

op·ti·mism: *noun*
hopefulness and confidence
about the future





FIONA MA, CPA
TREASURER
STATE OF CALIFORNIA

October 1, 2021

Dear friends,

Common themes in the market for California's bonds have emerged with greater clarity—and unprecedented urgency, for a second consecutive year.

Persistent low interest rates have extended an opportunity for our state to access long-term capital at extremely attractive borrowing costs to finance capital projects needed to support the state's service mission to 40 million Californians. This also includes opportunities to save the public considerable sums in interest cost by refinancing older debt issues.

The second year of the COVID-19 global pandemic has challenged business and government to adapt to “new” ways of doing “old” things and presented opportunities to deepen our understanding of the evolving markets we rely upon to fulfill our constitutional and statutory missions. Taken together, these conditions cause me to be hopeful for California's future.

California continues to enjoy widespread interest in our debt offerings from both retail and institutional investors. Our experience over the past year confirms that this phenomenon is still present. But, investor preferences are changing, and the combination of persistently low rates and the ravages of a changing climate on our state and nation have brought forth in clearer ways several important investor preferences that we should carefully consider for the future.

Investors in California bonds have always expressed a high value on the safety and security of their investment—an investment that can span decades. These investors seek preservation of their capital accompanied by a stable source of interest income. But today, these investors are more vocal and specific in seeking additional information about the degree to which their investments are aligned with a future world that may pose unquantifiable financial risk from climate change.

These investors are increasingly seeking to align their portfolio objectives with their social consciences by adding so-called ESG (or, environmental, social, and governance) criteria to their investment choices. Often these preferences are imprecisely called “sustainability.” More progressive investors appear to be acknowledging that a rational ESG investment policy is highly compatible with the overall investment goals they apply every day—stable income, safety of principal, and financial sustainability.

I encourage you to review carefully the data contained in this annual debt affordability report. California's data is presented in ways that compare and contrast key indicators of our debt position with peer governments, the degree to which our debt burden lays claims to our state's economic resources, and the share of the state's general fund receipts dedicated to repayment of our debt. Be assured that the changing investor preferences I've discussed above will be forefront in our mind as we step confidently into the upcoming year—and a future that incorporates an increasing awareness of how a focus on sustainability—both financial and climate-based—will benefit all Californians.

In Peace and Friendship,

FIONA MA, CPA
California State Treasurer

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PREFACE

California Government Code Section 12330 requires the State Treasurer to submit an annual Debt Affordability Report (DAR) to the Governor and Legislature. The report must provide the following information:

- A listing of authorized but unissued debt the Treasurer intends to sell during the current year (2021-22) and the following year (2022-23), and the projected increase in debt service as a result of those sales.
- A description of the market for state bonds.
- An analysis of state bonds' credit ratings.
- A listing of outstanding debt supported by the General Fund and a schedule of debt service requirements for the debt.
- A listing of authorized but unissued debt that would be supported by the General Fund.
- Identification of pertinent debt ratios, such as debt service to General Fund revenues, debt to personal income, debt to estimated full value of property and debt per capita.
- A comparison of the pertinent debt ratios for the state with those of the 10 most populous states.
- The percentage of the state's outstanding general obligation (GO) bonds comprised of fixed rate bonds, variable rate bonds, bonds that have an effective fixed interest rate through a hedging contract and bonds that have an effective variable interest rate through a hedging contract.
- A description of any hedging contract, the outstanding face value, the effective date, the expiration date, the name and ratings of the counterparty, the rate or floating index paid by the state and the counterparty, and an assessment of how the contract met its objectives.

NOTES ON TERMINOLOGY

- This report frequently uses the words “bonds” and “debt” interchangeably, even when the underlying obligation securing the bonds does not constitute debt subject to limitation under California's constitution. This conforms to the municipal market convention that applies the terms “debt” and “debt service” to a wide variety of instruments, regardless of their precise legal status.
- The report references fiscal years without using the term “fiscal year” or “fiscal.” For example, 2021-22 means the 2021-22 fiscal year ending June 30, 2022.

SECTION 1 MARKET FOR STATE BONDS

The state is one of the largest issuers in the \$3.9 trillion U.S. municipal bond market. Over the last five fiscal years, the state has issued an average of \$7.7 billion of GO bonds annually. In 2020-21, the state issued \$6.3 billion of GO bonds. Of that total, \$1.8 billion refinanced outstanding fixed rate GO bonds to produce debt service savings and \$1.4 billion converted outstanding variable rate GO bonds into fixed rate GO bonds.

The market and price for the state's bonds are affected by factors specific to the state as well as overall conditions in the debt capital markets. These factors include significant global events, the economy, general market interest rates, national and state personal income tax rates, the supply of and demand for municipal bonds, investor perception of the state's credit and the performance of alternative investments, such as equities or other debt capital.

Since the last Debt Affordability Report (DAR) was published in October 2020, the municipal bond market has been influenced by, among other things, the ongoing effects of the COVID-19 global pandemic, financial markets' reactions to concerns about inflation, and investors' perception of potential changes in federal tax policy. While these events caused fluctuations in the market, tax-exempt interest rates have remained near historic lows.

STATE-SPECIFIC FACTORS

The state has continued to respond to the health-related and economic impacts of the COVID-19 global pandemic. The 2020-21 Budget Act enacted in June 2020 assumed that the COVID-19 pandemic would result in significant declines in state revenues and otherwise adversely impact the state's financial condition. However, because of prior

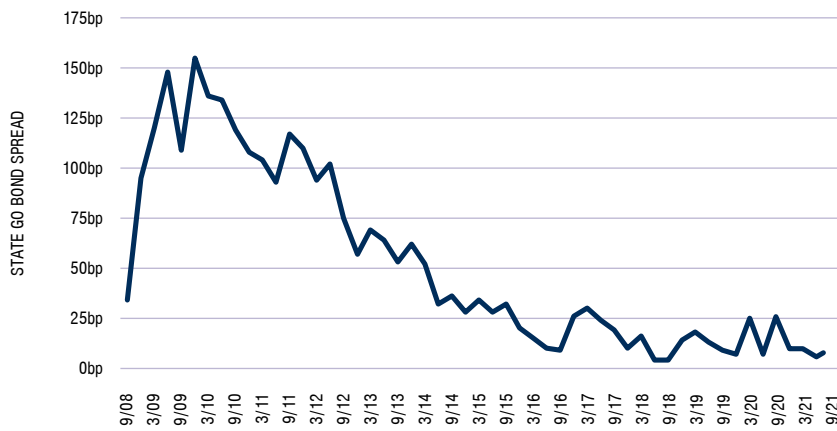
prudent actions taken by the voters and state officials leading up to the COVID-19 pandemic and due to higher than expected revenues, together with significant federal COVID-19 pandemic related assistance, the state entered 2021-22 fiscally sound. Although the COVID-19 pandemic remains very challenging for the people and institutions of the state, the state is in a strong fiscal position to help support an economic recovery. Over the past decade, the state instituted revenue initiatives and expenditure controls, adopted on-time budgets, implemented structural reforms, demonstrated a commitment to paying down past borrowings and deferrals and built up significant reserves. The state ended 2020-21 with an operating surplus and combined reserves that totaled approximately \$42.9 billion. The availability of these accumulated reserves, along with the strong economic forecast for 2021-22, has enabled the state to provide financial relief to California families and businesses, make investments to address longstanding challenges and create a framework to maintain budget resiliency against potential future risks.

Reflecting the prudent management of the state's finances, the ratings on the state's GO bonds have remained steady since the onset of the COVID-19 pandemic at "AA" by Fitch Ratings (Fitch), "Aa2" by Moody's Investors Service (Moody's) and "AA-" by S&P Global Ratings (S&P). However, in September 2021, S&P revised its outlook on the state from stable to positive. A change in outlook generally reflects the rating agency's expectation that some trends are taking place in the state that could lead to a rating change.

Despite periods of volatility in recent years, the state's credit spreads have traded in a relatively narrow range. Credit spreads represent the difference in yield between two bonds of similar maturity but different credit quality. Figure 1 depicts the state's interest rate spreads to the AAA GO Munic-

FIGURE 1

30-YEAR CALIFORNIA MMD CREDIT SPREADS TO “AAA” MMD



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

ipal Market Data (MMD) index, the municipal industry’s benchmark of AAA-rated state GO bonds. The state’s credit spread on its 30-year bonds to the MMD benchmark has tightened from a high of more than 150 basis points at the end of 2009 to a low of four basis points in September 2018 and was six basis points as of June 2021.

While the ultimate impact of the COVID-19 pandemic on the state will depend on a variety of factors, the state faces other risks with potentially significant General Fund impacts. These risks include, among other things, the threat of a recession and inflation, decline in the stock market that impacts the state’s capital gain revenues, the cost of public employee retirement benefits, changes to global relations or federal policies on trade, health care costs, energy risks caused by extreme events, housing constraints, impacts of climate change, and cybersecurity risks.

OVERALL BOND MARKET CONDITIONS

The discussion below begins with a review of the factors that impacted the larger U.S. bond market that also affected the market for the state’s bonds. In March 2020, concerns about the COVID-19 pandemic’s effects and actions by governments to combat it and the economic outfall caused the sharp decline of both short- and long-term taxable interest rates. Gradually, as economic activity increased and vaccines became available to the public, investor outlook on the economy improved and taxable interest rates began to rise. Then, approximately a year after COVID-19 was declared a global pandemic, economic data comparing the year-over-year changes in prices led to investor concerns

over inflation and potential changes in Federal Reserve Board monetary policy. The shift in investor sentiment resulted in a rapid rise in interest rates beginning around February 2021, although the effect of the change in outlook has been tempered in recent months. Figure 2 depicts the yields of two- and ten-year U.S. Treasuries to illustrate the trend of U.S. bond market interest rates since January 2020.

SUPPLY AND DEMAND

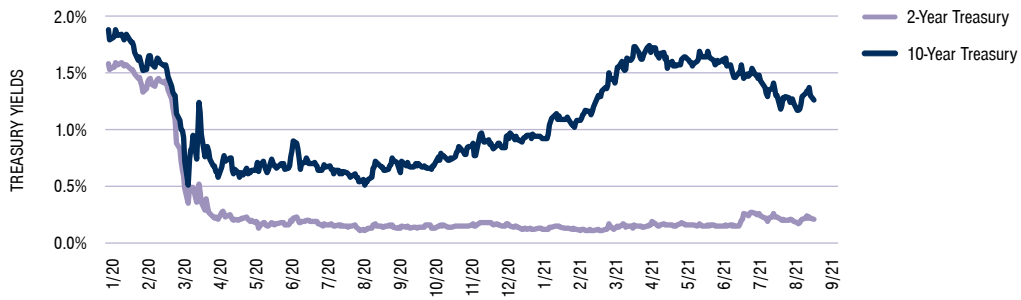
While tax-exempt interest rates generally follow trends set by the overall bond market, specific technical and fundamental factors can cause tax-exempt interest rates to behave differently from the trends of the larger market. Two such factors are supply and demand, which materially affected the pricing of municipal bonds in 2020-21.

SUPPLY. Total municipal bond issuance volume has been higher the last two consecutive years with more than \$500 billion in total issuance for 2020-21. Figure 3 shows the U.S. municipal bond issuance volume for each of the past five years from July to June.

However, the increased volume’s effect on tax-exempt interest rates was mitigated because the increased volume was largely related to increased taxable bond issuance as well as investor demand factors. Taxable bond issuance has been increasing due to the elimination of tax-exempt advance refundings in the Tax Cuts and Jobs Act of 2017 and issuer’s ability to lock in savings when rates were near historic lows. Figure 4 shows the total U.S. municipal bond issuance volume by tax status. Overall, total issuance volume for 2019-

FIGURE 2

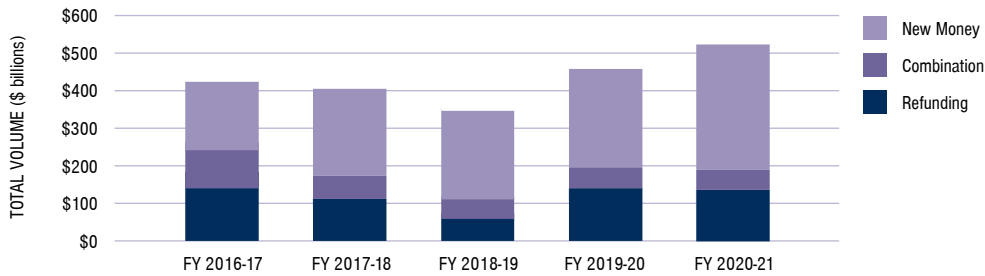
TRENDS OF 2- AND 10-YEAR TREASURY YIELDS



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 3

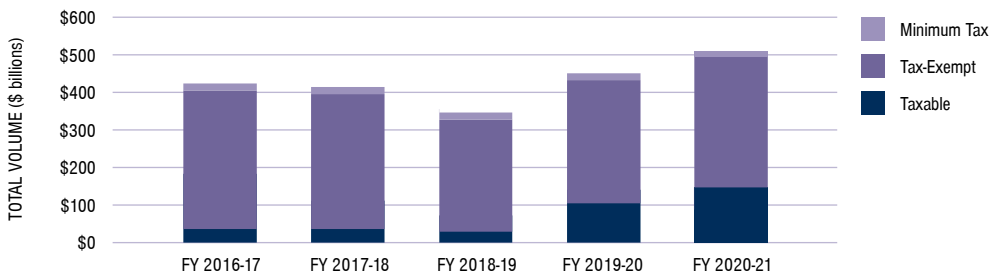
U.S. MUNICIPAL BOND ISSUANCE VOLUME BY PURPOSE



Source: The Bond Buyer

FIGURE 4

U.S. MUNICIPAL BOND ISSUANCE VOLUME BY TAX STATUS



Source: The Bond Buyer

20 and 2020-21 were 30 percent and 13 percent higher than each of their respective prior years but only 10 percent and 7 percent higher when comparing tax-exempt issuance volumes. In comparison, taxable bond issuance increased 37 percent in 2020-21 as compared to 2019-20.

DEMAND. Because of their tax advantage, tax-exempt bonds have a more limited universe of investors than taxable bonds. Municipal bond mutual funds represent a significant segment of the investor base for tax-exempt bonds, and these funds' inflows and outflows can materially impact investor demand. As shown in Figure 5, monthly inflows were positive in each month since May 2020, totaling more than \$123 billion over the past 15 months. This has resulted in an increase in demand for municipal bonds, which has helped tax-exempt interest rates to outperform taxable interest rates in 2020-21. Figure 6 shows the ratios of AAA GO MMD to U.S. Treasury yields. Comparing the ratios

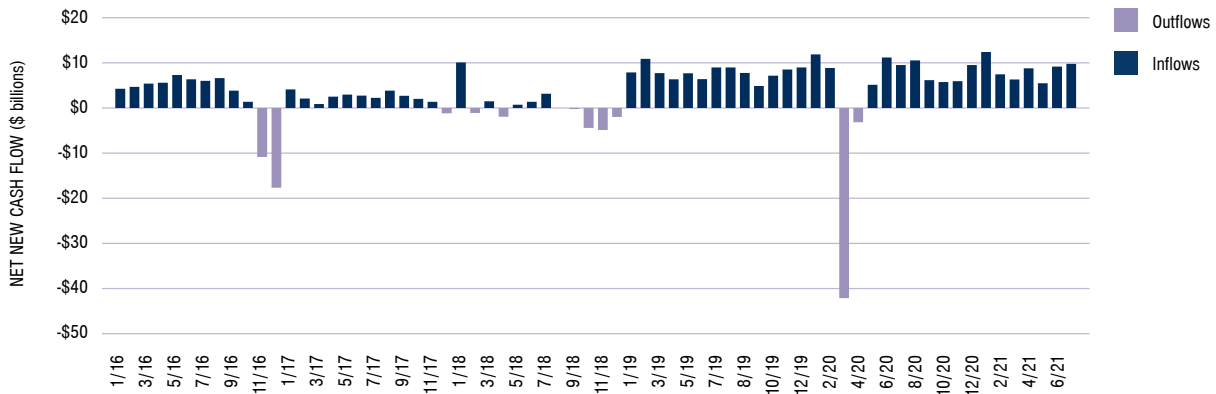
of tax-exempt municipal bonds to U.S. Treasury yields is a common metric investors use to determine relative value. Historically these ratios have been near or below 100 percent reflecting the tax advantage of the interest income on tax-exempt bonds but offset by the stronger creditworthiness of U.S. Treasuries. From July 2020 to June 2021, the 5-year ratio declined from 130 percent to 56 percent, and the 30-year ratio from 113 percent to 72 percent. The lower ratios indicate municipal bond outperformance.

TAX-EXEMPT INTEREST RATE TRENDS

Tax-exempt interest rates have been relatively steady throughout 2020-21. Following the initial dislocation due to the impact of the COVID-19 pandemic that lasted through May 2020, tax-exempt interest rates followed the declines in the broader bond market. However, in Febru-

FIGURE 5

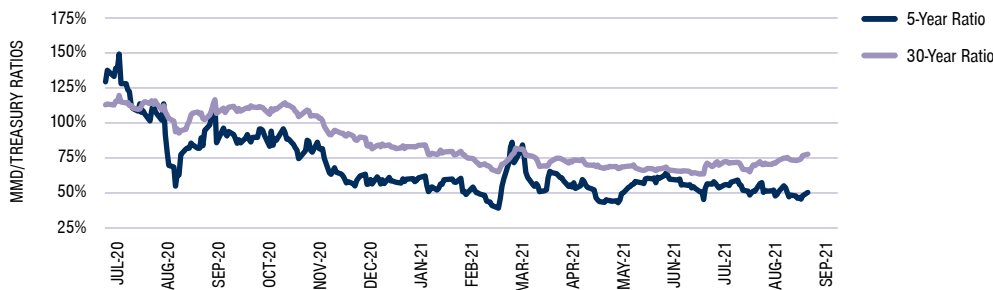
MUNICIPAL BOND MARKET, MONTHLY FUND INFLOWS / OUTFLOWS



Source: Investment Company Institute (ICI)

FIGURE 6

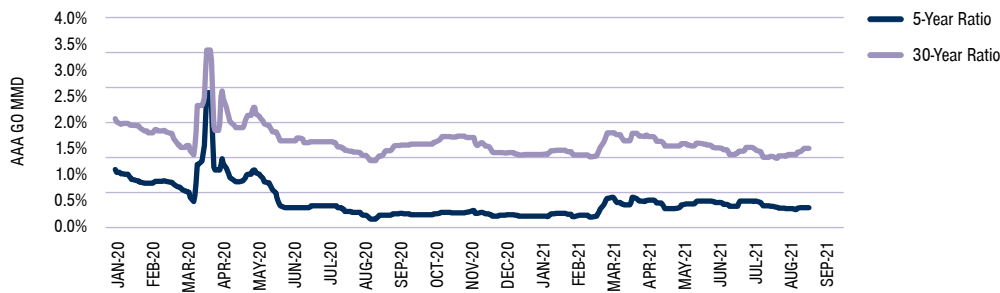
5- AND 30-YEAR AAA GO MMD/TREASURY YIELD RATIOS



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 7

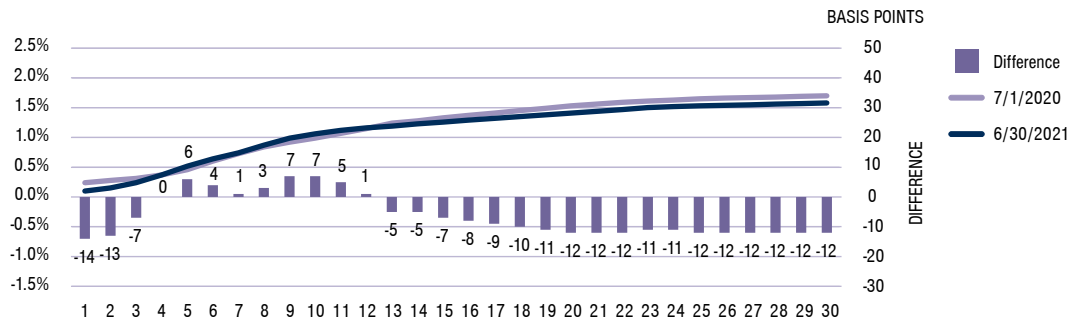
TRENDS OF 5- AND 30-YEAR AAA GO MMD



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 8

CALIFORNIA GO MMD BENCHMARK RATES



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

ary 2021 similar to how long-term taxable interest rates climbed, tax-exempt interest rates also trended slightly upward before stabilizing. Figure 7 depicts the trend of 5- and 30-year AAA GO MMD indices. As shown, the indices have varied over time, but remained within a narrow range throughout 2020-21 at near historically low levels.

INTEREST RATES ON THE STATE'S BONDS

Interest rates on the state's bonds are the product of both state-specific factors and more general market conditions. With a stable and well-managed credit profile, the state has benefitted from the low historic rates found in the general tax-exempt municipal bond market. Over the course of 2020-21, interest rates on the state's GO bonds have largely followed the same trend as national AAA GO MMD. Figure 8 compares California GO MMD benchmark rates from of the beginning to the end of 2020-21. As shown, the shortest rates from years 1 to 3 and the longest rates from years 13 to 30 decreased between 5 and 14 basis points,

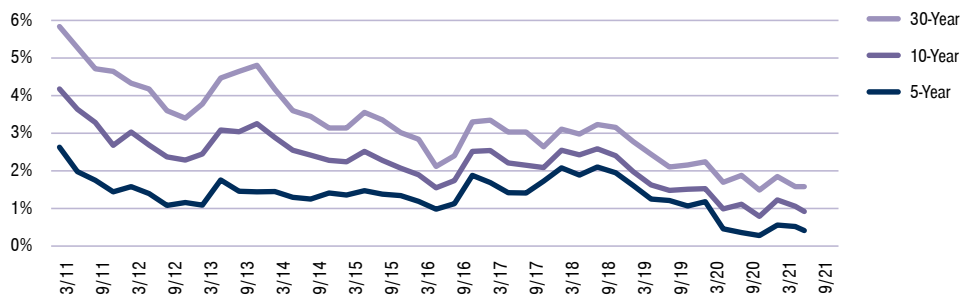
while the intermediate rates from years 5 to 12 increased between 1 and 7 basis points. (The rate for year 4 was unchanged.) In addition, the 2020-21 rates are significantly better than the state's rates over most of the past decade as shown in Figure 9.

With attractive long-term interest rates available throughout much of the fiscal year, the state was able to refinance \$2.2 billion of its outstanding fixed-rate GO bonds in 2020-21 to reduce debt service costs. These refinancing's generated approximately \$804 million of total debt service savings over the remaining life of the bonds (or approximately \$718 million on a present value basis). In addition, the state sold \$1.07 billion of refunding GO bonds in April 2021 on a forward delivery basis that closed in September 2021. This refinancing generated approximately \$415 million of additional savings over the remaining life of the bonds (or approximately \$369 million on a present value basis).

In addition to fixed-rate GO bonds, the state has approximately \$1.5 billion of variable rate GO bonds outstanding

FIGURE 9

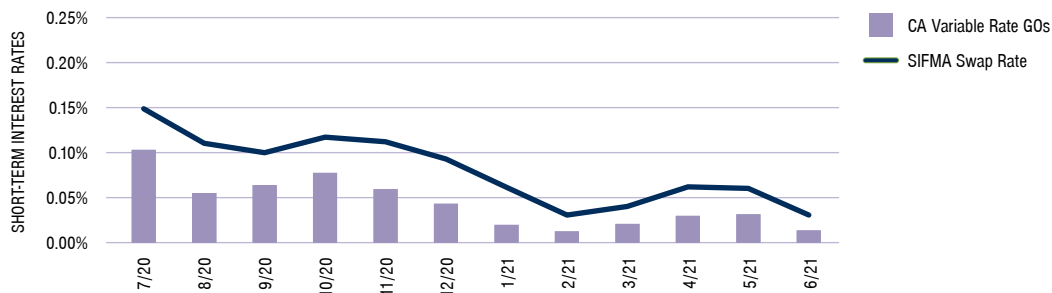
5-, 10- AND 30-YEAR CALIFORNIA GO MMD



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 10

MONTHLY AVERAGE SHORT-TERM INTEREST RATES



Source: Refinitiv/Thomson Municipal Market Monitor (TM3) and California State Treasurer's Office

as of the end of 2020-21. Throughout the year, the state's variable rate GO bonds have been a source of low-cost financing for the state and have helped to diversify its capital structure. Typically, short-term tax-exempt interest rates are lower than long-term tax-exempt interest rates. Additionally, as shown in Figure 10, the performance of these variable rate GO bonds in 2020-21 compares favorably to the short-term SIFMA (Securities Industry and Financial Markets Association) swap index, which is a composite index of tax-exempt seven day high-grade variable rate demand obligations similar to the state's variable rate GO bonds.

SECTION 2 | SNAPSHOT OF THE STATE'S DEBT

OVERVIEW

Figure 11 summarizes the state's long-term debt as of June 30, 2021. This summary of state debt includes General Fund-supported GO bonds approved by voters and lease revenue bonds (LRBs) authorized by the Legislature, as well as self-liquidating GO bonds. Self-liquidating GO bonds receive revenues from specified sources so that money

from the General Fund is not expected to pay debt service. However, the General Fund is obligated to pay debt service should the revenues to support repayment not be sufficient. The figures include bonds the state has sold (outstanding) and bonds authorized but not yet sold. A detailed list of the state's outstanding bonds, and their debt service requirements, can be found in Appendices A and B.

FIGURE 11

SUMMARY OF THE STATE'S DEBT (a)
AS OF JUNE 30, 2021 (dollars in billions)

	OUTSTANDING	AUTHORIZED BUT UNISSUED	TOTAL
GENERAL FUND SUPPORTED ISSUES			
General Obligation Bonds	\$70.84	\$33.97	\$104.81
Lease Revenue Bonds	8.34	7.21	15.55
TOTAL GENERAL FUND SUPPORTED ISSUES	\$79.18	\$41.18	\$120.36
SELF LIQUIDATING GENERAL OBLIGATION BONDS			
Veterans General Obligation Bonds	\$0.58	\$0.80	\$1.38
California Water Resources Development General Obligation Bonds	0.00	0.17	0.17
TOTAL SELF LIQUIDATING GENERAL OBLIGATION BONDS	\$0.58	\$0.97	\$1.55
TOTAL	\$79.76	\$42.15	\$121.91

(a) Debt obligations not included in Figure 11: Any short-term obligations such as commercial paper or revenue anticipation notes; revenue bonds issued by state agencies which are repaid from specific revenues outside the General Fund; and "conduit" bonds, such as those issued by state financing authorities on behalf of other governmental or private entities whose obligations secure the bonds. Bonds that were sold on a forward delivery basis but not issued as of June 30, 2021 are not reflected in the outstanding amounts.

- Approximately 2.1 percent of the state’s outstanding GO bonds carry variable interest rates, which is lower than the statutorily authorized maximum of 20 percent. The State Treasurer has adopted a Debt Management Policy that, as of the date hereof, further reduces this limitation on variable rate indebtedness to 10 percent of the aggregate amount of long-term GO bonds outstanding. The remaining 97.9 percent of the state’s outstanding GO bonds have fixed interest rates.
- The state has no interest rate hedging contracts on any debt discussed in this report.

INTENDED ISSUANCE OF GENERAL FUND-SUPPORTED BONDS

The State Treasurer’s Office (STO) estimates of intended issuance are based on Department of Finance (DOF) projections of state departments’ funding needs. Projections for new-money debt issuance are based on a variety of factors and are periodically updated. Factors that could affect the amount of issuance include actual

spending by departments, revised funding needs, overall budget constraints, use or repayment of commercial paper, general market conditions and other considerations. Actual issuance amounts often vary significantly from initial estimates.

Figure 12 shows the STO’s estimated issuance of new-money General Fund-supported bonds over the current and next fiscal years. Only currently authorized but unissued GO bonds and LRBs are reflected in Figure 12. The estimated issuance may increase should new bond programs be approved.

As shown in Figure 12, the STO preliminarily estimates the state will issue a combined \$14.7 billion of new money General Fund-supported bonds in 2021-22 and 2022-23. Using these assumptions for debt issuance, the STO estimates debt service payments from the General Fund will increase by \$64.9 million in 2021-22 and \$665.7 million in 2022-23.¹ A detailed list of the estimated debt service requirements can be found in Appendix B.

FIGURE 12

ESTIMATED ISSUANCE, GENERAL FUND-SUPPORTED BONDS (a) (DOLLARS IN MILLIONS)

	2021-22	2022-23	TOTAL
General Obligation Bonds (b)	\$6,500	\$5,300	\$11,800
Lease Revenue Bonds	\$2,179	\$723	\$2,902
TOTAL GENERAL FUND-SUPPORTED BONDS	\$8,679	\$6,023	\$14,702

(a) Debt issuances not included in Figure 12: Any refunding bonds, short-term obligations such as commercial paper or revenue anticipation notes; revenue bonds issued by state agencies which are repaid from specific revenues outside the General Fund; and “conduit” bonds, such as those issued by state financing authorities on behalf of other governmental or private entities whose obligations secure the bonds.

(b) The initial issuance of GO bonds may be in the form of commercial paper notes.

¹ Figures reflect debt service from only a portion of the bond sales listed in Figure 12. For example, \$2.9 billion of the \$6.5 billion in GO bonds and \$783 million of the \$2.179 billion in LRBs planned for 2021-22 will be sold during the first half of the fiscal year. These bonds will have interest payments in the second half of the fiscal year. The remaining GO bonds and LRBs to be sold in 2021-22 will not have a debt service payment during the fiscal year. The first interest payment for these bonds will be in 2022-23.

SECTION 3 MEASURING DEBT BURDEN

DEBT RATIOS

Measuring California's debt level with various ratios – while not particularly helpful in assessing debt affordability – does provide a way to compare the state's burden to that of other borrowers. The three most commonly-used ratios are: debt service as a percentage of General Fund revenues; debt as a percentage of personal income; and debt per capita. A fourth ratio – debt as a percentage of state gross domestic product (GDP) – also can be a useful comparison tool.

DEBT SERVICE AS PERCENTAGE OF GENERAL FUND REVENUES

Because debt service is considered a fixed part of a budget, credit analysts compare General Fund-supported debt service to General Fund revenues to measure a state's fiscal flexibility. California's ratio of General Fund-supported debt service to General Fund revenues was 4.32 percent² in 2020-21. That figure is based on \$7.95 billion³ of GO and LRB debt service payments versus \$183.8 billion of General Fund revenues (less transfers to/from the Budget Stabilization Account/Rainy Day Fund).⁴ The STO estimates this ratio will be 4.53 percent⁵ in 2021-22. That estimate is based on an expected \$7.95 billion of debt service payments versus \$175.3 billion of General Fund revenues (less transfers to/from the Budget Stabilization Account/Rainy Day Fund).⁴

DEBT AS PERCENTAGE OF PERSONAL INCOME

Comparing a state's level of debt to the total personal income of its residents is a way to measure a state's ability to generate revenues and repay its obligations. In its 2021 State Debt Medians report, Moody's lists the state's ratio of net tax-supported debt to personal income at 3.0 percent.⁶

DEBT PER CAPITA

Debt per capita measures residents' average share of a state's total outstanding debt. It does not account for the employment status, income or other financial resources of residents. As a result, debt per capita does not reflect a state's ability to repay its obligations as well as other ratios, such as debt service as a percentage of General Fund revenues or debt as a percentage of personal income. In its 2021 State Debt Medians report, Moody's lists the state's net tax-supported debt per capita at \$2,144.⁶

DEBT AS PERCENTAGE OF STATE GDP

Debt as a percentage of GDP generally is used to measure the financial leverage provided by an issuer's economy. Specifically, this debt ratio compares what an issuer owes versus what it produces. California has one of the largest economies in the world and one of its most diverse. In its 2021

² Does not reflect offsets due to subsidy payments from the federal government for Build America Bonds (BABs) or transfers from special funds. When debt service is adjusted to account for approximately \$2.0 billion of estimated offsets, the 2020-21 debt service decreases to \$5.9 billion, and the ratio of debt service to General Fund revenues drops to 3.23 percent.

³ Excludes special fund bonds, for which debt service each year is paid from dedicated funds.

⁴ Source: Department of Finance Summary Charts, 2021 Budget Act.

⁵ Does not reflect offsets due to subsidy payments from the federal government for BABs or transfers from special funds. When debt service is adjusted to account for approximately \$1.9 billion of estimated offsets, the 2021-22 debt service decreases to \$6.1 billion and the ratio of debt service to General Fund revenues drops to 3.47 percent.

⁶ Moody's calculation of net tax-supported debt includes GO bonds (non self-liquidating), LRBs, GO commercial paper notes, tobacco securitization bonds with a General Fund backstop, various regional center bonds, a P3 financing for the Long Beach Courthouse, and State Building Lease Purchase bonds.

FIGURE 13

DEBT TO PERSONAL INCOME OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT TO PERSONAL INCOME (b)
Texas	Aaa/AAA/AAA	0.70%
North Carolina	Aaa/AAA/AAA	1.20%
Michigan	Aa1/AA/AA	1.20%
Florida	Aaa/AAA/AAA	1.30%
Georgia	Aaa/AAA/AAA	1.90%
Ohio	Aa1/AA+/AA+	2.10%
Pennsylvania	Aa3/A+/AA-	2.30%
<i>California</i>	<i>Aa2/AA-/AA</i>	<i>3.00%</i>
Illinois	Baa2/BBB/BBB-	4.50%
New York	Aa2/AA+/AA+	4.80%
MOODY'S MEDIAN ALL STATES		1.90%
MEDIAN FOR THE 10 MOST POPULOUS STATES		2.00%

(a) Moody's, S&P and Fitch ratings as of August 2021.

(b) Figures as reported by Moody's in its 2021 State Debt Medians Report released June 2021. As of end of calendar year 2020.

State Debt Medians report, Moody's lists the state's net tax-supported debt as percentage of GDP at 2.73 percent.⁶

DEBT RATIOS OF THE 10 MOST POPULOUS STATES

In its State Debt Medians report, Moody's calculates for each state the ratios of debt to personal income, debt per capita and debt as a percentage of GDP and provides the median ratios across all states. It's useful to compare California's debt levels with those of its "peer group" of the 10 most populous states. As shown in the tables, the median debt to personal income (Figure 13), debt per capita (Figure 14) and debt as a percentage of GDP (Figure 15) of these 10 states are, on average, in line with Moody's median for all states combined. California's ratios, however, rank well above the medians for the 10 most populous states.

FIGURE 14

DEBT PER CAPITA OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT PER CAPITA (b)
Texas	Aaa/AAA/AAA	\$365
North Carolina	Aaa/AAA/AAA	\$581
Michigan	Aa1/AA/AA	\$661
Florida	Aaa/AAA/AAA	\$710
Georgia	Aaa/AAA/AAA	\$987
Ohio	Aa1/AA+/AA+	\$1,146
Pennsylvania	Aa3/A+/AA-	\$1,448
<i>California</i>	<i>Aa2/AA-/AA</i>	<i>\$2,144</i>
Illinois	Baa2/BBB/BBB-	\$2,861
New York	Aa2/AA+/AA+	\$3,614
MOODY'S MEDIAN ALL STATES		\$1,039
MEDIAN FOR THE 10 MOST POPULOUS STATES		\$1,067

(a) Moody's, S&P and Fitch ratings as of August 2021.

(b) Figures as reported by Moody's in its 2021 State Debt Medians Report released June 2021. As of end of calendar year 2020.

FIGURE 15

DEBT AS A PERCENTAGE OF STATE GDP OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT AS % OF STATE GDP (b)(c)
Texas	Aaa/AAA/AAA	0.61%
North Carolina	Aaa/AAA/AAA	1.05%
Michigan	Aa1/AA/AA	1.28%
Florida	Aaa/AAA/AAA	1.41%
Georgia	Aaa/AAA/AAA	1.71%
Ohio	Aa1/AA+/AA+	1.98%
Pennsylvania	Aa3/A+/AA-	2.37%
<i>California</i>	<i>Aa2/AA-/AA</i>	<i>2.73%</i>
New York	Aa2/AA+/AA+	4.11%
Illinois	Baa2/BBB/BBB-	4.17%
MOODY'S MEDIAN ALL STATES		2.04%
MEDIAN FOR THE 10 MOST POPULOUS STATE		1.85%

(a) Moody's, S&P and Fitch ratings as of August 2021.

(b) Figures as reported by Moody's in its 2021 State Debt Medians Report released June 2021. As of end of calendar year 2020.

(c) State GDP numbers have a one-year lag.

SECTION 4 ANALYSIS OF THE STATE'S CREDIT RATINGS

The state's GO bond ratings are, as of the date of this report, "AA" from Fitch, "Aa2" from Moody's and "AA-" from S&P. A summary of the latest rating agencies' actions on the state's GO bonds is presented in Figure 16.

Since the last DAR, in October 2020, the ratings on the state's GO bonds remain unchanged. However, in September 2021, S&P revised its outlook on the state from stable to positive. A summary of the rating agencies' opinion of the state's credit strengths and challenges is presented in Figure 17.

FIGURE 16

LATEST RATING ACTIONS

RATING AGENCY	ACTION	DATE
Fitch	Affirmed "AA stable" rating	August 2021
Moody's	Affirmed "Aa2 stable" rating	August 2021
S&P	Affirmed the "AA-" rating and revised the outlook from "stable" to "positive"	August 2021

FIGURE 17

STATE OF CALIFORNIA GENERAL OBLIGATION RATING AGENCY COMMENTARY

	FITCH	MOODY'S	S&P
RATING STRENGTHS	<ul style="list-style-type: none"> State's large and diverse economy Material improvement in ability to address economic and revenue cyclicalities Prudent control of spending and budgetary debt repayment 	<ul style="list-style-type: none"> Massive economic base that accounts for 14% of U.S. GDP Healthy budget reserves and significant liquidity to mitigate revenue volatility risk 	<ul style="list-style-type: none"> Strong economy and good economic diversity going into recent recession Strong revenues, reserves, and overall liquidity Moderately high but stable debt ratios
RATING CHALLENGES	<ul style="list-style-type: none"> Cyclical and volatile nature of revenue base Spending flexibility is somewhat more restricted than most states due to constitutional requirements for funding education and voter initiatives that limit state discretion 	<ul style="list-style-type: none"> High revenue volatility given the state's heavy reliance on income taxes Lower flexibility to adjust spending and raise taxes compared to other states Above average leverage and fixed cost burdens 	<ul style="list-style-type: none"> High cost of housing and social service spending relative to other states Difficult to forecast revenues because of volatile revenue base Minimal prefunding of retiree health care benefits Projected out year decline in reserves

APPENDIX A | THE STATE'S DEBT

AUTHORIZED AND OUTSTANDING NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS AS OF JUNE 30, 2021 (DOLLARS IN THOUSANDS)

GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING (h)	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
1988 School Facilities Bond Act (b)	11/08/88	\$797,745	\$19,235	\$ -	\$ -
1990 School Facilities Bond Act (b)	06/05/90	797,875	38,165	-	-
1992 School Facilities Bond Act (b)	11/03/92	898,211	83,635	-	-
California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002 (f)	03/05/02	2,596,643	1,699,205	22,490	131,293
California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018	06/05/18	4,100,000	107,575	183,040	3,786,260
California Library Construction and Renovation Bond Act of 1988 (b)	11/08/88	72,405	4,645	-	-
* California Park and Recreational Facilities Act of 1984 (b)	06/05/84	368,900	4,595	-	-
* California Parklands Act of 1980	11/04/80	285,000	790	-	-
California Reading and Literacy Improvement and Public Library Construction and Renovation Bond Act of 2000	03/07/00	350,000	198,610	-	5,040
* California Safe Drinking Water Bond Law of 1976 (b)	06/08/76	172,500	1,410	-	-
* California Safe Drinking Water Bond Law of 1984	11/06/84	75,000	805	-	-
* California Safe Drinking Water Bond Law of 1986	11/04/86	100,000	9,255	-	-
California Safe Drinking Water Bond Law of 1988	11/08/88	75,000	14,695	-	-
California Stem Cell Research and Cures Bond Act of 2004	11/02/04	3,000,000	1,005,670	4,030	132,590
California Stem Cell Research, Treatments, and Cures Bond Act of 2020	11/03/20	5,500,000	180,635	-	5,319,365
* California Wildlife, Coastal, and Park Land Conservation Act (b)	06/07/88	768,670	47,330	-	-
Children's Hospital Bond Act of 2004	11/02/04	750,000	529,150	-	1,530
Children's Hospital Bond Act of 2008	11/04/08	980,000	767,815	24,785	60,645
Children's Hospital Bond Act of 2018	11/06/18	1,500,000	7,800	113,310	1,376,600
Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (Hi-Ed)	11/03/98	2,500,000	1,278,080	-	-

**AUTHORIZED AND OUTSTANDING
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2021 (DOLLARS IN THOUSANDS) CONTINUED**

GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING (h)	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (K-12)	11/03/98	6,700,000	2,656,030	520	100
* Clean Air and Transportation Improvement Bond Act of 1990	06/05/90	1,990,000	345,195	-	-
* Clean Water Bond Law of 1984	11/06/84	325,000	2,780	-	-
* Clean Water and Water Conservation Bond Law of 1978	06/06/78	375,000	1,940	-	-
Clean Water and Water Reclamation Bond Law of 1988	11/08/88	65,000	8,245	-	-
* Community Parklands Act of 1986	06/03/86	100,000	755	-	-
* County Correctional Facility Capital Expenditure Bond Act of 1986	06/03/86	495,000	3,945	-	-
County Correctional Facility Capital Expenditure and Youth Facility Bond Act of 1988	11/08/88	500,000	23,355	-	-
Disaster Preparedness and Flood Prevention Bond Act of 2006 (e)	11/07/06	3,990,000	2,727,440	117,635	592,352
Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990 (g)	06/05/90	292,510	14,630	-	-
* Fish and Wildlife Habitat Enhancement Act of 1984	06/05/84	85,000	2,995	-	-
Higher Education Facilities Bond Act of 1988	11/08/88	600,000	10,310	-	-
Higher Education Facilities Bond Act of June 1990	06/05/90	450,000	17,905	-	540
Higher Education Facilities Bond Act of June 1992	06/02/92	900,000	119,965	-	-
Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006	11/07/06	19,925,000	14,779,400	99,650	810,350
Housing and Emergency Shelter Trust Fund Act of 2002	11/05/02	2,100,000	106,685	-	71,395
Housing and Emergency Shelter Trust Fund Act of 2006	11/07/06	2,850,000	861,055	23,710	262,330
Housing and Homeless Bond Act of 1990	06/05/90	150,000	610	-	-
Kindergarten Through Community College Public Education Facilities Bond Act of 2016 (CCC)	11/08/16	2,000,000	343,565	41,790	1,604,170
Kindergarten Through Community College Public Education Facilities Bond Act of 2016 (K-12)	11/08/16	7,000,000	3,644,970	11,155	2,885,950
Kindergarten-University Public Education Facilities Bond Act of 2002 (Hi-Ed)	11/05/02	1,650,000	1,047,295	-	-
Kindergarten-University Public Education Facilities Bond Act of 2002 (K-12)	11/05/02	11,400,000	7,103,715	-	6,240
Kindergarten-University Public Education Facilities Bond Act of 2004 (Hi-Ed)	03/02/04	2,300,000	1,651,350	-	58,019
Kindergarten-University Public Education Facilities Bond Act of 2004 (K-12)	03/02/04	10,000,000	6,703,735	3,460	16,160
Kindergarten-University Public Education Facilities Bond Act of 2006 (Hi-Ed)	11/07/06	3,087,000	2,472,075	-	38,775
Kindergarten-University Public Education Facilities Bond Act of 2006 (K-12)	11/07/06	7,329,000	5,483,955	7,525	179,100
* New Prison Construction Bond Act of 1986	11/04/86	500,000	905	-	-
New Prison Construction Bond Act of 1988	11/08/88	817,000	2,300	-	1,245
New Prison Construction Bond Act of 1990	06/05/90	450,000	665	-	605
Passenger Rail and Clean Air Bond Act of 1990	06/05/90	1,000,000	1,825	-	-

**AUTHORIZED AND OUTSTANDING
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2021 (DOLLARS IN THOUSANDS) CONTINUED**

GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING (h)	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
Public Education Facilities Bond Act of 1996 (Higher Education)	03/26/96	975,000	324,475	-	4,650
Public Education Facilities Bond Act of 1996 (K-12) (c)	03/26/96	2,012,035	500,340	-	-
Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act (e)	03/07/00	1,884,000	1,059,365	-	43,346
Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (e)(f)	11/07/06	5,266,357	3,262,445	146,200	885,602
Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000	03/07/00	2,100,000	1,069,040	6,660	26,860
Safe, Clean, Reliable Water Supply Act (e)	11/05/96	969,500	364,325	-	62,915
Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century	11/04/08	9,950,000	3,001,425	100,910	5,301,455
* School Building and Earthquake Bond Act of 1974	11/05/74	150,000	6,650	-	-
School Facilities Bond Act of 1990	11/06/90	800,000	60,935	-	-
School Facilities Bond Act of 1992	06/02/92	1,900,000	177,980	-	10,280
Seismic Retrofit Bond Act of 1996	03/26/96	2,000,000	756,525	-	-
* State, Urban, and Coastal Park Bond Act of 1976	11/02/76	280,000	1,655	-	-
Veterans Homes Bond Act of 2000	03/07/00	50,000	30,635	-	975
Veterans Housing and Homeless Prevention Bond Act of 2014	06/03/14	600,000	127,720	58,815	408,480
Veterans and Affordable Housing Bond Act of 2018	11/06/18	3,000,000	154,515	17,605	2,826,885
Voting Modernization Bond Act of 2002	03/05/02	200,000	41,250	1,035	13,260
Water Conservation Bond Law of 1988 (g)	11/08/88	54,765	9,005	-	-
* Water Conservation and Water Quality Bond Law of 1986 (e)	06/03/86	136,500	11,545	-	230
Water Quality, Supply, and Infrastructure Improvement Act of 2014 (f)	11/04/14	7,465,000	1,475,880	158,385	5,644,975
Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (e)	11/05/02	3,345,000	2,263,050	33,525	225,454
TOTAL GENERAL FUND BONDS		\$158,251,616	\$70,837,455	\$1,176,235	\$32,796,021

(a) A total of not more than \$2.3 billion of commercial paper principal plus accrued interest may be owing at one time. Bond acts marked with an asterisk (*) are not legally permitted to utilize commercial paper.

(b) SB 1018 (06/27/2012) reduced the voter authorized amount.

(c) SB 1018 (06/27/2012) and SB 71 (06/27/2013) reduced the voter authorized amount.

(d) AB 639 (10/10/2013) reduced the voter authorized amount.

(e) AB 1471 (11/04/2014) reduced the voter authorized amount.

(f) SB 5 (6/5/2018) reduced the voter authorized amount.

(g) AB 92 (6/29/2020) reduced the voter authorized amount.

(h) Does not include \$1,076,210,000 of State of California Various Purpose General Obligation Refunding Bonds sold on April 20, 2021 (the "April 2021 Forward Delivery GO Bonds"), and issued on September 2, 2021; the proceeds from the April 2021 Forward Delivery GO Bonds will refund \$1,348,500,000 of outstanding General Fund Bonds (Non-Self Liquidating).

**AUTHORIZED AND OUTSTANDING
SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2021 (DOLLARS IN THOUSANDS)**

ENTERPRISE FUND BONDS (SELF-LIQUIDATING)	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
* California Water Resources Development Bond Act	11/08/60	\$1,750,000	\$2,090	\$ -	\$167,600
Veterans Bond Act of 1986	06/03/86	850,000	3,465	-	-
Veterans Bond Act of 1988	06/07/88	510,000	6,240	-	-
Veterans Bond Act of 1990	11/06/90	400,000	14,335	-	-
Veterans Bond Act of 1996	11/05/96	400,000	38,320	-	-
Veterans Bond Act of 2000	11/07/00	500,000	114,555	-	-
Veterans Bond Act of 2008 (b)	11/04/08	300,000	219,260	-	-
Veterans and Affordable Housing Bond Act of 2018 (CalVet)	11/06/18	1,000,000	188,585	-	803,365
TOTAL ENTERPRISE FUND BONDS		\$5,710,000	\$586,850	\$ -	\$970,965

(a) Bond acts marked with an asterisk (*) are not legally permitted to utilize commercial paper.

(b) AB 639 (10/10/2013) reduced the voter authorized amount

**AUTHORIZED AND OUTSTANDING
LEASE REVENUE BONDS
AS OF JUNE 30, 2021 (DOLLARS IN THOUSANDS)**

GENERAL FUND SUPPORTED ISSUES (a):	OUTSTANDING (b)	AUTHORIZED BUT UNISSUED
STATE PUBLIC WORKS BOARD ISSUES (BY FACILITY LESSEE)		
Board of State and Community Corrections	\$79,165	\$1,142,203
California Community Colleges	102,700	-
California Department of Corrections and Rehabilitation	3,782,740	761,755
California Department of Forestry and Fire Protection	214,430	164,187
California Department of Veterans Affairs	241,705	324,933
Department of Developmental Services	85,085	-
Department of Education	116,145	-
Department of General Services	987,885	2,814,544
Department of Public Health	66,010	-
Department of State Hospitals	269,405	-
Judicial Council	1,927,700	1,373,064
Other State Facilities	255,255	626,069
Trustees of the California State University	137,350	-
TOTAL STATE PUBLIC WORKS BOARD ISSUES	\$8,265,575	\$7,206,755
TOTAL NON-STATE PUBLIC WORKS BOARD STATE FACILITIES ISSUES (c)	\$72,350	\$-
TOTAL GENERAL FUND SUPPORTED ISSUES	\$8,337,925	\$7,206,755

(a) Lease payments that secure each of these issues are payable from the operating budget of the respective lessees. The operating budgets of the lessees are primarily, but not exclusively, derived from the General Fund.

(b) Does not include \$502,615,000 of State Public Works Board ("SPWB") Lease Revenue Refunding Bonds 2021 Series A (Various Capital Projects) sold on October 28, 2020 (the "2021A Bonds"), and expected to be issued on October 14, 2021; the proceeds from the SPWB 2021A Bonds are expected to refund \$603,880,000 of outstanding SPWB bonds. Does not include \$585,545,000 of SPWB Lease Revenue Refunding Bonds 2022 Series A (Various Capital Projects) and \$109,930,000 of SPWB Lease Revenue Refunding Bonds (Department of Corrections and Rehabilitation) 2022 Series B (Kern Valley State Prison) sold on March 23, 2021 (the "2022A and 2022B Bonds"), and expected to be issued on March 17, 2022; the proceeds from the SPWB 2022A and 2022B Bonds are expected to refund \$879,350,000 of outstanding SPWB bonds.

(c) Includes \$22,840,000 Sacramento City Financing Authority Lease-Revenue Refunding Bonds State of California - Cal/EPA Building, 2013 Series A, which are supported by lease payments from the California Environmental Protection Agency; these lease payments are subject to annual appropriation by the State Legislature.

APPENDIX B | THE STATE'S DEBT SERVICE

**SCHEDULE OF DEBT SERVICE REQUIREMENTS
FOR GENERAL FUND NON-SELF LIQUIDATING BONDS
FIXED RATE, AS OF JUNE 30, 2021**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT (a)		
	INTEREST (b)	PRINCIPAL	TOTAL (c)
2022 (d)	\$3,436,736,833.84	\$3,486,080,000.00	\$6,922,816,833.84
2023	3,274,783,773.14	3,197,290,000.00	6,472,073,773.14
2024	3,135,790,256.91	3,081,085,000.00	6,216,875,256.91
2025	2,998,667,311.87	3,092,450,000.00	6,091,117,311.87
2026	2,854,294,884.95	3,141,050,000.00	5,995,344,884.95
2027	2,699,374,687.97	3,186,000,000.00	5,885,374,687.97
2028	2,559,486,390.40	3,304,790,000.00	5,864,276,390.40
2029	2,411,958,254.15	3,278,725,000.00	5,690,683,254.15
2030	2,258,422,090.40	3,124,245,000.00	5,382,667,090.40
2031	2,115,604,361.80	3,213,785,000.00	5,329,389,361.80
2032	1,975,670,404.45	3,066,610,000.00	5,042,280,404.45
2033	1,825,850,290.84	3,133,605,000.00	4,959,455,290.84
2034	1,698,175,969.70	3,496,345,000.00	5,194,520,969.70
2035	1,463,840,341.66	3,006,340,000.00	4,470,180,341.66
2036	1,307,127,968.65	3,004,865,000.00	4,311,992,968.65
2037	1,164,863,995.05	2,976,755,000.00	4,141,618,995.05
2038	1,006,926,925.18	2,953,565,000.00	3,960,491,925.18
2039	886,400,425.30	3,403,005,000.00	4,289,405,425.30
2040	603,235,413.85	1,975,040,000.00	2,578,275,413.85
2041	442,727,762.52	2,179,625,000.00	2,622,352,762.52
2042	339,967,762.52	1,394,000,000.00	1,733,967,762.52
2043	283,197,887.52	1,326,325,000.00	1,609,522,887.52
2044	206,963,978.14	1,039,660,000.00	1,246,623,978.14
2045	169,761,843.76	893,925,000.00	1,063,686,843.76
2046	126,005,968.76	850,000,000.00	976,005,968.76
2047	88,905,968.76	650,000,000.00	738,905,968.76
2048	59,995,221.88	650,000,000.00	709,995,221.88
2049	41,059,475.00	315,000,000.00	356,059,475.00
2050	25,934,475.00	675,000,000.00	700,934,475.00
2051	4,000,000.00	250,000,000.00	254,000,000.00
TOTAL	\$41,465,730,923.97	\$69,345,165,000.00	\$110,810,895,923.97

(a) Does not include debt service on \$1,076,210,000 of State of California Various Purpose General Obligation Refunding Bonds sold on April 20, 2021 (the "April 2021 Forward Delivery GO Bonds"), and issued on September 2, 2021; the proceeds of the April 2021 Forward Delivery GO Bonds will refund \$1,348,500,000 of outstanding principal (plus accrued interest to the redemption date) of general obligation debt.

(b) The amounts do not reflect any interest subsidy under the Build America Bonds program. Subsidy not pledged to the repayment of debt service.

(c) Includes scheduled mandatory sinking fund payments. Does not include outstanding commercial paper.

(d) Represents the debt service requirements from July 1, 2021 through June 30, 2022.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS
FOR GENERAL FUND NON-SELF LIQUIDATING BONDS
VARIABLE RATE, AS OF JUNE 30, 2021**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST (a)	PRINCIPAL	TOTAL (b)
2022 (c)	\$4,092,029.48	\$18,100,000.00	\$22,192,029.48
2023	4,089,615.81	22,600,000.00	26,689,615.81
2024	4,114,823.85	57,900,000.00	62,014,823.85
2025	4,059,371.34	38,800,000.00	42,859,371.34
2026	4,059,567.23	67,900,000.00	71,959,567.23
2027	4,060,626.04	13,300,000.00	17,360,626.04
2028	3,517,740.04	298,900,000.00	302,417,740.04
2029	2,524,794.71	79,600,000.00	82,124,794.71
2030	1,783,403.04	269,290,000.00	271,073,403.04
2031	1,010,874.35	176,800,000.00	177,810,874.35
2032	475,637.03	226,800,000.00	227,275,637.03
2033	29,745.37	120,600,000.00	120,629,745.37
2034	18,754.71	300,000.00	318,754.71
2035	18,709.01	-	18,709.01
2036	18,790.06	-	18,790.06
2037	18,627.89	-	18,627.89
2038	18,708.97	-	18,708.97
2039	18,708.98	-	18,708.98
2040	18,734.69	400,000.00	418,734.69
2041	18,731.34	-	18,731.34
2042	18,607.89	-	18,607.89
2043	18,607.90	-	18,607.90
2044	18,519.51	20,000,000.00	20,018,519.51
2045	16,462.46	20,000,000.00	20,016,462.46
2046	14,489.16	20,000,000.00	20,014,489.16
2047	11,052.98	21,000,000.00	21,011,052.98
2048	1,822.82	20,000,000.00	20,001,822.82
TOTAL	\$34,067,556.66	\$1,492,290,000.00	\$1,526,357,556.66

(a) The estimate of future interest payments is based on rates in effect as of June 30, 2021. The interest rates for the daily, weekly and monthly rate bonds range from 0.01-0.87%.

(b) Includes scheduled mandatory sinking fund payments. Does not include outstanding commercial paper.

(c) Represents the estimated debt service requirements from July 1, 2021 through June 30, 2022.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS
FOR ENTERPRISE FUND SELF LIQUIDATING BONDS
FIXED RATE, AS OF JUNE 30, 2021**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST	PRINCIPAL	TOTAL (a)
2022 (b)	\$18,303,988.79	\$9,180,000.00	\$27,483,988.79
2023	18,148,682.54	3,200,000.00	21,348,682.54
2024	18,127,877.54	2,145,000.00	20,272,877.54
2025	18,058,577.54	7,770,000.00	25,828,577.54
2026	17,939,862.54	6,410,000.00	24,349,862.54
2027	17,531,655.04	25,970,000.00	43,501,655.04
2028	16,867,938.16	23,210,000.00	40,077,938.16
2029	16,128,311.90	30,365,000.00	46,493,311.90
2030	14,958,937.52	45,720,000.00	60,678,937.52
2031	13,489,680.02	45,335,000.00	58,824,680.02
2032	12,256,615.02	29,810,000.00	42,066,615.02
2033	11,190,528.77	33,515,000.00	44,705,528.77
2034	10,122,221.27	30,180,000.00	40,302,221.27
2035	9,378,442.52	16,250,000.00	25,628,442.52
2036	8,949,473.77	13,800,000.00	22,749,473.77
2037	8,552,541.27	14,345,000.00	22,897,541.27
2038	8,133,943.14	14,920,000.00	23,053,943.14
2039	7,780,148.76	9,910,000.00	17,690,148.76
2040	7,495,875.01	10,300,000.00	17,795,875.01
2041	7,094,018.76	16,845,000.00	23,939,018.76
2042	6,494,836.26	21,430,000.00	27,924,836.26
2043	5,768,181.26	23,420,000.00	29,188,181.26
2044	4,938,041.26	25,955,000.00	30,893,041.26
2045	4,012,104.38	27,075,000.00	31,087,104.38
2046	3,032,557.50	28,145,000.00	31,177,557.50
2047	2,081,125.00	25,135,000.00	27,216,125.00
2048	1,231,690.00	22,150,000.00	23,381,690.00
2049	599,250.00	12,905,000.00	13,504,250.00
2050	249,100.00	7,010,000.00	7,259,100.00
2051	66,675.00	4,445,000.00	4,511,675.00
TOTAL	\$288,982,880.54	\$586,850,000.00	\$875,832,880.54

(a) Includes scheduled mandatory sinking fund payments.

(b) Represents the debt service requirements from July 1, 2021 through June 30, 2022.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS
FOR LEASE-REVENUE DEBT
FIXED RATE, AS OF JUNE 30, 2021**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT (a)		
	INTEREST (b)	PRINCIPAL	TOTAL (c)
2022 (d)	\$407,180,192.98	\$533,295,000.00	\$940,475,192.98
2023	381,987,799.17	492,855,000.00	874,842,799.17
2024	357,863,369.40	491,395,000.00	849,258,369.40
2025	333,277,734.89	511,480,000.00	844,757,734.89
2026	307,459,982.37	526,910,000.00	834,369,982.37
2027	280,762,797.62	553,540,000.00	834,302,797.62
2028	253,145,109.97	567,880,000.00	821,025,109.97
2029	224,865,039.10	535,725,000.00	760,590,039.10
2030	198,039,267.64	529,450,000.00	727,489,267.64
2031	172,011,601.84	524,595,000.00	696,606,601.84
2032	144,990,194.70	539,210,000.00	684,200,194.70
2033	118,833,193.14	473,100,000.00	591,933,193.14
2034	94,577,934.42	458,810,000.00	553,387,934.42
2035	70,543,509.06	422,415,000.00	492,958,509.06
2036	51,594,943.76	282,895,000.00	334,489,943.76
2037	38,492,943.76	272,230,000.00	310,722,943.76
2038	25,292,150.01	203,025,000.00	228,317,150.01
2039	16,003,387.51	148,485,000.00	164,488,387.51
2040	9,837,718.76	107,065,000.00	116,902,718.76
2041	6,686,640.63	26,280,000.00	32,966,640.63
2042	5,566,271.88	27,405,000.00	32,971,271.88
2043	4,397,318.76	28,565,000.00	32,962,318.76
2044	3,177,781.26	29,795,000.00	32,972,781.26
2045	1,905,118.76	31,055,000.00	32,960,118.76
2046	798,846.88	20,465,000.00	21,263,846.88
TOTAL	\$3,509,290,848.27	\$8,337,925,000.00	\$11,847,215,848.27

(a) Does not include debt service on \$502,615,000 of State Public Works Board ("SPWB") Lease Revenue Refunding Bonds 2021 Series A (Various Capital Projects) sold on October 28, 2020 (the "2021A Bonds"), and expected to be issued on October 14, 2021; the proceeds from the SPWB 2021A Bonds are expected to refund \$603,880,000 of outstanding principal (plus accrued interest to the redemption date) of SPWB lease revenue debt. Does not include debt service on \$585,545,000 of SPWB Lease Revenue Refunding Bonds 2022 Series A (Various Capital Projects) and on \$109,930,000 of SPWB Lease Revenue Refunding Bonds (Department of Corrections and Rehabilitation) 2022 Series B (Kern Valley State Prison) sold on March 23, 2021 (the "2022A and 2022B Bonds"), and expected to be issued on March 17, 2022; the proceeds from the SPWB 2022A and 2022B Bonds are expected to refund \$879,350,000 of outstanding principal (plus accrued interest to the redemption date) of SPWB lease revenue debt.

(b) The amounts do not reflect any interest subsidy under the Build America Bonds program. Subsidy not pledged to the repayment of debt service.

(c) Includes scheduled mandatory sinking fund payments.

(d) Represents the debt service requirements from July 1, 2021 through June 30, 2022.

**ESTIMATED DEBT SERVICE REQUIREMENTS
ON INTENDED SALES OF AUTHORIZED BUT UNISSUED BONDS
DURING FISCAL YEARS 2021-22 AND 2022-23 (a)**

FISCAL YEAR ENDING JUNE 30	FY 2021-22 GO SALES DEBT SERVICE	FY 2022-23 GO SALES DEBT SERVICE	FY 2021-22 LRB SALES DEBT SERVICE	FY 2022-23 LRB SALES DEBT SERVICE	TOTAL DEBT SERVICE ALL SALES
2022	\$50,750,000.00	\$ -	\$14,166,689.00	\$ -	\$64,916,689.00
2023	453,275,327.50	64,000,000.00	143,655,487.50	4,781,466.00	665,712,281.00
2024	445,331,982.50	232,533,660.00	143,660,603.00	63,083,414.00	884,609,659.50
2025	437,388,637.50	228,266,980.00	143,649,257.00	63,095,286.00	872,400,160.50
2026	429,445,292.50	224,000,300.00	143,643,447.00	63,097,325.00	860,186,364.50
2027	421,501,947.50	219,733,620.00	143,658,675.00	63,111,434.00	848,005,676.50
2028	413,558,602.50	215,466,940.00	143,641,169.50	63,110,174.00	835,776,886.00
2029	405,615,257.50	211,200,260.00	143,647,159.00	63,096,189.00	823,558,865.50
2030	397,671,912.50	206,933,580.00	143,646,937.00	63,087,133.00	811,339,562.50
2031	389,728,567.50	202,666,900.00	143,656,292.00	63,114,281.00	799,166,040.50
2032	381,785,222.50	198,400,220.00	143,645,432.50	63,093,991.00	786,924,866.00
2033	373,841,877.50	194,133,540.00	143,650,147.00	63,089,123.00	774,714,687.50
2034	365,898,532.50	189,866,860.00	143,639,953.00	63,115,324.00	762,520,669.50
2035	357,955,187.50	185,600,180.00	143,645,144.00	63,093,849.00	750,294,360.50
2036	350,011,842.50	181,333,500.00	143,649,770.00	63,096,920.00	738,092,032.50
2037	342,068,497.50	177,066,820.00	143,648,446.00	63,094,855.00	725,878,618.50
2038	334,125,152.50	172,800,140.00	122,771,938.50	63,099,238.00	692,796,469.00
2039	326,181,807.50	168,533,460.00	122,763,695.00	7,187,032.00	624,665,994.50
2040	318,238,462.50	164,266,780.00	122,770,840.00	7,182,740.00	612,458,822.50
2041	310,295,117.50	160,000,100.00	122,767,476.00	7,189,756.00	600,252,449.50
2042	302,351,772.50	155,733,420.00	122,768,881.50	7,187,771.00	588,041,845.00
2043	294,408,427.50	151,466,740.00	122,769,013.50	7,181,466.00	575,825,647.00
2044	286,465,082.50	147,200,060.00	122,767,263.50	7,185,542.00	563,617,948.00
2045	278,521,737.50	142,933,380.00	122,752,867.00	7,184,371.00	551,392,355.50
2046	270,578,392.50	138,666,700.00	122,764,768.50	7,182,747.00	539,192,608.00
2047	262,635,047.50	134,400,020.00	122,765,673.50	7,184,939.00	526,985,680.00
2048	254,691,702.50	130,133,340.00	-	7,185,648.00	392,010,690.50
2049	246,748,357.50	125,866,660.00	-	-	372,615,017.50
2050	238,805,012.50	121,599,980.00	-	-	360,404,992.50
2051	230,861,667.50	117,333,300.00	-	-	348,194,967.50
2052	222,908,497.50	113,066,620.00	-	-	335,975,117.50
2053	-	108,790,140.00	-	-	108,790,140.00
TOTAL	\$10,193,644,925.00	\$5,183,994,200.00	\$3,396,567,025.50	\$1,023,112,014.00	\$19,797,318,164.50

(a) Estimated issuance figures above are as of the date of this report. Estimated debt issuance amounts are updated throughout the fiscal year. The actual amount of bonds sold will depend on factors such as overall budget constraints, market conditions and other considerations. The state also expects to issue refunding bonds as market conditions warrant. The actual amount of bonds and refunding bonds sold will have a direct impact on the accuracy of the figures presented.



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