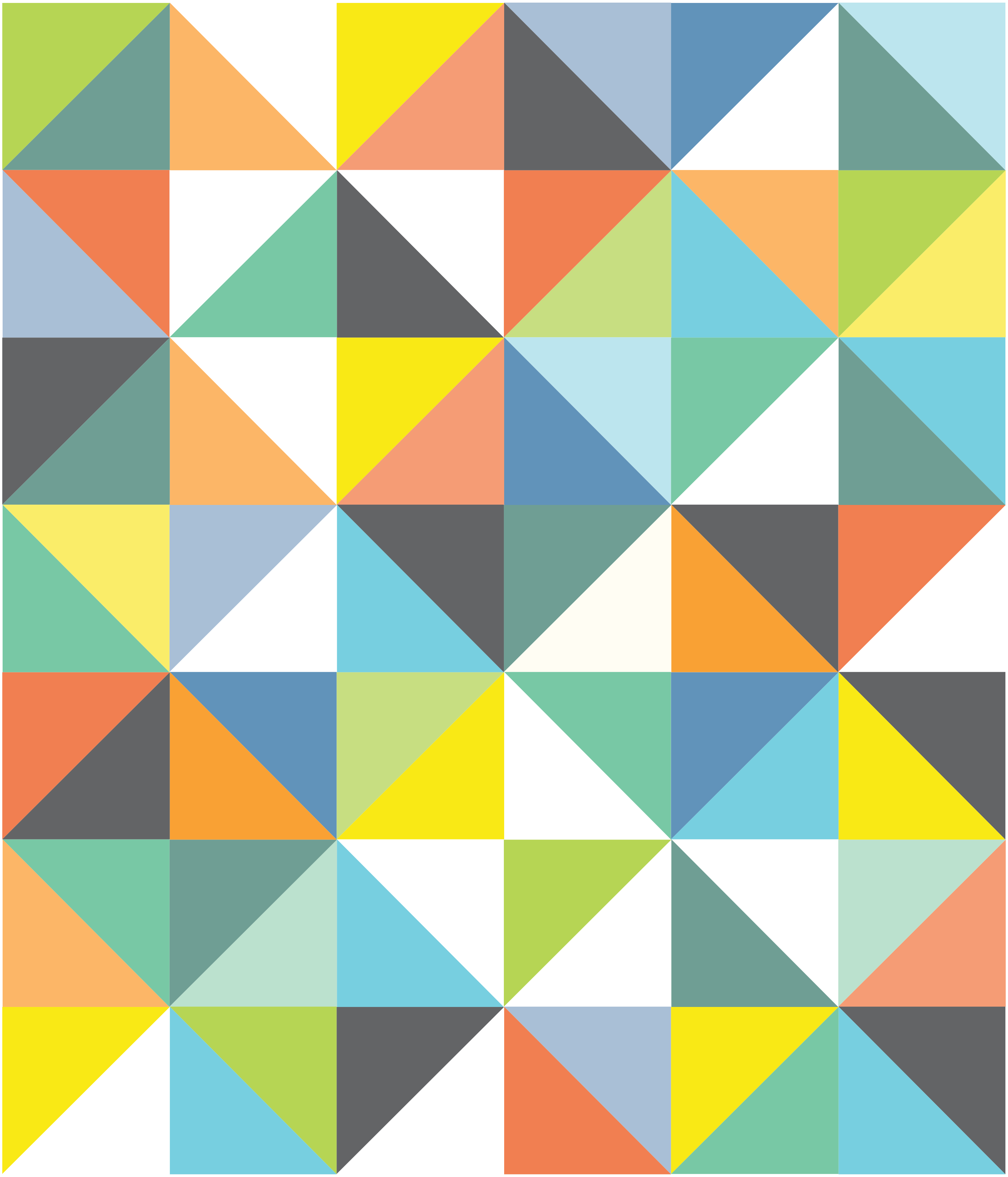

CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION 2017 ANNUAL REPORT **CDIAC NO. 18.05**

CDIAC

CALIFORNIA
DEBT AND
INVESTMENT
ADVISORY
COMMISSION

June 12, 2018

To Our Constituents:

I am pleased to present the California Debt and Investment Advisory Commission (CDIAC) 2017 Annual Report.

In 2017, CDIAC received and processed 10,845 reports including Reports of Proposed Debt Issuance (RPDIs), Reports of Final Sale (RFSs), Marks-Roos Local Bond Pooling Yearly Fiscal Status Reports (MKR YFSRs), Mello-Roos Community Facilities Districts Yearly Fiscal Status Reports, and Mello-Roos/Marks-Roos Draw on Reserve/Default filings. CDIAC also conducted ten educational programs: three webinars, three core seminars, one current topic seminar, and three co-sponsored seminars and published five reports on both debt issuance and the investment of public funds. These accomplishments reflect the dedicated work of CDIAC staff to provide core services to public agencies in the areas of data collection and reporting, training and staff development, and the advancement of best practices. The combination of which offer CDIAC a unique opportunity to effect change.

Take for example CDIAC's seminar on debt data held in conjunction with the California Society of Municipal Analysts. That event helped CDIAC and conference participants to understand how market analysts and issuers access and use data on debt financing. But it also shed light on what issuers consider to be the scope of their responsibilities in managing debt. The seminar and panel discussions revealed that the limits of commonly-accepted debt management practices may be exposing issuers to financial, legal, and regulatory risks and, do not promote efficiency and openness. In the following pages, CDIAC argues based on these observations that issuers, investors, and tax payers would be better served by an expanded understanding of debt management. The benefits of doing so include lower risk, improved financial management, greater transparency, and the possibility to engage tax payers in a discussion about how their public agencies finance programs and services.

In 2018 CDIAC intends to integrate this new definition of debt management into its programs so as to encourage public agencies to apply this concept to their operations. In its data collection and reporting, CDIAC will continue to pursue the development and launch of a new database, one that provides greater value to issuers, policy makers and the public. In its education program, CDIAC will emphasis the additional responsibilities that fall to issuers under a more broadly-defined debt management program. And, finally, CDIAC will work with industry professionals to develop best practices and advisories on the scope of tasks that compose such a program. We look forward to reporting on the progress made on these efforts in the future.

In the meantime, thank you for taking the time to review this report to learn about what CDIAC has accomplished in 2017. I think you will see how you, our constituents, directly benefit from these efforts.

Respectfully,

Mark B. Campbell
Executive Director

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ABOUT CDIAC

The California Debt and Investment Advisory Commission (CDIAC) provides information, education, and technical assistance on debt issuance and public funds investing to state and local public agency officials and other public finance professionals. CDIAC was created in 1981 with the passage of Chapter 1088, Statutes of 1981 (AB 1192, Costa). This legislation established the California Debt Advisory Commission as the State's clearinghouse for public debt issuance information and required it to assist state and local agencies with the monitoring, issuance, and management of public financings. CDIAC's name was changed to the California Debt and Investment Advisory Commission with the passage of Chapter 833, Statutes of 1996 (AB 1197, Takasugi) and its mission was expanded to cover the investment of public funds. CDIAC is specifically required to:

- Serve as the State's clearinghouse for public debt issuance and outstanding debt information.[1]
- Publish a monthly newsletter.
- Maintain contact with participants in the municipal finance industry to improve the market for public debt issuance.
- Provide technical assistance to state and local governments to reduce issuance costs and protect issuers' credit.
- Undertake or commission studies on methods to reduce issuance costs and improve credit ratings.
- Recommend legislative changes to improve the sale and servicing of debt issuances.
- Assist state financing authorities and commissions in carrying out their responsibilities.
- Collect specific financing information on public issuance through Mello-Roos Community Facilities Districts after January 1, 1993 or as a member of a Marks-Roos Bond Pool beginning January 1, 1996; collect reports of draws on reserves and defaults from Mello-Roos Community Facilities Districts and Marks-Roos Bond Pools filed by public financing agencies within 10 days of each occurrence.

[1] The requirement to track outstanding debt of state and local agencies was added as a result of implementation of SB 1029, Chapter 307, Statutes of 2016.

- In conjunction with statewide associations representing local agency financial managers and elected officials, develop a continuing education program aimed at state and local officials who have direct or supervisory responsibility for the issuance of public debt or the investment of public funds.

- Receive notice of public hearings and copies of resolutions adopted by a joint powers authority for certain bonds authorized pursuant to Marks-Roos Local Bond Pooling Act of 1985.

Figure 1 summarizes the CDIAC's statutory provisions.

To meet its statutory responsibilities, CDIAC divides its functions into four units: Data Collection and Analysis, Policy Research, Education and Outreach, and Administration.

Pursuant to statute, all state and local government issuers must now submit information to CDIAC at three points during the debt issuance process: thirty days prior to the proposed sale date, no later than 21 days after the actual sale date, and an annual report on the status of that debt.[2] Included in these reports to CDIAC are the sale date, name of the issuer, type of sale, principal amount issued, type of financing instrument, source(s) of repayment, purpose of the financing, rating of the issue, and members of the financing team. In addition, Mello-Roos and Marks-Roos bond issuers, for as long as their bonds are outstanding, must submit a yearly fiscal status report on or before October 30th. Data compiled from these reports are the basis for public issuance statistics and analyses released by CDIAC. Since 1984, CDIAC has maintained this information in the California Debt Issuance Database and makes it accessible to the public through its DebtWatch website.[3]

Since 1984, CDIAC has organized educational programs focusing on public finance. Offered at locations throughout the state, CDIAC programs are designed to: (1) introduce new public finance staff to the bond issuance and investment processes; (2) strengthen the expertise of public officials familiar with the issuance and the investment processes; and (3) inform public officials about current topics that may affect public issuance and the investment of public funds.

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2 AB 2274, Gordon (Chapter 181, Statutes of 2014) reduced the time period for submission of final reports of debt issuance from 45 days to 21 days. SB 1029, Hertzberg (Chapter 307, Statutes of 2016) requires an annual report on the status of any debt for which a report of final sale was submitted to CDIAC on or after January 21, 2017.

3 While CDIAC has collected information since January 1, 1982, the Debt Issuance Database contains information from 1984 to present day.

Figure 1

CDIAC STATUTORY PROVISIONS

FUNCTION	CALIFORNIA CODE SECTION	DESCRIPTION OF PROVISIONS
CDIAC Authorizing Statute	Government Code Section 8855 - 8859	Establishes CDIAC's duties
Report of Proposed Sale of Public Debt	Government Code Section 8855(i)	Requires the issuer of any proposed debt issue of state or local government to, no later than 30 days prior to the sale, give written notice of the proposed sale to CDIAC. On the report, local issuers must certify they have adopted debt policies that meet certain requirements.
Report of Final Sale of Public Debt	Government Code Section 8855(j)	Requires the issuer of any debt issue of state or local government to submit, not later than 21 days after sale, a report of final sale to CDIAC including specific information about the transaction.
Annual Debt Transparency Report	Government Code Section 8855(k)	Requires the issuer of any debt for which a report of final sale has been submitted to CDIAC on or after January 21, 2017 to submit an annual report on the status of that debt until the debt is retired and the proceeds fully repaid.
Mello-Roos Reporting Requirements	Government Code Section 53359.5(a) thru (c) and 53356.05	Reporting requirements: debt issuance, annual debt service, default, reserve draw, specific events affecting the value of outstanding bonds, and annual status.
Marks-Roos Reporting Requirements	Government Code Section 6586.5, 6586.7, 6599.1(a), 6588.7 (e)(2), 6599.1(c)	Reporting requirements: notice of hearing authorizing bond sale, copy of resolution authorizing bonds, written notice of proposed sale, debt issuance, annual debt service, default, reserve draw, rate reduction bond savings, and annual status.
General Obligation Bond Cost of Issuance	Government Code Section 53509.5(b)	Reporting requirements: cost of issuance of bonds issued by city, county, city and county, school district, community college district or special district.
Refunding Bonds Sold at Private Sale or on a Negotiated Basis	Government Code Section 53583(c)(2)(B)	Reporting requirement: written statement from public district, public corporation, authority, agency, board, commission, county, city and county, city, school district, or other public entity or any improvement district or zone explaining the reasons why the local agency made the decision to sell the bonds at a private sale or on a negotiated basis instead of at public sale.
School and Community College Districts	Education Code Section 15146(d)(2), and (e)	Reporting requirements: cost of issuance of bonds issued by a school district and report of sale or planned sale by a school district.
School and Community College Districts	Education Code Section 15303(b)	Reporting requirements: copy of the resolution adopted by the board of supervisors approving the use of Education Code allowing for the creation of school improvement districts within a school and community college district in the county.
Joint Powers Authority	Government Code Section 6548.5	Reporting requirements: level of fees or charges imposed by a Joint Powers Authority for the issuance of bonds pursuant to the Joint Exercise of Powers Act.
Joint Powers Authority	Government Code Section 6586.7	Reporting requirements: a copy of the resolution adopted by an authority authorizing bonds or the issuance of bonds or accepting the proceeds of bonds issued pursuant to Joint Exercise of Powers Act with exemptions given to certain types of issuers and projects.
Joint Powers Authority	Government Code 6586.5(a)(3)	Reporting requirements: public notice at least 5 days prior to hearing where the authority makes certain findings and takes actions with respecting to financing certain improvements.
Joint Powers Authority	Government Code Section 6588.7(e)(2)	Reporting requirements: a statement from the authority that it is issuing rate reduction bonds, the source of repayment, and the saving realized from the sale of the bonds.
City, County and Other Agencies	Government Code Section 54418	Reporting requirements: written notice from the agency explaining the reasons the legislative body has decided to sell revenue bonds at a private sale rather than public (Revenue Bond Law of 1941).
Harbor Agency—Joint Powers Authority	Harbor and Navigation Code Section 1706(b)	Reporting requirements: annual report regarding receipts and expenditures from the infrastructure fund established pursuant to a harbor agency Joint Powers Agency.
Redevelopment Agency	Health and Safety Code Section 33664(d)	Reporting requirements: copy of the agency's resolution specifying the financial advantage of the agency purchasing its own bonds and a covering letter with other information specific to the bonds.

CDIAC COMMISSION MEMBERS

Pursuant to statute, the Commission may consist of between three and nine members, depending on the number of appointments made by the Treasurer or the Legislature. Three statewide elected officials — the State Treasurer, State Controller, and Governor or Director of Finance — serve *ex officio*. Statute names the Treasurer to be chair. Local government associations, such as the League of California Cities, may nominate two local finance officers for appointment by the Treasurer. The Senate Rules Committee and the Speaker of the Assembly may each appoint two members. Appointed members serve at the pleasure of their appointing power and otherwise hold four-year terms.

The 2017 Commission members serving as of June 30, 2017 included:

JOHN CHIANG

California State Treasurer
Residence: Torrance, California

Background: As State Treasurer, Mr. Chiang oversees a bank that processes trillions of dollars in transactions every year. He sells California's bonds, invests the State's money and manages its cash. Prior to being elected Treasurer, he served from 2007 through 2014 as State Controller. In that office, he took steps during the Great Recession to preserve cash to meet obligations to education and bond holders, worked to ensure the fiscal solvency of the State's pension plans, and ensured that $3.1 billion in unclaimed property was returned to the rightful owners. Prior to serving as Controller, he was elected to the Board of Equalization in 1998, where he led with innovative taxpayer-friendly services such as the State's free income tax return preparation service, ReadyReturn.

Mr. Chiang holds a degree in finance from the University of South Florida and a Juris Doctor from the Georgetown University Law Center.

EDMUND G. BROWN

Governor of California
Residence: Sacramento, California

Background: Edmund G. Brown Jr., known as Jerry, was elected Governor of California in November 2010. Governor Brown has held other elected positions including member of the Los Angeles Community College Board of Trustees, Secretary of State, Governor (1975 to 1983), Mayor of Oakland, and California Attorney General.

Governor Brown received his Bachelor of Arts degree in classics from the University of California at Berkeley and his law degree from Yale Law School.

BETTY YEE

California State Controller
Residence: Alameda, California

Background: Betty T. Yee was elected Controller in November 2014, following two terms of service on the Board of Equalization (BOE). As Controller, she continues to serve the BOE as its fifth voting member. As the State's chief financial officer, Yee also chairs the Franchise Tax Board and serves as a member of the California Public Employees Retirement System (CalPERS) and the California State Teacher's Retirement System (CalSTRS) boards. The two boards have a combined portfolio of nearly $500 billion. She has more than 30 years of experience in public service, specializing in state and local finance and tax policy. Yee previously served as Chief Deputy Director for Budget with the California Department of Finance, where she led the development of the Governor's Budget, negotiations with the Legislature and key budget stakeholders, and fiscal analyses of legislation on behalf of the Administration. Prior to this, she served in senior staff positions for several fiscal and policy committees in both house of the California State Legislature. Yee currently serves on the board of directors for the Cal Alumni Association at the University of California, Berkeley; California Women

Lead; and the Equality California Institute. She was a co-founder of the Asian Pacific Youth Leadership Project, which exposes California high school youth to the public service, public policy, and political arenas.

A native of San Francisco, Yee received her bachelor's degree in sociology from the University of California, Berkeley, and her master's degree in public administration from Golden Gate University in San Francisco.

MATTHEW DABABNEH
Assembly Member, 45th District
Residence: Encino, California

Background: Assemblymember Dababneh was elected to the California State Assembly in November of 2013 to represent the 45th Assembly District which includes the communities of Bell Canyon, Calabasas, Canoga Park, Chatsworth, Encino, Hidden Hills, Northridge, Reseda, Sherman Oaks, Tarzana, West Hills, Winnetka, and Woodland Hills. Dababneh currently serves as the Chairman of the Banking and Finance Committee and is also a member of the Insurance, Revenue and Taxation, and Privacy and Consumer Protection Committees. Prior to his election to the Assembly, Dababneh worked as the District Chief of Staff for Congressman Brad Sherman and served on the boards of several local non-profit organizations, including Hope of the Valley Rescue Mission, the Valley Cultural Center, Phoenix House Juvenile Drug Rehabilitation Academy, and the House of Hope.

Mr. Dababneh graduated with a B.A. from the University of California, Los Angeles.

JOSÉ CISNEROS
Treasurer of the City and County of San Francisco
Residence: San Francisco, California

Background: As Treasurer, Mr. Cisneros serves as the City's banker and Chief Investment Officer, and manages tax and revenue collection for San Francisco. In 2006, Mr. Cisneros launched the Bank on San Francisco program, the first program in the nation to address the needs of unbanked residents by actively partnering with financial institutions to offer products and services to lower-income consumers. In addition, he worked to establish the Office of Financial Empowerment, only the third municipal office nationwide dedicated to stabilizing the financial lives of low-income families.

Mr. Cisneros received his Bachelor of Science from the Massachusetts Institute of Technology, Sloan School of Management and studied for his Master of Business Administration at Boston University. He is also a graduate of the International Business Program at Stichting Nijenrode University in the Netherlands.

DAVID BAUM
City of San Leandro
Residence: San Francisco Bay Area, California

Background: David Baum is the Director of Finance for the City of San Leandro. In this capacity, he is responsible for budget, treasury, debt administration, revenue management, general accounting, payroll, and purchasing. He has more than 20 years of local government experience including serving as the Chief Financial Officer of the San Jose Redevelopment Agency and manager of the financial rehabilitation of the City of Hercules. In addition, he served over 10 years as a board member of an elementary and middle school in Saratoga.

Mr. Baum holds a Bachelor of Arts degree in economics from Stanford University.

TOWARDS A NEW UNDERSTANDING OF DEBT MANAGEMENT: ADOPTING PRACTICES AND TECHNOLOGIES THAT MEET THE EXPANDING OBLIGATIONS OF DEBT ISSUERS

Writing for the World Bank, Abha Prasad and Malvina Pollock assess the status of debt management practices and performances among developing countries. Their report, *Measuring Performance in Debt Management: Key Findings from the Debt Management Performance Assessment (DeMPA)*, employs 15 indicators to determine the performance of individual country debt management practices.[4] To do so they have defined Debt Management as "a multi-faceted process that encompasses the governance and managerial framework, institutional and staff capacity, coordination with macroeconomic policies (fiscal and monetary), the policies and procedures for borrowing from external, domestic sources and the issuance of loan guarantees, cash management, the management of operational risk and the availability of systems for debt data storage, compilation, analysis and reporting." While some of the indicators used in their study are not applicable to non-sovereign governments they do provide an expanded view of debt management that better reflects the obligations public agencies take on when issuing debt.

The concept of debt management as used by public finance professionals and debt issuers incorporates a relatively limited set of assignments. In the narrowest sense, it applies to meeting the financial and regulatory obligations imposed by contracts and federal or state laws. We argue for a more expanded understanding of the tasks and duties associated with managing a public debt portfolio. A broader understanding of debt management, one that accounts for the interplay between organizational, economic, and political forces helps issuers in three ways: 1) It increases the likelihood that they will identify the risks associated with managing their debt portfolio; 2) In doing so, they are more likely to develop strategies to eliminate or mitigate that risk; and, 3) They will be better able to plan and manage their obligations.

In the next few pages we consider what debt management is or should be and how public agencies should respond.

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[4] Abha Prasad and Malvina Pollock, Measuring Performance in Debt Management: Key Findings from the Debt Management Performance Assessment (DePMA), available at http://siteresources.worldbank.org/INTDEBTDEPT/Resources/468980-1238442914363/5969985-1293636542096/DeMPANote201106.pdf.

THE CHALLENGE FACING PUBLIC AGENCIES

Public agencies issue debt to finance the cost of capital facilities, to refinance existing obligations, and to meet cash flow needs. Refundings and short-term cash financing may not significantly increase the size of the agency's debt portfolio over time, but capital financing will. The cost of building, repairing, and replacing public facilities in California is estimated to be $850 billion. The U.S. Environmental Protection Agency reports that the state will need to invest $44.5 billion in drinking water infrastructure over the next 20 years. $26.2 billion will be needed for wastewater infrastructure during the same 20 years.[5] The Center for Cities and Schools at the University of California, Berkeley estimates the state's K-12 school will require approximately $117 billion in capital investment over the next decade.[6] The Department of Transportation's April 2015 *Ten Year Planning Report* indicates the state will need $80 billion between 2016 and 2026 for rehabilitation and operation of the State Highway System.[7] Much of this will need to be funded or partially funded by local agencies.

There is no single source of funds to cover the cost of constructing, replacing, and repairing the state's public infrastructure. To help fill the gap, the State has imposed a gas tax on fuel purchases and tapped its Cap and Trade funds. But, additional solutions will be needed, particularly at the local level. Among them are "public-private partnerships" or P3s. P3s are not new to public finance. The private sector has been acting as a partner to public agencies since investors underwrote the trans-pacific railroad. But they are still unfamiliar to most public agencies who may not fully understand the risks and rewards of these alliances.

Issuers who choose debt as a source of financing must navigate an increasingly complex market. Depending on the authority, the source of revenues, and the interests of investors or lenders, a public agency may be able to finance projects through cash, bonds, loans, capital leases, or a combination of two or more of these. Each of these imposes a different set of processes, terms and conditions, and on-going responsibilities on the issuer who must be prepared, regardless of the financing approach, to manage the financial, legal, and regulatory obligations they assume.

The challenge of providing needed facilities in today's capital market also offers issuers opportunity. But to capture the advantages of alternative financing strategies, public agencies must adopt new approaches to planning, analysis, reporting, and administration. And this requires more information—information needed to evaluate alternatives, to monitor progress, and make course corrections as needed to generate long-term value for taxpayers and the agency.

WHY IS DEBT MANAGEMENT IMPORTANT?

Public debt has demonstrated a resilience unparalleled in the corporate markets. Default rates are extremely low. Moody's reported four municipal defaults in 2016, all related to the Commonwealth of Puerto Rico.[8] Between 1970 and 2016 the default

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[5] Drinking Water Infrastructure Needs Survey and Assessment, U.S. Environmental Protection Agency, April 2013, available at https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf.

[6] Going It Alone: Can California's K-12 School Districts Adequately and Equitably Fund School Facilities? Policy Research Working Paper, Center for Cities and Schools, November 2015, available at http://citiesandschools.berkeley.edu/uploads/Vincent__Jain_2015_Going_it_Alone_final.pdf.

[7] 2015 Ten-Year State Highway Operation and Protection Program Plan (SHOPP Plan), California Department of Transportation, April 2015, available at http://www.dot.ca.gov/hq/transprog/SHOPP/prior_shopp_documents/10yr_SHOPP_Plan/2015_Ten_Year_SHOPP_Plan_Final.pdf.

[8] U.S. Municipal Bond Defaults and Recoveries, 1970-2016, Data Report, June 27, 2017, available at https://www.research-pool.com/download/?report_id=1412208&show_pdf_data=true.

rate for municipal bonds was 0.15 percent. This compares to a five year global default rate among corporate bonds, through 2007, of 6.92 percent.[9] But defaults do occur. Many Californians know of the challenges faced by the City of Vallejo, City of Stockton, and County of San Bernardino.

Well-designed, proactive debt management programs are important for several reasons. In most cases, debt represents a significant portion of a public agencies financial portfolio in comparison to surplus cash. Whether composed of short- or long-term obligations, debt imposes a financial burden that cannot be ignored. In times of fiscal stress debt payments can crowd out other investments and lead to cut-backs or service reductions. This condition is referred to as a "service insolvency" and is as equally damaging to the agency and its constituents as a financial default.

Government debt portfolios are complex, involving different commitments, securities, and risks. Although state law places limits on the types of debt and, in some cases, the amount of debt a state agency or local government may issue in California, many issuers have other, off-balance sheet obligations that increase the risk of economic, social, or political shocks. In California, public agencies use financing leases and certificates of participation to maneuver around the constitutional restrictions on their authority. These obligations when combined with traditional bonded debt often create a complex set of financial and administrative responsibilities that issuers must manage.

This complexity introduces risk that payments will not be made in the amount or on the dates required. A failure to meet its repayment obligations results in several unwelcome outcomes. These include loss of credit and the consequent rise in future borrowing costs. It may also trigger other penalties, such as repayment acceleration, an increase in interest rates, or mandatory reports or audits. Issuers may also face challenges meeting compliance obligations because, in a large debt portfolio, they may be numerous and disparate. Not meeting these obligations may constitute a technical default or violate securities or state laws. Alternatively, high quality debt management can lower an issuer's cost of debt by reducing the credit premium and the liquidity premium in municipal debt. Although good debt management practices may not, in and of themselves, lead to lower financing costs they can contribute to it. If, on the other hand, an issuer's debt management practices are poorly designed or non-existent, it may generate negative assessments from creditors, analysts, and regulators.

Debt issuers face a number of risks, including:

- INTEREST RATE OR MARKET RISK. Risk generally associated with changes in market prices and interest rates. Changes in interest rates on new debt affect the cost of funds and the composition of the debt portfolio. Long-term debt is generally more susceptible to interest rate changes than short-term bonds.

- ROLLOVER RISK. Risk that debt will have to be refunded or taken out with another issue. This risk may be driven by a decline in the issuer's credit or a rise in interest rates and the debt is replaced with a more costly substitute.

- LIQUIDITY RISK. Issuers that have leveraged debt, including swaps, may incur penalties if they attempt to terminate their agreements in an illiquid market, one that posts few transactions supporting an exchange. Liquidity risk also refers to circumstances in which the amount of liquid assets available to meet debt service obligations unexpectedly declines.

- CREDIT OR DEFAULT RISK. The risk of nonpayment or nonperformance by borrowers or obligated parties to a financing, including counterparties that provide security to the debt.

[9] Ibid.

- OPERATIONAL RISK. This includes risks posed by mismanagement, fraud, or abuse that affects the issuer's or counterparty's performance under the terms of its financial and legal obligations.

- EVENT OR POLITICAL RISK. An issuer is subject to catastrophic events, accidents, political crisis, lawsuits, or legislative or regulatory developments that alter operations, authorities, and finances. Included in this are actions the legislative body may take to redirect or appropriate funds needed to meet financial obligations.

- COMPLIANCE RISK. If an issuer fails to meet its legal or regulatory responsibilities it may incur fines, penalties, and legal costs as well as reputational damage that may limit the issuer's ability to issue debt in the future. For tax-exempt debt, a failure to meet the requirements of the tax code may cause the interest on the bonds to be taxable.

THE LIMITS OF EXISTING DEBT MANAGEMENT PRACTICES

The Government Finance Officers Association (GFOA), a membership organization composed of public finance officials from American and Canadian, provides training and best practice recommendations on a variety of topics, including debt management. While GFOA does not offer a definition of "debt management", the scope of best practice recommendations it has published suggests that it encompasses the issuance and sale of debt and the ongoing administrative tasks including post-issuance compliance, investing bond proceeds, and refunding outstanding debt.[10]

GFOA recommends that state and local issuers adopt policies to guide its decisions and actions in the issuance of debt. GFOA's Best Practice recommendations for creating debt policies covers 5 key areas: 1) Debt Limits; 2) Debt Structuring Practices; 3) Debt Issuance Practices; 4) Debt Management Practices; 5) Use of Derivatives.[11] Under the 'debt management practices', the issuer is encouraged to consider how bond proceeds should be invested, its disclosure practices as well as, arbitrage rebate requirements, compliance, and on-going investor communications.

One might conclude from these materials that GFOA understands debt management to include the post-issuance responsibilities of issuers. This view is constrained and fails to address several fundamental problems that issuers who do not maintain adequate debt management practices encounter. Many of these arise from poor planning, accounting, disclosure, and reporting practices and inadequate oversight and control processes.

- SUBJECTING THE AGENCY TO INCREASED STRUCTURAL RISK. Issuers should avoid even minor levels of risk in their debt portfolio. Unfortunately some do not. In an effort to lower costs, for example, some issuers may rely too heavily on short-term debt, leaving them vulnerable to interest rate changes. Others may take on forms of debt that include terms, such as acceleration provisions, that may affect their ability to meet other outstanding obligations.

- INCOMPLETE UNDERSTANDING OF DEBT BURDEN. Debt limits are either set by statute or policy. Neither reflects the capacity of the issuer to generate the required revenues to repay the debt and they seldom, if ever, take the perspective of the taxpayer in understanding the impact of all, overlapping debt on them.

- PLANNING PROCESSES DO NOT TIE TOGETHER. Few agencies undertake the effort to develop

[10] GFOA's 2018 Annual Meeting includes a session on "debt management" described as a "focus on effective strategies for issuing debt, hiring outside professionals, meeting disclosure requirements, and utilizing checklists and policies and procedures to best manage these responsibilities through the lens of a small government."

[11] GFOA Best Practices/Advisories, *Debt Management Policy*, October 2012, available at http://www.gfoa.org/debt-management-policy.

and administer plans that can be used to guide financing decisions or achieve policies and goals set by the agency. As a result, they are not using the outcomes of their strategic plan, capital plan, or long-term financial plan to guide decisions to use debt financing.

- INADEQUATE DATA TO MANAGE LONG-TERM FINANCIAL RISKS. Issuers focus their attention on the debt schedule and repayment, but may not collect or have the technological capacity to manage other data points, refundings, swap and arbitrage calculations, or term bonds on their financial position.

- INADEQUATE DATA TO UNDERSTAND THE BENEFITS OF DEBT FINANCING. Post-issuance data collection, particularly with regard to the use of proceeds, is seldom a consideration of issuers. As a result, neither the issuer nor the taxpayer understand the full cost or benefit of issuing debt. Issuers are also susceptible to the misuse of bond funds and the long-term legal and financial impacts of resolving such problems.

THE OBJECTIVES OF A ROBUST DEBT MANAGEMENT SYSTEM

It is generally assumed that a debt management system will provide the necessary resources to allow a public agency to finance its borrowing needs efficiently and to ensure that its financial and legal obligations are met. This is much more significant than building a debt service payment schedule or issuing the reports and notices required by federal securities laws. Other benefits of a robust debt management system include:

- Ensuring that the agency's debt portfolio is managed according to its cost and risk goals.

- Maintaining liquidity and minimum levels of cash reserves to attend to program and debt service obligations.

- Managing financing strategies to use available financing authority efficiently.

- Meeting compliance and reporting obligations.

- Establishing best practices that achieve the agency's policy and program objectives.

- Building a common interface that establishes a single book of record for financial and program information and provides easy access to this information to taxpayers and investors.

- Eliminating redundant data management systems or needless rework by integrating accounting, disbursement, budgeting, and financial reporting in one system.

- Reducing reliance on external data providers or consultants by allowing the agency to own its own data.

A more complete definition of a government debt management system is a process of establishing and implementing a strategy for prudently managing the agency's debt in order to meet its financing needs, its cost and risk objectives, and any other debt management goals it may have set, such as disclosure, compliance reporting, and performance and financial management. The aim of debt management is to ensure that the agency's borrowing needs are met efficiently and that its debt, and the short- and long-term obligations arising from budget and off-budget debt, are managed in a manner consistent with the government's cost and risk preferences. It should cover all the agency's liabilities, including direct or privately placed debt, conduit debt, and debt guaranteed or backed by the agency.

Using the work of Prasad and Pollock it is possible to identify the elements of a comprehensive debt management system. It should address these following elements of an agency's debt program.

- LEGAL FRAMEWORK. This sets forth the legal authority for the agency to borrow funds and the types of instruments it may use including municipal securities, loans, guarantees, and positions it may take in securing obligations of other borrowers.

- MANAGERIAL STRUCTURE. This guarantees the separation of power between those who set policies and strategies regarding the use of debt and those who implement them. The planning processes undertaken by the agency provide a clear understanding of the link between the two sides of this equation.

- DEBT MANAGEMENT STRATEGY. A debt management strategy that is based on the agency's longer-term financial plan and policies related to the use of debt, helps to minimize the cost and fiscal impact of debt on the agency. A debt management strategy is based on (a) the composition of the debt portfolio; (b) benchmarking; and (c) assessment of new financing instruments.

- EVALUATION OF DEBT MANAGEMENT OPERATIONS. The agency must be able to gather data on its debt management operations and its performance against short- and long-term objectives contained in the debt-management strategy.

- AUDIT. Regular internal and annual external audits help to establish accountability and to identify opportunities to improve practices with regard to (a) reliability and integrity of financial and operational information; (b) effectiveness and efficiency of debt management operations; (c) safeguarding of public funds; (d) compliance with laws, regulations, and contracts; and (e) the agency's adherence to its debt management strategy.

- OFF-BALANCE SHEET BORROWING. Direct loans, leases, and guarantees free agencies from the legal and regulatory obligations imposed on municipal securities and in California have been a recognized source of capital. But these transactions may impose conditions or risk that the agency has not fully considered or considered in relation to its publicly traded debt securities. A debt management system must be able to incorporate the financial, regulatory, and administrative responsibilities of these structures into the agency's financial and operational systems.

- CONDUIT ISSUES AND DERIVATIVES. Relationships with conduit borrowers and counterparties present both financial and reputational risk to issuers if they fail to meet the terms of agreements. As result agencies should continue to surveille them both to make adjustments to potential risks and to make the requisite disclosures that may be necessary.

- CASH FLOW FORECASTING. To ensure that the agency is always in a position to meet it financial commitments and to maintain its programs and services it must be able to forecast cash flows. The ability to analyze its cash position will also allow the agency to manage its financial resources in a way that provides for the lowest cost of financing.

- DEBT ADMINISTRATION, SEPARATION OF DUTIES AND STAFF DEVELOPMENT. Administering a debt portfolio involves processing and recording debt transactions as well as developing and maintaining the systems and procedures required to carry this out in an effective and secure way. There should be strong controls and well-documented procedures for settling transactions, maintaining financial records, and accessing debt management system.

- BUSINESS CONTINUITY AND DATA SECURITY. The agency should undertake a comprehensive assessment of these operational risk and develop mitigations and protocols to ensure business continuity and data security.

- DEBT RECORDS. The agency should maintain and make available all public documents associated with debt transactions, including the offering documents, indentures, lease agreements, security arrangements, financial analyses, and ratings reports.

- DEBT REPORTING. Providing full disclosure of the balance of the outstanding obligation and the uses of proceeds provides accountability and builds trust among those served by the agency.

TAKING STEPS TO IMPROVE DEBT MANAGEMENT PRACTICES AMONG CALIFORNIA PUBLIC AGENCIES

In essence, a comprehensive debt management program involves:

- Establishing clear debt management objectives and supporting them with the appropriate governance structure.
- Building a prudent cost and risk management strategy.
- Coordinating this strategy with other policies, including the agency's strategic vision, its capital improvement plan, and its long-term financial plan.
- Issuing debt that is appropriate given the strategic objectives of the agency.
- Monitoring and administering cash flows and balances.
- Undertaking financial and administrative risk assessment and implementing risk-reducing mitigation.
- Creating a document library and providing timely and complete reporting.
- Implementing best practices that ensure that debt managers are accountable for carrying out their duties in a transparent and responsible manner.

Public agencies may perform all of these functions to one degree or another. What is lacking in the common understanding of debt management is an integrated approach. Integration achieves strategic goals and operational efficiencies that may produce lower costs, less risk, and improved compliance.

How do we as public agencies get there?

First, issuers must acknowledge that the common understanding of debt management fails to include several essential functions. It fails to encourage integration, coordination, and administration. In doing so, it leaves issuers at risk of mis-managing their debt programs or failing to achieve their program goals.

Second, issuers must avail themselves of technologies that offer an integrated approach to data management, recordkeeping, reporting, and to the sale and administration of debt obligations. This means moving from spreadsheets and paper files to an electronic platform. Using a single technological solution will provide transparency and enable the issuer to adopt a set of best practices that ensures standardization and data reliability. In addition, it provides for business continuity and data security that paper files do not offer.

Third, issuers must adopt new practices and train staff to manage additional duties and operate in an integrated, strategic environment. In addition, issuers should increase their efforts to provide taxpayers information on their debt programs and provide reliable data on the cost and benefits of debt financings. In the long run issuers will benefit from an educated taxpayer base that understands the objectives and strategic advantages of debt financing. A robust debt management program supported by technologies that provide access, standardization, and analysis is essential to providing this education.

STATE AND LOCAL BOND ISSUANCE

2017 debt issuance by California public agencies rose by 9.8 percent year-over-year (from $78.5 billion to $86.2 billion) while the total number of transactions rose by 16.1 percent (from 3,111 to 3,613) (Figure 2).[12, 13, 14]

Figure 2

PRINCIPAL AMOUNT ISSUED AND NUMBER OF ISSUES
ALL CALIFORNIA ISSUERS, 2016 AND 2017 ($ IN MILLIONS)[1]

ISSUER TYPE	2016		2017		PERCENT CHANGE IN VOLUME FROM 2016 TO 2017
	VOLUME	NUMBER	VOLUME	NUMBER	
State Issuer[2]	$22,688	304	$24,090	452	6.2%
K-12 School District	12,591	479	12,850	518	2.1
City Government	5,907	125	9,232	208	56.3
Joint Powers Agency	11,835	1,104	10,121	1,415	-14.5
County Government	2,530	517	3,473	494	37.3
City and County Government	4,581	51	4,081	42	-10.9
Other Issuer	18,392	531	22,391	484	21.7
TOTAL	$78,523	3,111	$86,239	3,613	9.8%

[1] Totals may not add due to rounding.

[2] Includes the Golden State Tobacco Securitization Corporation, a not-for-profit trust of the State of California.

Source: CDIAC database as of 3/14/2018.

[12] Total includes short-term and long-term debt.

[13] State and local issuers include the State of California and its financing authorities, city and county governments, joint powers authorities, school districts, and other public entities, including but not limited to special districts, successor agencies to redevelopment agencies, community facilities districts, and community college districts.

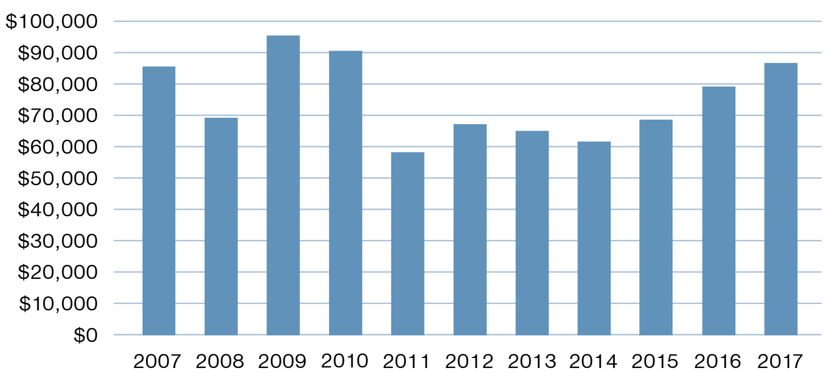
[14] A "transaction" is defined as any financing or portion of a financing for which a CDIAC number was generated.

In terms of the historical average, state and local debt issuance in 2017 was 14.9 percent above the 10-year average of $75.1 billion (Figure 3).

Thirty-seven percent of the debt issued in 2017 by state and local agencies was for capital improvements and public works, approximately 31 percent was for education, and nearly 9 percent for hospital and health care facilities (Figure 4). All other uses accounted for close to 23 percent of the total debt issued.[15]

Figure 3

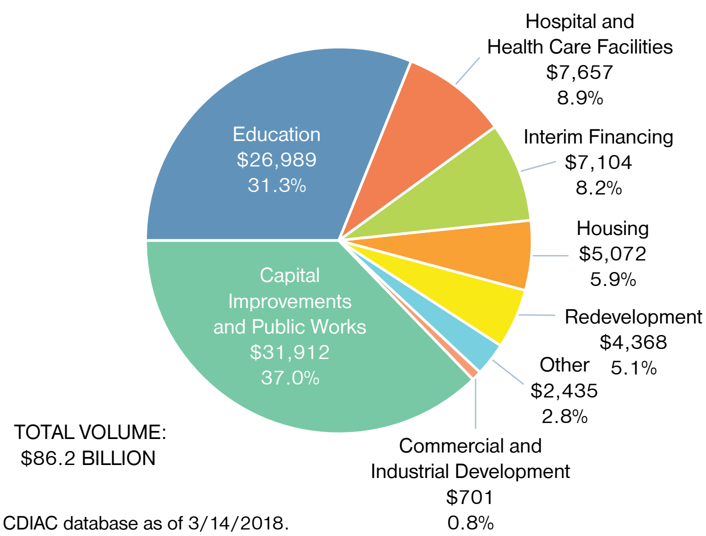
CALIFORNIA PUBLIC DEBT, ALL CALIFORNIA ISSUERS
TOTAL PAR AMOUNT BY CALENDAR YEAR, 2007 TO 2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

Figure 4

CALIFORNIA PUBLIC DEBT BY PURPOSE
ALL CALIFORNIA ISSUERS, 2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

[15] "Other" projects include commercial energy conservation/improvement, insurance and pension funds, residential energy conservation/improvement, and the Property Assessed Clean Energy (PACE) seismic safety improvements project.

Debt issuance for commercial and industrial development purposes increased 49.5 percent between 2016 and 2017. Issuance increased for redevelopment (45.6 percent), "other" purposes (22.3 percent), capital improvements and public works (18.5 percent), interim financing (15.5 percent), and education (3.3 percent) (Figure 5). Purposes for which issuance declined were housing (7.5 percent decline) and hospital and health care facilities (8.6 percent decline).

LONG-TERM DEBT VS. SHORT-TERM DEBT ISSUANCE[16]

In 2017, public agencies issued nearly $78 billion in long-term debt – approximately 90 percent of total issuance for the year (Figure 6). The remaining $8.4 billion was issued as short-term debt instruments, maturing in 18 months or less. Total long-term debt issuance increased by 8.5 percent from 2016 to 2017 and short-term issuance increased by 24 percent.

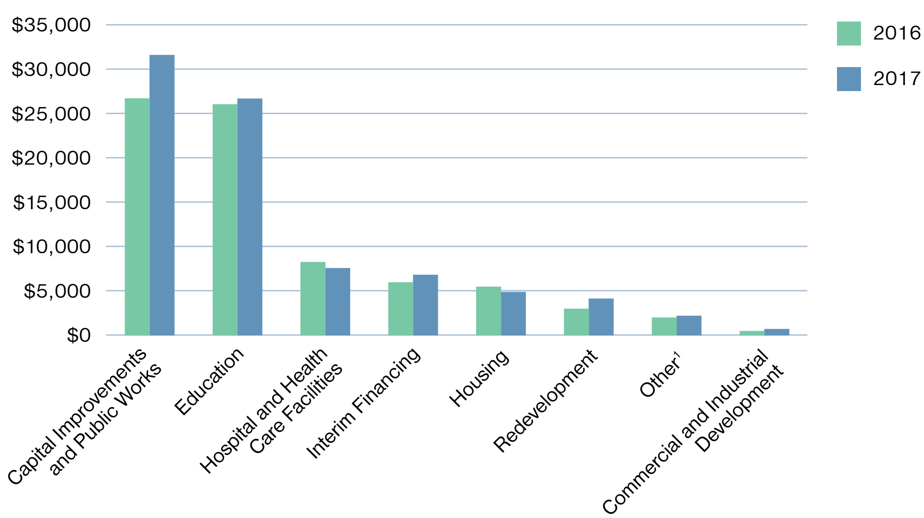
Long-term issuance in 2017 consisted primarily of general obligation (GO) bonds (34.2 percent) and revenue bonds (39.5 percent), and short-term issuance was comprised mostly of tax and revenue anticipation notes (43.4 percent) and commercial paper (39.5 percent).

NEW MONEY ISSUES VS. REFUNDING

Between 2016 and 2017, new money issuance in California increased by 54.2 percent. California public debt issuers refunded approximately $34.5 billion in outstanding debt in 2017, a decrease of 23.3 percent from the nearly $45 billion refunded in 2016 (Figure 7).

Figure 5

CALIFORNIA PUBLIC DEBT BY PURPOSE
ALL CALIFORNIA ISSUERS, 2016 AND 2017 ($ IN MILLIONS)



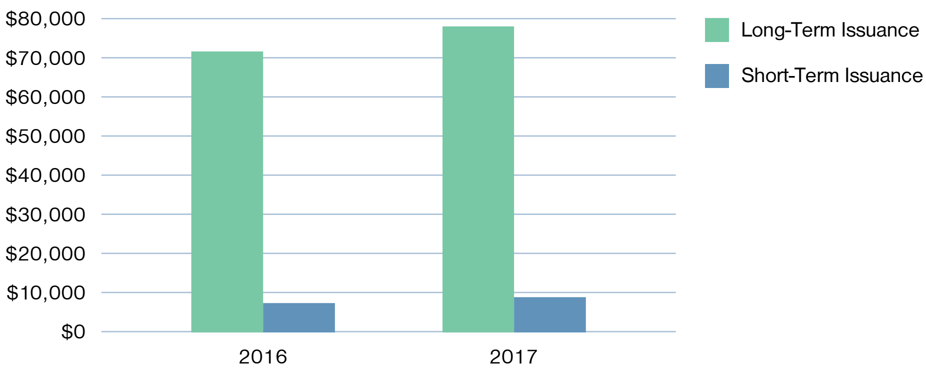
[1] Other includes: commercial energy conservation/ improvement, insurance and pension funds, residential energy conservation/ improvement, and Property Assessed Clean Energy (PACE) Seismic Safety Improvements.

Source: CDIAC database as of 3/14/2018.

[16] Definitions of short-term debt differ within the finance community. CDIAC considers all forms of debt with an 18 month term or less as short-term and applies this definition to all reports and analyses of public debt it issued.

Figure 6

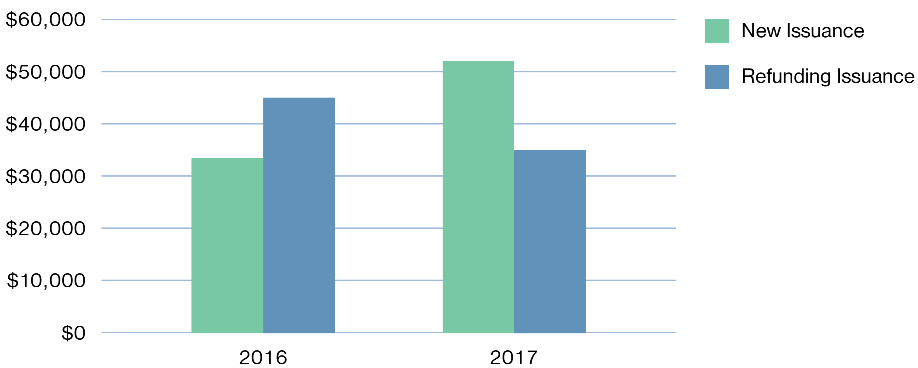
COMPARISON OF LONG-TERM AND SHORT-TERM DEBT
ALL CALIFORNIA ISSUERS, 2016 AND 2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

Figure 7

COMPARISON OF NEW AND REFUNDING ISSUANCE
ALL CALIFORNIA ISSUERS, 2016-2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

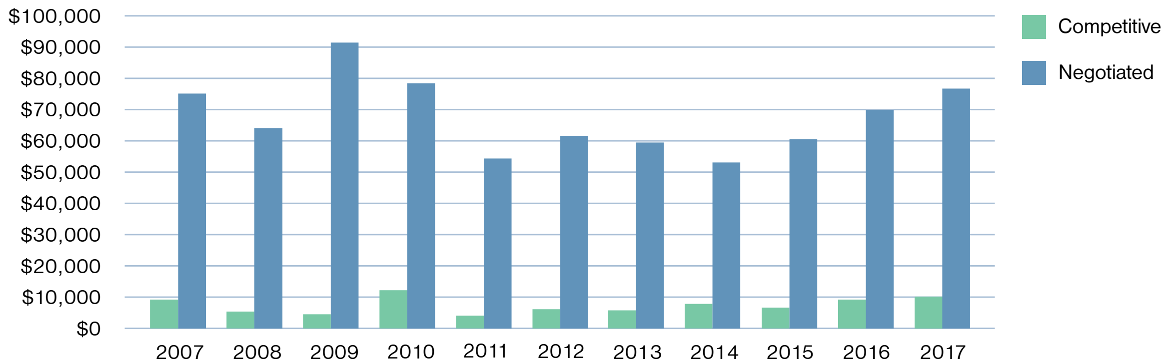
COMPETITIVE VS. NEGOTIATED TRANSACTIONS

Public agencies may sell their debt through either a competitive or negotiated sale method. In a negotiated sale, the issuer selects the underwriter and negotiates the sale prior to the issuance of the bonds. In a competitive sale, underwriters submit sealed bids on a date specific and the issuer selects the best bid according to the notice of sale. In 2017, 88 percent of sales by California public debt issuers were negotiated. The trend over time has consistently favored negotiated sales by a wide margin. Since 2007, approximately 90 percent of California public debt has been issued through a negotiated sales approach (Figure 8).

Both issuer characteristics and financial conditions may contribute to the selection of one method over another. For example, the strength of the credit, size of issue, type of debt instrument, and/or complexity of the structure may warrant the use of a negotiated sale method. However, as clearly evident in the prevalence of the method in

Figure 8

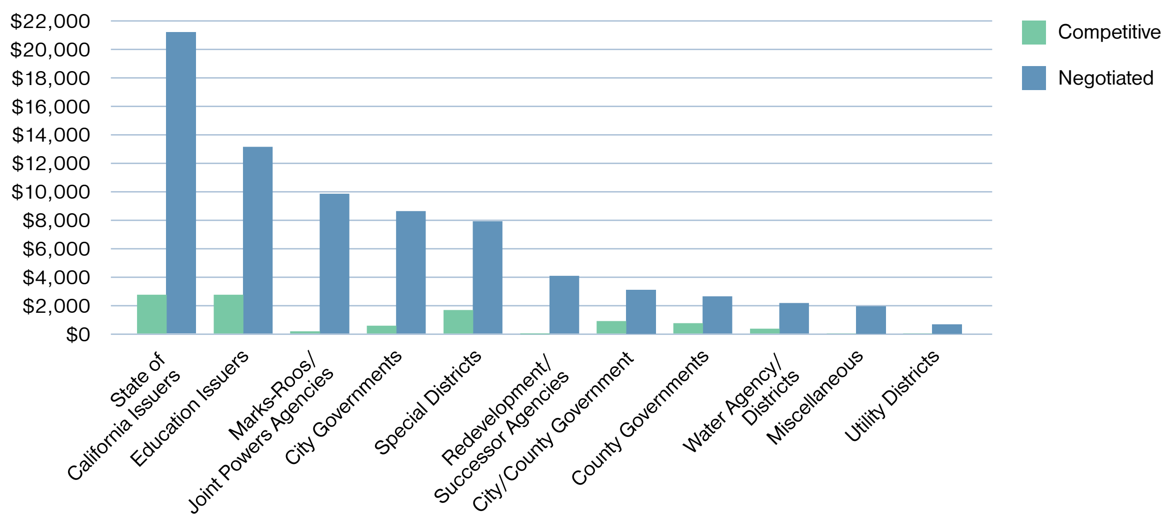
COMPETITIVE AND NEGOTIATED FINANCINGS, ALL CALIFORNIA ISSUERS, 2007-2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

Figure 9

COMPARISON OF COMPETITIVE AND NEGOTIATED SALES
BY ISSUERS TYPE, ALL CALIFORNIA ISSUERS, 2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

the California municipal market, the negotiated sale method is commonly used in more routine "vanilla" offerings, as well. In general, all issuers, irrespective of type of entity, preferred the negotiated sale method (Figure 9).[17]

TAXABLE DEBT

Public issuers may utilize taxable bonds for certain projects or parts of a project that do not meet federal tax-exempt requirements (generally for projects that provide benefits to private enti-

[17] Miscellaneous issuers include health care districts, hospital districts, housing authorities, and non-profit corporations and non-profit public benefit corporations. Utility districts are comprised of both municipal and public utility districts.

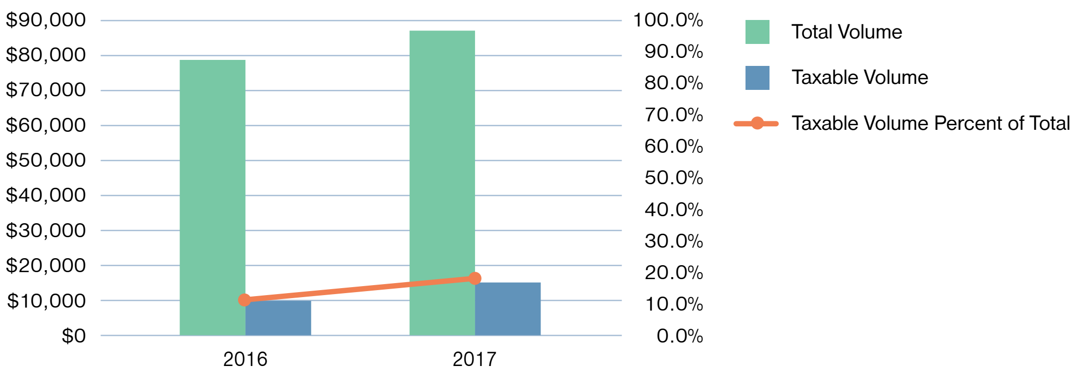
ties as defined by tax code). Investor-led housing projects, local sports facilities, and borrowing to replenish an agency's underfunded pension plan are examples of bond issues that are federally taxable. The percentage of taxable issuance in 2017 increased to 17.9 percent from 11.6 percent in 2016 (Figure 10).

CREDIT ENHANCEMENTS

In 2017, the percent of volume for credit enhanced debt decreased to 12.7 percent from 13.3 percent in 2016 (Figure 11). The overall volume of credit enhanced debt, however, increased 3.8 percent to $10 billion from $9.7 billion.

Figure 10

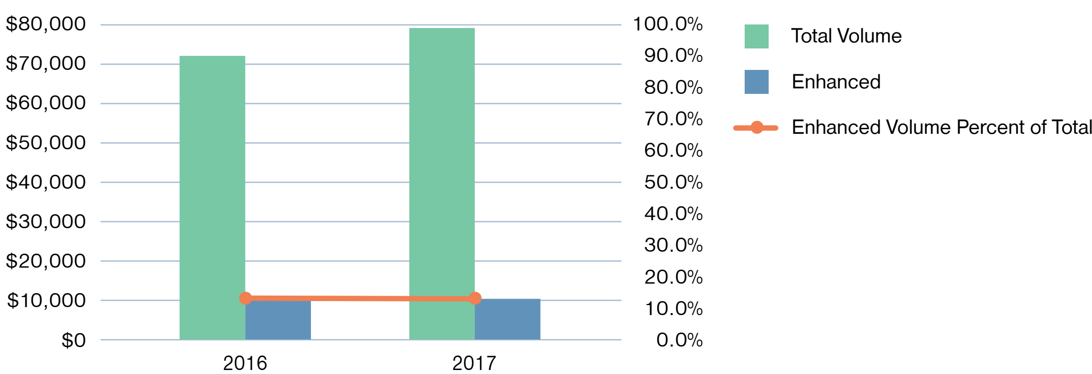
COMPARISON OF TOTAL VOLUME TO TAXABLE ISSUANCE
ALL CALIFORNIA ISSUERS, 2016 AND 2017 ($ IN MILLIONS)



Source: CDIAC database as of 3/14/2018.

Figure 11

COMPARISON OF TOTAL VOLUME TO ENHANCED VOLUME[1]
ALL CALIFORNIA ISSUERS, 2016 AND 2017 ($ IN MILLIONS)



[1] Does not include interim financing.
Source: CDIAC database as of 3/14/2018.

STATE DEBT ISSUANCE IN 2017

In 2017, the State of California sold $17 billion in debt, of which approximately $14.8 billion was in the form of long-term debt and $2.2 billion in short-term debt.[18] State issuance accounted for 19.7 percent of all debt issued by public agencies in California.

Between 2016 and 2017, the issuance of revenue bonds and general obligation (GO) bonds declined while the issuance of "other" bonds and commercial paper increased (Figure 12).

Between 2016 and 2017, state issuance increased in four of the six purposes: "other" (100 percent), interim financing (44.4 percent), education (7.0 percent), and capital improvements and public works (4.6 percent) (Figure 13). State housing issuance declined a second consecutive year from $510 million in 2016 to $242 million in 2017 (52.6 percent decline). Issuance for hospital and health care facilities also declined from $1.3 billion in 2016 to $250 million in 2017 (80.7 percent decline).

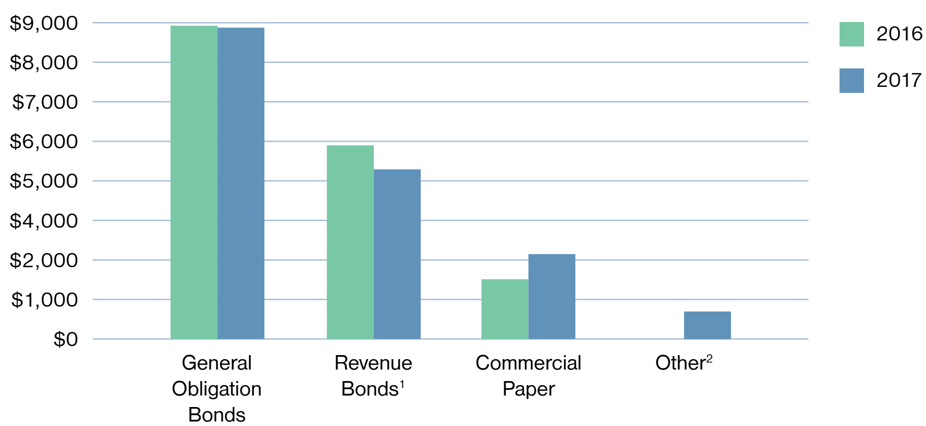
OTHER STATE ISSUERS AND CONDUIT ISSUANCE IN 2017

Issuance by state instrumentalities, including conduit bond issuers, rose 9.9 percent in 2017. Overall, this category of issuers accounted for only 8.2 percent ($7.1 billion) of all public agency issuance in 2017.[19]

From 2016 to 2017, issuance increased for loans from a bank or other institution (15.8 percent) and revenue bonds (13.0 percent) (Figure 14). Conduit revenue note issuance decreased (19.3 percent

Figure 12

VOLUME OF STATE DEBT ISSUANCE, 2016 AND 2017 ($ IN MILLIONS)



[1] Revenue bonds include public lease and public enterprise revenue bonds.

[2] Other bond is a tobacco securitization bond.

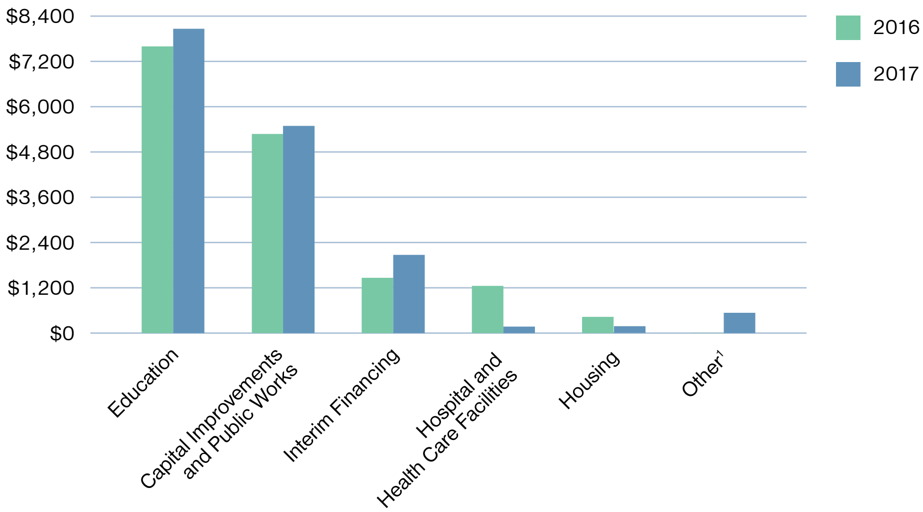
Source: CDIAC database as of 3/14/2018.

[18] In addition to the State of California, state issuers include the California Department of Water Resources, California State Public Works Board, Golden State Tobacco Securitization Corporation, The Regents of the University of California, California Department of Veterans Affairs, and the Trustees of the California State University.

[19] State instrumentalities include the California Educational Facilities Authority, California Health Facilities Financing Authority, California Housing Finance Agency, California Infrastructure & Economic Development Bank, California Pollution Control Financing Authority, California School Finance Authority, Capitol Area Development Authority, and the Los Angeles State Building Authority.

Figure 13

STATE DEBT ISSUANCE BY PURPOSE, 2016 AND 2017 ($ IN MILLIONS)

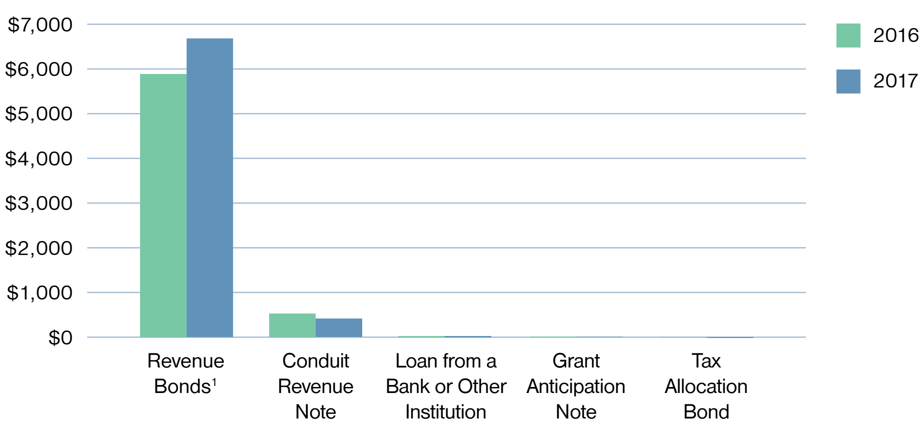


[1] Other purpose is for a tobacco securitization bond.

Source: CDIAC database as of 3/14/2018.

Figure 14

STATE CONDUIT AND DEBT ISSUANCE BY CATEGORY
2016 AND 2017 ($ IN MILLIONS)



[1] Revenue bonds include conduit revenue bonds, public enterprise revenue bonds, public lease revenue bonds.

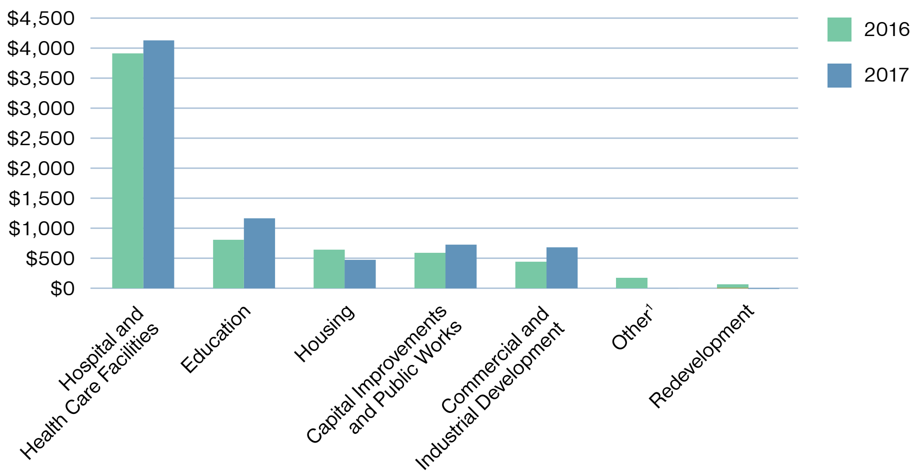
Source: CDIAC database as of 3/14/2018.

decline) and there was no issuance for grant anticipation notes or tax allocation bonds in 2017.

Among state conduit bond issuers, financings for most purposes increased from 2016 to 2017. Issuance for commercial and industrial development increased from $415 million in 2016 to $654 million in 2017 (57.4 percent). In addition, education (44.3 percent), capital improvements and public works (21.4 percent) and hospital and health care facilities (5.4 percent) purposes each experienced issuance increases (Figure 15). Issu-

Figure 15

STATE CONDUIT DEBT ISSUANCE BY PURPOSE
2016 AND 2017 ($ IN MILLIONS)



[1] "Other" category includes a State revolving fund in 2016.
Source: CDIAC database as of 3/14/2018.

ance for housing declined (20.7 percent decrease) and there was no issuance for "other" purposes of redevelopment in 2017.

STUDENT LOAN FINANCE CORPORATION ISSUANCE IN 2017

CDIAC typically receives filings from three classifications of state-level student loan entities: private corporations, non-profit corporations, and the California Education Facilities Authority (CEFA). However, CDIAC has not received any reports of debt issuance from any student loan entities since 2013.

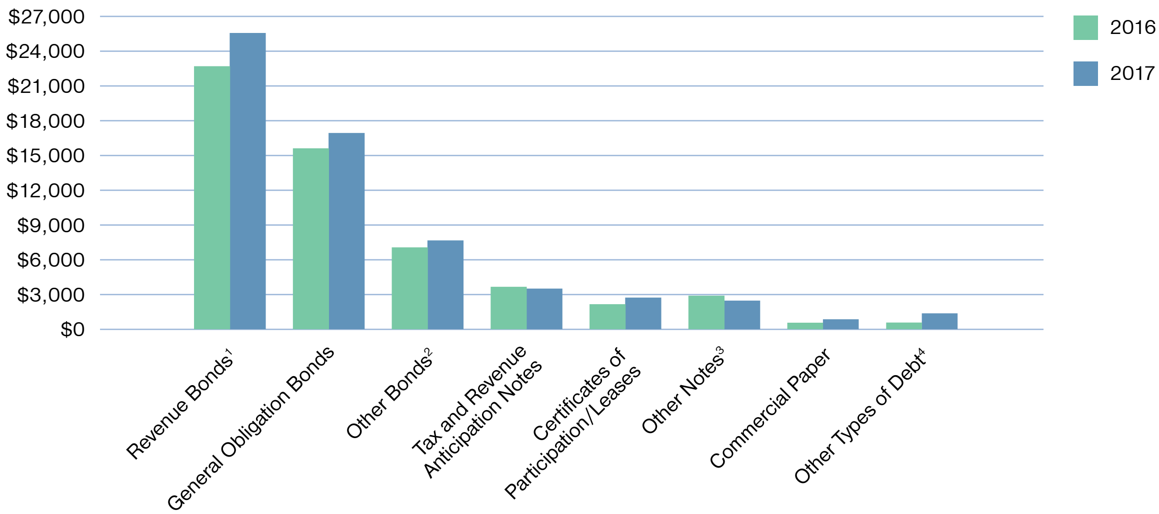
LOCAL DEBT ISSUANCE IN 2017

In 2017, local agencies issued nearly $62.1 billion in short- and long-term debt, a 11.3 percent increase from 2016. Increased issuance was recorded in "other types of debt" (117.5 percent), commercial paper (53.4 percent), certificates of participation (19.1 percent), revenue bonds (12.5 percent), "other bonds" (12.4 percent), and general obligation bonds (8.4 percent) (Figure 16). The only debt types that declined in issuance from 2016 to 2017 were tax and revenue anticipation notes (3.7 percent decline) and "other" notes (9.2 percent decline).

Between 2016 and 2017, there was an increase in local issuance in the following purpose categories: redevelopment (46 percent), capital improvements and public works (21.9 percent), interim financing (6.1 percent), and hospital and health care facilities (3.8 percent). The following four purpose categories experienced declines in issuance: education (0.1 percent decline), housing (0.3 percent decline), "other" (2.4 percent decline) and commercial and industrial development (11.7 percent decline) (Figure 17).

Figure 16

VOLUME OF LOCAL AGENCY BOND ISSUANCE BY DEBT TYPE, 2016 AND 2017 ($ IN MILLIONS)



[1] Revenue bonds: conduit revenue bonds, public enterprise revenue bonds, public lease revenue bonds, and sales tax revenue bonds.

[2] Other bonds: limited tax obligation bonds, pension obligation bonds, special assessment bonds, and tax allocation bonds.

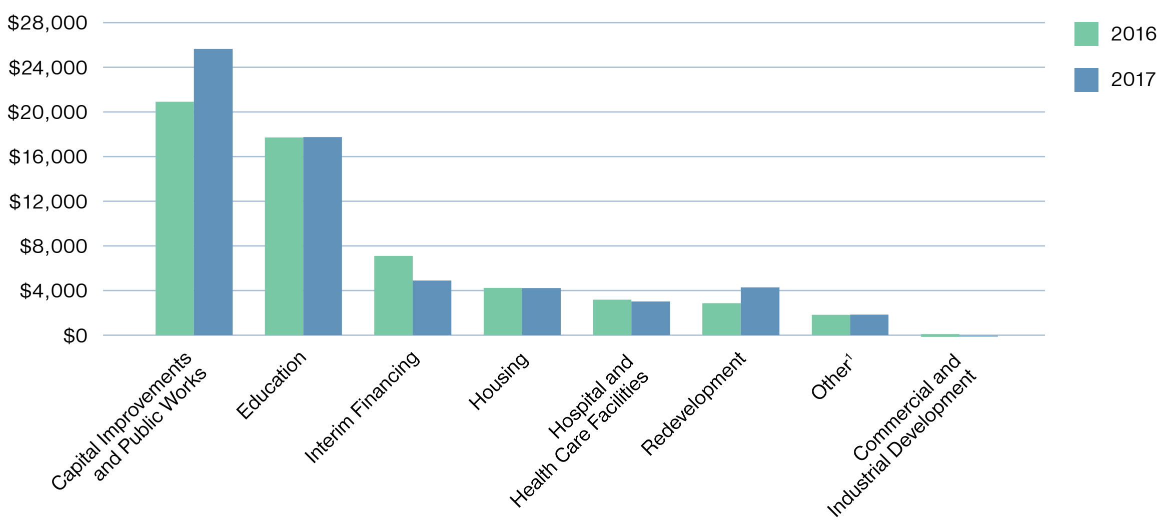
[3] Other notes: general obligation notes, conduit revenue notes, promissory notes, revenue anticipation notes, tax allocation notes, and tax anticipation notes.

[4] Other types of debt: capital leases, loans from a bank or other institution, Marks-Roos authority loans, and State agency loans.

Source: CDIAC database as of 3/14/2018.

Figure 17

VOLUME OF LOCAL AGENCY ISSUANCE BY PURPOSE, 2016 AND 2017 ($ IN MILLIONS)



[1] Other includes Commercial energy conservation/improvement, conservation district improvements, insurance and pension funds, property assessed clean energy seismic safety improvements, and residential energy conservation/improvement.

Source: CDIAC database as of 3/14/2018.

2017 REPORT OF OPERATIONS

DATA COLLECTION AND ANALYSIS UNIT

In compliance with its statutory requirements, CDIAC's Data Collection and Analysis Unit (Data Unit) maintains the California Debt Issuance Database (Database) which is considered the most comprehensive and accessible database of California public debt issuance in existence. The Database is the source for the debt statistics and analysis regularly released by CDIAC.

Data Collection

The Database, a large portion of which can be accessed on CDIAC's website, contains reports of proposed and issued debt, annual fiscal status reports for Mello-Roos and Marks-Roos debt and reports on draws on reserves and defaults for Mello-Roos and Marks-Roos issues.[20] The Database contains information from 1984 to the present and is updated continuously by Data Unit staff. As of December 31, 2017, the Database contained more than 59,578 issuance records.

During calendar year 2017, the Data Unit received and processed 10,845 reports including Reports of Proposed Debt Issuance (RPDIs), Reports of Final Sale (RFSs), Marks-Roos Local Bond Pooling Yearly Fiscal Status Reports (MKR YFSRs), Mello-Roos Community Facilities Districts Yearly Fiscal Status Reports (MLR YFSRs), and Mello-Roos/Marks-Roos Draw on Reserve/Default filings (DFDs).[21, 22] Figure 18 contains a breakdown of the reports processed by the Data Unit during calendar year 2017. This represents a five percent increase over the total number of reports received in calendar 2016.

Electronic (on-line) submission of data and reports became the preferred means of data collection in January 2016. With the approval of CDIAC's regulatory package on April 1, 2017, electronic submittal was installed as the only means of submittal of the vast majority of required reports. In addition to enhancing data collection efficiencies and helping to ensure re-

[20] The Data Unit receives annual fiscal status reports for Mello-Roos and Marks-Roos bonds issued after January 1, 1993 and January 1, 1996, respectively.

[21] Per Government Code Section 8855(i) issuers of proposed new debt must give notice no later than 30 days prior to the sale date.

[22] Per Government Code Section 8855(j), issuers are required to submit reports of final sale no later than 21 days after the sale of the debt.

Figure 18

REPORTS PROCESSED, CALENDAR YEAR 2017 VS. 2016

TYPE OF REPORT	2017	2016	INCREASE/ DECREASE
Reports of Proposed Debt Issuance	3,648	3,388	7.6%
Reports of Final Sale	3,630	2,959	22.7
Mello-Roos Yearly Fiscal Status Reports	1,416	1,502	-5.7
Marks-Roos Yearly Fiscal Status Reports	2,143	2,468	-13.2
Mello-Roos/Marks-Roos Draw on Reserve/Default/Replenishment Filings	10	14	-28.6
TOTAL REPORTS RECEIVED	10,845	10,331	5.0%

Figure 19

STATE AND LOCAL ISSUANCE, METHODS OF SUBMITTAL, RPDIs AND RFSs
CALENDAR YEAR 2017 VERSUS 2016

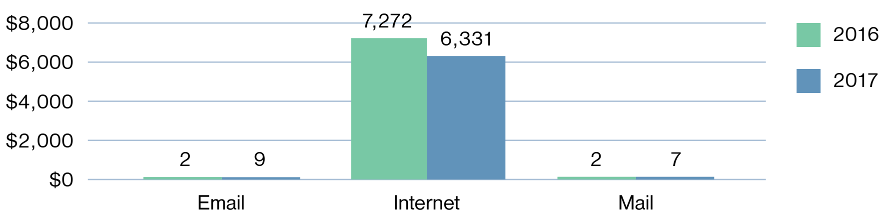
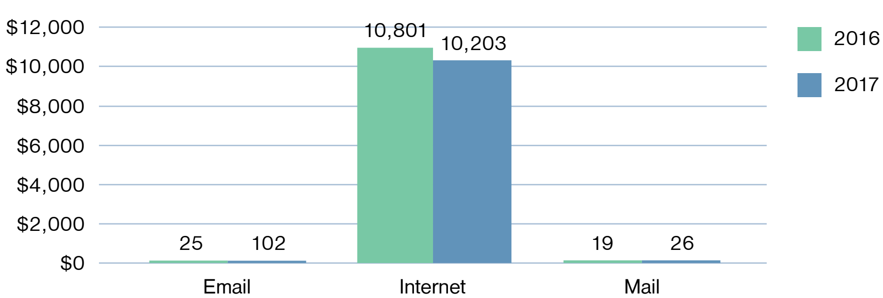


Figure 20

STATE AND LOCAL ISSUANCE, METHOD OF SUBMITTAL
ALL REPORTS RECEIVED, CALENDAR YEAR 2017 VERSUS 2016



porting accuracy, electronic submission reduces the man-hours needed to process reports.

During 2017, online submissions of RPDIs and RFSs accounted for 99.9 percent of all submissions, an increase over 2016 when they accounted for 99.7 percent. Of the 7,276 RPDIs and RFSs received for the year, only four were sent in hard-copy form mail or e-mail requiring staff manually enter the data contained on reports received in this manner.

Figure 19 displays the methods used to submit RPDIs and RFSs in 2017.

The online submission rate when all the reports are considered is 99.6 percent during 2017 versus the 98.7 percent filing rate during 2016 (Figure 20).

Only 0.4 percent of all reports were filed by traditional mail and email, this translated to approximately 44 reports that required manual data entry by Data Unit staff.

Debt Issuance Fees

A critical function of the Data Unit is the collection of the reporting fees (pursuant to Govt. Code Section 8856) which are the source of CDIAC's operational funding. With the adoption of CDIAC's regulations, which became effective April 1, 2017, fee amounts are calculated based on principal amount issued times 2.5 basis points (0.025%), with a maximum of $5,000.00. No fee is assessed for issues whose length of maturity is less than 18 months. A detailed fee schedule is available on CDIAC's website.[23]

In 2017, the Data Unit sent out 2,386 invoices for a total of approximately $3.7 million in fees. Figure 21 reflects the breakdown of fees assessed for state and local agencies.

Figure 21

FEES ASSESSED, STATE AND LOCAL ISSUERS
JANUARY 1, 2017 TO DECEMBER 31, 2017

	FEES ASSESSED	# OF INVOICES
STATE		
Long-Term Debt	$261,904	74
Short-Term Debt	450	3
LOCAL		
Long-Term Debt	$3,493,907	2,295
Short-Term Debt	2,100	14
TOTAL	$3,758,361	2,386

Public Access to Debt Issuance Data

CDIAC uses a variety of online methods to provide public officials and members of the public immediate access to debt issuance data, including:

DEBTWATCH DATA PORTAL. DebtWatch provides citizens, the media, policy makers and others a new resource for understanding state and local government debt issuance.[24] Containing easily accessible information relating to debt issued during the past thirty years, DebtWatch gives users the ability to compare, contrast, and analyze debt issuance data in unique, user-specific ways. DebtWatch provides data on both proposed and completed financial transactions and the ability to access the documentation of the debt issuance that was submitted to CDIAC by the issuer with the issuer's Report of Final Sale. Documents vary depending upon the type of debt issued and include official statements, bond specimens, indentures and resolutions of the governing body, promissory notes, leases, loan agreements, instalment sales agreements, and other issuance-related disclosures. CDIAC updates DebtWatch monthly.

DEBT LINE NEWSLETTER. CDIAC publishes a monthly newsletter describing its operations during the prior month.[25] CDIAC's monthly publication, *Debt Line*, includes a monthly calendar of issues which provides comprehensive information on all reports of proposed and finalized debt issuances received during the prior month.

ONLINE TABLES AND GRAPHS. CDIAC posts each month state and local debt issuance data to its website in the form of tables and graphs. Data on principal amount issues, the type of debt, and the purpose of issuance is summarized year-to-date and by the month. Tables showing data for the two prior calendar years is also available on line.

ONLINE ISSUANCE DATA – EXCEL FORMAT. This report contains the same information reported on the monthly calendar of issues, but only for debt for which CDIAC has received a Report

[23] http://www.treasurer.ca.gov/cdiac/reporting.asp

[24] DebtWatch is located at: http://debtwatch.treasurer.ca.gov/.

[25] Government Code Section 8855(h)(9).

of Final Sale. The information is provided by month, as received. Aggregated data for prior years is also available.

SEARCHABLE DATABASE. State and local debt issuance data is available through a searchable database that contains information from 1984 through the present on all completed debt transactions reported to CDIAC. The online database was accessed more than 1,738 times during 2017.

MARKS-ROOS AND MELLO-ROOS DRAW ON RESERVES/DEFAULT REPORTS. Data on draws on reserve and defaults are posted as the reports are received. Reports are listed by issuer and date of occurrence.

CDIAC recorded 4,107 hits to its website in 2017. Each "hit" or inquiry is recorded as well as the purpose for which the individual visited the site (Figure 22a). CDIAC recorded 12,648 hits to the DebtWatch website for 2017 (Figure 22b).

Reports

CDIAC published a number of summary reports, compiling data reported throughout the current calendar year and, in some cases, from past years.

MARKS-ROOS LOCAL BOND POOLING ACT YEARLY FISCAL STATUS REPORT. MELLO-ROOS COMMUNITY FACILITIES DISTRICT YEARLY FISCAL STATUS REPORT. The Marks-Roos and Mello-Roos Yearly Fiscal Status Reports received annually by CDIAC during the fiscal year (July 1 through June 30) are the basis for these reports.[26] In an effort to bring The Marks-Roos Bond Pooling Act Participants Yearly Fiscal Status Report to a current status, the Data Unit has published reports for FY 2012-13 and staff is currently compiling and verifying data for the remaining intervening fiscal years and expects to post the remaining reports to the CDIAC website prior to the end of 2018.

The Mello-Roos Community Facilities District Yearly Fiscal Status Report, covering the period of July 1, 2015 through June 30, 2016 was published in February 2018. The report for the July 1, 2016 through June 30, 2017 will be published by mid-2018. All prior year reports have been published.

CALENDAR OF PUBLIC DEBT ISSUANCE. This annual report provides details on each issuance of public debt in California. Each listing includes the issuer name, county, debt type, purpose of the issue, date of sale, debt principal amount, and whether or not the issue is a refunding. Each listing also shows the interest rate, rating, credit enhancement information, final maturity date, and major participants in the financings. The report is organized chronologically by issuer, beginning with the State of California and its departments and agencies, then local agencies (further sorted by county, agencies within counties, and by the sale date of the issue) and student loan corporations. The 2016 calendar was published in June 2017.

SUMMARY OF CALIFORNIA PUBLIC DEBT ISSUANCE. This annual report provides aggregate summary information by issuer on major components of debt, such as long-term and short-term debt, tax-exempt and taxable debt, and refunding existing indebtedness. The tables included in the report contain statistics on both state and local agencies broken out by type of issuer, type of debt, purpose of financing, federal taxability, and whether the issue is a refunding or not. The 2016 summary tables were published in June 2017.

ANNUAL REPORT. CDIAC's Annual Report provides more global analyses of public debt issued in California for the calendar year. The report includes comparisons of prior year's debt issuance including by type and purpose. Analysis on other characteristics of the debt and a report of CDIAC's operations are also included and a report. The 2016 report was published in June 2017.

[26] Pursuant to Government Code Sections 6599.1(b) and 53359.5(b) issuers of Mark-Roos (after January 1, 1996) and Mello-Roos (after January 1, 1993) bonds must submit Yearly Fiscal Status Reports to CDIAC.

Figure 22a

DEBT ISSUANCE DATA WEBSITE ACTIVITY, JANUARY 1, 2017 TO DECEMBER 31, 2017

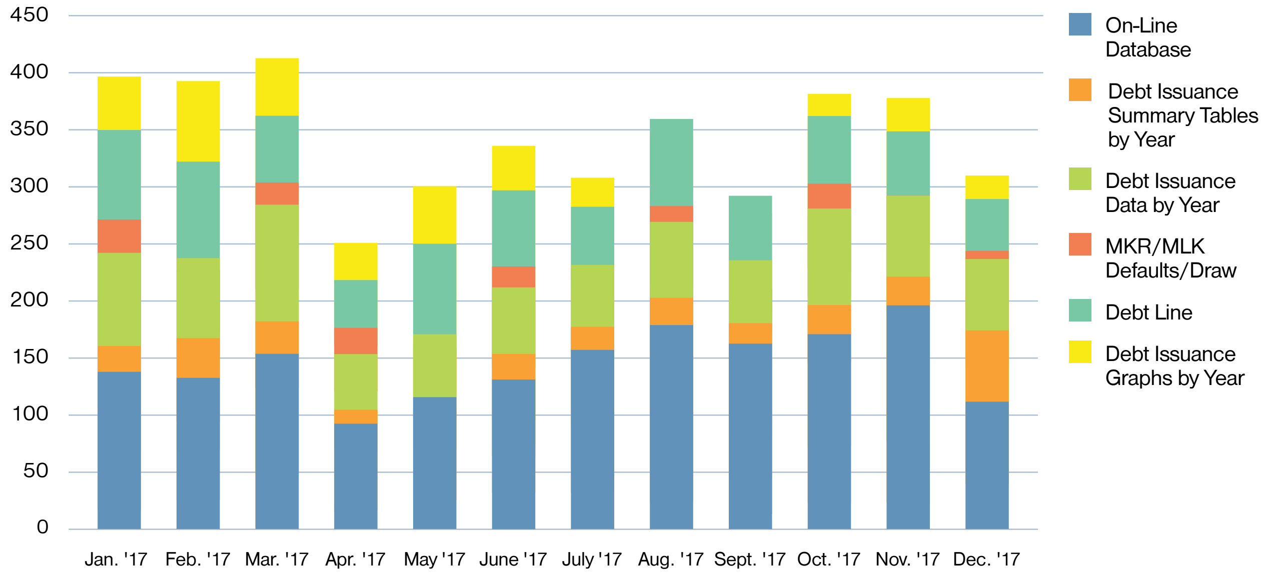
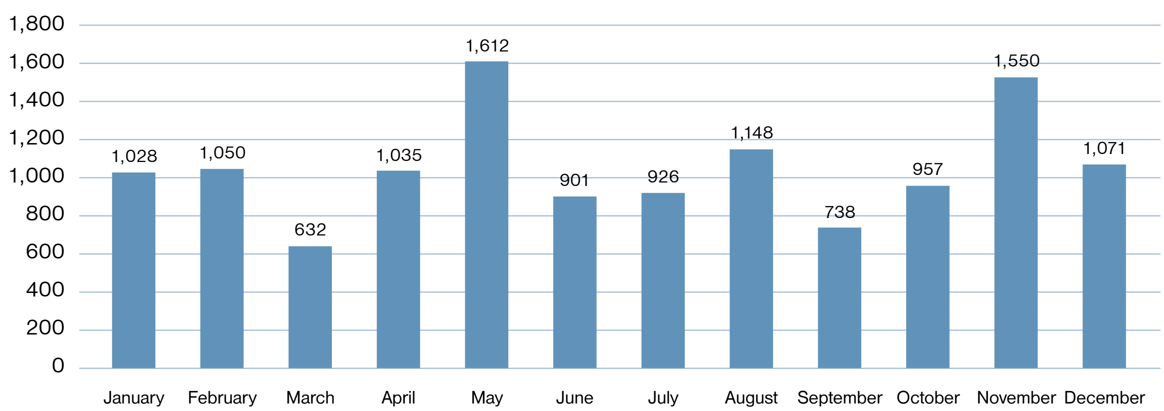


Figure 22b

DEBTWATCH WEBSITE ACTIVITY, JANUARY 1, 2017 TO DECEMBER 31, 2017



Other 2017 Data Unit Projects and Initiatives

DEBT DATA REGULATIONS. California Code of Regulations Title 4, Division 9.6, Sections 6000-6062 became effective April 1, 2017. This rule-making action interprets, clarifies, and makes specific the requirements of state and local government entities to submit information to CDIAC. The action addresses all mandated reports. The regulations also make specific the characteristics of a debt issue that would be exempt from the reporting fee authorized by statute.

ANNUAL DEBT TRANSPARENCY REPORT. SB 1029 (Hertzberg, Chapter 307, Statutes of 2016), amending Government Code Section 8855(i), placed additional reporting obligations on issuers. The bill requires issuers to report annually on any debt whose issuance was reported to CDIAC on or after January 21, 2017 until such debt is fully repaid or redeemed. In addition, issuers must now certify on the Report of Proposed Debt Issuance that they have adopted local debt policies in accordance with criteria now contained Section 8855(i), as amended by SB 1029. Data Unit staff is working with staff from the State Treasurer's Office Information Technology Division (ITD) to make the necessary updates to the Debt Issuance Database to receive the first set of reports due by January 21, 2018.

ELECTRONIC DOCUMENT STORAGE. The goal to reduce the amount of archived materials stored both on site and in the states warehouses by systematically reviewing, digitizing, and electronically storing all paper documents in an electronic document storage facility (FileNet) continued during 2017. Staff began digitization in 2009 with calendar year 2008 documents. To date, all 2008 through 2014 documents have been scanned and electronically stored. The scanning process for the 2007 files is approximately 10 percent complete. Documents received in 2015 through 2017 are in various stages of completion. In June 2017, ITD staff initiated a process to automatically transfer the document files from a temporary file folder into FileNet with minimal action required by Data Unit staff. With the implementation of this process, all electronically submitted reports and debt documents are transferred, drastically reducing the timeframe for posting the financing documents to CDIAC's public interface.

DEBTWATCH. CDIAC is now able to provide public access to CDIAC's rapidly expanding library of digitized issuance documents. This access will be of benefit to both the public by providing transparency, as well as to local agency personnel as a tool for formulating debt policies.

TECHNICAL ASSISTANCE. Data Unit staff responded to six requests for technical assistance during the year a drop of 31 percent due to the easy accessibility to DebtWatch. Inquiries for cost of issuance data on fees paid to financing team members and information on school district debt were the two most common requests. Data on Mello-Roos bonds was the third most requested item.

2018 Outlook

ANNUAL DEBT TRANSPARENCY REPORT. In response to SB 1029, which added Government Code Section 8855(k), CDIAC is working with ITD to improve the reporting experience for issuers. CDIAC's goal is to pre-populate the report with data already submitted by issuers on the Report of Final Sale so that they will be able to quickly determine if they are reporting on the correct financing. Going forward, CDIAC hopes to develop a 'batch upload' capability that will greatly reduce the amount of manual entry for our submitters.

DEBT ISSUANCE DATABASE REVIEW AND DEVELOPMENT PROJECT. CDIAC in conjunction with ITD, will complete a request for information (RFI) in order to contract with a database expert to determine what updates are needed to enable CDIAC to not only improve the data input process for our customers but to also improve data management and reporting for our staff. CDIAC expects to release the (RFI) mid-2018.

SECONDARY DATA SOURCING. CDIAC staff will explore opportunities to develop or procure secondary data sets that can be used to expand information made available through both DebtWatch and the new Debt Issuance Database. For example, CDIAC is aligning data it has collected since 2004 on bond elections with its debt issuance data to tie the issuance of debt to the relevant bond measure. Staff is currently reviewing the database updates needed to align the two sets of data.

SYSTEM AND PROCESS IMPROVEMENTS. CDIAC staff will continue to identify ways to maximize the existing system's performance by modifying work processes and reports whenever possible.

EDUCATION AND OUTREACH UNIT

CDIAC's Education and Outreach Unit (Education Unit) provides continuing education to public finance officers, elected officials, and the public, develops and maintains relationship with allied organizations to provide training, and monitors the informational and educational needs of its constituents.

Education Programs

CDIAC's education programs include "core" seminars given on an annual or biennial basis (Figure 23), webinar trainings that allow for a timely response to current issues or technical training needs, and co-sponsored seminars with allied organizations that expand CDIAC's outreach.

In 2017, CDIAC conducted ten educational programs: three webinars, three core seminars, one current topic seminar, and three co-sponsored seminars. Although 2016 marked a return to more intensive in-person trainings comprised of five to six individual sessions offering a more detailed discussion of the topic at hand, programming in 2017 again included webinars, thereby increasing the total number of people CDIAC's educational programs were able to reach.

Core Seminars

PUBLIC FUNDS INVESTING WORKSHOP: USING MS EXCEL. This one-day workshop, offered twice in August 2017, focused on using Microsoft Excel to further participants' understanding of key investment concepts. In order to allow participants to more fully engage in interactive learning, we limited attendance to no more than twenty each day. Attendees used their own laptops or tablets and spreadsheets to familiarize themselves with the relationship between yield, duration and convexity. The workshop concluded with an exercise on benchmarking and provided participants with Excel spreadsheets to utilize in managing their own investment portfolios.

ONGOING DEBT ADMINISTRATION. This program, held in September 2017, was designed to provide government officers with the knowledge needed to manage their responsibilities for continuing disclosure, compliance with federal arbitrage rules, and the investment of bond proceeds. Complying with both national and state-level reporting was discussed. This seminar differed from CDIAC's current topic seminar noted below, *Developing and Administering Internal Controls for Bond Accountability*, by focusing on the larger practices of administering the issuer's financial, legal, and regulatory obligations over the life of the bond.

Current Topic Seminar

DEVELOPING AND ADMINISTERING INTERNAL CONTROLS FOR BOND ACCOUNTABILITY. This one-day seminar, held in May 2017, focused on a framework for developing and administering an internal control system to account for and report on the expenditure of bond proceeds. The seminar discussed the principles of a control system to provide for the prudent management and disbursement of public funds and applied these to bond administration. The program also incorpo-

Figure 23

CDIAC'S CORE SEMINARS

SEMINAR	DESCRIPTION
MUNICIPAL DEBT ESSENTIALS	This 3-day seminar is designed to provide municipal financing principles through lecture, short examples, and classroom interaction. Day One, *Debt Basics*, covers the fundamental elements of debt financing, from the core concepts of bond math to the types of debt state and local governments can issue. It is designed to provide municipal financing principles through lecture and short examples and exercises. Day Two, *Planning a Bond Sale*, is focused on the preparation, planning, and processes involved in issuing municipal debt, including, but not limited to, the development of a written debt policy and plan of finance, structuring debt service payments, managing cost of issuance, and credit analysis. Day Three, *Marketing and Pricing a Municipal Bond*, covers the concepts and processes involved in accessing the capital markets. The topics include a discussion of the offering document used to sell the bonds and how underwriters and issuers seek to market and price the bond. Group exercises are included to provide practical application of the concepts.
ONGOING DEBT ADMINISTRATION	This one-day seminar provides the knowledge needed to manage continuing disclosure, compliance with federal arbitrage rules, and the investment of bond proceeds. This curriculum focuses on the larger practices of living with an issue over the life of the bond.
INVESTING PUBLIC FUNDS	This one and a half-day seminar covers investment related topics. In alternating years, the course material varies covering municipal investment topics of varying complexity – basic to advanced concepts and topics are discussed.
MUNICIPAL MARKET DISCLOSURE	This one-day seminar is an in-depth presentation on the requirements for disclosure of municipal securities information to the market. Topics include federal securities laws and regulations, issuer responsibilities, and continuing disclosure compliance.
FUNDAMENTALS OF LAND SECURED FINANCING	This one-day seminar focuses on the use of Mello-Roos and assessment district financing techniques, including how to form a district, issue debt, and administer liens.

rated tools developed by the Task Force on Bond Accountability convened by California State Treasurer John Chiang.

Webinars

In 2017, CDIAC provided three webinars focusing on the added requirements under Senate Bill 1029 (Chapter 307, Statutes of 2016), amending Government Code section 8855 to place additional reporting obligations on issuers of public debt in California. Each presentation is described below.

CREATING SB 1029 - COMPLIANT LOCAL DEBT POLICIES. Effective January 1, 2017, local issuers must certify whether or not they have adopted a debt policy concerning the use of debt and that the proposed debt issuance is consistent with that policy. This webinar, broadcast in March 2017, supported the efforts of local issuers to comply with SB 1029 and discussed the legislative intent of the bill. Topics covered were what constitutes "certification" by a legislative body; the five items now required to be included in a local debt policy by the amendment to Government Code Section 8855(i); the framework provided by GFOA's Debt Management Policy Best Practices; and the implementation of SB 1029 on CDIAC's Report of Proposed Debt Issuance.

SUBMITTING THE ANNUAL DEBT TRANSPARENCY REPORT (ADTR) REQUIRED BY SB 1029: GENERAL OBLIGATION (GO) AND REVENUE DEBT. This webinar, broadcast in November 2017, walked submitters through sample reporting scenarios for typical GO and revenue debt issues. Actual ADTRs were completed and submitted during the webinar.

SUBMITTING THE ANNUAL DEBT TRANSPARENCY REPORT (ADTR) REQUIRED BY SB 1029: COMMERCIAL PAPER (CP) AND MELLO-ROOS DEBT. This webinar, also broadcast in November 2017, walked submitters through sample reporting scenarios for typical CP and Mello-Roos debt issues. As with the earlier webinar on GO and revenue debt, actual ADTRs were be completed and submitted during this webinar.

Co-sponsored Seminars

CDIAC AND THE CALIFORNIA MUNICIPAL TREASURERS' ASSOCIATION (CMTA) - FUNDAMENTALS OF PUBLIC FUNDS INVESTING. This one-and-a half-day seminar, held in January 2017, provided the fundamental concepts, tools, and strategies necessary to manage and oversee public investment portfolios. On day one panelists addressed the components of portfolio management, including roles and responsibilities of practitioners, understanding permitted investments, establishing policy objectives, and managing cash flow. On day two panelists addressed structuring and diversifying an investment portfolio, benchmarking, and best practices in portfolio accounting, disclosure and reporting.

THE BOND BUYER PRE-CONFERENCE. In September 2017, CDIAC held the three-quarter day event, *Examining the Roles of Special Consultants in Debt Issuance and Administration*, at *The Bond Buyer*'s 27th Annual California Public Finance Conference. The seminar marked the 16th consecutive year that CDIAC has partnered with The Bond Buyer for the pre-conference. The program explored the types of consultants and the expert work products (EWPs) they produce as well as what aspects to consider related to EWPs. These include the selection and compensation of consultants, credentials and deliverables, conflicts of interest, and the application of securities law to the role of these consultants.

CDIAC AND CALIFORNIA SOCIETY OF MUNICIPAL ANALYSTS (CSMA): EXAMINING DATA AND TECHNOLOGY IN THE MUNICIPAL FINANCE INDUSTRY. This symposium, held in November 2017, explored the growing importance of data, analytics, and technology to investors, analysts, and municipal bond issuers.

Attendance at CDIAC Educational Programs

One thousand, one hundred seventy-two (1,172) public finance professionals, public and private, attended CDIAC's educational programs in 2017. Of the professionals who participated in CDIAC's 2017 educational offerings, the majority, 744 or 63 percent, did so through our web-based trainings. (Figure 24).

CDIAC tracks the attendees' organizational affiliation by public or private sectors (Figure 25). As in 2016, 82 percent of the participants in 2017 were from the public sector. If registration from events held in partnership with CSMA and *The Bond Buyer* were excluded, 87 percent of the attendees were from the public sector, a five percent decrease over 2016.

Of the public and private sectors, approximately 43 percent of attendees were from cities and counties; 39 percent were from state and federal agencies, special districts, school districts, and joint powers authorities; and 18 percent were from the private sector. Figure 26 reflects attendees by organization type at all CDIAC educational programs for the year.

Historical Comparison of Seminar Attendance

Over the past five years CDIAC has attracted approximately 6,728 attendees to its programs, including educational offerings held in partnership with other organizations. Figure 27 reflects enrollment activity in CDIAC programs from 2013 through 2017. Because CDIAC's programs in 2016 focused on in-person training, the return to

Figure 24

PARTICIPATION AT CDIAC EVENTS, 2017

EVENT TITLE	DATE	LOCATION	TOTAL PARTICIPANTS
CDIAC SEMINARS			
Developing and Administering Internal Controls for Bond Accountability	5/5/2017	Sacramento, CA	69
Public Funds Investing Workshop: Using MS Excel	8/23/2017	Oakland, CA	17
Public Funds Investing Workshop: Using MS Excel	8/24/2017	Oakland, CA	16
Ongoing Debt Administration	9/6/2017	Sacramento, CA	71
CDIAC WEBINARS			
Creating SB 1029-Compliant Local Debt Policies	3/16/2017	Online	339
Submitting the Annual Debt Transparency Report Required by SB 1029: General Obligation and Revenue Debt	11/8/2017	Online	241
Submitting the Annual Debt Transparency Report Required by SB 1029: Commercial Paper and Mello-Roos Debt	11/15/2017	Online	154
OTHER CDIAC ENGAGEMENTS			
CDIAC and CMTA: Fundamentals of Public Funds Investing	1/18-19/2017	Riverside, CA	114
The Bond Buyer Pre-Conference	9/25/2017	Carlsbad, CA	84
CDIAC and CSMA: Examining Data and Technology in The Municipal Finance Industry	9/25/2017	Napa, CA	67
		TOTAL	1,172

Figure 25

ATTENDANCE AT CDIAC PROGRAMS BY ORGANIZATIONAL AFFILIATION PUBLIC OR PRIVATE, 2017

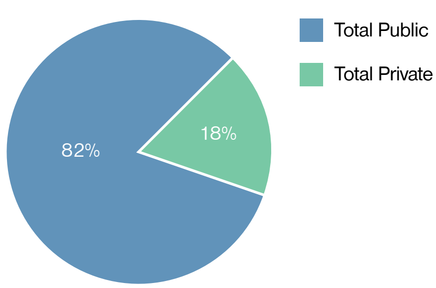


Figure 26

ATTENDANCE AT CDIAC PROGRAMS BY ORGANIZATION TYPE, 2017

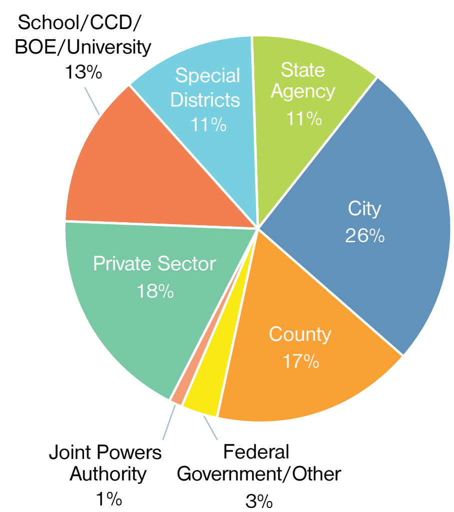
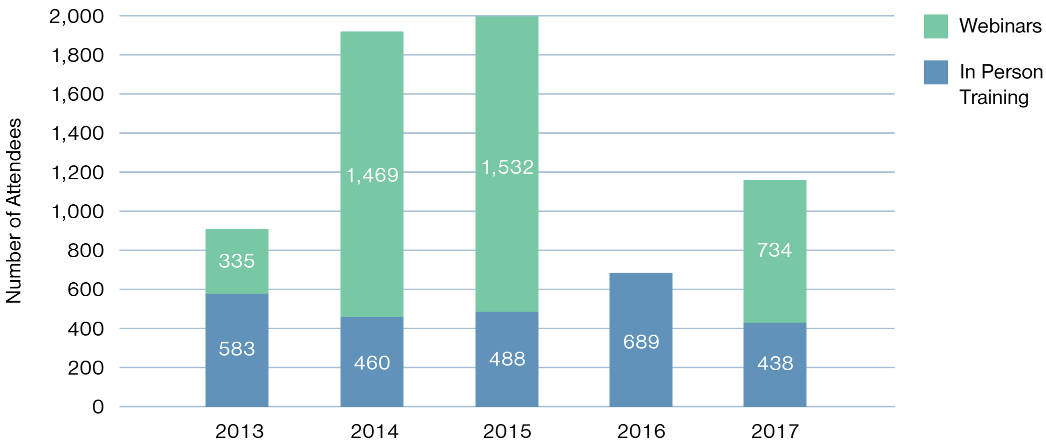


Figure 27

ATTENDANCE AT CDIAC PROGRAMS, 2013 TO 2017



webinar hosting in 2017 increased overall attendance numbers substantially. Though attendance at in-person seminars in 2017 declined to 438, down from 689 in 2016, CDIAC reached an additional 734 people via the webinar platform.

Based on this five year time span, CDIAC continues to serve its primary audience, public agencies, as reflected in Figures 28 and 29. Since 2013, cities, counties, and special districts represent 57 percent of all attendees at CDIAC programs.

SUPPORT OF THE STATE TREASURER'S OFFICE (STO) DIVISIONS, BOARDS, AUTHORITIES AND COMMISSIONS (BCAs). During 2017, staff in the Education Unit provided assistance to several of the divisions and BCAs within the STO. Using CDIAC's webinar portal and staff expertise, more than 824 stakeholders were trained or informed through the broadcasting of 8 webinars. The agencies assisted, the number of webinars and the number of stakeholders who participated are shown in Figure 30.

2018 Outlook

CURRICULUM AND PROGRAM DEVELOPMENT. The two areas that will continue to affect the educational needs of California's public agencies are 1) educating new staff in public agencies and newly elected officials, and 2) changes to the method and manner in which debt is issued in the municipal market. In response, CDIAC will continue to develop programming that addresses these two critical environmental forces. To do so, CDIAC is tailoring education for elected officials on debt financing and examining course offerings that address changes in debt management practices that impact California issuers.

INTERNET-BASED ON DEMAND TRAINING. CDIAC has begun to develop a web-based, on-demand training course on debt issuance and administration that is tailored for elected and appointed officials. Through the use of an interactive learning management system, officials will receive a certificate after completing a series of online courses and demonstrating sufficient knowledge acquisition.

Figure 28

ATTENDANCE AT CDIAC PROGRAMS
PUBLIC VS. PRIVATE, 2013 TO 207

YEAR	% PUBLIC	% PRIVATE
2013	76%	24%
2014	73	27
2015	87	13
2016	82	18
2017	82	18

Figure 29

ATTENDANCE AT CDIAC PROGRAMS BY ORGANIZATION TYPE, 2013 TO 2017

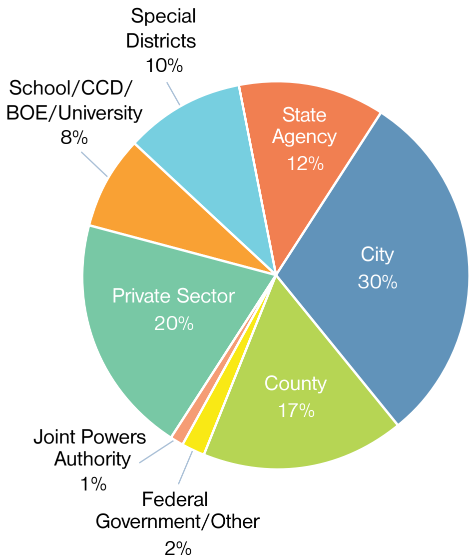


Figure 30

STO SUPPORT

AGENCY	# OF WEBINARS	TOTAL PARTICIPANTS
California School Finance Authority (CSFA)	4	311
California Achieving a Better Life Experience Act Board (CalABLE)	1	265
California Health Facilities Financing Authority (CHFFA)	2	79
Local Agency Investment Fund LAIF)	1	169
TOTALS	8	824

The system will also allow CDIAC to track registration and develop reports to monitor the effectiveness of the program in achieving the learning objectives and reaching the target audience. The first in the series of modules will be available mid-2018.

TOOL-BASED TRAINING IN THE CLASSROOM. CDIAC introduced an applied learning approach into our core educational curriculum in 2016 and continued this method into 2017. Participants' feedback has shown that this approach has been a very effective training method. In 2018, CDIAC will further its course offerings in public investments by offering Excel-based training in smaller, more interactive settings.

OUTREACH AND COLLABORATION. CDIAC plans to continue its collaboration with local, state and national organizations such as the Government Finance Officers Association (GFOA) and the State Debt Management Network (SDMN). Staff will also attend regional and divisional association meetings and events to interface with professional groups to build networks and maintain a presence in the industry.

EXISTING PARTNERSHIPS. In 2018, CDIAC will continue its partnerships with the California Society of Municipal Analysts (CSMA) and *The Bond Buyer*. Building on the success of collaborative workshops held in prior years, CDIAC will continue to partner with the California Municipal Treasurer's Association (CMTA) to provide public investment training workshops for beginners and advanced practitioners.

DIRECT PROMOTION OF PROGRAMS. As in prior years, CDIAC will continue to promote its programs through its subscribed email list and newsletter, postings on association webpages and their newsletters and, when necessary, through direct promotion of seminars through targeted mailing of printed brochures to local public agency officials. Social media, such as Twitter and LinkedIn, will continue to be used for focused promotion to followers of CDIAC and the State Treasurer's Office.

STATE FINANCING BOARDS, COMMISSIONS, AND AUTHORITIES. CDIAC will continue to offer webinar services to meet the educational and outreach needs of the of state financing boards, commissions, and authorities.

RESEARCH UNIT

California Government Code Section 8855(h)(5) authorizes CDIAC to undertake research projects that improve practices or reduce the borrowing costs of public issuers in California. For calendar year 2017, CDIAC staff have either completed or initiated the following research projects:

CDIAC Projects Completed

MEASURING K-14 PROPERTY TAX RATES AGAINST PROPOSITION 39 LIMITS. Using information from CDIAC's debt issuance database and county tax assessors, CDIAC reviewed tax rates for general obligation bonds issued under Proposition 39 and preformed a detailed review to explain why some school districts have tax rates that exceed the tax rate limit established in statute.

ELECTRONIC DISCLOSURE: 2017 UPDATE. This issue brief reviewed provides updated information on electronic disclosure filing and addresses recent trends in electronic disclosure.

K-14 VOTER APPROVED GENERAL OBLIGATION BONDS: AUTHORIZED, BUT UNISSUED – 2017 UPDATE. CDIAC updated earlier research that cross referenced K-14 general obligation bond issuance with the underlying voter approved authority to determine the amount of general obligation bonds that were authorized, but unissued since 2002. This update added election and issuance activity for calendar year 2016 to the original data.

LOCAL AGENCY INVESTMENT GUIDELINES: UPDATE FOR 2017. CDIAC, working collaboratively with investment professionals, reviewed and updated the CDIAC Local Agency Investment Guidelines. This document provides references and recommendations (developed by public and private sector professionals) for interpreting and applying California statute to common public fund investment topics related to local agencies. The 2017 Update reflected statutory changes effective January 1, 2017.

RESULTS OF THE 2016 GENERAL ELECTION: BOND AND TAX MEASURES APPEARING ON THE 2016 GENERAL BALLOTS, NOVEMBER 8, 2016. This bi-annual report provided an analysis of the certified results of the bond and tax elections held in the June 2016 General Election as well as a detailed listing of each bond and tax measure by county, region, type of tax or debt, and purpose.

2018 Outlook - Proposed or Initiated Projects and Activities

DISCLOSURE PRIMER. CDIAC will develop a concept to create a primer on municipal market disclosure. It is envisioned this primer would be a companion to the California Debt Issuance Primer and provide a detailed desk-reference for public finance officials on disclosure requirements and best practices.

K-14 VOTER APPROVED GENERAL OBLIGATION BONDS: AUTHORIZED, BUT UNISSUED – 2018 UPDATE. CDIAC will update earlier research that cross referenced K-14 general obligation bond issuance with the underlying voter approved authority to determine the amount of general obligation bonds that were authorized, but unissued since 2002. This update will election and issuance activity for calendar year 2017 to the original data.

LOCAL AGENCY INVESTMENT GUIDELINES: UPDATE FOR 2018. CDIAC, working collaboratively with investment professionals, reviewed and updated the CDIAC Local Agency Investment Guidelines. This document provides references and recommendations (developed by public and private sector professionals) for interpreting and applying California statute to common public fund investment topics related to local agencies. The 2018 Update will reflect statutory changes effective January 1, 2018.

RESEARCH RESOURCE DATABASE. CDIAC will develop a proposal to create a research resource database that will bring together municipal finance information from a variety of sources in a searchable central repository to facilitate the development and enhancement of CDIAC's research, data analysis, and educational programming.

UPDATE TO THE CALIFORNIA DEBT ISSUANCE PRIMER. As a result of the market crisis of 2008 and the resulting market reform, CDIAC has developed a redesign of the Debt Issuance Primer, now called the *California Debt Issuance Guidebook (Guidebook)*. The Guidebook is one of the three components of complementary debt issuance resources CDIAC is developing; CDIAC anticipates completing workbooks and an educational video series highlighting important areas of public finance. In addition to contracting with Orrick, Herrington & Sutcliffe LLP to update the legal sections of the new *Guidebook*, CDIAC has compiled an advisory group to identify the areas of importance to the development of CDIAC's debt issuance resources. It is anticipated the Guidebook will be completed by the end of 2018.

UPDATE TO THE CALIFORNIA PUBLIC FUND INVESTMENT PRIMER. CDIAC is in the process of reviewing the *California Public Investment Primer*, which was last updated in 2009, to determine the scope of updates needed.

DEVELOPMENT OF A DATA WAREHOUSE. CDIAC will develop a plan to procure or create parallel or complementary data sets to expand the utility of CDIAC debt issuance data and create a Data Warehouse. The concept of the Data Warehouse is to provide internal and external researchers with a "go-to" source for data relevant to the study of public financial management by combining CDIAC's municipal debt data with a wide variety of available economic and demographic data.

OUTREACH AND COLLABORATION WITH PUBLIC FINANCE ORGANIZATIONS. CDIAC will continue to work with public finance organizations, public agencies and research organizations to identify and assess new forms of public debt and investments coming into the market. This collaboration helps to keep CDIAC informed of market trends and emerging products and practices to produce research that is timely and relevant.

DEBT AND INVESTMENT LEGISLATION AFFECTING STATE AND LOCAL GOVERNMENTS. CDIAC will continue to monitor the status and maintain an inventory of important state and federal legislation affecting public finance, municipal bond issuance, and public funds investing. Published periodically in *Debt Line* during the legislative session, the online inventory includes helpful links to the most current information on pending legislation.

DEBT LINE. CDIAC will continue to publish *Debt Line*, a monthly newsletter including issuance statistics and analysis, research articles, important dates and details arising from MSRB and SEC regulatory activities, and announcements of educational programming provided by CDIAC and allied organizations.

CDIAC

CALIFORNIA
DEBT AND
INVESTMENT
ADVISORY
COMMISSION

915 Capitol Mall, Room 400, Sacramento, CA 95814
p 916.653.3269 • f 916.654.7440
cdiac@treasurer.ca.gov
www.treasurer.ca.gov/cdiac