



BILL LOCKYER  
*California State Treasurer*

STATE OF CALIFORNIA

# *Debt Affordability Report*

OCTOBER 2013





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**STATE OF CALIFORNIA**

October 1, 2013

Fellow Californians:

The last 12 months brought significant improvement to the State's fiscal health, as it continued to strengthen its financial and debt management practices. The steady progress has paid off for taxpayers. California improved its credit standing and narrowed the interest-rate gap between its bonds and those of other governmental entities. This year's Debt Affordability Report (DAR) describes the State's stronger financial structure, and the positive results for California in the financial markets and on the State's balance sheets.

State government's return to fiscal health began in 2010, when voters adopted Proposition 25, which restored majority-vote legislative approval of the State Budget. The previous two-thirds vote requirement was the primary cause of chronically late Budgets built on short-term spending solutions and inadequate spending restraint. The Legislature and Governor have enacted on-time budgets all three years since Proposition 25's enactment. In 2012, voters followed up with approval of temporary tax increases that helped balance the budget and restore vital services. These changes, along with the improving state economy, have made possible Budgets that now are not only timely but honestly balanced. The Legislature and Governor have shown spending discipline and more careful priority-setting, and the Budgets they have produced have won uncommon praise from economists and rating agencies.

The numbers show the plaudits are warranted. In 2011, State analysts projected annual deficits in the tens of billions of dollars for at least the next five years. The 2013-14 Budget instead projects a year-end surplus of \$1.1 billion and structural balance at least through 2015-16. Great progress also has been made in bringing down the so-called "wall of debt" – the mass of budgetary borrowing and deficit financing accumulated through years of unbalanced budgets. The 2013-14 Budget estimates the wall of debt will be reduced 86.4 percent by the end of 2016-17, to \$4.7 billion from \$34.7 billion in 2010-11.

The stronger fiscal performance also has featured more prudent debt management practices. The Administration has focused on first spending unused proceeds from prior bond sales to fund infrastructure projects, reducing the need for additional borrowing. In the market, the State's general obligation bonds have become more competitive with higher-rated bonds, and investors have reduced the interest-rate premium they demand to buy our bonds. At the same time, the State refinanced billions of dollars of bonds at lower interest rates and reduced taxpayers' debt service payments by hundreds of millions of dollars. In part because of these steps, debt service now consumes less of the State Budget. The 2009 DAR projected debt service payments would equal 9.8 percent of General Fund revenues in 2013-14. This report estimates that ratio will be 7.7 percent.

I commend and thank the staff of the State Treasurer's Office, as well as our financial advisors. They are professionals who work hard and well to protect the interests and pocketbooks of Californians. They understand the job they do is important in helping create the kind of future California wants and needs. On their behalf and mine, thank you for the opportunity to serve.

BILL LOCKYER  
California State Treasurer

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# Preface

Government Code Section 12330 requires the State Treasurer to submit an annual Debt Affordability Report 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 (2013-14) and the following year (2014-15), 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 these debt ratios for the State and 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, 2013-14 means the 2013-14 fiscal year.
- When referring to the government the word “State” is capitalized. When referring to California, the word “state” is lower-cased.

## SECTION 1:

# *Market for State Bonds*

California is one of the largest issuers in the \$3 trillion U.S. municipal bond market. The State set a two-year record in calendar years 2009 and 2010, issuing a total of \$30.9 billion of GO bonds. Since 2010, however, the State's GO volume has decreased substantially. In calendar year 2012 and the first half of 2013, the State issued \$10.9 billion of GO bonds. Of that total, \$5.9 billion refinanced already outstanding bonds.

The market and price for the State's bonds are affected by factors specific to the State, as well as overall conditions in capital markets. These factors include the economy, general market interest rates, national and state personal income tax rates, municipal bond supply and demand, investor perception of the State's credit and the performance of alternative investments, such as other debt capital or stocks. On the whole, municipal interest rates, including those for the State's bonds, are substantially higher now than they were in the second half of 2012, when the last Debt Affordability Report was published.

### STATE-SPECIFIC FACTORS

The State's credit profile strengthened in 2012-13 and has continued to improve in 2013-14. Several factors help explain the positive trend:

- The 2013-14 State budget was the third consecutive spending plan adopted before the June 30 constitutional deadline.
- In recent years, the State has enacted significant structural fiscal reforms. These changes include: the elimination of redevelopment agencies, which ended the involuntary redirection of tax revenues from schools

and local governments and reduced the State General Fund's burden to backfill schools' loss of money; and especially voters' enactment in 2010 of Proposition 25, the initiative which reinstated the majority vote for legislative approval of the State budget. Together, these and other statutory changes have helped rationalize State-local governance and better allocate the State's revenues.

- On November 6, 2012, voters approved Proposition 30, which temporarily raised personal income and sales tax rates, and Proposition 39, which raised the corporate tax rate.

Proposition 30 raised the 9.3 percent personal income tax rate on high earners to 10.3 percent for joint filers with incomes between \$500,000 and \$600,000, 11.3 percent for joint filers with incomes between \$600,000 and \$1 million, and 12.3 percent for joint filers with incomes above \$1 million. Proposition 30 also raised the statewide sales tax rate by 0.25 percent. The personal income tax increases took effect in 2012 and will last seven years. The sales tax hike took effect January 1, 2013 and will expire after four years.

In the 2013-14 budget, the Administration estimated the additional revenues from the three higher personal income tax brackets will total \$3.4 billion in 2011-12, \$4.8 billion in 2012-13 and \$4.8 billion in 2013-14.

Including the new sales tax revenues, Proposition 30 is expected to raise an estimated \$6.1 billion for the State General Fund in 2013-14. Since, pursuant to Proposition 98, \$2.2 billion will be allocated to K-12 schools and community colleges, the estimated net benefit to the General Fund will be \$3.9 billion.

Proposition 39 amended state statutes governing corporation taxes and is projected to increase General Fund revenues in 2013-14 by \$928 million.

- Ending an era of serial budget deficits and substantial use of one-time measures to balance the budget, the State ended 2012-13 with a surplus of \$254 million, the first positive year-end balance since 2007-08. The 2013-14 budget forecasts the State will end the year with a \$1.1 billion reserve. Additionally, the spending plan relies on no one-time measures to maintain balance. And it continues to pay down the so-called “wall of debt.” Over a longer period, the 2013-14 budget projects structural balance at least through 2015-16.
- As noted above, the Governor and Legislature have taken steps to knock down most of the remainder of the State’s “wall of debt.” The wall consists of payments still due for budget solutions adopted over the prior decade which, in effect, pushed costs out to future years. These deferred obligations include: a portion of Proposition 98 payments to schools and community colleges; the Economic Recovery Bonds approved by voters in 2004 to pay for deficit spending; loans from special funds; unpaid State mandate costs; and various other obligations. At the end of 2010-11, the wall of debt totaled \$34.7 billion. By the end of 2012-13, it had been reduced to \$26.9 billion. The 2013-14 budget estimates the liability will be slashed to \$4.7 billion by the end of 2016-17, an 86.4 percent reduction from 2010-11.

Because of these developments, as well as other improvements to the State’s fiscal management, Standard and Poor’s (S&P) on January 31, 2013 upgraded the State’s GO bonds from “A-” to “A.” Fitch Ratings (Fitch) followed suit on August 5, 2013, also upgrading the State’s GO rating from “A-” to “A.”

Investors have responded positively to the significant improvements to the State’s financial management and performance, and to the rating upgrades from S&P and Fitch. Figure 1 below depicts the State’s interest rate spreads to the “AAA” GO Municipal Market Data (MMD) index, the industry’s benchmark of “triple A”-rated tax-exempt state GO bonds. The State’s credit spread on its 30-year bonds to the MMD index tightened from 102 basis points at the end of 2011-12 to 62 basis points in August 2013. At its peak in late 2009, amid the State’s financial difficulties, this spread had exceeded 150 basis points. The 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 challenges and risks including: paying off its deferred obligations; revenue volatility; the cost of retiree benefits; 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: Thomson Municipal Market Monitor (TM3)

## OVERALL MARKET CONDITIONS.

The discussion below reviews the larger municipal and taxable bond market factors that have significantly affected the State's bonds.

### *Interest Rates and Economic Refundings*

Since July 2012, fixed income market conditions have changed significantly. Fixed income generally refers to debt instruments issued in the bond market. Initially, this market reacted positively (i.e. interest rates went lower) to concerns over the anemic economic recovery, the slowing pace of growth in emerging economies, and the Federal Reserve's (Fed) extension and expansion of its program to purchase U.S. Treasuries and other securities. Called "quantitative easing" (QE), the Fed program kept interest rates at extremely low levels through November 2012.

Subsequently, however, the fixed income market has been negatively affected by a variety of factors. They include: the higher tax rates approved under the American Taxpayer Re-

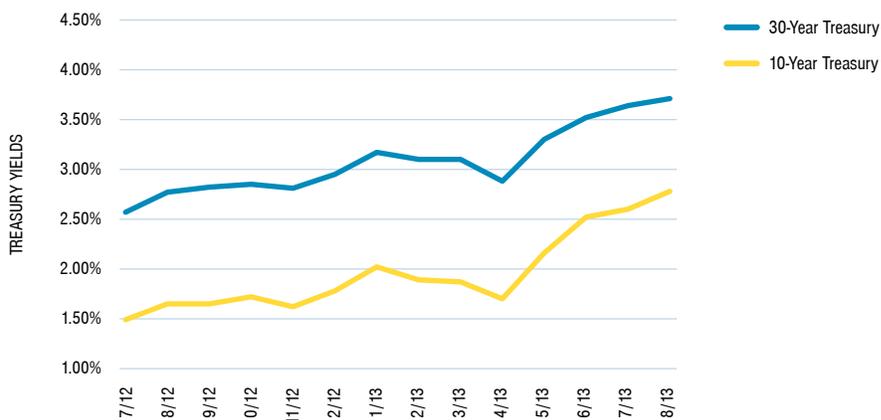
lief Act of 2012; the protracted deficit reduction talks and subsequent federal budget cuts; and concerns regarding the potential wind-down of the QE program.

While fixed income interest rates remained low through April 2013, they began to rise in May 2013. Rates then increased dramatically beginning in June 2013. That's when the Fed announced that, if the economy continued to improve, it might slow and ultimately end the QE program. Tax-exempt municipal bonds were among those fixed income securities negatively affected by these overall market conditions. Interest rates on tax-exempt municipal bonds, after declining to their lowest levels in November 2012, have risen substantially.

The 10- and 30-year Treasury bond yields have increased by approximately 135 and 125 basis points, respectively, since their lows in July 2012 (see Figure 2 below). Meanwhile, the 30-year tax-exempt MMD index has risen by approximately 200 basis points from the November 2012 all-time low. The 10-year tax-exempt MMD index also has increased dramatically since that time. The 30-year and 10-year MMD trend lines are displayed in Figure 3.

**FIGURE 2**

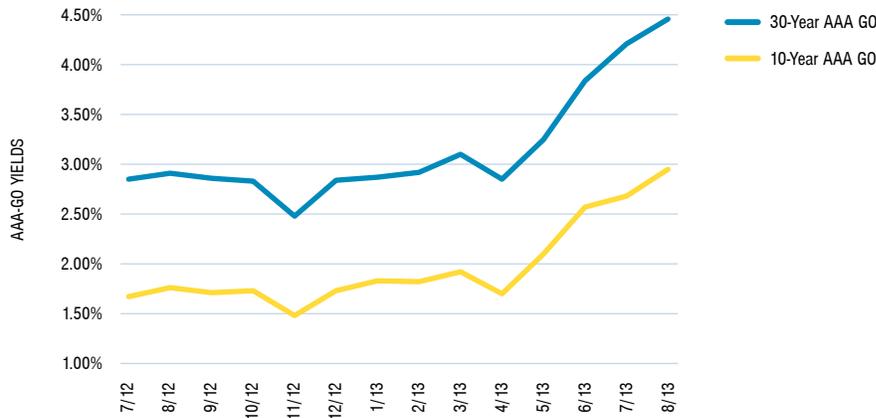
TREASURY RATE TRENDS



Source: The Wall Street Journal Market Data Center

**FIGURE 3**

TAX-EXEMPT INTEREST RATE TRENDS

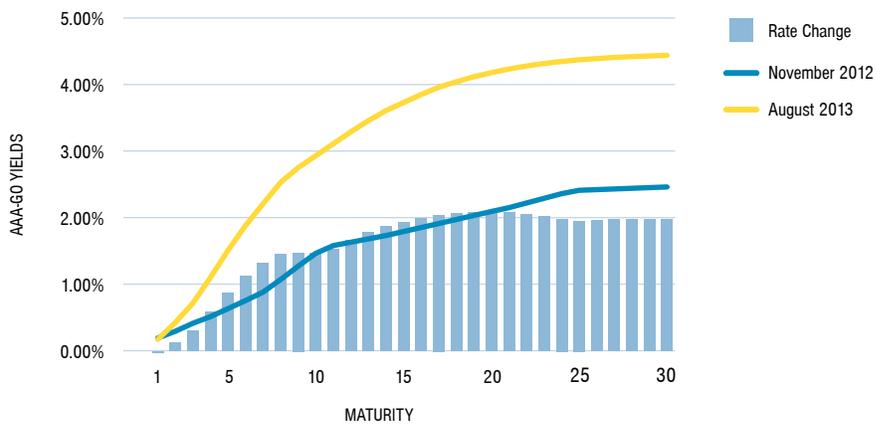


Source: Thomson Municipal Market Monitor (TM3)

In addition, between November 2012 and August 2013, the shape of the tax-exempt “yield curve” steepened, with interest rates on the intermediate and long maturities rising more than rates on shorter maturities. This trend is displayed in Figure 4.

**FIGURE 4**

TAX-EXEMPT INTEREST RATES, YIELD CURVE STEEPNESS



Source: Thomson Municipal Market Monitor (TM3)

Prior to the rise in interest rates, the State took advantage of low tax-exempt rates to refinance, or refund, \$4.1 billion of its outstanding GO bonds in fall 2012 and spring 2013. These refundings generated \$857 million of total debt service savings for taxpayers over the remaining life of the bonds. In total, since September 2011, GO refundings have generated \$1.4 billion of aggregate debt service savings.

*Supply and Demand*

The supply, and the amount and types of bonds demanded by investors can affect the price of municipal bonds. Through August, municipal supply in 2013 was within a normal range, with volume down nationally but up in California. At \$226 billion, national volume was 12 per-

cent lower than the same period in 2012. California volume totaled \$33 billion, a 6 percent year-over-year increase. While the market has been sensitive this year during weeks with a concentrated supply of bonds, supply generally has not been an important market factor. On the other hand, the characteristics of investor demand for municipal bonds have changed considerably over this period and have significantly affected the market.

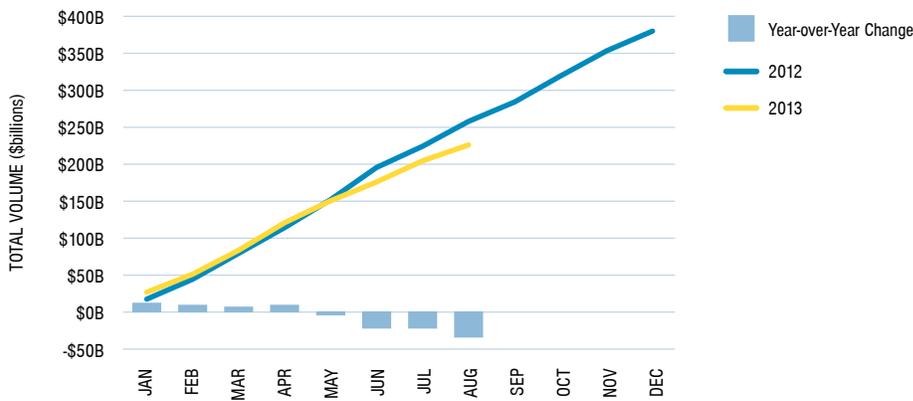
**SUPPLY.** Following a depressed level of issuance in 2011, U.S. municipal bond volume in 2012 returned to a more normal level of \$380 billion. As mentioned above, volume through August of this year totaled \$226 billion. A relatively large percentage of the supply in 2012 and 2013 has been refunding bonds. Nationally, refundings comprised

42 percent of total municipal volume in 2012, compared to 20 percent for combined refunding and new-money issues, and 38 percent for new-money issues. Through August 2013, refundings comprised 36 percent of total municipal volume, while combined refunding and new-money issues made up 20 percent, and new-money issues accounted for 44 percent. In California, 2012 issuance consisted of 63 percent refundings and 37 percent new-money issues. Through August 2013, 58 percent of California issuance was refundings, and 42 percent was new-money bonds.

With rates significantly higher now, refunding volume can be expected to decline. Figures 5 and 6 present the cumulative volume of national and California municipal bond issuance in 2012 and 2013.

**FIGURE 5**

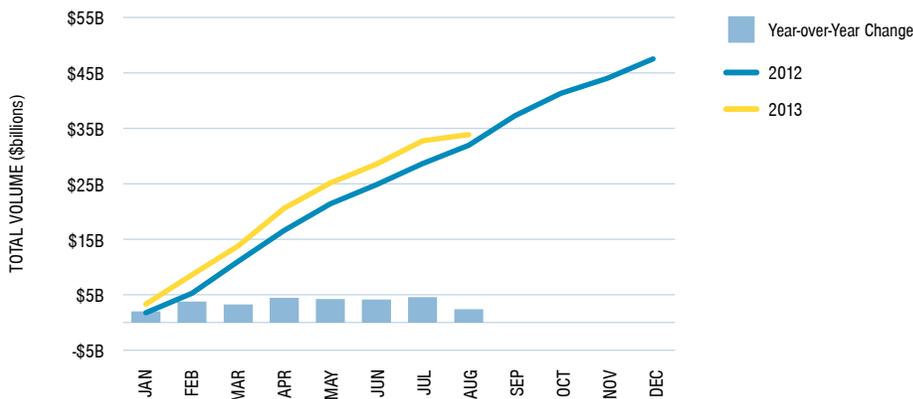
U.S. CUMULATIVE BOND VOLUME, 2012 AND 2013 THROUGH AUGUST



Source: Thomson Municipal Market Monitor (TM3)

**FIGURE 6**

CALIFORNIA CUMULATIVE BOND VOLUME, 2012 AND 2013 THROUGH AUGUST



Source: CDIAC Database

Another important municipal market metric is net supply. Each year, investors redeem billions of dollars of municipal bonds and look to reinvest the money by purchasing more bonds. New-issue supply usually exceeds these redemptions, which increases opportunities for investors. In 2012, however, redemptions exceeded new issuance in a number of months, creating a supply-demand relationship that favored issuers. This year, conditions returned to normal, with a net supply that has benefited investors.

**DEMAND.** Because of their tax-advantaged status, tax-exempt bonds have a more limited universe of investors than taxable bonds. (Only investors that pay federal and state income taxes fully benefit from municipal tax-exempt interest.) The municipal market today is largely dependent on tax-exempt municipal bond funds and retail investors.

The behavior of these two types of investors varies significantly depending on market conditions. The bond funds experienced significant cash inflows from late 2011 through February 2013, with assets increasing by \$70.6 billion over the period. As shown in Figure 7, however, from March through August 2013, bond funds steadily lost assets, reflecting lower demand from this important investor category. National municipal bond funds suffered cash outflows for 12 consecutive weeks through the end of August, with net investor withdrawals totaling approximately \$37.5 billion. California bond funds also have experienced losses in 2013. Through August, net withdrawals totaled \$2.6 billion.

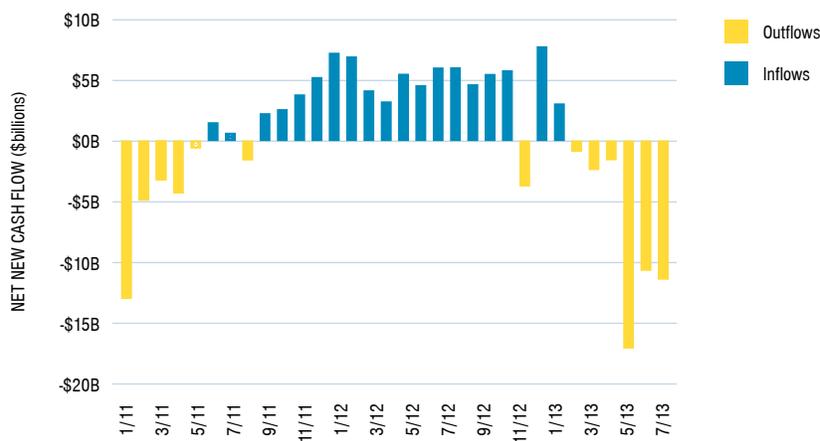
These outflows have been attributed to rising interest rates, which decrease the value of bonds. Investors have reacted by redeeming their holdings. During the period when interest rates rose dramatically following the Fed’s remarks on winding down its QE program, bond fund redemptions were unusually large and put significant upward pressure on tax-exempt interest rates.

While bond funds have lost assets as interest rates have risen, retail investor demand has increased. Municipal retail investors typically “buy and hold” bonds, so they have been relatively insensitive to changes in asset value. Instead, they have been attracted to today’s higher interest rates and the increased ratio of tax-exempt interest rates to taxable interest rates.

Retail bond buyers include individuals and “separately managed accounts” (SMAs). SMAs are professionally administered and are supplanting some traditional “mom and pop” investors. In SMAs, high net worth investors establish accounts managed by professional investment advisors, who buy the bonds and directly deposit the purchased bonds into individual accounts.

While retail demand has increased, this type of investor typically purchases bonds with relatively short maturities. As a result, the weaker demand from bond funds that are the typical buyers of the longer maturities cannot be fully offset by retail investors.

**FIGURE 7**  
MUNICIPAL BOND MARKET, MONTHLY FUND INFLOWS / OUTFLOWS



Source: Investment Company Institute (ICI)

### *Short Term Interest Rates*

CALIFORNIA NOTES. The 2013-14 California cash flow borrowing season, including local governments' Tax and Revenue Anticipation Notes (TRANs) and the State's Revenue Anticipation Notes (RANs), was very strong. Demand from money market funds – the major investor in short-term notes – was particularly strong, due to a smaller supply of alternative, short-term tax-exempt investments.

Overall, issuers secured lower interest rates. And based on improving economic and cash flow conditions, many sold a smaller amount of cash flow notes than last year. The State provides a good example. On August 22, 2013, the State issued \$5.5 billion of RANs, compared to \$10 billion last year. The yields on the 2013 RANs were 21 and 23 basis points, respectively, for the May 28, 2014 and June 23, 2014 maturities. These yields were the lowest the State has ever paid on its fixed-rate RANs.

VARIABLE RATE BONDS. The financial crisis of 2008 and 2009 severely impaired the markets for the two predominant municipal bond variable rate structures – variable rate demand bonds (VRDBs) and auction rate securities (ARS). First, ARS auctions began to fail. That market ultimately collapsed and has not returned. Then, as the commercial banks' credit quality deteriorated dramatically, issuers with outstanding VRDBs, which generally require commercial bank support, faced a severely limited supply of quality credit facilities, much higher pricing and more onerous terms and conditions. As a result, since 2008, issuers have been trying to maintain or reduce their VRDB exposure, with virtually no new VRDBs being issued.

During this period, alternative variable rate products that do not require any external credit support have been developed for municipal issuers. These products include floating rate notes (FRNs) and fixed-rate put bonds. FRNs are debt instruments that pay investors an interest rate that resets weekly or monthly and is linked to a short-term index. Fixed rate put bonds pay investors a fixed interest rate for a shorter period that relates to the maturity of the mandatory "put" date. On the mandatory put date, the investor must give the bonds back to the issuer, which pays the investor principal and the required interest.

For both FRNs and fixed rate put bonds, the issuer refunds the securities on or prior to their maturity or put dates. These alternative municipal products enable issuers, based solely on their own credit, to access the low-cost variable rate market at attractive terms relative to the fixed-rate and credit-supported VRDB markets. The products have

evolved over the last few years and gained more acceptance from both issuers and investors. Reflecting the increased popularity, the market for these two products broadened from being available primarily to triple- and double-A rated credits to issuers with lower ratings.

In 2012, for the first time, the State issued \$198 million of FRNs to refinance existing GO VRDBs. This reduced the State's exposure to, and dependence on, credit support facilities.

### *Municipal Bankruptcies*

Municipal bankruptcy continues to be closely watched in California and across the country as cases are making their way through the courts. In some cases, the outcomes of these legal proceedings may set a new standard or precedent in areas of the law that are untested. The most notable examples include the relative priority of debt and pension payments and the ability of governments to reduce pension benefits for existing employees.

In the summer of 2012, three California cities filed for bankruptcy: Stockton, San Bernardino and Mammoth Lakes. These bankruptcies followed the City of Vallejo's emergence earlier in 2012 from its three-year bankruptcy process. There also have been several significant municipal bankruptcies in other parts of the country. Most recently, on July 18, 2013, the City of Detroit became the largest municipality in history to file for bankruptcy protection.

In general, these distressed municipalities' leaders say what led them to file for bankruptcy was a combination of severe revenue declines, an inability to raise revenues and expenditure pressures, including large pension obligations that left them with very limited financial options.

In California, the affected local governments have taken various actions to reduce expenditures during the bankruptcy process. Among the actions: selectively defaulting on lease revenue bonds (LRBs), certificates of participation (COPs) and pension obligation bonds; and not making scheduled payments to pension systems. In Detroit, the emergency city manager's plan would reduce both the city's obligation to make its pension payments, and its payments on GO bonds and other debt.

While municipal bankruptcy actions remain limited, many local governments continue to face significant fiscal challenges in the aftermath of the severe recession. As a result, investors and credit enhancement providers continue to have questions and concerns about certain types of bonds and credits.

In 2012, Moody's Investors Service (Moody's) reviewed the ratings of all California cities and created a sharper distinction between GO bond ratings and ratings on unsecured general fund obligations, including pension obligation bonds, LRBs and COPs. Prior to their review, Moody's had typically rated California local government pension obligation bonds one notch lower than the issuer's GOs. It rated local government LRBs and COPs two notches lower.

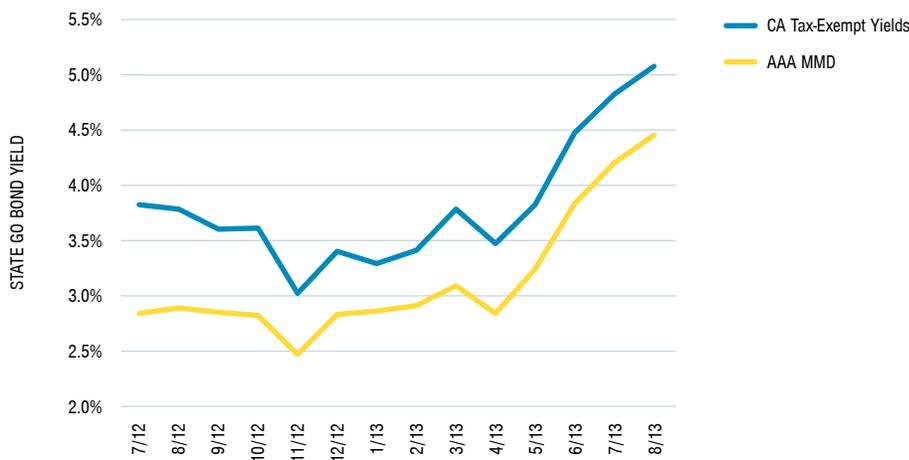
Following its review, Moody's in October 2012 revised its criteria to generally rate California local government pension obligation bonds, LRBs and COPs the same. The new methodology recognized these bonds as similarly unsecured general fund obligations. In addition, Moody's indicated it now will rate these obligations between two and five notches lower than an issuer's GO rating. The exact rating differential will depend on various characteristics of each issuer or bond transaction.

### Interest Rates on the State's Bonds

As discussed above, interest rates on the State's bonds are the product of both State-specific factors and overall market conditions. Since July 2012, tax-exempt interest rates have changed dramatically, initially declining to their lowest level in recorded history, and then rising substantially after the Fed's statements regarding QE. Significant improvements in fiscal management and financial results have helped constrain the State's interest costs by lowering the spread on the State's bonds relative to other municipal bond yields. Changes in the general market, however, have had a greater effect on interest rates than the improvements brought about by the State-specific factors. As a result, interest rates on the State's tax-exempt bonds have followed a similar pattern to the national market and increased substantially since the 2012 Debt Affordability Report. (see Figure 8).

**FIGURE 8**

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 9 summarizes the State's long-term debt as of June 30, 2013. This debt includes General Fund-supported GO bonds approved by voters and LRBs authorized by the Legislature, as well as other special fund and self-liquidating GO bonds. Special fund and self-liquidating GO bonds primarily are secured by specific revenues, and

the General Fund is not *expected* to pay the debt service. However, the General Fund is obligated to pay debt service should the revenues to support repayment not be sufficient. Figure 9's numbers 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 9

SUMMARY OF THE STATE'S DEBT (a), AS OF JUNE 30, 2013 (dollars in billions)

GENERAL FUND SUPPORTED ISSUES	OUTSTANDING	AUTHORIZED BUT UNISSUED	TOTAL
General Obligation Bonds	\$74.46	\$29.67	\$104.13
Lease Revenue Bonds (b)	11.82	6.87	18.69
<b>TOTAL GENERAL FUND SUPPORTED ISSUES</b>	<b>\$86.28</b>	<b>\$36.54</b>	<b>\$122.82</b>
<b>SPECIAL FUND/SELF LIQUIDATING ISSUES</b>			
Economic Recovery Bonds	\$5.23	\$ -	\$5.23
Veterans General Obligation Bonds	0.58	1.14	1.72
California Water Resources Development General Obligation Bonds	0.30	0.17	0.47
<b>TOTAL SPECIAL FUND/SELF LIQUIDATING ISSUES</b>	<b>\$6.20</b>	<b>\$1.31</b>	<b>\$7.51</b>
<b>TOTAL</b>	<b>\$92.48</b>	<b>\$37.85</b>	<b>\$130.33</b>

(a) Debt obligations not included in Figure 9: 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 have not been appropriated through enacted budgets.

- Approximately 4.3 percent of all GO bonds carry variable interest rates, much lower than the statutorily-authorized maximum of 20 percent. The remaining 95.7 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 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 patterns by departments, revised funding needs, overall budget con-

straints, use or repayment of commercial paper and general market conditions. Actual issuance amounts often vary significantly from initial estimates.

Figure 10 shows the STO's estimated issuance of new-money, General Fund-backed bonds over the next two fiscal years. Only currently authorized but unissued GO bonds are reflected in Figure 10. The estimated issuance may increase should new bond programs be approved.

As shown in Figure 10, STO preliminarily estimates the State will issue a combined \$12.48 billion of General Fund-backed bonds in 2013-14 and 2014-15. Using this assumption for debt issuance, STO estimates debt service payments from the General Fund will increase by \$80.26 million in 2013-14 and \$550.15 million in 2014-15.<sup>1</sup> A detailed list of the estimated debt service requirements can be found in Appendix B.

### FIGURE 10

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

	2013-14	2014-15
General Obligation Bonds	\$4,958	\$4,918
Lease Revenue Bonds	2,341	268
<b>TOTAL GENERAL FUND-SUPPORTED BONDS</b>	<b>\$7,299</b>	<b>\$5,186</b>

(a) Debt issuances not included in Figure 10: 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 revenues secure the bonds.

<sup>1</sup> Figures reflect debt service from only a portion of the bond sales listed in Figure 10. For example, \$2.2 billion of the \$4.9 billion in GO bonds and \$1.1 billion of the \$2.3 billion in LRBs planned for 2013-14 are expected to 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 2013-14 will not have a debt service payment during the fiscal year. The first interest payment for these bonds will be in 2014-15.

## 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 debt service to General Fund revenues was 8.8 percent<sup>2</sup> in 2012-13. That figure is based on \$8.6 billion of GO, LRB and other debt service payments versus \$98.2 billion of General Fund revenues. The STO estimates this ratio will be 7.7 percent<sup>3</sup> in 2013-14. That estimate is based on \$7.5 billion of debt service pay-

ments versus \$97.1 billion of General Fund revenues (as projected by DOF).<sup>4</sup>

### 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 2013 State Debt Medians report, Moody's lists the State's ratio of net tax-supported debt to personal income at 5.8 percent.<sup>5</sup>

### 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 2013 State Debt Medians report, Moody's lists the State's debt per capita at \$2,565.<sup>6</sup>

<sup>2</sup> 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 \$1.1 billion of estimated offsets, the 2012-13 debt service decreases to \$7.5 billion and the ratio of debt service to General Fund revenues drops to 7.6 percent.

<sup>3</sup> 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 \$1.4 billion of estimated offsets, the 2013-14 debt service decreases to \$6.1 billion and the ratio of debt service to General Fund revenues drops to 6.3 percent.

<sup>4</sup> Debt service totals for 2012-13 and 2013-14 exclude special fund bonds, for which debt service each year is paid from dedicated funds. When the debt service on the ERBs is added to General Fund-supported debt service (excluding offsets due to subsidy payments from the federal government for BABs or transfers from special funds), and the revenue from the quarter-cent sales tax dedicated for payment of the ERBs is added to General Fund revenues, the ratio of debt service to General Fund revenues increases to 9.4 percent in 2012-13 and 8.4 percent in 2013-14.

<sup>5</sup> Moody's calculation of net tax-supported debt includes GO bonds (non self-liquidating), LRBs, ERBs, Proposition 1A bonds authorized by the 2009-10 Budget Act, 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.

<sup>6</sup> Ibid.

## 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 10<sup>th</sup>-largest economy and one of the most diverse.<sup>7</sup> In its 2013 State Debt Medians report, Moody's lists the State's debt-to-GDP ratio at 4.98 percent.<sup>8</sup>

## CALIFORNIA'S DEBT LEVELS COMPARED TO OTHER LARGE 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 publishes an annual report containing the median ratios. It's useful to compare California's debt levels with those of its "peer group" of the 10 most populous states. As shown in Figure 11, the median debt to personal income, debt per capita and debt as a percentage of GDP 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 its peer group and all states.

**FIGURE 11**

DEBT RATIOS OF 10 MOST POPULOUS STATES, RANKED BY RATIO OF DEBT TO PERSONAL INCOME

STATE	MOODY'S/S&P/ FITCH(a)	DEBT TO PERSONAL INCOME(b)	DEBT PER CAPITA(b)	DEBT AS A % OF STATE GDP(b)(c)
Texas	Aaa/AA+/AAA	1.5%	\$580	1.16%
Michigan	Aa2/AA-/AA	2.2%	\$800	2.05%
North Carolina	Aaa/AAA/AAA	2.4%	\$853	1.89%
Pennsylvania	Aa2/AA/AA+	2.8%	\$1,208	2.66%
Ohio	Aa1/AA+/AA+	2.8%	\$1,047	2.50%
Florida	Aa1/AAA/AAA	2.8%	\$1,087	2.78%
Georgia	Aaa/AAA/AAA	3.0%	\$1,061	2.51%
Illinois	A3/A-/A-	5.7%	\$2,526	4.85%
California	A1/A/A	5.8%	\$2,565	4.98%
New York	Aa2/AA/AA	6.3%	\$3,174	5.36%
MOODY'S MEDIAN ALL STATES		2.8%	\$1,074	2.47%
MEDIAN FOR THE 10 MOST POPULOUS STATES		2.8%	\$1,074	2.59%

(a) Moody's, S&P, and Fitch ratings, as of August 2013.

(b) Figures as reported by Moody's in its 2013 State Debt Median Report released May 2013. As of calendar year end 2011.

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

<sup>7</sup> California GDP as reported by the U.S. Bureau of Economic Analysis for 2012. Sovereign Country Ranking and GDP for 2012 as reported by the World Bank.

<sup>8</sup> Moody's calculation of net tax-supported debt includes GO bonds (non self-liquidating), LRBs, ERBs, Prop 1A, 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.

## SECTION 4:

# *Analysis of State's Credit Ratings*

The State's current GO bond ratings are "A" from Fitch, "A1" from Moody's and "A" from S&P. A summary of the rating agencies' latest actions on the State's GO bonds is presented in Figure 12.

From 2008 through 2011, the State suffered large annual and multi-year budget deficits that reached as high as \$20 billion or more. The severe economic recession of 2007-09 drained revenues from the coffers and caused liquidity crises. These problems combined with the constitutional requirement that budgets receive two-third majority approval from the Legislature to produce budget gridlock. This combination of factors also force extraordinary cash management measures that culminated with the State in 2009 issuing IOUs (registered warrants) to vendors, service providers and others.

However, since voters' enactment in 2010 of Proposition 25 (majority-vote legislative approval of the Budget), the State has passed three consecutive on-time Budgets.

These recent Budgets have focused on a more structured approach, incorporating significant ongoing spending reductions rather than relying on one-time solutions. In addition, the 2012 passage of Proposition 30, which temporarily raised personal income and sales tax revenues, has put the State on firmer financial ground. The State ended 2012-13 with a surplus of \$254 million, and the adopted budget for 2013-14 projects structural balance through at least 2015-16.

These positive budgetary trends have strengthened the State's credit quality.

S&P. On January 31, 2013, S&P upgraded the State's GO rating one notch to "A." In its report, S&P cited the State's improved fiscal and cash position, as well as the multi-year

**FIGURE 12**

**LATEST RATING ACTIONS**

RATING AGENCY	ACTION	DATE
S&P	Upgraded GO rating from "A-" to "A"	January 2013
Fitch	Upgraded GO rating from "A-" to "A"	August 2013
Moody's	Affirmed "A1" GO rating	August 2013

plan to retire the "wall of debt" backlog of payment deferrals and internal loans. S&P also praised policymakers' focus on realigning the structural deficit in the past two budgets as well as voters' approval of Proposition 30. However, S&P said while the State's finances are improved and liquidity is stronger, "a central question going forward is whether actual financial performance can match – or at least approach – the outcomes targeted in the governor's budget proposal and multiple year forecast."

FITCH. Following adoption of the 2013-14 budget, Fitch on August 5, 2013 upgraded the State's GO credit rating one notch to "A." Fitch said the upgrade reflected the "institutional improvements made by the state in recent years, its disciplined approach to achieving and maintaining structural balance in recent budgets, and the consequent fiscal progress made to date by the state as it recovers from the severe budgetary and cash flow crisis of 2008-2009." Despite the progress in recent years, Fitch said the State's rating likely will remain lower than most states for the foreseeable future due to the large magnitude of the state's budgetary challenges.

A summary of the rating agencies' opinion of the State's credit strengths and challenges is presented in Figure 13.

**FIGURE 13**

STATE OF CALIFORNIA GENERAL OBLIGATION RATING AGENCY COMMENTARY

	FITCH	MOODY'S	S&P
RATING STRENGTHS	<ul style="list-style-type: none"> <li>• Institutionalized changes to fiscal management in recent years which has improved its overall fiscal standing</li> <li>• Wealthy, diverse economy</li> <li>• Moderate, but growing, debt burden</li> </ul>	<ul style="list-style-type: none"> <li>• Large, diverse and wealthy economy</li> <li>• Liquidity position has strengthened in the last three years</li> <li>• Unfunded pension liabilities that are close to the median</li> </ul>	<ul style="list-style-type: none"> <li>• Deep and diverse economy</li> <li>• Recent commitment to aligning recurring revenues and expenses while paying down budgetary debts</li> <li>• Moderately high, but conservatively structured, bond debt</li> </ul>
RATING CHALLENGES	<ul style="list-style-type: none"> <li>• State finances are subject to cash flow crises due to economic cycles, revenue volatility, lack of reserves and institutional inflexibility</li> <li>• Heavy burden of budgetary borrowing from the last two fiscal crises and historical difficulty achieving and sustaining budgetary solutions</li> <li>• Voter initiatives have reduced the state's discretion to effectively manage budgetary challenges over time</li> </ul>	<ul style="list-style-type: none"> <li>• Highly volatile revenue structure</li> <li>• Political environment in which making speedy and productive gap-solving decisions is difficult (although three years of timely budgets may signal a shift in this)</li> <li>• Lack of reserves to cushion the state's finances from downturns</li> <li>• Limited financial and budgetary flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Volatile revenue base which is linked to difficult-to-forecast financial performance</li> <li>• Potential for structural budget balance to erode when Proposition 30 expires in 2018, or sooner if the Legislature and Governor increase ongoing spending</li> <li>• Large retirement benefit and budgetary liabilities</li> </ul>

## APPENDIX A:

# *The State's Debt*

### AUTHORIZED AND OUTSTANDING NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS AS OF JUNE 30, 2013 (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	\$47,175	\$ -	\$ -
+ 1990 School Facilities Bond Act	06/05/90	797,875	112,915	-	-
+ 1992 School Facilities Bond Act	11/03/92	898,211	312,475	-	-
California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002	03/05/02	2,600,000	2,221,035	-	259,240
+ California Library Construction and Renovation Bond Act of 1988	11/08/88	72,405	15,045	-	-
*+ California Park and Recreational Facilities Act of 1984	06/05/84	368,900	14,725	-	-
* California Parklands Act of 1980	11/04/80	285,000	3,270	-	-
California Reading and Literacy Improvement and Public Library Construction and Renovation Bond Act of 2000	03/07/00	350,000	282,230	-	5,040
*+ California Safe Drinking Water Bond Law of 1976	06/08/76	172,500	3,395	-	-
* California Safe Drinking Water Bond Law of 1984	11/06/84	75,000	2,205	-	-
* California Safe Drinking Water Bond Law of 1986	11/04/86	100,000	26,355	-	-
California Safe Drinking Water Bond Law of 1988	11/08/88	75,000	31,705	-	-
*+ California Wildlife, Coastal, and Park Land Conservation Act	06/07/88	768,670	134,890	-	-
Children's Hospital Bond Act of 2004	11/02/04	750,000	664,790	-	47,445
Children's Hospital Bond Act of 2008	11/04/08	980,000	528,865	10,500	438,740
Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (Hi-Ed)	11/03/98	2,500,000	1,859,645	-	-
Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (K-12)	11/03/98	6,700,000	4,427,660	-	11,400
Clean Air and Transportation Improvement Bond Act of 1990	06/05/90	1,990,000	883,585	-	17,570
* Clean Water Bond Law of 1984	11/06/84	325,000	12,465	-	-
* Clean Water and Water Conservation Bond Law of 1978	06/06/78	375,000	5,235	-	-
Clean Water and Water Reclamation Bond Law of 1988	11/08/88	65,000	24,330	-	-

**AUTHORIZED AND OUTSTANDING  
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS  
AS OF JUNE 30, 2013 (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	3,475	-	-
* County Correctional Facility Capital Expenditure Bond Act of 1986	06/03/86	495,000	19,780	-	-
County Correctional Facility Capital Expenditure and Youth Facility Bond Act of 1988	11/08/88	500,000	87,210	-	-
Disaster Preparedness and Flood Prevention Bond Act of 2006	11/07/06	4,090,000	2,244,880	-	1,818,652
Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990	06/05/90	300,000	105,555	-	9,765
* Fish and Wildlife Habitat Enhancement Act of 1984	06/05/84	85,000	5,755	-	-
Higher Education Facilities Bond Act of 1988	11/08/88	600,000	28,130	-	-
Higher Education Facilities Bond Act of June 1990	06/05/90	450,000	56,800	-	540
Higher Education Facilities Bond Act of June 1992	06/02/92	900,000	373,745	-	105
Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006	11/07/06	19,925,000	10,903,425	300,300	8,543,290
Housing and Emergency Shelter Trust Fund Act of 2002	11/05/02	2,100,000	1,483,350	-	132,535
Housing and Emergency Shelter Trust Fund Act of 2006	11/07/06	2,850,000	1,543,140	-	1,258,990
Housing and Homeless Bond Act of 1990	06/05/90	150,000	1,855	-	-
Kindergarten-University Public Education Facilities Bond Act of 2002 (Hi-Ed)	11/05/02	1,650,000	1,476,455	-	-
Kindergarten-University Public Education Facilities Bond Act of 2002 (K-12)	11/05/02	11,400,000	9,654,645	-	61,840
Kindergarten-University Public Education Facilities Bond Act of 2004 (Hi-Ed)	03/02/04	2,300,000	2,097,360	-	64,779
Kindergarten-University Public Education Facilities Bond Act of 2004 (K-12)	03/02/04	10,000,000	9,045,065	7,695	253,635
Kindergarten-University Public Education Facilities Bond Act of 2006 (Hi-Ed)	11/07/06	3,087,000	2,821,990	3,255	236,250
Kindergarten-University Public Education Facilities Bond Act of 2006 (K-12)	11/07/06	7,329,000	6,105,220	-	1,200,730
* Lake Tahoe Acquisitions Bond Act	08/02/82	85,000	450	-	-
* New Prison Construction Bond Act of 1986	11/04/86	500,000	6,870	-	-
New Prison Construction Bond Act of 1988	11/08/88	817,000	22,435	-	2,165
New Prison Construction Bond Act of 1990	06/05/90	450,000	30,960	-	605
Passenger Rail and Clean Air Bond Act of 1990	06/05/90	1,000,000	79,720	-	-
Public Education Facilities Bond Act of 1996 (Higher Education)	03/26/96	975,000	570,595	-	14,720
+ Public Education Facilities Bond Act of 1996 (K-12)	03/26/96	2,012,035	1,027,695	-	-
Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act	03/07/00	1,970,000	1,499,865	-	129,346
Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006	11/07/06	5,388,000	2,411,205	-	2,957,710
Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000	03/07/00	2,100,000	1,606,800	-	85,815
Safe, Clean, Reliable Water Supply Act	11/05/96	995,000	653,820	-	89,070

**AUTHORIZED AND OUTSTANDING  
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS  
AS OF JUNE 30, 2013 (DOLLARS IN THOUSANDS) CONTINUED**

GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
Safe, Reliable High-Speed Passenger Train Bond Act for the 21 <sup>st</sup> Century	11/04/08	9,950,000	703,530	-	9,244,480
* School Building and Earthquake Bond Act of 1974	11/05/74	40,000	17,305	-	-
School Facilities Bond Act of 1990	11/06/90	800,000	180,030	-	-
School Facilities Bond Act of 1992	06/02/92	1,900,000	662,405	-	10,280
Seismic Retrofit Bond Act of 1996	03/26/96	2,000,000	1,281,790	-	-
* State, Urban, and Coastal Park Bond Act of 1976	11/02/76	280,000	4,680	-	-
Stem Cell Research and Cures Bond Act of 2004	11/02/04	3,000,000	1,197,440	151,730	1,644,475
Veterans Homes Bond Act of 2000	03/07/00	50,000	35,205	-	975
Voting Modernization Bond Act of 2002	03/05/02	200,000	52,035	-	64,495
Water Conservation Bond Law of 1988	11/08/88	60,000	25,695	-	5,235
* Water Conservation and Water Quality Bond Law of 1986	06/03/86	150,000	37,090	-	13,730
Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002	11/05/02	3,440,000	2,676,780	36,615	540,164
<b>TOTAL GENERAL FUND BONDS</b>		<b>\$127,519,341</b>	<b>\$74,456,230</b>	<b>\$510,095</b>	<b>\$29,163,811</b>

(a) A total of not more than \$1.649 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

**AUTHORIZED AND OUTSTANDING  
SELF LIQUIDATING GENERAL OBLIGATION BONDS  
AS OF JUNE 30, 2013 (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	\$302,920	\$ -	\$167,600
Veterans Bond Act of 1986	06/03/86	850,000	68,175	-	-
Veterans Bond Act of 1988	06/07/88	510,000	64,555	-	-
Veterans Bond Act of 1990	11/06/90	400,000	61,190	-	-
Veterans Bond Act of 1996	11/05/96	400,000	184,240	-	-
Veterans Bond Act of 2000	11/07/00	500,000	207,200	-	238,610
Veterans Bond Act of 2008	11/04/08	900,000	-	-	900,000
<b>TOTAL ENTERPRISE FUND BONDS</b>		<b>\$5,310,000</b>	<b>\$888,280</b>	<b>\$ -</b>	<b>\$1,306,210</b>
<b>SPECIAL REVENUE FUND BONDS (SELF LIQUIDATING)</b>					
* Economic Recovery Bond Act	04/10/04	15,000,000	5,232,215	-	-
<b>TOTAL SPECIAL REVENUE FUND BONDS</b>		<b>\$15,000,000</b>	<b>\$5,232,215</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL SELF LIQUIDATING BONDS</b>		<b>\$20,310,000</b>	<b>\$6,120,495</b>	<b>\$ -</b>	<b>\$1,306,210</b>

(a) A total of not more than \$1.649 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.

**AUTHORIZED AND OUTSTANDING  
LEASE REVENUE BONDS  
AS OF JUNE 30, 2013 (DOLLARS IN THOUSANDS)**

GENERAL FUND SUPPORTED ISSUES	OUTSTANDING	AUTHORIZED BUT UNISSUED
<b>STATE PUBLIC WORKS BOARD</b>		
California Community Colleges	\$357,305	\$ -
California Department of Corrections and Rehabilitations	3,183,605	3,533,386
The Regents of the University of California (a)	2,406,740	51,719
Trustees of the California State University	991,455	218,568
Various State Facilities (b)	4,466,905	3,069,707
<b>TOTAL STATE PUBLIC WORKS BOARD ISSUES</b>	<b>\$11,406,010</b>	<b>\$6,873,380</b>
<b>TOTAL OTHER STATE FACILITIES LEASE-REVENUE ISSUES (c)</b>	<b>\$416,130</b>	<b>\$ -</b>
<b>TOTAL GENERAL FUND SUPPORTED ISSUES</b>	<b>\$11,822,140</b>	<b>\$6,873,380</b>

(a) The Regents' obligations to the State Public Works Board are payable from lawfully available funds of The Regents which are held in The Regents' treasury funds and are separate from the State General Fund. A portion of The Regents' annual budget is derived from General Fund appropriations.

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

(c) Includes \$110,720,000 Sacramento City Financing Authority Lease-Revenue Bonds State of California - Cal/EPA Building, 1998 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, 2013**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST	PRINCIPAL (a)	TOTAL
2014	\$211,033,130.00	\$500,470,000.00	\$711,503,130.00
2015	184,847,398.75	525,615,000.00	710,462,398.75
2016	157,474,605.00	556,690,000.00	714,164,605.00
2017	140,025,400.00	165,160,000.00	305,185,400.00
2018	132,149,376.25	174,290,000.00	306,439,376.25
2019	113,267,497.50	592,955,000.00	706,222,497.50
2020	86,361,762.50	496,145,000.00	582,506,762.50
2021	61,465,062.50	507,445,000.00	568,910,062.50
2022	36,925,093.75	451,575,000.00	488,500,093.75
2023	12,571,250.00	500,000,000.00	512,571,250.00
2024	35,625.00	1,500,000.00	1,535,625.00
<b>TOTAL</b>	<b>\$1,136,156,201.25</b>	<b>\$4,471,845,000.00</b>	<b>\$5,608,001,201.25</b>

(a) Includes scheduled mandatory sinking fund payments.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR  
SPECIAL REVENUE FUND SELF LIQUIDATING BONDS  
(ECONOMIC RECOVERY BONDS)  
VARIABLE RATE, AS OF JUNE 30, 2013**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST (a)	PRINCIPAL (b)	TOTAL
2014	\$23,947,726.36	\$ -	\$23,947,726.36
2015	22,023,301.36	-	22,023,301.36
2016	20,099,306.83	-	20,099,306.83
2017	20,098,989.17	-	20,098,989.17
2018	20,099,148.00	25,000,000.00	45,099,148.00
2019	18,599,691.28	115,000,000.00	133,599,691.28
2020	12,708,763.55	189,500,000.00	202,208,763.55
2021	4,916,229.60	150,990,000.00	155,906,229.60
2022	1,010,435.79	88,910,000.00	89,920,435.79
2023	108,907.61	134,620,000.00	134,728,907.61
2024	16,785.53	56,350,000.00	56,366,785.53
<b>TOTAL</b>	<b>\$143,629,285.08</b>	<b>\$760,370,000.00</b>	<b>\$903,999,285.08</b>

(a) The estimate of future interest payments is based on rates in effect as of June 30, 2013. The interest rates for the bonds range from 0.03 - 0.06%. \$500,000,000 of the Series 2009B Economic Recovery Bonds bear interest at fixed rates ranging from 3.50 - 5.00% until reset date, and are assumed to bear interest at the rate of 4.00% from each reset date to maturity.

(b) Includes scheduled mandatory sinking fund payments.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS  
FOR GENERAL FUND NON-SELF LIQUIDATING BONDS  
FIXED RATE, AS OF JUNE 30, 2013**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST (a)	PRINCIPAL (b)	TOTAL (c)
2014	\$3,869,036,980.36	\$2,400,325,000.00	\$6,269,361,980.36
2015	3,782,803,386.35	2,610,430,000.00	6,393,233,386.35
2016	3,663,687,826.35	2,722,530,000.00	6,386,217,826.35
2017	3,544,972,205.62	2,280,985,000.00	5,825,957,205.62
2018	3,436,300,878.70	2,205,085,000.00	5,641,385,878.70
2019	3,325,520,890.62	2,306,460,000.00	5,631,980,890.62
2020	3,187,952,345.14	2,596,520,000.00	5,784,472,345.14
2021	3,069,926,390.23	2,178,330,000.00	5,248,256,390.23
2022	2,952,589,900.96	2,483,840,000.00	5,436,429,900.96
2023	2,834,515,348.25	2,020,630,000.00	4,855,145,348.25
2024	2,738,259,285.29	1,775,165,000.00	4,513,424,285.29
2025	2,647,277,437.14	1,944,985,000.00	4,592,262,437.14
2026	2,544,724,211.72	2,074,610,000.00	4,619,334,211.72
2027	2,433,093,607.97	2,212,235,000.00	4,645,328,607.97
2028	2,325,400,487.11	2,256,940,000.00	4,582,340,487.11
2029	2,214,965,480.10	2,300,345,000.00	4,515,310,480.10
2030	2,098,493,245.56	2,492,880,000.00	4,591,373,245.56
2031	1,962,355,244.36	2,605,810,000.00	4,568,165,244.36
2032	1,838,059,805.65	2,408,155,000.00	4,246,214,805.65
2033	1,708,339,526.26	2,484,675,000.00	4,193,014,526.26
2034	1,580,261,272.25	3,424,890,000.00	5,005,151,272.25
2035	1,343,868,231.10	3,170,320,000.00	4,514,188,231.10
2036	1,153,580,082.01	2,782,530,000.00	3,936,110,082.01
2037	979,565,355.62	3,122,660,000.00	4,102,225,355.62
2038	795,513,390.69	3,068,625,000.00	3,864,138,390.69
2039	647,539,260.20	3,415,270,000.00	4,062,809,260.20
2040	370,915,493.75	1,603,885,000.00	1,974,800,493.75
2041	213,203,625.00	2,190,000,000.00	2,403,203,625.00
2042	110,923,625.00	1,319,000,000.00	1,429,923,625.00
2043	55,466,250.00	1,326,325,000.00	1,381,791,250.00
<b>TOTAL</b>	<b>\$63,429,111,069.36</b>	<b>\$71,784,440,000.00</b>	<b>\$135,213,551,069.36</b>

(a) The amounts do not reflect any interest subsidy under the Build America Bonds program or transfers from special funds. These amounts are not pledged to the repayment of debt service.

(b) Includes scheduled mandatory sinking fund payments.

(c) Does not include outstanding commercial paper.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS  
FOR GENERAL FUND NON-SELF LIQUIDATING BONDS  
VARIABLE RATE, AS OF JUNE 30,2013**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST (a)(b)	PRINCIPAL	TOTAL (c)
2014	\$2,934,887.12	\$ -	\$2,934,887.12
2015	2,934,887.12	-	2,934,887.12
2016	2,944,714.28	24,400,000.00	27,344,714.28
2017	2,868,544.27	311,845,000.00	314,713,544.27
2018	2,445,013.58	418,745,000.00	421,190,013.58
2019	1,868,862.68	188,250,000.00	190,118,862.68
2020	1,562,869.68	171,150,000.00	172,712,869.68
2021	1,302,317.49	58,600,000.00	59,902,317.49
2022	1,249,289.53	43,600,000.00	44,849,289.53
2023	1,197,482.74	65,600,000.00	66,797,482.74
2024	1,138,800.56	178,300,000.00	179,438,800.56
2025	1,016,553.31	121,300,000.00	122,316,553.31
2026	926,334.88	208,400,000.00	209,326,334.88
2027	800,336.14	170,900,000.00	171,700,336.14
2028	667,997.83	179,500,000.00	180,167,997.83
2029	544,473.08	215,600,000.00	216,144,473.08
2030	395,727.26	73,800,000.00	74,195,727.26
2031	298,327.34	76,700,000.00	76,998,327.34
2032	200,996.59	79,800,000.00	80,000,996.59
2033	98,498.20	82,700,000.00	82,798,498.20
2034	1,218.00	1,600,000.00	1,601,218.00
2035	550.00	-	550.00
2036	552.38	-	552.38
2037	547.62	-	547.62
2038	550.00	-	550.00
2039	550.00	-	550.00
2040	504.30	1,000,000.00	1,000,504.30
<b>TOTAL</b>	<b>\$27,401,385.98</b>	<b>\$2,671,790,000.00</b>	<b>\$2,699,191,385.98</b>

(a) The estimate of future interest payments is based on rates in effect as of June 30, 2013. The interest rates for the daily and weekly rate bonds range from 0.03 - 1.21%.

(b) The amounts do not reflect any interest subsidy under the Build America Bonds program or transfers from special funds. These amounts are not pledged to the repayment of debt service.

(c) Does not include outstanding commercial paper.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS  
FOR ENTERPRISE FUND SELF LIQUIDATING BONDS  
FIXED RATE, AS OF JUNE 30, 2013**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST	PRINCIPAL (a)	TOTAL
2014	\$38,549,692.50	\$61,185,000.00	\$99,734,692.50
2015	35,864,153.08	77,565,000.00	113,429,153.08
2016	32,850,596.63	75,620,000.00	108,470,596.63
2017	30,149,912.50	61,895,000.00	92,044,912.50
2018	27,462,914.65	60,655,000.00	88,117,914.65
2019	24,852,124.91	54,065,000.00	78,917,124.91
2020	22,922,113.75	28,865,000.00	51,787,113.75
2021	21,559,158.75	20,320,000.00	41,879,158.75
2022	20,609,798.78	14,380,000.00	34,989,798.78
2023	19,967,871.25	12,160,000.00	32,127,871.25
2024	19,404,383.75	13,075,000.00	32,479,383.75
2025	18,644,383.55	20,135,000.00	38,779,383.55
2026	18,173,616.05	200,000.00	18,373,616.05
2027	17,793,666.15	16,695,000.00	34,488,666.15
2028	17,013,175.30	17,835,000.00	34,848,175.30
2029	15,797,415.30	34,275,000.00	50,072,415.30
2030	13,838,626.19	48,325,000.00	62,163,626.19
2031	11,483,504.78	50,490,000.00	61,973,504.78
2032	9,687,345.00	25,755,000.00	35,442,345.00
2033	7,998,048.75	46,095,000.00	54,093,048.75
2034	6,359,375.00	22,705,000.00	29,064,375.00
2035	5,269,037.50	23,310,000.00	28,579,037.50
2036	4,403,300.00	13,945,000.00	18,348,300.00
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
<b>TOTAL</b>	<b>\$450,415,362.87</b>	<b>\$888,280,000.00</b>	<b>\$1,338,695,362.87</b>

(a) Includes scheduled mandatory sinking fund payments.

**SCHEDULE OF DEBT SERVICE REQUIREMENTS  
FOR LEASE-REVENUE DEBT  
FIXED RATE, AS OF JUNE 30, 2013**

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST (a)	PRINCIPAL (b)	TOTAL
2014	\$603,698,809.70	\$543,810,000.00	\$1,147,508,809.70
2015	576,983,295.38	596,705,000.00	1,173,688,295.38
2016	548,099,940.03	615,200,000.00	1,163,299,940.03
2017	517,926,615.81	649,440,000.00	1,167,366,615.81
2018	486,349,983.98	674,785,000.00	1,161,134,983.98
2019	453,492,838.23	649,585,000.00	1,103,077,838.23
2020	421,200,920.47	636,020,000.00	1,057,220,920.47
2021	390,644,969.70	590,440,000.00	981,084,969.70
2022	361,000,379.57	579,170,000.00	940,170,379.57
2023	333,391,172.49	532,985,000.00	866,376,172.49
2024	307,046,011.94	467,870,000.00	774,916,011.94
2025	282,850,206.22	492,250,000.00	775,100,206.22
2026	257,516,632.36	499,630,000.00	757,146,632.36
2027	230,904,748.92	526,230,000.00	757,134,748.92
2028	203,100,891.38	538,310,000.00	741,410,891.38
2029	175,422,696.00	498,475,000.00	673,897,696.00
2030	148,624,296.43	492,165,000.00	640,789,296.43
2031	122,119,328.23	456,665,000.00	578,784,328.23
2032	96,466,987.79	450,985,000.00	547,451,987.79
2033	73,101,409.53	340,575,000.00	413,676,409.53
2034	52,388,512.28	327,895,000.00	380,283,512.28
2035	31,693,017.23	299,675,000.00	331,368,017.23
2036	16,952,781.25	138,935,000.00	155,887,781.25
2037	10,048,412.50	145,830,000.00	155,878,412.50
2038	2,800,550.00	78,510,000.00	81,310,550.00
<b>TOTAL</b>	<b>\$6,703,825,407.42</b>	<b>\$11,822,140,000.00</b>	<b>\$18,525,965,407.42</b>

(a) The amounts do not reflect any interest subsidy under the Build America Bonds program or transfers from special funds. These amounts are 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 2013-14 AND 2014-15**

FISCAL YEAR ENDING JUNE 30	FY 2013-14 GO SALES DEBT SERVICE	FY 2014-15 GO SALES DEBT SERVICE	FY 2013-14 LRB SALES DEBT SERVICE	FY 2014-15 LRB SALES DEBT SERVICE	TOTAL DEBT SERVICE ALL SALES
2014	\$53,051,206	\$ -	\$27,207,353	\$ -	\$80,258,559
2015	316,939,044	59,611,375	170,163,578	3,434,433	550,148,429
2016	316,939,525	322,999,638	170,164,720	20,145,403	830,249,285
2017	316,941,044	322,996,563	170,163,013	20,146,973	830,247,591
2018	316,939,431	323,000,575	170,166,383	20,147,239	830,253,628
2019	316,940,281	323,001,413	170,167,235	20,145,240	830,254,169
2020	316,938,450	322,998,688	170,167,848	20,145,295	830,250,280
2021	316,938,675	323,001,375	170,165,103	20,146,163	830,251,315
2022	316,944,588	322,997,675	170,165,360	20,141,748	830,249,370
2023	316,944,581	323,000,413	170,164,458	20,141,235	830,250,686
2024	316,941,800	323,001,638	170,162,965	20,148,116	830,254,519
2025	316,943,413	323,002,750	170,165,535	20,146,016	830,257,714
2026	316,941,100	323,004,388	170,161,565	20,148,840	830,255,893
2027	316,940,806	322,996,675	170,165,058	20,145,079	830,247,618
2028	316,942,869	322,999,100	170,163,830	20,148,504	830,254,303
2029	316,941,638	322,999,475	170,165,713	20,147,326	830,254,151
2030	316,941,106	322,995,750	170,167,478	20,145,038	830,249,371
2031	316,939,281	322,999,325	170,165,375	20,144,861	830,248,843
2032	316,938,194	323,000,838	170,165,133	20,145,155	830,249,319
2033	316,939,150	322,999,888	170,161,293	20,143,716	830,244,046
2034	316,942,350	323,000,063	170,167,888	20,148,635	830,258,935
2035	316,937,256	322,998,925	170,167,625	20,142,575	830,246,381
2036	316,942,356	322,997,875	170,167,830	20,143,760	830,251,821
2037	316,939,544	323,001,900	170,164,910	20,144,306	830,250,660
2038	316,940,356	322,999,575	170,164,088	20,146,890	830,250,909
2039	316,939,488	322,998,588	170,164,540	20,143,761	830,246,376
2040	316,940,906	322,994,950	-	20,147,183	660,083,039
2041	316,941,856	322,998,138	-	-	639,939,994
2042	316,938,488	322,995,825	-	-	639,934,313
2043	316,935,606	322,999,413	-	-	639,935,019
2044	316,941,188	322,998,238	-	-	639,939,425
2045	-	322,999,975	-	-	322,999,975
<b>TOTAL</b>	<b>\$9,561,265,575</b>	<b>\$9,749,591,000</b>	<b>\$4,281,335,870</b>	<b>\$507,073,488</b>	<b>\$24,099,265,933</b>











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