# INTRODUCTION

## Evolution of the Bond Market and Current Trends

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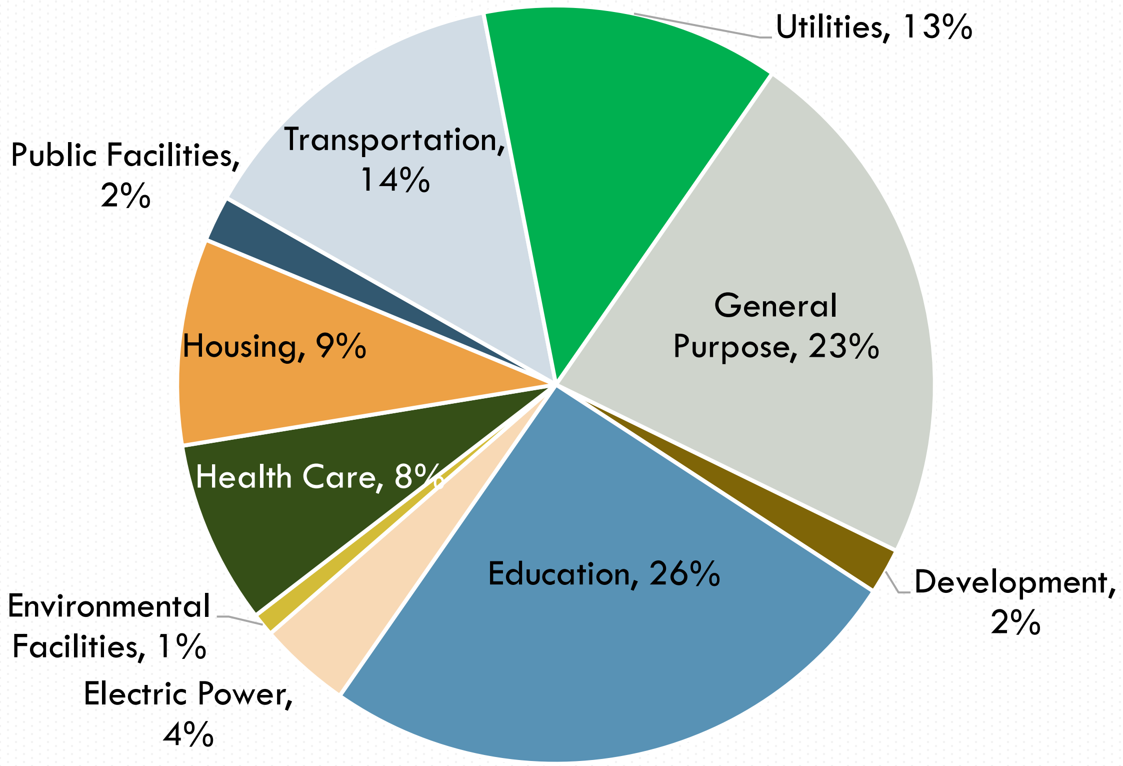
# Municipal Market Snapshot

### Municipal vs. Corporate Bonds Comparison[1]

| | Municipal Securities | Corporate Securities |
|---|---|---|
| Market Size[2] | $4.0 Trillion | $10.6 Trillion |
| No. of Securities | ~1,000,000 | ~47,000 |
| Daily Trading Volume | $13.0 Billion | $1,444 Billion |
| New Issue Volume | $389 Billion | $1,958 Billion |
| Default Rates[3] | 0.09% | 2.23% |

### Municipal Issuance by Sector[4] (CY 2023)




*(1) Sources: MSRB Muni Facts (2023), Federal Reserve, FINRA, SIFMA, Moody's and Bloomberg.*
*Note: Calendar year 2023 data unless otherwise noted.*
*(2) As of September 30, 2023.*
*(3) According to Moody's Investment-Grade, 10-year cumulative default rates average over the period 1970–2022.*
*(4) Source: Bond Buyer.*

# Municipal Market Timeline – 1800's & 1900's

**1812**
New York City Issues First Municipal Bonds

**1873**
Panic of 1873

**1879**
California Constitution Places Limits on Debt

**1913**
Revenue Act of 1913 codified exemption of municipal interest

**1933/1934**
1933 and 1934 Securities Act

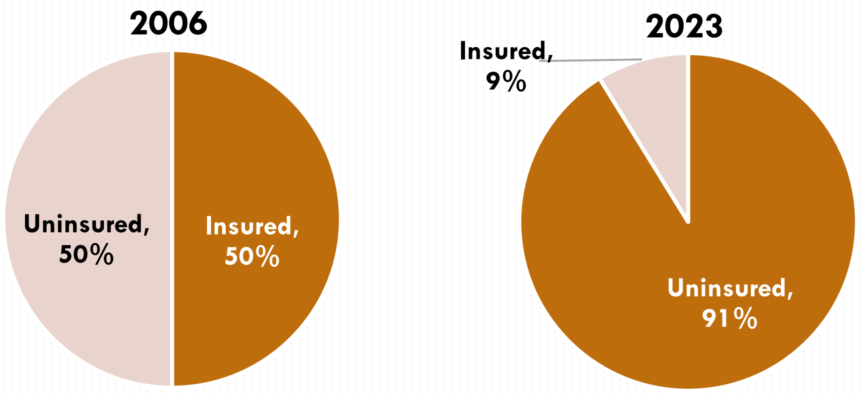
**1975**
Creation of the Municipal Securities Rulemaking Board

**1978**
Proposition 13 in California

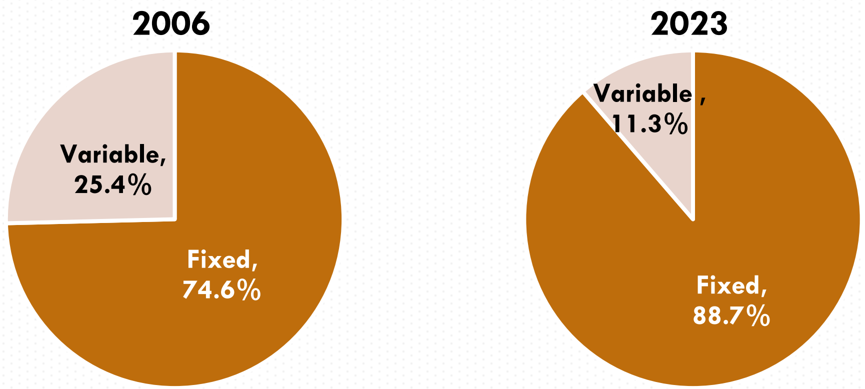
# The 2000's – Financial Crisis and ARRA

| Financial Crisis (2007-2008) | |
|---|---|
| Consolidation/Elimination of Banks | • Bear Stearns and Lehman Brothers |
| Reduction of Monoline Bond Insurers | • FGIC, FSA, MBIA and Ambac |
| Reduction of Variable Rate Debt and Derivatives | • Auction Rate Securities and Interest Rate Swap |
| **American Recovery and Reinvestment Act (2009)** | |
| Build America Bonds (BABs) and Other Tax Credit Bonds | • Taxable bonds with direct pay federal subsidy to issuers<br>• Average annual taxable issuances in 2009 and 2010 increased by more than 4-folds vs. the years just prior to ARRA |
| AMT Exemption | • Eliminates AMT on private activity and governmental bonds |

**Uninsured vs. Insured Bonds(1)**




**Fixed Rate vs. Variable Rate Bonds(1)**



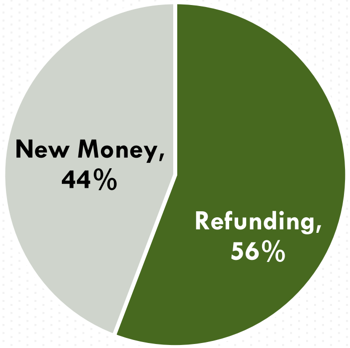

*(1) Source: Securities Data Corporation.*

# The 2010's – Tax Reform

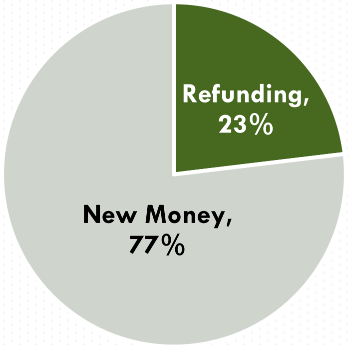
| Tax Cuts and Jobs Act of 2017 (TCJA) | |
|---|---|
| Individual Tax Rates | • 7-brackets but with lower rates (0%-37%)<br>• Kept AMT but at higher income threshold |
| Corporate Tax Rates | • Reduced "C" corporations tax rate from 35% to 21% |
| State and Local Taxes | • Capped deduction of state and local property taxes up to $10,000 |
| Advance Refunding Bonds | • Eliminated tax-exempt advance refundings |
| Tax Credit Bonds | • Eliminated tax credit and direct pay bonds |

### Refunding vs. New Money Bonds[1]

2017

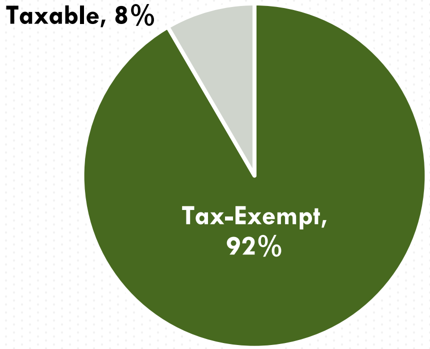



2023

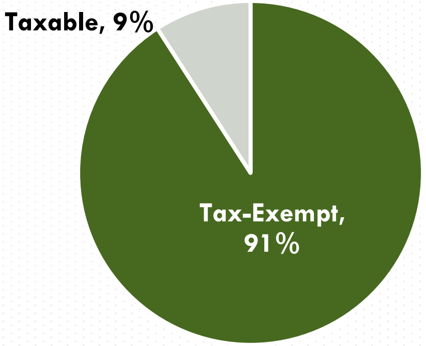



### Tax-Exempt vs. Taxable Bonds[1]

2017



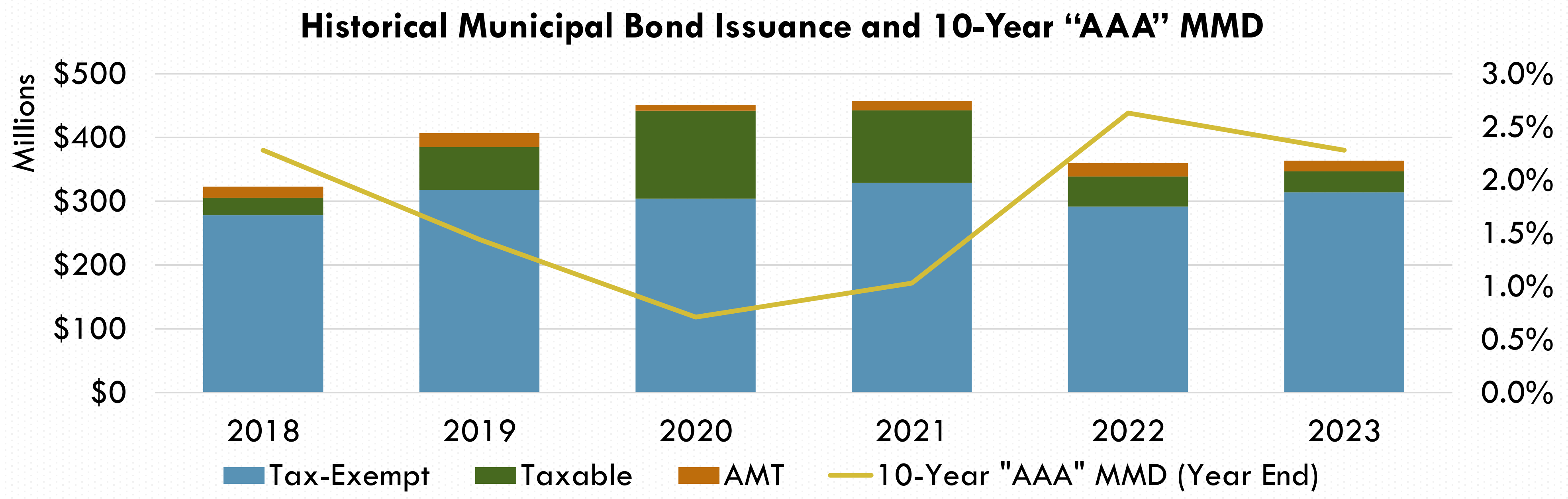

2023




*(1) Source: Securities Data Corporation.*

# The 2020's – COVID-19 Pandemic

- COVID-19 pandemic led to low interest rates and increased municipal bond issuance
- Federal government provided relief to state and local governments and helped stabilize the financial markets (e.g. CARES Act, American Rescue Plan Act, Municipal Liquidity Facility, etc.)



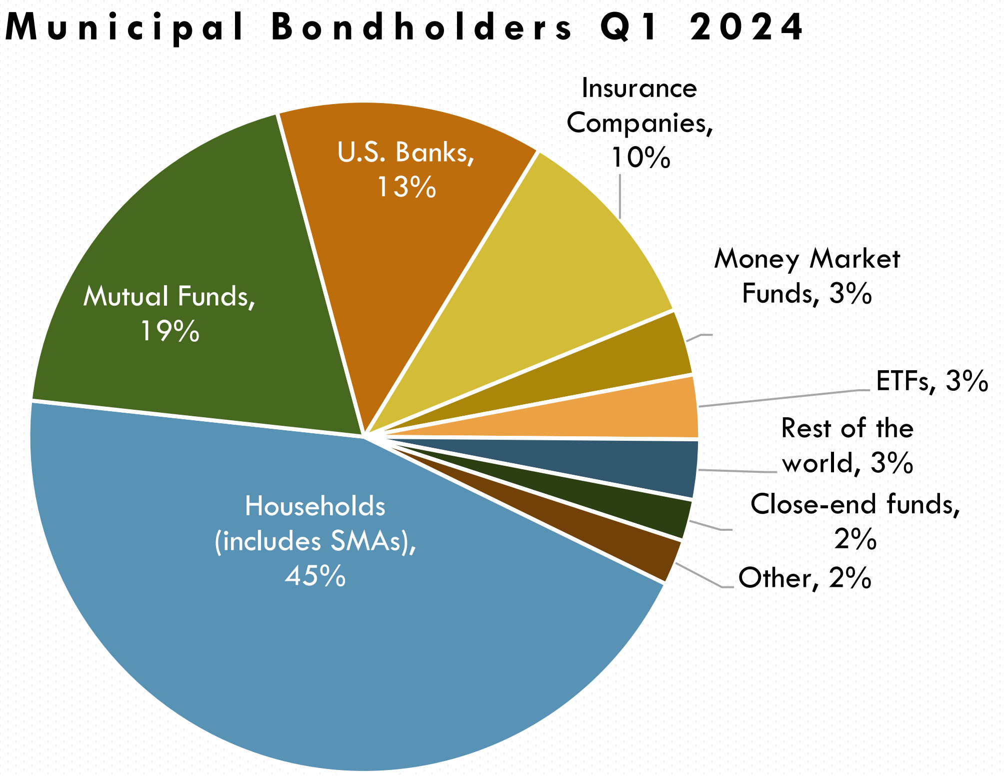

(1) *Source: Securities Data Corporation and Thomson Reuters.*

# More Regulation and Disclosure

- **Rule 15c2-12 (1989)**
  - Response to Washington Public Power Supply
  - Requires standards of disclosure for municipal bonds by underwriters
- **Amendment of 15c2-12 (1995)**
  - Response to Orange County bankruptcy
  - Requires continuing disclosure
- **15c2-12 New Disclosure (2019)**
  - Adds two new disclosure items
- **SEC Enforcement Division Unit (2010)**
- **Dodd-Frank Act (2010)**
  - Expands MSRB's mission and grants rulemaking authority over municipal advisors
- **SEC Municipal Advisor Rule (2014)**
  - Establishes fiduciary duty on the municipal advisor Imposes restrictions on communications between non-municipal advisor and municipal client
- **Municipalities Continuing Disclosure Cooperation (MCDC) Initiative**
  - Focus on compliance of continuing disclosure undertakings

# Municipal Bondholder Composition[1]

- TCJA, market factors, and regulatory developments have driven changes in municipal bond ownership in recent years
- Households comprise approximately 40% of municipal bondholdings
  - Decline in direct ownership and rapid growth of Separately Managed Accounts (SMAs)
- Municipal Exchange-Traded Funds (ETFs) holdings have risen, while holdings by banks and insurance companies have declined




(1) Source: *Muni market grows by a hair in Q1; retail ownership ticks up driven by SMAs, Bond Buyer, June 13, 2024, and Federal Reserve, March 31, 2024.*

# Current Market Dynamics

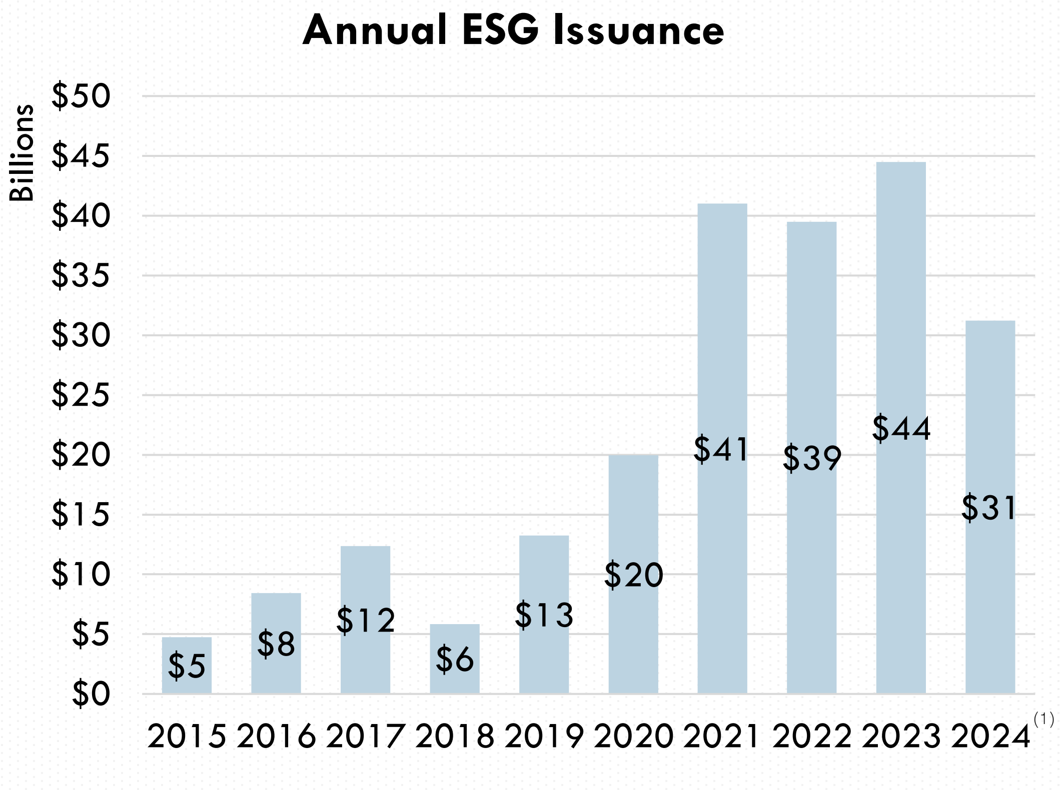
| | |
|---|---|
| **Flat Yield Curve & Interest Rate Expectations** | • Yield curve for much of 2024 was inverted and generally flat<br>• Low tax-exempt to taxable ratios (MMD Yields / US Treasury Yields)<br>• Positive arbitrage opportunities, subject to certain "spenddown" requirements |
| **Forward Delivery Refundings** | • Investors generally expect interest rates to decline over the near to medium term which has increased their interest to participate on forward delivery refunding's<br>• Forward premiums range from ~5-8 basis points per month |
| **Build America Bond Refundings** | • Many bond counsels and issuers have taken the view that the extraordinary redemption language associated with BABs issued in 2009 and 2010 has been triggered<br>• BABs refunding highly sensitive to the spread between tax-exempt rates and Treasuries<br>• Initial objections from select investors but now seem to have gained more acceptance |
| **Tender Refundings** | • Alternative to taxable advance refunding's<br>• Success of tenders are largely dependent on bondholder participation |

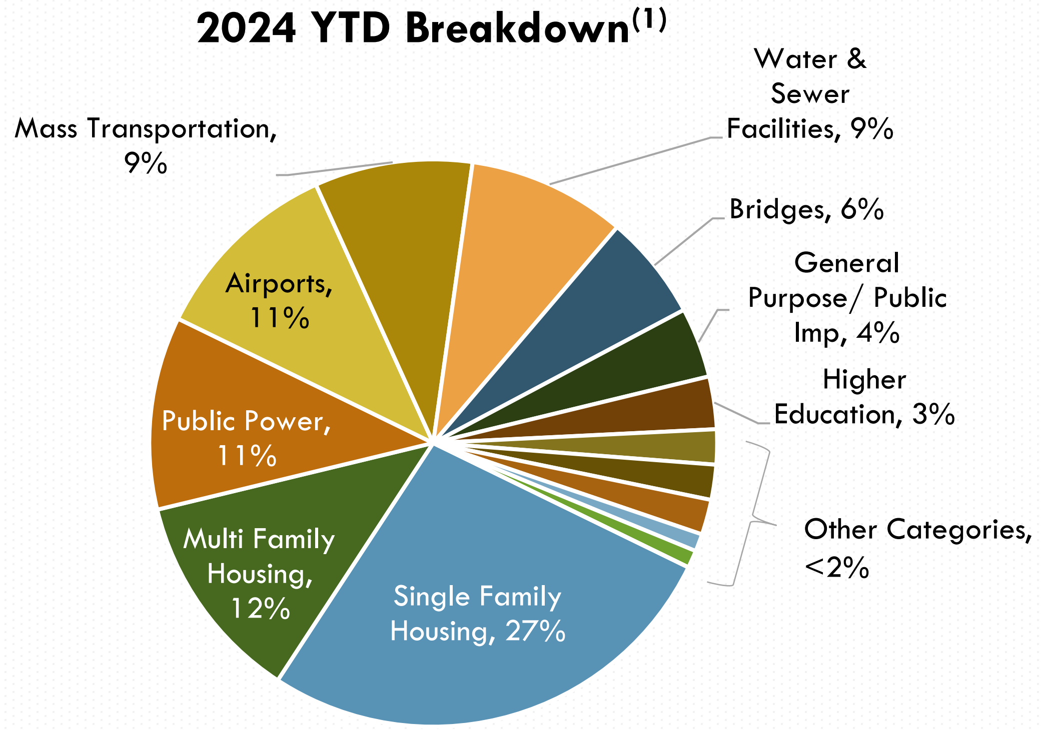
# 2024 YTD Issuance Trends[1]

- Forward Refundings[2]: 158 series of bonds sold with a total aggregate par of $11 billion
  - Average forward period slightly longer than 1.5 months, with the longest at 11 months by San Diego USD
- According to a July 15th article, the Bond Buyer stated that as of July 11th, there has been $9.6 billion of BABs refunded, another six at the time had posted call notices ($1.5 billion of BABs), and additional nine issuers at the time had announced they were considering refunding their BABs ($6.6 billion)
  - Los Angeles Unified School District executed the largest BABs refunding in April by redeeming $2.6 billion of outstanding BABs
- 2024YTD saw 56 municipal tender solicitations amounting to over $33 billion in par
  - The largest tender solicitation was by the Los Angeles Community College District, in which the total par solicited was over $2.5 billion

*(1) Year-to-date through August 22, 2024.*
*(2) +$10 million transactions where the time frame from sale to delivery exceeds 1 month*

# Environmental, Social and Governance (ESG) - Labeled Bonds




*(1) Source; Thomson Reuters. Year-to-date through August 22, 2024.*

# Other Market Trends

- Municipal Finance Structures
  - Public-Private Partnerships
  - Cash Optimization
  - Bank Direct Placements
  - Interim Funding Solutions

- Technology
  - iPreo Gameday
  - MSRB Electronic Municipal Market Access (EMMA)
  - Investor Relations Websites
  - Electronic trading platforms like MarketAxess and Bloomberg's BondTrader
  - Internal systems by market participants

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# Risk Disclosures – Fixed Rate Bonds[1]

| Material Risk Consideration | Description of Risk | Potential Consequences |
| --- | --- | --- |
| **Issuer Default Risk** | Possibility that the Issuer defaults under the authorizing documents | • Range of available remedies may be brought against Issuer (e.g., forcing Issuer to raise taxes or rates)<br>• Credit ratings negatively impacted<br>• Access to capital markets impaired<br>• Possibility of receivership or bankruptcy for certain issuers |
| **Redemption Risk** | The ability to redeem the bonds prior to maturity may be limited | • Inability to refinance at lower interest rates |
| **Refinancing Risk** | Possibility that the bonds cannot be refinanced | • Inability to refinance at lower interest rates |
| **Reinvestment Risk** | Possibility that the Issuer may be unable to invest unspent proceeds at or near the interest rate on the bonds | • Negative arbitrage resulting in a higher cost of funds |
| **Tax Compliance Risk** | For tax-exempt bonds, possibility that failure to comply with tax- related covenants results in the bonds becoming taxable obligations | • Increase in debt service costs retroactively to date of issuance<br>• Possible mandatory redemption of bonds affected<br>• Risk of IRS audit<br>• Difficulty in refinancing the bonds<br>• Access to tax-exempt market impacted<br>• Difficulty in issuing future tax-exempt debt |

*(1) You should consult with your financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent you deem appropriate concerning such risks.*

# Risk Disclosures – Forward Delivery Bonds[1]

| Material Risk Consideration | Description of Risk | Potential Consequences |
|---|---|---|
| **Risk of Inability to Satisfy Conditions for Delivery of Bonds** | Possibility that conditions to closing cannot be met on delivery date (e.g., intervening changes in law (resulting in either a change in tax status or any other reason that would prevent counsel from delivering an opinion), material litigation filed, adverse change in rating on the bonds or an event of default or material adverse change occurs) | • Transaction cannot be consummated |
| **Underwriter Default Risk** | Possibility that underwriter cannot perform on delivery date | • Transaction cannot be consummated |
| **Fewer Potential Purchasers** | Risk that the universe of potential investors may be limited to additional risks | • Pricing of the bonds and the amount of the forward delivery premium may be adversely affected |
| **Availability of Better Alternatives** | Possibility that it is more advantageous to wait and remarket or refinance outstanding bonds | • May not obtain the best economic result by proceeding with issuance of forward delivery bonds |

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# Risk Disclosures – Tender & Exchange Offers[1]

| Material Risk Consideration | Description of Risk | Potential Consequences |
| --- | --- | --- |
| **Uncertainty of Results** | Uncertainty of results | • Tender offer is not successfully consummated or the amount of bonds tendered may be less than expected<br>• May be required to increase price that is paid |
| **Varying Impact on Bondholders** | Bondholders may be impacted differently by the terms of the tender offer | • Holders of other bonds may be affected<br>• May impact results of tender offer |
| **Alternatives May Be Better** | Waiting to refinance or remarket may be economically advantageous | • Higher costs may be incurred<br>• May not obtain the best economic result |

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# QUESTIONS?

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