Call Me Bond, *Municipal* Bond

Part 1: Bond Basics

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About the Moderator

Kyle Tanaka

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Kyle joined PFM in 2019 after working closely with local government trade associations and municipalities throughout California. As a relationship manager for the California Asset Management Program (CAMP*), he focuses on providing investment resources to cities, counties, special districts and other local agencies to help them manage their liquidity needs.

Prior to joining PFM, Kyle worked for the California Special District Association (CSDA) and the California State Association of Counties (CSAC) Finance Corporation. While working at the CSAC Finance Corporation, he managed the day-to-day client services of their local government investment pool.

**Please see important disclosures at the end of this presentation.*

About the Speakers

Sarah Hollenbeck

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Sarah serves as financial advisor to numerous cities throughout California. In the San Francisco Bay Area, she has worked with the cities of Alameda, Albany, Fairfield, Fremont, Lafayette, Martinez, Newark, Santa Rosa, San Francisco, San Leandro, San Rafael, South San Francisco, and Vallejo. She also advises clients in the utility and transportation sectors, including the Central Contra Costa Sanitary District, Central Marin Sanitation Agency, Bay Area Toll Authority and Sonoma-Marin Area Rail Transit District. She has advised her clients on over $10 billion of new money and refunding transactions, including general obligation bonds, certificates of participation, revenue bonds, pension obligation bonds, tax allocation bonds, limited obligation bonds, water and wastewater revenue bonds, and special tax bonds. Sarah joined PFM Financial Advisors LLC after working for five years in the Mayor's Office of the City and County of San Francisco, where she served as public finance manager. She has built upon her background as a city issuer to provide holistic, client-centered advice.

Sarah Meacham

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Sarah Meacham joined PFM Asset Management LLC (PFMAM) in 2005. She is Co-Manager of PFMAM's California Asset Management Practice and serves as Program Administrator for the California Asset Management Program (CAMP*). Sarah manages client relationships for public agency clients located throughout California, helping cities, counties, special districts and self-insurance authorities with their investment needs. Her responsibilities also include providing a range of investment advisory and consulting services, developing investment policies, and monitoring guidelines and strategy implementation. Sarah provides clients with training, technical and analytical support with respect to their investment portfolios. She is also an active participant in the California Municipal Treasurers Association (CMTA), serving as a member of its Investment Policy Certification Committee, along with serving on the California Society of Municipal Finance Officers (CSMFO) Professional Standard's Committee.

**Please see important disclosures at the end of this presentation.*

What is a Bond?

- Debt investment in which an investor loans money to an issuer

- Issuer borrows the funds for a defined time period, typically at a fixed rate

- Bonds are generally referred to as fixed-income securities

Bonds are used by corporations, municipalities, states, the federal government, and foreign governments to finance projects and activities

Interest on bonds is commonly paid every six months (semi-annually)

Major categories include corporate bonds; municipal bonds; and U.S. Treasury bonds, notes, and bills

What Types of Bonds are There?

General Obligation

Revenue

Certificates of Participation

or Lease Revenue

Special Assessment District

Special Facility

Community Facilities District

aka “Mello-Roos”

Tax Increment Financing

Municipal Bond Purposes

NEW MONEY BONDS

Issued to fund public capital projects:

- Roads
- Bridges
- Schools
- Libraries
- Parks & recreation facilities
- Water/wastewater facilities
- Government buildings

REFUNDING BONDS

Issued to refinance existing debt, in order to:

- Generate debt service savings by issuing new bonds at a lower interest rate
- Remove restrictive requirements of existing bond documents, and/or
- Restructure principal payment schedules

Bond Terminology

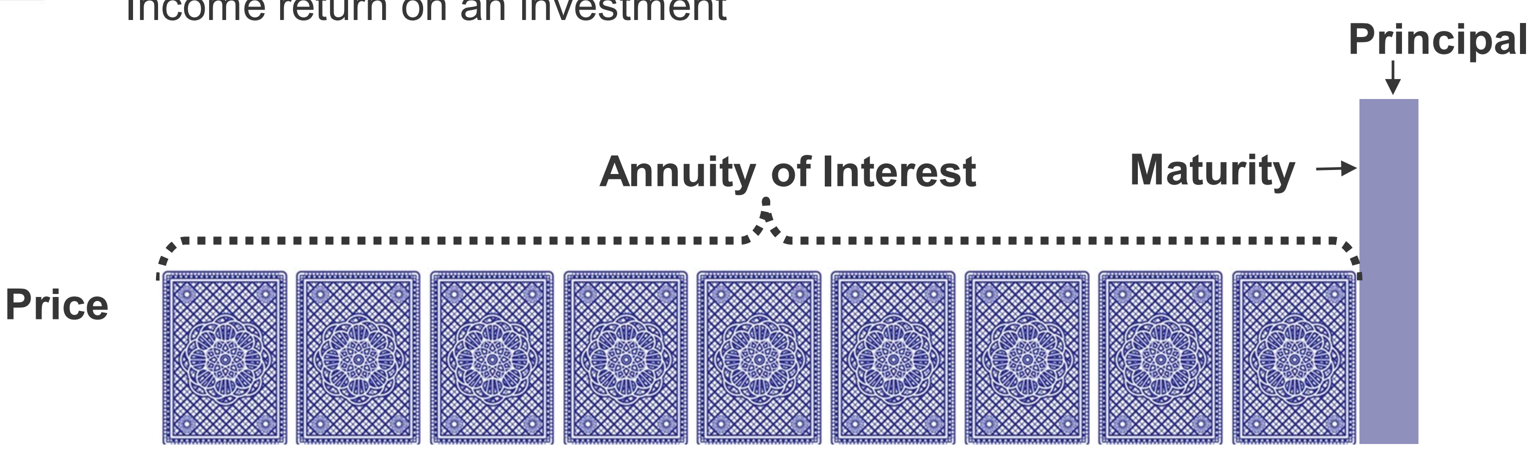
PRINCIPAL OR PAR AMOUNT
Amount of the bond issue or the indebtedness

COUPON RATE
Annual interest rate (usually paid semi-annually) on the bond

MATURITY DATE
Repayment date of the bond

PRICE
The amount to be paid for a bond in consideration of future receipt of principal and interest payments

YIELD
Income return on an investment



Coupons, Yields & Price

- Coupon is the interest rate assigned to a bond, typically paid semi-annually
- Yield is the return on the bond, if held to maturity
- Relationship between coupon and yield determines the price on a bond

If coupon = yield,	If coupon > yield,	If coupon < yield,
par bond	**premium** bond	**discount** bond
(price = 100%)	(price >100%)	(price <100%)

Prices & Yields move in opposite directions

Par Amount

$11,340,000
PRINCIPALITY OF MONTE CARLO
WASTEWATER REVENUE REFUNDING BONDS,
SERIES 2018A

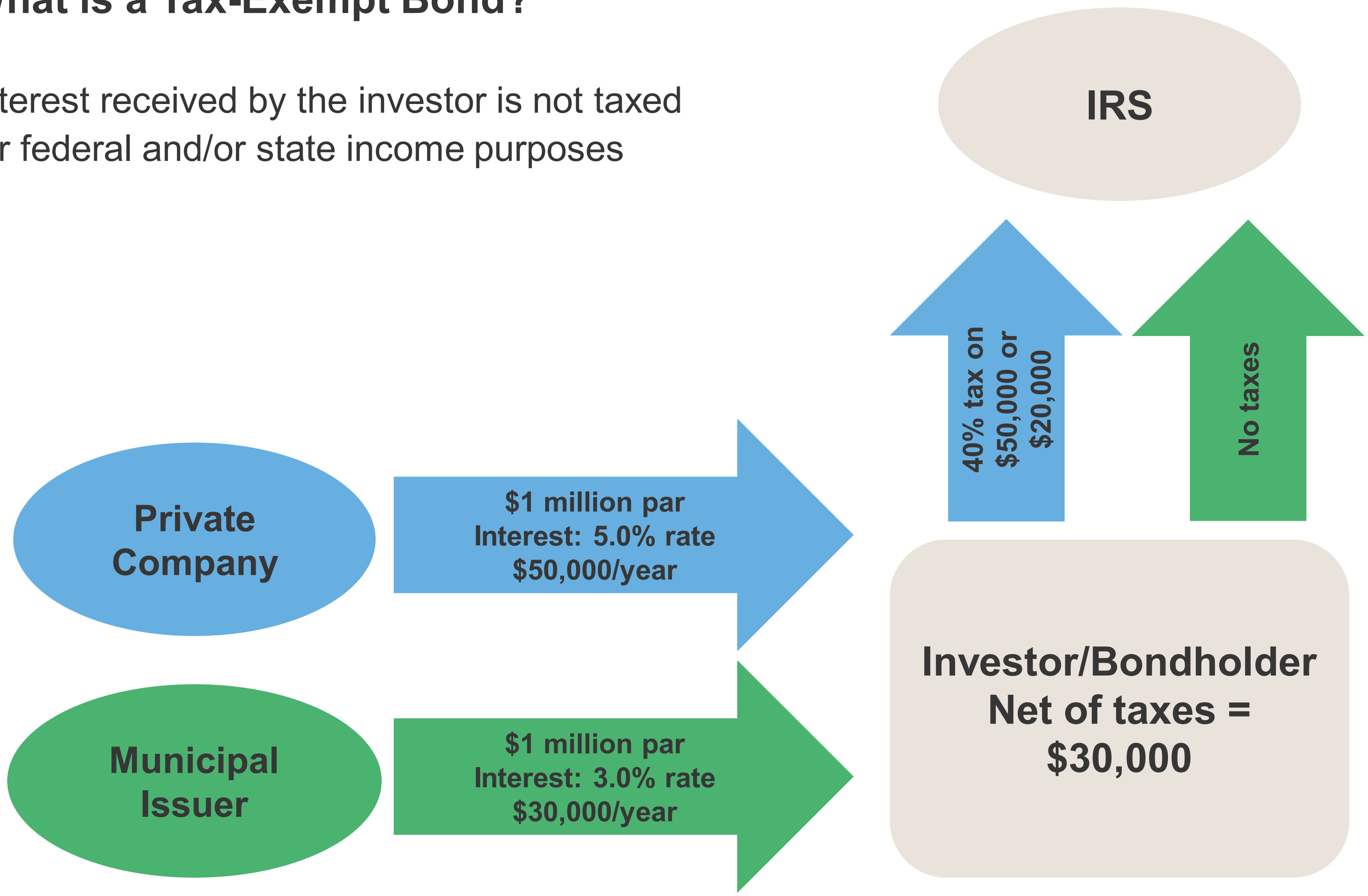
Maturity Dates · Principal Amounts · Coupon Rates · Yields

Maturity Date (November 1)	Principal Amount	Interest Rate	Yield	CUSIP† (Base Number 607802)
2025	$ 710,000	5.00%	2.17%	BD6
2026	750,000	5.00	2.33	BE4
2027	780,000	5.00	2.46	BF1
2028	825,000	5.00	2.55	BG9
2029	865,000	5.00	2.63C	BH7
2030	910,000	5.00	2.73C	BJ3
2031	955,000	5.00	2.82C	BK0
2032	1,005,000	5.00	2.90C	BL8
2033	1,055,000	5.00	2.95C	BM6
2034	1,110,000	5.00	2.99C	BN4
2035	1,160,000	4.00	3.25C	BP9
2036	1,215,000	5.00	3.06C	BQ7

For illustrative purposes only.

What is a Tax-Exempt Bond?

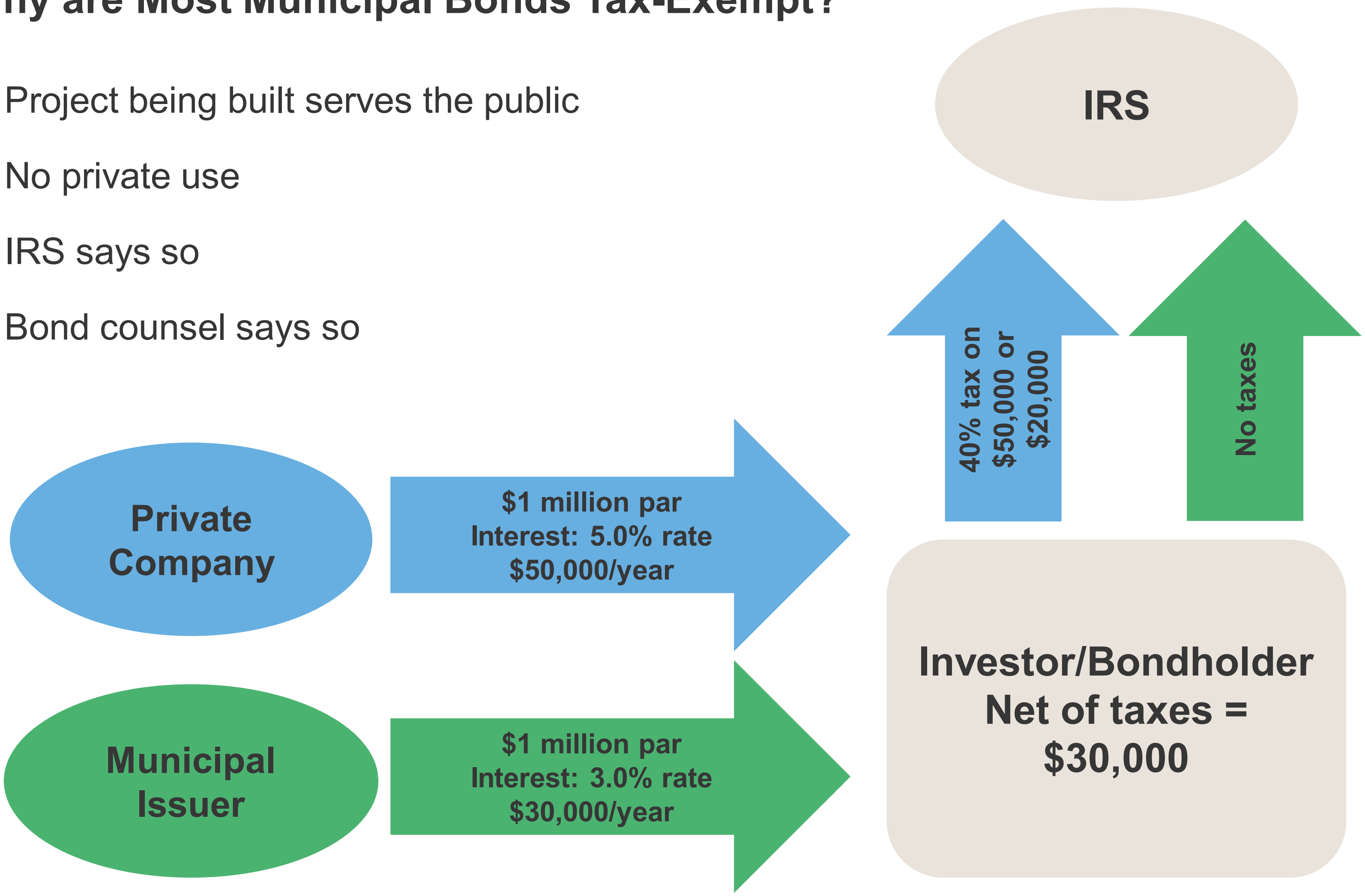
Interest received by the investor is not taxed for federal and/or state income purposes



For illustrative purposes only.

Why are Most Municipal Bonds Tax-Exempt?

- Project being built serves the public
- No private use
- IRS says so
- Bond counsel says so



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What Determines the Interest Rate?

- Overall market conditions
- Supply of municipal bonds
- Investor appetite (demand)
- Credit rating
- Bond structure (size, maturity, etc.)
- Tax Status

Credit Ratings

- Rating agencies (Moody's, Standard & Poor's, Fitch) rate municipal bond issuers in order to categorize their credit worthiness and likelihood of default

- Credit ratings play a significant role in broadening the investor base for an issuer. Usually, having a strong rating enhances an issuer's access to investors, helping to lower their cost of capital.

INVESTMENT GRADE RATING SCALES										
Moody's	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3
S&P / Fitch	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-

The Rating Process

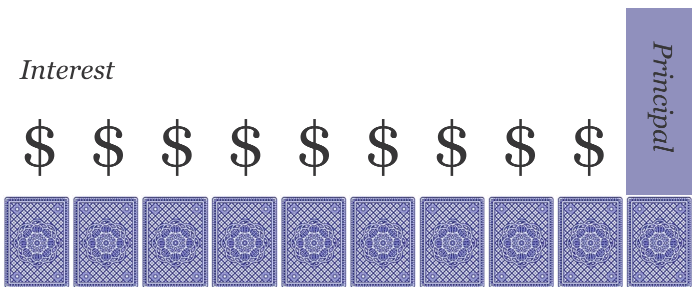
- Determine how many ratings are needed — Typically depends on size and type of debt being issued
- Apply for the rating
- Determine format of credit presentation: on-site or by phone
- Send advance information & conduct meeting with rating analysts
- Provide follow-up information
- Rating agency's credit committee assigns the rating
- Ratings are published with a report explaining rationale
- On-going surveillance

Bond Insurance

- Bond insurance can improve a bond's ratings by guaranteeing the timely payment of the principal of and interest on municipal bonds as they become due
- Only two bond insurers, Assured Guaranty and Build America Mutual, remain active in the market, down from seven prior to the financial crisis
- In lieu of a cash deposit to fund a debt service reserve, a "surety bond" can be purchased from a bond insurer to satisfy the reserve requirement

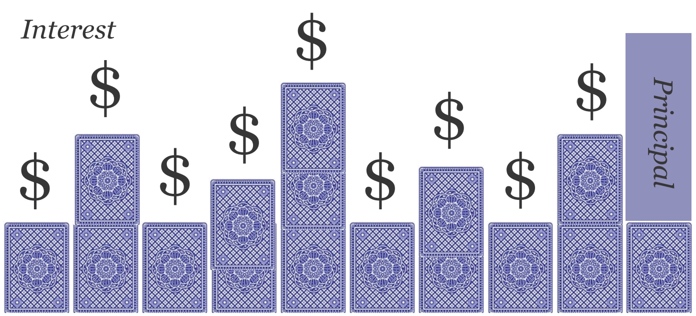
Insurer	Ratings
Assured Guaranty	AA/A2
Build America Mutual	AA/NR

Fixed Rate vs. Variable Rate



Fixed Rate Bonds

- Interest rates are set on the day of the pricing and do not change
- Issuer pays the same interest payments (usually twice a year) for as long as the bonds are outstanding
- Fixed payments provide for budgetary certainty



Variable Rate Bonds

- Interest rates are reset at predetermined points throughout the year, most commonly weekly
- Issuer's interest payments vary over the life of the bonds based on market movement
- Having a portion of an issuer's capital structure as variable rate debt can create an asset-liability match

Types of Bond Sales

Factors such as security type, transaction size, and length of repayment typically help determine the best method of sale to utilize

- Competitive Sale: an issuer procures bids from a variety of underwriters on the obligations they are planning to issue and select one bid (i.e., the lowest bid)
- Negotiated Sale: an issuer selects one or more underwriters and works with the selected underwriter(s) to price obligations through negotiation

- Issuer negotiates a price for their obligations directly from the investor(s)
- Can be more expensive, as the universe of potential investors is reduced

Competitive Sale Process

1. Determine Bond Structure
2. Draft and Approve Bond Documents; Prepare the Notice of Sale (NOS) and Preliminary Official Statement (POS)
3. Board/Council Approves Documents and Sale of Bond
4. Market the Bonds
5. Receive Bids; Award Bonds
6. Receive Funds; Execute Legal Documentation

Remember investments when… developing "net" costs in funding plan; this is critical when determining how much to raise/borrow

Remember investments when… bond documents are being drafted and in the definition of "permitted investments"

A friendly reminder from your favorite 007 to think about investments well BEFORE the bond pricing

Typical Permitted Investments

Investments are determined by:

- *California Government Code Section 53601(m)*
- *Trust indenture/resolution*
- *Investment policies*
- *Other requirements*

Typical bond proceeds investments include:

- *Liquidity pools*
- *Portfolio of securities*
- *Investment agreements*

Indentures Can Reflect Permitted Investments Differently

Most indentures list the permitted investments under **"Definitions"**

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ARTICLE I
DEFINITIONS

Typically, the authorized investments are listed out and specified...

"Permitted Investments" means any of the following:

(a) U.S. Treasury obligat
of which are backed
U.S. Government.

with respect to the Bonds, on May 1, 2010.

"Investment Securities" shall mean and includes any of the following securities:

(i) Government Obligations, or any other direct obligations of, or any obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America (including obligations issued or held in book entry form on the books of the Department of the Treasury of the United States of America and obligations of the Government National Mortgage Association).

(ii) Bonds, debentures or notes or other evidence of indebtedness payable in cash issued by the United States Treasury which represents the full faith and credit of the United States of America or the following federal agencies: Federal Home Loan Bank, Export Import Bank of the United States, Federal Financing Bank, Federal Farm Credit Bank, Farmer's Home Administration, Federal Housing Administration, Maritime Administration, Public Housing Corporation, Fannie Mae and the Federal Home Loan Mortgage Corporation.

Others include them in an appendix instead of the body

APPENDIX A DEFINITIONS
APPENDIX B FORM OF BOND

...while others just refer to Code

repairing, equipping, developing, embellishing or otherwise improving all or any part of the Water System.

"**Authorized Investments**" means any securities (other than those identified in paragraphs (a) and (d) of Section 53601 of the Government Code of the State) in which the City may legally invest funds subject to its control, pursuant to Article 1, commencing with Section 53600, of Chapter 4 of Part 1 of Division 2 of Title 5 of the Government Code of the State, as now or hereafter amended.

For illustrative purposes only.

Permitted Investments Can Be Worded Differently As Well

(x) Shares in a State of California common law trust established pursuant to Title 1, Division 7, Chapter 5 of the Government Code of the State of California which invests exclusively in investments permitted by Section 53601 of Title 5, Division 2, Chapter 4 of the Government Code of the State of California, as it may be amended.

L. The Local Agency Investment Fund administered by the State of California.

M. The California Asset Management Program.

N. Any other investment approved in writing by the Bond Insurer.

Both describe CAMP*

**please see important disclosures at the end*

(ii) Bonds, debentures or notes or other evidence of indebtedness payable in cash issued by the United States Treasury which represents the full faith and credit of the United States of America or the following federal agencies: Federal Home Loan Bank, Export Import Bank of the United States, Federal Financing Bank, Federal Farm Credit Bank, Farmer's Home Administration, Federal Housing Administration, Maritime Administration, Public Housing Corporation, Fannie Mae and the Federal Home Loan Mortgage Corporation.

(b) Debt obligations, participations or other instruments issued or fully guaranteed by any U.S. Federal agency, instrumentality, corporation, or government-sponsored enterprise (GSE).

Both describe Federal Agencies

For illustrative purposes only.

Competitive Sale Process

1. Determine Bond Structure
2. Draft and Approve Bond Documents; Prepare the Notice of Sale (NOS) and Preliminary Official Statement (POS)
3. Board/Council Approves Documents and Sale of Bond
4. Market the Bonds
5. Receive Bids; Award Bonds
6. Receive Funds; Execute Legal Documentation

Negotiated Sale Process

1. Select Underwriter(s)
2. Determine Bond Structure
3. Draft and Approve Bond Documents; Prepare the Preliminary Official Statement (POS)
4. Board/Council Approves Documents and Sale of Bond
5. Market the Bonds
6. Negotiate the Bond Prices and Yields; Sign Bond Purchase Agreement
7. Receive Funds; Execute Legal Documentation

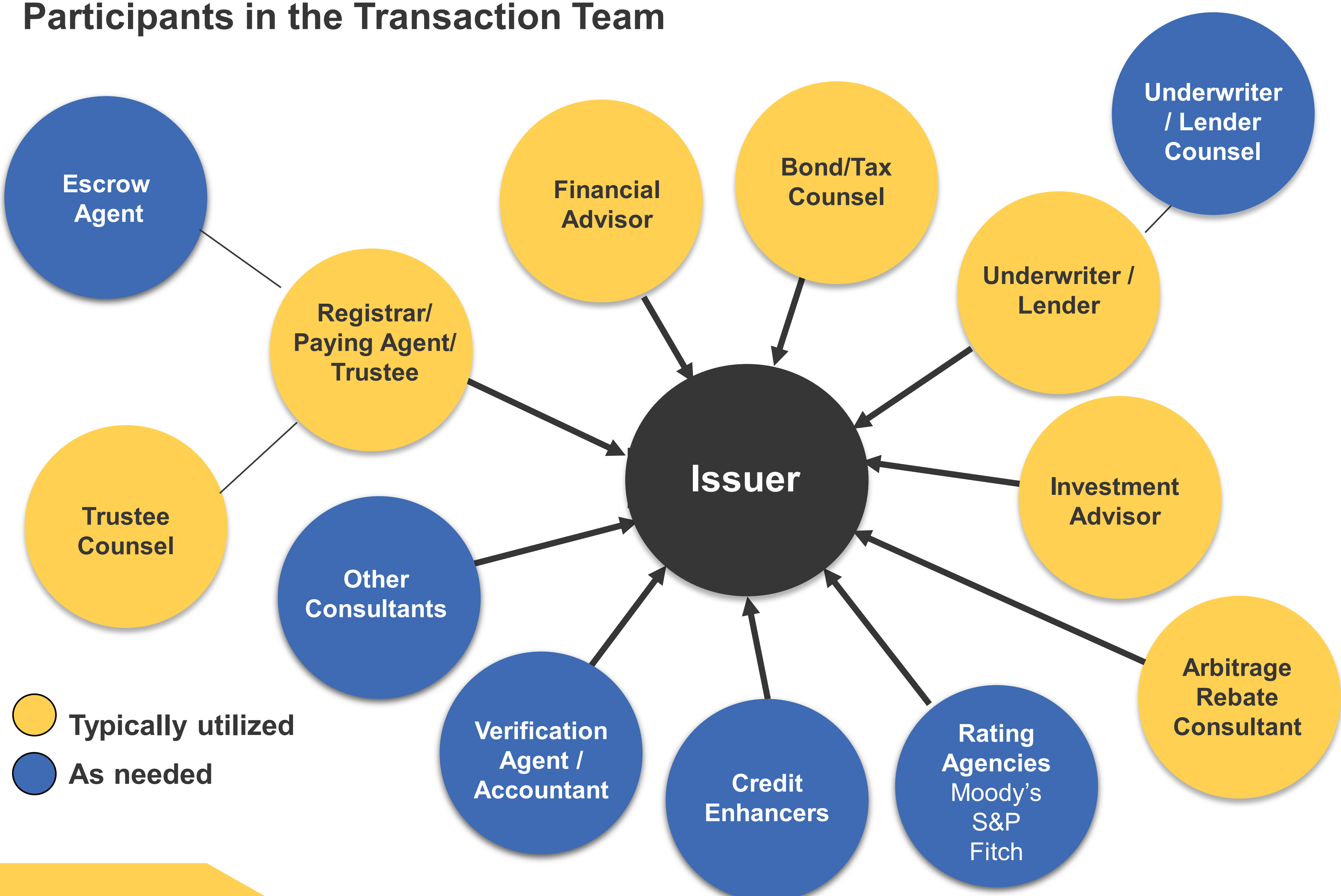
Competitive or Negotiated?

Attributes	Competitive Sale	Negotiated Sale
ISSUER		
Type of Organization	Broad-based, general-purpose government	Special-purpose, independent authority
Frequency of Issuance	Regular borrower in public market	New or infrequent issuer of debt
Market Awareness	Active secondary market with wide investor base	Little or no institutional base, but growing dealer interest
CREDIT QUALITY		
Rating	Generally, "AA" or better	Generally, below "AA"
Pledged Revenues	General obligation, lease revenue, utility revenue	Project supported revenues
Security Structure	Conventional resolution and cashflow; rate covenant and coverage	Unusual or weak covenants; subordinated debt
Trend	Stable or improving	Weakening or under stress
MARKET CONDITIONS		
Interest Rates	Stable, predictable market	Volatile or declining market
Demand	Strong investor demand, good liquidity, light forward calendar	Oversold market, heavy supply
DEBT STRUCTURE		
Tax Status	Tax-exempt, no concerns; taxable	Taxable
Debt Instrument	Traditional serial and term, full-coupon bonds	Aggressive use of innovative bond structuring, derivative products, swaps, or variable-rate debt instruments

Competitive or Negotiated?

Attributes	Competitive Sale	Negotiated Sale
MARKETING		
Use of Underwriters	Broad market participation	Ability to direct business to local or regional firms
Investors	Process blind to ultimate investors	Sale can be managed to achieve wide distribution or targeted allotments
Pre-marketing	Limited need for pre-marketing – commodity, market pricing	Specific pre-sale activity to generate demand
Structure	Limited options given to bidders	Unlimited ability to fine tune
COST		
Gross Spread	Historically, spreads have been lower for competitive sales	Historically, equal or higher spreads than competitive sales
Interest Rate	Highest market price for commodity offered on day of sale	Best match of product with specific investor demand

Participants in the Transaction Team



Sample Bond Financing Timeline

Date	Event
Week 1-3	❑ Select financing team participants
	❑ Begin drafting legal and disclosure documents
Week 3-7	❑ Legal and disclosure document drafting and review
Week 8-10	❑ Board or Council approval process
	❑ Rating agency meetings
Week 12	❑ Receive ratings
	❑ Distribute offering document to investors
Week 14	❑ Bond pricing
Week 16	❑ Bond closing; funds delivered

A straightforward municipal bond financing process typically takes about three to four months to complete

Post-Issuance Compliance Requirements

Continuing Disclosure

- Issuer covenants to provide ongoing disclosure of both routine financial information on an annual basis and periodic notification upon certain events (e.g., defeasance of bonds)

Arbitrage Rebate (if tax-exempt or AMT)

- Issuer may be required to rebate investment earnings in excess of the bond yield to the federal government every five years

Rating Maintenance

- Issuer is required to provide ongoing updates to the rating agencies

Steps to Managing New Bond Proceeds

- ❑ Understand the sources and uses of the bond issue
- ❑ Identify investment options
- ❑ Determine if issue will meet spend-down exception from rebate
- ❑ Formulate investment strategy (safety always paramount)
- ❑ Implement strategy
- ❑ Actively manage to maintain optimization
- ❑ Monitor compliance with spend-down exception
- ❑ Maintain all necessary records
- ❑ Calculate arbitrage rebate, if needed

Join Part 2: Investing Bond Proceeds on ***August 17*** *for more on this topic*

Thank You

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