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CDIAC Municipal Debt Essentials 2019

Evolution of the Bond Market | February 2019

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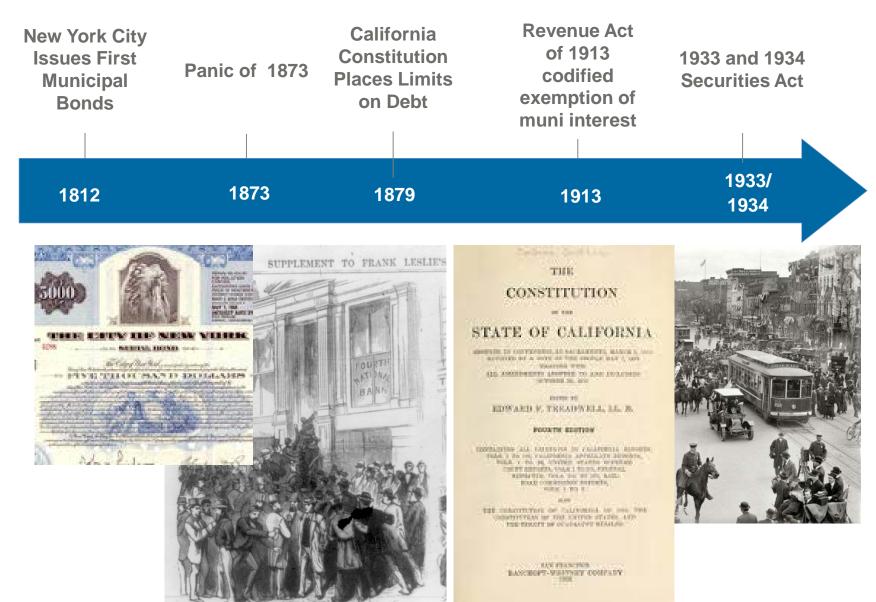
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The Birth of the Municipal Bond Market



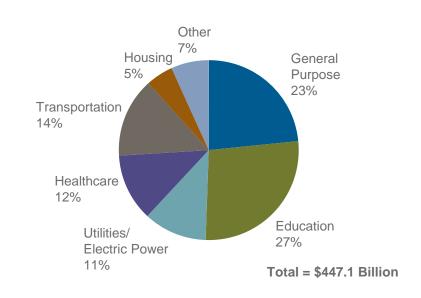
Today's Municipal Market Characteristics

US Bond Market Debt Outstanding (4Q 2017)

Asset-Backed Mortgage Municipal 4% Related Federal 23% Agency 5% Money Market 2% Corporate Treasury 20% 35% Total = \$41.0 Trillion

Source: SIFMA Source: Bond Buyer

2017 Municipal Issuance by Sector



How Does the Municipal Market Compare to Other Markets?

Key Market Statistics

Market	Market Size	# of CUSIPs	% Direct Retail	Avg Daily Volume	Avg Daily # of Trades	Avg \$ / Trade
Equities	\$28.5 T	10,700	38%	\$80.5 BN	10,740,000	\$7,495
Corporate Bonds	\$8.8 T	30,000	10%	\$25.8 BN	58,900	\$424,450
Municipal Bonds	\$3.9 T	1,000,000	42%	\$10.8 BN	39,000	\$277,000

Source: MSRB Muni Facts http://www.msrb.org/msrb1/pdfs/MSRB-Muni-Facts.pdf , SIFMA FINRA TRACE, NASDAQ, Federal Reserve Statistical Release Flow of Funds, Balance Sheets, and Integrated Macroeconomics, Bloomberg as of 12/12/18.

Note: Data reflects U.S. market only, bond data excludes money market activity

- Individual municipal bonds trade on average once every 26 days while an individual equity trades on average ~1000 times per day
- Municipal bonds are not registered with the SEC: the SEC cannot directly enforce continuing disclosure practices of municipal entities

California's Constitutional Debt Limit

- Article XVI, section 18, provides in part: "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 two-thirds of the qualified electors thereof, voting at an election to be held for that purpose"
- In 2015 California municipalities issued \$57 billion in debt, 38% was voter approved



During the 20th Century, Californians and the Courts Redefined Voter Approval



The Financial Crisis Changed the Municipal Debt Market Landscape

Casualties of the Financial Crisis

Variable Rate Debt

- Auction Rate Securities
- Synthetic Fixed Rate Debt

Receivership of Fannie Mae and Freddie Mac

Bond Insurers

- Insurance for debt service
- Surety Bonds

Consolidation/Elimination of Firms

- Bear Stearns bought by J.P. Morgan
- Bankruptcy of Lehman
- Sale of Merrill Lynch to Bank of America













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Investor Alerts

Auction Rate Securities: What Happens When Auctions Fail

Municipal Market Terms

Bond Insurance

A guarantee by a bond insurer of the payment of the principal of and interest on municipal bonds as they become due should the issuer or obligated person fail to make required.

Variable Rate

An interest rate, sometimes referred to as a "floating rate," on a security that is reset at specified intervals according to market conditions or a predetermined index or formula.

Refunding

A procedure whereby an issuer refinances outstanding bonds by issuing new bonds.

Advance Refunding

A refunding in which the refunded issue remains outstanding for a period of more than 90 days after the issuance of the refunding issue.

Current Refunding

A refunding transaction where the municipal securities being refunded will all mature or be redeemed within 90 days or less from the date of issuance of the refunding issue.

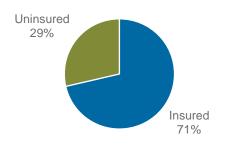
New Money Bonds

A bond issued to raise money to finance capital projects such as roads, bridges, schools, and libraries

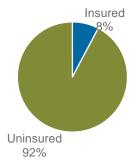
Source: Municipal Securities Rulemaking Board, Glossary of Municipal Securities Terms (except New Money Bonds)

California's Municipal Market Trends Before and After the Financial Crisis

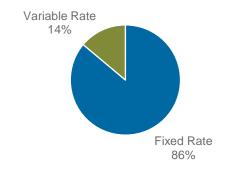
California 2006 Insured vs. Uninsured



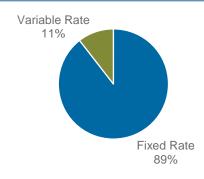
California 2017 Insured vs. Uninsured



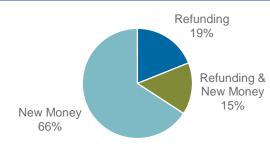
California 2006 Fixed vs. Variable Rate



California 2017 Fixed vs. Variable Rate

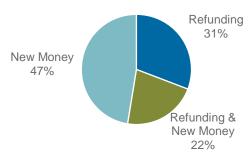


California 2006 New Money vs. Refunding



Source: SDC as of December 12, 2018

California 2017 New Money vs. Refunding



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The Tax Cuts and Jobs Act of 2017

Individual Tax Rates

- Individual: maintain a 7-bracket system but with lower rates (0%, 10%, 12%, 22%, 24% 32% and 37%)
- Keep AMT, but at a higher income threshold
- Increased standard deductions overall

Corporate Tax Rates

- Tax rate for "C" corporations reduced to 21% from 35% effective in 2018
- Repeal of AMT

State and Local Taxes

Continues to allow for deduction of cost of state and local property taxes, consistent with current law -up to \$10,000; allows individuals and families the ability to choose among sales, income, and property taxes based on their needs

Advance Refunding Bonds

■ For bonds issued after 2017, interest on advance refunding bonds would be taxable; interest on current refunding bonds would continue to be tax-exempt

Tax Credit Bonds

■ Eliminates tax credit and direct pay bonds including new Clean Renewable Energy Bonds, Qualified Energy Conservation Bonds, Qualified Zone Academy Bonds, and Qualified School Construction Bonds

Modification of "proration" rules for Property and Casualty Insurance Companies

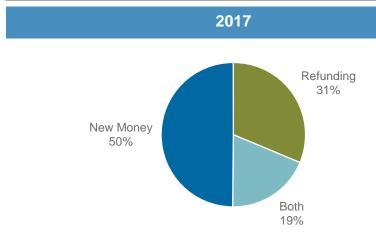
■ P&C insurance companies are were eligible for a tax deduction for contributions to loss reserves, which was reduced by 15% of the tax-exempt interest a P&C earns - effectively a partial tax on otherwise tax-exempt interest. Under current rules, that disallowance percentage increases to 25% for tax years beginning after 2017

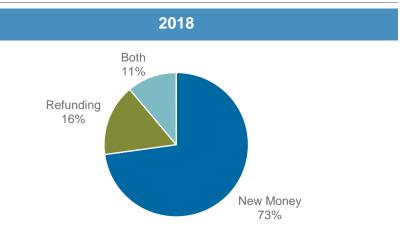
Source: House of Representatives, Conference Report, house.gov 12/29/2017; 1Calculated by dividing 5.25% by the top corporate tax rate

2017 vs. 2018 YTD

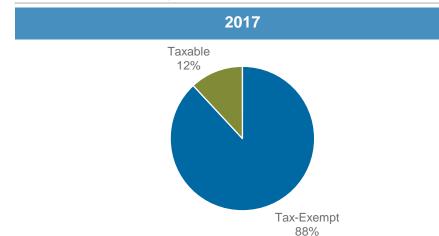
Impacts of tax reform on municipal issuance

Refunding vs. New Money

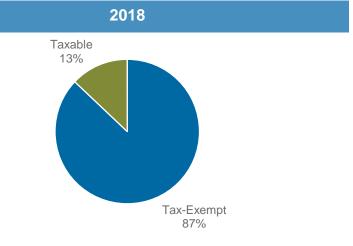




Taxable vs. Tax-Exempt







Total Issuance: \$369.287 billion

Direct Purchase / Loan vs. Publicly Offered Bond

Direct Purchase/Loan

- Interest payments may be fixed or floating
- Pricing will depend on a number of factors including issuer ratings, deal size, tenor, new money / refunding proceeds and relevant credit covenants
- Borrower is not subject to the performance of purchaser through the bond's mandatory tender date
- Upon a mandatory tender date for the bond/loan, a term-out provision and stepped-up rates may apply if the debt is not otherwise repaid or remarketed, similar to a bank facility or a put bond
- Bank loans may be subject to margin rate factor adjustments, while the risk of changes to tax rates falls on the purchaser of direct purchase bonds

Publicly Offered Bond

- Ratings
- Official Statements
- Documentation
- Continuing Disclosure
- Remarketing / Term Out
- Issuance Costs

Additional Municipal Market Terms

SEC

Securities and Exchange Commission. The federal agency responsible for supervising and regulating the securities industry.

MSRB

Municipal Securities Rulemaking Board. A self-regulatory organization, consisting of representatives of securities firms, bank dealers, municipal advisors, issuers, investors and the public, that is charged with primary rulemaking authority over municipal securities dealers and municipal advisors in connection with their municipal securities and municipal advisory activities.

Continuing Disclosure

Disclosure of material information relating to municipal securities provided to the marketplace by the issuer of the securities or any other entity obligated with respect to the securities after the initial issuance of municipal securities. Such disclosures include, but are not limited to, annual financial information, certain operating information and notices about specified events affecting the issuer, the obligor, the municipal securities or the project financed.

Source: Municipal Securities Rulemaking Board, Glossary of Municipal Securities Terms

Enforcement, Regulation, Disclosure

Rule 15c2-12

Amendment of 15c2-12

Pension

Enforcement Actions

Independent Registered Municipal Advisor

MCDC

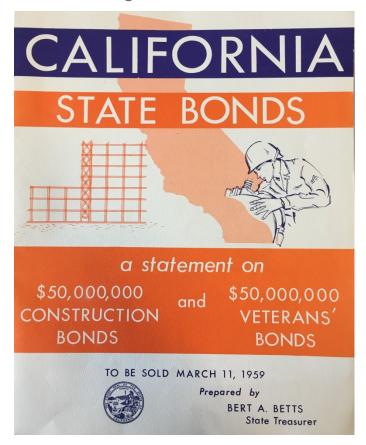
2019 15c2-12 New Disclosure

- Enacted in 1989 in response to Washington Public Power Supply System default
- Governed disclosure for municipal bonds by regulating underwriters
- Enacted in 1995 in response to Orange County bankruptcy
- Requires continuing disclosure
- SEC Enforcement Actions for inadequate pension disclosures
- City of San Diego (2006), States of New Jersey (2010), Illinois (2013), Kansas (2014)
- Enforcement Division Unit created in 2010
- Dodd-Frank Act gave SEC new power to obtain fines in administrative ("cease and desist") actions
- SEC's Municipal Advisor Rule, in effect since July 2014, establishes a fiduciary duty on the part of a municipal advisor to its municipal entity client,
- Imposes certain restrictions upon the communications from a non-registered municipal advisor with its municipal entity clients
- Announced in March 2014 by SEC
- Focus on whether an offering document was materially accurate with respect to compliance with continuing disclosure undertakings
- In August 2016, the SEC enforcement actions against 71 municipal issuers and other obligated persons for violations in municipal bond offering
- Two new 15c2-12 disclosure items, effective February 2019
- Bank loans and any other material financial obligation entered into, as well as disclosure of events that may reflect financial difficulties, e.g., default.

An Illustration of the Changes in Disclosure Practices

California GO 1959

- 14 Total Pages
- 3 Pages Describing Current Budget
- Outstanding GO Debt of \$1.4 billion



California GO 2016

- 372 Total Pages
- 15 Pages Describing Current Budget
- Outstanding Debt of \$83.3 billion

NEW ISSUE-BOOK-ENTRY ONLY

Ratings: Moody's: Aa3 S&P: AA-

S&P: AA-Fitch: AA-(See "RATINGS" herein)

In the opinion of Bond Counsel to the State of California, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and is exempt from State of California personal income taxes. See "TAX MATTERS."

\$871,885,000 STATE OF CALIFORNIA VARIOUS PURPOSE GENERAL OBLIGATION BONDS

ated: Date of Delivery

Due: See "SUMMARY OF THE OFFERING"

The State of California (the "State") is issuing \$871,885,000 Various Purpose General Obligation Bonds (the "Bonds"), all bearing interest at fixed rates.

The Bonds are general obligations of the State to which the full dith and credit of the State is pledged. The principal of and interest on all State general obligation bonds including the Bonds, are payable from any moneys in the General Pand of the State; spilect, durfer State law, only to the grior application of such moneys to the support of the public school systemand public institutions of lighter education. See "AUTHORIZATION OF AND SECURITY FOR THE BONDS."

Interest on the Bonds is payable on April 1 and October 1 of each year, commencing April 1, 2019, at the rescueive rates per annuny sei Bordi; in the "SEMDARY OF THE OFFERING" unincidately following this cover page. Beneficial interests in the Bonds, may be purchased in principal almoints of \$50,000 or any intergral multiple thereof in book-entry form only. See "THE BONDS—General" and APPENDIX B— "THE BOOK-ENTRY ONLY SYSTEM."

Certain of the Bonds are subject to optional redemption prior to their respective stated maturity dates as described herein. See "THE BONDS—Redemption."

This cover page contains certain information for general reference only. It is <u>not</u> a summary of the security or the making of an information are advised to read the entire Official Statement to obtain information essentia to the making of an informed investment decision.

> MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, VIELDS AND CUSIPS (See "SUMMARY OF THE OFFERING")

The Bonds are offered when, as and if issued by the State and received by the initial purchaser(s), subject to the approval of childly by the Honoroble Xavier Becerra, Attorney General of the State of California, and by Orrick, Herrington & Statelife LLP, Bond Counset to the State or Orrick, Herrington & Statelife LLP and Nixon Peabody LLP are serving as Co-Disclosure Counset to the State with respect to the Bonds. Orrick, Herrington & Statelife LLP and Stradliny (Socca Carlson & Rauk, a Professional Corporation, are serving as Co-Disclosure Counset to the State regarding Appendix A. Public Resources Advisory Group is serving as the Municipal Advisor to the State with respect to the Bonds. The Bonds are expected to be available for delivery through the facilities of The Depository Trust Company on or about October 25, 2018.

HONORABLE JOHN CHIANG Treasurer of the State of California

THE BONDS WERE SOLD AT COMPETITIVE SALE ON OCTOBER 17, 2018 INITIAL OFFERING YIELDS HAVE BEEN SET BY THE INITIAL PURCHASERS

Official Statement Dated: October 17, 2018