STATE OF CALIFORNIA | DEBT AFFORDABILITY REPORT | OCTOBER 2015

CALIFORNIA RATINGS ON THE RISE

JOHN CHIANG | CALIFORNIA STATE TREASURER

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October 1, 2015

Fellow Californians:

Since taking office in January, I have made it my priority as the State's banker to take advantage of presently-stable capital markets to finance California's infrastructure needs at rates that are at their lowest in a generation. At the same time, I am vigilant in advocating and implementing reforms that will prepare us for future economic downturns.

This 2015 Debt Affordability Report comes at a pivotal time for California. While we are grateful for the improved economy and the stabilization of California's finances, we face problems that have been neglected to the point that they now pose formidable risks to California's long-term fiscal health.

Since the end of the worst recession in more than seven decades, we have seen a vast improvement in our economy. Not only has the Golden State recovered every job lost during the downturn, but it has seen employment grow by more than 735,000 positions since its pre-recession peak. In addition, California last year accounted for more than 13 percent of the nation's total economic output as it produced a record $2.1 trillion in gross state product (GSP). This compares to the 9 percent contribution of Texas, the state with the second largest GSP.

During this window of economic expansion when we can govern outside of fiscal crisis, State leaders have exercised improved foresight and discipline in strengthening the State's fiscal plumbing so it can better weather the next economic contraction. By building a $3.5 billion rainy day fund by the end of this fiscal year, adopting pension reform, fostering a liquidity position unseen in two decades, and paying-off tens of billions in budgetary borrowings and deferrals, California is actively managing risks that can undermine its long-term economic prosperity.

The major rating agencies have taken notice, rewarding California with three rating upgrades since last fall. These upgrades have the effect of lowering borrowing costs, therefore saving taxpayer money over time.

My office has taken advantage of these improved ratings and steady, low interest rates to refinance debt eight times in 2015. This may produce savings to the public of more than $2 billion, nearly $700 million of which benefits the General Fund.

Despite these positive developments, California still has much to do, particularly in the area of how it manages its long-term unfunded liabilities. At $72 billion as of June 2014, the unfunded liability accrued by California to provide retiree health care to its public workforce is rapidly approaching the magnitude of its more high profile counterpart – public pensions. Pension reforms have begun to reduce that liability; health care costs remain a difficult problem.

The good news is that Governor Jerry Brown and State employee representatives are currently at the collective bargaining table working in good faith to pay down this liability in a manner that is fair to both employees and taxpayers. In the past month alone, two labor contracts have been tentatively approved, which create a more fiscally-sustainable retiree health care benefit system. Negotiations for the State's remaining labor organizations are pending.

How was the State able to address an issue that has been neglected for years, with past Sacramento leaders more than eager to pass along the costs of providing these benefits to future generations of Californians? A decade ago, the Governmental Accounting Standards Board – a national organization that establishes accounting and reporting standards for governmental agencies – adopted rules requiring state and local governments to periodically measure the costs of providing retiree health care to employees. As State Controller during the rule's roll-out, I embraced the valuations and went further by proposing an approach to reduce the unfunded liability by tens of billions of dollars. That approach is a "must have" cornerstone in the deals currently being negotiated.

How did we turn the corner? It began with a requirement to objectively define the size and contours of the problem. Once Sacramento policymakers were confronted with reliable, no-nonsense facts showing a liability growing at an alarming rate of 50 percent over eight years (i.e., $48 billion in 2007 to $72 billion in 2014), the seeds for action were sown.

In a similar vein, I strongly believe we need to conduct a full accounting of all the state's capital assets – including its crumbling roads, bridges and levees. We then need to assess the remaining useful life of this deteriorating infrastructure and determine the cost of repairs and ultimate replacement. This is not just another study. Instead, it is meant to provide us with precise, actionable data necessary to determine our infrastructure spending priorities and best use of limited resources. Just as a reliable accounting of retiree health care costs laid a foundation for change, a similar accounting is needed for roads, schools, levees, and other critical infrastructure necessary to sustain our economy and way of life.

At the end of this year, I will publish a report elaborating on this and other proposals for improving the State's fiscal condition.

I am proud to be your Treasurer and I am grateful for the dedication and expertise of professionals within my office, elsewhere in State government, and from the private sector who help us keep California's fiscal affairs running smoothly. We are fortunate to finally enjoy economic good times, and we will continue to do all we can to make sure that prosperity continues into the future.

JOHN CHIANG
California State Treasurer

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PREFACE

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 (2015-16) and the following year (2016-17), 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 bonds 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 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 behind 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, 2015-16 means the 2015-16 fiscal year ending June 30, 2016.

A DISCUSSION ABOUT CALIFORNIA DEBT

Actions taken by the Governor, Legislature and voters in the past five years, including pay-down of the State's past budgetary borrowings, strengthening of the State's Rainy Day Fund, pension reform to reduce unfunded liabilities and early repayment of the Economic Recovery Bonds have together significantly improved the State's fiscal health.

The results?

BOND RATINGS HAVE IMPROVED

Since the last Debt Affordability Report (DAR) in October 2014, the rating agencies have clearly acknowledged the State's stronger financial condition.

S&P	A	NOVEMBER 2014 →	A+	JULY 2015 →	AA-
FITCH	A	FEBRUARY 2015 →	A+		

OUR RELATIVE BORROWING COSTS ARE DOWN

30-YEAR CALIFORNIA MMD CREDIT SPREADS TO "AAA" MMD

Source: TM3

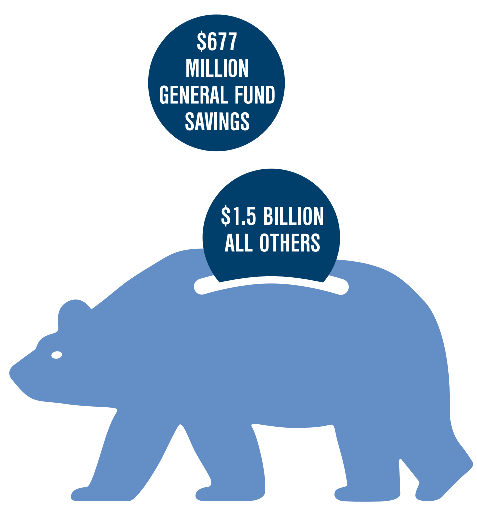
BORROWING COSTS ARE LOWER FOR THE STATE BECAUSE RATES IN GENERAL ARE LOWER AND CALIFORNIA'S CREDIT RATING IS BETTER

Anyone who has purchased a house knows that personal credit scores, such as FICO, affect the availability and cost of home mortgages. Similarly, ratings assigned by major national credit rating agencies – such as Moody's Investor Services (Moody's), Standard & Poor's Ratings Services (S&P) and Fitch Ratings (Fitch) – also affect what public-sector borrowers like the State pay when they borrow money to pay for long-term assets. The difference between this cost of borrowing and what the State would pay if it had a perfect AAA rating is called the credit spread. The figure above shows how this spread has narrowed as the state's fiscal condition and bond ratings have improved since the Great Recession.

DEBT REFINANCING WILL SAVE TAXPAYERS MORE THAN $2 BILLION

Lower interest rates, as well as lower credit spreads, have allowed the State to refinance significant amounts of its outstanding debt, just as a homeowner might refinance their mortgage when rates decline.

SAVINGS DUE TO DEBT REFINANCINGS IN 2015



THE STATE AVOIDS BORROWING TO FUND CASH FLOW

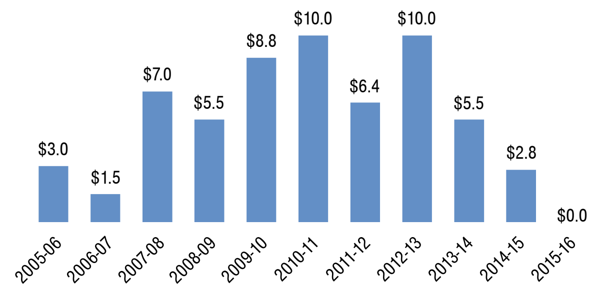
Even though this report is focused on long-term debt, it is important to note that short-term borrowing can have a very real impact on the State's credit rating, and thus affect the cost of long-term debt. As a result of California's improved financial condition, the State this year was able to avoid external, short-term borrowing for cash-flow purposes for only the second time in nearly 30 years. This is a very positive development. In the past, the State has issued anywhere from $1.5 billion to $10 billion of revenue anticipation notes (RANs) each year at a significant cost to Californians.

DESPITE GOOD ECONOMIC NEWS, WE STILL HAVE A LOT OF WORK TO DO

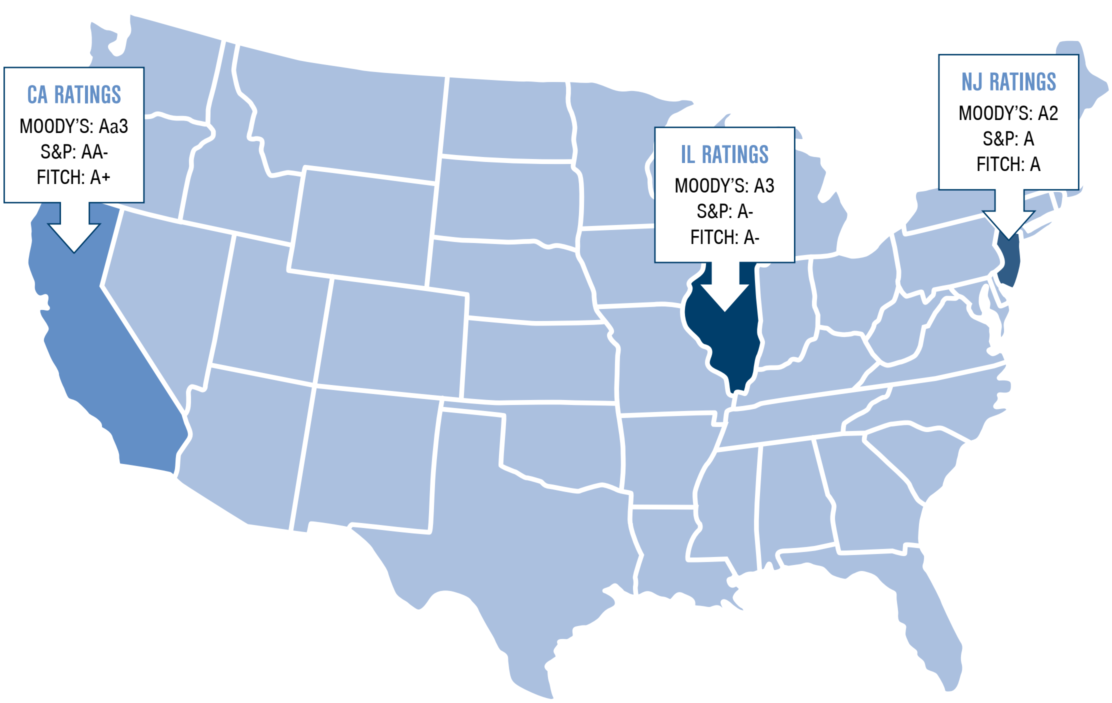
While California's improving credit rating is good news, we still remain near the ratings basement among the states. Only Illinois and New Jersey have lower credit ratings than California.

In general, the State will incur higher borrowing costs as a result of investors demanding higher investment yields because of our lower ratings. As of September 2015, such a scenario would result in about $25.5 million in higher debt service for every $1.0 billion in bonds issued over a

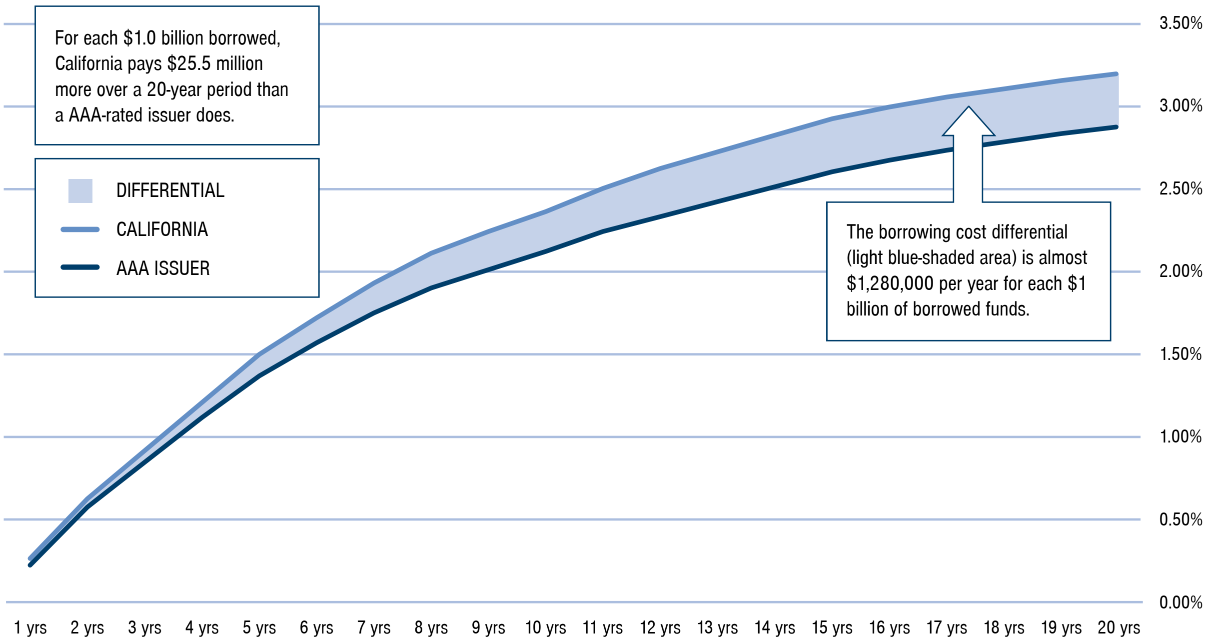
RANs ISSUANCE BY FISCAL YEAR ($ IN BILLIONS)



CALIFORNIA RATINGS STILL AMONG BOTTOM 3



COMPARING CALIFORNIA'S BORROWING COSTS TO AAA-RATED ISSUER



Source: TM3, as of September 22, 2015

20-year period when comparing rates to the AAA MMD benchmark. The phenomenon is shown in the figure above.

CONCLUSION

In 1960, Gov. Pat Brown's proposal to borrow $1.75 billion for the State Water Project seemed to be a breathtakingly large number. However, where would California be in 2015 if it had not made this essential investment in infrastructure required to serve its citizens?

This is the heart of the matter. Borrowing money in and of itself is not a bad practice. It is the purpose for which the money is borrowed that tests the wisdom of the borrowing decision. For example, few would argue that the leverage created by the city of Detroit, Michigan and Jefferson County, Alabama turned out well for their citizens. Here in California, we have also had direct experience with high levels of leverage or borrowed money in San Bernardino and Stockton. Too much debt may mean that a state, municipality or household is living beyond its means. However, just as it did in California in 1960, high levels of debt may also indicate that a state or community is making required investments that benefit all of its citizens.

This nuanced view is what opens the door to strong passions about the use of debt. Depending on how smartly we use it, it can be an important tool or a millstone around the neck of our stakeholders.

Consider the numerous projects that have been constructed for the benefit of all Californians using debt: instructional buildings and student housing at the University of California and the California State University systems; world-class seaports that were largely developed through the use of borrowed money, thus providing crucial infrastructure to fuel our modern economy; and, Gov. Pat Brown's State Water Project, which has transformed our state from an arid desert into the green grocer for the United States, and indeed, large parts of the world. Currently, the State has outstanding bonds totaling some $87 billion and has authorization to issue $34 billion more.

Still, borrowing may be the best choice to maintain or replace our aging infrastructure and finance other capital projects. To lower the cost of future borrowing we must continue to improve California's credit ratings. We must be determined to borrow prudently, only at the right time and only for the right projects.

Done right, borrowing can be a powerful tool to keep the state a hospitable place to live, work and shop. With that in mind, Treasurer John Chiang will keep working with the Governor and Legislature to be smart in how we use debt to keep California competitive in a global economy and meet the needs of all Californians.

Later this year the Treasurer's Office will issue a report looking at innovative ways to improve debt affordability, improve our stewardship of California's fiscal ecosystem and examine new products to meet modern fiscal needs.

SECTION 1 | MARKET FOR STATE BONDS

The State continues to be one of the largest issuers in the $3.7 trillion U.S. municipal bond market. Over the last five fiscal years, the State has issued an average of $6.5 billion of General Obligation (GO) bonds annually. In 2014-15, the State issued $6.6 billion of GO bonds. Of that total, $3.3 billion refunded already outstanding bonds to produce interest rate savings.

The market and price for the State's bonds are affected by factors specific to the State, as well as overall conditions in the capital markets. These factors include 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 stocks or other debt capital. Since the last DAR was published on October 1, 2014, municipal interest rates have been volatile, going through a period of decline through early February, 2015 and then rising significantly. Over the year as a whole, rates rose in shorter maturities and declined in longer maturities. In addition, with the continued improvement in the State's credit profile, interest rates on the State's bonds relative to those of other municipal issuers continued to improve substantially. The State's standing in the capital markets today is markedly stronger than it was just a few years ago.

STATE-SPECIFIC FACTORS

The State's credit profile has been improving significantly since 2012-13. Several factors have contributed to this ongoing positive trend:

- The 2015-16 State budget is the fifth consecutive budget adopted on-time, before the June 30 constitutional deadline.
- In recent years, the State has enacted significant structural fiscal reforms.
  - Most recently, in November 2014, voters approved Proposition 2, a constitutional amendment that strengthens the State's Rainy Day Fund, requires repayment of certain debt and unfunded liabilities and reduces the General Fund's reliance on capital gains revenues;
  - Prior recent reforms included an initiative which reinstated the majority vote for annual legislative approval of the State budget and the elimination of redevelopment agencies, which ended the involuntary redirection of tax revenues from schools and local governments and reduced the burden on the State's General Fund to backfill the schools' loss of money.
  - Together, these and other statutory changes have resulted in significant positive institutionalized changes to the State's financial management.
- The temporary personal income taxes and sales tax approved by voters in November 2012 remain in place. The personal income tax increases were approved for seven years commencing in calendar year 2012 and the sales tax hike for four years commencing in calendar year 2013.
- The Governor and Legislature have taken steps to substantially pay down the State's past budgetary borrowings before these temporary taxes expire. These prior budgetary borrowings reflected budget solutions adopted over the prior decade which, in effect, pushed costs out to future years. In recent years, the State has paid off billions of dollars of these budgetary borrowings. By the end of 2014-15, the Proposition 2 eligible budgetary

borrowings had been reduced to $4.6 billion, with the Department of Finance (DOF) projecting the remaining Proposition 2 budgetary borrowings will be repaid by the end of 2018-19.

- The State has finished each of the last two fiscal years with a positive General Fund balance, ending 2014-15 with a balance of $2.4 billion, of which $1.4 billion is in the Special Fund for Economic Uncertainties. In addition, the ending balance in the Budget Stabilization Account (BSA)/Rainy Day Fund was $1.6 billion.

- The State's 2015-16 budget projects continued improvement in the State's fiscal condition, with structurally balanced budgets through 2017-18, and a substantial $1.9 billion transfer to the BSA/Rainy Day Fund in 2015-16 bringing the BSA/Rainy Day Fund to $3.5 billion by June 30, 2016.

Because of these developments, as well as other improvements to the State's fiscal management, the State's GO bonds were upgraded by S&P in November 2014 from "A" to "A+", by Fitch in February 2015 from "A" to "A+", and again by S&P in July 2015 from "A+" to "AA-." Moody's last upgraded the State to "Aa3" from "A1" in June 2014, where it had been since April 2010.

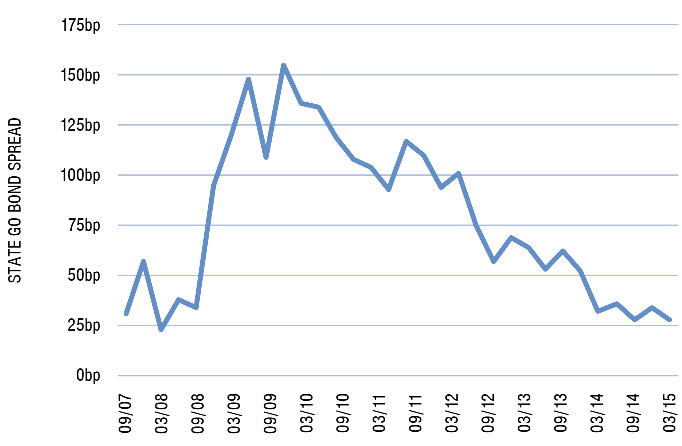
Investors have responded positively to the significant improvements in the State's financial performance, and to the rating upgrades. Figure 1 depicts the State's interest rate spreads to the municipal industry's benchmark of AAA-rated, general obligation bonds. This benchmark, called the MMD AAA curve, is a theoretical representation of interest rates across multiple maturities that estimates the yields at which AAA-rated state general obligation bonds would be offered to the public. The MMD curve is a proprietary work product of Thomson Reuters.

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 33 basis points at the end of August 2015. This relative pricing improvement reflects investors' increased confidence in the State's credit relative to the most highly-rated state-level GO bonds.

Despite the significant budgetary improvements over the last few years, the State still faces a number of fiscal challenges and risks. These include paying off its remaining deferred obligations, revenue volatility, the cost of public employee retirement benefits, and uncertainty regarding the cost of providing health care under the new Federal health care legislation and expenditure mandates.

FIGURE 1

30-YEAR CALIFORNIA MMD CREDIT SPREADS TO "AAA" MMD



Source: TM3

OVERALL MARKET CONDITIONS

The discussion below reviews factors in the bond markets that also have significantly affected the market for the State's bonds.

INTEREST RATES

For the first half of 2014-15, interest rates generally declined. Most economists were predicting that rates would rise before the end of the calendar year based on stronger economic conditions and the tapering off of quantitative easing that began in December 2013, with the last purchases made by the Federal Reserve Bank in October 2014. However, amid concerns over the Greek economy and weaker than expected domestic economic data, the municipal market experienced a sharp rally in early 2015, with the 30-year tax-exempt MMD benchmark declining to 2.50% on January 30, just three basis points above November 2012's record low of 2.47%. However by June 10, the 10-year and 30-year tax-exempt MMD benchmarks had risen by 66 and 86 basis points, respectively, before a recent decline. Bond prices and yields move inversely.

The rise in rates was attributable to a variety of domestic and international economic and financial factors, including an improving situation in Greece and heavy corporate issuance. Additionally, stronger than expected domestic economic data had increased the perceived likelihood that the Fed would begin to raise rates, putting upward pressure on interest rates paid by all bond issuers. However, from June 10 to August 31, interest rates declined with the 10-year and 30-year tax-exempt MMD falling by 22 and 26 basis points respectively, on concerns over global economic growth, including China's currency devaluation.

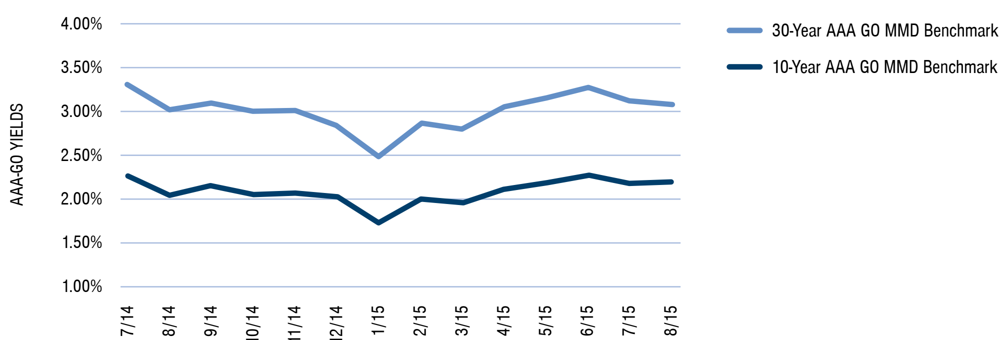
SUPPLY AND DEMAND

Technical factors such as supply and demand for municipal bonds also affect the pricing of municipal bonds.

SUPPLY. Nationally, primary market issuance volume has been higher on a year-over-year basis. Volume from July 2014 through June 2015 was \$81.5 billion (or 27.4 percent) higher than in the same period one year earlier, rising from \$297.4 billion to \$378.9 billion. Over the same period, is-

FIGURE 2

TRENDS OF TAX-EXEMPT INTEREST RATES



Source: TM3

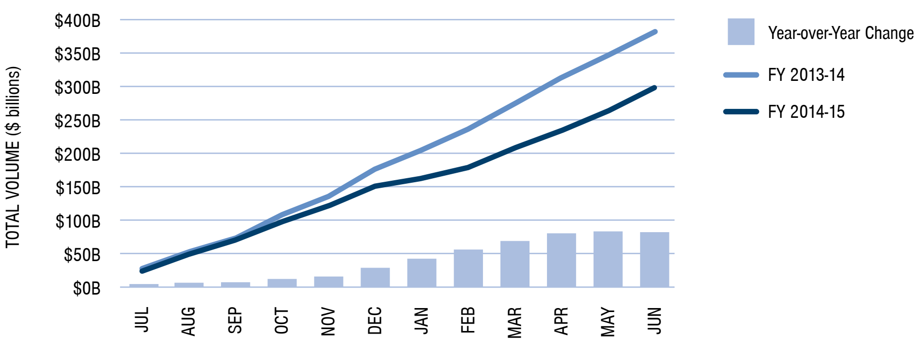
suance volume in California also was higher by $11.6 billion (or 19.7 percent), although most of the increase came during the second half of 2014-15, driven by falling rates, which spurred significant refinancing activity. Figures 3 and 4 present the cumulative volume of national and California municipal bond issuance for 2013-14 and 2014-15.

Figure 5 shows the increase in volume for 2014-15 over that of 2013-14, the preponderance of which was almost entirely attributable to an increase in refundings, as the volume of new money issuances remained nearly unchanged.

DEMAND. Because tax-exempt bonds have a more limited universe of investors than taxable bonds due to the structure of federal and state tax treatment, municipal bond mutual funds specializing in tax advantaged investments represent a significant segment of the investor base for tax-exempt bonds, and asset inflows and outflows of cash for these funds can materially impact demand for municipal bonds. As shown in Figure 6, calendar year 2013 experienced a period of sustained asset outflows. Since January 2014, asset flows have reversed course. Calendar year 2014 saw net inflows of $27.5 billion and in calendar year 2015 (through July), net investor deposits have grown by an additional $6.6 billion. This increase in assets and institutional investor demand has had a positive impact on the municipal market.

FIGURE 3

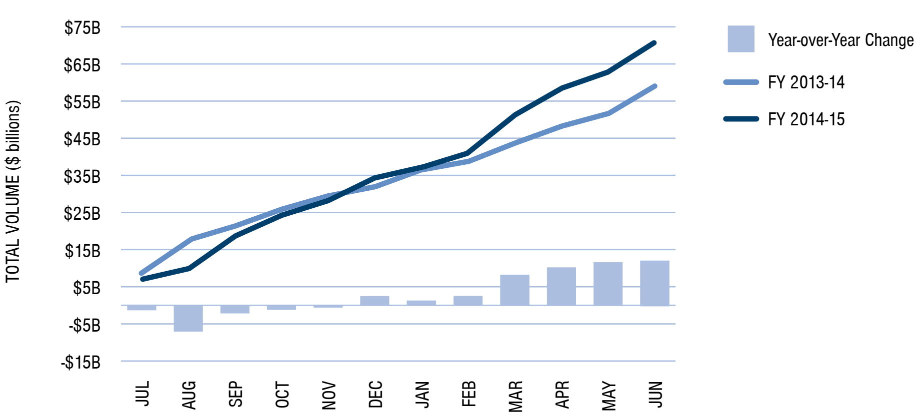
U.S. CUMULATIVE BOND VOLUME, FY 2013-14 AND FY 2014-15



Source: The Bond Buyer

FIGURE 4

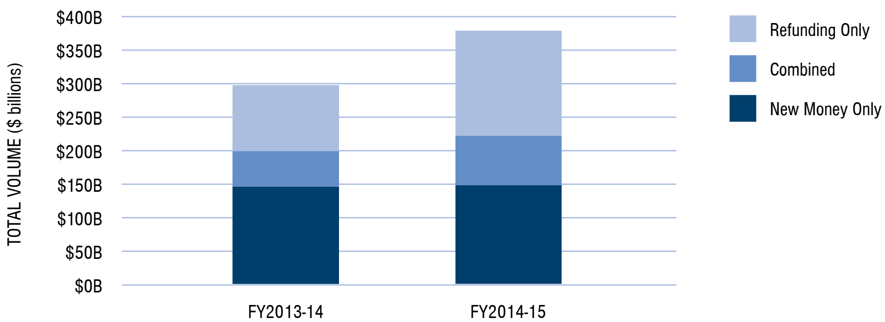
CALIFORNIA CUMULATIVE BOND VOLUME, FY 2013-14 AND FY 2014-15



Source: California Debt and Investment Advisory Commission

FIGURE 5

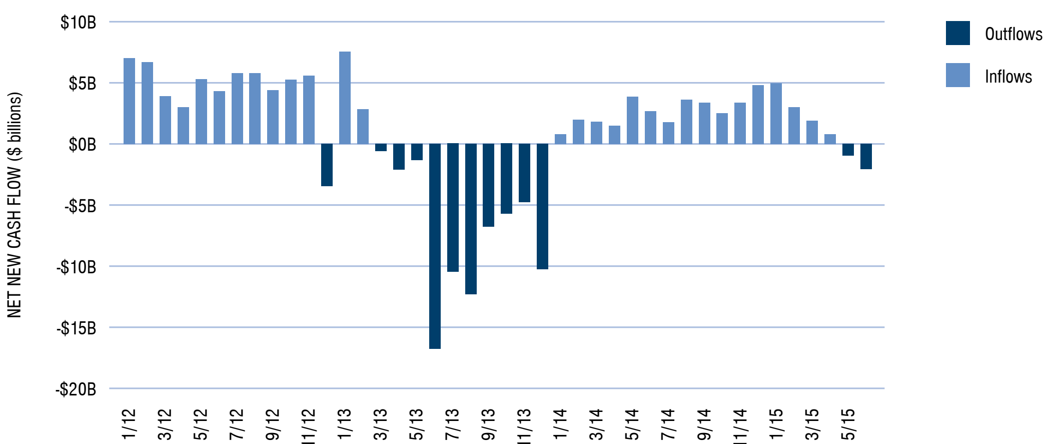
U.S. ISSUANCE BY PURPOSE, FY 2013-14 AND FY2014-15



Source: The Bond Buyer

FIGURE 6

MUNICIPAL BOND MARKET, MONTHLY FUND INFLOWS / OUTFLOWS



Source: Investment Company Institute (ICI)

MUNICIPAL BANKRUPTCIES

Municipal bankruptcy continues to be closely watched across the country as a number of governmental entities have now experienced severe financial stress and considered, filed and even exited bankruptcy. Perhaps one of the most visible municipal bankruptcies outside of California occurred in July 2013. Detroit, with a population more than double that of Stockton, now represents the largest bankruptcy of a municipality to ever occur.

Further, other governmental entities such as the Commonwealth of Puerto Rico, which currently do not have the right to file for Chapter 9 protection, are exploring their ability to get such authority, and some state governments have modified their policies with respect to the actions that local governments can take to address financial distress.

While still rare, to quote Moody's, municipal bankruptcies are "no longer taboo."

The revenue declines of the recent recession exposed the challenges of rising non-discretionary costs including other post-employment benefits (OPEB) and/or debt in conjunction with very limited revenue raising ability. In addition to Detroit and Stockton, over the last several years, in California, the cities of San Bernardino (2012) and Vallejo (2008) declared a fiscal emergency or filed for Chapter 9 bankruptcy protection. Nationally, a number of local governments, including Central Falls, RI, Jefferson County, AL and Harrisburg, PA filed for bankruptcy (or entered receivership). Each of these municipalities as well as the Commonwealth of Puerto Rico did not make debt payments and defaulted on at least some of their debt obligations.

These bankruptcies and fiscal emergencies placed an increased focus on municipal credit fundamentals. For example, significant attention has been paid to distinguishing the various security features of state and local general obligation bonds across the country. In addition, some bankruptcy recovery plans have highlighted that a bond's legal protection may be secondary to the government's underlying ability to repay the obligations. The bankruptcy process has also raised questions about the different payouts offered to pensioners, bondholders and other creditors, and about balancing debt obligations against public services.

Six of the major municipal bankruptcies have now been resolved. While each solution has been unique, relying on various combinations of mandatory or voluntary reductions of payments to bondholders, pension and OPEB recipients, employees and other creditors, in all cases except Central Falls, RI, bondholders have suffered greater losses than pensioners, and pension benefits have been protected significantly more than OPEB benefits.

In spite of these challenges, there has continued to be strong retail and institutional demand for municipal bonds. In addition, there has been significant investor interest in the restructured obligations of many of these challenged municipalities.

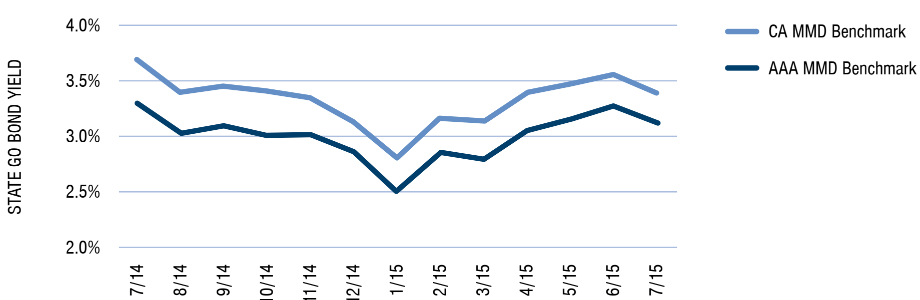
INTEREST RATES ON THE STATE'S BONDS

As discussed previously, interest rates on the State's bonds are the product of both State-specific factors and overall market conditions. On a State-specific basis, as shown earlier in Figure 1, the continued improvement in California's credit profile and supply factors have combined to continue to narrow the interest rate spread between the State's GO bonds and the MMD benchmark. Since July 2014, rates have been volatile due to geopolitical concerns and mixed economic data that continue to fuel speculation as to when the Fed will first increase interest rates. The end result has been a period of volatility in tax-exempt interest rates. Over the last year, the State's bonds have generally followed a similar pattern to the national market (see Figure 7).

With low interest rates throughout much of 2014-15, the State was able to refund $5.2 billion of its outstanding GO bonds to reduce interest costs in its fall 2014, spring 2015 and late summer 2015 sales. These refundings generated over $900 million of total debt service savings for the State's General Fund over the remaining life of the bonds. Additional savings will be realized from refundings of other departments or business activities of the State that do not receive all of their support from the State's General Fund.

FIGURE 7

TRENDS OF CALIFORNIA GO BOND YIELDS, 30-YEAR GO BONDS



Source: Thomson Municipal Market Monitor (TM3)

SECTION 2 | SNAPSHOT OF STATE'S DEBT

OVERVIEW

Figure 8 summarizes the State's long-term debt as of June 30, 2015. This debt includes General Fund-supported GO bonds approved by voters and lease revenue bonds (LRBs) authorized by the Legislature, as well as other special fund and self-liquidating GO bonds. Special fund and self-liquidating GO bonds are secured primarily by specific revenues, and 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

FIGURE 8

SUMMARY OF THE STATE'S DEBT (a), AS OF JUNE 30, 2015 (dollars in billions)

GENERAL FUND SUPPORTED ISSUES	OUTSTANDING	AUTHORIZED BUT UNISSUED	TOTAL
General Obligation Bonds	$76.00	$30.00	$106.00
Lease Revenue Bonds (b)	10.99	3.76	14.75
TOTAL GENERAL FUND SUPPORTED ISSUES	$86.99	$33.76	$120.75
SPECIAL FUND/SELF LIQUIDATING ISSUES			
Economic Recovery Bonds (c)	$0.94	$ -	$0.94
Veterans General Obligation Bonds	0.47	0.43	0.90
California Water Resources Development General Obligation Bonds	0.18	0.17	0.35
TOTAL SPECIAL FUND/SELF LIQUIDATING ISSUES	$1.59	$0.60	$2.19
TOTAL	$88.58	$34.36	$122.94

(a) Debt obligations not included in Figure 8: 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.

(b) SB 1407 (2008) authorized an additional amount for construction of certain court projects. The authorized but unissued figure excludes the amount for those projects that has not been appropriated by the Legislature.

(c) The remaining ERBs have been effectively retired as of August 5, 2015.

their debt service requirements, can be found in Appendices A and B.

- Approximately 4.7 percent of outstanding GO bonds carry variable interest rates, which is lower than the statutorily-authorized maximum of 20.0 percent. The remaining 95.3 percent of the State's 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-BACKED BONDS

The State Treasurer's Office (STO) estimates of intended issuance are based on 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 departments' actual spending patterns, 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 9 shows the STO's estimated issuance of new-money General Fund-supported bonds during the current and next fiscal years. Only currently authorized but unissued GO bonds are reflected in Figure 9. The estimated issuance may increase should new bond programs be approved. These amounts do not reflect the principal amount of debt scheduled to be retired during these two fiscal years. As shown in Appendix B, $6.6 billion of principal from General Fund-supported bonds are scheduled to be retired over the current and next fiscal years.

As shown in Figure 9, STO preliminarily estimates the State will issue a combined $7.87 billion of new money General Fund-backed bonds in 2015-16 and 2016-17. Using these assumptions for debt issuance, STO estimates debt service payments from the General Fund will increase by $31.2 million in 2015-16 and $282.1 million in 2016-17.[1] A detailed list of the estimated debt service requirements can be found in Appendix B.

FIGURE 9

ESTIMATED ISSUANCE, GENERAL FUND-SUPPORTED BONDS (a) (dollars in millions)

	2015-16	2016-17	TOTAL
General Obligation Bonds	$3,300	$4,000	$7,300
Lease Revenue Bonds	421	145	566
TOTAL GENERAL FUND-SUPPORTED BONDS	$3,721	$4,145	$7,866

(a) Debt issuances not included in Figure 9: Any short-term obligations such as commercial paper, refunding bonds 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.

[1] Figures reflect debt service from only a portion of the bond sales listed in Figure 9. For example, $1.3 billion of the $3.3 billion in GO bonds and $175 million of the $421 million in LRBs planned for 2015-16 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 2015-16 will not have a debt service payment during the fiscal year. The first interest payment for these bonds will be in 2016-17.

SECTION 3 | MEASURING DEBT BURDEN

DEBT RATIOS

Measuring California's debt level with various ratios provides a way to compare the State's burden to that of other borrowers. These comparisons should not be confused with predictions of affordability, however, as affordability is a subjective measure that results from decision making by the people of California and the Legislature.

The three most commonly-used ratios for comparison to other issuers 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 debt service to General Fund revenues was 6.84 percent[2] in 2014-15. That figure is based on $7.6 billion of GO and LRB debt service payments versus $111.3 billion of General Fund revenues (less transfer to the BSA/Rainy Day Fund). The STO estimates this ratio will be 6.79 percent[3] in 2015-16. That estimate is based on $7.8 billion of debt service payments versus $115.0 billion of General Fund revenues (less transfer to the BSA/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 2015 State Debt Medians report, Moody's lists the State's ratio of net tax-supported debt to personal income at 5.1 percent.[5]

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 2015 State Debt Medians report, Moody's lists the State's debt per capita at $2,407.[5]

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 the world's 8th-largest economy and one of its most diverse.[6] In its 2015 State Debt Medians report, Moody's lists the State's debt-to-GDP at 4.24 percent.[5]

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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 $1.4 billion of estimated offsets, the 2014-15 debt service decreases to $6.2 billion and the ratio of debt service to General Fund revenues drops to 5.58 percent.

3 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 $1.5 billion of estimated offsets, the 2015-16 debt service decreases to $6.3 billion and the ratio of debt service to General Fund revenues drops to 5.46 percent.

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

5 The Moody's calculation of net tax-supported debt includes GO bonds (non self-liquidating), LRBs, ERBs, GO commercial paper notes, federal Highway Grant Anticipation Bonds, tobacco securitization bonds with a General Fund backstop, California Judgment Trust Obligations, Bay Area Infrastructure Financing Authority's State payment acceleration notes, various regional center bonds, and State Building Lease Purchase bonds.

6 California GDP as reported by the U.S. Bureau of Economic Analysis for 2014. Sovereign country ranking and GDP for 2014 as reported by the International Monetary Fund.

FIGURE 10

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	1.00%
North Carolina	Aaa/AAA/AAA	1.90%
Michigan	Aa2/AA-/AA	1.90%
Florida	Aa1/AAA/AAA	2.40%
Pennsylvania	Aa3/AA-/AA-	2.40%
Ohio	Aa1/AA+/AA+	2.70%
Georgia	Aaa/AAA/AAA	2.80%
California	Aa3/AA-/A+	5.10%
New York	Aa1/AA+/AA+	5.70%
Illinois	A3/A-/A-	5.70%
MOODY'S MEDIAN ALL STATES		2.50%
MEDIAN FOR THE 10 MOST POPULOUS STATES		2.55%

(a) Moody's, S&P and Fitch ratings as of September 2015.

(b) Figures as reported by Moody's in its 2015 State Debt Medians Report released June 2015. As of end of calendar year 2013.

FIGURE 11

DEBT PER CAPITA OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT PER CAPITA (b)
Texas	Aaa/AAA/AAA	$406
North Carolina	Aaa/AAA/AAA	$739
Michigan	Aa2/AA-/AA	$758
Florida	Aa1/AAA/AAA	$973
Georgia	Aaa/AAA/AAA	$1,043
Ohio	Aa1/AA+/AA+	$1,109
Pennsylvania	Aa3/AA-/AA-	$1,117
California	Aa3/AA-/A+	$2,407
Illinois	A3/A-/A-	$2,681
New York	Aa1/AA+/AA+	$3,092
MOODY'S MEDIAN ALL STATES		$1,012
MEDIAN FOR THE 10 MOST POPULOUS STATES		$1,076

(a) Moody's, S&P and Fitch ratings as of September 2015.

(b) Figures as reported by Moody's in its 2015 State Debt Medians Report released June 2015. As of end of calendar year 2013.

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 on this page, the median debt to personal income (Figure 10), debt per capita (Figure 11) and debt as a percentage of GDP (Figure 12) of these 10 states are, on average, in line with Moody's median for all states combined. California's ratios, however, rank well above these medians. When examining these ratios, it is important to remember that not all of the states listed use their debt for the same purposes or at the same scale.

FIGURE 12

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	0.71%
North Carolina	Aaa/AAA/AAA	1.56%
Michigan	Aa2/AA-/AA	1.74%
Pennsylvania	Aa3/AA-/AA-	2.21%
Ohio	Aa1/AA+/AA+	2.27%
Georgia	Aaa/AAA/AAA	2.32%
Florida	Aa1/AAA/AAA	2.42%
California	Aa3/AA-/A+	4.24%
New York	Aa1/AA+/AA+	4.66%
Illinois	A3/A-/A-	4.79%
MOODY'S MEDIAN ALL STATES		2.21%
MEDIAN FOR THE 10 MOST POPULOUS STATES		2.30%

(a) Moody's, S&P and Fitch ratings as of September 2015.

(b) Figures as reported by Moody's in its 2015 State Debt Medians Report released June 2015. As of end of calendar year 2013.

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

SECTION 4 | ANALYSIS OF STATE'S CREDIT RATINGS

The State's current GO bond ratings are "A+" from Fitch, "Aa3" from Moody's and "AA-" from S&P. A summary of rating agencies' actions on the State's GO bonds since the last DAR is presented in Figure 13.

Since the last DAR a year ago, Moody's has maintained its "Aa3" rating and stable outlook on the State's credit rating while Fitch and S&P have upgraded the State's credit rating. On November 5, 2014, S&P upgraded the State's GO credit rating to "A+". The upgrade followed voter approval of Proposition 2 on November 4, 2014, which strengthened the State's Rainy Day Fund. S&P credited Proposition 2 for addressing the State's significant credit weaknesses which were "state revenue volatility, historically weak reserves, and the emptying of reserves well before the bottom of a recession." On July 2, 2015, following the enactment of the State's 2015-16 budget, S&P upgraded the State's GO credit rating again to "AA-". S&P credited the State's improved fiscal sustainability and commitment to pay down debt obligations which had been incurred from prior years. Furthermore, S&P cited the State's approach to transfer a large portion of the projected operating surplus to the Rainy Day Fund as a credit positive.

On February 25, 2015, Fitch upgraded the State's GO credit rating to "A+". In its report, Fitch cited the State's continued improvement in its fiscal position, actions that have increased the ability to address future fiscal challenges, as well as an expanding economy with revenues exceeding forecasts. Fitch also cautioned that the "rating is sensitive to the continuation of the state's recent budgetary discipline and its ability and willingness to continue progress on reducing budgetary borrowing and maintaining structural balance."

A summary of the rating agencies' opinion of the State's credit strengths and challenges is presented in Figure 14.

FIGURE 13

LATEST RATING ACTIONS

RATING AGENCY	ACTION	DATE
S&P	Upgraded GO rating from "A" to "A+"	November 2014
Fitch	Upgraded GO rating from "A" to "A+"	February 2015
S&P	Upgraded GO rating from "A+" to "AA-"	July 2015

FIGURE 14

STATE OF CALIFORNIA GENERAL OBLIGATION RATING AGENCY COMMENTARY

	FITCH	MOODY'S	S&P
RATING STRENGTHS	• Institutionalized changes to fiscal operations in recent years which has improved the State's overall financial position • Wealthy, diverse economy • Significantly improved liquidity • Elimination of the State's structural imbalance	• Large, diverse and wealthy economy • Strengthening liquidity in recent years • Significant improvement in budget deficits through revenue surges and measures to rein in spending	• Deep and diverse economy • Demonstrated commitment to aligning recurring revenues and expenses while paying down budgetary debts • Regular timely enactment of budgets, good budgetary reserves and strong overall liquidity • Moderately high, but declining, debt ratios
RATING CHALLENGES	• State finances are subject to cash flow crises due to economic cycles • Voter initiatives reduce the State's discretion to effectively manage budgetary challenges over time	• Highly volatile revenue structure • Governance restrictions that make it difficult for State to respond to revenue volatility • Lack of significant reserves to cushion the state's finances from downturns • Reliance in the past on deficit borrowing and one-time solutions to resolve budgetary gaps	• High cost of housing that contributes to weaker business climate • Volatile revenue base which is linked to difficult-to-forecast financial performance • Large retirement benefit and budgetary liabilities • Large backlog of deferred maintenance and infrastructure needs

APPENDIX A | THE STATE'S DEBT

AUTHORIZED AND OUTSTANDING NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS AS OF JUNE 30, 2015 (DOLLARS IN THOUSANDS)

	GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
+	1988 School Facilities Bond Act	11/08/88	$797,745	$41,915	$ -	$ -
+	1990 School Facilities Bond Act	06/05/90	797,875	90,640	-	-
+	1992 School Facilities Bond Act	11/03/92	898,211	257,770	-	-
	California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002	03/05/02	2,600,000	2,102,570	15,410	243,830
+	California Library Construction and Renovation Bond Act of 1988	11/08/88	72,405	12,965	-	-
*+	California Park and Recreational Facilities Act of 1984	06/05/84	368,900	12,325	-	-
*	California Parklands Act of 1980	11/04/80	285,000	2,650	-	-
	California Reading and Literacy Improvement and Public Library Construction and Renovation Bond Act of 2000	03/07/00	350,000	263,220	-	5,040
*+	California Safe Drinking Water Bond Law of 1976	06/08/76	172,500	2,905	-	-
*	California Safe Drinking Water Bond Law of 1984	11/06/84	75,000	1,855	-	-
*	California Safe Drinking Water Bond Law of 1986	11/04/86	100,000	22,075	-	-
	California Safe Drinking Water Bond Law of 1988	11/08/88	75,000	28,230	-	-
*+	California Wildlife, Coastal, and Park Land Conservation Act	06/07/88	768,670	114,210	-	-
	Children's Hospital Bond Act of 2004	11/02/04	750,000	651,625	300	47,145
	Children's Hospital Bond Act of 2008	11/04/08	980,000	647,810	12,645	304,455
	Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (Hi-Ed)	11/03/98	2,500,000	1,707,315	-	-
	Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (K-12)	11/03/98	6,700,000	3,953,915	-	11,400
	Clean Air and Transportation Improvement Bond Act of 1990	06/05/90	1,990,000	787,835	-	4,985
*	Clean Water Bond Law of 1984	11/06/84	325,000	10,045	-	-
*	Clean Water and Water Conservation Bond Law of 1978	06/06/78	375,000	4,405	-	-
	Clean Water and Water Reclamation Bond Law of 1988	11/08/88	65,000	20,375	-	-

AUTHORIZED AND OUTSTANDING
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2015 (DOLLARS IN THOUSANDS) CONTINUED

	GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
*	Community Parklands Act of 1986	06/03/86	100,000	2,795	-	-
*	County Correctional Facility Capital Expenditure Bond Act of 1986	06/03/86	495,000	15,565	-	-
	County Correctional Facility Capital Expenditure and Youth Facility Bond Act of 1988	11/08/88	500,000	71,255	-	-
+++	Disaster Preparedness and Flood Prevention Bond Act of 2006	11/07/06	3,990,000	2,231,645	-	1,718,652
	Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990	06/05/90	300,000	72,495	1,240	7,490
*	Fish and Wildlife Habitat Enhancement Act of 1984	06/05/84	85,000	5,035	-	-
	Higher Education Facilities Bond Act of 1988	11/08/88	600,000	24,730	-	-
	Higher Education Facilities Bond Act of June 1990	06/05/90	450,000	48,545	-	540
	Higher Education Facilities Bond Act of June 1992	06/02/92	900,000	311,215	-	-
	Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006	11/07/06	19,925,000	15,413,335	93,490	3,674,490
	Housing and Emergency Shelter Trust Fund Act of 2002	11/05/02	2,100,000	834,100	14,120	79,495
	Housing and Emergency Shelter Trust Fund Act of 2006	11/07/06	2,850,000	1,250,520	-	1,094,135
	Housing and Homeless Bond Act of 1990	06/05/90	150,000	1,470	-	-
	Kindergarten-University Public Education Facilities Bond Act of 2002 (Hi-Ed)	11/05/02	1,650,000	1,393,410	-	-
	Kindergarten-University Public Education Facilities Bond Act of 2002 (K-12)	11/05/02	11,400,000	9,140,790	-	57,810
	Kindergarten-University Public Education Facilities Bond Act of 2004 (Hi-Ed)	03/02/04	2,300,000	2,015,725	4,045	58,824
	Kindergarten-University Public Education Facilities Bond Act of 2004 (K-12)	03/02/04	10,000,000	8,701,530	30,410	121,190
	Kindergarten-University Public Education Facilities Bond Act of 2006 (Hi-Ed)	11/07/06	3,087,000	2,997,480	4,335	38,775
	Kindergarten-University Public Education Facilities Bond Act of 2006 (K-12)	11/07/06	7,329,000	6,593,220	5	575,360
*	Lake Tahoe Acquisitions Bond Act	08/02/82	85,000	150	-	-
*	New Prison Construction Bond Act of 1986	11/04/86	500,000	2,490	-	-
	New Prison Construction Bond Act of 1988	11/08/88	817,000	12,785	-	2,165
	New Prison Construction Bond Act of 1990	06/05/90	450,000	16,955	-	605
	Passenger Rail and Clean Air Bond Act of 1990	06/05/90	1,000,000	42,025	-	-
	Public Education Facilities Bond Act of 1996 (Higher Education)	03/26/96	975,000	517,560	3,780	4,650
++	Public Education Facilities Bond Act of 1996 (K-12)	03/26/96	2,012,035	879,420	-	-
+++	Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act	03/07/00	1,884,000	1,398,450	-	43,346
+++	Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006	11/07/06	5,283,000	2,396,365	253,370	2,552,255
	Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000	03/07/00	2,100,000	1,468,840	-	73,820
+++	Safe, Clean, Reliable Water Supply Act	11/05/96	969,500	545,745	-	62,915
	Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century	11/04/08	9,950,000	808,970	-	8,923,225

AUTHORIZED AND OUTSTANDING
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2015 (DOLLARS IN THOUSANDS) CONTINUED

	GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
*	School Building and Earthquake Bond Act of 1974	11/05/74	40,000	14,635	-	-
	School Facilities Bond Act of 1990	11/06/90	800,000	142,100	-	-
	School Facilities Bond Act of 1992	06/02/92	1,900,000	528,175	-	10,280
	Seismic Retrofit Bond Act of 1996	03/26/96	2,000,000	1,155,030	-	-
*	State, Urban, and Coastal Park Bond Act of 1976	11/02/76	280,000	3,930	-	-
	Stem Cell Research and Cures Bond Act of 2004	11/02/04	3,000,000	1,396,355	45,210	1,272,650
	Veterans Homes Bond Act of 2000	03/07/00	50,000	35,205	-	975
	Veterans Housing and Homeless Prevention Bond Act of 2014	06/03/14	600,000	125	850	599,000
	Voting Modernization Bond Act of 2002	03/05/02	200,000	28,840	-	64,495
	Water Conservation Bond Law of 1988	11/08/88	60,000	22,870	-	5,235
*+++	Water Conservation and Water Quality Bond Law of 1986	06/03/86	136,500	31,645	-	230
	Water Quality, Supply, and Infrastructure Improvement Act of 2014	11/04/14	7,545,000	-	865	7,544,135
+++	Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002	11/05/02	3,345,000	2,694,875	1,810	309,574
	Water Conservation Bond Law of 1988	11/08/88	60,000	24,245	-	5,235
*	Water Conservation and Water Quality Bond Law of 1986	06/03/86	150,000	34,940	-	13,730
	Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002	11/05/02	3,440,000	2,771,185	1,810	404,574
	TOTAL GENERAL FUND BONDS		$135,239,341	$76,005,055	$481,885	$29,513,171

(a) A total of not more than $2.225 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.

\+ SB 1018 (06/27/2012) reduced the voter authorized amount

++ SB 71 (06/27/2013) reduced the voter authorized amount

+++ AB 1471 (11/04/2014) reallocated the voter authorized amount

AUTHORIZED AND OUTSTANDING
SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2015 (DOLLARS IN THOUSANDS)

ENTERPRISE FUND BONDS	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	$184,960	$ -	$167,600
Veterans Bond Act of 1986	06/03/86	850,000	29,060	-	-
Veterans Bond Act of 1988	06/07/88	510,000	29,695	-	-
Veterans Bond Act of 1990	11/06/90	400,000	45,910	-	-
Veterans Bond Act of 1996	11/05/96	400,000	120,175	-	-
Veterans Bond Act of 2000	11/07/00	500,000	241,350	-	128,610
+ Veterans Bond Act of 2008	11/04/08	300,000	-	-	300,000
TOTAL ENTERPRISE FUND BONDS		$4,710,000	$651,150	$ -	$596,210
SPECIAL REVENUE FUND BONDS					
* Economic Recovery Bond Act	04/10/04	15,000,000	944,285	-	-
TOTAL SPECIAL REVENUE FUND BONDS		$15,000,000	$944,285	$ -	$ -
TOTAL SELF LIQUIDATING BONDS		$19,710,000	$1,595,435	$ -	$596,210

(a) A total of not more than $2.225 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.

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

AUTHORIZED AND OUTSTANDING LEASE REVENUE BONDS AS OF JUNE 30, 2015 (DOLLARS IN THOUSANDS)

GENERAL FUND SUPPORTED ISSUES	OUTSTANDING	AUTHORIZED BUT UNISSIUED
STATE PUBLIC WORKS BOARD		
California Community Colleges	$261,625,000	$ -
California Department of Corrections and Rehabilitations	4,178,000,000	2,798,938
The Regents of the University of California	-	21,782
Trustees of the California State University	1,045,520,000	86,428
Various State Facilities (a)	5,172,280,000	854,702
TOTAL STATE PUBLIC WORKS BOARD ISSUES	$10,657,425,000	$3,761,850
TOTAL OTHER STATE FACILITIES LEASE-REVENUE ISSUES (b)	$ 332,055,000	$ -
TOTAL GENERAL FUND SUPPORTED ISSUES	$10,989,480,000	$3,761,850

(a) This includes projects that are supported by multiple funding sources in addition to the General Fund.

(b) Includes $79,815,000 Sacramento City Financing Authority Lease-Revenue Refunding Bonds State of California - Cal/EPA Building, 2013 Series A, which are supported by lease rentals from the California Environmental Protection Agency; these rental payments are subject to annual appropriation by the State Legislature.

APPENDIX B | THE STATE'S DEBT SERVICE

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR SPECIAL REVENUE FUND SELF LIQUIDATING BONDS (ECONOMIC RECOVERY BONDS) FIXED RATE, AS OF JUNE 30, 2015

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST	PRINCIPAL (a)(b)	TOTAL
2016	$45,786,687.50	$14,550,000.00	$60,336,687.50
2017	42,510,937.50	132,390,000.00	174,900,937.50
2018	35,339,468.75	174,290,000.00	209,629,468.75
2019	28,076,375.00	123,055,000.00	151,131,375.00
2020	25,000,000.00	-	25,000,000.00
2021	25,000,000.00	-	25,000,000.00
2022	25,000,000.00	-	25,000,000.00
2023	12,500,000.00	500,000,000.00	512,500,000.00
TOTAL	$239,213,468.75	$944,285,000.00	$1,183,498,468.75

(a) Includes scheduled mandatory sinking fund payments.

(b) As of August 5, 2015, the remaining ERBs have matured or been effectively retired.

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR GENERAL FUND NON-SELF LIQUIDATING BONDS FIXED RATE, AS OF JUNE 30, 2015

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT INTEREST (a)	CURRENT DEBT PRINCIPAL (b)	CURRENT DEBT TOTAL
2016	$3,876,945,324.83	$2,772,400,000.00	$6,649,345,324.83
2017	3,771,037,710.62	2,535,605,000.00	6,306,642,710.62
2018	3,662,345,854.95	2,478,875,000.00	6,141,220,854.95
2019	3,544,871,563.12	2,662,370,000.00	6,207,241,563.12
2020	3,396,897,210.14	2,830,425,000.00	6,227,322,210.14
2021	3,269,425,355.23	2,392,785,000.00	5,662,210,355.23
2022	3,142,306,610.31	2,659,655,000.00	5,801,961,610.31
2023	3,014,815,365.53	2,251,945,000.00	5,266,760,365.53
2024	2,906,502,045.43	2,064,550,000.00	4,971,052,045.43
2025	2,799,716,345.65	2,310,610,000.00	5,110,326,345.65
2026	2,682,264,021.60	2,469,155,000.00	5,151,419,021.60
2027	2,555,315,724.56	2,356,855,000.00	4,912,170,724.56
2028	2,439,866,487.11	2,341,835,000.00	4,781,701,487.11
2029	2,325,400,868.85	2,499,025,000.00	4,824,425,868.85
2030	2,201,581,017.60	2,673,635,000.00	4,875,216,017.60
2031	2,056,509,704.05	2,763,880,000.00	4,820,389,704.05
2032	1,925,215,721.90	2,574,165,000.00	4,499,380,721.90
2033	1,787,976,195.01	2,582,090,000.00	4,370,066,195.01
2034	1,657,619,491.00	3,397,575,000.00	5,055,194,491.00
2035	1,425,425,744.09	3,160,410,000.00	4,585,835,744.09
2036	1,236,844,900.76	2,770,655,000.00	4,007,499,900.76
2037	1,064,269,524.37	3,122,660,000.00	4,186,929,524.37
2038	875,842,559.44	3,268,625,000.00	4,144,467,559.44
2039	723,493,428.95	3,415,270,000.00	4,138,763,428.95
2040	442,769,662.50	1,767,885,000.00	2,210,654,662.50
2041	280,957,793.75	2,190,000,000.00	2,470,957,793.75
2042	178,677,793.75	1,319,000,000.00	1,497,677,793.75
2043	123,220,418.75	1,326,325,000.00	1,449,545,418.75
2044	49,651,398.75	875,000,000.00	924,651,398.75
2045	18,773,425.00	550,000,000.00	568,773,425.00
TOTAL	$59,436,539,267.60	$72,383,265,000.00	$131,819,804,267.60

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

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

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR GENERAL FUND NON-SELF LIQUIDATING BONDS VARIABLE RATE, AS OF JUNE 30, 2015

	CURRENT DEBT		
FISCAL YEAR ENDING JUNE 30	INTEREST (a)	PRINCIPAL (b)	TOTAL
2016	$28,888,223.64	$21,000,000.00	$49,888,223.64
2017	28,841,138.65	184,675,000.00	213,516,138.65
2018	28,532,993.98	243,305,000.00	271,837,993.98
2019	28,104,709.61	113,420,000.00	141,524,709.61
2020	27,854,531.02	105,500,000.00	133,354,531.02
2021	27,625,217.42	154,400,000.00	182,025,217.42
2022	27,139,654.92	39,200,000.00	66,339,654.92
2023	27,126,399.74	61,100,000.00	88,226,399.74
2024	27,126,282.39	173,600,000.00	200,726,282.39
2025	27,045,946.56	116,400,000.00	143,445,946.56
2026	27,016,186.94	203,300,000.00	230,316,186.94
2027	22,466,635.00	390,600,000.00	413,066,635.00
2028	13,375,128.96	399,000,000.00	412,375,128.96
2029	8,097,554.26	407,700,000.00	415,797,554.26
2030	6,847,454.97	254,390,000.00	261,237,454.97
2031	6,260,400.33	163,600,000.00	169,860,400.33
2032	4,675,253.55	316,600,000.00	321,275,253.55
2033	1,572,148.31	271,400,000.00	272,972,148.31
2034	959.23	1,600,000.00	1,600,959.23
2035	520.00	-	520.00
2036	522.25	-	522.25
2037	517.75	-	517.75
2038	520.00	-	520.00
2039	520.00	-	520.00
2040	476.79	1,000,000.00	1,000,476.79
TOTAL	$368,599,896.27	$3,621,790,000.00	$3,990,389,896.27

(a) The estimate of future interest payments is based on rates in effect as of June 30, 2015. The interest rates for the daily, weekly and monthly rate bonds range from 0.01 - 1.22%. The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, Series 2013A & 2013B currently bear interest at a fixed rate of 4.00%, and Series 2014A bears interest at a fixed rate of 3.00%, until interest rate reset dates, and each are assumed to bear that rate from reset until maturity.

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

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR ENTERPRISE FUND SELF LIQUIDATING BONDS FIXED RATE, AS OF JUNE 30, 2015

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST	PRINCIPAL (a)	TOTAL
2016	$25,326,015.90	$70,815,000.00	$96,141,015.90
2017	22,689,276.25	69,685,000.00	92,374,276.25
2018	20,413,625.90	56,490,000.00	76,903,625.90
2019	18,798,050.00	43,015,000.00	61,813,050.00
2020	17,622,800.10	26,935,000.00	44,557,800.10
2021	16,391,158.75	29,375,000.00	45,766,158.75
2022	15,405,011.28	13,630,000.00	29,035,011.28
2023	14,837,563.75	9,695,000.00	24,532,563.75
2024	14,526,228.75	4,365,000.00	18,891,228.75
2025	14,324,594.80	4,660,000.00	18,984,594.80
2026	14,220,521.25	-	14,220,521.25
2027	13,844,946.15	16,695,000.00	30,539,946.15
2028	13,269,205.30	8,835,000.00	22,104,205.30
2029	12,653,205.30	18,315,000.00	30,968,205.30
2030	11,706,236.19	23,565,000.00	35,271,236.19
2031	10,609,799.78	24,895,000.00	35,504,799.78
2032	9,272,432.10	36,605,000.00	45,877,432.10
2033	7,658,458.75	39,735,000.00	47,393,458.75
2034	6,323,555.18	24,135,000.00	30,458,555.18
2035	5,440,006.25	18,165,000.00	23,605,006.25
2036	4,569,518.75	22,810,000.00	27,379,518.75
2037	3,548,333.75	23,025,000.00	26,573,333.75
2038	2,662,880.00	15,300,000.00	17,962,880.00
2039	1,950,055.00	16,025,000.00	17,975,055.00
2040	1,195,310.00	16,790,000.00	17,985,310.00
2041	404,570.00	17,590,000.00	17,994,570.00
TOTAL	$299,663,359.23	$651,150,000.00	$950,813,359.23

(a) Includes scheduled mandatory sinking fund payments.

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR LEASE-REVENUE DEBT FIXED RATE, AS OF JUNE 30, 2015

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT INTEREST (a)	CURRENT DEBT PRINCIPAL (b)	CURRENT DEBT TOTAL
2016	$559,234,051.97	$517,730,000.00	$1,076,964,051.97
2017	534,715,528.96	547,585,000.00	1,082,300,528.96
2018	507,251,503.09	607,565,000.00	1,114,816,503.09
2019	477,952,761.34	586,100,000.00	1,064,052,761.34
2020	449,002,292.60	570,870,000.00	1,019,872,292.60
2021	421,674,576.67	534,040,000.00	955,714,576.67
2022	395,004,393.73	521,800,000.00	916,804,393.73
2023	370,442,125.69	477,685,000.00	848,127,125.69
2024	346,602,894.25	463,295,000.00	809,897,894.25
2025	322,860,078.42	482,540,000.00	805,400,078.42
2026	298,042,273.40	495,670,000.00	793,712,273.40
2027	271,862,527.45	521,820,000.00	793,682,527.45
2028	244,692,905.63	535,370,000.00	780,062,905.63
2029	217,277,855.97	497,575,000.00	714,852,855.97
2030	190,477,020.37	491,255,000.00	681,732,020.37
2031	163,751,912.79	484,130,000.00	647,881,912.79
2032	136,315,519.08	490,745,000.00	627,060,519.08
2033	110,209,586.07	414,705,000.00	524,914,586.07
2034	85,775,299.41	426,345,000.00	512,120,299.41
2035	60,934,133.87	393,190,000.00	454,124,133.87
2036	42,258,875.00	248,365,000.00	290,623,875.00
2037	29,820,925.00	260,800,000.00	290,620,925.00
2038	16,656,150.00	202,380,000.00	219,036,150.00
2039	7,511,337.50	136,055,000.00	143,566,337.50
2040	2,078,800.00	81,865,000.00	83,943,800.00
TOTAL	$6,262,405,328.26	$10,989,480,000.00	$17,251,885,328.26

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

(b) Includes scheduled mandatory sinking fund payments.

ESTIMATED DEBT SERVICE REQUIREMENTS ON INTENDED SALES OF AUTHORIZED BUT UNISSUED BONDS DURING FISCAL YEARS 2015-16 AND 2016-17

FISCAL YEAR ENDING JUNE 30	FY 2015-16 GO SALES DEBT SERVICE	FY 2016-17 GO SALES DEBT SERVICE	FY 2015-16 LRB SALES DEBT SERVICE	FY 2016-17 LRB SALES DEBT SERVICE	TOTAL DEBT SERVICE ALL SALES
2016	$27,300,000	$ -	$3,937,500	$ -	$31,237,500
2017	200,446,320	49,000,000	28,902,670	3,759,600	282,108,590
2018	200,446,535	260,335,368	28,908,935	10,962,290	500,653,128
2019	200,447,805	260,331,810	28,904,248	10,963,530	500,647,393
2020	200,445,355	260,329,150	28,898,025	10,964,630	500,637,160
2021	200,449,180	260,334,308	28,904,328	10,960,200	500,648,015
2022	200,448,710	260,333,820	28,911,480	10,959,720	500,653,730
2023	200,443,605	260,334,225	28,903,410	10,957,540	500,638,780
2024	200,443,085	260,336,173	28,904,423	10,958,010	500,641,690
2025	200,446,035	260,335,068	28,907,975	10,960,350	500,649,428
2026	200,445,880	260,335,810	28,902,638	10,963,780	500,648,108
2027	200,446,065	260,332,918	28,907,358	10,957,780	500,644,120
2028	200,444,805	260,335,020	28,910,348	10,961,570	500,651,743
2029	200,444,750	260,330,503	28,900,178	10,959,240	500,634,670
2030	200,448,340	260,331,985	28,900,795	10,960,010	500,641,130
2031	200,447,555	260,331,460	28,900,055	10,957,970	500,637,040
2032	200,449,270	260,335,155	28,901,303	10,957,210	500,642,938
2033	200,444,795	260,333,670	28,907,638	8,511,950	498,198,053
2034	200,445,230	260,332,100	28,901,915	8,514,530	498,193,775
2035	200,446,005	260,334,530	28,907,613	8,517,160	498,205,308
2036	200,447,215	260,334,158	28,902,228	8,509,320	498,192,920
2037	200,448,620	260,333,553	28,903,993	8,510,230	498,196,395
2038	200,444,520	260,329,398	28,910,293	8,508,850	498,193,060
2039	200,443,670	260,332,365	28,903,625	8,509,270	498,188,930
2040	200,444,385	260,331,858	28,901,865	8,515,320	498,193,428
2041	200,444,185	260,331,650	28,907,173	8,511,090	498,194,098
2042	200,445,380	260,329,125	-	8,510,670	469,285,175
2043	200,449,380	260,330,793	-	-	460,780,173
2044	200,442,260	260,336,633	-	-	460,778,893
2045	200,444,655	260,335,355	-	-	460,780,010
2046	200,445,965	260,329,798	-	-	460,775,763
2047	-	260,331,283	-	-	260,331,283
TOTAL	$6,040,679,560	$7,858,989,035	$726,552,005	$253,281,820	$14,879,502,420

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