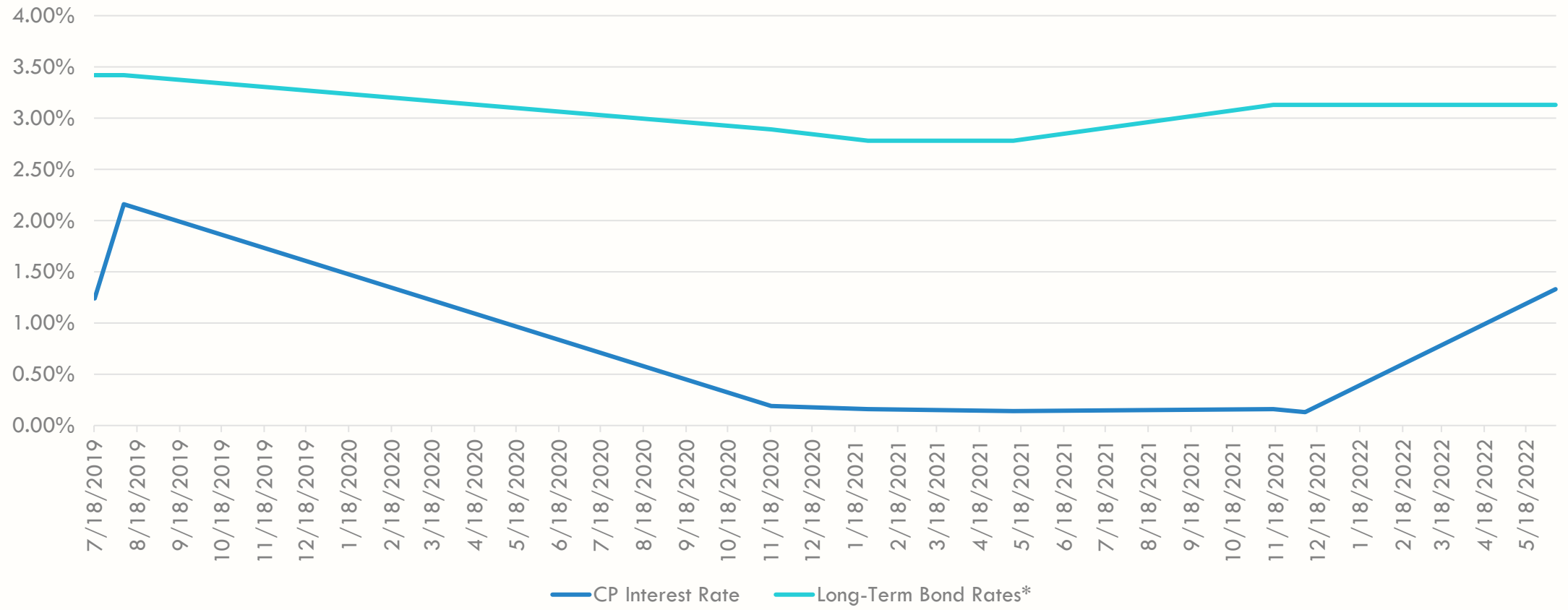


- Important source of low cost of borrowing (over long-term debt) through the pandemic and other market disruptions
- Active $6+ billion ongoing capital improvement program

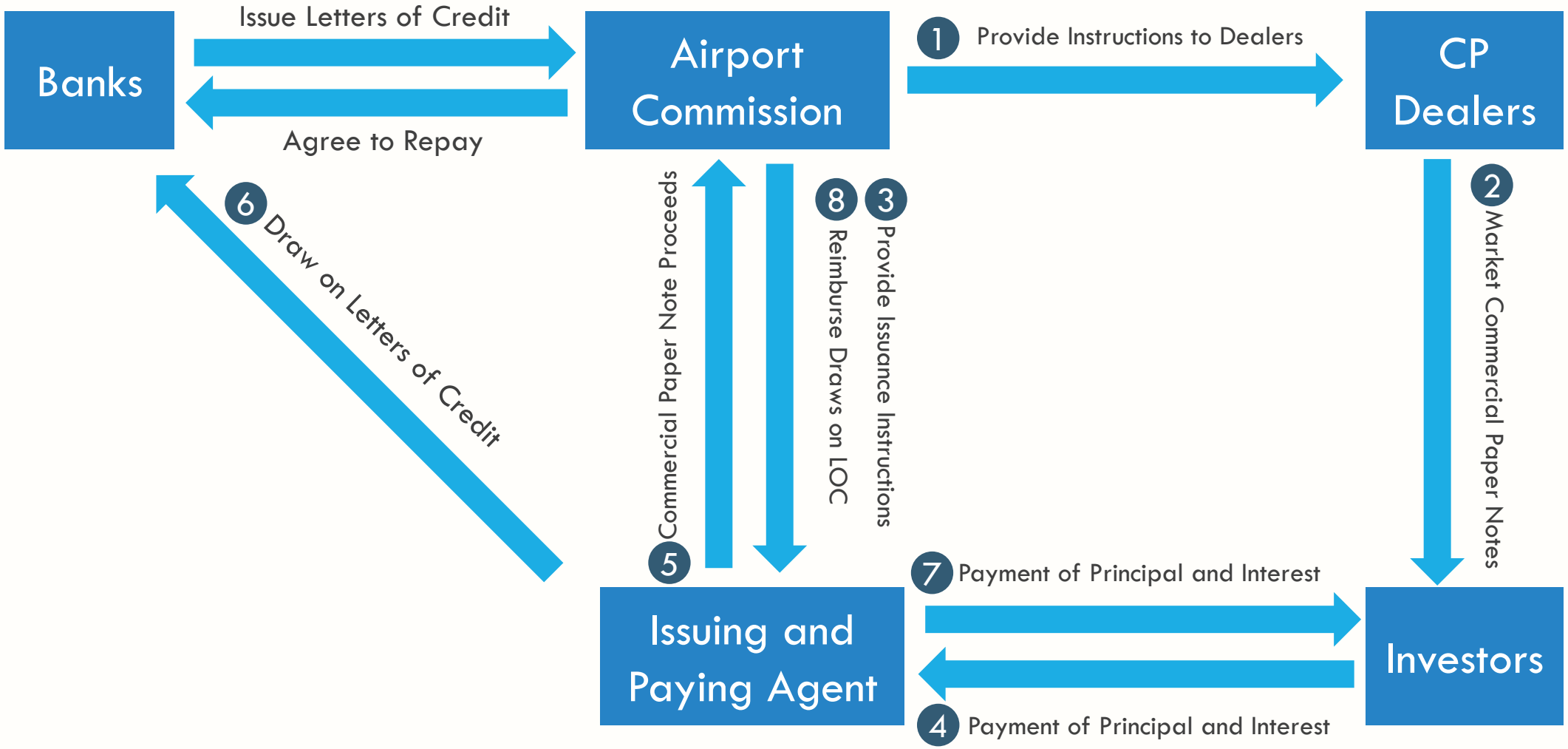
Commercial Paper Case Study: SFO

CP as an interim financing mechanism and at a lower cost

Comparative SFO Borrowing Costs



New Issuance – How does it work?



Variable Rate Demand Obligations ("VRDOs")

Variable Rate Demand Obligations (VRDOs or VRDBs)

Purpose	Capital projects
Benefit(s)	• Access rates on the short end of the yield curve • Retain flexibility to pay off or restructure debt at any time
Risk(s)	Requires accelerated repayment from all free cash flow beyond a modest reserve; can be difficult to market to investors
Interest Rate	• **Interest rate risk** related to rate reset process • Typically requires third-party (bank) liquidity, for issuers not rated highly enough to provide self-liquidity
Primary Buyer(s)	Money Market Funds
Requirement(s)	Federal tax law limitations for tax-exempt issue

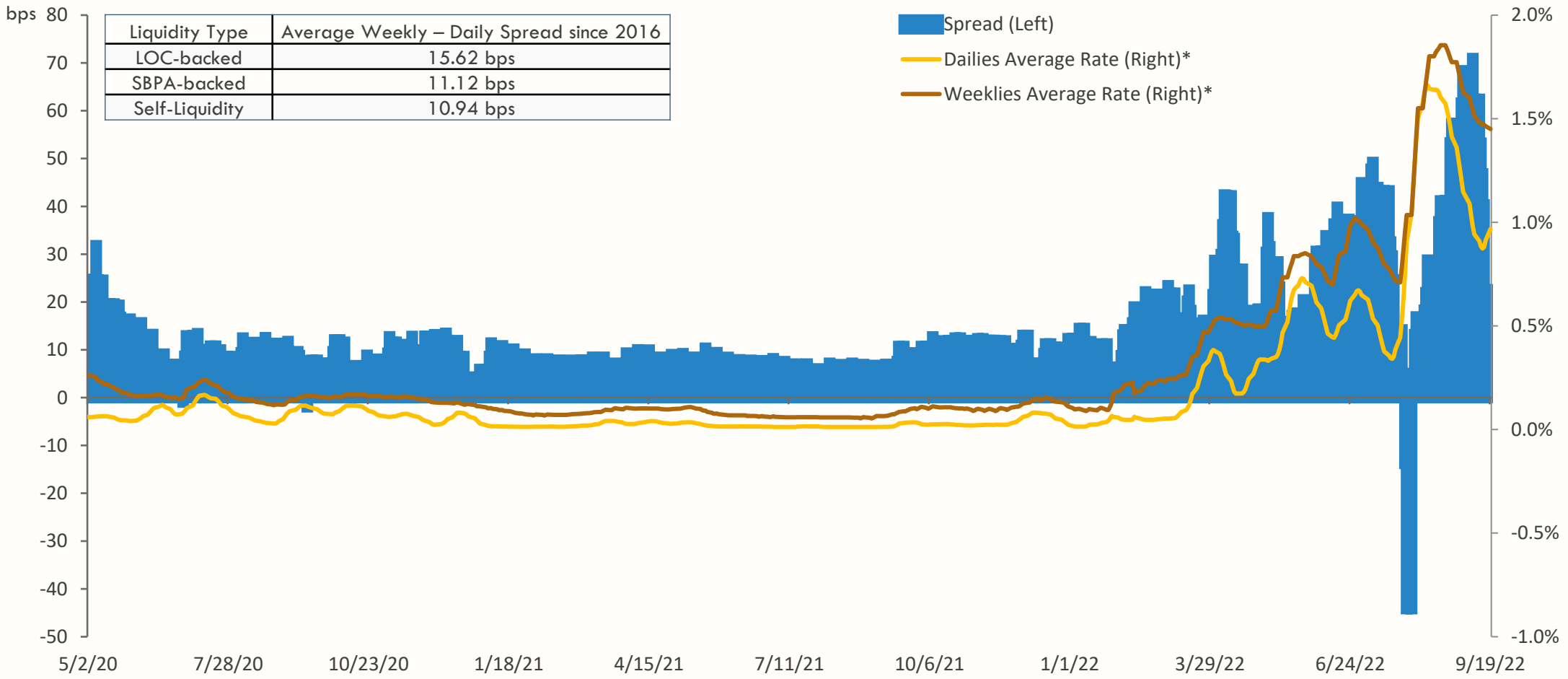
VRDO Rate Reset Process

- VRDOs are typically sold with a long nominal amortization – often a 30-year maturity structured as a lump sum, term maturity
- Interest rates are generally reset either daily or weekly, though monthly or other periodic options may be possible
- Issuers must have third party (bank) liquidity or self liquidity if highly-rated
- Remarketing agents reset VRDO interest rates based on market conditions on each rate reset date
- For **weekly VRDOs**, the remarketing agent sets a rate (typically Tuesday evening) that is effective for seven calendar days
  - These securities may be optionally tendered for remarketing by an investor on any day, typically before 5 p.m., and will settle 7 calendar days from the tender date
- For **daily VRDOs**, the remarketing agent typically sets a rate by 10 a.m. each business day
  - These securities may be optionally tendered for remarketing by an investor by 11 a.m., and will settle the same business day
- Unlike CP, investors can "put" VRDOs back to the issuer / marketing agent at each rate reset date, which makes it appealing to MMFs
  - If an investors "puts" the VRDO back, the remarketing agent will attempt to remarket the securities to a new investor
  - If a remarketing is unsuccessful, and the remarketing agent is unable to find new investors to purchase the VRDOs, the remarketing agent may, **but is not obligated to**, purchase the securities
  - If a remarketing is unsuccessful and the remarketing agent elects **not** to purchase the securities, the liquidity provider must purchase the securities

Daily vs. Weekly VRDBs

Average spreads between daily and weekly VRDBs have been around 10 bps since 2016, with wider spreads during times of market stress

Liquidity Type	Average Weekly – Daily Spread since 2016
LOC-backed	15.62 bps
SBPA-backed	11.12 bps
Self-Liquidity	10.94 bps



Source: MSRB SHORT, Bloomberg as of 9/19/2022; *Historical rates represent 10-day moving average

CP and VRDO Liquidity Facilities

Amongst the three primary types of CP and VRDO liquidity, the appropriate option is dependent on the issuer's characteristics and necessities and will determine the ratings for the VRDB

Bank Liquidity Facilities

- Standby Bond Purchase Agreements (SBPA) or Revolving Credit Agreements
- Banks fund the purchase price of a failed remarketing
- Does not guarantee the payment of principal and interest
- The bank has the option to terminate or suspend payments immediately in case of:
  - Voluntary issuer bankruptcy
  - Issuer fails to pay principal or interest
  - Issuer defaults on parity debt
  - Involuntary bankruptcy
  - Issuer falls below investment grade
- Issuer's generally must be rated AA- or better
- VRDBs carry bank's short term ratings and issuer's long term ratings
- Subject to future extensions

Bank Direct Pay Letter of Credit

- Reimbursement Agreement or Letter of Credit
- Supports payment of principal and interest when due
- Banks must pay bondholders, leading to guaranteed payment of principal and interest
- Issuer generally has to pay a larger premium to the bank for the guarantee
- The bank does not have the option to terminate or suspend payments despite:
  - Bankruptcy of the issuer
  - Downgrade in ratings
  - Default of the issuer on outstanding VRDBs or parity debt
- Utilized by issuers rated A+ or lower
- VRDBs carry the bank's short and long term ratings
- Subject to future extensions

Self-Liquidity

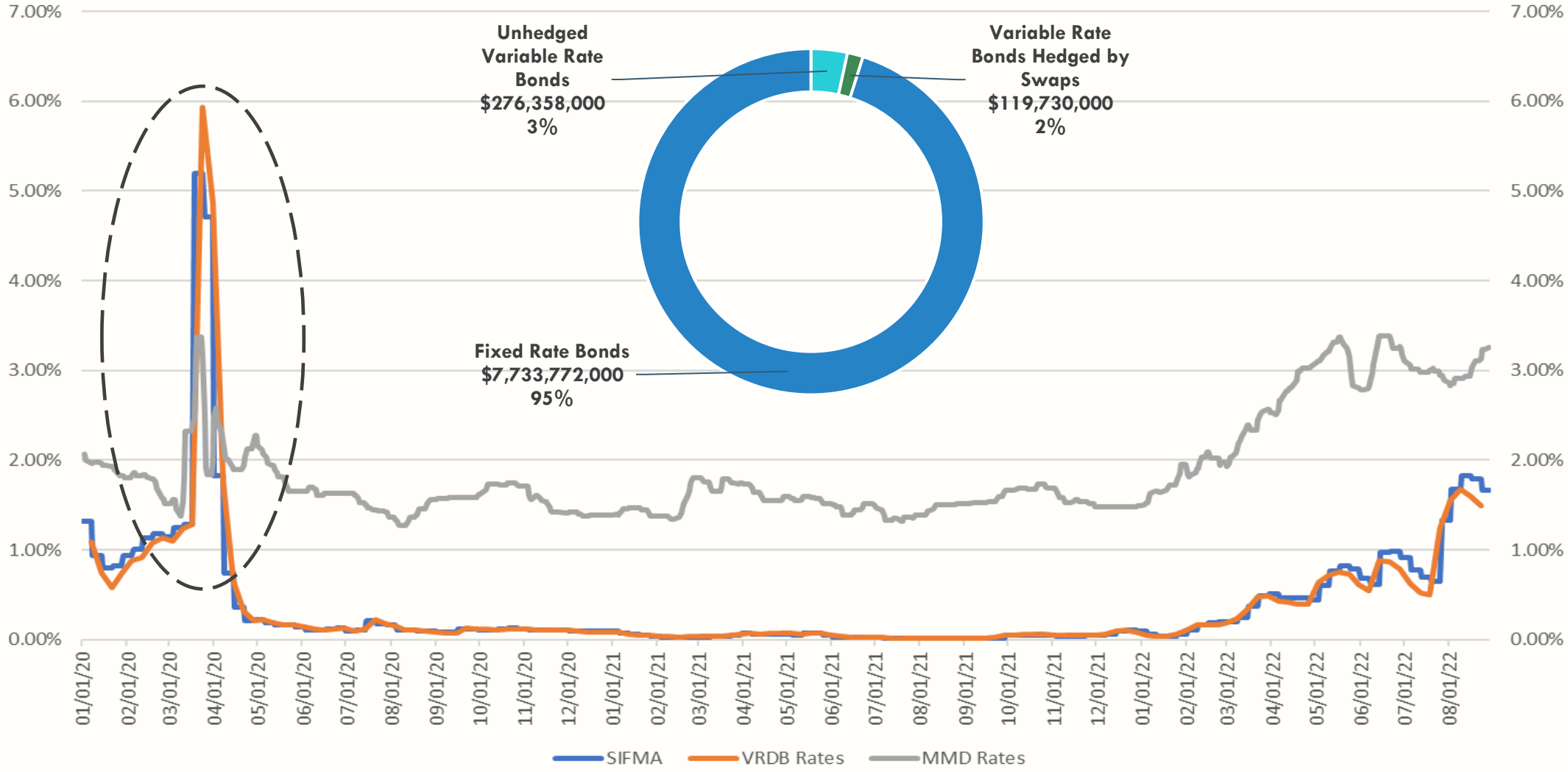
- Allows the issuer to not have to pay for bank support, but requires the issuer to have a strong balance sheet or readily accessible liquidity
- The issuer has to be able to fund the VRDBs upon any possible tender option exercised by the investors
  - The issuer must directly pay investors if its VRDBs are not successfully remarketed
- Issuers will generally utilize direct bank lines to backstop the potential draw exposure and maintain flexibility for its balance sheet
- The issuer must have a stand-alone, short term rating that includes a review by a rating agency of the issuer's management and administration capabilities for the program
- While an 'A' category issuer could provide self-liquidity for CP and VRDBs, most issuers who will be able to provide self-liquidity will likely be rated in the 'AA' category or 'AAA'
- Self-liquidity may require the reallocation of internal assets to ensure the given short term ratings of the VRDB program

Liquidity Facility Case Study: SFO

- **Height of the financial crisis - $779 million in VRDBs**
  - VRDBs comprised 22% of outstanding debt
- **Debt comprised about 40-45% of operating budget**
- **Used after 9/11 to lower debt service costs**
- **Support by Letters of Credit**
  - Credit providers must possess current long-term credit ratings equal to or better than A2/A/A and short-term ratings of P-1/A-1/F1 or equivalent from at least two of the three rating agencies pursuant to SFO's Debt Policy
  - Depending on the terms, issuer can be impacted by the change in its credit rating

Liquidity Facility Case Study: SFO

VRDB generally outperforms long-term debt



Floating Rate Notes ("FRNs")

Floating Rate Notes ("FRNs")

Purpose	Can generally be used in any capacity that traditional floating rate products like VRDOs would be used, to generate committed floating rate funding
Benefit(s)	• No liquidity is needed because there is no remarketing over the life of the bonds • Depending on put date, may be sold with optional par call feature ranging from 3-12 months
Risk(s)	• **Interest rate risk** related to underlying floating rate benchmark • Many issuers pursue hedging strategies to mitigate floating rate risk
Interest Rate	• **SIFMA or SOFR (or % thereof) plus a risk-based spread** • Pricing may be based on a par or premium coupon structure • Pricing may assume either a soft or hard put feature
Primary Buyer(s)	Muni market investors looking to include floating rate debt in their portfolio in a defensive position to take advantage of and hedge against a rising interest rate environment

FRN Put Options

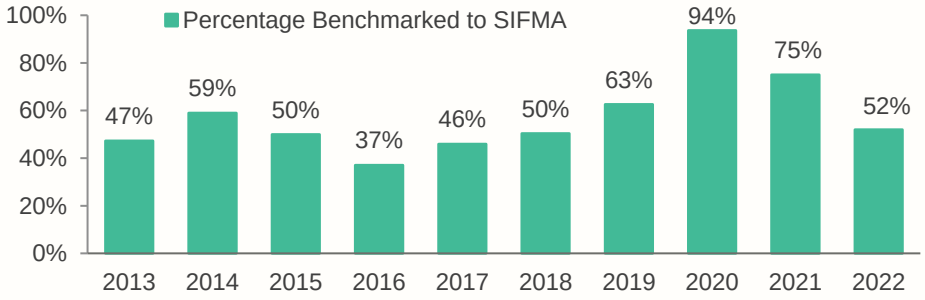
Soft Put FRN

- If Soft Put FRNs are not refinanced at the mandatory tender date, the issuer pays a punitive stepped-up interest rate on the bonds, but no event of default occurs
- The interest rate may "step-up" over a few periods if the bonds continue to remain outstanding, or it may automatically step up to the pre-determined maximum rate
- FRNs may be structured similar to the "term-out" feature of a bank liquidity facility whereby principal is paid over a defined period

Hard Put FRN

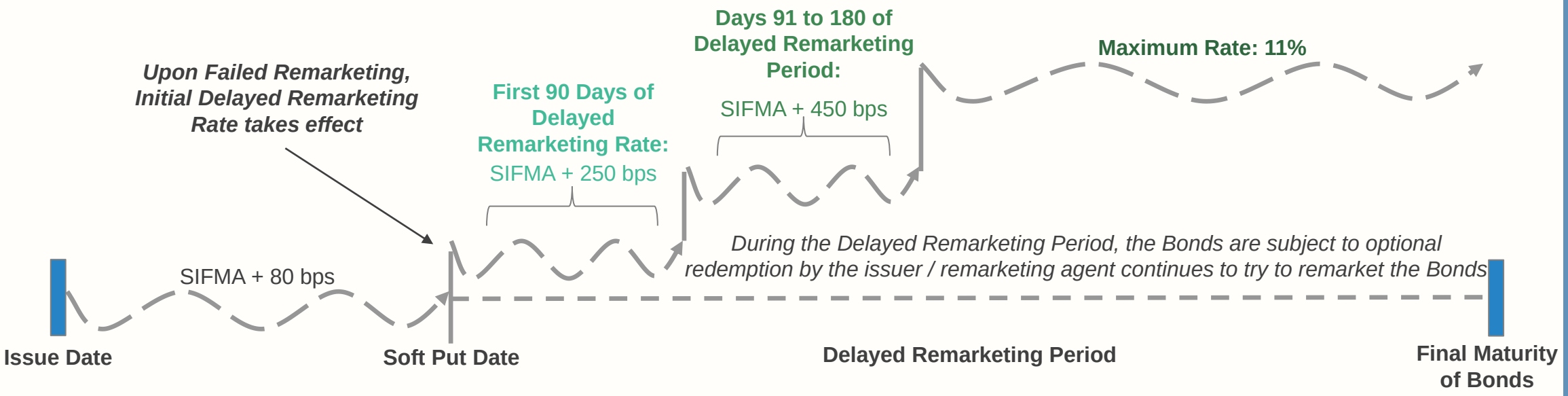
- If Hard Put FRNs are not refinanced at the mandatory tender date, the issuer is considered to be in default

Most FRNs are benchmarked to SIFMA

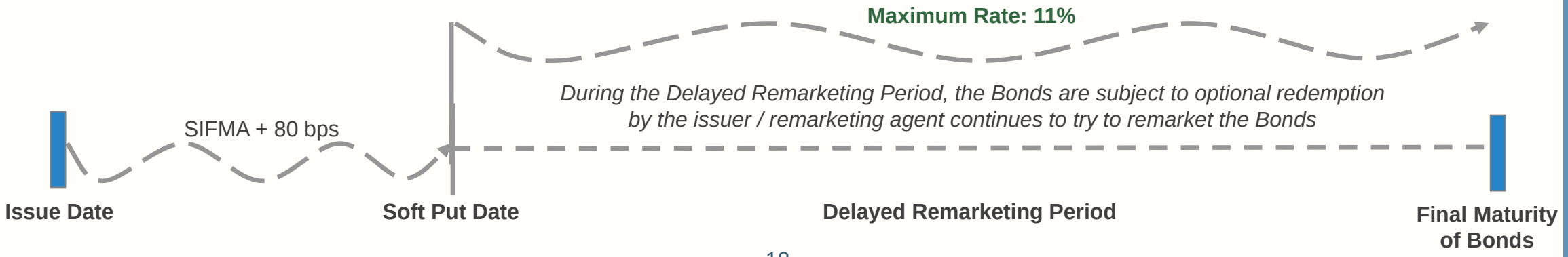


Comparative FRN Soft Put Structures

Step-Up Structure

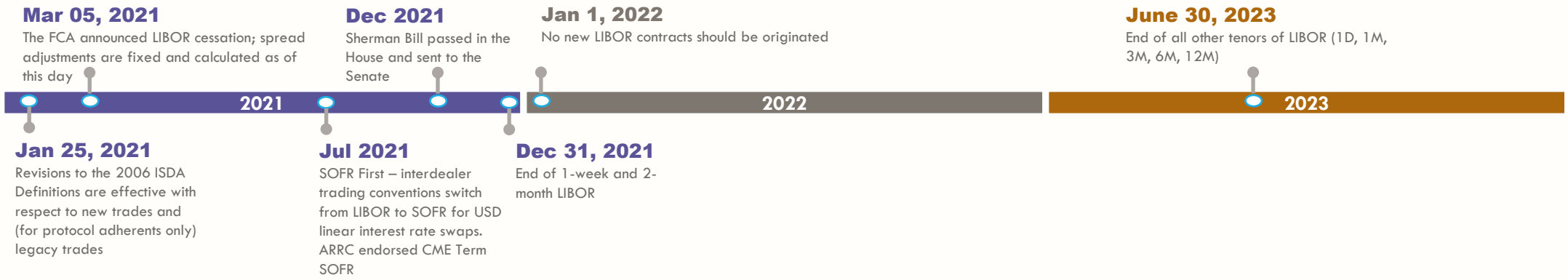


Immediate Max Rate Structure



USD LIBOR Transition

In 2017, the ICE Benchmark Association announced its intention to retire LIBOR rates *(actual timeline may differ)*



USD LIBOR Transition Background

- In 2017, the ICE Benchmark Association announced its intention to retire LIBOR rates at the end of 2021
  - Ultimately, it was determined that **most** US Dollar denominated ("USD") LIBOR maturity tenors would continue to be published until June 30, 2023 but that most banks would be encouraged **not** to enter new LIBOR-based contracts after 2021
- The LIBOR Replacement date is the first London banking day following June 30, 2023
  - The benchmark replacement rates will be used for each reset date occurring under the contract on and after the LIBOR Replacement Date
- In March 2022, President Biden signed into law the Consolidated Appropriations Act, 2022, which includes federal legislation that provides a solution for legacy financial contracts tied to LIBOR
- The legislation provides clarity, prevents disruption, and creates safe harbors for the transition from USD LIBOR to SOFR for **Tough Legacy Contracts** at USD LIBOR cessation on June 30, 2023
  - **Tough Legacy** - Existing LIBOR referencing contracts that are unable, before June 30, 2023, to either convert to a non-LIBOR rate or be amended to add fallbacks
- Application of the legislation does not depend upon what type of contract it is (e.g., a security, loan, mortgage, swap, etc.), but rather depends upon whether and how provisions in the contract deal with the replacement of LIBOR (known as "fallback provisions").
- The federal legislation scope covers contracts that are governed by U.S. law only
- Any contract within the legislation's scope can be taken out of scope by mutual agreement of the parties to the contract
- The legislation requires Federal Reserve Board to issue regulations specifying SOFR based benchmark replacement rates no later than 180 days after the legislation becomes effective

Bond Math: A Deeper Dive

Bobby Cheung, Director, KNN Public Finance, LLC

KNN Public Finance, LLC

- KNN Public Finance, LLC is an employee-owned independent municipal advisory firm.
  - Registered with the SEC and MSRB.
- Staff of 18, with offices in the Bay Area and Los Angeles.
- SEC rules assign a fiduciary duty to the municipal advisor – the highest standard of care; by law, we must put our clients' interest ahead of our own.

Why Bond Math is Important

- Management of existing debt portfolio.
- Priorities for new debt issuance.
- Understand impact of movements in the market upon debt.

Agenda

- Overview of Basic Bond Math Concepts
- Case Study – Applying Bond Math Concepts
- Impact of Recent Market Movements
- Frequently Asked Questions
- Audience Q&A

Section 1:
Overview of Basic Bond Math Concepts

General Bond Terminology

- Principal or Par Amount — Stated amount borrowed via a loan
- Maturity — Date at which principal is due to the bondholder, typically paid annually
- Interest / Coupon Rate — Interest due to the investor, typically paid semiannual
- Dollar Price — The price an investor will pay to receive the yield
- Yield — Rate of return to the investor based on price paid on investment
- CUSIP Number — Unique identification number assigned to registered bonds

Sample from Inside Cover of Official Statement

Maturity (June 1)	*Principal Amount*	*Interest Rate*	*Yield*	*Price*	*CUSIP No.* †
2023	$ 640,000	5.000%	1.630%	102.619	587657EX1
2024	640,000	5.000	1.750	105.687	587657EY9
2025	675,000	5.000	1.810	108.626	587657EZ6

General Bond Terminology (continued)

▪ Dated Date	Date from which an investor is entitled to receive interest
▪ Delivery Date	Settlement date of the bond (closing date for primary bond issuance)
▪ Yield to Maturity	Rate of return to the investor if the investment is held to maturity
▪ Call Date	Redemption date of a bond prior to maturity at the option of the issuer
▪ Call Premium	Any amount over 100% which is paid to the investor when bonds are called
▪ Basis Point	1/100 of 1%
▪ Serial Bond	Bond with single maturity
▪ Term Bond	Bond with sinking fund principal payments over multiple years
▪ Amortization	The shape of principal repayment of a loan

Bond Statistics Terminology

- True Interest Cost (T.I.C.) — Blended cost of borrowing that factors in time value of money
- All-in T.I.C. — Blended cost of borrowing that factors in time value of money AND costs of issuance
- Net Interest Cost (N.I.C.) — Blended cost of borrowing that factors in the average interest rate weighted for the time to maturity and does NOT factor in the time value of money
- Arbitrage Yield — Maximum rate that tax exempt bond proceeds can earn

Bond Pricing Terminology

Par Bond

- Coupon and Yield are equal
- Price equal to 100.000
- Every $1,000 of bonds issued will produce exactly $1,000 in proceeds, before deduction of underwriter's discount

Premium Bond

- Coupon is greater than Yield
- Price greater than 100.000
- Every $1,000 of bonds issued will produce over $1,000 in proceeds

Discount Bond

- Coupon is less than Yield
- Price less than 100.000
- Every $1,000 of bonds issued will produce less than $1,000 in proceeds

Bond Pricing Methodology

Par Bonds

- If coupon and yield are the same, the price of the bond is 100.000.

Premium Callable Bonds

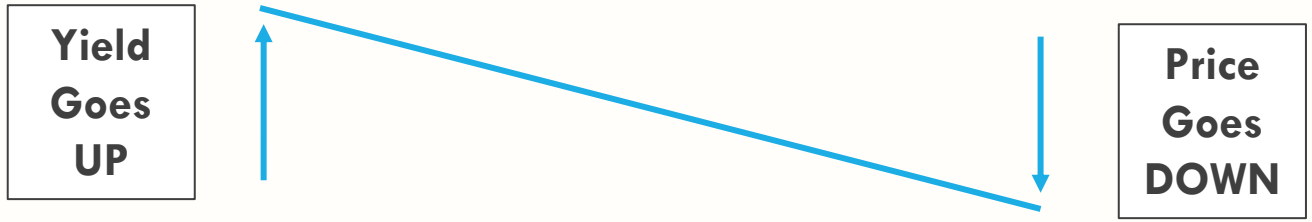
- Bond price must be calculated utilizing the lower of the yield (to call) versus the yield to maturity.
- For premium callable bonds, the yield to call is lower than the yield to maturity.

Bond Price Rounding

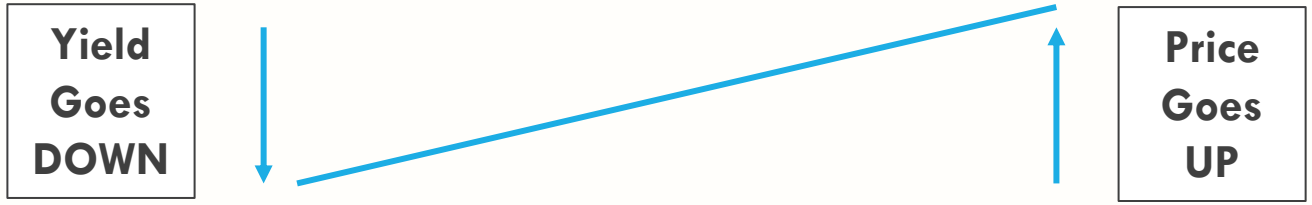
- Prices are shown as **truncated** to the 3rd decimal place.

Changes in Yield and Bond Price

- Yield and Price are inversely related
- For fixed rate bonds that have already priced, as market yields increase, the dollar price of the fixed-rate bond decreases:



- As yields decrease, price of a fixed rate bond increase



Section 2:
Case Study – Applying Bond Math Concepts

Case Study: Summary of Transaction

- New money Certificates of Participation to fund a new California County jail facility.
- Borrowing term of 25 years.
- Structured with level fiscal year payments.
- Funded costs of issuance, including bond insurance and surety bond policy.
- 10-year par optional call provision.
- Sold via competitive method of sale.

Sources and Uses

- Par plus premium equals Total Sources.
- Sum of all costs, including project cost, equals Total Uses.
- Total Sources equals Total Uses.

Sources and Uses

Sources	
Par Amount:	$28,975,000
Premium:	3,619,644
Total Sources:	$32,594,644
Uses:	
Project Fund:	$32,000,000
Cost of Issuance:	285,000
Underwriter's Discount:	123,992
Bond Insurance Premium:	138,158
Surety Bond Premium:	43,702
Rounding:	3,792
Total Uses:	$32,594,644

Bond Pricing Report

- Pricing consisted of all serial bonds.
- All maturities were priced at a premium structure, where the coupon is higher than the yield, except the 2046 maturity, which priced at a discount.
- Premium bonds that are subject to optional call are priced assuming the bonds are called.
  - We also show the YTM, which is the rate of return the investor receives if the bonds are NOT called.
- For discount bonds, the "yield" is the YTM.

Bond Pricing Report

Date	Principal Maturity	Coupon / Interest Rate	Yield	Yield to Maturity	Dollar Price
6/1/2023	$640,000	5.00%	1.63%		102.619
6/1/2024	640,000	5.00%	1.75%		105.687
6/1/2025	675,000	5.00%	1.81%		108.626
6/1/2026	705,000	5.00%	1.91%		111.231
6/1/2027	740,000	5.00%	1.92%		114.017
6/1/2028	780,000	5.00%	2.09%		115.778
6/1/2029	820,000	5.00%	2.20%		117.558
6/1/2030	860,000	5.00%	2.27%		119.379
6/1/2031	900,000	5.00%	2.35%		120.922
6/1/2032	945,000	5.00%	2.42%		122.357
6/1/2033	995,000	5.00%	2.54%	2.72%	121.192 c
6/1/2034	1,045,000	5.00%	2.65%	2.96%	120.136 c
6/1/2035	1,095,000	5.00%	2.73%	3.15%	119.375 c
6/1/2036	1,150,000	5.00%	2.80%	3.30%	118.713 c
6/1/2037	1,210,000	5.00%	2.88%	3.44%	117.963 c
6/1/2038	1,270,000	5.00%	2.97%	3.57%	117.125 c
6/1/2039	1,330,000	5.00%	3.03%	3.67%	116.570 c
6/1/2040	1,400,000	5.00%	3.10%	3.76%	115.927 c
6/1/2041	1,470,000	5.00%	3.19%	3.86%	115.107 c
6/1/2042	1,540,000	5.00%	3.21%	3.91%	114.926 c
6/1/2043	1,620,000	4.00%	3.60%	3.77%	103.270 c
6/1/2044	1,685,000	4.00%	3.70%	3.83%	102.439 c
6/1/2045	1,750,000	4.00%	3.80%	3.89%	101.617 c
6/1/2046	1,820,000	3.75%	3.90%		97.684
6/1/2047	1,890,000	5.00%	3.50%	4.20%	112.333 c
Total:	$28,975,000				

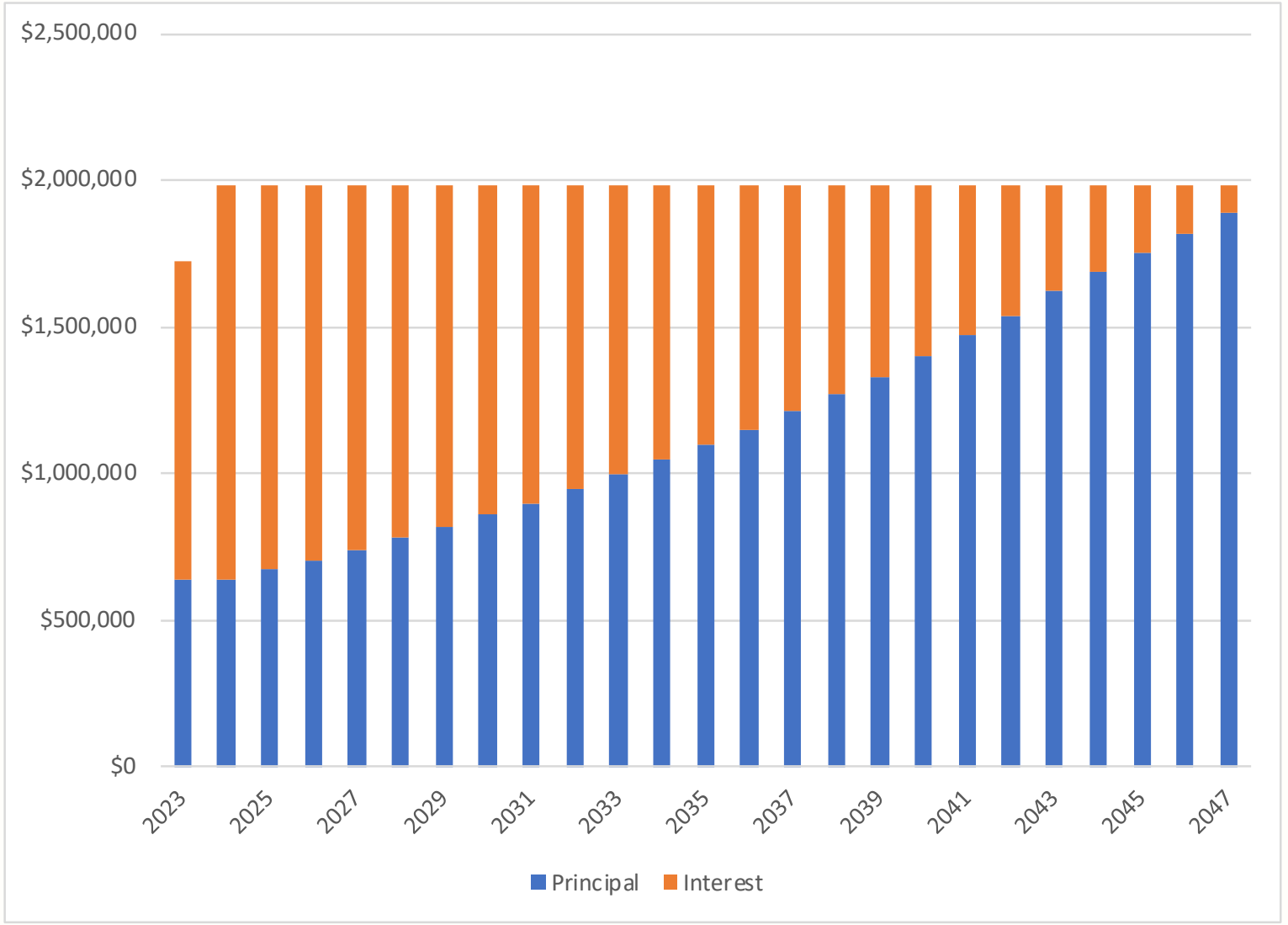
Debt Service and Amortization

- The principal amortization schedule created a level overall payment structure, by fiscal year, similar to monthly mortgage or car loan payment.
  - In this example, the short first period resulted in slightly less payment in first year.
- Repayment of principal increases over time while payment of interest decreases over time.

Debt Service Schedule

FY Ending	Principal Amount	Interest Cost	Total Cost
2023	$640,000	$1,081,257	$1,721,257
2024	640,000	1,343,450	1,983,450
2025	675,000	1,311,450	1,986,450
2026	705,000	1,277,700	1,982,700
2027	740,000	1,242,450	1,982,450
2028	780,000	1,205,450	1,985,450
2029	820,000	1,166,450	1,986,450
2030	860,000	1,125,450	1,985,450
2031	900,000	1,082,450	1,982,450
2032	945,000	1,037,450	1,982,450
2033	995,000	990,200	1,985,200
2034	1,045,000	940,450	1,985,450
2035	1,095,000	888,200	1,983,200
2036	1,150,000	833,450	1,983,450
2037	1,210,000	775,950	1,985,950
2038	1,270,000	715,450	1,985,450
2039	1,330,000	651,950	1,981,950
2040	1,400,000	585,450	1,985,450
2041	1,470,000	515,450	1,985,450
2042	1,540,000	441,950	1,981,950
2043	1,620,000	364,950	1,984,950
2044	1,685,000	300,150	1,985,150
2045	1,750,000	232,750	1,982,750
2046	1,820,000	162,750	1,982,750
2047	1,890,000	94,500	1,984,500
Total:	$28,975,000	$20,367,157	$49,342,157

Debt Service and Amortization



Detailed Calculation of Debt Service

Maturity:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Maturity Date:	2/1/2024	2/1/2025	2/1/2026	2/1/2027	2/1/2028	2/1/2029	2/1/2030	2/1/2031	2/1/2032	2/1/2033	2/1/2034	2/1/2035	2/1/2036	2/1/2037	2/1/2038	2/1/2039	2/1/2040	2/1/2041	2/1/2042	2/1/2043	2/1/2044	2/1/2045	2/1/2046	2/1/2047	2/1/2048		
Annual Principal Maturity:	640,000	640,000	675,000	705,000	740,000	780,000	820,000	860,000	900,000	945,000	995,000	1,045,000	1,095,000	1,150,000	1,210,000	1,270,000	1,330,000	1,400,000	1,470,000	1,540,000	1,620,000	1,685,000	1,750,000	1,820,000	1,890,000		
Coupon Rate:	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	4.00%	4.00%	4.00%	3.75%	5.00%	Total	Fiscal Yr
Payment Date																											
8/18/2022																											
12/1/2022	9,156	9,156	9,656	10,085	10,586	11,158	11,731	12,303	12,875	13,519	14,234	14,949	15,665	16,451	17,310	18,168	19,026	20,028	21,029	22,031	18,540	19,284	20,028	19,527	27,038	393,532	
6/1/2023	656,000	16,000	16,875	17,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,327,725	1,721,257
12/1/2023		16,000	16,875	17,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	671,725	
6/1/2024		656,000	16,875	17,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,311,725	1,983,450
12/1/2024			16,875	17,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	655,725	
6/1/2025			691,875	17,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,330,725	1,986,450
12/1/2025				17,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	638,850	
6/1/2026				722,625	18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,343,850	1,982,700
12/1/2026					18,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	621,225	
6/1/2027					758,500	19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,361,225	1,982,450
12/1/2027						19,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	602,725	
6/1/2028						799,500	20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,382,725	1,985,450
12/1/2028							20,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	583,225	
6/1/2029							840,500	21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,403,225	1,986,450
12/1/2029								21,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	562,725	
6/1/2030								881,500	22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,422,725	1,985,450
12/1/2030									22,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	541,225	
6/1/2031									922,500	23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,441,225	1,982,450
12/1/2031										23,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	518,725	
6/1/2032										968,625	24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,463,725	1,982,450
12/1/2032											24,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	495,100	
6/1/2033											1,019,875	26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,490,100	1,985,200
12/1/2033												26,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	470,225	
6/1/2034												1,071,125	27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,515,225	1,985,450
12/1/2034													27,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	444,100	
6/1/2035													1,122,375	28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,539,100	1,983,200
12/1/2035														28,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	416,725	
6/1/2036														1,178,750	30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,566,725	1,983,450
12/1/2036															30,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	387,975	
6/1/2037															1,240,250	31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,597,975	1,985,950
12/1/2037																31,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	357,725	
6/1/2038																1,301,750	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,627,725	1,985,450
12/1/2038																	33,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	325,975	
6/1/2039																	1,363,250	35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,655,975	1,981,950
12/1/2039																		35,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	292,725	
6/1/2040																		1,435,000	36,750	38,500	32,400	33,700	35,000	34,125	47,250	1,692,725	1,985,450
12/1/2040																			36,750	38,500	32,400	33,700	35,000	34,125	47,250	257,725	
6/1/2041																			1,506,750	38,500	32,400	33,700	35,000	34,125	47,250	1,727,725	1,985,450
12/1/2041																				38,500	32,400	33,700	35,000	34,125	47,250	220,975	
6/1/2042																				1,578,500	32,400	33,700	35,000	34,125	47,250	1,760,975	1,981,950
12/1/2042																					32,400	33,700	35,000	34,125	47,250	182,475	
6/1/2043																					1,652,400	33,700	35,000	34,125	47,250	1,802,475	1,984,950
12/1/2043																						33,700	35,000	34,125	47,250	150,075	
6/1/2044																						1,718,700	35,000	34,125	47,250	1,835,075	1,985,150
12/1/2044																							35,000	34,125	47,250	116,375	
6/1/2045																							1,785,000	34,125	47,250	1,866,375	1,982,750
12/1/2045																								34,125	47,250	81,375	
6/1/2046																								1,854,125	47,250	1,901,375	1,982,750
12/1/2046																									47,250	47,250	
6/1/2047																									1,937,250	1,937,250	1,984,500
																										49,342,157	49,342,157

- Holders of individual maturities receive current interest until their bond matures or are called.
- The sum of all principal and interest payments due result in the total payment column for every payment date.
- Convention is to assume 30-day month, 360-day year.

Calculation of True Interest Cost (T.I.C.)

The T.I.C. is the present value rate applied to the future stream of payments that results in the purchase price.

Step #1: Calculate Purchase Price

Bond Par Amount:	$28,975,000.00
+ Bond Premium:	3,619,643.90
- Underwriter's Discount:	123,991.85
Purchase Price:	$32,470,652.05

Step #2: Calculate Present Value

Payment Date	Payment	Present Value	Payment Date	Payment	Present Value
8/18/2022	0.00	0.00	12/1/2034	444,100.00	287,582.12
12/1/2022	393,531.53	389,569.34	6/1/2035	1,539,100.00	979,191.81
6/1/2023	1,327,725.00	1,291,317.97	12/1/2035	416,725.00	260,477.56
12/1/2023	671,725.00	641,854.22	6/1/2036	1,566,725.00	962,129.13
6/1/2024	1,311,725.00	1,231,423.72	12/1/2036	387,975.00	234,079.92
12/1/2024	655,725.00	604,792.35	6/1/2037	1,597,975.00	947,218.62
6/1/2025	1,330,725.00	1,205,848.34	12/1/2037	357,725.00	208,328.83
12/1/2025	638,850.00	568,752.22	6/1/2038	1,627,725.00	931,324.31
6/1/2026	1,343,850.00	1,175,424.74	12/1/2038	325,975.00	183,241.58
12/1/2026	621,225.00	533,842.06	6/1/2039	1,655,975.00	914,562.39
6/1/2027	1,361,225.00	1,149,247.60	12/1/2039	292,725.00	158,832.44
12/1/2027	602,725.00	499,945.57	6/1/2040	1,692,725.00	902,372.03
6/1/2028	1,382,725.00	1,126,831.97	12/1/2040	257,725.00	134,981.92
12/1/2028	583,225.00	466,959.59	6/1/2041	1,727,725.00	889,024.01
6/1/2029	1,403,225.00	1,103,799.80	12/1/2041	220,975.00	111,712.52
12/1/2029	562,725.00	434,889.62	6/1/2042	1,760,975.00	874,644.80
6/1/2030	1,422,725.00	1,080,248.37	12/1/2042	182,475.00	89,043.40
12/1/2030	541,225.00	403,738.66	6/1/2043	1,802,475.00	864,146.62
6/1/2031	1,441,225.00	1,056,267.94	12/1/2043	150,075.00	70,688.11
12/1/2031	518,725.00	373,507.49	6/1/2044	1,835,075.00	849,203.27
6/1/2032	1,463,725.00	1,035,479.39	12/1/2044	116,375.00	52,909.95
12/1/2032	495,100.00	344,107.96	6/1/2045	1,866,375.00	833,674.28
6/1/2033	1,490,100.00	1,017,506.14	12/1/2045	81,375.00	35,711.52
12/1/2033	470,225.00	315,462.08	6/1/2046	1,901,375.00	819,794.37
6/1/2034	1,515,225.00	998,707.72	12/1/2046	47,250.00	20,015.15
			6/1/2047	1,937,250.00	806,236.54
				$49,342,156.53	$32,470,652.05

Step #3: Calculate T.I.C.

Total PV:	$32,470,652.05
True Interest Cost:	3.568308%

Calculation of All-In T.I.C.

The All-In T.I.C. is the present value rate applied to the future stream of payments that results in the purchase price less cost of issuance.

Step #1: Calculate Target Value

Bond Par Amount:	$28,975,000.00
+ Bond Premium:	3,619,643.90
- Underwriter's Discount:	-123,991.85
- Cost of Issuance:	**-285,000.00**
- Bond Insurance Premium	**-138,158.04**
- Surety Bond Premium:	**-43,701.90**
Target Value	$32,003,792.11

Step #2: Calculate Present Value

Payment Date	Payment	Present Value	Payment Date	Payment	Present Value
8/18/2022	0.00	0.00	12/1/2034	444,100.00	282,922.58
12/1/2022	393,531.53	389,421.17	6/1/2035	1,539,100.00	962,686.32
6/1/2023	1,327,725.00	1,289,969.01	12/1/2035	416,725.00	255,916.70
12/1/2023	671,725.00	640,757.61	6/1/2036	1,566,725.00	944,654.44
6/1/2024	1,311,725.00	1,228,502.87	12/1/2036	387,975.00	229,675.70
12/1/2024	655,725.00	602,956.86	6/1/2037	1,597,975.00	928,779.05
6/1/2025	1,330,725.00	1,201,389.77	12/1/2037	357,725.00	204,137.52
12/1/2025	638,850.00	566,272.71	6/1/2038	1,627,725.00	911,980.81
6/1/2026	1,343,850.00	1,169,522.67	12/1/2038	325,975.00	179,316.43
12/1/2026	621,225.00	530,808.53	6/1/2039	1,655,975.00	894,377.11
6/1/2027	1,361,225.00	1,141,957.66	12/1/2039	292,725.00	155,223.63
12/1/2027	602,725.00	496,444.16	6/1/2040	1,692,725.00	881,283.30
6/1/2028	1,382,725.00	1,118,196.51	12/1/2040	257,725.00	131,739.74
12/1/2028	583,225.00	463,073.11	6/1/2041	1,727,725.00	867,093.61
6/1/2029	1,403,225.00	1,093,885.50	12/1/2041	220,975.00	108,884.39
12/1/2029	562,725.00	430,697.03	6/1/2042	1,760,975.00	851,935.65
6/1/2030	1,422,725.00	1,069,123.19	12/1/2042	182,475.00	86,673.85
12/1/2030	541,225.00	399,315.12	6/1/2043	1,802,475.00	840,591.68
6/1/2031	1,441,225.00	1,044,000.75	12/1/2043	150,075.00	68,715.59
12/1/2031	518,725.00	368,924.35	6/1/2044	1,835,075.00	824,958.10
6/1/2032	1,463,725.00	1,022,093.78	12/1/2044	116,375.00	51,365.19
12/1/2032	495,100.00	339,433.97	6/1/2045	1,866,375.00	808,796.41
6/1/2033	1,490,100.00	1,003,018.41	12/1/2045	81,375.00	34,622.82
12/1/2033	470,225.00	310,763.73	6/1/2046	1,901,375.00	794,273.95
6/1/2034	1,515,225.00	983,179.59	12/1/2046	47,250.00	19,379.18
			6/1/2047	1,937,250.00	780,100.30
				$49,342,156.53	**$32,003,792.11**

Step #3: Calculate All-In T.I.C.

Total PV:	**$32,003,792.11**
All-In T.I.C.:	**3.703682%**

Calculation of N.I.C.

The N.I.C. is the blended cost of borrowing that factors in the average interest rate weighted for the time to maturity and does NOT factor in the time value of money.

Step #1: Calculate Numerator

Total Interest Payments:	$20,367,156.53
+ Underwriter's Discount:	123,991.85
- Premium:	3,619,643.90
Total:	$16,871,504.48

Step #2: Calculate the Denominator

Maturity	Principal	Yrs. From Dated Date	Bond Years
6/1/2023	$640,000	0.79	503,111
6/1/2024	640,000	1.79	1,143,111
6/1/2025	675,000	2.79	1,880,625
6/1/2026	705,000	3.79	2,669,208
6/1/2027	740,000	4.79	3,541,722
6/1/2028	780,000	5.79	4,513,167
6/1/2029	820,000	6.79	5,564,611
6/1/2030	860,000	7.79	6,696,056
6/1/2031	900,000	8.79	7,907,500
6/1/2032	945,000	9.79	9,247,875
6/1/2033	995,000	10.79	10,732,181
6/1/2034	1,045,000	11.79	12,316,486
6/1/2035	1,095,000	12.79	14,000,792
6/1/2036	1,150,000	13.79	15,854,028
6/1/2037	1,210,000	14.79	17,891,194
6/1/2038	1,270,000	15.79	20,048,361
6/1/2039	1,330,000	16.79	22,325,528
6/1/2040	1,400,000	17.79	24,900,556
6/1/2041	1,470,000	18.79	27,615,583
6/1/2042	1,540,000	19.79	30,470,611
6/1/2043	1,620,000	20.79	33,673,500
6/1/2044	1,685,000	21.79	36,709,597
6/1/2045	1,750,000	22.79	39,875,694
6/1/2046	1,820,000	23.79	43,290,722
6/1/2047	1,890,000	24.79	46,845,750
Total:	$28,975,000		440,217,569

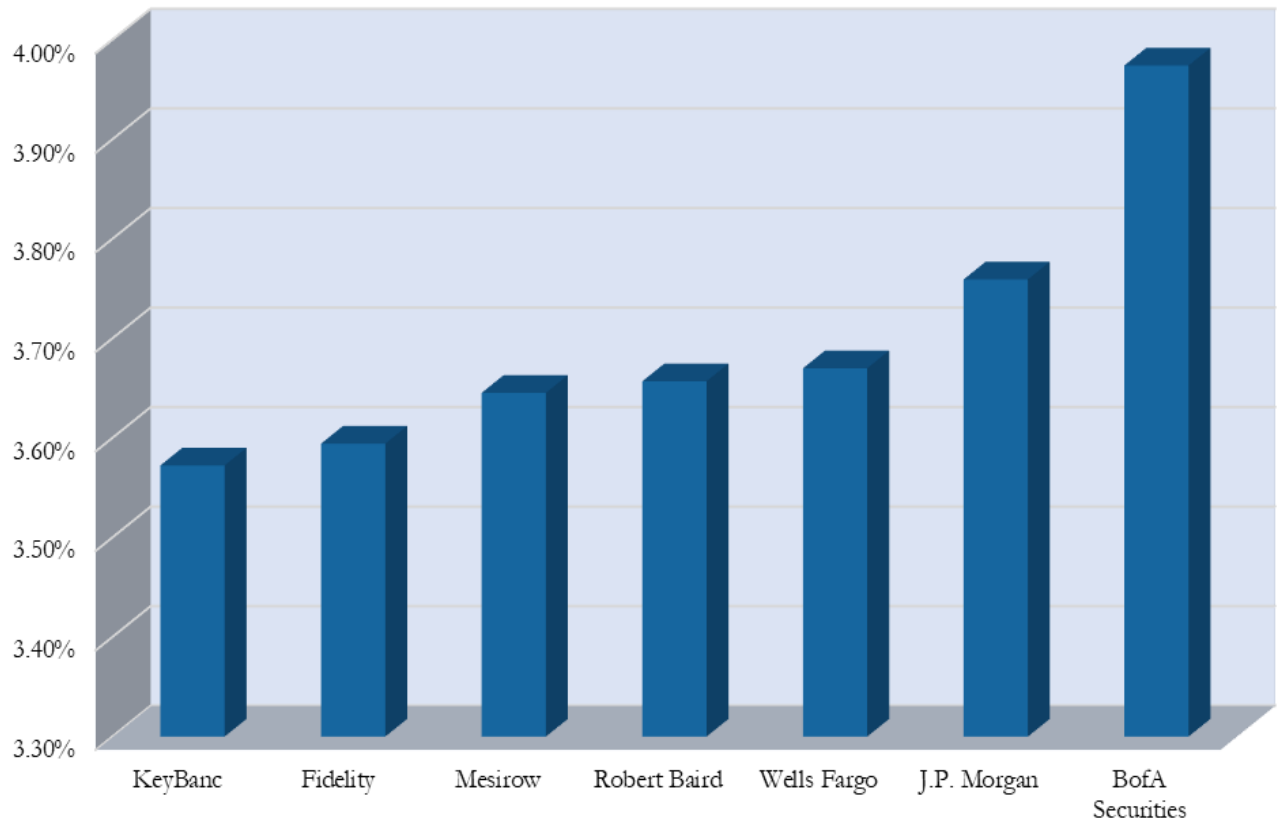
Step #3: Calculate N.I.C.

Numerator:	$16,871,504.48
Denominator (Bond Years):	440,217,569.44
N.I.C.:	**3.832538%**

Pricing Via Competitive Sale

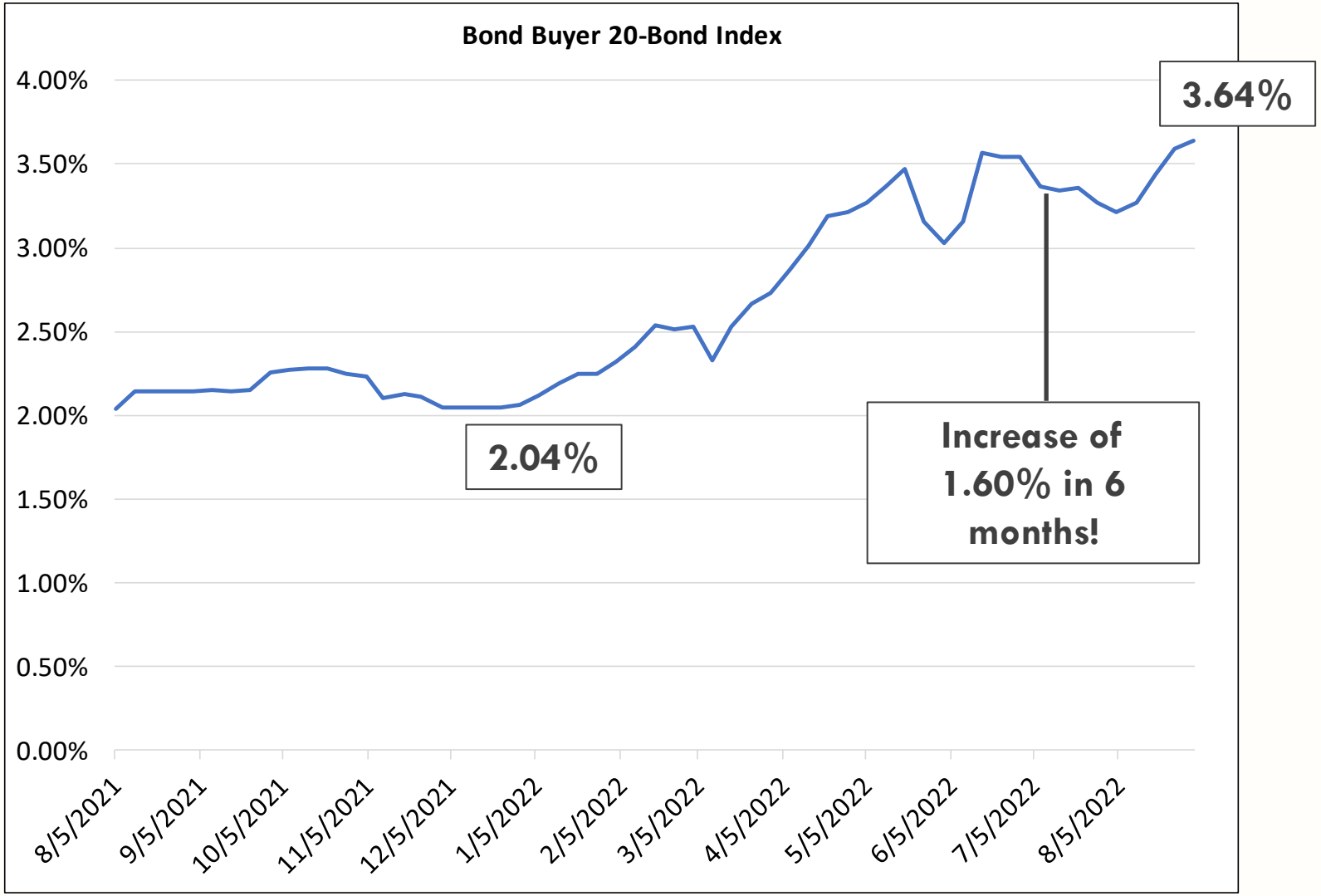
This transaction was priced via competitive sale, with T.I.C. as the basis for award.

Bid Award*	Bidder Name	TIC
☐	KeyBanc Capital Markets	3.572405
☐	Fidelity Capital Markets	3.594273
☐	Mesirow Financial, Inc.	3.645351
☐	Robert W. Baird & Co., Inc.	3.656948
☐	Wells Fargo Bank, National Association	3.669999
☐	J.P. Morgan Securities LLC	3.759251
☐	BofA Securities	3.974176



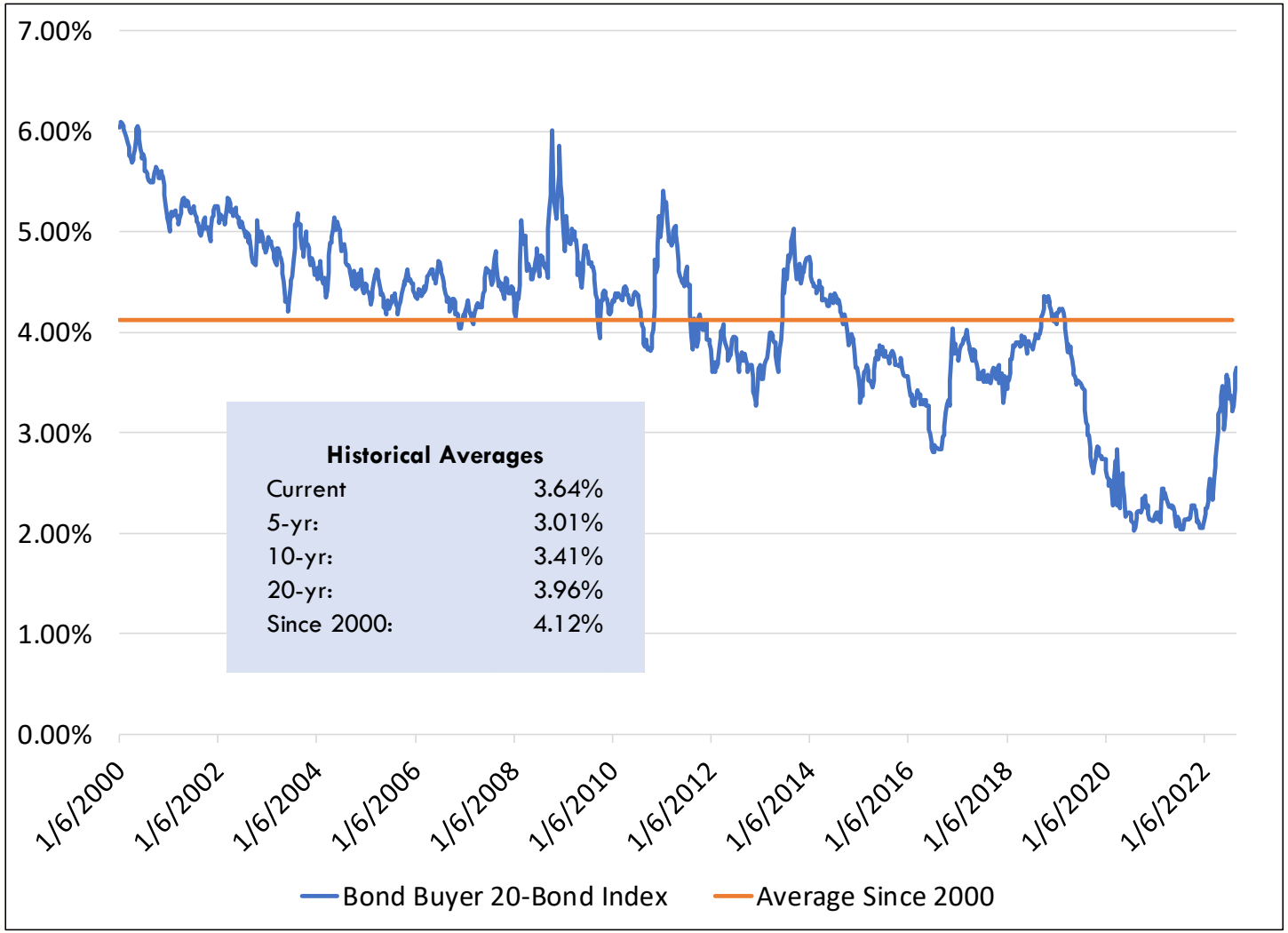
Section 3:
The Impact of Recent Market Movements

Shift in Bond Market in 2022



Source: *The Bond Buyer*.
*General obligation bonds maturing in 20 years are used in compiling the indexes. The 20-bond index has an average rating equivalent to Moody's Aa2 and S&P's AA.

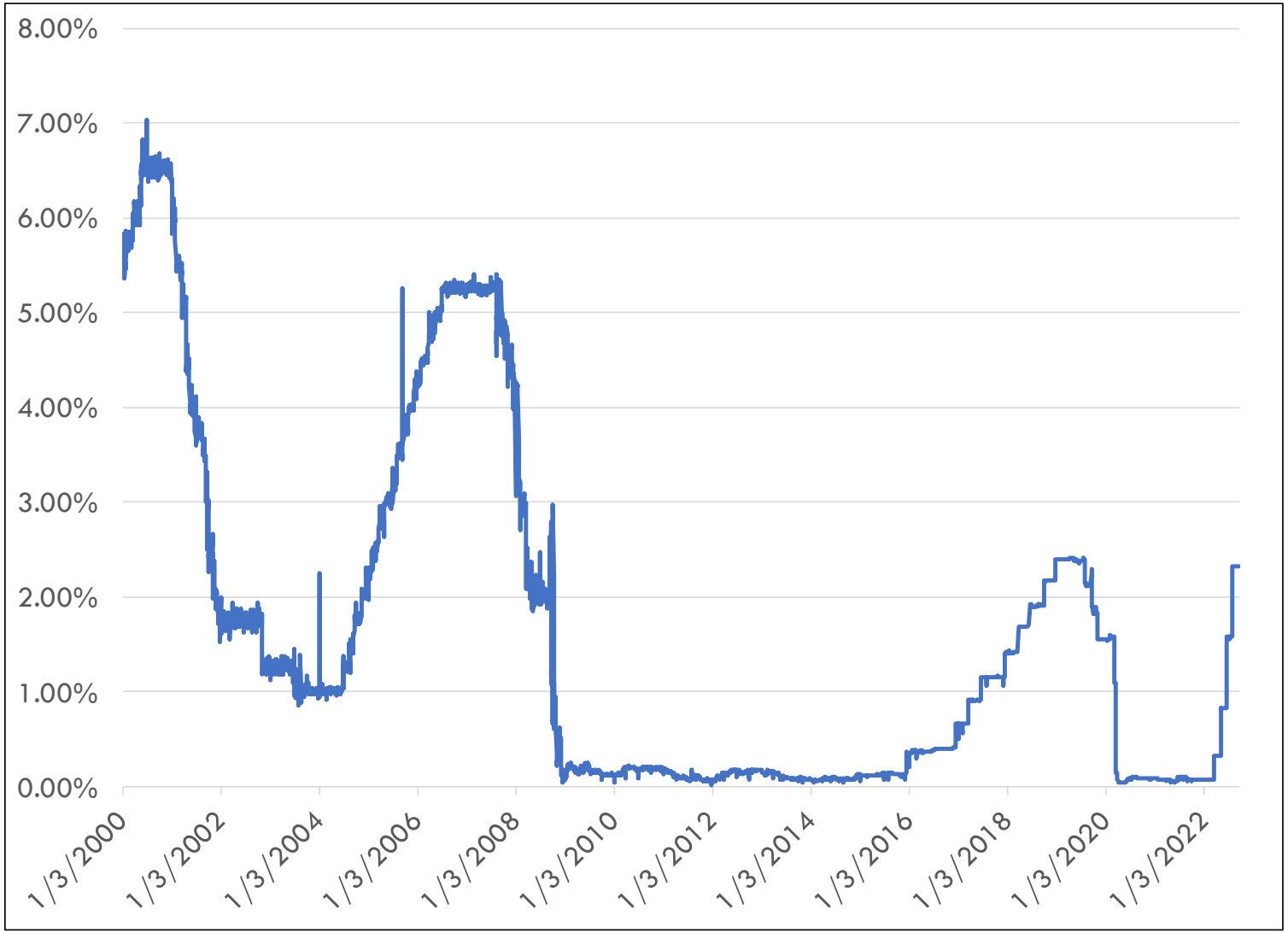
Rates from a Historical Perspective



Source: *The Bond Buyer*.
*General obligation bonds maturing in 20 years are used in compiling the indexes. The 20-bond index has an average rating equivalent to Moody's Aa2 and S&P's AA.

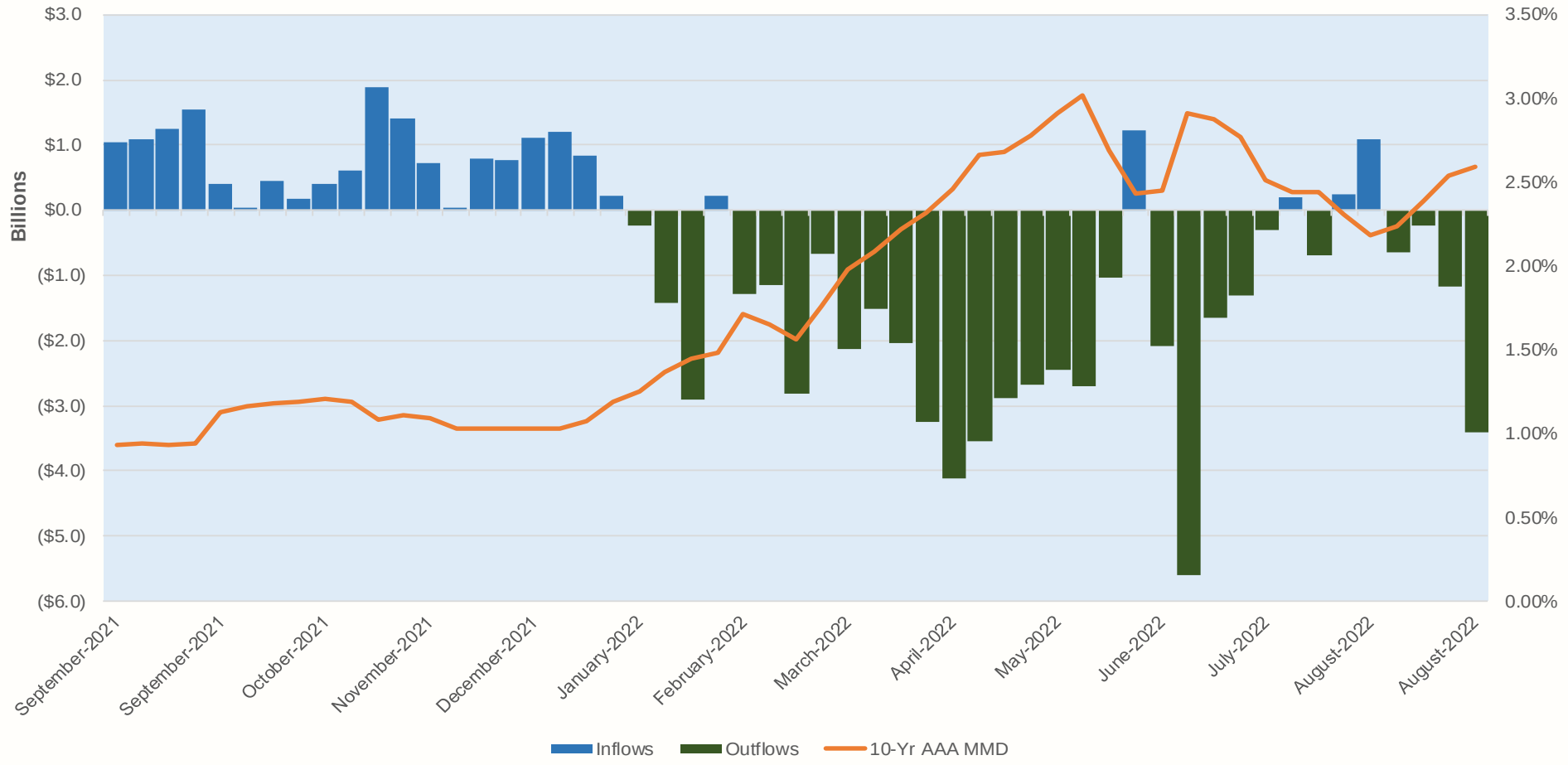
Proactive FOMC to Target Inflation

- The FOMC has increased the target for the federal funds rate in 2022.
- There are two more FOMC meetings in 2022
  - November 1-2
  - December 13-14



Source: Refinitiv / TM3.

Municipal Bond Fund Flows Impact Market Demand



Source: Refinitiv / TM3, Lipper.

Implications of Rising Rate Environment

Borrower's Perspective:

- Higher cost of funds for new money projects.
- Lower "debt capacity".
- Less opportunity to generate savings from refundings.

Investor's Perspective:

- Declining value in bond portfolios.
- Higher yielding new investments in bond portfolios.

Section 4:
Frequently Asked Questions

FAQ #1

Question:

- Why are certain bonds priced a premium, par, or discount?

Answer:

  - Largely depends on investor preference and market conditions:
  - Institutional investors, who buy and actively trade bonds, are typically purchasers of premium tax-exempt bonds.
  - Individual investors, who typically buy and hold to maturity, are typically purchasers of par or discount tax-exempt bonds.

FAQ #2

Question:

- Why are new issue tax-exempt bonds typically priced with a premium structure?

Answer:

- The premium pricing structure is so pervasive, viewed as a market convention.
- Viewed as "defensive" couponing structure; dollar price is less sensitive to market movement. (example on next page)
- Premium bond pricing helps prevent the triggering of a tax event due to the *de minimis* rule.
  - A discount bond may trigger a taxable event (either as capital gains or ordinary income) and investors who purchase tax-exempt bonds generally want to avoid such situations.

FAQ #2 - Example of Defensive Couponing

Example A: Premium Bond

Maturity	Par	Coupon	Yield	Dollar Price
6/1/2042	1,540,000	**5.00%**	3.21%	114.926
Yield Increase of 50 bps:			3.71%	110.500
Reduction in Dollar Price:				**-4.426**
Reduction in Dollar Price as %:				**-3.9%**

Example B: Discount Bond

Maturity	Par	Coupon	Yield	Dollar Price
6/1/2042	1,540,000	**3.00%**	3.21%	96.938
Yield Increase of 50 bps:			3.71%	90.106
Reduction in Dollar Price:				**-6.832**
Reduction in Dollar Price as %:				**-7.0%**

FAQ #3

Question:

- Should I dictate premium couponing structure on my new money transactions in order to preserve the refundability in the future?

Answer:

- Depends on multiple factors:
  - Future interest rate environment, which no one can predict.
  - Remaining term and par amount of financing at call date.
  - Pricing benefit between premium vs. par/discount bonds.
  - Size of transaction or frequency of issuance; are you likely to execute a refunding?

FAQ #3 – Sample Analysis

- Analysis can help to dimension the trade-offs between couponing structures.

Example Analysis Comparing "Low Coupon" Structure vs. 4.00% Coupon Structure

Low Coupon Vs. 4% Scale Scenarios	
4/1/2021-4/1/2030 Debt Service Comparison	
Low Coupon Scenario DS:	17,225,634.03
4% Scale Scenario DS:	17,793,088.89
Difference:	-567,454.86
Low Coupon Scenario Saves:	**567,454.86**

Low Coupon Vs. 4% Scale Scenarios Assuming 10-Year Par Call is Not Used			
PV of Low Coupon Scenario's DS:	38,018,678.48	Gross DS of Low Coupon Scenario:	59,208,409.03
(Less) PV of 4% Scale Scenario's DS:	38,613,433.41	(Less) Gross DS of 4% Scale Scenario:	59,847,288.89
Difference in PV:	-594,754.93	Difference in Gross DS:	-638,879.86
Low Coupon Scenario Saves:	**594,754.93**	**Low Coupon Scenario Saves:**	**638,879.86**

Low Coupon Vs. 4% Scale Scenarios Assuming 10-Year Par Call is Used			
PV of Low Coupon Scenario's DS:	35,549,506.03	Gross DS of Low Coupon Scenario:	55,111,309.59
(Less) PV of 4% Scale Scenario's DS:	35,187,187.17	(Less) Gross DS of 4% Scale Scenario:	54,014,363.33
Difference in PV:	362,318.86	Difference in Gross DS:	1,096,946.26
4% Scale Scenario Saves:	**362,318.86**	**4% Scale Scenario Saves:**	**1,096,946.26**

Section 5: Audience Q&A

Bobby Cheung, Director

KNN Public Finance, LLC
2054 University Avenue, Suite 300
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510-208-8214 (o)

510-381-3548 (m)

Appendix: Detailed Bond Price Calculation

Appendix: Detailed Bond Price

- The dollar price of a bond is the present value of the future cashflows at the market yield
- Coupon, yield, and time are the only factors in price
- There are several methods to derive bond price, including:

$$\text{Bond Dollar Price} = \frac{100}{\left(1 + \frac{\text{Yield}}{2}\right)^{\#\text{ of semi-annual periods}}} + 100 \times \frac{\text{Coupon}}{2} \times \frac{1 - \left(1 + \frac{\text{Yield}}{2}\right)^{-\#\text{ of semi-annual periods}}}{\left(\frac{\text{Yield}}{2}\right)}$$

Present value of the principal at maturity

Present value of the interest payments over time

Bond Price Formula Example

- What is the price of a municipal bond assuming:
  - 10 Year Maturity
  - 5.00% Coupon
  - 4.00% Yield

$$\text{Bond Price} = \frac{100}{\left(1 + \frac{\text{Yield}}{2}\right)^{\#\text{ of semi-annual periods}}} + 100 \times \frac{\text{Coupon}}{2} \times \frac{1 - \left(1 + \frac{\text{Yield}}{2}\right)^{-\#\text{ of semi-annual periods}}}{\left(\frac{\text{Yield}}{2}\right)}$$

Bond Price Formula Example

- What is the price of a municipal bond assuming:
  - 10 Year Maturity (20 semi-annual periods)
  - 5.00% Coupon
  - 4.00% Yield

$$\text{Bond Price} = \frac{100}{\left(1 + \frac{\text{Yield}}{2}\right)^{20}} + 100 \times \frac{\text{Coupon}}{2} \times \frac{1 - \left(1 + \frac{\text{Yield}}{2}\right)^{-20}}{\left(\frac{\text{Yield}}{2}\right)}$$

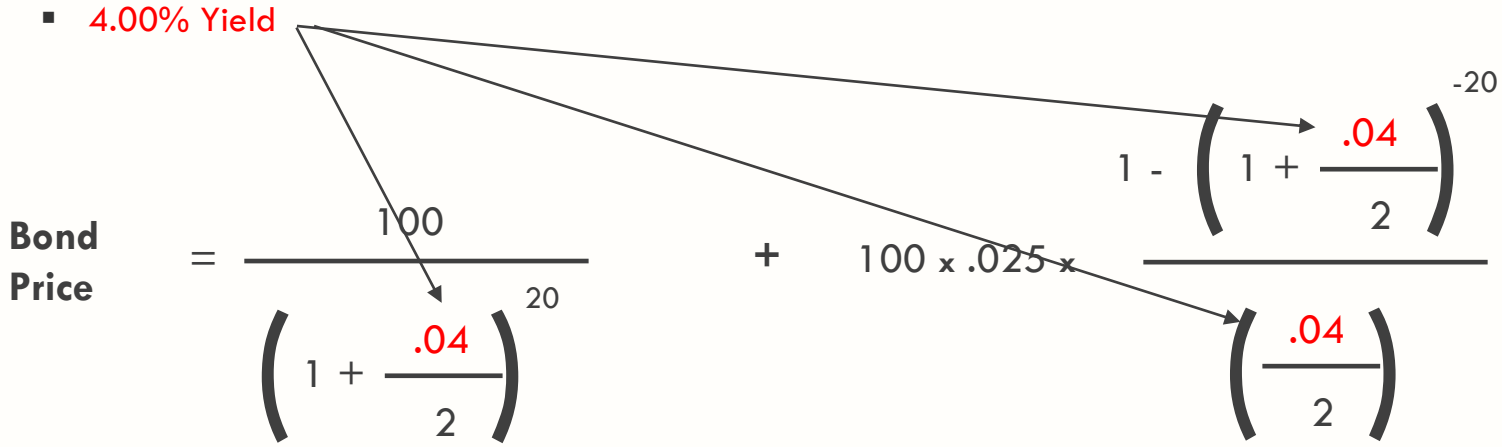
Bond Price Formula Example

- What is the price of a municipal bond assuming:
  - 10 Year Maturity (20 semi-annual periods)
  - 5.00% Coupon
  - 4.00% Yield

$$\text{Bond Price} = \frac{100}{\left(1 + \frac{\text{Yield}}{2}\right)^{20}} + 100 \times .025 \times \frac{1 - \left(1 + \frac{\text{Yield}}{2}\right)^{-20}}{\left(\frac{\text{Yield}}{2}\right)}$$

Bond Price Formula Example

- What is the price of a municipal bond assuming:
  - 10 Year Maturity (20 semi-annual periods)
  - 5.00% Coupon
  - 4.00% Yield



Bond Price Formula Example

- Municipal bond convention for pricing is truncation at the 3rd decimal
- No rounding!

Bond Price = 108.175766

MSRB Rule G-42: Disclosure of Conflicts of Interest & Legal or Disciplinary Events

Pursuant to Municipal Securities Rulemaking Board ("MSRB") Rule G-42, on Duties of Non-Solicitor Municipal Advisors, Municipal Advisors are required to make certain written disclosures to clients which include, amongst other things, Conflicts of Interest and any Legal or Disciplinary events of KNN Public Finance, LLC ("KNN Public Finance") and its associated persons.

Conflicts of Interest

Other Municipal Advisor Relationships. KNN serves a wide variety of other clients that may from time to time have interests that could have a direct or indirect impact on the interests of another KNN client. For example, KNN serves as municipal advisor to other municipal advisory clients and, in such cases, owes a regulatory duty to such other clients just as it will to your entity, if hired. These other clients may, from time to time and depending on the specific circumstances, have competing interests. In acting in the interests of its various clients, KNN could potentially face a conflict of interest arising from these competing client interests. KNN fulfills its regulatory duty and mitigates such conflicts through dealing honestly and with the utmost good faith with its clients.

Compensation. KNN Public Finance represents that in connection with the issuance of municipal securities, KNN Public Finance may receive compensation from an Issuer or Obligated Person for services rendered, which compensation is contingent upon the successful closing of a transaction and/or is based on the size of a transaction. Consistent with the requirements of MSRB Rule G-42, KNN Public Finance hereby discloses that such contingent and/or transactional compensation may present a potential conflict of interest regarding KNN Public Finance's ability to provide unbiased advice to enter into such transaction. This conflict of interest will not impair KNN Public Finance's ability to render unbiased and competent advice or to fulfill its fiduciary duty to the Issuer.

If KNN Public Finance becomes aware of any additional potential or actual conflict of interest after this disclosure, KNN Public Finance will disclose the detailed information in writing to the Issuer in a timely manner.

Legal or Disciplinary Events

KNN Public Finance, LLC, has never been subject to any legal, disciplinary or regulatory actions nor was it ever subject to any legal, disciplinary or regulatory actions previously, when it was a division of Zions First National Bank or Zions Public Finance, Inc.

A regulatory action disclosure has been made on Form MA-I for one of KNN Public Finance municipal advisory personnel relating to a 1998 U.S. Securities and Exchange Commission ("SEC") order that was filed while the municipal advisor was employed with a prior firm, (not KNN Public Finance). The details of which are available in Item 9; C(1), C(2), C(4), C(5) and the corresponding regulatory action DRP section on Form MA and Item 6C; (1), (2), (4), (5) and the corresponding regulatory action DRP section on Form MA-I. Issuers may electronically access KNN Public Finance's most recent Form MA and each most recent Form MA-I filed with the Commission at the following website: www.sec.gov/edgar/searchedgar/companysearch.html.

The SEC permits certain items of information required on Form MA and Form MA-I to be provided by reference to such required information already filed on a regulatory system (e.g., FINRA CRD). The above noted regulatory action has been referenced on both Form MA and MA-I due to the information already filed on FINRA's CRD system and is publicly accessible through BrokerCheck at http://brokercheck.finra.org. For purposes of accessing such BrokerCheck information, the Municipal Advisor's CRD number is 4457537.

There has been no change to any legal or disciplinary event that has been disclosed on KNN Public Finance's original SEC registration Form MA filed on February 8, 2016 or Form MA-I's filed on January 22, 2016.

Initial Disclosure and Legal Documents

Dewayne Woods, Monterey County Assistant CAO

Jacqui Jennings, Partner, ArentFox Schiff LLP

Disclosure Essentials

WHO?

- Issuer
- Borrowers
- Obligated Persons

WHAT?

To provide all information **material** to investors in making a decision to purchase or sell in the District's debt

WHY?

Investors in municipal securities have rights under federal securities laws

WHEN?

Whenever the District "speaks to the market" those communications are subject to federal disclosure rules

- Preliminary Official Statement
- Final Official Statement
- Press Releases
- Voluntary Disclosures
- Annual Reports

WHERE?

- EMMA

Disclosure Framework

- Securities Act of 1933 - "Truth in Securities Law"
  - Requires investors receive financial and other significant information for securities prior to sale
  - Prohibits deceit, misrepresentations, and fraud in sale of securities.
  - Section 17(a)
- Exchange Act of 1934 – Created the SEC; conferred broad authority to the SEC to register, regulate, and oversee securities transactions and participants; and require periodic filings
  - Section 10(b)
    - Rule 10b-5
- Rule 15c2-12

Securities Act of 1933

Section 17(a) – "Antifraud Rule"

- Prohibits fraud in the offer or sale of securities – "It shall be unlawful for any person in the offer or sale of any securities by the use of any means . . . of . . . communication in interstate commerce or by the use of the mail, directly or indirectly
- To employ any device, scheme or artifice to **defraud**, or
- To obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading, or
- To engage in any transaction, practice, or course of business which operates or would operate as a **fraud** or deceit upon the purchaser"

Exchange Act of 1934

Section 10(b)(i)

- Section 10(b)(i) – "It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality or interstate commerce, or of the mails or of any facility of any national securities exchange to use or employ, in connection with the purchase or sale of any security . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors."

Rule 10b-5

- Makes it "*unlawful* for any person, directly or indirectly, by the use of any means . . . of interstate commerce, or of the mails . . .
  - To employ any device, scheme, or **artifice** to **defraud**
  - To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or
  - To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, *in connection with the purchase or sale of any security*"

Exchange Act of 1934

Application of Rule 10b-5

- Whatever you do say the disclosure must be accurate
- Don't omit any material information
- Whenever the issuer "speaks to the market," including:
  - Disclosure in offering documents - the District's document distributed to investors
  - Continuing disclosure filed under Rule 15c2-12
  - Voluntary filings
  - Investor Communications
  - Press releases and speeches
- In its August 2010 Order against State of New Jersey the SEC repeated its long-stated position that Rule 10b-5 also applies to "[continuing] disclosure and to any other statements to the market"

Exchange Act of 1934

Materiality Defined

- A statement or omission is material if:
  - "there is a **substantial** likelihood that a **reasonable** investor would consider it **important** in making the decision to purchase or sell the securities"
  - "there is substantial likelihood that having the information would have been viewed by the reasonable investor as having significantly altered the total mix of information available"
- Determined in the context of all relevant facts and circumstances, and upon the incurrence of each financial obligation
- No set checklist

Exchange Act of 1934

Elements of Materiality

- Unusual, Alarming, Worrisome
- Red Flags
- Probability and Magnitude
- In any SEC enforcement action or other securities law proceeding the determination of what is "*material*" is made in hindsight and in light of any "*bad*" things which happened/developed after the original disclosure

Rule 15c2-12

Adopted in 1982 to prevent fraudulent, deceptive or manipulative acts or practices by participating underwriters of municipal bonds and improve timeliness of disclosures

- Requires participating underwriters to:
  - Obtain and review an official statement deemed final by the issuer as of its date

Exchange Act of 1934

Rule 15c2-12 (continued)

- Obtain a written agreement (a continuing disclosure undertaking or CDU) of the **issuer** to file:
  - **Annual Reports** disclosing financial and operating information specified in a written continuing disclosure undertaking (CDU), including audited financial statements
  - **Notices of the occurrence of Specified Events** within 10 business days following occurrence

Monterey County Profile

- Monterey County is located near the midpoint of California's Pacific Coast; approximately 130 miles south of San Francisco and 240 miles north of Los Angeles
- Population of approximately 433,716 as of January 1, 2022 as estimated by the California Department of Finance
- 3,711 square miles and includes 12 incorporated cities and 16 unincorporated areas
- County seat is located in Salinas

Monterey County Profile

Employment and Industry

- Agriculture
  - Monterey County is one of the nation's top agricultural producers in the State
  - The 2020 Crop and Livestock report produced by Monterey County reported a production value of over $3.9 billion in crop farming
  - Monterey's agriculture contributes a total of $11.7 billion in economic output
  - Monterey County farmers grow more than 150 crops with the top two crops being strawberries and leaf lettuce
- Tourism
  - Monterey County attracts nearly 4.8 million visitors annually
  - Tourism spending in Fiscal Year 2019-20 was $3.2 billion supporting 27,120 jobs in the County and generating $153 million in local tax revenue

Monterey County Profile

Income

Per Capita Income and Median household Income Selected Counties and California			
	Per Capita Income	Median Household Income	Persons in Poverty
Monterey County	32,122	76,943	11.6%
San Luis Obispo County	38,686	77,948	10.6%
Santa Barbara County	38,141	78,925	10.5%
Santa Clara County	59,297	130,890	6.6%
California	38,576	78,672	11.5%

Source: U.S. Census Bureau, QuickFacts 2021

Labor Force and Unemployment

Labor Force 2021 Annual Averages	
Labor Force	211,867
Employment	194,325
Unemployment	17,550
Unemployment Rate	8.4%

Source: California Employment Development Department Labor Market Information Division, Unemployment Rate and Labor Force Data March 2022

Basic Legal Documents

- Authorizing Resolution(s)
- Trust Agreement / Indenture of Trust / Indenture
- Loan Agreement
- Preliminary Official Statement (POS) / Official Statement
- Bond Purchase Agreement (BPA) / Bond Purchase Contract
- Continuing Disclosure Undertaking (CDU)
- Tax Certificate
- Closing Certificates, Documents and Opinions

Authorizing Resolution

Parties:

- Issuer
- Borrower

Purpose:

- Authorizes the sale of the bonds by the Issuer and establishes the parameters for the issuance of the bonds, authorizes the execution and delivery of each of the financing documents, directs staff to take other actions necessary to complete the transactions, delegates officers to approve revisions to financing documents consistent with the parameters

Key Provisions:

- Maximum principal amount of bonds to be issued
- Maximum interest rate
- Maximum Underwriter's discount
- Maximum term
- Approves forms of the issuing documents, POS, BPA, and CDU
- Estimate of financing costs
- For refundings, the minimum savings to be achieved
- Delegation of Authority to Officers

Indenture of Trust / Trust Agreement / Bond Resolution / Bond Ordinance

Parties:

- Issuer
- Trustee
- For Ordinances and Resolutions, only the Issuer

Purpose:

- Evidences the contract between the Issuer and the Trustee for the benefit of the bondholders
- Establishes the rights, duties, responsibilities, and remedies of the Issuer and the Trustee
- Authorized the Trustee to administer the funds and property established as security for the bonds
- Specifies the security for repayment of the bonds

Indenture of Trust / Trust Agreement / Bond Resolution / Bond Ordinance

Key Provisions:

- **Definitions**
- **Permitted Investments**
- **Pledge of Collateral**
- **Reserve Fund**
- **Flow of Funds**
- **Additional Debt**
- Interest Rates
- **Principal and Interest Payment Dates**
- Maturity Dates
- **Redemption / Prepayment**
- **Defeasance Provisions**
- **Representations, Warranties and Covenants of the Issuer**
- **Maintenance of Rates, Fees & Charges**
- **Continuing Disclosure**
- Rights and Responsibilities of the Trustee
- **Events of Default and Remedies**
- **Insurance Provisions**

- (**Blue text** = Indicates provisions that require critical review)

Loan Agreement / Lease Agreement / Project or Facilities Lease / Installment Sale Agreement

Parties:

- Issuer
- Borrower

Purpose:

- Evidences the loan of bond proceeds by the Issuer to finance the project and for user (borrower) of the project to make payments sufficient in time and amount to repay the bonds
- For Installment Sale Agreements and Leases, the title to the project will transfer at the end of the term and maturity of the bonds

Key Provisions:

- Pledge of Revenues
- Lease Payments
- Additional Payments
- Representations & Warranties
- Covenants
- Prepayment Provisions
- Abatement

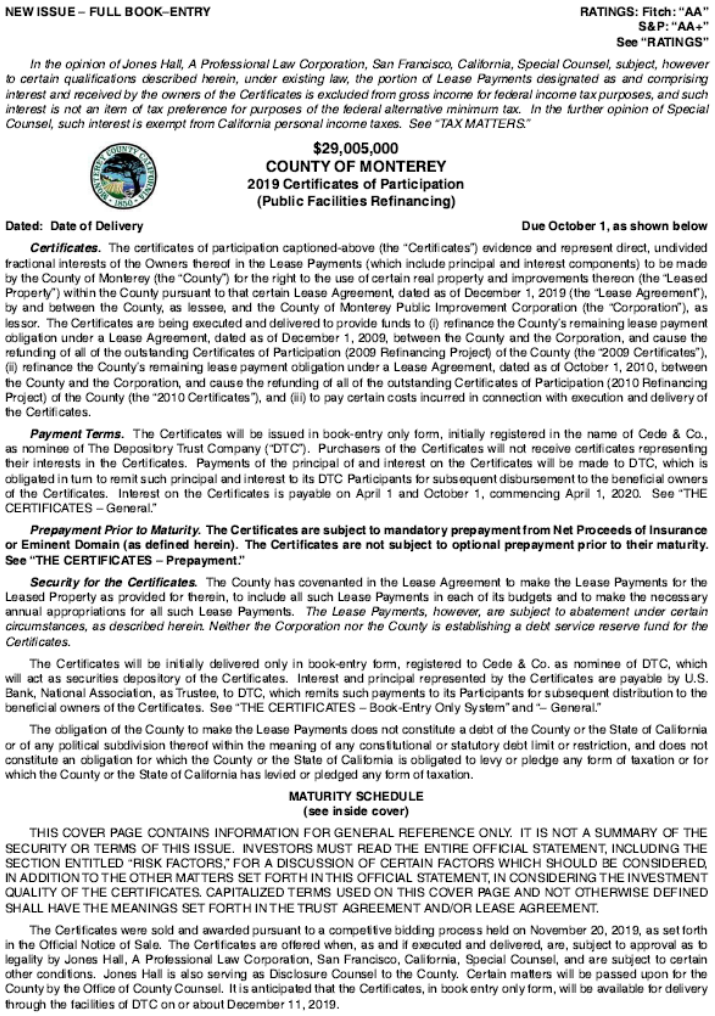
Preliminary and Final Official Statements

Parties:

- Issuer
- Borrower

Purpose:

- Discloses to investors why the bonds are being issued, including, terms of the bonds, descriptions of project(s) being financed or bonds being refunded, security and sources for repayment, risk factors, issuer financial and operating information, description of obligated parties, outstanding material litigation, and compliance with prior continuing disclosure undertakings
- Discloses all information a "reasonable investor" would consider to be important in making an investment decision to purchase the bonds
- The Preliminary Official Statement is complete as of its date except for pricing information and is used by the Underwriter to presell the bonds
- The Final Official Statement, reflecting pricing information, is dated the date the bonds are sold to the Underwriter



NEW ISSUE – FULL BOOK-ENTRY

RATINGS: Fitch: "AA"
S&P: "AA+"
See "RATINGS"

In the opinion of Jones Hall, A Professional Law Corporation, San Francisco, California, Special Counsel, subject, however to certain qualifications described herein, under existing law, the portion of Lease Payments designated as and comprising interest and received by the owners of the Certificates is excluded from gross income for federal income tax purposes, and such interest is not an item of tax preference for purposes of the federal alternative minimum tax. In the further opinion of Special Counsel, such interest is exempt from California personal income taxes. See "TAX MATTERS."

$29,005,000
COUNTY OF MONTEREY
2019 Certificates of Participation
(Public Facilities Refinancing)

Dated: Date of Delivery **Due October 1, as shown below**

Certificates. The certificates of participation captioned-above (the "Certificates") evidence and represent direct, undivided fractional interests of the Owners thereof in the Lease Payments (which include principal and interest components) to be made by the County of Monterey (the "County") for the right to the use of certain real property and improvements thereon (the "Leased Property") within the County pursuant to that certain Lease Agreement, dated as of December 1, 2019 (the "Lease Agreement"), by and between the County, as lessee, and the County of Monterey Public Improvement Corporation (the "Corporation"), as lessor. The Certificates are being executed and delivered to provide funds to (i) refinance the County's remaining lease payment obligation under a Lease Agreement, dated as of December 1, 2009, between the County and the Corporation, and cause the refunding of all of the outstanding Certificates of Participation (2009 Refinancing Project) of the County (the "2009 Certificates"), (ii) refinance the County's remaining lease payment obligation under a Lease Agreement, dated as of October 1, 2010, between the County and the Corporation, and cause the refunding of all of the outstanding Certificates of Participation (2010 Refinancing Project) of the County (the "2010 Certificates"), and (iii) to pay certain costs incurred in connection with execution and delivery of the Certificates.

Payment Terms. The Certificates will be issued in book-entry only form, initially registered in the name of Cede & Co., as nominee of The Depository Trust Company ("DTC"). Purchasers of the Certificates will not receive certificates representing their interests in the Certificates. Payments of the principal of and interest on the Certificates will be made to DTC, which is obligated in turn to remit such principal and interest to its DTC Participants for subsequent disbursement to the beneficial owners of the Certificates. Interest on the Certificates is payable on April 1 and October 1, commencing April 1, 2020. See "THE CERTIFICATES – General."

Prepayment Prior to Maturity. **The Certificates are subject to mandatory prepayment from Net Proceeds of Insurance or Eminent Domain (as defined herein). The Certificates are not subject to optional prepayment prior to their maturity. See "THE CERTIFICATES – Prepayment."**

Security for the Certificates. The County has covenanted in the Lease Agreement to make the Lease Payments for the Leased Property as provided for therein, to include all such Lease Payments in each of its budgets and to make the necessary annual appropriations for all such Lease Payments. *The Lease Payments, however, are subject to abatement under certain circumstances, as described herein. Neither the Corporation nor the County is establishing a debt service reserve fund for the Certificates.*

The Certificates will be initially delivered only in book-entry form, registered to Cede & Co. as nominee of DTC, which will act as securities depository of the Certificates. Interest and principal represented by the Certificates are payable by U.S. Bank, National Association, as Trustee, to DTC, which remits such payments to its Participants for subsequent distribution to the beneficial owners of the Certificates. See "THE CERTIFICATES – Book-Entry Only System" and "– General."

The obligation of the County to make the Lease Payments does not constitute a debt of the County or the State of California or of any political subdivision thereof within the meaning of any constitutional or statutory debt limit or restriction, and does not constitute an obligation for which the County or the State of California is obligated to levy or pledge any form of taxation or for which the County or the State of California has levied or pledged any form of taxation.

MATURITY SCHEDULE
(see inside cover)

THIS COVER PAGE CONTAINS INFORMATION FOR GENERAL REFERENCE ONLY. IT IS NOT A SUMMARY OF THE SECURITY OR TERMS OF THIS ISSUE. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT, INCLUDING THE SECTION ENTITLED "RISK FACTORS," FOR A DISCUSSION OF CERTAIN FACTORS WHICH SHOULD BE CONSIDERED, IN ADDITION TO THE OTHER MATTERS SET FORTH IN THIS OFFICIAL STATEMENT, IN CONSIDERING THE INVESTMENT QUALITY OF THE CERTIFICATES. CAPITALIZED TERMS USED ON THIS COVER PAGE AND NOT OTHERWISE DEFINED SHALL HAVE THE MEANINGS SET FORTH IN THE TRUST AGREEMENT AND/OR LEASE AGREEMENT.

The Certificates were sold and awarded pursuant to a competitive bidding process held on November 20, 2019, as set forth in the Official Notice of Sale. The Certificates are offered when, as and if executed and delivered, are, subject to approval as to legality by Jones Hall, A Professional Law Corporation, San Francisco, California, Special Counsel, and are subject to certain other conditions. Jones Hall is also serving as Disclosure Counsel to the County. Certain matters will be passed upon for the County by the Office of County Counsel. It is anticipated that the Certificates, in book entry only form, will be available for delivery through the facilities of DTC on or about December 11, 2019.

The date of this Official Statement is: November 20, 2019.

Preliminary and Final Official Statements

Key Provisions:

- Project Description
- Security for the Bonds and Sources of Payment
- Risk Factors
- Absence of Material Litigation
- Financial and Operating Information
- Continuing Disclosure
- Economic, Demographic, and Statistical Data

Bond Purchase Agreement/ Bond Purchase Contract

Parties:

- Issuer
- Underwriter
- Borrower
- Obligated Party

Purpose:

- Provides for the sale of the bonds by the Issuer to the Underwriter
- Specifies (i) the terms of the bonds; (ii) conditions precedent to the obligation of the Underwriter to purchase of the bonds; (iii) the delivery date of the bonds; (iv) the conditions permitting the Underwriter to withdraw from the agreement (the "Underwriter's Outs"); (v) representations and warranties of the Issuer and Borrower, including a representation that the Preliminary Official Statement was deemed final by the Issuer as of its date and compliance with past continuing disclosure undertakings; (vi) the documents to be delivered at closing; (vii) the Underwriter's fees; (viii) the expenses to be paid by various parties; (ix) certain SEC requirements to be followed by all parties; and (x) the method for determining the issue price of the bonds
- Executed after the bonds have been priced by the Underwriter

Bond Purchase Agreement/ Bond Purchase Contract

Key Provisions:

- Pricing Information
  - Representation & Warranties
  - Underwriter's Outs
  - Expenses
  - Closing Conditions
  - Closing Documents
  - Form of Opinions
  - Redemption Provisions
  - Form of Issue Price Certificate (Tax–Exempt Bonds)

Continuing Disclosure Undertaking

Parties:

- Issuer
- Obligated Party
- Trustee
- Dissemination Agent

Purpose:

- Contains the undertakings of the Issuer (and each Obligated Party) to provide annual updates of specified information (Annual Reports) by a specified date certain and notices of the occurrence of significant events, generally within 10 business days following occurrence, pursuant to Rule 15c2-12
- Remains in effect during the lifetime of the bonds

Continuing Disclosure Undertaking

Key Provisions:

- Content of the Annual Report
  - Audited Financial Statements
  - Updates to specified tabular information
- Filing Date for the Annual Report
- List of 16 Significant Events
- Date for Filing Notices of the Occurrence of Significant Events
- Amendment Procedures
- Dissemination Agent Duties

Additional Considerations:

- Rule 10b-5

Tax Certificate / Tax and Non-Arbitrage Certificate

Parties:

- Issuer
- Borrower (Conduit Transaction)

Purpose:

- Sets forth the certifications and covenants of the Issuer (and the Borrower) necessary to maintain the tax-exempt status of the bonds
- Includes rules for investment of the bond proceeds, compliance with arbitrage and rebate requirements

Key Provisions:

- Sources and Uses of Proceeds
- Investment of Proceeds
- Representations and Warranties
- Tax Compliance Program
- Others – depending upon the purpose of the financing

Closing Certificates, Documents & Opinions

Parties:

- All

Purpose:

- *Documents the satisfaction or waiver of the conditions precedent to closing the transaction*
  - Issuer and Borrower Certificates
  - Receipts
  - Requisitions
  - Documents for Deposit of Funds
  - Opinions

Private Placement / Direct Lending

Purpose:

- A direct negotiation by the Issuer with a single or limited number of private financial institutions or investors with a high degree of sophistication; essentially a loan; exempt from registration with the SEC and doesn't require many of the disclosure requirements of a public offering

Documents:

- Master Loan Agreement
  - Similar to an Indenture
- Private Placement Agreement
  - Similar to the Bond Purchase Agreement, but is an agreement between the Issuer (and the Borrower) and the placement agent
- Continuing Covenant Agreement
  - Similar to a Continuing Disclosure Certificate, but is an agreement between the Issuer (and the Borrower) and the financial institution purchasing the Bonds
- Investor Letter
  - Executed by the investors agreeing to certain restrictions on resale and certifying that they have the degree of sophistication necessary to make an investment in the bonds

Other Types of Financing

Refunding Bonds:

- Basic Legal Documents
- Escrow Agreement or Refunding Instructions
- Verification Report

Variable Rate Bonds:

- Basic Legal Documents
- Remarketing Agreement
- Paying Agent Agreement
- Letter of Credit or Standby Bond Purchase Agreement
  - A Letter of Credit is issued by a bank to the Trustee on behalf of the Issuer to provide sufficient money to pay the principal and accrued interest (the "purchase price") on the bonds when tendered by the bondholders
  - A Standby Bond Purchase Agreement serves essentially the same purpose as the letter of credit, but instead of automatically paying the purchase price of the bonds when tendered by the bondholders, the bank purchases only those bonds that are not successfully remarketed by the remarketing agent to new purchasers; the remarketing agent then remarkets the bank's bonds

Other Types of Financing

Variable Rate Bonds: (Continued)

- Reimbursement Agreement
  - An agreement between the Issuer or the Conduit Borrower to reimburse the bank for all draws made on the letter of credit

Competitive Sale:

- Basic Documents, ***except*** the Bond Purchase Agreement
- Bonds are advertised for sale in an ad published in a financial newspaper (the "Notice Inviting Bids"); the terms for the sale of the bonds, the parameters maturities for the bonds, the procedures for submitting bids; the availability of the Preliminary Official Statement are set forth in the Notice of Sale

Compliance Best Practices

- Adopted Policies and Procedures
- Regular Training
- Develop Compliance Checklists
- Make sure that all the right people are in the room

Additional Resources

- California Debt and Investment Advisory Commission www.treasurer.ca.gov/cdiac
- Government Finance Officers Association www.gfoa.org
- Municipal Securities Rulemaking Board www.msrb.org
- National Association of State Auditors, Comptrollers and Treasurers www.nasact.org
- National Federation of Municipal Analysts www.nfma.org
- Securities Industry and Financial Markets Association www.sifma.org

MUNICIPAL DEBT ESSENTIALS