



# Looking Beyond the Horizon

INVESTMENT PLANNING FOR THE 21ST CENTURY



Bill Lockyer  
California State Treasurer





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October 1, 2007

Fellow Californians:

The State of California Debt Affordability Report for 2007 aims to make a new and substantive contribution to public policy planning for our state's future. I hope it generates more interest in solving California's growing pains. By sharing what we have learned, using good data and state-of-the-art forecasting tools, we want the report to send this central message: The people of California can afford the future we want if we start making smart financial decisions now.

In order to advance the public discussion about the State's debt and fiscal policy, this year I asked staff of the Treasurer's Office to greatly expand the scope and time-scale of the report. I wanted the report to provide a view of California's needs and State government's financial capability over the next 20 years—decades in which California's population will grow from its present 38 million to nearly 50 million.

To get ready for tomorrow, and to make present-day California a place where everyone has a genuine opportunity to enjoy a good life and make a good living, we will need to invest more in replacing, invigorating and modernizing our worn-out public infrastructure. Our schools, highways, transit systems, water delivery and conservation systems, parks and flood control systems all need serious attention after decades of neglect. Refurbishing that infrastructure and greening our government facilities to make them more energy efficient will require not only significant new investment of public dollars, but investment of new ideas and long-term public and private-sector planning.

The 2007 Debt Affordability Report, *Looking Beyond the Horizon: Investment Planning for the 21st Century*, provides an in-depth look at how much investment we need, how much we believe it will cost to finance that investment, and what our state can do to afford the required investment. Along the way, the report takes a close look at the state's annual revenues and expenditures and its persistent "structural budget deficit." It examines how much we might earn in new revenues or save in state spending to help balance the budget, depending on the policy choices we make in the next few years. And the report looks at how state and local governments and private businesses can pull together for common goals, making the best use of each other's strengths, creative ideas and combined financial capacity.

The bad news is we can't buy the public improvements we need without balancing our state budget and doing what we have to do to keep it balanced. We could be in the hole by more than \$14 billion in 20 years if we don't act to fix our fiscal house. The good news is California can do that job without having to make unacceptable sacrifices, either in taxation or services. The report finds that over the long-haul, we can have a balanced budget and afford \$224 billion in new state-funded infrastructure investment by adjusting the mix of revenues and expenditures by an average of less than 4 percent a year.

I'm proud of the work done on this year's report by our talented staff as well as our financial and economic advisors. I hope that all who read it will put it to good use in helping Californians overcome the real but solvable problems we face. Beyond that horizon, but not far away, a new California is in the making: Now is the time to make sure it's the one we want.

**BILL LOCKYER**  
California State Treasurer



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# Preface

The Treasurer must submit an annual debt affordability report to the Governor and Legislature in accordance with the requirement of Government Code Section 12330. The law requires the Treasurer to provide the following information:

- A listing of authorized but unissued debt that the Treasurer intends to sell during the current year (2007-08) and the budget year (2008-09) and the projected increase in debt service as a result of those sales.
- A description of the market for state bonds.
- An analysis of the ratings of state bonds.
- A listing of outstanding debt supported by the General Fund and a schedule of debt service requirements for this debt.
- A listing of authorized but unissued debt that would be supported by the General Fund.
- Identification of pertinent debt ratios, such as debt service to General Fund revenues, debt to personal income, debt to estimated full-value of property, and debt per capita.
- A comparison of these debt ratios with the comparable debt ratios for the 10 most populous states.
- A description of the percentage of the state's outstanding general obligation bonds constituting 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 the hedging contract, the outstanding notional amount, the effective date, the expiration date, the name and ratings of the counterparty, the rate or floating index paid by the state and the rate or floating index paid by the counterparty, and a summary of the performance of the state's hedging contracts in comparison to the objectives for which the hedging contracts were executed.

This report frequently uses the words “bonds” and “debt” interchangeably, even when the underlying obligation behind the bonds does not constitute debt under California's Constitution. This conforms to the market convention for the general use of the terms “debt” and “debt service” as applied to a broad variety of instruments in the municipal market, regardless of their precise legal status.

# Executive Summary

## INTRODUCTION

As we endeavor to reconstruct our state and build its future, Californians face daunting challenges. By 2050, an estimated 60 million people will call California home. That's twice as many people as lived here just seven years ago. Meanwhile, we have an infrastructure of schools, universities, roads, housing and water delivery built to serve just 25 million residents. What's worse, that infrastructure has decayed, the victim of decades of neglect.

Fortunately, there are signs Californians are pulling together to get our state back on track. In November 2006, voters approved a \$42.7 billion plan to finance infrastructure construction. Few experts or policy-makers doubt we need to make these investments—and much more—if we want to provide future generations a strong, dynamic, livable California.

The California Transportation Commission's 2006 Annual Report estimated nearly \$200 billion is needed for transportation alone over the next 20 years. The American Society of Civil Engineers says California must invest \$37 billion annually over the next 10 years to maintain and expand critical infrastructure systems.

Meanwhile, the Governor has proposed a "Strategic Growth Plan," which calls for \$222 billion of capital outlay projects over 10 years, 30 percent of which would be financed with voter-approved, general obligation (GO) bonds. Voters approved the first portion of that investment last November.

Making the investments we need to fully accommodate growth will benefit all Californians. Better schools will produce a generation of better-educated children who can excel in global competition. That will strengthen our economy and create more and better jobs for our state. Our communities and quality of life will be enriched with better roads, smarter development and rapid transit. We can shorten our commutes to work and home, and restore lost time for family and recreation.

We will dramatically reduce ratepayer, taxpayer and environmental costs by cleaning our air and water, improving the state's "plumbing" so that water conservation becomes a built-in part of our upgraded water transportation and storage system, and constructing and retrofitting California's public and private buildings to conserve and use renewable energy.

These investments will pay huge dividends in better health, lasting economic prosperity, and a California that is a promising place to live, work and raise a family. Such investments, however, are not made in a vacuum. The money to pay debt service on infrastructure development comes from the same pot of taxpayer money—the State General Fund—used to pay for important programs such as education, health care and public safety. With limited resources, every General Fund dollar we spend on debt service is a dollar we can't spend on those services, which are no less critical than infrastructure to our state's future.

This report provides a framework to help Californians decide how best to make the infrastructure investments we need, given the fiscal realities we face. We project total General Fund revenues, how much infrastructure investment we will make, how much General Fund revenue it will take to pay the debt service on that investment and how much of General Fund revenues will be spent on the operations side of the budget.

For California, the report offers a debt affordability planning model unprecedented in two respects: it provides a 20-year planning horizon, and it bifurcates General Fund spending between debt service and operating expenditures. This analysis, we believe, provides a clearer picture of the General Fund's capacity, over the long term, to cover both investment and program needs.

## WHAT IS AFFORDABLE DEBT?

The payment of debt service is mandatory. The California Constitution mandates the payment of GO debt service ahead of all other payments except most education expenditures. Therefore, we must issue debt with our eyes open about its budgetary impact.

The right amount of debt for California is a policy choice. Every General Fund dollar we spend on debt service is a dollar we can't spend on education, health care and other programs. At the same time, intelligent infrastructure investments have a positive impact on our economy and our quality of life. So the question is not only, "Can we afford to invest?" It's also, "Can we afford **not** to invest?"

Unfortunately, the affordability debate often boils down to a single number: debt service as a percentage of General Fund revenues. But such a measure is flawed since it assumes decisions about the operating budget and the level of revenues have already been made, and debt can only take up what's left. If we decide capital investment is important, then we should take appropriate actions, consistent with other priorities, to ensure we can make those investments.

This report examines debt affordability from a fundamentally different perspective. We take the question out of the traditional, but unhelpful paradigm of simple ratios and set it squarely in the broader public policy arena.

## GENERAL FUND REVENUES AND EXPENDITURES: MAJOR FINDINGS

Our 20-year forecast covers 2008–09 through 2027–28. Over that period, we estimate General Fund revenues, General Fund operating expenditures and debt service payments from the General Fund.

In developing the 20-year estimate of General Fund revenues, we accepted the Legislative Analyst's estimates for the period 2008–09 through 2011–12. In subsequent years, we assume there will be no major changes in the tax structure. We further assume revenues will grow with inflation and population growth, but account, where necessary, for a revenue stream's elasticity, or sensitivity, to an expanding economy.

To estimate the long-term operating budget, we relied on the Legislative Analyst's fiscal outlook for the period 2008–09 through 2011–12 (adjusting only to reflect our assumption that the State will begin funding its future obligations for retiree healthcare benefits). In subsequent years, we made specific inflation- and population-based assumptions about spending on education, healthcare, social service, corrections and other programs.

To develop debt projections, we started with debt already authorized. We assume voters will approve Strategic Growth Plan GO bonds in 2008 and 2010, and will continue during the remainder of the 20-year period to authorize debt (on a real per capita basis) at the rate they did in the two decades before the large debt approvals of 2006.

### OUR MAJOR FINDINGS INCLUDE:

- Total General Fund revenues will increase from \$107.1 billion in 2008–09 to \$253.8 billion in 2027–28.
- The total General Fund operating budget will grow from \$106.8 billion in 2008–09 to \$252.6 billion in 2027–28.
- Through 2027–28, the State will issue \$224 billion of new General Fund-backed debt.
- Annual General Fund debt service costs will grow from \$5.3 billion in 2008–09 to \$15.8 billion in 2027–28 (excluding the Economic Recovery Bonds, issued in 2004 to finance the State's budget deficit).

- The amount of General Fund revenues available, after subtracting operating expenditures, to pay debt service starts at \$269 million in 2008–09, peaks at \$7.1 billion in 2011–12, then gradually declines to \$1.2 billion in 2027–28.
- The bottom line: By 2027–28, the State’s General Fund balance sheet will show a gap of \$14.6 billion between the amount needed to pay debt service and the amount of General Fund revenues available after paying for operating expenditures. Put another way, the State will face a \$14.6 billion shortfall between how much General Fund revenues it takes in and how much it needs to pay for both debt service and operating expenditures.

### MAKING ROOM TO INVEST IN CALIFORNIA: POSSIBLE SOLUTIONS

These estimates do not, by themselves, show that the projected debt is too much for California to bear. In fact, over the 20-year period, debt service never consumes more than 6.54 percent of General Fund revenues, a ratio that—while flawed—is sometimes used to evaluate affordability. Still, the long-range estimates dramatically illustrate the structural budget deficit that will continue to hamstring California, unless we permanently fix that defect.

The bottom line bears repeating. Our estimates show a \$14.6 billion gap in 2027–28 between General Fund revenues and the combined cost of operating expenditures and debt service. This imbalance over the 20-year forecast period is equal, on average, to an annual General Fund revenue shortfall of 3.5 percent. The good news is that a 3.5 percent yearly shortfall should not be an insurmountable problem. But clearly the State will not be able to afford both debt service and operating expenditures for programs unless it addresses this substantial, persistent imbalance. That task would become more difficult if the amount of infrastructure investment exceeds the level assumed in this report.

As we seek to find the solutions to our fiscal problems, there will be no easy answers, only hard work and tough choices. The Governor, the Legislature, the Treasurer—all Californians—need to start that work now. In this endeavor, there should be no sacred cows, only a commitment to providing the

means to build a better California. We must take a hard look at how we raise revenues, how we spend that money, how we pay for infrastructure and how we structure our debt.

If we fail to act, it will not be bond investors who suffer. As noted above, the California Constitution makes payment of GO debt service the highest General Fund priority over all other expenditures except Proposition 98 payments to K-12 public schools and colleges and universities.

So, while we might get to the point where we have issued more debt than we can “afford,” we will always pay our debt—on time every year. The ones who suffer will be the people of California, all of us who benefit from the myriad State programs—health, environmental, recreational, public safety and others—that our General Fund supports.

### EXPENDITURES AND REVENUES—STEPS WE COULD TAKE

- Increase government efficiency and reduce the costs of service delivery.
- Reduce life-cycle costs of capital assets by, for example, increasing energy efficiency.
- Shift costs, where appropriate, to other federal or local governmental entities.
- Reduce prison recidivism. The Expert Panel on Adult Offender and Recidivism Reduction Programming has made recommendations it estimates could generate net annual savings of between \$561 million and \$684 million.
- Give budget independence to the University of California. By eliminating State support for the university, and allowing it to set its own budget and raise revenues to replace the State’s share, State costs would drop by \$7 billion a year by 2027–28.
- Advocate for federal adoption of universal health care. Absent such federal action, move aggressively to reduce spending on health care by reversing the rise in health care costs.
- Improve tax compliance on internet and mail order transactions to generate about \$670 million of additional revenue annually.

- Broaden the sales tax base to include certain services. Taxing construction and professional services, for example, would generate nearly \$10.2 billion annually.
- Increase the top income tax rates to 10 percent and 11 percent to generate annual revenue of about \$4.5 billion.
- Limit the home mortgage deduction to \$35,000 to increase annual revenue by \$460 million.
- On the corporate tax expenditure side, suspend all incentive credits with carryovers to increase annual revenue by \$1 billion.

Section 8 of this report discusses in detail these policy options, that have been part of the public dialogue in recent years. Wherever possible, we include our own best estimate of the annual financial savings or revenues associated with each of these policy options.

Neither the Treasurer nor the State Treasurer's Office (STO) necessarily endorses any of these proposals. We list them to provide a real-world sense of the financial effect any or all of these proposals could produce in the effort to solve California's structural budget deficit.

#### **DEBT POLICY—RECOMMENDATIONS**

- Increase demand and lower borrowing costs by broadening the investor base. The Treasurer has already moved on this front by launching a retail marketing campaign consisting of print and radio advertisements and a new website ([www.BuyCaliforniaBonds.com](http://www.BuyCaliforniaBonds.com)) targeting individual investors.
- Cut debt service expenses by taking advantage of market opportunities to sell bonds with the lowest cost structure and in the most appropriate maturities each time we come to market. The STO is working with a financial model to produce a scenario of future bond issuance that can be expected to reduce both the amount and uncertainty of our costs.
- Reduce cost, increase debt capacity and make bonds more attractive to certain investors by creating a new GO bond credit. Such a credit would back new GO bonds with a specific revenue

stream from the General Fund, similar to the Economic Recovery Bonds which are backed by a portion of the sales tax.

- As a way to ease pressure on the General Fund, consider the idea of retiring some bonds with a statewide property tax. In approving certain bonds, voters could authorize such a tax to pay the debt service. It would cost the owner of a median-priced home an estimated \$7.78 per year to support \$1 billion dollars of bonds.
- Establish a reserve fund to pay debt service in years when General Fund revenues fall short of what was budgeted. As the State issues more debt, this would relieve pressure on other parts of the budget that may suffer when scarce General Fund revenues must be used for debt service. Further, such a reserve would address an important concern the bond rating agencies have expressed about the State's budget process.
- Free up General Fund revenues by funding infrastructure development and operation through user-pays financing. Under these financing mechanisms, the costs of financing, building and maintaining certain infrastructure are borne by those who directly benefit. The user-pays debate frequently includes a discussion of public-private partnerships, or P3, under which private entities own or operate facilities. The Treasurer believes, however, that user-pays financing often can be accomplished without the use of private capital or ownership.
- Develop new ways of financing our transportation infrastructure to reduce sole reliance on GO bonds. To spur innovation in this area, the Treasurer urges the Legislature to create a California Transportation Financing Authority (CTFA) to issue governmental bonds to support publicly-owned and operated highways. The CTFA would be authorized to issue revenue bonds backed by a variety of revenue sources such as the State gas tax, local transportation sales taxes, tolls and developer fees. CTFA-financed projects would not involve public-private partnerships, but public-public partnerships among state and local governmental entities.

Sections 9 and 10 of this report discuss these ideas in more detail.

## **FISCAL AND CAPITAL INVESTMENT POLICY RECOMMENDATIONS**

- Fix the structural deficit. In doing so, take into account the cost of paying for the infrastructure we need. This report makes several suggestions for accomplishing this objective. The Legislature and the Governor must pursue these avenues, or others, to permanently eliminate the structural shortfall.
- Implement long-term budget and capital planning. Undertaking hundreds of billions of dollars of long-term debt requires long-term financial and fiscal planning. As our analysis shows, the answers given by a five-year planning horizon are very different from what we learn by looking out 20 years.
- Incorporate the cost of operating and maintaining capital assets—not just the debt service costs—when making infrastructure investment decisions. Our analysis did not account for such costs because the STO lacks expertise in that area. But such an analysis is necessary to evaluate the long-term affordability of infrastructure investments.

## SECTION I

# The Use of General Fund Debt

The State of California issues two types of long-term bonds payable from the General Fund: general obligation (GO) bonds and lease revenue bonds (LRBs). The State uses the proceeds of such bond sales to finance the acquisition or construction of long-lived capital assets—physical infrastructure—including schools, levees, parks and roads.

Debt service payments include the costs of repaying the amount borrowed (the “principal”) plus interest. The California Constitution specifies that repayment of GO bonds takes priority over every other expenditure of General Fund revenues, except spending on K–12 public schools, colleges and universities. In other words, the Constitution assures investors they will get paid before all General Fund-supported programs or services except K–12 schools and colleges.

This is an important point to make at the outset of any discussion of “debt affordability.” As Californians rediscover the necessity of investing in our infrastructure, and authorize the State to issue bonds to make such investments, we are debating how much debt we can “afford.” Regardless of that answer, we will make the debt service payments on any amount of bonds we issue—even if, by someone’s measure, we issue more than we can “afford.”

Issuing bonds is like taking out a loan from the investors who buy our bonds. In return for the loan, the State pays interest. A number of factors determine the interest rate at which the State can borrow. Those factors include expected inflation, the domestic and worldwide debt markets, the income tax treatment

of interest payments from the State, the supply and demand of State bonds and the perceived risk of lending to the State, which never has defaulted on General Fund-backed bonds.

Public finance policy experts generally recommend that goods and services be financed either by the direct users themselves, through fees charged only to them, or by the cohort of taxpayers receiving government services in a particular fiscal year, through taxes paid by all taxpayers. In this way, beneficiaries pay for their share of costs. When applied to the acquisition of long-lived assets, this principle supports spreading the capital investment costs over the life of the asset with long-term bond financing.

Policy experts also agree that the term of a bond should be no longer than the life of the project it finances. For example, a State office building with a 30-year useful life is financed with a 30-year bond, while a beach-sand replenishment program would be financed with a shorter-term bond. That’s because the “asset”—sand restored to a beach—is likely to remain in place for about 10 years before it washes back into the ocean.

Besides financing infrastructure, the State also can issue debt to pay some recurring costs unrelated to capital assets. The State typically issues Revenue Anticipation Notes (RANs) each year to provide temporary operating cash flow, since expenditures come due on a relatively regular basis throughout the year but revenues are received unevenly. (The largest share of personal income taxes, for example, is collected in the

Spring, and sales taxes on goods and gasoline ebb and flow throughout the year.)

RANs are borrowed and repaid in the same fiscal year and represent a prudent use of cash flow borrowing. Public finance experts agree, however, that using long-term debt to generate cash flow or cover budget operating deficits is unsound fiscal policy. Nonetheless, in 2003, voters approved the issuance of special general obligation bonds to borrow and repay over a number of years the budget debt the State had accumulated between 2000 and 2003. With the voters' permission, the State proceeded to issue \$11 billion of Economic Recovery Bonds (ERBs) in 2004.

The ERBs were unique in California's recent financial history. The State dedicated a portion of its sales tax base to servicing this debt. The ERBs should be fully repaid no later than 2010.

## SECTION 2

# A Snapshot of our Debt

By any of the measures used by rating agencies and economists, California's current General Fund-supported debt is moderate. However, it also continues to grow. Figure 1 shows the amount of outstanding debt, plus the amount that has been authorized but not yet issued.

See Appendix A for a detailed listing of all outstanding General Fund debt and debt service, as well as a detailed listing of all authorized but unissued General Fund debt.

Thirteen percent of all GO bonds (including the ERBs) carry variable interest rates. The law allows up to 20 percent of GO bonds to be variable rate. The remaining 87 percent have fixed interest rates. The State has no interest rate hedging contracts in place with respect to its GO bonds.

### PLANNED ISSUANCES OF NET TAX-SUPPORTED DEBT

Net tax-supported bonds are those that must be repaid by the General Fund. Projections for planned bond issuances have been provided by the Department of Finance, and are subject to change. Figure 2 shows the amount of planned issuances of General Fund, net tax-supported bonds for the next two fiscal years.

Net tax-supported bonds exclude: 1) commercial paper and short-term obligations, such as revenue anticipation notes and warrants; 2) "self-supporting" state bonds, which are repaid from specific revenues

**FIGURE 1**  
SUMMARY OF CURRENT AND FUTURE DEBT  
(DOLLARS IN BILLIONS)

BOND TYPE	OUTSTANDING	AUTHORIZED BUT UNISSUED	TOTAL
General Obligation	41.3	63.7	105.0
Lease Revenue	7.7	10.8	18.5
Economic Recovery	8.3	3.7*	12.0
<b>Total</b>	<b>57.3</b>	<b>78.2</b>	<b>135.5</b>

\*Though there is \$3.7 billion of ERBs authorization remaining, the Governor has indicated he does not plan to issue those bonds. The analysis in this report assumes they will not be issued.

Excludes self-liquidating GO bonds and includes LRBs authorized in the 2007-08 Budget Act.

Data as of July 1, 2007.

**FIGURE 2**  
INTENDED ISSUANCES  
(DOLLARS IN BILLIONS)

	2007-08	2008-09
General Obligation	10.0	11.8
Lease Revenue	0.6	0.6
<b>Total</b>	<b>10.6</b>	<b>12.4</b>

Excludes refundings and Revenue Anticipation Notes (RANs).

outside the General Fund; and 3) bonds of federal, state and local governments and their agencies that are not obligations of the State's General Fund. They also exclude all types of "conduit" bonds, such as those issued by financing authorities on behalf of other governmental or private entities whose obligations secure the bonds. Most bonds issued by such State financing authorities as the California Health Facilities Financing Authority or the California Educational Facilities Authority fall into this category of conduit bonds.

The State's planned issuances of net tax-supported bonds listed in Figure 2 include only currently authorized but unissued new money bonds. The planned issuances may increase should new bond programs be approved or may decrease if program requirements prove to be lower in the near term than is currently projected.

As shown in Figure 2, the State plans to issue up to \$23 billion of General Fund, net-tax supported bonds in the next two fiscal years. The projected increase in debt service cost generated by these sales will be approximately \$113 million in 2007-08 and approximately \$817 million in 2008-09.

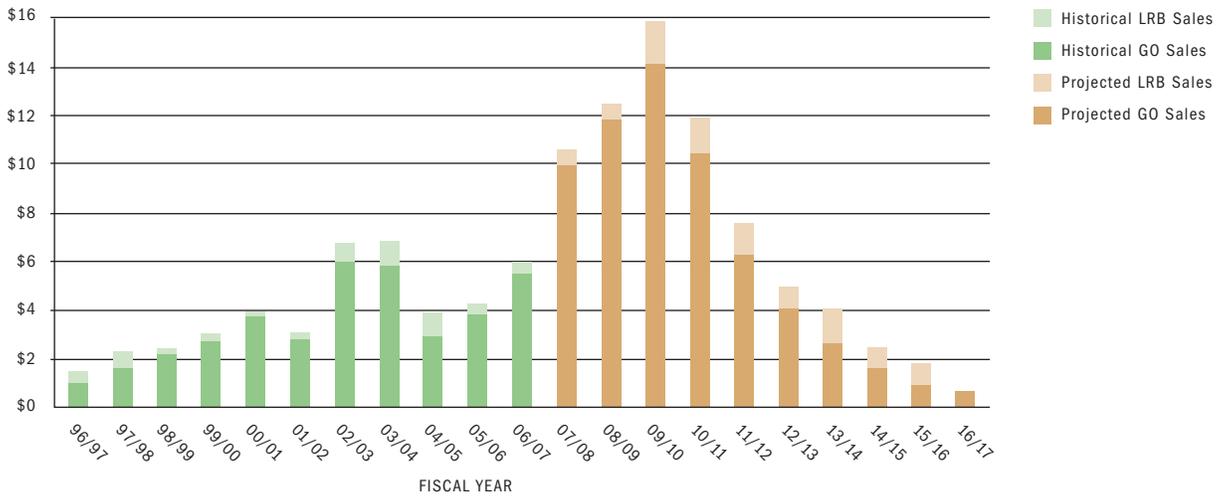
Moving beyond the next two fiscal years, Figure 3 shows the expected sale schedule for all new money General Fund debt authorized but not yet issued. The amount of new money General Fund debt issued in previous years also is shown.

Figure 4 shows total expected annual debt service on outstanding bonds, plus authorized but unissued bonds.

The Governor has proposed additional new debt in the remaining phase of his Strategic Growth Plan, referred to in this report as SGP2. SGP2 would place \$29.4 billion of new GO bonds before voters in 2008 and 2010.

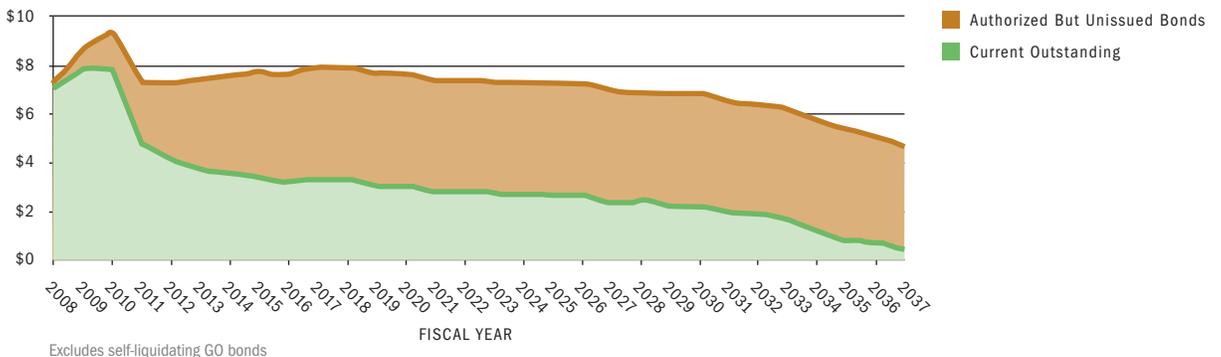
**FIGURE 3**

**HISTORICAL AND PROJECTED NEW MONEY SALES OF GENERAL FUND-BACKED BONDS AUTHORIZED THROUGH OCTOBER 1, 2007 BUT NOT YET ISSUED (DOLLARS IN BILLIONS)**



**FIGURE 4**

**PROJECTED GO, LRB & ERB DEBT SERVICE ON BONDS AUTHORIZED THROUGH OCTOBER 1, 2007 (DOLLARS IN BILLIONS)**



Excludes self-liquidating GO bonds

Figure 5 summarizes the State's current and projected debt, if voters approve SGP2.

Adding SGP2 to the Department of Finance's projections for issuance of bonds already authorized would cause the State's total outstanding debt to peak at approximately \$119 billion in 2016. The following charts show projected debt issuance, debt repayments and debt outstanding through 2028.

**FIGURE 5**  
SUMMARY OF CURRENT AND FUTURE DEBT WITH SGP2 (DOLLARS IN BILLIONS)

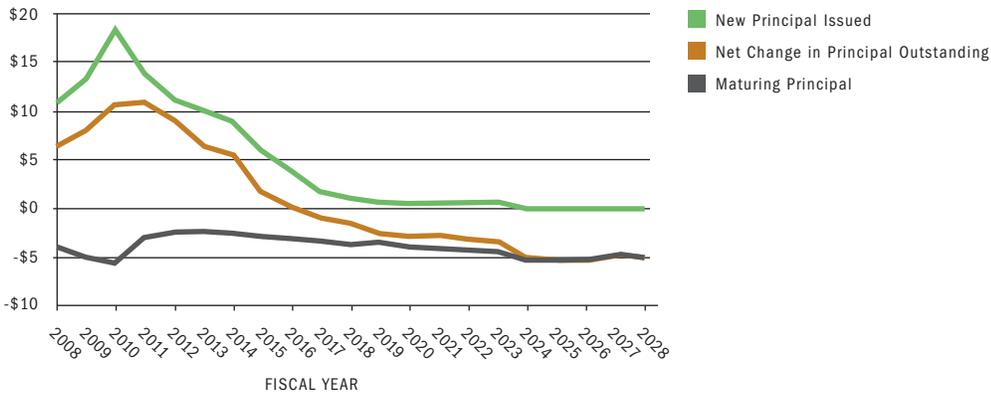
BOND TYPE	OUTSTANDING	AUTHORIZED BUT UNISSUED	SGP2	TOTAL
General Obligation	41.3	63.7	29.4	134.4
Lease Revenue	7.7	10.8	2.4	20.9
Economic Recovery	8.3	3.7*	—	12.0
<b>Total</b>	<b>57.3</b>	<b>78.2</b>	<b>31.8</b>	<b>167.3</b>

\*Though there is \$3.7 billion of ERBs authorization remaining, the Governor has indicated he does not plan to issue those bonds. The analysis in this report assumes they will not be issued.

Excludes self-liquidating GO bonds and includes LRBs authorized in the 2007-08 Budget Act.

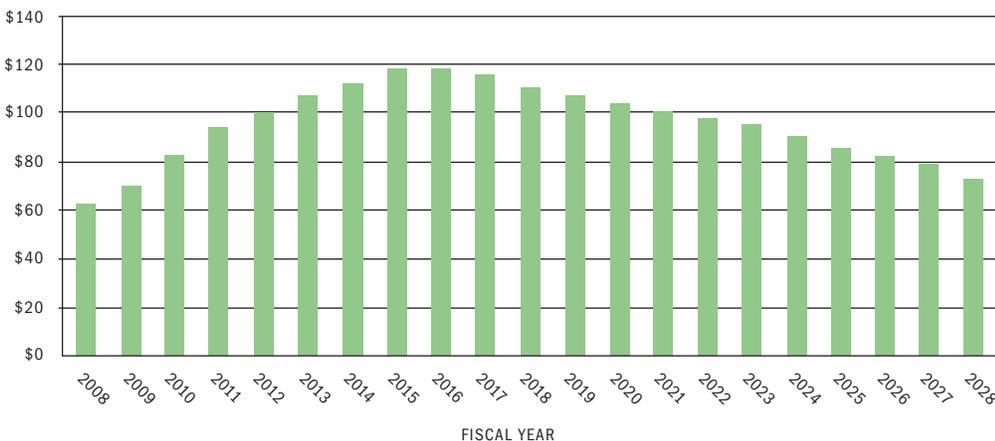
**FIGURE 6**

CHANGES IN GENERAL FUND SUPPORTED DEBT BONDS AUTHORIZED THROUGH OCTOBER 1, 2007 AND SGP2 (DOLLARS IN BILLIONS)



**FIGURE 7**

PROJECTED GENERAL FUND OUTSTANDING DEBT AUTHORIZED THROUGH OCTOBER 1, 2007 AND SGP2 (DOLLARS IN BILLIONS)



Does not include water bonds proposed by the Governor on September 18, 2007 except to the extent they were included in the Strategic Growth Plan of January 10, 2007.

Californians, however, likely will not stop investing in our infrastructure after 2010, when they would be asked to authorize the last of SGP2 bonds. For purposes of this report, which looks at debt affordability over a 20-year planning horizon, we assume the voters will approve new debt after 2010 at the same rate (adjusted for inflation and population growth) as they did from 1986 through 2004. Based on this assumption, we project State voters to approve \$150.5 billion of additional GO bonds between 2012 and 2026:

**FIGURE 8**

PROJECTION OF ADDITIONAL GO DEBT TO BE APPROVED BY VOTERS 2012–2026 (DOLLARS IN BILLIONS)

YEAR	AUTHORIZATION
2012	13.8
2014	15.0
2016	16.3
2018	17.8
2020	19.3
2022	21.0
2024	22.7
2026	24.6
TOTAL	150.5

This report incorporates these expected additional bond approvals into our analysis of debt burden, capacity and affordability. In projecting \$150.5 billion of additional bond authorizations, this report does not suggest that figure represents how much more we need to invest in infrastructure. By many measures, as discussed in Section 4, our need is much greater. The \$150.5 billion is merely a projection of future authorizations based on previous voter interest in infrastructure investment. The voters may well authorize more, if their recent support of infrastructure bonds is any indication.

A growing amount of debt affects our budget in two ways. First, we increase the cost of debt service. Doubling the amount of debt outstanding will roughly double the amount of the budget spent on debt service. Second, the payment of debt service is mandatory. We can't decide not to pay debt service because the budget is tight. So, when we increase debt service

costs, we reduce our ability to use General Fund money to meet other programmatic priorities, or to provide a financial cushion in tough budgetary times.

To ameliorate debt service's effect on the General Fund, the Treasurer has the ability to structure bonds in ways that can help control the borrowing costs. This report will discuss some of these techniques. But if the debt grows, debt service costs will grow, regardless of how well those costs are managed.

So, we must prioritize infrastructure investment, plan and act consistent with that priority, and take steps to make the investment affordable. If there is no likely way (whether for political or financial reasons) that General Fund debt will enable us to make all the infrastructure investments our state needs, we must consider alternative approaches.

Before we evaluate just what those infrastructure needs are, we turn to a discussion of the current market for municipal bonds and our opportunities to find buyers for our debt. We can only issue debt at affordable rates if there are investors interested in buying our bonds.

## SECTION 3

# Market for State Bonds

The State of California's net tax-supported bonds are a subset of the \$2.5 trillion U.S. municipal bond market. Traditionally, primary purchasers of municipal bonds have included insurance companies, mutual funds, trust departments, corporations, individuals and money market funds, all of which invest their capital for the tax-exempt income paid by municipal bonds. The level of participation from each of these traditional groups depends on the available rate of return offered by the particular bonds and how the bonds meet the investor's cash flow requirements.

To determine an acceptable rate of return, potential purchasers compare the tax-exempt returns to alternative after-tax rates of return offered by other investment options, after adjusting for any differences in credit quality. The borrowing cost for a municipal bond issuer is the product of the aggregate views of all potential purchasers on acceptable rates of return and the equilibrium between supply and demand.

In recent years, the composition of municipal bond purchasers in the primary market has evolved. While the traditional buyers of municipal bonds continue to be important participants in the municipal marketplace, they are now accompanied by sophisticated new purchasers whose motivations for investing are sometimes different from those of traditional investors. Some of these new investors are tender option bond programs, hedge funds and proprietary trading accounts of financial institutions.

These new buyers have accounted for more than half of all purchasers of some recent State GO bond sales. The demand of these investors helps to reduce the interest rates at which we sell bonds, but their motivations for buying municipal bonds may make them less reliable buyers year in and year out.

Unlike the traditional municipal investors who purchase securities with their own capital and generally intend to hold those securities for a long period of time, the new investors function differently. They often repackage the bonds they buy and sell them as new securities. They may borrow the funds necessary to buy municipal bonds. If so, their interest in buying municipal bonds may be based on the constantly changing relationship between the interest rates on municipal bonds and the interest rates at which they can borrow. These buyers generally prefer that bond issues be large enough to provide a ready market for the bonds if they want to sell them. Given the size of State bond issues, these buyers are drawn to our bonds.

In recent years, the flattening of the taxable yield curve (the relationship between long-term interest rates and short-term interest rates) and changes in spreads between taxable and tax-exempt interest rates produced money-making opportunities for these investors in the municipal bond market that did not exist in other fixed-income markets. However, as quickly as they entered the market, many of these buyers became net sellers of municipal bonds this

summer when problems in the sub-prime mortgage market changed many of those relationships. Their importance as buyers of our bonds in the future remains uncertain, though their continued demand would provide welcome pressure to keep our interest rates low.

Individuals have become more interested in buying municipal bonds with the rise of short-term (one to 10 years) interest rates from 40-year lows. The large number of potential purchasers residing in California and the State's level of marginal tax rates also have stimulated demand for California's bonds.

Voters who supported the infrastructure bonds in the November 2006 election included many Californians with the financial resources to invest in the State's bonds and benefit from their tax-exemption. That's why the Treasurer launched a retail marketing campaign consisting of print and radio advertisements and a new website ([www.BuyCaliforniaBonds.com](http://www.BuyCaliforniaBonds.com)) targeting individual investors.

In the State's \$2.5 billion June 2007 GO sale, individual investors purchased \$690 million, or 28 percent, of the bond issue. They bought all of the bonds maturing in the first 10 years, which is the range in which individuals typically have the most interest.

The trends in the overall municipal bond market have similarly affected the General Fund-backed, tax-exempt bonds of the State. Investors generally have viewed these bonds as high-quality investments because of California's large and diverse economy, and the State's taxing authority and solid bond payment history. However, investors were concerned about the State's credit for a period of time (see discussion below).

These factors, together with investor outreach efforts on the part of the Treasurer's Office, result in strong, continued interest by traditional buyers in the State's bonds. In June, the Treasurer and members of his staff met with investors around the country to educate them about the State's improving financial health and to answer questions relating to the increased authorization to issue General Fund-backed bonds. Such efforts have contributed to increased investor awareness of the State's offerings, enhanced demand and lowered the State's borrowing costs.

The debt markets have become more volatile, with different types of investors (such as mutual

funds, hedge funds and tender option bond programs) motivated by different developments in the capital market to buy our bonds. In this environment, it is important that the Treasurer's Office be able to structure bonds to make them attractive to the type of buyer who will accept the lowest interest rate.

As of the most recent GO bond sale on June 20, 2007, the State's 20-year average borrowing cost was 4.66 percent. That is 0.26 percentage points above the national 20-year Municipal Market Data AAA-rated average. While high compared to other states, California's relative borrowing cost has significantly improved since 2003. In that year, when the State's credit rating was downgraded by all three major rating agencies to the lowest level of any state, the spread between California and the national AAA-rated average reached 0.74 percentage points.

Despite recent improvement, however, the State's current relative borrowing cost remains 0.42 percentage points higher than September 2000, before the deterioration of the State's credit began. The current spread continues to reflect the State's relatively low credit rating (see "Credit Ratings"), which is second to last in the nation, above only Louisiana.

## SECTION 4

# Our Infrastructure Needs

California made significant infrastructure investments in the 1950s and 1960s under the leadership of Governors Earl Warren and Pat Brown. Unfortunately, we have fallen far behind in funding for infrastructure maintenance and improvements. “Spending for infrastructure projects in California has dramatically and systematically decreased over the past few decades,” reported the California Infrastructure Coalition. “In the 1960s, public works and infrastructure projects constituted nearly 20 percent of State spending. Today, it’s closer to three percent.”

The result is a decaying infrastructure increasingly ill-equipped to serve our families, children and communities.

Students in K–12 are taught in inadequate school facilities that lack sufficient teaching materials. In 2001, the Legislative Analyst reported that one out of three children attended schools that were overcrowded or in need of modernization.

California’s once-unsurpassed roads and highways also have deteriorated due to under-investment. Among all 50 states, California suffers from the worst urban interstate congestion, according to the 16th Annual Report on the Performance of State Highway Systems by the Reason Foundation. Caltrans estimates it will need \$42 billion over 10 years to rehabilitate and operate the State highway system beginning in fiscal year 2008–09. And the California Transportation Commission’s 2006 Annual Report to

the Legislature estimated nearly \$200 billion is needed for transportation rehabilitation, maintenance and expansion projects over the next 20 years.

Taking a broader perspective, the American Society of Civil Engineers graded California on nine infrastructure areas and gave the State a C-minus. The group examined aviation, levees/flood control, parks/open space, ports, solid waste, transportation, urban runoff, wastewater and water. California needs to invest \$37 billion annually over the next 10 years, the group concluded, to maintain and expand critical infrastructure systems to accommodate future population and economic growth.

Increased investment in capital outlay becomes even more critical if we want to build an infrastructure that can meet the needs of California’s growing population. The Department of Finance projects our population will reach 50 million within 25 years. By 2050, it is expected there will be about 60 million people, nearly twice as many as in 2000. Meanwhile, we have an infrastructure built to serve 25 million people.

Accommodating projected population growth equates to: 220,000 new homes every year; 19 new classrooms every day for five years; capacity to deliver an additional 200,000 acre-feet of water to Central and Southern California; and enough highways for 42 percent more vehicles.

Making the investments we need to fully accommodate growth will benefit all Californians. Better schools will produce a generation of better-educated kids who can excel in global competition. That will strengthen our economy and create more and better jobs for our state. Our communities and quality of life will be enriched with better roads, smarter development and rapid transit. We can shorten our commutes to work and home and restore lost time for family and recreation.

We will dramatically reduce ratepayer, taxpayer and environmental costs by cleaning our air and water, improving the state's "plumbing" so that water conservation becomes a built-in part of our upgraded water transportation and storage system, and constructing and retrofitting California's public and private buildings to conserve and use renewable energy. These investments will pay huge dividends in better health and lasting economic prosperity, and preserve California as a promising place to live, work and raise a family.

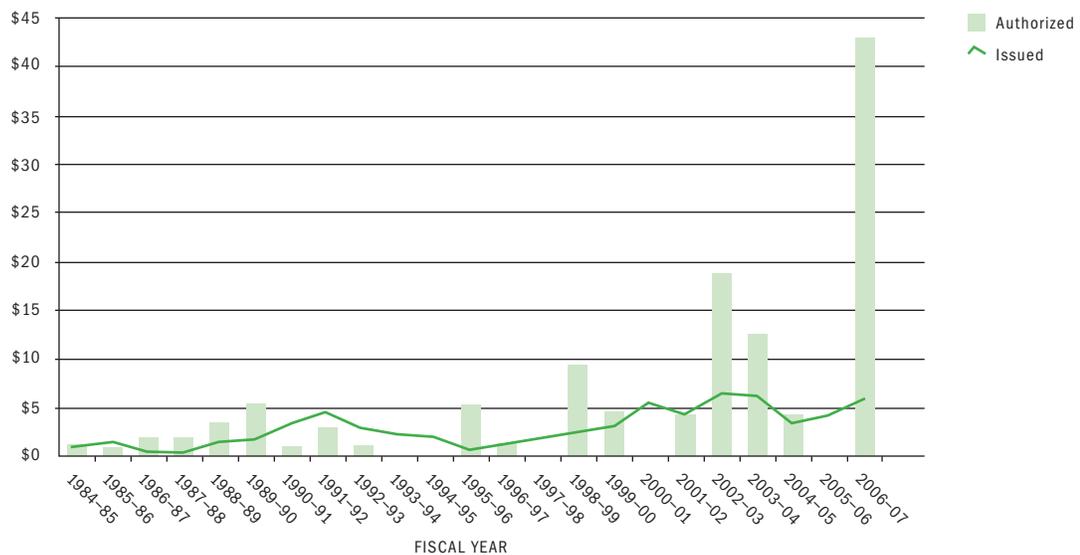
Fortunately, Californians share this vision, and the negative infrastructure investment trend has started to reverse. In the last five years, thanks to voter authorizations, the State has issued \$24.2 billion worth of GO bonds to build or rebuild infrastructure.

The positive trend continued in November 2006, with voters' approval of the \$42.7 billion in capital outlay bonds.

The Governor's Strategic Growth Plan, unveiled in 2006, proposed \$222 billion of new and existing funds for infrastructure projects over 10 years. Of the \$222 billion, 30 percent would be financed with GO bonds. As discussed earlier, voters approved the first portion of that investment when they authorized \$42.7 billion of GO bonds last November. And, through SGP 2, the Governor plans to put another \$29.4 billion before voters in 2008 and 2010.

We can, to some extent, reduce the need for new capital outlay by lessening the stress we place on infrastructure. Such actions could include expanded reliance on renewable energy, enhanced water conservation efforts and smart land use policies that ease the traffic burden on our roads and highways. The Treasurer believes policymakers should move aggressively to implement all these measures. Still, the State likely will have to invest billions of dollars more than the amount already authorized by voters if we want to build an infrastructure that meets our State's current and future needs.

**FIGURE 9**  
GENERAL OBLIGATION BONDS AUTHORIZED AND ISSUED FOR CAPITAL OUTLAY PROJECTS (DOLLARS IN BILLIONS)



## SECTION 5

# Measuring and Evaluating Debt Affordability and Capacity

The “right” amount of debt for California is not reflected in a single number. It is not indicated by any one ratio or percentage. The right amount of debt for California is a policy choice. If we incur more debt to finance infrastructure, we have to pay the borrowing costs, and we have to pay for the maintenance and operation of new capital projects.

Every General Fund dollar we spend on debt and the related ongoing costs of projects is a dollar that is not available for education, health care and other programs. So, in the end, the right amount of debt is the amount we want to invest in infrastructure, given the priorities we set for operating expenditures on General Fund-supported programs. It also should reflect policy decisions about which services we want government to provide with our taxes, and which we would like to secure from the private sector.

Intelligent infrastructure investments have a positive effect on our economy and quality of life. And a healthy economy produces the tax base that makes our debt more affordable and makes it much easier to get our State revenues and spending in balance and keep them there. Clearly, smart investments today pay dividends tomorrow. So the question not only is, “Can we afford to invest?” It’s also, “Can we afford *not* to invest?”

In the remainder of this section, we will review the most popular ratios used to measure debt burden, and then discuss the State’s bond credit rating and its relation to these ratios. Finally, we will introduce an approach to debt affordability and capacity that relies

not on ratios, but on the fiscal realities upon which debt policy should be decided.

## DEBT RATIOS

Three debt ratios are popularly used:

- **DEBT SERVICE AS A PERCENTAGE OF GENERAL FUND REVENUES.** Debt financing generally commits the State to make appropriations over multiple years. This ratio describes how much General Fund revenue has been dedicated to such a long-term commitment in any year. It is most useful in describing how much revenue is not available for discretionary spending in a budget, since the State can’t choose to pay debt service one year but not the next. California’s ratio is 4.3 percent, according to the most recent calculation by Standard & Poor’s.

In California, however, where a variety of voter-enacted constitutional spending directives lock in expenditures for much of the budget, singling out just one category of spending for such analysis gives an incomplete picture for policymaking. The State should make decisions about the importance of debt as part of the range of decisions it makes in adopting a budget, including the revenues the State raises and the other programs it funds.

Credit rating agencies use the debt service ratio as one of many rating factors. But the rat-

ing agencies do not use this measure by itself to evaluate whether a state has too much debt.

For these reasons, it makes little sense for the State to adopt an inflexible policy that allocates a certain percentage of its General Fund budget to debt service and another percentage to operations.

- **DEBT AS A PERCENTAGE OF PERSONAL INCOME.**

Comparing a state's level of net tax-supported debt to the total personal income of its residents provides a measure of the state's underlying wealth available for paying off its infrastructure investments. It is another measure often used by credit analysts. The State's ratio is 4.4 percent, which is lower than many other states'.<sup>1</sup> While debt service as a percentage of General Fund revenues limits decision-making to shifting fixed government expenditures between infrastructure and other needs, debt as a percentage of personal income takes a broader view. If a higher percentage is deemed advisable, policy options include shifting some private spending or savings to the payment of bond debt service, through the collection of either higher taxes or user fees (such as tolls).

Using this yardstick to compare states is complicated by the fact many other levels of government—cities, counties, school districts, etc.—also issue debt to which a share of personal income must be dedicated. The distribution of such responsibilities among various levels of government varies state to state.

- **DEBT PER CAPITA.** Debt per capita measures each Californian's share of outstanding debt. Many of the strengths and weaknesses of debt as a percentage of personal income also apply to this measure. As a comparative measure, however, its biggest shortcoming is that it does not account for differences in wealth or employment status. Wealth, of course, is a major determinant of what is affordable. California's debt per capita, including the ERBs, is \$1,623.<sup>2</sup>

As a guide to inform public policy about the appropriate amount of debt to incur, comparing these ratios to those of other states has limited meaning. States have different capital needs, different ways of paying for infrastructure, different divisions of governmental responsibility for infrastructure, different revenue structures and different legal requirements for how revenues must be spent.

For example, other large states' capital needs vary with their geography and the condition of the current capital stock. Some states have unique historical contexts for their infrastructure decisions. States in the East and Midwest have a history of financing transportation infrastructure with direct user fees (tolls), dating from the construction and operation of canals. By contrast, California generally uses taxes on fuel to finance road construction and maintenance. It has used tolls to finance the construction or maintenance of 10 bridges, mostly in the San Francisco Bay Area.

Furthermore, California budgets under a unique set of rules that limit flexibility. Several voter-approved propositions dictate how much of the General Fund must be allocated to specific programs, or require that particular General Fund revenue sources be dedicated to particular programs. What might be the right percentage of the budget to dedicate to bonds when all expenditures are subject to negotiation might not be the right amount when the law commits so much of the budget to fund such programs as K–14 education, transportation and health care for the needy.

Figure 10 shows how California's debt level compares to the other nine most populous states on the last two ratios as reported by Moody's Investors Service. (The rating agencies do not publish comparative ratios of debt service to revenues because of the difficulty of developing comparable data across states.) As can be seen, three of the 10 most populous states—Illinois, New York and New Jersey—have higher debt burdens by these measures, but also enjoy stronger ratings. While California's debt is high relative to many other states, the rating agencies do not describe our debt levels as high. This will be discussed in the following section on ratings.

<sup>1</sup> This figure is from Moody's Investors Service and includes not just GO bonds and lease revenue bonds, but also several other bonds that have a contingent claim on the General Fund, such as tobacco bonds with a State backstop.

<sup>2</sup> Same as footnote 1.

**FIGURE 10**

DEBT RATIOS OF THE 10 MOST POPULOUS STATES  
(DOLLARS IN BILLIONS)

STATE	DEBT TO PERSONAL INCOME <sup>(1)</sup>	DEBT PER CAPITA <sup>(2)</sup>
Texas	1.3%	\$415
Michigan	2.2%	\$747
Pennsylvania	2.4%	\$852
Georgia	3.0%	\$916
Ohio	3.0%	\$974
Florida	3.1%	\$1,020
<b>California</b>	<b>4.4%</b>	<b>\$1,1,623</b>
Illinois	5.5%	\$1,976
New York	6.7%	\$2,694
New Jersey	7.6%	\$3,317
<b>Moody's Median all States</b>	<b>2.4%</b>	<b>\$787</b>
<b>Median for the 10 most populous States <sup>(2)</sup></b>	<b>3.1%</b>	<b>\$997</b>

<sup>(1)</sup> Figures as reported by Moody's Investors Service in their 2007 State Debt Medians report released April 2007.

<sup>(2)</sup> Calculated as the average of the ratios reported for each measure for the fifth- and sixth ranked states.

## CREDIT RATINGS

Bond ratings provided by a credit-rating agency are an independent assessment of the relative credit risk associated with purchasing and holding a particular bond through its scheduled term of repayment. Bond ratings constitute opinions about a borrower's financial strength and ability to repay its debt on a timely basis, and are one of the most important indicators of creditworthiness readily available to the investment community. As such, bond ratings directly influence the borrowing rates paid by the State.

After deteriorating for several consecutive years, the State's credit ratings have shown recent improvement. Fitch Ratings, Moody's Investors Service, and Standard & Poor's currently rate the State as A+, A1, and A+ respectively. These credit ratings reflect the State's large and diverse economy and better-than-expected financial performance, offset by the ongoing structural imbalance of the State budget. This imbalance of revenues and expenditures has not been adequately addressed in recent budgets and results in ongoing deficits.

The State's current credit ratings, as determined by the rating agencies, remain the lowest of all states except for Louisiana. A recent history of the State's ratings is presented in Figure 11, followed by an explanation of what the ratings mean in Figure 12.

Additionally, the three agencies assign qualifiers in each category. Thus, in the "A" category, Fitch and Standard & Poor's assign ratings of A+, A or A- and Moody's assigns ratings of A1, A2 and A3.

The rating agencies say that an issuer with an investment-grade rating is fully expected to repay its debt in full and on time. Defaults by state and municipal borrowers are extremely rare, and the State of California never has defaulted on its General Fund-backed debt. Therefore, California's low rating among states does not necessarily signal the rating agencies have any worry that the State will default on its bond payments. Instead, our rating indicates how the rating agencies perceive our fiscal strengths and weaknesses relative to other municipal issuers.

Moody's will now assign a "global scale rating" to a municipal issuer's taxable bonds so that its rating will be on a scale comparable to that of alternative taxable issuers, many of which are corporations. In early October, the State will sell taxable GO bonds to fund stem cell research. Moody's has assigned two separate ratings to that bond issue: an A1 municipal rating and an Aaa global scale rating. If that Aaa rating was applied to the State's tax-exempt GO bonds, taxpayers could realize substantial savings on debt service costs.

So why do California's GO bonds have the second-lowest ratings of any state?

**FIGURE 11**  
STATE OF CALIFORNIA GENERAL OBLIGATION BOND CREDIT RATINGS

AS OF	FITCH RATINGS	MOODY'S	INVESTORS SERVICE STANDARD & POOR'S
July-03	A	A2	BBB
July-04	BBB	A3	BBB
July-05	A	A2	A
July-06	A+	A1	A+
July-07	A+	A1	A+

**FIGURE 12**  
LONG-TERM RATING CATEGORIES

	MOODY'S	S&P	FITCH	DESCRIPTION
INVESTMENT GRADE	Aaa	AAA	AAA	Highest quality investment with least risk. Interest payments are protected by a large or exceptionally stable margin and principal is secure.
	Aa	AA	AA	Judged to be of high quality. Fluctuation of margin is slightly higher than AAA or other long-term risks are slightly higher.
	A	A	A	Upper medium grade obligations. Factors providing security for principal and interest are adequate.
	Baa	BBB	BBB	Medium grade neither highly protected nor poorly secured. Currently adequate protection but long-term susceptibility to interruption or impairment.
NON-INVESTMENT GRADE	Ba	BB	BB	Some speculative elements. Protection is moderate. Future uncertainty toward fluctuations in coverage.
	B	B	B	Lacks characteristics of desirable investments. Assurance of protection and coverage small over time.
	Caa	CCC	CCC	Poor standing. Uncertainty of current payment of principal and interest.
	Ca	CC	CC	Highly speculative standing. Often in default with other market shortcomings.
	C	C	C	Extremely poor prospects of even attaining real investment standing
	D	D	D	Default.

Additionally, the rating agencies hold municipal, or government, issuers to a higher credit standard than corporate borrowers. A corporate issuer with the same rating as the State—A1 or A+ for example—is a greater credit risk than California.

First, our current ratings are not the result of having too much debt. All three agencies describe our debt level as “moderate.” They express some concern about the future impact of substantial new issuance, but don’t predict rating consequences. In fact, in none of their commentary do they warn of rating consequences if the State issued so much debt that its ratio of debt service to General Fund revenues exceeded some arbitrary figure such as 6 or 6.5 percent. The following are quotes from recent rating agency reports:

*“California’s debt burden remains moderate, with \$58.2 billion in tax-supported debt at 4.1 percent of 2006 personal income, and \$1,595 per capita. Outstanding debt includes \$8.3 billion in economic recovery bonds remaining from the fiscal crisis earlier in this decade, and projected to be repaid by February 2010. Recent voter approval of \$43 billion in GO authorizations over ten years, and legislative approval of \$7 billion in lease debt for corrections will increase debt burden in the near term. A proposal for \$31.7 billion in additional GO debt issuance would raise debt service further, and could add to budget challenges depending on the staging of issuance.”*

—FITCH RATINGS, SEPTEMBER 18, 2007

*“Overall net tax-supported debt levels are rising, but currently remain at moderate levels. Debt per capita has nearly doubled over the past four years and could rise to high, but still manageable, levels if the large \$67.8 billion remaining authorized unissued GO debt is sold, as well as \$7.4 billion of planned prison lease debt.”*

—STANDARD & POOR’S, SEPTEMBER 19, 2007

*One rating challenge is the State’s “moderate, but above-average and rapidly growing, burden of long-term tax-supported debt; which is likely to increase further in the near future after the 2006 passage of bond measures totaling almost \$43 billion... While California has historically had a relatively moderate debt burden, the increase in bond authorizations in recent years is likely to change that.”*

—MOODY’S INVESTORS SERVICE, SEPTEMBER 9, 2007

Instead, the rating agencies’ greatest concerns relate to the State’s financial management:

*“California has a history of uneven financial operations. . . . a smaller, but persistent, structural deficit, [and] State constitutional structural impediments—*

*such as Proposition 1A’s (2004) restrictions on cutting aid to counties, Proposition 98’s funding requirements for schools, and a two-thirds legislative vote requirement for state budget passage—hamper budget consensus and have often led to late budget passage. The recent fiscal 2008 budget was signed 55 days late. While the 2007 budget was signed on time, passage of budgets for fiscal years 2003–2006 were signed 10 days, 30 days, 48 days, and 82 days late, respectively.”*

—STANDARD & POOR’S, SEPTEMBER 19, 2007

*“Administrative and legal factors that weaken California’s financial flexibility compared with other states, including a required two-thirds majority vote of the legislature to approve the annual budget, the voter initiative process, and a number of embedded Constitutional spending mandates and restrictions on state finances are a challenge. One factor that ‘could change the rating up’ is structural changes in the state’s budget process and system of constitutional spending requirements and constraints.”*

—MOODY’S INVESTORS SERVICE, SEPTEMBER 18, 2007

*“The \$102.3 billion fiscal year 2008 plan, signed eight weeks after the start of the fiscal year, achieves operating balance in the budget year through a number of uncertain assumptions and one time measures, even as the longer term structural imbalance has worsened somewhat.”*

—FITCH RATINGS, SEPTEMBER 18, 2007

Taxpayers have a large stake in the State’s credit rating. Improving our credit rating reduces the cost of our debt, meaning taxpayers pay less for the bonds we issue. In turn, reduced debt cost frees up General Fund money to spend on services the people want government to perform. Given the amount of General Fund debt we expect the State to issue in the next five years, a rating improvement that reduced our interest rate by even a tenth of a percentage point would save us about \$50 million in annual debt service.

#### **NEED FOR BETTER ASSESSMENT OF DEBT AFFORDABILITY AND CAPACITY**

Given California’s unique circumstances, and the flaws inherent in using formulaic ratios to measure debt capacity, an additional tool is necessary to more accurately analyze debt affordability. In practice, as the Governor and Legislature review the budget, the Treasurer believes they should monitor

long-term debt commitments to ensure that debt service costs do not grow so large as to make it impossible for the State to meet its other legal and policy commitments.

Government Code Section 12330 requires the Treasurer to provide “a framework for the Legislature to evaluate and establish priorities for bills that propose the authorization of additional state debt supported by the General Fund ....” As the Legislature copes with limited General Fund resources and high demands on both the operating and debt budget, the Treasurer recommends a more flexible and robust foundation for evaluating debt policy.

A better way to assess the debt we can afford is to bifurcate the General Fund budget between the capital outlay and operating budgets. That allows us to see how much debt we can pay without reducing operating budget expenditures. Our approach uses the longer vision of a 20-year planning model, which we believe is an appropriate match for the longer term over which debt is incurred and repaid. Our estimates are outlined and explained in the following sections.

## SECTION 6

# Estimating General Fund Revenues and the Operating Budget

Senator John Burton, while President pro Tempore of the Senate, said his budget objective was to “just get out alive.” His perspective, informed by experience, captures the prevailing belief that because each budget is valid for a single fiscal year, decisions can be revised in subsequent years.

There are circumstances, however, when decisions made in one budget impose costs for many years. For example, when the Legislature approves an employee contract with salary increases, future Legislatures cannot readily deny the contractual adjustments. Similarly, capital outlay decisions, because they commit the State to financing an acquisition over many years, cannot be reversed easily.

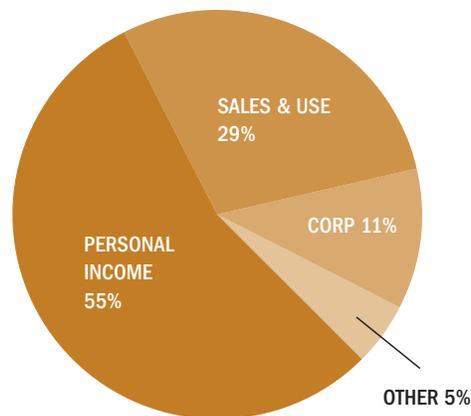
As the Legislature evaluates the State’s debt position and capital investment plans, it may wish to consider the State’s long-term fiscal condition. If the Legislature wants to obligate the State to a major capital investment and debt program, it would seem prudent to ask this question: What is the maximum amount of debt the State can assume without raising taxes, cutting expenditures or taking other steps?

To help evaluate that question, we estimate the long-term General Fund revenue streams and operating budget.

### LONG-TERM GENERAL FUND REVENUE COLLECTIONS

The General Fund has three major revenue sources: personal income tax, sales and use tax and corporation tax. Together, they accounted for 95 percent of all General Fund revenues in 2006–07. By far, the personal income tax was the largest source, generating 55 percent of all revenues. Figure 13 displays the relative value of the three main taxes and all “other” General Fund taxes. The last category includes proceeds from the insurance and alcohol taxes. It also includes the portion of the cigarette tax that has not been earmarked by the voters.

**FIGURE 13**  
COMPOSITION OF GENERAL FUND REVENUE,  
BY MAJOR TAX SOURCE (2006–07)



In developing a 20-year estimate of this revenue stream, we accepted the Legislative Analyst’s estimates for the period 2008–09 through 2011–12. To estimate the growth in these revenues over the next 16 years—2012–13 through 2027–28—we assume there will be no major changes in the tax structure. That is, we assume that neither the Legislature nor voters (in a statewide election) will adopt a major change in the level of these taxes or in the manner in which they are levied, collected or distributed.

We assume all revenues will grow at a rate commensurate with the change in the general population. The annual population growth rates likely will decrease over the entire estimate period, falling from the current 1.22 percent to 1.06 percent in 2027–28, according to the Department of Finance. To account for inflation, we increased revenues by three percent, which is the long-term inflation rate assumed by actuaries advising the State Controller on the future cost of funding health benefits for State government retirees and which is the price inflation rate assumed in the analysis in this report. We assume wage inflation will average 3.25 percent.

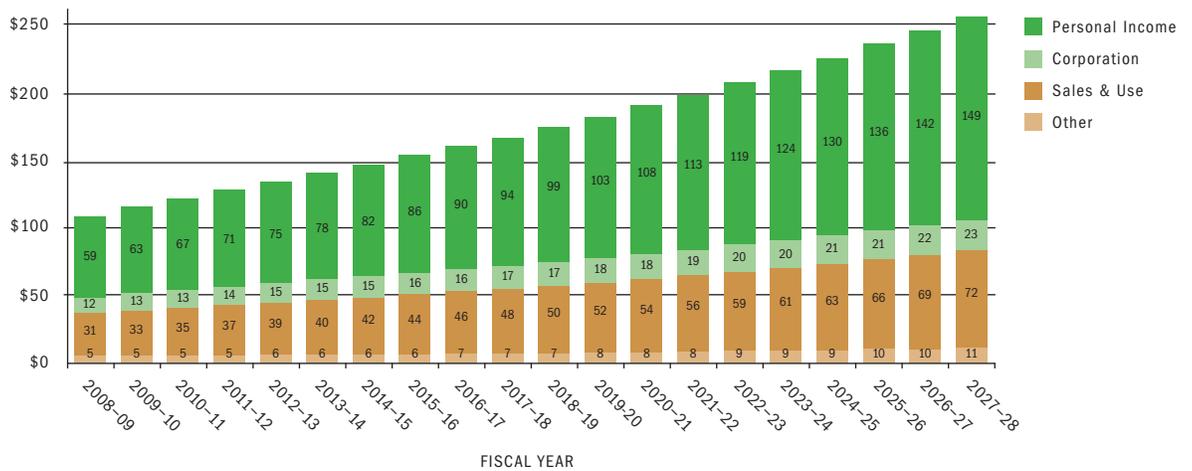
We further adjusted the income tax estimates to grow slightly faster than the economy, consistent with that tax’s sensitivity to the economy.

Using these assumptions, we estimate the income tax will grow from \$58.6 billion in 2008–09 to \$148.8 billion in 2027–28, rising at an average annual rate of 4.8 percent. During the same period, we expect both the sales and use tax and corporation tax to increase by about 4 percent. We estimate the sales and use tax will increase from \$31.4 billion to \$71.6 billion, while the corporation tax will grow from \$11.7 billion to \$22.7 billion. All other taxes combined will grow from \$5.4 billion to \$10.6 billion, at an average annual rate of about 3.4 percent.

Total General Fund revenues will increase from \$107.1 billion in 2008–09 to \$253.8 billion in 2027–28. This represents an overall average annual growth rate of about 4.4 percent.

Figure 14 summarizes our projections of the long-term General Fund revenue base. For purposes of this base-case estimate, we made no attempt to model the business cycle. The estimates, therefore, represent a general trend for the total growth in General Fund revenues, and we do not expect our estimates to be precisely accurate in any given year.

**FIGURE 14**  
**GENERAL FUND REVENUES BY MAJOR REVENUE SOURCE 2008-09 THROUGH 2027-28**  
 LAO ESTIMATES FOR 2008-09 THROUGH 2011-12. STO ESTIMATES FOR 2012-13 THROUGH 2027-28 (DOLLARS IN BILLIONS)



Totals may not add due to rounding.

## LONG-TERM GENERAL FUND OPERATING BUDGET

Taken together, funding for education, health, social services and criminal justice accounted for more than 90 cents of every General Fund dollar spent in 2006–07. Funding for public education (kindergarten through high school, colleges and university) consumes half the budget. Figure 15 displays the Legislative Analyst’s numbers on the composition of the 2006–07 General Fund budget by major program area.

To estimate the long-term operating budget, we relied on the Legislative Analyst’s fiscal outlook for the period 2008–09 through 2011–12 for all but one program. In the case of annuitant health benefits, sometimes referred to as “other post employment benefits” (OPEB), we made our own estimate based on a 2007 actuarial study conducted by the State Controller. The State typically finances annuitant benefits on a current—or “pay-as-you-go”—basis. The State Controller identified both the cost for paying the accrued unfunded liability and the “normal cost” of funding the costs in the same manner as pensions (called pre-funding). For purposes of making our 20-year estimate, we assume the State will both fund “normal costs,” and fund the identified unfunded liability over a 30-year period, beginning in 2008–09. We further assume the State General Fund, as it does with other programs, will finance 75 percent of the identified annuitant costs (with special funds paying the balance).

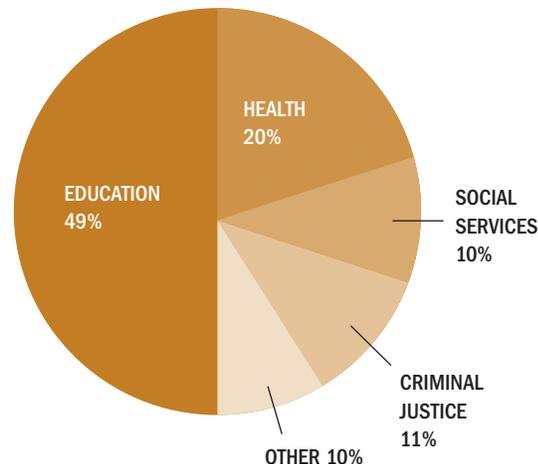
Taking the Legislative Analyst’s forecast for 2008–09 through 2011–12, and our projections starting in 2012–13, we estimate the total operating budget will grow from \$106.8 billion in 2008–09 to \$252.6 billion in 2027–28. Relying on the Legislative Analyst’s long-term forecast, we do not account for any short-term effects of the 2007–08 budget agreement between the Governor and Legislature.

To estimate General Fund program costs, we assume the following for the 16 years starting in 2012–13:

- **EDUCATION.** The State Constitution establishes a funding minimum for the portion of the budget associated with kindergarten through high school and community colleges (K–14). While the Legislature can choose to fund schools above the minimum, we assume that it will not exercise that discretion. For purposes of the entire period beyond 2011–12, we calcu-

FIGURE 15

GENERAL FUND OPERATING BUDGET, BY MAJOR PROGRAM



lated the schools’ funding levels using the formula known as “Test 1,” which provides schools a fixed percentage of the State’s General Fund. For higher education, including student aid, we expect growth at the same rate as the combined rate of wage inflation and population. We assume the Economic Recovery Bonds, which the State financed in a complicated transaction temporarily increasing the State’s K–14 costs, will be fully repaid by 2010–11.

We estimate education expenditures will grow from \$51.5 billion in 2008–09 to \$112.7 billion in 2027–28.

- **HEALTH.** Medi-Cal is by far the largest component of the health budget. To estimate the growth in Medi-Cal expenditures, we assume that costs will grow with the changes in population and the medical inflation rate assumed by the State Controller’s actuaries. We assume the rest of the health budget—including dependent care, mental health and drug and alcohol programs—will grow with wage inflation and population changes.

We expect the total health budget to grow from \$21.4 billion in 2008–09 to \$64.6 billion in 2027–28.

• **SOCIAL SERVICES AND CRIMINAL JUSTICE.**

In the social services category we include expenditures for CalWORKs, in-home supportive services, foster care and other programs. We assume these program areas will grow at the rate of wage inflation and population changes.

We expect social services expenditures to grow from \$10.4 billion in 2008-09 to \$24.7 billion in 2027-28.

Criminal justice expenditures, including spending on the judiciary, Department of Justice and Department of Corrections and Rehabilitation, also will grow with wage inflation and population. We used the Legislative Analyst’s estimate of prison costs as made in November 2006. To the extent these numbers do not fully account for the long-term costs of the State’s prison system, they will under-estimate the State’s long-term corrections costs.

We estimate criminal justice expenditures will increase from \$11.7 billion in 2008-09 to \$26.2 billion in 2027-28.

- **OTHER.** This category includes constitutionally required transfers from the General Fund to transportation programs, employee compensation and the rest of State government (including resources programs, the tax agencies and some State personnel costs). We included costs for “pay-as-you-go” capital financing. This category also includes constitutionally required transfers from the General Fund to the Budget Stabilization Account, or reserve.

Though special funds (tax proceeds from the sales tax on gasoline, for example) provide most of the support for transportation, the State Constitution requires an annual transfer from the General Fund to transportation projects. Over the 20-year period, we expect this portion of the budget to grow at a rate commensurate with population changes and price inflation, from \$1.6 billion to \$3.6 billion.

The cost of the annuitants’ health benefits is included in this “other” category, and increases from \$1.2 billion to \$4.6 billion. This amount reflects our estimate of the General Fund appropriation required to fund both full payment of the accrued unfunded liability and the normal cost.

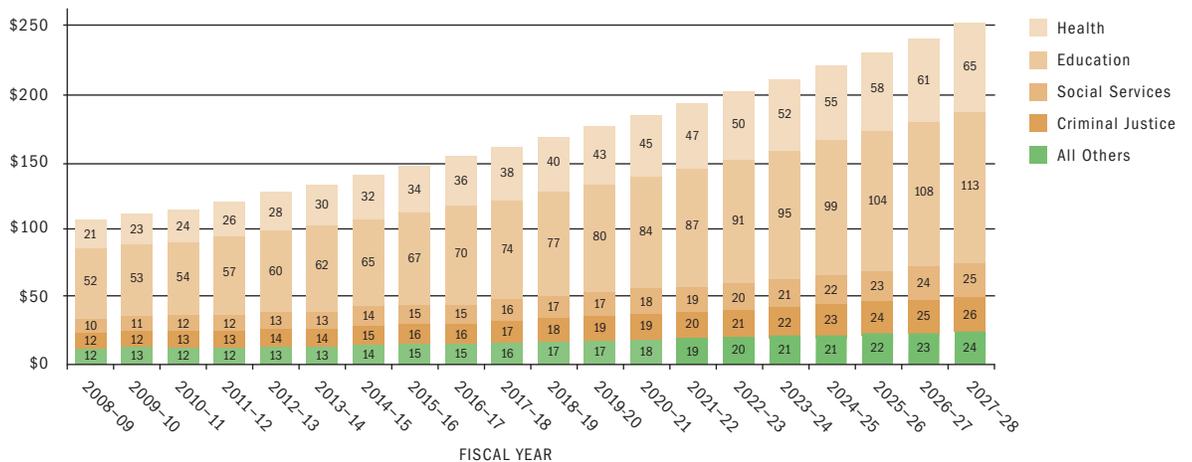
For the balance of this part of the budget, we assume spending grows at the same rate as wage inflation and population changes.

In total, we estimate the “other” category will grow from \$11.8 billion in 2008-09 to \$24.4 billion in 2027-28.

Figure 16 displays our operating expenditure estimates by these major categories. The graph illustrates sharply how health care is the fastest-rising General Fund cost faced by the State. Over the estimate period, the biggest program—education—will fall from 49 percent of the operating budget to about 44 percent. Meanwhile, the health budget will grow from about 20 percent of the operating budget to 26 percent.

**FIGURE 16**

GENERAL FUND OPERATING EXPENDITURES BY MAJOR PROGRAM 2008-09 THROUGH 2027-28  
 LAO ESTIMATES FOR 2008-09 THROUGH 2011-12. STO ESTIMATES FOR 2012-13 THROUGH 2027-28 (DOLLARS IN BILLIONS)



STO estimates for annuitant health benefits starting in 2008.  
 Totals may not add due to rounding.

## HOW MUCH IS LEFT?

After subtracting the estimates of the operating budget from the revenues, we can estimate the amount of room available for any other State priorities, including new debt, capital outlay investment, tax relief or program expansion. As displayed in Figure 17, we expect revenues to exceed the operating budget for the entire estimate period. We assume, along with the Legislative Analyst, that the Budget Stabilization Account will be filled to the constitutionally-required \$8 billion minimum by 2011–12, and that payments into the reserve will cease until General Fund revenues exceed \$160 billion (when the State Constitution requires the State to again make transfers).

**FIGURE 17**

COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURE BALANCE BEFORE DEBT SERVICE 2008-09 THROUGH 2027-28 (DOLLARS IN BILLIONS)

FISCAL YEAR	OPERATING EXPENSES (BEFORE DEBT SERVICE)	REVENUES	REVENUE BALANCE (BEFORE DEBT SERVICE)
2008-09	106.8	107.1	0.3
2009-10	111.8	113.6	1.8
2010-11	114.2	120.7	6.6
2011-12	120.6	127.7	7.1
2012-13	126.8	133.6	6.8
2013-14	133.2	139.4	6.2
2014-15	139.9	145.6	5.7
2015-16	146.4	152.0	5.6
2016-17	153.5	158.7	5.2
2017-18	160.7	165.7	5.0
2018-19	168.2	173.0	4.8
2019-20	176.0	180.6	4.6
2020-21	184.2	188.5	4.3
2021-22	192.8	196.8	4.0
2022-23	201.8	205.4	3.6
2023-24	211.1	214.3	3.3
2024-25	220.8	223.6	2.8
2025-26	231.0	233.3	2.3
2026-27	241.6	243.3	1.8
2027-28	252.6	253.8	1.2

## HOW REALISTIC ARE THE NUMBERS?

Niels Bohr, the Nobel-winning physicist, once observed, “Prediction is difficult, especially about the future.” Bohr’s observation aptly applies to our fiscal estimates. And complexity rises with the amount of time over which estimates are made. Given this complexity, few people make long-term projections. The Department of Finance publishes revenue and expenditure estimates for three-year periods, and the Legislative Analyst provides a five-year estimate each November.

Our estimates for the years after 2011–12 assume that revenues and expenditures rise with anticipated inflation and population growth. That works out to a combined annual growth rate between 4 percent and 5 percent. This rate is lower than California’s historical fiscal growth rates. For example, for the period 1980–81 through 2007–08, State revenues grew by 6.4 percent annually. We have assumed a lower growth rate for two reasons. First, we anticipate inflation and population will grow at significantly lower rates over the next 20 years than they did between 1980 and 2007. Second, the calculated historical rates do not account for changes in the State’s fiscal structure that were adopted in the period 1980 through 2007, and therefore may overestimate the “natural” growth rate of a current-services budget. If, as some suggest, we assumed General Fund revenues would grow at 6 percent annually, and we extended that same assumption to General Fund expenditures, the 2027–28 estimates for both would be much higher than we show. We believe our assumptions are reasonable. And even if the higher growth assumptions were used, it would leave unchanged our conclusions about the sufficiency of the General Fund revenue base to cover both debt service and operating expenditures.

Our estimates do not attempt to account for the many programmatic, economic, monetary and fiscal variables the State faces in any given year. Such an analysis would try to account for the likely, but unpredictable, effect of:

- **BUSINESS-CYCLE VOLATILITY.** The State’s economy experiences periodic expansions and contractions, which affect the rate at which General Fund revenues grow. Recessions also may increase the caseload and cost of certain programs. In a 20-year estimate, it is difficult to anticipate the timing or severity of a recession, as national and international economic trends can affect

California's business cycle. Based on historical economic trends, we expect the State will experience at least two recession cycles during the estimate period.

- **ONE-TIME DISASTERS.** The State periodically experiences disasters that affect the economy. In the last 20 years, the State has experienced major earthquakes and fires in urban areas. Such disasters affect programs and regional economies.
- **CHANGES IN FISCAL POLICY.** When the federal government reforms a major program, such as transportation funding or public assistance, State programs and funding can be affected dramatically. While federal policy is unlikely to remain constant over the estimate period, we do not attempt to predict federal changes. Similarly, changes in State fiscal policy can affect the General Fund balance. We make no attempt to predict such changes.
- **GLOBALIZATION.** The State is an active player in the world economy. To the extent global economic or social trends affect Californians in their private, public or business lives, these trends could ripple through the economy and affect the State budget. We make no provision for such changes.

We also note these estimates do not account for how reforms of California's budget process might alter the State's long-term fiscal picture. In recent years, as the State has struggled with chronic operating deficits, some budget experts have advocated for reforms they say would expedite passage of the budget and yield savings.

For example, California is one of three states (along with Arkansas and Rhode Island) that require a supermajority of both legislative houses to pass a budget. A recent academic study concludes that states with a simple majority vote requirement have lower overall spending levels.<sup>3</sup> Though other academic research is inconclusive, this study suggests that by changing vote procedures, the State could reduce the rate of long-term growth in its budget.

Other reform proposals attempt to cut spending, using various procedural methods, during periods of fiscal stress. For example, some would authorize automatic "mid-year" reductions. Others would let the Governor adjust spending unilaterally.

While these procedural changes, if implemented, could cut spending during recessions, it is unclear whether they would permanently suppress spending levels. The effect on long-term spending levels would depend on how the Legislature and Governor respond to pressure to increase spending during an economic recovery. But, as noted in Section 5 of this report, such reforms of fiscal management could help reduce debt service costs by addressing problems cited by the rating agencies in giving California's GO bonds a low score.

<sup>3</sup> "Political Institutions and Policy Choices: Evidence from the United States, Besley and Case," *Journal of Economic Literature*, March 2003.

## SECTION 7

# Can the General Fund Afford the Debt We Plan to Issue?

The final column in Figure 17 shows the amount of General Fund money remaining to pay debt service in future years, based on our assumptions about General Fund revenues and operating expenditures. Now we will calculate our future debt service costs and compare them to remaining revenues.

Our analysis assumes the State will issue \$224 billion of General Fund-backed debt between now and 2027–28. This figure is comprised of:

- Already-approved debt issued according to the schedule provided by the Department of Finance.
- Debt authorized by passage of SGP2 by voters and the Legislature in 2008 and 2010, and its issuance according to the schedule provided by the Department of Finance.
- The authorization of additional GO debt as a result of voter initiatives or other measures placed on the ballot by the Legislature after 2010. We assume that in each bi-annual election year from 2012 through 2026 voters enact the same amount of debt as between 1986 and 2004, after adjusting for inflation and population changes. Based on this assumption, we estimate voters will approve \$150.5 billion of debt, growing from \$13.8 billion in 2012 to \$24.6 billion in 2026.<sup>4</sup>

Figure 18 shows the resulting amount of debt we estimate will be issued in each year from 2007–08 through 2027–28:

**FIGURE 18**

AMOUNT OF NEW MONEY GENERAL FUND DEBT ISSUED  
(DOLLARS IN BILLIONS)

FISCAL YEAR	AMOUNT
2007-08	10.6
2008-09	12.7
2009-10	16.6
2010-11	14.3
2011-12	12.2
2012-13	11.9
2013-14	11.4
2014-15	10.3
2015-16	9.6
2016-17	8.7
2017-18	8.3
2018-19	8.6
2019-20	8.5
2020-21	9.0
2021-22	9.0
2022-23	9.6
2023-24	9.6
2024-25	10.3
2025-26	10.4
2026-27	11.1
2027-28	11.2
<b>TOTAL</b>	<b>224.1</b>

Balance of the projected \$150 billion GO bonds authorized will be issued after FY2027-28. Figures assume approval of SGP2. Excludes self-liquidating GO bonds.

<sup>4</sup> We do not include two recent changes in expected or possible debt issuance. We exclude (1) an additional \$447 million of lease revenue bonds approved in the 2007–08 budget and (2) the additional \$5 billion in water GO bonds (over and above what is already in SGP2) proposed by the Governor on September 18, 2007. Further, some of the authorized lease revenue bonds are not issued in the Department of Finance's schedule and so are not included in our analysis.

This report assumes the State will issue its future bonds at an average interest rate of 4.75 percent if the bonds are fixed rate and 4.00 percent if they are variable rate. These are lower interest rates than the Department of Finance’s assumption that all bonds are issued at 5.75 percent.<sup>5</sup>

Figure 19 shows total General Fund debt service on our projected debt issuance. Annual debt service drops to its low point in 2010–11 after the ERBs are repaid, but then climbs steadily to about \$15.8 billion in 2027–28.

Figure 20 shows the total debt service and compares it to the amount of General Fund revenues remaining after operating expenses (but before debt service), as shown in Figure 17.

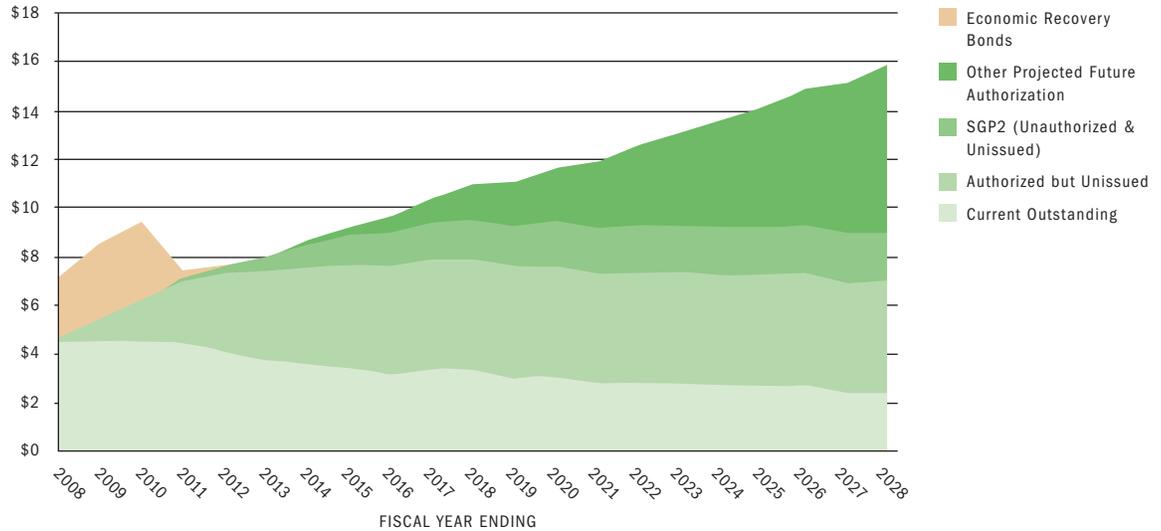
The General Fund revenues remaining after operating expenses (available revenues) increase in the next few years. Combined with a reduction in debt service once the ERBs are repaid, available revenues fall

short of debt service by about \$470 million in 2010–11 and 2011–12, compared to a \$5 billion shortfall in 2008–09. But after 2011–12, available revenues start to drop as debt service continues to grow. As a result, by 2027–28, debt service exceeds available revenues by about \$14.6 billion.

The dotted line in Figure 21 shows the net effect. It represents the amount by which available revenues will fall short of expected debt service. The same graph also plots debt service as a percentage of total General Fund revenues, since that is the measure that dominates most discussions of debt affordability.

Putting these two yardsticks on the same graph demonstrates why measuring debt affordability simply as a percentage of General Fund revenues can be misleading. Debt service as a percentage of revenues grows for the first half of the forecast period, peaking at 6.54 percent in 2017–18. In subsequent years, it remains roughly in the range of 6.2 percent to 6.4 percent.

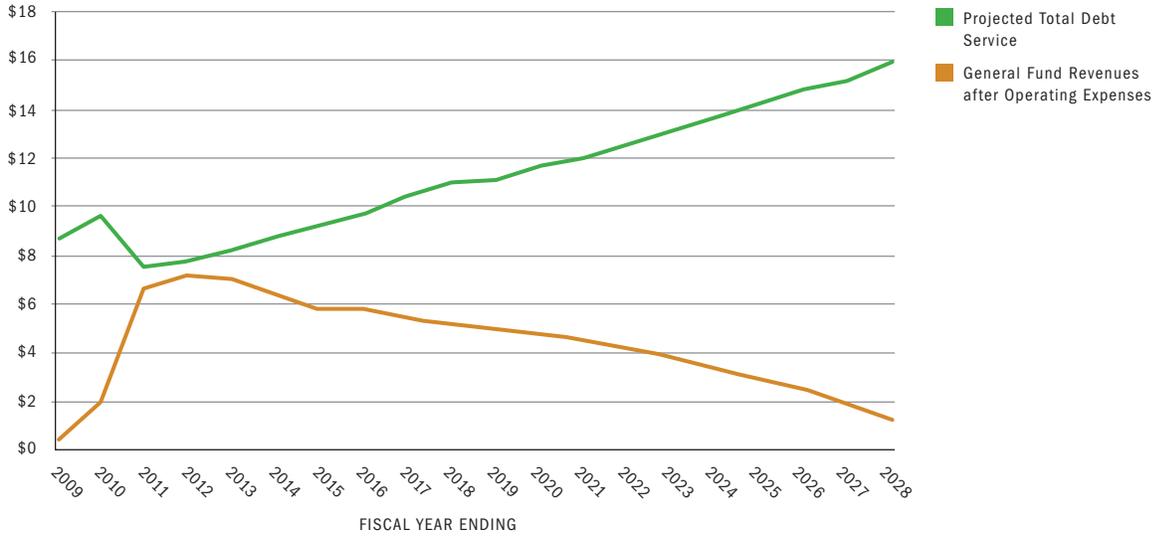
**FIGURE 19**  
PROJECTED GENERAL FUND DEBT SERVICE  
(DOLLARS IN BILLIONS)



<sup>5</sup> We assume the State will issue a combination of fixed rate debt and variable rate debt. The use of variable rate debt will grow to constitute 18 percent of our GO debt, leaving a small cushion below the 20 percent legal limit. The 4.00 percent variable interest rate assumption is inclusive of all fees. This is a reasonable assumption given the history of tax-exempt variable rate debt. The fixed rate assumption of 4.75 percent is the all-in interest cost on our last GO bond sale and remains the approximate interest rate at which we would sell fixed rate bonds in today’s market. Though today’s rates are low by historical standards, it’s impossible to know if rates will go up or down in the future. However, several considerations make 4.75 percent a reasonable assumption. The historical relationship between inflation and interest rates over the last ten years suggests that when inflation is 3 percent (the rate assumed for all other purposes in this report), the rate on our bonds should be about 5.20 to 5.50 percent if we issue fixed rate bonds with level debt service. However, the Treasurer has several tools to reduce those costs. These include the ability to (1) issue lower-cost synthetic fixed rate bonds by combining variable rate bonds with an interest rate swap, (2) refund bonds that were issued when interest rates are high and replace them with less expensive bonds when interest rates are low, and (3) structure the repayment of principal in years that are inexpensive relative to other years, given the shape of the yield curve and investor demand, each time we issue bonds. The value of this kind of active management has been demonstrated by a financial model which the STO has used to begin developing a strategy for future bond issuance. The model shows that, in comparison to issuing fixed rate level debt service bonds, an active management strategy (including the issuance of variable rate debt) can produce substantial interest rate savings.

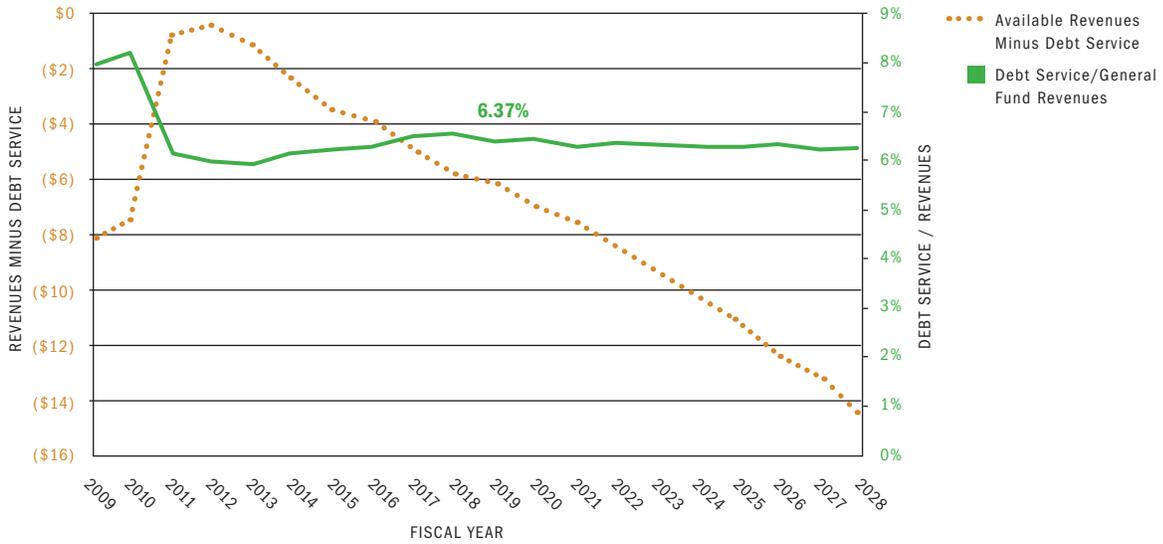
**FIGURE 20**

**PROJECTED GENERAL FUND DEBT SERVICE COMPARED TO REVENUES AFTER OPERATING EXPENSES (DOLLARS IN BILLIONS)**



**FIGURE 21**

**GENERAL FUND REVENUES AFTER DEBT SERVICE AND DEBT SERVICE AS A PERCENT OF GENERAL FUND REVENUES (DOLLARS IN BILLIONS)**



This is a level maintained by several states with higher credit ratings than California. It also is a smaller percentage than is generally considered affordable in the policy debates in California. But because California has a high level of other General Fund spending, there isn't enough money to support that spending, and also pay debt service.

Fixing this structural fiscal problem is far from impossible. To gain a sense of the magnitude, the imbalance is equal to an annual General Fund revenue shortfall of about 3.5 percent. In other words, if we increased General Fund capacity by 3.5 percent each year over and above the revenue growth we are already assuming, or reduced operating expenditures by 3.5 percent below our assumptions, we would close the shortfall. This would require an adjustment of about \$3.5 billion in 2007–08, growing to \$8.9 billion in 2027–28.

The remainder of this report addresses some possible solutions to the long-term gap between available General Fund revenues and the debt costs associated with infrastructure investment. Elements of that solution could include higher General Fund revenues, lower operating expenditures, reduced capital expenditures, lower-cost methods of issuing debt, implementing measures to reduce the need for new capital investment, shifting the responsibility for capital investment to revenue-generating enterprises (whether public or private), constitutional revisions, or a combination of any of these measures.

The Treasurer urges the Governor and Legislature to begin taking action now. But, if they do not, we will still pay our debt. The California Constitution makes payment of GO debt service a priority over all other expenditures except payments to public schools, colleges and universities. Therefore, while we might get to the point where we issue more debt than we can “afford,” we will always pay our debt. It won't be investors who suffer if we fail to make permanent repairs to our fiscal house. It will be those who benefit from the myriad other State programs—health, environmental, recreational, public safety and others—our General Fund supports.

## SECTION 8

# Making More Room for Infrastructure Investment

### SPENDING AND REVENUE CHANGES

To make more room for debt to finance infrastructure investments, the Legislature and Governor have three avenues to follow: They can raise revenues, cut expenditures or take meaningful steps to make government operate more efficiently. Over a 20-year planning horizon, they will have many opportunities for such fiscal restructuring.

The following outlines some potential options that have been part of the public dialogue in recent years. Wherever possible, we include our own best estimate of the annual financial savings or revenues associated with each of these policy options.

Neither the Treasurer nor the Treasurer's Office necessarily endorses any of these proposals. We list them to provide a real-world sense of the financial effect any or all of the proposals could produce in the effort to solve California's structural budget deficit.

### SPENDING

- **INCREASE EFFICIENCY/REDUCE COSTS OF SERVICE DELIVERY.** Over a long planning period, the State can undertake changes in service delivery and management to reduce costs without reducing the quality of its services. For example, streamlining the administration of health care services likely would generate substantial savings. More savings could come from combining

or eliminating duplicative or overlapping programs. These opportunities may be overlooked during the annual budget development, because the savings are not achieved within the first 12 months.

- **REDUCE LIFE-CYCLE COSTS.** In addition to pursuing efficiencies, the State can reduce the total costs of owning, maintaining and operating buildings, roads and other capital assets. By minimizing the "life cycle" costs, the State can reduce its overall expenses.

For example, if the State installed energy efficiency measures and green technology in its buildings, its long-term facility and energy costs could fall significantly. The California Pollution Control Financing Authority estimates that the State could save at least \$863 million over a 10-year period on each \$500 million investment in green technology. That's a net savings of \$363 million.

- **SHIFT COSTS.** The State could shift costs, where appropriate, to federal or local governmental entities.

In 1991, for example, the State changed the way it shared revenues and program responsibilities with local governments. In the future, the Legislature could do more of the same with such programs as transportation, social services or medical programs. Or, by conforming State eli-

gibility rules to federal requirements, it may be possible to shift up to 50 percent of State costs for certain Healthy Families expenditures to the federal government.

As an alternative to such government realignment actions, the State could shift General Fund costs to special funds by allocating fees and special taxes to programs currently funded with General Fund revenues. For example, the State could eliminate the General Fund subsidy for transportation projects by shifting all the cost to users.

## REVENUES

The Legislature and Governor also could increase debt affordability by raising General Fund revenues. They could, for example, raise revenues by improving tax compliance. The State could collect at least \$670 million annually in estimated unpaid—and legally due—taxes if it could successfully identify and bill purchases made through the Internet or by mail order.

The State also could raise General Fund revenues by broadening the sales tax base, which is still tilted towards sales of goods, even though California's economy long ago began a dramatic shift towards sales of services. For example, if California taxed construction services (such as carpentry) at the State rate of 5.25 percent, it would generate nearly \$3.9 billion annually. Figure 22 displays the annual revenues associated with taxing services, listed by major industries.

Alternatively, the State could increase the top income tax rates to 10 percent and 11 percent, to generate annual revenue of about \$4.5 billion. Limiting the home mortgage deduction to \$35,000 would increase annual revenue by \$460 million. On the corporate tax side, suspending all incentive credits with carryovers would increase revenue by \$1 billion per year.

## OTHER POSSIBILITIES

Though we do not attempt to factor in these potential program and revenue policy changes into our 20-year projections, we have modeled some hypotheticals to demonstrate their potential effect on the State's finances.

**FIGURE 22**

ESTIMATED ANNUAL REVENUES FROM IMPOSING STATE SALES TAX ON SERVICES, BY MAJOR INDUSTRY (DOLLARS IN BILLIONS)

INDUSTRY	AMOUNT
Agriculture	0.03
Mining	0.03
Utilities	1.60
Construction	3.86
Car Dealer Repair	0.45
Transportation & Warehousing	3.17
Information	2.97
Insurance	2.36
Real Estate	1.05
Professional	6.39
Administrative	2.43
Waste Management	2.07
Educational	0.19
Health	6.22
Arts and Entertainment	1.17
Accommodation	0.63
Repair	0.63
Personal	0.63
<b>TOTAL</b>	<b>35.88</b>

SOURCE: Franchise Tax Board

- **FIVE PERCENT TAX CHANGE.** On the tax side, we considered the fiscal effect of both increasing and reducing taxes by five percent. A five percent tax increase would eliminate any operating deficit, while a five percent cut in tax revenues ensures deficits for the entire period.
- **REDUCTION IN RECIDIVISM.** Suppose the Legislature adopted reforms to reduce the number of former inmates re-committed to the State's prison system to the national average recidivism rate. The Expert Panel on Adult Offender and Recidivism Reduction Programming found that if the State took such actions to reduce the number of prison beds by between 42,000 and 48,000 it could save up to \$1 billion annually on operating and facilities costs. The panel also recommended the State make certain investments in the prison system. If all its rec-

ommendations—for savings and investments—were implemented, the panel estimated that the State could generate net annual savings of between \$561 million and \$684 million.

- **BUDGET INDEPENDENCE FOR THE UNIVERSITY OF CALIFORNIA.** Suppose the State eliminated all its direct General Fund support from the UC system, allowing it to set its own budget and raise revenues to replace the State's share. How much would the State save (assuming there was no commensurate increase in State costs for student financial assistance)? Eliminating State support for UC would reduce costs by \$7 billion a year by 2027–28.
- **FEDERAL ADOPTION OF UNIVERSAL HEALTH CARE.** What if the federal government assumed responsibility for providing health care, and as a result completely eliminated the State's costs for financing Medi-Cal? Under that scenario, the State's General Fund annual expenditures would drop by \$48.6 billion by 2027–28.

## SECTION 9

# Easing Pressure on the General Fund—Public Finance Tools

### BOND STRUCTURING

To some degree, the Treasurer can reduce the cost of the State's debt by structuring how the debt is issued. However, the large size of our future issuance program and the increasing complexity of the capital markets make it challenging to get the lowest interest rates and deliver bond proceeds when projects require them. At the same time, if the Treasurer is equipped with modern financial tools, he can navigate those challenges and sell bonds in ways that reduce both the cost and risk of the State's debt.

The State typically sells GO bonds five or six times each year. The market for tax-exempt bonds changes from sale date to sale date. Among the characteristics that change may be the level of interest rates and the demand among different buyer groups (such as individuals and mutual fund companies) for buying tax-exempt bonds. The Treasurer must respond to these market changes in structuring and selling each bond issue to secure the best deal for the State.

In recent years, the Legislature has given the Treasurer certain tools to enhance the State's ability to realize such savings. These include the ability to refund, or refinance, GO bonds, issue variable rate GO bonds and enter into interest rate swaps, an authority effective with the GO bonds authorized in 2006 or later. However, with the exception of refunding, current law does not allow the Treasurer to use these tools in the issuance of lease revenue bonds.

The interest rate assumptions used in this report reflect the potential for savings the Treasurer can produce applying modern financial tools to the unique nature of the market each time we sell bonds. The STO is developing a strategic approach to take advantage of such market opportunities and, at the same time, reduce our exposure to market risks (such as the risk that when we come to market in the future interest rates will be very high and we'll be forced to lock in high rates for many years). The opportunities created by a strategic debt management policy are apparent from the results of a financial model we have been using in this effort. For the GO debt we expect to issue, the model projects that a strategic approach would reduce our interest costs by almost a billion dollars per year compared to an approach where the State always issues debt at fixed interest rates and pays the same amount of debt service every year. This represents a reduction in our average interest rate of 0.85 percentage points. This comparison assumes that market interest rates are exactly the same under both approaches and that the timing and amount of issuance is also the same. The savings come from utilizing the right financing tools appropriate to the market each time we sell bonds. Further, the model shows such an approach reduces almost by half uncertainty over our future interest costs.

If other tools or mechanisms become useful or necessary in the future, the Treasurer will ask the Legislature for authority to use those tools.

## NEW GENERAL FUND CREDIT

In bond parlance, a “credit” is the revenue an issuer must devote to debt service and the various promises (known as covenants) the issuer makes about how it will operate so that investors can be assured they will receive debt service payments. The State could reduce the cost of its debt, increase its debt capacity and make its bonds more attractive to certain investors by creating one or more new GO bond credits.

Such a new credit would be created by backing new GO bonds with a specific revenue stream from the General Fund. For example, if the State pledged the personal income tax (PIT) for a new class of bonds, the first PIT revenues received would be dedicated to paying debt service on those bonds.

The capital markets would react favorably to such a product, and taxpayers would benefit, as demonstrated by the Economic Recovery Bonds (ERBs). The ERBs are backed by a portion of the sales tax and additionally secured by the State’s full faith and credit. This double-barreled pledge has earned the ERBs a higher bond rating than the State’s traditional GO bonds. The higher rating, in turn, lowers borrowing costs.

In addition to the possibility of a higher rating, a new credit of this nature could provide the State the following benefits:

- **EXPANDED INVESTOR BASE.** Long-standing investment rules strictly limit the amount of bonds certain investors can purchase from a single entity, such as the State of California. Some investors are “full” of the State’s existing GO credit, which limits their ability to purchase additional bonds. A new credit would enable these investors to increase their holdings in California bonds. Increased demand for California’s bonds would in turn help lower borrowing costs.
- **INCREASED AVAILABILITY OF CREDIT ENHANCEMENT.** Some bond insurance companies and banks have limited capacity for providing additional credit to the State because of the amount of their existing exposure. A new credit would increase the amount of bond insurance, letters of credit and lines of credit available to the State for a variety of types of debt.

Several large issuers of municipal debt have successfully carved out revenues to create multiple credit classes to lower their overall borrowing costs. For example, New York City issues bonds through its Transitional Finance Authority (TFA) that are secured by a pledge of PIT and sales tax revenues. Its TFA bonds carry higher ratings than its traditional GOs and have consistently been issued at lower interest rates.

The use of a new credit would require that the State Constitution be amended to permit the Legislature to dedicate a portion of one or more General Fund tax revenue sources to repayment of specific GO bonds.

We believe it would be cost-effective for the State to utilize these new credits on the GO bonds that would be part of SGP2. Doing so likely would save the State millions of dollars every year. If utilized on the \$29.4 billion of new GO bonds proposed in SGP2, we estimate that, based on today’s market conditions, the interest-rate savings would be approximately one-tenth of a percentage point. That reduction would produce an annual savings of almost \$22.5 million, or \$675 million over the 30-year life of the bonds.

## NEW REVENUES FOR DEBT

The State could employ the approach used by local government and collect a small additional amount on property taxes to pay for some of its GO bonds. When voters approve local government GO bonds, they also approve an increase in the local share of the property tax sufficient to pay the debt service on the bonds. The State could ask voters to approve some bonds that likewise would be paid from a statewide increase in the property tax.

In 2006–07, total assessed value statewide was \$3.934 trillion. For every \$1 billion of GO bonds issued (at an interest rate of 4.75 percent), a tax rate of 1.8 cents per thousand dollars of assessed value would be sufficient to pay the debt service. The numbers would not be large for individual homeowners. On a median priced house in California (\$484,000 in mid-2006), this would equal \$7.78 per year.

### **BUILDING A BUDGET RESERVE FOR DEBT SERVICE**

The rating agencies consistently have cited two features of California’s fiscal management that hurt our rating: the volatility of our General Fund revenues (due primarily to potentially large fluctuations in capital gains taxes because of the structure of our personal income tax) and the absence of a mechanism to make mid-year budget adjustments. Unforeseen economic circumstances can generate windfall revenues in some years, but leave us short in others.

The voters, in approving Proposition 58 in 2003, took steps to address this by creating and funding a Budget Stabilization Account (BSA), a constitutionally required reserve fund to hold revenue from good years for use in lean years. The BSA, funded according to a schedule specified in Proposition 58, is supposed to grow to the larger of \$8 billion or 5 percent of General Fund revenues. It can be built up or depleted by the Legislature to smooth the impact of business cycles on the State budget.

The State should consider funding an additional reserve specifically for payment of debt service in years when General Fund revenues fall short of what was budgeted. As the State issues more debt—and increases the amount of General Fund expenditures that must be made whether the economy is good or bad—this can provide protection that might also enhance the State’s credit rating. It also would relieve pressure on other parts of the budget that may suffer when scarce General Fund revenues must be used for debt service.

Such a reserve would not increase chances that the State will make required debt service payments, because of the constitutional priority afforded such payments. Instead, this could help address the rating agencies’ ongoing concerns about how the State handles its budget and help achieve a higher credit rating.

### **REFINANCING EXISTING DEBT**

The Treasurer regularly refinances, or refunds, the State’s bonds when interest rates are low enough to produce material savings. Federal tax law imposes certain restrictions on tax-exempt refundings, including how many times a bond issue may be refunded. Accordingly, the Treasurer follows a set of policies designed to ensure that refinancing opportunities are

neither wasted by achieving too little savings nor lost by not refunding bonds at all prior to their maturity. To date in 2007, the Treasurer has refinanced \$4.23 billion of GO debt, producing present value savings to the General Fund of \$217 million.

The following section discusses another way to ease pressure on the General Fund to finance infrastructure investment: user-pays financing, including “public-private partnerships.”

## SECTION 10

# Fee-Generating Infrastructure and Public-Private Partnerships

To help further ease General Fund pressures and increase the State's ability to invest in needed infrastructure, another method has gained increasing attention: user-pays financing, including public-private partnerships, or "P3s." Proponents say that by relying on user fees, instead of tax revenues, this approach can finance infrastructure without relying on the General Fund.

Under user-pays, the costs of financing, building and maintaining certain infrastructure needs are borne by those who directly benefit. Either the government or private entities could own and operate the infrastructure. P3s can take various forms. Government can sell or lease existing infrastructure to private parties, who then generate revenue from users to gain a return on their investment. Or private entities can finance, own and operate infrastructure projects, and earn a profit through user-generated revenue.

In considering these options, the State should ask two questions:

- Is it appropriate to make users pay to generate the revenue needed to finance and operate a particular infrastructure project?
- If the project generates enough revenue from its users to satisfy private equity investors, why shouldn't the State just operate the project and finance it with the State's own revenue bonds and thereby retain the economic benefit?

### WHO SHOULD PAY?

Charging user fees to pay the costs of building or operating infrastructure is not appropriate in some cases. For example, public safety benefits everyone. It is impractical to pay for a police or fire station by imposing a fee on those who call for police or fire services. Likewise, we don't support prisons through user fees. Or consider education. Our country has long understood and believed in the importance of providing our children a free education in public schools. Charging parents fees to send their children to public schools would violate this cherished principle.

In other cases, user fees may be theoretically feasible, but their implementation would face substantial hurdles in practice. Consider roads. California has a tradition of providing *freeways*. Collecting tolls is feasible, but there is much debate about whether doing so is advisable, desirable or politically possible.

There is less controversy about collecting user fees for other types of infrastructure. User fees already support most electrical, water, wastewater and solid waste infrastructure. The user fees generated by these systems enable both public and private owners to invest in and maintain their infrastructure. The public operators generally issue tax-exempt revenue bonds. The private operators raise capital either in the debt or equity markets.

## WHY CHARGE FEES?

These examples illustrate three reasons that typically justify collecting fees:

- **IT'S FEASIBLE**—A measurable service or product is delivered to individual users, who can then be charged according to their use.
- **THE BENEFIT IS INDIVIDUAL, NOT SOCIETAL**—Unlike public education, which benefits society as a whole, this is not generally the case for most utility services. The user benefits and it makes sense that the user should pay.
- **IT'S EFFICIENT**—There are costs, both financial and environmental, for the use of water, electricity, solid waste systems and wastewater systems. Charging users can bring use and need more into balance with each other. Subsidies can ensure that the poor obtain adequate services.

Projects that meet these criteria may be candidates for financing by a means other than GO bonds. GO bonds are best reserved for projects that provide a general benefit. By these criteria, the voters have approved GO bonds for several projects that could, or perhaps should, be financed with revenue bonds. These include levee improvements (for which a fee or assessment can be collected on the specific properties protected by the improvement), water storage and highways.

Whether to collect tolls on our highways brings this policy debate into sharp focus. Population growth and lengthening commutes make obvious the need for additional transportation infrastructure. The gasoline tax, which has supported most road construction in the past, is a fixed amount per gallon that hasn't been changed for years. As highway construction costs have increased and autos have become more fuel efficient, the buying power of the gas tax has plummeted relative to need.

One solution to this problem is to build toll roads or convert existing roads or lanes into toll ways. To a small degree, this has been done in Southern California. Two public toll road systems have been built in Orange County, and a publicly-operated toll lane has been added adjacent to a free highway in one part of the county.

Of course, in a state reliant on the car and built on a system of free highways, moving to a system of toll

roads would be a monumental change. Some of the issues that would arise include:

- **FAIRNESS**—Since use of most highways is now free, is it fair to charge some people to use our State highway system but not others? Perhaps it is fairer to increase the gas tax, since everyone pays according to their consumption of gasoline (one proxy for highway usage).
- **EFFICIENCY**—We could regulate the use of our roads by charging higher tolls during peak times and hopefully shift some usage to off-peak times. This would expand the capacity of our transportation infrastructure. But it would also make driving least affordable to low and middle-income workers who have no choice but to travel at peak times.
- **NECESSITY**—Given our enormous transportation infrastructure needs, is there any other way to generate the needed capital without charging tolls?

The preceding discussion does not address whether our infrastructure should be private or public, but merely whether we can and should charge fees for the use of that infrastructure. If the answer is yes, such facilities may be candidates for privatization. But privatization raises an additional set of considerations.

## WHO SHOULD BUILD, OWN AND OPERATE?

Much state and local infrastructure already is financed by private capital. According to the Federal Reserve, private investors held \$2.4 trillion of state and local municipal debt at the end of 2006. That represents a 50 percent increase from just five years earlier. In 2007, it is likely that as much as \$400 billion of new municipal debt will be issued in the United States. Clearly, the municipal bond market provides huge amounts of private capital to build our nation's infrastructure.

As one of the largest issuers of municipal bonds, California relies heavily on that market. Our GO program will be financed almost entirely with tax-exempt bonds, which is very cost-effective. When the State last issued GO bonds in June 2007, the cost of funds (true interest cost) for the 30-year bond issue was 4.78 percent.

P3 projects may provide a new source of capital to augment the municipal bond market. Project Finance International's Global Infrastructure Report 2007 cited the creation of 11 new private-equity infrastructure funds with a North American focus. Those funds had raised (or are expected to raise) nearly \$45 billion.

If capital is widely available for infrastructure projects, whether they are publicly or privately owned, is there a reason to choose private ownership over public? Two factors that might affect such a decision are the cost of the capital and the credit quality requirements of the lenders.

Governments that own and operate infrastructure usually can finance the infrastructure using tax-exempt bonds. This means public infrastructure systems can be financed at a lower cost than private systems. Private operators must borrow at higher-cost taxable interest rates and, to attract equity capital, they must demonstrate the likelihood of returns on that equity that exceed the taxable debt rates. Private sector companies have ways to offset some of those costs. For example, if they are profitable they can deduct the interest costs on their debt from their taxable income and may be able to depreciate their assets. But tax-exempt debt almost always will be cheaper unless additional tax benefits specific to the type of infrastructure financed—e.g. some alternative energy facilities—are available.

On the other hand, private equity investors are willing to invest in riskier projects than municipal debt investors. While equity investors may lose their investment, they also have the chance to earn sizeable returns if the investment is successful. Therefore, a private company might be able to finance an infrastructure project the municipal debt markets find too risky.

A start-up toll road might be an example. Without a record of the road operating successfully, government might find it difficult to raise money for such a project in the risk-averse municipal debt markets. But a private operator might be able to attract equity capital for such a project if it had control over the construction and eventual operation of the facility (subject, of course, to limits agreed to with government). Such an arrangement could be attractive to equity investors since they would have the potential for significant upside if the project succeeded.

The public sector may, in part, impose this disadvantage on itself. Public sector issuers are reluctant to issue low or unrated bonds, fearing the negative publicity and a black mark in the capital markets if their bonds default. But with proper care and disclosure, public sector infrastructure operators might expand their use of tax-exempt debt for projects that might otherwise require private operation and financing.

Government also could consider using other revenues to secure debt during the risky years of a project. For example, if the State financed a system of new toll roads, it could initially pledge both tolls and the gasoline tax to their repayment. As the system is built, and toll revenues are more stable, the gas tax pledge could be eliminated.

In summary, government can raise a substantial amount of tax-exempt debt to meet our infrastructure needs, and usually at a lower cost than private operators can. The one potential advantage privately-operated infrastructure may have is that, by attracting equity capital, it can finance projects at a time when their success is more speculative.

#### **SHOULD WE SELL OR LEASE EXISTING ASSETS?**

Public-private partnerships also can be used to sell or lease existing public assets. If the government selling the asset chooses, this can be a method of financing new infrastructure by dedicating the sale or lease proceeds to new investment. Both Chicago and Indiana have leased toll roads under long-term concession agreements (though, more recently, Texas and New Jersey have backed away from such action). In California, the most specific proposals have been to sell the EdFund (the 2007–08 budget authorized the sale, though not to generate funds to invest in infrastructure) and to lease the State lottery (a move several other states also are considering).

Because an existing revenue-generating asset has a proven revenue stream, it may be more cost-effective to raise money to build a new asset by refinancing an existing asset, rather than financing the new asset directly. The State needs to carefully weigh several factors in deciding whether to pursue such refinancing through a public-private partnership or issuance of tax-exempt bonds.

- If upfront cash is the goal, government may be able to do its own financing or refinancing to achieve that objective. For example, the State should compare the costs and benefits of a lottery concession agreement to the alternative of selling bonds backed by future lottery revenues.
- In some cases, the State will receive an upfront payment for the lease or purchase of a public asset only because it gives up a future revenue stream to a private operator or bondholders. The State must be careful to ensure such forfeited revenue does not leave a hole in future budgets.
- The proceeds from selling or leasing State assets should fund long-term obligations, not short-term budget requirements. Long-term uses could include purchasing new infrastructure, funding public-employee pension or retiree healthcare obligations, or creating an annuity to finance ongoing programs such as education or healthcare.

The CTFA would be authorized to issue revenue bonds for State-owned highways, including those built through public-public partnerships. Membership on the Authority would include, at a minimum, the Treasurer, the Director of Finance and the Director of Caltrans. The Treasurer would serve as agent for sale for the CTFA's bonds. Over the next few months, the Treasurer intends to develop details for the CTFA and seek its creation from the Legislature.

#### **CALIFORNIA TRANSPORTATION FINANCING AUTHORITY**

California's transportation needs cannot be met—and should not be met—solely by relying on the issuance of GO bonds. We must begin to explore the many new ways in which adequate financing packages can be assembled from a variety of revenue sources such as the State gas tax, local transportation sales taxes, tolls and developer fees. Current law provides no authority, however, for the issuance of bonds for State highway construction if the source of payment includes tolls.

To address the need for innovative public transportation and transit financing options, the Treasurer believes the Legislature should create a California Transportation Financing Authority (CTFA) to permit the issuance of bonds to support publicly-owned and operated highways that may be backed by a variety of revenue sources, including tolls. The Treasurer believes there is a huge potential for “public-public partnerships” (partnerships between different levels of government such as the State and a local transportation agency) to deliver essential projects without relying on the private sector for direct financing and operation.



# Appendix A

## DEBT SERVICE REQUIREMENTS ON FIXED RATE GENERAL OBLIGATION BONDS AS OF JULY 1, 2007

FISCAL YEAR ENDING JUNE 30	INTEREST	PRINCIPAL (a)	TOTAL
2008	\$1,845,434,892	\$ 1,648,938,078	\$ 3,494,372,970 (b)
2009	1,789,249,218	1,761,415,000	3,550,664,218
2010	1,694,810,909	1,853,505,000	3,548,315,909
2011	1,597,959,517	1,871,354,045	3,469,313,562
2012	1,493,945,675	1,683,920,000	3,177,865,675
2013	1,411,045,880	1,402,905,000	2,813,950,880
2014	1,344,005,517	1,317,325,000	2,661,330,517
2015	1,281,091,024	1,229,715,000	2,510,806,024
2016	1,221,447,243	1,038,560,000	2,260,007,243
2017	1,169,769,898	976,835,000	2,146,604,898
2018	1,121,671,666	933,290,000	2,054,961,666
2019	1,073,470,540	995,505,000	2,068,975,540
2020	1,022,530,519	1,119,390,000	2,141,920,519
2021	968,636,074	1,059,670,000	2,028,306,074
2022	915,627,891	1,246,835,000	2,162,462,891
2023	852,338,013	1,308,745,000	2,161,083,013
2024	787,584,554	1,237,445,000	2,025,029,554
2025	724,993,679	1,390,325,000	2,115,318,679
2026	656,408,166	1,345,125,000	2,001,533,166
2027	583,456,286	1,388,675,000	1,972,131,286
2028	516,118,711	1,501,520,000	2,017,638,711
2029	445,854,414	1,448,170,000	1,894,024,414
2030	375,032,695	1,551,515,000	1,926,547,695
2031	300,850,608	1,334,425,000	1,635,275,608
2032	236,797,386	1,352,035,000	1,588,832,386
2033	171,662,301	1,257,200,000	1,428,862,301
2034	109,835,576	1,028,295,000	1,138,130,576
2035	67,806,445	672,755,000	740,561,445
2036	35,434,270	595,060,000	630,494,270
2037	11,976,245	343,960,000	355,936,245
<b>TOTAL</b>	<b>\$25,826,845,811</b>	<b>\$37,894,412,123</b>	<b>\$ 63,721,257,935</b>

(a) Includes scheduled mandatory sinking fund payments.

(b) Total represents the remaining debt service requirements from August 1, 2007 through June 30, 2008.

SOURCE: State of California, Office of the Treasurer.

**DEBT SERVICE REQUIREMENTS ON VARIABLE RATE  
GENERAL OBLIGATION BONDS AS OF JULY 1, 2007**

FISCAL YEAR ENDING JUNE 30	INTEREST (a)	PRINCIPAL (b)	TOTAL
2008	\$ 116,069,200	\$ —	\$ 116,069,200 (c)
2009	124,964,183	—	124,964,183
2010	125,048,528	—	125,048,528
2011	125,417,972	—	125,417,972
2012	125,200,176	—	125,200,176
2013	125,468,067	—	125,468,067
2014	124,770,115	—	124,770,115
2015	124,755,531	—	124,755,531
2016	125,389,063	67,455,000	192,844,063
2017	121,247,918	372,685,000	493,932,918
2018	107,674,138	476,190,000	583,864,138
2019	90,883,804	238,680,000	329,563,804
2020	81,477,988	230,050,000	311,527,988
2021	73,329,115	183,510,000	256,839,115
2022	67,103,074	97,060,000	164,163,074
2023	63,182,941	119,800,000	182,982,941
2024	58,438,732	296,540,000	354,978,732
2025	47,446,270	201,180,000	248,626,270
2026	39,355,418	346,030,000	385,385,418
2027	27,378,090	74,285,000	101,663,090
2028	24,828,593	77,260,000	102,088,593
2029	21,708,246	110,350,000	132,058,246
2030	17,737,063	114,760,000	132,497,063
2031	13,445,369	119,350,000	132,795,369
2032	9,132,237	124,125,000	133,257,237
2033	4,521,556	129,090,000	133,611,556
2034	91,753	1,600,000	1,691,753
2035	36,950	—	36,950
2036	37,110	—	37,110
2037	36,790	—	36,790
2038	36,950	—	36,950
2039	36,950	—	36,950
2040	33,880	1,000,000	1,033,880
<b>TOTAL</b>	<b>\$ 1,986,283,770</b>	<b>\$3,381,000,000</b>	<b>\$ 5,367,283,770</b>

(a) The estimate of future interest payments is based on rates in effect as of July 1, 2007. The interest rates for the daily, weekly and auction rate bonds range from 3.50 – 3.89%

(b) Includes scheduled mandatory sinking fund payments.

(c) Total represents the remaining estimated debt service requirements through June 30, 2008.

SOURCE: State of California, Office of the Treasurer.

**DEBT SERVICE REQUIREMENTS ON OUTSTANDING LEASE REVENUE BONDS  
AS OF JULY 1, 2007**

FISCAL YEAR ENDING JUNE 30	INTEREST	PRINCIPAL (a)	TOTAL
2008	\$ 386,008,786	\$ 394,641,788	\$ 780,650,574 (b)
2009	380,035,260	418,402,732	798,437,992
2010	354,259,540	409,256,634	763,516,174
2011	323,082,247	424,675,000	747,757,247
2012	302,156,460	409,285,000	711,441,460
2013	281,648,867	420,645,000	702,293,867
2014	260,427,903	426,440,000	686,867,903
2015	238,559,981	447,210,000	685,769,981
2016	215,889,226	433,450,000	649,339,226
2017	193,464,873	441,690,000	635,154,873
2018	171,116,404	457,820,000	628,936,404
2019	148,301,636	421,640,000	569,941,636
2020	127,031,838	396,990,000	524,021,838
2021	108,102,791	339,830,000	447,932,791
2022	90,742,134	316,285,000	407,027,134
2023	75,961,578	270,410,000	346,371,578
2024	63,026,501	191,090,000	254,116,501
2025	53,380,952	200,725,000	254,105,952
2026	43,719,668	192,600,000	236,319,668
2027	33,918,924	202,370,000	236,288,924
2028	23,682,406	196,940,000	220,622,406
2029	14,464,651	138,780,000	153,244,651
2030	7,653,832	108,540,000	116,193,832
2031	2,857,784	53,850,000	56,707,784
2032	913,803	24,445,000	25,358,803
<b>TOTAL</b>	<b>\$3,900,408,044</b>	<b>\$7,738,011,154</b>	<b>\$ 11,638,419,199</b>

(a) Includes scheduled mandatory sinking fund payments

(b) Total represents the remaining debt service requirements through June 30, 2008.

SOURCE: State of California, Office of the Treasurer.

**OUTSTANDING AND AUTHORIZED BUT UNISSUED GENERAL OBLIGATION BONDS  
AS OF JULY 1, 2007 (\$ THOUSANDS)**

GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)	VOTER AUTHORIZATION		BONDS	AUTHORIZED BUT
	DATE	AMOUNT	OUTSTANDING (a)	UNISSUED (b)
1988 SCHOOL FACILITIES BOND ACT	11/8/1988	\$ 800,000	\$ 302,060	\$ 2,255
1990 SCHOOL FACILITIES BOND ACT	6/5/1990	800,000	338,430	2,125
1992 SCHOOL FACILITIES BOND ACT	11/3/1992	900,000	482,257	1,909
CALIFORNIA CLEAN WATER, CLEAN AIR, SAFE NEIGHBORHOOD PARKS, AND COASTAL PROTECTION ACT OF 2002	3/5/2002	2,600,000	785,250	1,805,365
CALIFORNIA LIBRARY CONSTRUCTION AND RENOVATION BOND ACT OF 1988	11/8/1988	75,000	36,880	2,595
CALIFORNIA PARK AND RECREATIONAL FACILITIES ACT OF 1984	6/5/1984	370,000	66,290	1,100
CALIFORNIA PARKLANDS ACT OF 1980	11/4/1980	285,000	12,415	—
CALIFORNIA READING AND LITERACY IMPROVEMENT AND PUBLIC LIBRARY CONSTRUCTION AND RENOVATION BOND ACT OF 2000	3/7/2000	350,000	148,530	176,375
CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1976	6/8/1976	175,000	21,160	2,500
CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1984	11/6/1984	75,000	13,180	—
CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1986	11/4/1986	100,000	45,390	—
CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1988	11/8/1988	75,000	41,085	6,960
CALIFORNIA WILDLIFE, COASTAL, AND PARK LAND CONSERVATION ACT	6/7/1988	776,000	291,745	7,330
CHILDREN'S HOSPITAL BOND ACT OF 2004	11/2/2004	750,000	154,900	594,545
CLASS SIZE REDUCTION KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 1998 (HI-ED)	11/3/1998	2,500,000	2,249,385	106,710
CLASS SIZE REDUCTION KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 1998 (K-12)	11/3/1998	6,700,000	5,807,945	11,860
CLEAN AIR AND TRANSPORTATION IMPROVEMENT BOND ACT OF 1990	6/5/1990	1,990,000	1,179,620	206,780
CLEAN WATER BOND LAW OF 1970	11/3/1970	250,000	2,000	—
CLEAN WATER BOND LAW OF 1974	6/4/1974	250,000	4,575	—
CLEAN WATER BOND LAW OF 1984	11/6/1984	325,000	45,090	—
CLEAN WATER AND WATER CONSERVATION BOND LAW OF 1978	6/6/1978	375,000	13,690	—
CLEAN WATER AND WATER RECLAMATION BOND LAW OF 1988	11/8/1988	65,000	39,550	—
COMMUNITY PARKLANDS ACT OF 1986	6/3/1986	100,000	23,240	—
COUNTY CORRECTIONAL FACILITY CAPITAL EXPENDITURE BOND ACT OF 1986	6/3/1986	495,000	124,705	—
COUNTY CORRECTIONAL FACILITY CAPITAL EXPENDITURE AND YOUTH FACILITY BOND ACT OF 1988	11/8/1988	500,000	230,415	—
COUNTY JAIL CAPITAL EXPENDITURE BOND ACT OF 1981	11/2/1982	280,000	14,400	—
COUNTY JAIL CAPITAL EXPENDITURE BOND ACT OF 1984	6/5/1984	250,000	8,650	—
DISASTER PREPAREDNESS AND FLOOD PREVENTION BOND ACT OF 2006	11/7/2006	4,090,000	—	4,090,000
EARTHQUAKE SAFETY AND PUBLIC BUILDINGS REHABILITATION BOND ACT OF 1990	6/5/1990	300,000	202,175	28,300
FISH AND WILDLIFE HABITAT ENHANCEMENT ACT OF 1984	6/5/1984	85,000	15,665	—
HAZARDOUS SUBSTANCE CLEANUP BOND ACT OF 1984	11/6/1984	100,000	—	—
HIGHER EDUCATION FACILITIES BOND ACT OF 1986	11/4/1986	400,000	51,900	—
HIGHER EDUCATION FACILITIES BOND ACT OF 1988	11/8/1988	600,000	207,660	10,440
HIGHER EDUCATION FACILITIES BOND ACT OF JUNE 1990	6/5/1990	450,000	188,785	2,110
HIGHER EDUCATION FACILITIES BOND ACT OF JUNE 1992	6/2/1992	900,000	544,365	7,235
HIGHWAY SAFETY, TRAFFIC REDUCTION, AIR QUALITY, AND PORT SECURITY BOND ACT OF 2006	11/7/2006	19,925,000	—	19,925,000
HOUSING AND EMERGENCY SHELTER TRUST FUND ACT OF 2002	11/5/2002	2,100,000	654,135	1,445,780
HOUSING AND EMERGENCY SHELTER TRUST FUND ACT OF 2006	11/7/2006	2,850,000	—	2,850,000
HOUSING AND HOMELESS BOND ACT OF 1990	6/5/1990	150,000	5,095	—
KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2002 (HIGHER EDUCATION)	11/5/2002	1,650,000	1,023,600	605,145
KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2002 (K-12)	11/5/2002	11,400,000	9,449,090	1,800,075

**OUTSTANDING AND AUTHORIZED BUT UNISSUED GENERAL OBLIGATION BONDS  
AS OF JULY 1, 2007 (\$ THOUSANDS)**

GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)	VOTER AUTHORIZATION		BONDS	AUTHORIZED BUT
	DATE	AMOUNT	OUTSTANDING (a)	UNISSUED (b)
KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2004 (HI-ED)	3/2/2004	2,300,000	458,010	1,841,345
KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2004 (K-12)	3/2/2004	10,000,000	5,116,485	4,855,500
KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2006 (HI-ED)	11/7/2006	3,087,000	—	3,087,000
KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2006 (K-12)	11/7/2006	7,329,000	—	7,329,000
LAKE TAHOE ACQUISITIONS BOND ACT	8/2/1982	85,000	12,775	—
NEW PRISON CONSTRUCTION BOND ACT OF 1981	6/8/1982	495,000	—	—
NEW PRISON CONSTRUCTION BOND ACT OF 1984	6/5/1984	300,000	—	—
NEW PRISON CONSTRUCTION BOND ACT OF 1986	11/4/1986	500,000	81,520	—
NEW PRISON CONSTRUCTION BOND ACT OF 1988	11/8/1988	817,000	285,435	7,190
NEW PRISON CONSTRUCTION BOND ACT OF 1990	6/5/1990	450,000	167,760	2,355
PASSENGER RAIL AND CLEAN AIR BOND ACT OF 1990	6/5/1990	1,000,000	428,415	—
PUBLIC EDUCATION FACILITIES BOND ACT OF 1996 (HIGHER EDUCATION)	3/26/1996	975,000	768,835	37,465
PUBLIC EDUCATION FACILITIES BOND ACT OF 1996 (K-12)	3/26/1996	2,025,000	1,509,850	12,965
SAFE DRINKING WATER, CLEAN WATER, WATERSHED PROTECTION, AND FLOOD PROTECTION ACT	3/7/2000	1,970,000	1,007,030	864,207
SAFE DRINKING WATER, WATER QUALITY AND SUPPLY, FLOOD CONTROL, RIVER AND COASTAL PROTECTION BOND ACT OF 2006	11/7/2006	5,388,000	—	5,388,000
SAFE NEIGHBORHOOD PARKS, CLEAN WATER, CLEAN AIR, AND COASTAL PROTECTION BOND ACT OF 2000	3/7/2000	2,100,000	1,411,730	587,895
SAFE, CLEAN, RELIABLE WATER SUPPLY ACT	11/5/1996	995,000	666,115	245,475
SCHOOL BUILDING AND EARTHQUAKE BOND ACT OF 1974	11/5/1974	40,000	25,315	—
SCHOOL FACILITIES BOND ACT OF 1988	6/7/1988	800,000	249,895	—
SCHOOL FACILITIES BOND ACT OF 1990	11/6/1990	800,000	387,050	—
SCHOOL FACILITIES BOND ACT OF 1992	6/2/1992	1,900,000	999,310	10,470
SEISMIC RETROFIT BOND ACT OF 1996	3/26/1996	2,000,000	1,574,955	143,560
SENIOR CENTER BOND ACT OF 1984	11/6/1984	50,000	—	—
STATE BEACH, PARK, RECREATIONAL AND HISTORICAL FACILITIES BOND ACT OF 1974	6/4/1974	250,000	—	—
STATE SCHOOL BUILDING LEASE-PURCHASE BOND LAW OF 1982	11/2/1982	500,000	—	—
STATE SCHOOL BUILDING LEASE-PURCHASE BOND LAW OF 1984	11/6/1984	450,000	28,750	—
STATE SCHOOL BUILDING LEASE-PURCHASE BOND LAW OF 1986	11/4/1986	800,000	128,650	—
STATE, URBAN, AND COASTAL PARK BOND ACT OF 1976	11/2/1976	280,000	9,310	—
STEM CELL RESEARCH AND CURES ACT OF 2004	11/2/2004	3,000,000	—	3,000,000
VETERANS HOMES BOND ACT OF 2000	3/7/2000	50,000	3,080	46,920
VOTING MODERNIZATION BOND ACT OF 2002	3/5/2002	200,000	27,910	137,370
WATER CONSERVATION BOND LAW OF 1988	11/8/1988	60,000	34,780	8,855
WATER CONSERVATION AND WATER QUALITY BOND LAW OF 1986	6/3/1986	150,000	56,210	23,215
WATER SECURITY, CLEAN DRINKING WATER, COASTAL AND BEACH PROTECTION ACT OF 2002	11/5/2002	3,440,000	1,010,930	2,410,825
<b>TOTAL GENERAL OBLIGATION BONDS</b>		<b>\$ 121,797,000</b>	<b>\$ 41,275,412</b>	<b>\$ 63,732,106</b>

(a) Includes the initial value of capital appreciation bonds rather than the accreted value

(b) Includes authorized commercial paper.

SOURCE: State of California, Office of the Treasurer.

**OUTSTANDING AND AUTHORIZED BUT UNISSUED LEASE REVENUE BONDS  
AS OF JULY 1, 2007 (\$ THOUSANDS)**

LEASE REVENUE BONDS	BONDS OUTSTANDING	AUTHORIZED BUT UNISSUED
UNIVERSITY OF CALIFORNIA	\$1,790,962	\$548,140
CALIFORNIA STATE UNIVERSITY	553,700	153,873
CALIFORNIA COMMUNITY COLLEGES	590,005	19,572
DEPARTMENT OF CORRECTIONS AND REHABILITATION	2,164,159	7,824,585
STATE BUILDINGS	2,607,310	2,288,347
ENERGY EFFICIENCY REVENUE BONDS	31,875	0
<b>TOTAL LEASE REVENUE BONDS</b>	<b>\$7,738,011</b>	<b>\$10,834,517</b>

**DEBT SERVICE REQUIREMENTS ON INTENDED SALES OF AUTHORIZED BUT UNISSUED BONDS DURING FISCAL YEARS 2007-08 AND 2008-09**

FISCAL YEAR ENDING JUNE 30,	FY 2007-08 GO SALES DEBT SERVICE	FY 2008-09 GO SALES DEBT SERVICE	FY 2007-08 LRB SALES DEBT SERVICE	FY 2008-09 LRB SALES DEBT SERVICE	TOTAL DEBT SERVICE ALL SALES
2008	\$102,916,667	\$ —	\$10,505,219	\$ —	\$113,421,886
2009	614,966,625	153,774,600	42,556,688	5,634,925	816,932,838
2010	622,157,313	748,221,488	42,563,538	44,175,006	1,457,117,345
2011	633,133,150	748,218,850	42,554,513	44,177,500	1,468,084,013
2012	633,137,563	748,222,025	42,558,069	44,188,050	1,468,105,707
2013	633,135,988	748,215,825	42,557,188	44,184,756	1,468,093,757
2014	633,140,038	748,219,825	42,565,563	44,176,906	1,468,102,332
2015	633,134,850	748,216,700	42,566,175	44,182,838	1,468,100,563
2016	633,135,375	748,218,888	42,557,481	44,180,056	1,468,091,800
2017	633,134,800	748,222,163	42,547,938	44,192,256	1,468,097,157
2018	633,135,700	748,221,350	42,550,406	44,176,944	1,468,084,400
2019	633,139,363	748,215,325	42,562,394	44,178,050	1,468,095,132
2020	633,130,888	748,216,775	42,556,525	44,182,963	1,468,087,151
2021	633,134,950	748,221,488	42,556,138	44,169,544	1,468,082,120
2022	633,128,800	748,219,063	42,548,381	44,180,656	1,468,076,900
2023	633,134,450	748,223,150	42,561,119	44,178,213	1,468,096,932
2024	633,136,488	748,215,263	42,551,263	44,180,075	1,468,083,089
2025	633,133,838	748,221,200	42,561,319	44,183,513	1,468,099,870
2026	633,138,950	748,218,913	42,563,081	44,175,675	1,468,096,619
2027	633,132,088	748,220,638	42,553,700	44,169,188	1,468,075,614
2028	633,137,900	748,221,238	42,545,444	44,180,488	1,468,085,070
2029	633,138,038	748,218,913	42,554,750	44,176,131	1,468,087,832
2030	633,138,250	748,219,963	42,557,344	44,183,031	1,468,098,588
2031	633,137,150	748,218,313	42,560,138	44,172,388	1,468,087,989
2032	633,131,400	748,220,988	42,554,094	44,176,113	1,468,082,595
2033	633,135,713	748,217,400	42,560,413	44,179,694	1,468,093,220
2034	633,132,000	748,220,063	—	44,179,331	1,425,531,394
2035	633,135,700	748,223,400	—	—	1,381,359,100
2036	633,134,163	748,219,463	—	—	1,381,353,626
2037	633,127,738	748,217,925	—	—	1,381,345,663
2038	633,131,156	748,220,138	—	—	1,381,351,294
2039	—	748,223,269	—	—	748,223,269
<b>TOTALS:</b>	<b>\$19,067,817,092</b>	<b>\$22,600,364,602</b>	<b>\$1,074,428,881</b>	<b>\$1,110,114,290</b>	<b>\$43,852,724,865</b>

SOURCE: State of California, Office of the Treasurer.







### **ACKNOWLEDGEMENTS**

This report was prepared by Katie Carroll, Steve Coony, John Decker, Tom Dresslar, Blake Fowler, Rohimah Moly, Paul Rosenstiel and many other dedicated staff members of the State Treasurer's Office.

### **IMPORTANT CONTRIBUTIONS WERE ALSO MADE BY**

Tim Gage, Blue Sky Consulting Group

Goldman Sachs

Orrick Herrington & Sutcliffe LLP

JP Morgan

David Leshner, Public Policy Institute of California

Stephen Levy, Center for Continuing Study of the California Economy

Montague DeRose and Associates

Public Resources Advisory Group

Mark Robbins, Public Policy Institute of California

Jean Ross, California Budget Project

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