

STATE OF CALIFORNIA  
2008 DEBT AFFORDABILITY REPORT

# Making the Municipal Bond Market Work for Taxpayers in Turbulent Times

**New Trouble in Auction Rate Securities**  
— New York Times

**Financial Crisis Deepens Amid  
Fear of Continued Stock Dive**  
— Los Angeles Times

**CREDIT MARKETS  
REMAIN TIGHT  
AMID UNCERTAINTY**  
— International Herald Tribune

**Mortgage Crisis Spreads  
Past Subprime Loans**  
— New York Times

**Rating Agencies Agree to Changes**  
— New York Post



BILL LOCKYER  
CALIFORNIA STATE TREASURER



Bill Lockyer  
California State Treasurer

October 1, 2008

Fellow Californians:

The shock waves from this year's extraordinary upheaval in financial markets have shaken investors, banks, borrowers, workers, retirees and families in our state and around the world. These events are without precedent in modern economic times, and they continue to unfold as of this writing. The 2008 State of California Debt Affordability Report represents our best effort to put the historic developments into useful context for Californians.

Last year, our report looked out at the next few decades and charted a fiscal management course we believe our people need as we get ready for the new California in the making. I hope that report and its recommendations for better planning, sound state budgeting, and careful but aggressive investment in our infrastructure will continue to serve as a valuable blueprint. I commend it to your review (<http://www.treasurer.ca.gov/publications/2007dar.pdf>).

This year, the emergency in financial markets made it important that our report provide solid information and increase public understanding about the impact of the crisis on the state and its people. The report also details how State government, and especially my office, responded to protect taxpayers. And it discusses reforms needed to help ensure governmental entities can access capital at lower costs when they finance construction of schools, roads and other critical infrastructure.

I think you will find more than one topic of interest to you, whether you are a private citizen or policymaker. I would be glad to hear from you about how well the report serves your needs as well as your suggestions to help us do a better job for you.

I want to thank our expert and dedicated staff of public workers, as well as the financial and economic advisors who have helped our office and our state weather this year's economic storm. Californians are fortunate to have such good people in their corner, and I am proud to help lead them.

On their behalf and mine, thank you for the opportunity to serve.

A handwritten signature in black ink that reads "Bill Lockyer". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

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 (2008-09) and the budget year (2009-10) 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.

**SECTION I**

# Introduction

Dramatic changes this year in the municipal bond market have altered how it functions in ways no one could have imagined a year ago. The sinkhole created by the subprime mortgage implosion swallowed other financial sectors, and the municipal bond market did not escape. The State and other public agencies that rely on that market to finance the construction of infrastructure and other important capital projects have faced enormous challenges. Many suffered significant increases in their financing costs.

At the same time, the turmoil has ignited a re-examination of fundamental precepts of the municipal bond market, such as the accuracy of credit ratings, the need for bond insurance and the true risk of some

derivative products. This reevaluation is a positive development. The State Treasurer's Office (STO) and other market participants are working to ensure that out of the pain of 2008 a market emerges that better meets the needs of government bond issuers, one that allows them to access capital at a fair price with minimal risk. Because if the events of 2008 taught one lesson, it is this: While many financial institutions exposed their shaky foundations, and inflicted great injury on taxpayers and ratepayers, municipal issuers demonstrated resilient financial strength.

This report tells the story of 2008. It details how the STO worked to minimize the damage to taxpayers and fought for market reforms aimed at providing long-lasting benefits to municipal bond issuers.

## SECTION II

# The Year in Review

### BOND INSURERS TUMBLE

As discussed later in this report, the system for assigning credit ratings to municipal bonds has forced many government issuers to buy insurance on their bonds.

Here's the way it worked, at least until 2008: The insurers received triple-A ratings from the rating agencies. Then municipal issuers who received lower ratings from the agencies bought insurance on their bonds. The purchase transferred the insurers' triple-A rating to the bonds. Until this year, insurers backed about one-half of the estimated \$2.6 trillion of outstanding bonds issued by state and local governments.

The most significant change in the municipal bond market in 2008 was the downfall of most bond insurers. Aside from its effect on issuers and the insurers themselves, the development fueled a debate over how the rating agencies graded municipal and corporate bonds.

As the default rate on subprime mortgages escalated in 2007, the credit quality of bond insurers fell. The

reason had nothing to do with their exposure to the municipal bonds they backed. It had everything to do with the fact that they wandered from the safety of the municipal bond market, using their high ratings to guarantee complex structured finance products, many backed by subprime mortgages. These products included Collateralized Debt Obligations (CDOs).<sup>1</sup>

By early November 2007, all three major rating agencies — Fitch Ratings (Fitch), Moody's Investors Service (Moody's) and Standard & Poor's (S&P) — announced they were re-evaluating the capital adequacy of the seven triple-A rated bond insurers. On January 18, 2008, Fitch made the first downgrade by taking the 2007's top-ranked bond insurer, Ambac Assurance Corp., to AA from AAA. Since then, the three rating agencies have issued numerous downgrades. Only two of the insurers have retained their triple-A ratings, and neither has a "stable" outlook from all three rating agencies.

Table 1 illustrates how the ratings have changed for the seven insurers rated triple-A on July 1, 2007.

<sup>1</sup> A Collateralized Debt Obligation (CDO) is a pool of debt instruments securitized into one financial instrument. CDOs are issued in several "tranches" which divide up the pool of debt into instruments with varying degrees of exposure to credit risk.

**TABLE I**  
**BOND INSURER RATINGS**

| INSURER                                                           | FITCH                 |                       | MOODY'S               |                                                    | S&P                   |                         |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------------------------|-----------------------|-------------------------|
|                                                                   | 7/1/07                | 9/5/08                | 7/1/07                | 9/5/08                                             | 7/1/07                | 9/5/08                  |
| Ambac Assurance Corp.                                             | AAA<br>Stable outlook | Not rated             | Aaa<br>Stable outlook | Aa3<br>negative outlook                            | AAA<br>Stable outlook | AA<br>Negative outlook  |
| Assured Guaranty Corp.                                            | AAA<br>Stable outlook | AAA<br>Stable outlook | Aaa<br>Stable outlook | Aaa<br>Under review<br>for downgrade               | AAA<br>Stable outlook | AAA<br>Stable outlook   |
| CIFG Assurance N.<br>America Inc.                                 | AAA<br>Stable outlook | CCC<br>Evolving       | Aaa<br>Stable outlook | Ba2<br>Under review<br>with direction<br>uncertain | AAA<br>Stable outlook | B<br>Developing watch   |
| Financial Guaranty<br>Insurance Co.                               | AAA<br>Stable outlook | CCC<br>Evolving       | Aaa<br>Stable outlook | B1<br>Negative outlook                             | AAA<br>Stable outlook | BB<br>Negative watch    |
| Financial Security<br>Assurance Inc.                              | AAA<br>Stable outlook | AAA<br>Stable outlook | Aaa<br>Stable outlook | Aaa<br>Under review<br>for downgrade               | AAA<br>Stable outlook | AAA<br>Negative outlook |
| MBIA Insurance Corp.                                              | AAA<br>Stable outlook | Not rated             | Aaa<br>Stable outlook | A2<br>Negative outlook                             | AAA<br>Add outlook    | AA<br>Negative outlook  |
| Syncora Guarantee Inc.<br>(formerly XL Capital<br>Assurance Inc.) | AAA<br>Stable outlook | Not rated             | Aaa<br>Stable outlook | B2<br>Under review<br>for upgrade                  | AAA<br>Stable outlook | BBB-<br>Negative watch  |

7/1/07 information from the rating agencies.

9/5/08 information from The Bond Buyer.

Since municipal issuers bought insurance to get the carriers' triple-A rating, the downgrades substantially decreased the value of the companies' product. The dollar amount of new bond issues with insurance declined from \$126 billion during the first seven months of 2007 to \$58 billion during the same time period in 2008. In July 2008, only \$4.5 billion (14 percent) of the month's \$30.4 billion in new issues were insured.<sup>2</sup> On July 21, 2008, Moody's announced it had placed Financial Security Assurance, Inc. (FSA) and Assured Guaranty Corp. — the two remaining insurers — under review for possible downgrade. Moody's action has virtually eliminated the use of insurance on new issues since that time.

## STRAINS AT THE COMMERCIAL AND INVESTMENT BANKS

Commercial and investment banks also had significant portions of their portfolios tied to structured products and subprime mortgages. And as bond insurers collapsed, these banks also suffered severe financial stress. The subprime market's negative impact on banks and capital markets became apparent in the fall of 2007 and continued in earnest through the third quarter of 2008. By August 12, 2008, banks worldwide had incurred more than \$501 billion in losses caused by declining values of securities tied to home loans, commercial mortgages and lever-

<sup>2</sup> Municipal Market Advisors, Muni Outlook for July 2008

**TABLE 2**  
**COMMERCIAL & INVESTMENT BANKS**  
**ASSET WRITE-DOWNS & CAPITAL RAISED**  
**(DOLLARS IN BILLIONS)**

|                        | WRITE-DOWN     | CAPITAL RAISED |
|------------------------|----------------|----------------|
| Citigroup              | \$55.1         | \$49.1         |
| Merrill Lynch          | \$51.8         | \$29.9         |
| UBS                    | \$44.2         | \$28.3         |
| HSBC                   | \$27.4         | \$3.9          |
| Wachovia               | \$22.5         | \$11.0         |
| Bank of America        | \$21.2         | \$20.7         |
| IKB Deutsche           | \$15.3         | \$12.6         |
| Royal Bank of Scotland | \$14.9         | \$24.3         |
| Washington Mutual      | \$14.8         | \$12.1         |
| Morgan Stanley         | \$14.4         | \$5.6          |
| JPMorgan Chase         | \$14.3         | \$7.9          |
| Deutsche Bank          | \$10.8         | \$3.2          |
| Credit Suisse          | \$10.5         | \$2.7          |
| Wells Fargo            | \$10.0         | \$4.1          |
| Barclays               | \$9.1          | \$18.6         |
| Lehman Brothers        | \$8.2          | \$13.9         |
| Others                 | \$156.6        | \$105.0        |
| <b>Total</b>           | <b>\$501.1</b> | <b>\$352.9</b> |

Source: Bloomberg, as of August 12, 2008. All numbers are in billions of U.S. dollars, converted at August 12, 2008's exchange rate if reported in another currency.

aged loan commitments. Commercial and investment banks have raised approximately \$353 billion of capital to mitigate these write-downs.

Table 2 shows the 16 largest asset write-downs and the capital raised in response.

Banks' dwindling liquidity played a major role in the collapse of Bear Stearns and UBS' decision to exit the public finance market. Those two developments put a punctuation mark on the devastating, widespread

effect of subprime losses. On March 16, 2008 the sale of Bear Stearns to JP Morgan, with financing from the Federal Reserve, was negotiated to prevent an "expected contagion" to the financial system that would be caused by the immediate failure of Bear Stearns.<sup>3</sup> The sale was finalized on May 29, 2008.

With the disappearance of Bear Stearns, the municipal bond market lost one of its most active underwriters. A second soon departed. After announcing it would exit the business, and following an unsuccessful attempt to negotiate a sale of its municipal finance operations, UBS closed its Municipal Securities Group on June 5, 2008. The departure of these two key actors from the public finance theatre shrunk municipal issuers' access to the banking capability and credit capacity provided by full-service Wall Street firms. Further, the firms remaining proved less willing and able to provide credit support to the municipal market as their own capital continued to erode. And in September, the pool of investment banking services experienced more shockwaves: Lehman Brothers declared bankruptcy and sold its municipal finance unit to Barclay's; Merrill Lynch announced its purchase by Bank of America; and Goldman Sachs and Morgan Stanley converted to bank holding companies. The latter development ended the era of major Wall Street investment banks.

#### FAILURES IN THE AUCTION RATE MARKET

The bond insurer downgrades and diminished liquidity of commercial and investment banks sent two markets — the auction rate securities (ARS) market and the variable rate demand note (VRDN) market — into a downward spiral.

Auction rate securities are long-term debt instruments with interest rates periodically reset through auctions, typically held every 7, 14, 28 or 35 days. The auction involves investment banks submitting bids on behalf of existing and potential investors. Based on the submitted bids, the interest rate is determined at the level that will clear the market at the lowest rate possible. Theoretically, the liquidity provided by this interest rate reset mechanism allows these securities to trade at short-term interest rate levels.

<sup>3</sup> Minutes of the March 14 and 16, 2008 meetings of Board of Governors of the Federal Reserve System.

However, a key distinction with auction rate securities is that investors do not have the ability to “put” the securities back to the issuer. A put feature gives investors the right to demand repurchase of their securities at par with minimal notice. Instead of a put feature, the auction process creates a ready market for investors to sell their securities, but no guarantee there will be a buyer for them. To increase investor demand, most ARS issuers in previous years purchased bond insurance.

Prior to 2008, when auctions did not attract enough buyers, investment banks typically would step in to prevent a “failed” auction by purchasing the securities for their own accounts (subject to regulatory constraints to ensure the auction agent wasn’t manipulating the market). But in early 2008, as worries about the strength of bond insurers grew, investors grew skittish about holding ARS. They worried that a downgrade of the company insuring their ARS would dry up demand and leave them stuck with bonds that were supposed to be highly liquid. To avoid that, investors began selling in advance of any downgrades. This quickly created conditions for a failed auction — more supply than demand. But unlike in prior years, the investment banks, facing their own subprime-related liquidity problems, became reluctant to prop up auctions by putting ARS on their own books.

The first auction failures occurred in late January 2008. By mid-February, they were commonplace. Although auction failures had nothing to do with the credit or underlying value of the bonds, issuers were required to pay “penalty” interest rates as high as 20 percent. Issuers were obligated to pay the penalty rates, which were determined by the underlying legal documents for the securities, until either the auction attracted enough new buyers or the securities were restructured to either a VRDN or a long-term fixed interest rate. Meanwhile, investors were left holding illiquid securities.

Nationwide, as of August 1, 2008, approximately 60 percent of the \$140 billion tax-exempt municipal auction rate market had been substantially convert-

ed, refunded or restructured.<sup>4</sup> Many of the remaining auction rate programs continue to experience failed auctions.

Between 2000 and 2007, California issuers brought almost \$28 billion of ARS to the market. As they wrestled with the market’s collapse, and sometimes found that neither investors nor investment banks provided a market for the ARS, municipal issuers considered buying back their own bonds. Such buy-backs would allow issuers to avoid the interest-rate penalties associated with auction failures, and either restructure the debt or hold the ARS until the market was more favorable for taxpayers. Some issuers have cash reserves that would enable them to make these repurchases. [See Section III for details on the State’s ARS exposure and the steps taken to reduce that exposure.]

Unfortunately, California law was unclear on whether ARS bonds could be re-offered if an issuer bought back its own bonds. The ambiguity left open the possibility repurchased bonds could be deemed extinguished and, as a result, ineligible for re-sale. To clarify the law and help local issuers reduce taxpayers’ exposure to ARS harm, Treasurer Lockyer sponsored SB 344 (Machado). The Legislature swiftly approved the measure, and the Governor signed it into law March 26, 2008. It took effect immediately.

Issuers were not the only ones injured by the freeze-up of the auction rate market. Many investors suffered, too, finding themselves unable to sell their investments when they needed the cash.

The U.S. Securities and Exchange Commission (SEC) and officials from several states (led by New York and Massachusetts) have sought compensation from investment banks that may have misled investors about the liquidity of ARS. Several major investment banks have settled with these states, and entered into agreements with the SEC. The settlements require the banks to buy back ARS from their individual customers or, in some cases, make their best efforts to ensure the ARS’ liquidity. The banks also will compensate issuers for transaction costs incurred to restructure their ARS.

<sup>4</sup> JP Morgan, Issuer Update, July 2008

### TROUBLES IN THE INSURED VARIABLE RATE MARKET

VRDNs, like ARS, are long-term debt instruments that trade at short-term interest rates. However, there are two key differences between the two securities. First, while the interest rate for ARS is reset by investors through an auction process, VRDNs are reset by investment banks. Serving as “remarketing agent,” the banks set the rate at a level sufficient to meet market demand. Second, VRDNs contain a “put” feature, which gives investors the right to demand repayment of their VRDNs on short notice. Because of that feature, issuers must ensure liquidity by purchasing either a bank letter of credit or a bank liquidity facility. Both of these instruments obligate the bank to purchase VRDNs if the remarketing agent is unable to find buyers.

A bank letter of credit provides both long-term credit support and short-term liquidity to back the VRDNs, while a bank liquidity facility provides only short-term liquidity. When issuers purchase a bank liquidity facility, they frequently also purchase bond insurance to enhance the long-term rating of the notes. The higher ratings achieved by combining bond insurance with liquidity support broadens the investor base for VRDNs.

In 2008, as the rating agencies began to downgrade bond insurers, insured VRDNs suffered corresponding downgrades. As a result, the market for VRDNs split into two categories, one for the stronger bank-supported notes and one for the weaker insured notes. Money market funds, which are the largest investors in VRDNs, must comply with stringent SEC guidelines dictating the minimum credit rating of bonds they hold in money market funds. As they anticipated bond insurer downgrades, these funds began selling (or “putting back”) their insured VRDNs to ensure they remained in compliance with SEC requirements.

As with ARS, the investment banks frequently “inventoried” VRDNs, a term that refers to buying the securities and putting them on their own books. Banks had inventoried VRDNs since the introduction of the product in the early 1980s. But the huge influx into the market of bonds from the money market funds put overwhelming pressure on the investment banks. Some chose to limit their inventories of notes which could not be remarketed.

To attract enough investor interest to avoid a failed remarketing, banks often reset the notes at alarmingly high interest rates. When this did not attract sufficient buyers and remarketings failed, investment banks began exercising their right to force other banks serving as liquidity providers to buy the VRDNs. Although the interest rates on these “bank bonds” bore a higher interest rate, the banks providing liquidity had limited capacity on their balance sheets to hold them. In addition, underlying legal documents often required issuers to accelerate repayment of “bank bonds.” These factors compelled issuers to either restructure their VRDNs to remove tainted bond insurance or convert the notes to a long-term fixed interest rate to lower debt service costs.

To the extent issuers chose to restructure their debt to VRDNs supported by a letter of credit, they faced additional obstacles. At the same time issuers scrambled to restructure their debt, new letters of credit became scarce because of the volume of put activity and the ongoing credit crunch. Many banks that had been mainstays in this market either had exited or now participated on a modest scale. The limited supply of bank credit support made it extremely difficult for issuers to obtain letters of credit. And the letters of credit issuers were able to obtain came with a higher price tag. For issuers who could not find credit support, the only remaining option was to restructure their debt to a long-term fixed interest rate.

Before most issuers were able to restructure their insured VRDNs, the interest rate on their bonds was affected not only by which insurer backed the bonds, but also which investment bank served as remarketing agent. Some firms pulled back on their inventories more than others, leading to higher interest rates for the issuers and a greater likelihood the bonds would be put to the liquidity bank.

[See Section III for details on the State’s VRDN exposure and the steps taken to reduce that exposure.]

### FINANCIAL PRODUCTS COMPLICATED MATTERS

Many bond issuers used variable rate debt (either VRDNs or ARS) as one part of a debt management strategy to create “synthetic” fixed rate debt. Under these transactions, issuers supplemented variable rate

debt with an interest rate swap executed with a financial institution. Under terms of the swap, the issuer received a variable rate payment (which would roughly offset the variable rate it paid on its VRDNs or ARS). In return, the issuer paid the financial institution a fixed interest rate. The swap arrangements were supposed to bring the issuer's net costs close to the fixed interest rate it paid on the swap.

Swaps must be used by municipal issuers as hedges, and not to speculate. This restriction required issuers, as they struggled in 2008 to convert their ARS and insured VRDNs to long-term fixed rate bonds, to also terminate any swap agreements that covered those bonds. Otherwise, they would be left with speculative swaps not associated with any bond issue.

But swaps are terminated at their market value, which can vary as interest rates go up and down. And in 2008's chaotic market, most issuers terminating swaps found that the value of their swaps had dropped. The reduced value required them to pay substantial amounts to the financial institutions with which they had executed the swaps. This just added to the financial harm caused by the market meltdown.

#### **FIXED RATE MARKET DID NOT ESCAPE UNSCATHED**

Historically, mutual funds and insurance companies are the entities that come to mind when listing the large "institutional" investors who buy municipal bonds. But over the past several years, non-traditional institutional buyers — including hedge funds and "tender option bond" (TOB) trusts established by arbitrage funds and investment banks — have played a more prominent role in the market for fixed rate municipal bonds with long maturities. In 2007, these buyers accounted for roughly 25 percent of the demand for fixed rate municipal bonds. For the State's General Obligation (GO) bonds issued between June 2007 and December 2007, they comprised an even larger percentage of investors, at about 31 percent.

TOB trusts issue insured VRDNs and use the proceeds to purchase long-maturity, fixed-rate bonds. In simple terms, TOB trusts profit if the interest rate they pay on their short-term VRDNs is lower than the interest rate they earn on the long-term bonds

they hold. Their techniques actually are more complicated than that, involving hedges and leverage that can increase profits when interest rates are favorable.

But these profit-maximizing strategies can leave TOB trusts with huge losses if short-term interest rates rise. That, of course, is exactly what happened in 2008. As bond insurers' problems drove VRDN rates higher and higher, the profits of TOB trusts disappeared. More seriously, many TOB trust sponsors found it necessary to sell their long-term bonds so they could meet their financial obligations under the leverage and hedges they had incorporated into their structures.

In the State's three GO bond sales to date in 2008, TOB trusts and other non-traditional institutional investors purchased about 11 percent of the bonds, substantially less than the 31 percent they bought in the last half of 2007. As they became net sellers, rather than buyers, of long-term municipal bonds, the increased supply they generated drove up long-term rates just as many municipal issuers were forced into that market to restructure their VRDNs and failing ARS. Taxpayers, once again, came out on the short end of the ledger.

## SECTION III

## California Responds

## BACKGROUND

The turmoil in 2008 has made it more challenging for the State and local municipal bond issuers to cost-effectively access capital markets. Controlling those expenses is essential for California, its families and its communities — especially when the State and local governments already face a struggling economy and declining revenues. Higher borrowing costs make it more expensive to build highways, schools and other infrastructure California sorely needs.

Absent efforts to effectively manage these capital outlay finance costs, issuers may confront a menu of options that are all bad. They can go ahead and pay the increased costs to build infrastructure projects, and reduce the revenues available for education, health care and other vital public services. They can avoid service cuts by seeking higher fees or taxes to pay the debt service. Or they can avoid service cuts by canceling or delaying critical infrastructure projects. With this in mind, the STO took quick action to soften the market blows that hit the State in 2008.

## LIMITING THE DAMAGE

At the start of the 2007-08 fiscal year, the State had \$57.3 billion of General Fund-supported debt outstanding. This total included \$41.3 billion of GO

Bonds, \$8.3 billion of Economic Recovery Bonds (ERBs) and \$7.7 billion of Lease Revenue Bonds (LRBs). In addition, the Department of Water Resources (DWR) had \$12.3 billion of revenue bonds outstanding, including \$2.3 billion of Central Valley Project Water System Revenue Bonds and \$10 billion of Power Supply Revenue Bonds. See Table 3.

Of the combined total of \$69.6 billion in General Fund and the DWR outstanding debt, 81 percent consisted of traditional fixed rate bonds. Bonds backed by the General Fund, in particular, had a conservative debt structure consisting of approximately 89 percent fixed rate bonds, 9 percent VRDNs, 1 percent ARS and 1 percent mandatory tender bonds.<sup>5</sup> The combined percentage of GO and ERB variable rate debt, which for State law purposes includes mandatory tender bonds, was 12.57 percent — well below the statutory cap of 20 percent. None of the General Fund-supported debt had an interest rate swap.

The auction rate securities market collapsed mid February 2008. Within days, the STO began executing a plan to convert \$400 million of the \$500 million of outstanding GO ARS into commercial paper notes. Those notes then would be “refunded” — refund is the municipal finance term of art for refinance — with fixed rate bonds at a later date. By April 24,

<sup>5</sup> Mandatory tender bonds have a fixed rate until the tender date, which is typically 1-5 years from the issue date. At the tender date, the bonds will be adjusted to bear interest for a different interest rate period.

TABLE 3

**PRINCIPAL OUTSTANDING AS OF JULY 1, 2007  
(DOLLARS IN MILLIONS)**

| PRODUCTS                            | GO                | ERB              | LEASE<br>REVENUE | DWR<br>WATER     | DWR<br>POWER      | TOTAL             |
|-------------------------------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|
| Fixed Rate Bonds                    | \$37,894.4        | \$5,439.7        | \$7,738.0        | \$2,099.9        | \$3,274.0         | \$56,446.0        |
| Mandatory Tender Bonds              | 0.0               | \$500.0          | 0.0              | 0.0              | 0.0               | \$500.0           |
| VRDNs (Uninsured)                   | \$2,881.0         | \$876.8          | 0.0              | 0.0              | \$3,582.1         | \$7,339.9         |
| VRDNs (Insured)                     | 0.0               | \$1,474.6        | 0.0              | 0.0              | \$2,698.0         | \$4,172.6         |
| Auction Rate Securities (Uninsured) | \$500.0           | 0.0              | 0.0              | 0.0              | 0.0               | \$500.0           |
| Auction Rate Securities (Insured)   | 0.0               | 0.0              | 0.0              | \$189.6          | \$500.0           | \$689.6           |
| <b>TOTAL</b>                        | <b>\$41,275.4</b> | <b>\$8,291.1</b> | <b>\$7,738.0</b> | <b>\$2,289.5</b> | <b>\$10,054.1</b> | <b>\$69,648.1</b> |

2008, the STO had completed the conversion of the \$400 million in GO ARS. The interest rate on the remaining \$100 million of GO ARS reset just before the auction failures began, and will not be reset until January 2009.

The STO also worked with the DWR to rapidly refinance the \$689.6 million of outstanding ARS for their water and power revenue bond programs. All ARS for those two programs were refinanced into fixed rate bonds by May 8, 2008.

At the same time the STO and DWR refunded the ARS, the two agencies worked to refinance \$1.33 billion of insured VRDNs for the Power Supply Pro-

gram. Of those bonds, \$845 million were converted to fixed rate bonds and \$480 million were converted to *uninsured* VRDNs backed by letters of credit.

In late 2007 and early 2008, the STO took another step to reduce the State's exposure to interest rate hikes in the variable rate market by redeeming \$1 billion of insured ERB VRDNs, from excess special sales tax revenues. Those revenues are earmarked to repay ERB debt under the voter-approved initiative that authorized the issuance of ERBs.

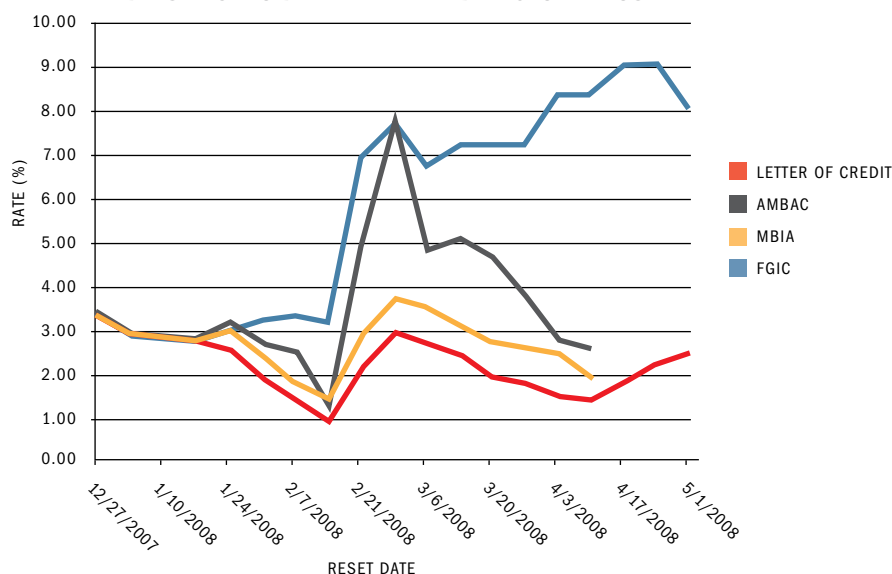
Table 4 reflects the amount of debt outstanding for the three General Fund-supported programs and the two DWR programs as of June 30, 2008.

TABLE 4

**PRINCIPAL OUTSTANDING AS OF JUNE 30, 2008  
(DOLLARS IN MILLIONS)**

| PRODUCTS                            | GO                | ERB               | LEASE<br>REVENUE | DWR<br>WATER     | DWR<br>POWER     | TOTAL             |
|-------------------------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|
| Fixed Rate Bonds                    | \$42,234.5        | \$6,500.5         | \$7,833.1        | \$2,574.8        | \$4,111.0        | \$63,253.9        |
| Mandatory Tender Bonds              | \$250.0           | \$2,414.3         | 0.0              | 0.0              | 0.0              | \$2,664.3         |
| VRDNs (Uninsured)                   | \$2,881.0         | \$652.4           | 0.0              | 0.0              | \$4,040.7        | \$7,574.1         |
| VRDNs (Insured)                     | 0.0               | \$474.6           | 0.0              | 0.0              | \$1,373.0        | \$1,847.6         |
| Auction Rate Securities (Uninsured) | 100.0             | 0.0               | 0.0              | 0.0              | 0.0              | \$100.0           |
| Auction Rate Securities (Insured)   | 0.0               | 0.0               | 0.0              | 0.0              | 0.0              | \$0.0             |
| <b>TOTAL</b>                        | <b>\$45,465.5</b> | <b>\$10,041.8</b> | <b>\$7,833.1</b> | <b>\$2,574.8</b> | <b>\$9,524.7</b> | <b>\$75,439.9</b> |

TABLE 5

DEPARTMENT OF WATER RESOURCES POWER SUPPLY  
REVENUE BONDS VARIABLE RATE AVERAGES BY INSURER

As a result of the STO's actions, the percentage of fixed rate bonds for all programs increased to 84 percent from 81 percent. The debt structure of General Fund-supported debt now consisted of approximately 90 percent fixed rate bonds, 6 percent VRDNs, 4 percent mandatory tender bonds and .14 percent ARS. The combined percentage of GO and ERB variable rate debt declined only slightly to 12.2 percent from 12.57 percent, mainly because an increase in mandatory tender bonds (resulting from the sale of \$3.2 billion in ERBs) offset much of the reduction in ARS and VRDNs. None of the General Fund-supported debt had an interest rate swap or other type of hedging contract as of June 30, 2008.

Further, the only ARS the State still has in the market is locked in at a low interest rate of 3.15 percent until January 28, 2009. And the STO actions slashed the State's exposure to insured VRDNs by 56 percent, from \$4.17 billion to \$1.85 billion. This remaining amount is comprised entirely of bonds insured by FSA, one of the two remaining triple-A rated insurance companies. The STO will carefully

monitor the rating and trading performance of FSA, and, if needed, convert those bonds to a fixed rate or VRDNs backed by letters of credit.

While the STO moved quickly to limit the damage caused by the multiple problems plaguing the municipal short-term market, costs nonetheless were substantial. A good example is the higher costs the DWR paid on its Power Supply Revenue Bonds between the time some bond insurers began facing trouble and the time the State converted those bonds. Prior to the insurers' troubles, VRDNs backed by letters of credit and those backed by insurance carried approximately the same interest rate. That began to change in late January 2008.

As Table 5 shows, from that date until the bonds were redeemed in April and May, the interest rates — and therefore the DWR's interest costs — increased dramatically for all bonds backed by the troubled insurance companies. In all, the DWR paid an estimated \$8.7 million in additional interest costs because of the insurers' weaknesses.

That figure, however, dramatically understates the added costs suffered by the DWR. The STO and DWR attempted to convert as much of this debt as possible to VRDNs backed by letters of credit. But capacity for letters of credit was scarce, forcing the State to convert about two-thirds of the bonds to fixed rate. Ratepayers' interest costs likely will be higher on the fixed rate bonds, compared to what they would have paid on VRDNs backed by letters of credit.

In addition, the DWR had to pay transaction costs to restructure the troubled VRDNs. Finally, the DWR will have to pay credit enhancement fees in the future — on top of the interest rate on the bonds — to the banks that provide letters of credit on the restructured VRDNs. Unlike bond insurance, which is paid entirely upfront, letter of credit fees are paid over time.

To paint the picture clearly, here's what happened: The bond insurers took money from the DWR — and all other issuers who bought bond insurance — to provide credit enhancement over the life of the bonds. The insurers then mismanaged their finances so badly that the bond insurance became worthless long before the bonds matured. The insurers had no obligation to rebate a portion of the premium they collected when their insurance became a hindrance rather than a help.<sup>6</sup> So, issuers who refinanced insurance-backed VRDNs into letter-of-credit-backed VRDNs paid twice for credit enhancement on the same bonds.

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<sup>6</sup> The State's fixed rate GO bonds (with identical maturities, payment dates and call features) were sometimes trading in the secondary bond market this year at lower interest rates if they didn't carry insurance than if they did.

## SECTION IV

# Recap of GO Issuance for Fiscal Year 2007-08

## OVERVIEW

The State in 2007-08 issued \$7.35 billion of GO bonds. Table 6 provides detailed information on those issuances, including: the amount issued for new projects; the amount issued for refunding existing debt; the total interest costs for the new issuance; the savings generated from refunding; and the all-in, true interest rate cost.

TABLE 6

## GO BOND SALES FOR THE 2007-08 FISCAL YEAR (DOLLARS IN MILLIONS)

| GO BOND SALES         | NEW<br>MONEY PAR | REFUNDING<br>PAR | TOTAL<br>INTEREST | REFUNDING<br>SAVINGS | TRUE<br>INTEREST COST |
|-----------------------|------------------|------------------|-------------------|----------------------|-----------------------|
| October-07 (CIRM)     | \$250.0          | –                | \$317.2           | –                    | 5.3117%               |
| October-07            | \$1,500.0        | \$998.7          | \$1,665.3         | \$70.8               | 4.6557%               |
| November-07           | \$1,000.0        | –                | \$936.1           | –                    | 4.7472%               |
| March-08              | \$1,750.0        | –                | \$1,689.8         | –                    | 5.2191%               |
| April-08 <sup>7</sup> | \$1,350.0        | \$400.0          | \$1,161.2         | –                    | 4.7148%               |
| June-08               | \$1,500.0        | –                | \$1,434.7         | –                    | 5.0761%               |
| <b>TOTAL</b>          | <b>\$7,350.0</b> | <b>\$1,398.7</b> | <b>\$7,204.3</b>  | <b>\$70.8</b>        | <b>–</b>              |

<sup>7</sup> The April 2008 sale was a combination taxable and tax-exempt issuance, as well as a combination sale of new projects and refinancing. Of the \$1.75 billion, \$50 million (all for new projects) was taxable and \$1.7 billion (\$400 million refinancing) was tax-exempt. The \$400 million was issued to refinance \$400 million of the \$500 million GO ARS bonds into long-term fixed rate bonds. As such, there was no refunding savings.

The GO bonds issued in 2007-08 financed stem cell research, and new projects to build schools, roads, housing and other infrastructure. Table 7 breaks down the \$7.35 billion in issuances by program area.

**TABLE 7**  
**FISCAL YEAR 2007-08**  
**AMOUNT ISSUED FOR NEW**  
**PROJECTS BY PROGRAM AREA**

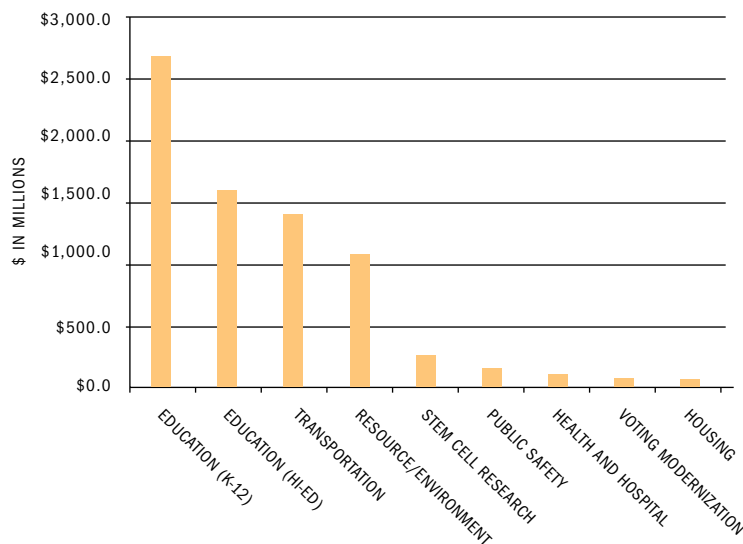


Table 8 shows the increase in GO bond debt service over the next five fiscal years as a result of the 2007-08 issuances. As of July 1, 2008, the State's cumulative debt service from 2008-09 through 2012-13 will total \$19.09 billion, compared to \$16.76 billion as of July 1, 2007.

**TABLE 8**  
**GO BOND DEBT SERVICE PAYMENTS**

|                                         | 2008-09            | 2009-10            | 2010-11            | 2011-12            | 2012-13            |
|-----------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Debt Service as of July 1, 2007:</b> | <b>\$3,587,500</b> | <b>\$3,588,215</b> | <b>\$3,509,213</b> | <b>\$3,217,815</b> | <b>\$2,853,993</b> |
| October-07 (CIRM) <sup>8</sup>          | 0                  | 6,460              | 12,920             | 12,920             | 12,920             |
| October-07 New Debt Service             | 95,278             | 115,829            | 98,652             | 70,153             | 70,153             |
| October-07 Refunding Savings            | -3,792             | -3,758             | -3,768             | -4,937             | -5,994             |
| November-07                             | 62,591             | 47,291             | 47,291             | 65,627             | 65,628             |
| March-08                                | 115,738            | 115,759            | 115,759            | 115,759            | 115,758            |
| April-08                                | 112,284            | 112,295            | 110,727            | 111,806            | 116,825            |
| June-08                                 | 43,165             | 92,583             | 98,258             | 98,210             | 98,110             |
| Debt Service from 2007-08 Sales:        | 425,264            | 486,459            | 479,839            | 469,538            | 473,400            |
| <b>Debt Service as of July 1, 2008:</b> | <b>\$4,012,764</b> | <b>\$4,074,674</b> | <b>\$3,989,052</b> | <b>\$3,687,353</b> | <b>\$3,327,393</b> |

<sup>8</sup> The October 2007 CIRM sale was a taxable sale for the California Institute for Regenerative Medicine. Due to the requirement in Proposition 71 that the bonds not have a General Fund payment (either principal or interest) until 2010, it was issued as a mandatory tender bond, with the initial tender being April 1, 2010. Additionally, the interest was capitalized through December 31, 2009. The total interest is an estimate and was calculated using the initial tender rate through the final maturity, October 1, 2037.

## MEASURING THE STATE'S DEBT BURDEN

Historically, three numeric ratios have been used to measure a state's debt burden: (1) debt service as a percentage of General Fund revenues; (2) debt as a percentage of personal income; and (3) debt per capita.

### DEBT SERVICE AS A PERCENTAGE OF GENERAL FUND REVENUES

Because debt service is considered a fixed part of state budgets, credit analysts compare General Fund-supported debt service to General Fund revenues to measure a state's fiscal flexibility. California's ratio of debt service to General Fund revenues was 4.59 percent for fiscal year 2007-08, based on \$4.42 billion in GO bond debt service payments versus \$96.38 billion in General Fund revenues. The ratio is projected to be 4.92 percent for fiscal year 2008-09, based on \$5.01 billion in debt service payments versus \$102.99 billion in General Fund revenues, as projected by the Department of Finance.<sup>9</sup>

### DEBT AS A PERCENTAGE OF PERSONAL INCOME

Total personal income is one way to measure a state's potential to raise revenues to pay for operations and debt service. Moody's, in its March 2008 State Debt Medians report, lists the California's ratio of "net tax-supported debt" to total personal income at 4.3 percent.<sup>10</sup>

### DEBT PER CAPITA

Debt per capita measures each state resident's average share of the State's total debt. It does not account for the employment status, income or financial resources of the residents. As a result, debt per capita does not reflect a state's ability to repay its obligations as well as the other two ratios and generally is considered the least informative of the three debt ratios. In its 2008 State Debt Medians report, Moody's lists the State's net tax-supported debt per capita at \$1,685.

## CALIFORNIA'S DEBT LEVELS COMPARED TO OTHER LARGE STATES

Moody's calculates the ratios of debt to personal income and debt per capita for each state and publishes an annual report containing the median ratios. It's useful to compare California not only to all states, but also to its "peer group" of the 10 most populous states. As shown in the table below, the debt ratios of these 10 states are, on average, higher than the Moody's median for all states combined. And California's ratios rank well above the medians for the 10 most populous states.

**TABLE 9**  
**DEBT RATIOS OF 10 MOST POPULOUS STATES RANKED BY RATIO OF DEBT TO PERSONAL INCOME**

| STATE                                                       | MOODY'S/S&P/FITCH <sup>(1)</sup> | DEBT TO PERSONAL INCOME <sup>(2)</sup> | DEBT PER CAPITA <sup>(2)</sup> |
|-------------------------------------------------------------|----------------------------------|----------------------------------------|--------------------------------|
| Texas                                                       | Aa1/AA/AA+                       | 1.4%                                   | \$481                          |
| Michigan                                                    | Aa3/AA-/AA-                      | 2.2%                                   | \$748                          |
| Pennsylvania                                                | Aa2/AA/AA                        | 2.4%                                   | \$870                          |
| Georgia                                                     | Aaa/AAA/AAA                      | 3.0%                                   | \$954                          |
| Ohio                                                        | Aa1/AA+/AA+                      | 2.9%                                   | \$966                          |
| Florida                                                     | Aa1/AAA/AA+                      | 2.8%                                   | \$1005                         |
| <b>California</b>                                           | <b>A1/A+/A+</b>                  | <b>4.3%</b>                            | <b>\$1,685</b>                 |
| Illinois                                                    | Aa3/AA/AA                        | 5.2%                                   | \$1,985                        |
| New York                                                    | Aa3/AA/AA-                       | 6.3%                                   | \$2,762                        |
| New Jersey                                                  | Aa3/AA/AA-                       | 7.5%                                   | \$3,478                        |
| <b>Moody's Median all States</b>                            |                                  | <b>2.6%</b>                            | <b>\$889</b>                   |
| <b>Median for the 10 Most Populous States<sup>(3)</sup></b> |                                  | <b>3.0%</b>                            | <b>\$986</b>                   |

(1) Moody's Investors Service, Standard & Poor's, and Fitch Ratings, as of June 2008.

(2) Figures as reported by Moody's Investors Services in their 2008 State Debt Medians report released March 2008.

(3) Calculated as the average of the ratios reported for each measure for the fifth- and sixth-ranked states.

<sup>9</sup> This projected ratio reflects debt service from only a portion of the intended issuances listed in Appendix B and does not include the ERBs, for which debt service each year is paid from a dedicated quarter-cent sales tax. For example, GO bonds sold during the first half of the fiscal year will have interest payments in the second half of the fiscal year. The remaining GO bonds sold in the second half of the year will not have a debt service payment during the 2008-09 fiscal year and will therefore not affect the ratio. The lease revenue bond sales planned for fiscal year 2008-09 also are not expected to have any net debt service payments during fiscal year 2008-09. When the debt service on the ERBs is added to General Fund-supported debt service and the revenue from the dedicated quarter-cent sales tax is added to General Fund revenues, the resulting ratio of debt service to General Fund revenues increases to 7.07 percent in 2007-08 and 6.52 percent in 2008-09.

<sup>10</sup> Moody's calculation of net tax-supported debt includes outstanding GO bonds (non self-liquidating), LRBs, ERBs, GO Commercial Paper Notes, Federal Highway Grant Anticipation Bonds, Tobacco Securitization Bonds with a General Fund backstop, California Judgment Trust Obligations, and the Bay Area Infrastructure Financing Authority's State Payment Acceleration Notes.

## SECTION V

# Affording the Investments California Needs

### BACKGROUND

California's infrastructure has fallen on hard times. Once preeminent, it's now a decaying victim of decades of neglect.

We send about one-third of our children to learn in schools that are dilapidated, outdated or overcrowded. California has the most congested urban interstate highways in the nation. Ports, levees, parks, water treatment and solid waste treatment plants — they all need work. We have no choice but to make the investments needed to reverse the decline, and refurbish and strengthen our infrastructure. The people who live here now, those yet to come, and our economic future require nothing less.

Recent years have brought some good signs. With the \$7.35 billion sold in 2007-08, the State over the last six years has issued \$31.6 billion of GO bonds to finance infrastructure development. Voters deserve credit for demonstrating their commitment to making the required investments. In 2006, they approved \$42.7 billion of GO bonds to build schools, roads, parks and other projects. So far, the State has issued \$2.04 billion of those bonds.

The need, however, remains great. The infrastructure built for 25 million people will have to serve more than twice that number by 2050. The American Society of Civil Engineers has estimated California will

need to invest \$37 billion annually through the middle of the next decade to provide an infrastructure that accommodates our growing population and economic needs. In 2006, the California Transportation Commission reported that over the next 20 years, the state will need \$200 billion to repair, maintain and expand highways.

### ENSURING WE CAN AFFORD THE INVESTMENT

The 2007 Debt Affordability Report, "Looking Beyond the Horizon: Investment Planning for the 21<sup>st</sup> Century," examined the issue from a new perspective. The analysis took the question, "How much debt can we afford?" out of the traditional realm of unhelpful numeric formulas, such as those discussed in the previous section, and set it squarely in the public policy arena.

The amount of debt California can afford, the 2007 report said, is a policy choice, not a number. Setting the right amount is a matter of placing a priority on infrastructure, stacking that priority up against other spending priorities, then making budget decisions to implement those priorities.

Successful execution of this approach, the report said, requires the Legislature and Governor to adopt a fundamentally different approach to fiscal planning and policy. As the title suggested, the report recommended they take a longer view. The two key recommendations:

- Adopt a long-term horizon for planning and prioritizing that encompasses spending on both services and infrastructure.
- Fix the State's structural budget deficit (the chronic imbalance between revenues and expenditures) to ensure the long-term fiscal strategy can be implemented.

Looking out 20 years, the report estimated that without fixing the structural defect, the annual shortfall between projected expenditures on infrastructure investment and services, and the revenues available to pay for it all, would average 3.5 percent. That's not an imposing number.

Unfortunately, lawmakers and the Governor in 2008 made little progress toward adopting the report's recommendations. There were some positive developments. A broad consensus emerged on the need to strengthen the rainy day fund to help the State navigate the ups and downs of economic cycles. And the idea of studying the tax system with an eye toward making changes that strengthen the State's fiscal house and better reflect the modern economy gained some support.

On the whole, however, the news was not favorable. The Legislature and Governor showed little appetite for taking a longer planning view. And most importantly, the structural budget defects remain in need of real, lasting repairs.

## SECTION VI

# Increasing Californians' Investment in California Bonds

### BUY CALIFORNIA BONDS

Municipal bonds are purchased primarily by individuals who can benefit from the tax-exemption. Many participate in the municipal bond market by purchasing mutual funds, but others buy bonds directly. Direct purchases avoid the fees of the mutual funds and, if the bonds are held to maturity, eliminate market risk at redemption. As aging Baby Boomers shift their investments from stocks to less-risky bonds, the municipal bond market likely will see an influx of investment dollars from individuals.

Individual, or retail, investment in bonds provides several benefits to California and its people. Unlike some institutional buyers, whose interest in the municipal market can shift quickly with changing market dynamics, individuals have shown a consistent demand for bonds. Further, retail investors often hold bonds to maturity, while some institutions are more likely to sell their bonds in the secondary market. The distinction is important because when investors sell California bonds in the secondary market, they compete with the State's new issues. Finally, individual investors tend to purchase municipal bonds that benefit their community. That, in turn, helps build both investor and citizen support for the State's bond program and the infrastructure improvements California voters have approved.

Recognizing these benefits, the State and other municipal issuers historically have undertaken efforts to attract individual purchases. The most common is a "retail order period" that gives individual investors first crack at buying new bonds before they're offered to institutional investors such as mutual funds and insurance companies.

In 2006, California voters approved the issuance of \$42.7 billion of new GO bonds to build schools, roads and other infrastructure projects. This has dramatically increased the volume of GO issuance by the State. In 2007-08, the State issued \$7.35 billion of new-money bonds, compared to an average of just \$3.99 billion from 1998-99 to 2006-07. To bolster retail demand for the increased volume of bonds, Treasurer Lockyer decided to develop new approaches to attract individual buyers. The result was the groundbreaking Buy California Bonds (BCB) campaign.

The STO inaugurated BCB with the State's June 2007 GO bond sale. The program's goal is to attract as many retail investors as possible through a multifaceted outreach program and management of the bond sale to give priority to retail orders. The outreach program includes the following:

- A website ([www.buycaliforniabonds.com](http://www.buycaliforniabonds.com)) that provides both general information about municipal bonds and specific instructions on how to buy State of California bonds. Each upcoming bond issue is

listed, together with the firms from which investors may buy the bonds, ratings information, and a step-by-step description of the purchase process. Further, investors may access the Official Statement from the website. The site was the first of its kind in the nation.

- Advertisements informing potential investors of upcoming sales. The BCB advertising campaign reaches across radio, newspapers and the Internet. The radio and newspaper ads represented a qualitative leap forward from bond advertising conducted previously by the State or any other municipal issuer in the country.
- An 800 telephone line (800-900-3873) providing live help to people interested in the State's bond program and how to buy bonds.
- E-mail blasts about upcoming bond sales to investors who sign up on the BCB website.

In addition, the STO has increased the number of firms which may sell bonds to individual investors. The STO allows any of the 80 approved firms in its underwriting pool, and other firms that have substantial numbers of retail customers in California, to participate in the retail order period. This increases retail investors' access to bonds because they don't have to be customers of the firms selected by the State to manage the sale. The BCB website includes a list of all participating brokers and, in many cases, a link to their website.

The BCB outreach program is coupled with priority treatment of retail orders. Prior to the bonds being offered to institutional investors, the State runs a retail order period of one to three days. Orders placed by retail investors during this period get filled before any orders by institutional investors. The State doesn't guarantee every retail order will be filled, because there may be (and often are) more orders than there are bonds for sale. But all retail orders are filled before any institutional orders.

## BCB RESULTS

Program results have been impressive from the start. Demand from retail investors often has been so high it has generated many more orders than can be filled in the earlier maturities, where retail orders are more concentrated. (Individual investors tend to prefer bonds that mature in ten years or less and avoid bonds with longer maturities.) Since the initial sale in June 2007, retail participation has exceeded the initial goal of 20 percent, and in several sales far surpassed that mark:

**TABLE 10**  
**BUY CALIFORNIA BONDS CAMPAIGN**  
**RETAIL RESULTS**

| SALE                   | PAR AMOUNT             | RETAIL<br>ORDERS<br>FILLED | %          |
|------------------------|------------------------|----------------------------|------------|
| June 2007 GO           | \$2.5 billion          | \$690 million              | 28%        |
| October 2007 GO        | \$2.5 billion          | \$528 million              | 21%        |
| October 2007 GO (CIRM) | \$250 million          | \$103 million              | 41%        |
| October 2007 RAN       | \$7 billion            | \$1.6 billion              | 23%        |
| November 2007 GO       | \$1.0 billion          | \$333 million              | 33%        |
| February 2008 ERBs     | \$3.1 billion          | \$1.3 billion              | 42%        |
| March 2008 GO          | \$1.75 billion         | \$871 million              | 50%        |
| April 2008 GO          | \$1.75 billion         | \$785 million              | 45%        |
| June 2008 GO           | \$1.5 billion          | \$657 million              | 44%        |
| <b>Totals</b>          | <b>\$21.35 billion</b> | <b>\$6.87 billion</b>      | <b>32%</b> |

Importantly, a significant number of individual firms have made a substantial contribution to the sale of bonds through BCB. While 10 firms have accounted for three quarters of all retail sales, another 21 firms each have sold at least \$10 million of bonds to individual investors. The expansion of participation to a larger number of firms, and the correspondingly greater reach of the State's bond sale effort, are important parts of BCB's success.

## SECTION VII

# Improving the Accuracy and Fairness of Municipal Bond Ratings

## OVERVIEW

The turmoil in capital markets this year brought about a very important and overdue development — reforms in the way rating agencies grade municipal bonds.

For taxpayers, the agencies' method for rating municipal bonds constitutes a crucial debt affordability issue. Interest rates rise as ratings drop, and drop as ratings rise.<sup>11</sup> So, bond ratings determine how much it costs taxpayers to finance construction of their schools, roads and other vital infrastructure.

The agencies have long discriminated against municipal issuers to the benefit of corporate borrowers and bond insurers. The agencies have known full well that government borrowers with investment grade ratings almost never default. Yet they have held such borrowers to much higher standards than they've imposed on corporations. The result has been unjustifiably low ratings for government issuers and unjustifiably high borrowing costs for taxpayers.

This approach seemed cemented into the municipal bond market. But cracks first appeared in early 2008 as bond insurers weakened. By the end of summer, issuers, investors and broker-dealers had developed a

consensus that the market needed a single rating scale that treated all issuers equally.

At stake was more than just fairness to taxpayers. Accurate ratings also make markets more efficient. And they treat all investors who buy municipal bonds the same, whether an individual retiree or a large mutual fund company with an army of its own credit analysts. As two senior officials of PIMCO, the largest owner of bonds in the market, commented to Moody's: "Utilizing one global rating scale provides a consistency between muni and other issuers, such as corporate borrowers, which should reduce confusion among investors and promote a greater level of relevance of the ratings."<sup>12</sup>

Two of the three major rating agencies — Fitch and Moody's — reached the same conclusion. Both have announced major changes to bring municipal ratings onto the same scale as other bond ratings. S&P, however, continues to resist the change the market now demands.

Treasurer Lockyer applauds the important steps taken thus far by Fitch and Moody's. While their actions fall short of the reforms needed to bring fairness to

<sup>11</sup> Over the last ten years, long-term borrowing costs averaged 12.4 percent higher for BBB-rated general obligation bond issuers compared to AAA-rated issuers. In the market turmoil of 2008, where investors have placed an extra premium on strong ratings, that cost difference has widened to more than 18.3 percent, higher as of 8/22/08, highlighting the costly impact of inaccurate ratings.

<sup>12</sup> Undated letter to Moody's from Mark McCray, Managing Director and Portfolio Manager, and David Blair, Sr. Vice President, Credit Research, PIMCO.

taxpayers, better information to investors and more stability to the market, the progress made in 2008 has been significant, the change unprecedented.

### BACKDROP — THE AGENCIES RESPOND TO HURRICANE KATRINA

Hurricane Katrina had just slammed Gulf Coast states with the full force of her fury, and New Orleans was drowning in Lake Pontchartrain. The Big Three credit rating agencies surveyed the devastation and suffering and sprang into action. Sanitized of sentiment, they threw New Orleans and the rest of Louisiana not a life preserver, but an anchor.

Within a day after Katrina made landfall on Aug. 29, 2005, S&P, Moody's and Fitch began placing Louisiana's general obligation bonds on negative credit watch. By December 2, 2005, all three had downgraded the ratings not just for the state's bonds, but for other bonds issued by state and local entities.

1,577 deaths. Tens of billions of dollars in damage. And the rating agencies made it costlier to get out from under the water. "It makes it more expensive to borrow money at the worst possible time," State Treasurer John Kennedy said at the time. "I would agree that the storms hurt us, but that doesn't mean we're not going to pay our debts."<sup>13</sup>

The agencies knew Kennedy was right when they downgraded Louisiana. For almost a decade, their own studies have confirmed that tax-backed bonds issued by state and local governmental entities almost never default. They know that's the case even when natural disasters put issuers in financial straits. As Moody's said in a June 2006 request for comment on its proposal to change its ratings system, "...municipalities in severe financial distress usually receive some form of extraordinary support from another entity prior to a payment default. The Gulf Coast communities most severely affected by Hurricane Katrina provide a recent illustration of the occurrence of extraordinary support. Many of these municipalities are likely to avoid default because they have received extraordinary assistance from federal or state levels of government."

### ONLY THE VERY BEST DESERVE TRIPLE-A RATINGS

Triple-A is the gold standard of credit ratings.

As Fitch says, "AAA" ratings denote the lowest expectation of credit risk. They are assigned only in case of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events."<sup>14</sup> Moody's and S&P make similar claims about the rarefied nature of a triple-A rating.

Until earlier this year, these same agencies gave most bond insurers triple-A ratings, even though the insurers were heavily exposed to subprime-related securities. With their triple-As, the insurers could collect huge fees from issuers to "enhance" the credit of those issuers' bonds.

- They insured fixed rate bonds. Unfortunately, when the rating agencies dropped the ratings of the bond insurers, the investors holding those bonds suffered substantial losses.
- They insured auction rate bonds. But when the rating agencies belatedly took action to reflect the weaknesses of the bond insurers, many of those bonds suffered failed auctions, forcing issuers to pay excessively high interest rates and sticking investors with illiquid bonds.
- They insured variable rate demand bonds. However, when the rating agencies finally gave some of the insurers the low ratings they deserved, the issuers of those bonds found themselves paying interest rates two or three times higher than they'd paid in previous years.

As issuers sought to minimize the damage they suffered from the municipal market turmoil, some blamed the bond insurers. Others blamed broker-dealers for failing to support the auction rate and variable rate demand markets. But at the heart of all the problems stood the rating agencies. The bond insurers found a market because the rating agencies inaccurately determined their credit to be stronger than most municipal

<sup>13</sup> Associated Press Financial Wire, Dec. 1, 2005.

<sup>14</sup> Presentation slides by Robert Grossman of Fitch at The Bond Buyer National Municipal Derivatives Conference, May 19, 2008.

issuers. The broker-dealers faced liquidity constraints because they were exposed to mortgage-backed securities the rating agencies inaccurately rated triple-A.

Treasurer Lockyer determined that the best way to clean up the market was to ensure that the agencies assigned fair and honest ratings to municipal issuers. In early March, he brought attention to the unfairness of municipal bond ratings when he wrote a letter to the three major agencies and enlisted more than a dozen other major issuers to sign it. The letter was featured on the front page of the *New York Times* and has sparked a lively debate. [See Appendix D for a copy of the letter.]

### MUNICIPAL BONDS DON'T DEFAULT

The most powerful supporting evidence for ratings reform comes from the agencies themselves. Since the late 1990s, their studies consistently have shown a startling mismatch between ratings and the relative default rates of municipal issuers and their corporate counterparts.

Consider these facts from Moody's:<sup>15</sup>

- Between 1970 and 2000, only 19 out of about 28,000 municipal issuers rated by Moody's defaulted on any bond.
- General obligation bonds default even less often. Over the 37-year period from 1970 and 2007, only one GO bond went into default. And that one was fully cured (the missed debt service was repaid) within 15 days.
- Nonetheless, only 3 percent of local GO bonds have Aaa ratings from Moody's. About three quarters, in fact, have ratings in the A category or below.
- This contrasts sharply with corporate bond ratings. According to Moody's, "(T)he 10-year cumulative default rate for all investment grade Moody's-rated municipal bond issuers, excluding GO and water/sewer revenue bonds, stands at

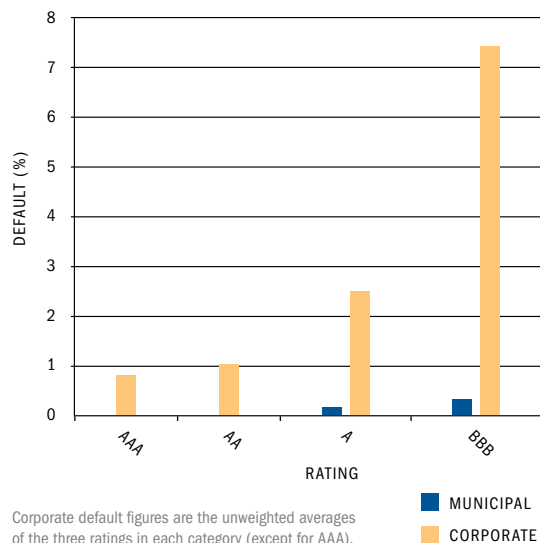
0.2883 percent, which is lower than the 0.5208 percent rate for Aaa-rated corporate bonds."<sup>16</sup> In other words, Aaa-rated corporate bonds have nearly twice the default rate of all municipal bonds rated between Baa3 and Aaa.

Or these facts from S&P:<sup>17</sup>

- Between 1986 and 2008, only 34 of 10,268 municipal bond issuers defaulted.
- For tax-secured municipal bonds, the 22-year cumulative default rates were 0.02 percent for A-rated bonds and 0.08 percent for BBB-rated bonds. These extremely low default rates, however, didn't qualify these bonds for higher ratings. Despite the fact that these bonds almost never default, 60 percent of tax-secured bonds with an S&P rating are rated in the A category or below.
- The default history for corporate bonds is much higher. While the five-year cumulative default rate for U.S. municipal bonds is 0.03 percent, the corresponding rate for corporate bonds is 0.74 percent,

TABLE II

### S&P 15 YEAR CUMULATIVE AVERAGE DEFAULT RATES



<sup>15</sup> "The U.S. Municipal Bond Rating Scale: Mapping to the Global Rating Scale and Assigning Global Scale Ratings to Municipal Obligations," Moody's, March 2007.

<sup>16</sup> Investment grade bonds are those with ratings of Baa3 or higher. Quote is from "The U.S. Municipal Bond Rating Scale: Mapping to the Global Rating Scale And Assigning Global Scale Ratings to Municipal Obligations," Moody's, March 2007.

<sup>17</sup> "U.S. Municipal Rating Transitions And Defaults, 1986-2008," Standard & Poor's, March 20, 2008.

or nearly 25 times greater. Even the rate for AAA-rated corporate bonds, at 0.28 percent, is more than nine times greater than the default rate for A-rated municipals.

Table 11 demonstrates the dramatic disparity between the default rates of municipal and corporate bonds with the same ratings by S&P.<sup>18</sup>

And, finally, from Fitch:<sup>19</sup>

- Looking at all municipal ratings from 1990 through 2007, Fitch reports that the five-year cumulative default rate was 0.00 percent — that's zero — for bonds rated A, AA or AAA. It's hard to understand the basis for one bond being rated A and another AAA if history shows neither of them will default. It's like three students each scoring 100 percent on a test, but one gets an A, another gets a B and the third a C.
- Fitch data also show few defaults among AA and AAA corporate bonds, but a great discrepancy between corporate and municipal default rates at lower rating levels. For example, the five-year cumulative default rates for BBB-rated corporate bonds, were 4.7 times higher than for similarly rated municipal bonds.

What the agencies' data show is this: By applying to municipal bonds the same ratings that in the corporate market signal significant risk of default, the agencies have dramatically overstated the credit risk of municipal bonds.

This inconsistency exists not only between the corporate and municipal bond markets. It also exists within the municipal bond market. And it has cost municipal issuers and taxpayers hundreds of millions of dollars. The problem is that many municipal bonds backed by corporate entities — insured bonds, bonds backed by letters of credit, industrial development bonds and many more — are rated by the easier standards applied to corporate bonds. Therefore, true

municipal bonds compete for investors at a disadvantage against corporations making money in the tax-exempt market.

A similar discrepancy exists between bonds to finance essential government services and tax-exempt bonds for enterprises such as hospitals. The 22-year cumulative default rate for health care issuers rated A from S&P is 0.71 percent, compared to 0.02 percent for tax-secured bonds. Yet S&P rates them both A, giving investors the sense that they are of equal credit quality. S&P knows this is not the case. When imposing capital charges on bond insurers (establishing the capital that must be set aside for a AAA bond insurer to back a given bond issue), S&P requires 12.5 times more if the carrier is insuring a hospital bond with an underlying rating of A, compared to a state GO bond with the same rating.

#### WHAT DID THE RATING AGENCIES DO ABOUT THESE DISCREPANCIES?

Moody's and Fitch, to their credit, acknowledged the problem reflected in their default data, though they have been slow to correct it.

Fitch was the first to undertake comprehensive default studies in 1999. It followed with another in 2003. However, until 2008, Fitch took no action to address the inconsistencies.

Moody's first undertook default studies in 2001. In 2003, it offered to assign global scale ratings (GSRs) to a few categories of *taxable* municipal bonds and swap obligations. The GSR, intended to bring municipal and corporate ratings closer to a single standard, supplemented the traditional municipal bond rating which Moody's continued to assign such bonds.

In 2007, the program was expanded to all taxable municipal bonds. At the same time, Moody's published a "map" that converted its municipal rating to a GSR. The GSRs solely reflected loss given default (the risk of default modified by the likely loss in the event of actual default). The GSRs continued to be issued only as

<sup>18</sup> S&P, Default, Transition, and Recovery: 2007 Annual Global Corporate Default Study And Transitions, Feb 5, 2008, Table 8 "Cumulative Average Default Rates By Rating Modifier, 1981-2007 (percent)" and U.S. Municipal Rating Transition And Defaults, 1986-2008, March 20, 2008. Table 2 "Cumulative Default Rates (percent) 1986-2007"

<sup>19</sup> "Exposure Draft: Reassessment of Municipal Ratings Framework," Fitch Ratings, July 31, 2008.

a supplement to the traditional rating. Until it discontinued assigning them earlier this year, Moody's had assigned 27 GSRs. The State of California received a GSR of Aaa on two issues of taxable GO bonds (those bonds also carried a municipal scale rating of A1).

Meanwhile, S&P completed its first default study in 2001. Unlike the other two agencies, it did not concede that the data evidenced a dual rating standard. But even though it didn't acknowledge the problem existed, S&P in 2001 started to upgrade municipal issuers.

### IN THE DARKNESS OF RATINGS INCONSISTENCY, BOND INSURERS FLOURISH

While a few sophisticated investors knew about the ratings inconsistency, most investors did not. The average individual investor thought a bond with an A rating carried the same risk as any other bond with the same rating.<sup>20</sup> That certainly was a logical assumption. Neither the rating agencies nor bond insurers took any meaningful steps to correct that misperception.<sup>21</sup>

This created a perfect opportunity for the bond insurers to flourish. They could earn a triple-A rating by meeting the more lenient standards for corporate ratings, and then sell that rating to unsuspecting investors in the municipal market. The rating agencies and insurers led these investors to believe triple-A insured bonds were stronger than uninsured municipal bonds with single or double-A ratings. As the agencies' own default studies consistently demonstrated, that was patently false.

California GO bonds are rated A+/A1/A+ by Fitch, Moody's and S&P, respectively. If the State bought bond insurance, the agencies rated the bonds triple-A. Investors, misled by the rating agencies, believed our triple-A insured bonds were safer than our unenhanced bonds that carried the lower ratings. Based on that mistaken belief, investors would buy the State's GO bonds at a lower interest rate if they were insured. If the interest rate savings exceeded the cost of the insurance premium, the State bought bond insurance. Between 2003 and 2007, the State paid \$102 million to buy bond insurance on about \$9 billion of GO bonds.

This was a cost-effective decision for the State. But it's money the State shouldn't have had to spend. Here's the reality created by the system: Taxpayers were discriminated against by the rating agencies, *and* had to pay \$102 million out of their *own* pockets to insurance companies to remedy that discrimination, while investors earned less because the agencies and insurers deceived them.

By late 2007, the financial condition of the bond insurers became so dire that even the rating agencies were forced to publicly acknowledge the carriers were not gilt-edged credits. Fitch was the first to act when, on December 12, 2007, it placed XL Capital on negative watch. Many rating actions followed, with the first downgrade occurring on January 18, 2008, when Fitch stripped Ambac of its coveted AAA rating.<sup>22</sup>

<sup>20</sup> Some argue that market participants always knew that insurer ratings weren't comparable to unenhanced ratings. That is not true. A lawsuit filed against Moody's by the State of Connecticut provides one example that at least one bond insurer recognized that its business was, in fact, based on investors mistakenly believing the ratings were comparable:

Bond insurers immediately recognized that a Moody's decision to rate public debt on the same scale as corporate debt would severely harm their business. Wrote one bond insurer executive "[d]id we know this was coming- at first blush this looks pretty serious to me... won't higher ratings just serve to contract spreads. This is cutting at the heart of our industry given that investors buy on rating. While we in the industry might agree with the default/loss conclusion (this is in part the basis of our success and ability to leverage as high as we are), to lay it out there like this could be very detrimental." An executive at the same bond insurer agreed: "... we know that hardly anybody reads the Moody's special reports so it didn't matter. However, if they actually assign the higher ratings, that's a totally different story..."

Further, representatives of the State Treasurer's Office, in frequent speeches to industry participants about rating reform, asked audience members whether the bond insurers were rated on the corporate scale or the municipal scale. In almost all cases, audience members weren't sure.

<sup>21</sup> The lawsuits by Connecticut Attorney General Richard Blumenthal against the three agencies, filed July 30, 2008, present information to this effect. As just one example, the suit against Fitch states that a top municipal credit analyst told the Fitch Credit Policy Board:

"the persistent disparity in default rates provides persuasive evidence that Fitch-rated US municipal obligations are still underrated, relative to corporate securities. We have in fact adjusted for this risk differential in Fitch's new financial guarantee capital model. The problem with upgrading most US municipal bond ratings further is that it would mean compressing most of our US public finance ratings into the 'AAA' and 'AA' categories. This runs counter to investor preferences.... It is also unclear if the expanded use of corporate equivalent ratings would add value to the US public finance credit rating franchise. We should poll European and US taxable bond investors ... as to their thoughts on this potential product"

<sup>22</sup> Of the seven insurers rated triple-A by all three agencies at the beginning of 2008, only two retain such ratings today. Three are now rated below investment grade (below Baa3 or BBB-) by most or all of the rating agencies.

As bond insurer ratings laid bare the inaccuracy of the rating process, the STO launched a website to serve as a resource for efforts to reform the system ([www.treasurer.ca.gov/fairbondratings](http://www.treasurer.ca.gov/fairbondratings)). The site features background materials, press articles and letters of support for the effort. The site continues to provide topical resources.

## THE AGENCIES RESPOND TO THE REFORM MOVEMENT

### MOODY'S

Following Treasurer Lockyer's letter to the rating agencies, U.S. Rep. Barney Frank, chairman of the House Financial Services Committee, on March 12, 2008 held a hearing on the municipal bond industry. Treasurer Lockyer testified about the unfairness of municipal bond ratings. At the same hearing, Laura Levenstein of Moody's announced the agency soon would unveil plans to assign GSRs to taxable and tax-exempt municipal bonds, if requested by the issuer. She said Moody's planned to continue assigning a traditional municipal rating alongside the GSR.

Soon after the March 12 announcement, Moody's released its specific proposal and sought comments. The comments almost unanimously recommended that Moody's assign only one rating to municipal bonds, rather than assign both a municipal and GSR rating. Commentators agreed the dual rating would confuse investors.

The STO posted on its Fair Bond Ratings website the comments of several market participants. The comments reflected the views of many important broker-dealers, financial advisors and issuers. Representative comments show the importance of rating reform not just to taxpayers, but investors and the municipal bond market, as well:

[T]he two separate systems of ratings can be confusing to some segments of the buying public, particularly new entrants into the fixed income markets at the retail level, who are trying to ascertain the advantages or dis-

advantages of various fixed income products. In an era where clarity and transparency in the capital markets is as important as ever, the rationale for dual ratings systems is highly questionable. One past argument for dual rating systems, that is, the lower disclosure standards imposed on the municipal marketplace, no longer can be supported given the steady expansion of continuing disclosure requirements established in recent years, and the significant amount of public agency information that is readily available electronically via the Internet.<sup>23</sup>

We believe that the separate scale for municipal bonds leads to market inefficiencies that raise the cost of funds for municipal issuers. Retail investors are largely unaware that the likelihood of default and potential loss upon default are lower for municipal bonds than for corporate bonds at the same rating level. While large institutional investors understand this dynamic, the significance of retail investors in the tax-exempt market causes the pricing distortion to persist.<sup>24</sup>

A consistent rating scale is not only important for the "traditional and alternative" institutional investors, but also for the "mom and pop" retail investors. Many retail investors may not have access to adequate research materials to determine the credit worthiness of municipal securities relative to their corporate counterparts. The mixed use of municipal ratings for issuers and corporate ratings for credit enhancers in the municipal market only adds to this confusion. A GSR will foster greater transparency and reduce confusion in the municipal marketplace.<sup>25</sup>

Individuals are thus fundamental crossover investors who, without the support or sophistication of institutions, have no ability to look through an opaque municipal rating scale to discern actual default risk.<sup>26</sup>

<sup>23</sup> Ronald A. Stack, Managing Director and Head of Public Finance, in a letter to Moody's dated May 21, 2008.

<sup>24</sup> Letter from Lamont Financial Services to the Credit Policy Committee of Moody's, April 14, 2008.

<sup>25</sup> Letter from Douglas Montague, Principal, Montague DeRose and Associates, LLP, to Moody's, April 15, 2008.

<sup>26</sup> Municipal Market Advisors, Response to Moody's Proposal for Global Scale Ratings for All Issuers, April 14, 2008

Other comments questioned the need for so many rating categories when default risk varied little:

We believe market participants will be well-served by the convergence of municipal and global ratings. Over time, we would expect a diminishing need and demand for a separate municipal rating scale. While the municipal scale may appear to offer a more finely-calibrated measurement of risk than the global scale, we are skeptical that the extremely narrow range of historical default rates — less than 0.14 percent for municipal credits rated from Baa to Aaa — requires differentiation into 10 distinct rating categories, or that investors can accurately discern such minute gradations of risk as are implied by those distinctions.<sup>27</sup>

In June, Moody's announced it would assign only one rating, and in September provided details about its plans. As it stated in its September announcement:

Beginning in October 2008, Moody's Investors Service will recalibrate its ratings of US municipal bond issues and issuers, and migrate these ratings to its global rating scale. The purpose of this transition is to facilitate comparability of credit quality across Moody's entire rated universe.<sup>28</sup>

Moody's said that state and local GO ratings will rise an average of two notches. If true for California, our GO rating will increase from A1 to Aa2. Ratings in the enterprise sectors will rise an average of one notch. Ratings already Aa3 or higher likely will see smaller increases.

## FITCH

After the Congressional hearings, Fitch announced it would undertake a comprehensive evaluation of whether it should "harmonize" municipal ratings

with other ratings. It embarked on an internal evaluation and, in a series of roundtable discussions, sought input from issuers, investors and investment bankers. The STO participated in two of those sessions.

In late July, Fitch announced it "proposes a recalibration of its municipal ratings so they denote a comparable level of credit risk as its international rating scale for corporate, sovereign and other entities." It requested comment on its proposal by the end of August. Fitch also explained the approach it would take in changing the ratings on GO bonds, bonds secured by broad-based taxes, and water and sewer revenue bonds. In general, those bonds would receive a two-notch upgrade if their current rating is A or lower, and a one-notch upgrade if their current rating is A+ or higher (though there will be special scrutiny of bonds before being upgraded to AAA). California GO bonds, under this approach, would receive a one-notch increase, from A+ to AA-.

## S&P

S&P continues to claim it always has used a single, unified rating scale. According to a recent S&P report, "(I)n assigning 'A' ratings to asset-backed securities, manufacturing firms, or local governments, we intend to connote an opinion that they have a comparable level of credit risk."<sup>29</sup> The firm's default studies provide evidence to the contrary. At the very least, the data show that, if S&P maintains a uniform rating scale, that system is broken and needs repair.

S&P *has* in recent years upgraded far more municipal bonds than it has downgraded, thereby moving slowly in a positive direction. In the first half of 2008, for example, S&P upgraded 573 tax-backed municipal bonds and downgraded just 19. Those numbers are reasonably consistent with a trend toward upgrades since its first default study in 2001. As S&P says, "The rating actions taken to date represent the continuation of our ongoing efforts to promote ratings comparability across sectors."

<sup>27</sup> Letter from David Shulman Managing Director Global Head Municipal Securities Group, UBS Securities, LLC to Moody's, April 7, 2008.

<sup>28</sup> *Announcement: Moody's to Recalibrate its US Municipal Bond Ratings to the Company's Global Rating Scale*, Moody's Investors Service, September 2008.

<sup>29</sup> "Ratings Performance In U.S. Public Finance," Standard & Poor's, July 22, 2008.

Nonetheless, S&P's methods raise questions for the market and investors. Unlike its two counterparts, S&P has adopted a stealth approach to fair ratings. By being secretive, S&P does a disservice to the market by keeping investors in the dark. Is a bond that hasn't recently been upgraded one that S&P hasn't gotten around to reviewing, or one that it has reviewed but decided not to upgrade? Investors have no way of knowing.

### THE AGENCIES' RESPONSE FALLS SHORT

While the changes the agencies are making (Moody's and Fitch transparently, S&P clandestinely) are important, they aren't enough.

The effort to improve municipal bond ratings is grounded in two beliefs:

- 1) Ratings should be consistent. A given rating should mean the same thing whether it is applied to a municipal bond, a corporate bond, a structured finance bond or anything else. Since both individual and institutional investors consider a wide range of different investment vehicles in today's sophisticated markets, it's essential that ratings help them compare among a wide range of potential investments.
- 2) Ratings should measure the likelihood of default and the loss given default. Issuers make a promise they will pay investors principal and interest on time and in full. Bond ratings should be based on the probability issuers will fulfill that promise — and nothing else.

It would be logical to assume that definitions of ratings and what they measure would be easily available from the rating agencies. Remarkably, that's not the case. Nonetheless, it is possible to find occasional instances in which the agencies, or their representatives, explain that ratings are *supposed* to measure the likelihood of default:

- From S&P: "Credit ratings are assessments of the likelihood of default given all available factors."<sup>30</sup> A recent S&P publication is more confusing, stating, "Ratings are opinions of relative creditworthiness, defined as an issuer's capacity to repay financial obligations."<sup>31</sup>
- From Fitch: "Credit risk, as measured by Fitch's ratings on municipal debt obligations, is comprised of both default risk and loss given default."<sup>32</sup>

Moody's is the exception. The GSRs they previously applied measured loss given default, as opposed to likelihood of default. Loss given default provides an incomplete picture of credit quality, Moody's said. That's why it required that the GSR be supplemented by the traditional municipal rating. As Moody's stated, "Unlike Moody's global scale ratings, which measure 'expected loss' (default probability times loss given default), Moody's long-term municipal ratings measure the intrinsic ability and willingness of an entity to pay its debt service. In the investment grade categories, the municipal rating measures distance to distress — how likely an entity is to reach such a weakened financial condition that extraordinary support is needed in order to avert default."<sup>33</sup>

In its September recalibration announcement, Moody's made clear its new ratings will be lower than the GSRs it previously assigned based on loss given default. But it fails to explain what the new ratings measure, except that they will "facilitate comparability of credit quality." What is "credit quality"? Is it likelihood of default? Distance to distress? It will be impossible for the market to determine whether Moody's, in fact, achieves comparability of credit quality when it doesn't define what it means by "credit quality."

Moody's may fill the information gap when it unveils the "recalibrated" ratings on a sector-by-sector-basis, starting in October with state government GO bonds. In its September announcement, Moody's said, "Prior

<sup>30</sup> "Why the Bond Rating System Works," Steve Zimmermann of S&P, Los Angeles Times, April 3, 2008

<sup>31</sup> "Standard & Poor's Reaffirms Its Commitment To The Goal Of Comparable Ratings Across Sectors And Outlines Related Actions," May 6, 2008.

<sup>32</sup> "Exposure Draft: Reassessment of Municipal Ratings Framework," Fitch Ratings, July 31, 2008.

<sup>33</sup> "The U.S. Municipal Bond Rating Scale: Mapping to the Global Rating Scale and Assigning Global Scale Ratings to Municipal Obligations," Moody's, March 2007

to the migration of each sector, Moody's will publish a sector-specific methodology that outlines our analytical approach and factors that are considered in the placement of the sector's ratings on the global scale."

In arguing their ratings measure default risk, despite strong evidence to the contrary, the agencies say ratings assess the chances of default *in the future*. Therefore, they argue, historical experience alone cannot determine ratings, and qualitative factors must supplement the analysis.

This would be an acceptable answer if the qualitative factors related to the likelihood of default. For example, the level of an issuer's unfunded pension liability could be a valid qualitative factor if, in fact, a higher liability produced to a higher likelihood of default.

The problem, of course, is that the rating agencies have no evidence that this qualitative factor, or any other, has any relationship the risk of default. The reason is that municipal bonds almost never default. On what basis, then, do the rating agencies hypothesize that municipal issuers will default in the future and therefore deserve ratings below triple-A? The answer is they have no basis. They've done no studies. They reference no studies. It's all pure conjecture.

Further, the refusal to ground ratings primarily in historical default rates means that it will be impossible to determine whether the agencies are, in fact, using a single rating scale, or "harmonizing" municipal and corporate ratings.

The need for a rating system based on default risk was echoed many times by market participants who commented to Moody's as it developed its GSR proposal. The comments indicated how a default-based rating system would benefit the market and provide investors more useful information:

The rating should reflect solely the probability of default in order to be consistent with the ratings methodology for corporate bonds. We

think consistency with the rating methodology used for other types of bonds should be the prime goal.<sup>34</sup>

UBS, like many participants in fixed income markets, evaluates credit risk primarily in terms of expected loss, incorporating estimates of both the likelihood of default and the loss incurred in the event of a default. Credit ratings based on this approach provide the most consistent and useful measurement of risk across the broad range of fixed income assets available in the market. Both credit attributes — default and loss — can be observed and measured, providing an objective benchmark for assessing the validity of ratings over time.<sup>35</sup>

The upgrades by all three agencies certainly will give the market comfort that comparability has improved. At the same time, the agencies' insistence that they continue to rely on the same qualitative factors and analytical approach that led to the systematic underrating of municipal bonds is a major failure. Just shifting all municipal bond ratings up, without addressing why they've been consistently too low, does not address the fundamental problem. The qualitative factors weren't indicators of default in the past, and there's no reason to think they will be in the future. Nonetheless, the agencies remain committed to applying such factors to keep municipal bonds from receiving the ratings justified by the minimal credit risk they pose to investors.

The agencies must move beyond "harmonization" or "recalibration" to a fundamental re-thinking of municipal credits. It's no accident that, in the last 38 years, there has been only one default among all the GO bonds rated by Moody's. The nature of such bonds means that issuers repay them in good times and bad, regardless of such factors as fiscal management or budgetary stresses. It's time the rating agencies developed a more accurate and realistic way of evaluating municipal credit risk. It's time they

<sup>34</sup> Undated letter to Moody's from Mark McCray, Managing Director and Portfolio Manager, and David Blair, Sr. Vice President, Credit Research, PIMCO

<sup>35</sup> Letter from David Shulman Managing Director Global Head Municipal Securities Group, UBS Securities, LLC to Moody's, April 7, 2008

stopped shouting, “Vallejo” and “Jefferson County” to justify their failure to do their jobs.<sup>36</sup>

### WHAT'S NEXT?

The STO will continue to work for rating agency reforms, and it's not alone. As the rating agencies try to respond to the clearly discriminatory way in which they've rated municipalities, they face efforts on a number of fronts to get them to change their ways:

**THE MUNICIPAL BOND FAIRNESS ACT** — Rep. Barney Frank has introduced legislation that would require the rating agencies to:

- Assign to all securities ratings that assess the risk an investor “may not receive payment in accordance with the terms of issuance.”
- Apply ratings in a consistent manner to all types of securities.
- Utilize qualitative rating factors only if they have a demonstrated relationship to the likelihood an issuer will default.

The House Financial Services Committee on July 31, 2008 approved the legislation, H.R. 6308.

In opposing H.R. 6308, and beating back other attempts to regulate their practices, the rating agencies have wielded the First Amendment. They claim their ratings are just opinions. They say they're publishers of editorials on matters of public concern, just like the *Wall Street Journal*, or the *Los Angeles Times*, or the *New York Times*. As such, the agencies say they deserve the full protection of the First Amendment's free press guarantee.

The agencies have enjoyed some success in the courts with that argument. But the jurisprudence is not clear cut, as some scholars have noted. And critics increasingly question the agencies' claim to full First Amendment safeguards.<sup>37</sup> The time may be ripe for the federal government, issuers or others to subject the agencies' argument to a new legal attack.

In fact, the agencies' claim does not hold water. Ratings are far different, and far more powerful, than editorials. They're deeply ingrained in securities regulations, carrying the force of law. They trigger required actions under bond documents, bank loan agreements, swap agreements and other arrangements. They restrict the composition of institutional investors' portfolios, and determine the interest rate taxpayers bear on bonds. Ratings dictate the actions of bond issuers, financial institutions and investors. No editorial publisher ever held such power, not even in their dreams.

**CONNECTICUT LAWSUITS** — Connecticut Attorney General Richard Blumenthal on July 30, 2008 filed separate lawsuits against S&P, Moody's and Fitch. The complaints allege the agencies deliberately assigned unjustifiably low ratings to the debt of Connecticut municipalities, despite knowing the likelihood of default was extremely low.

The complaint against Moody's provides a good flavor of the allegations' basic thrust. “Despite its own conclusions that public bonds were underrated and that many classes of public bonds essentially never default, Moody's intentionally chose not to give public bonds the higher ratings they deserved,” the complaint alleges. “Moody's chose to unfairly under-rate bonds and to deceptively label its credit ratings not because it disbelieved its own data, but because

<sup>36</sup> The City of Vallejo earlier this year filed for Chapter 9 bankruptcy, though it has not defaulted on any of its debt. Jefferson County, Alabama has endured financial stress, primarily in its municipal sewer system, as a result of large amounts of variable rate debt and certain derivative products it entered into. In its proposal to “harmonize” ratings published in July, Fitch mentions these two issuers as “examples of the type of severe credit deterioration that Fitch believes argue for a measured approach to adjusting municipal ratings.” However, unless there is a systemic reason to believe that these are examples that are likely to be widespread, rather than just isolated problems, there is no reason they should affect how all municipal issuers are rated. Neither Fitch nor anyone else has been able to demonstrate the problems of these issuers are problems other issuers will face. Two isolated issuers who got into difficulties for very different reasons should not be reason to penalize the ratings of thousands of municipal issuers who pay their debt service on time and in full.

<sup>37</sup> See, for example: University of San Diego law professor Frank Partnoy, in March 2, 2006 testimony before the U.S. Senate Banking, Housing and Urban Affairs Committee; Glenn L. Reynolds, CEO of CreditSights, Inc., in March 7, 2006 testimony before the U.S. Senate Banking, Housing and Urban Affairs Committee; Staff of U.S. Senate Governmental Affairs Committee, in October 7, 2002 report, “*Financial Oversight of Enron: the SEC and Private-Sector Watchdogs*.”

it wanted to protect the marketability of its own ratings and to please sophisticated investors. Moreover, Moody's acted with full knowledge that its underrating of public bonds would increase the demand for and cost of bond insurance that Moody's own studies demonstrated was typically unnecessary and even harmful to a public bond's credit quality."

**SEC REFORMS** — The SEC has proposed rules that would reduce the regulatory reliance on ratings from the agencies, referred to in SEC regulations as Nationally Recognized Statistical Rating Organizations (NRSRO). The revisions would remove reference to ratings requirements in many SEC rules. In publishing its proposed changes on July 11, the SEC stated:

Referring to NRSRO ratings in regulations was intended to provide a clear reference point to both regulators and market participants. Increasingly, we have seen clear disadvantages of using the term in many of our regulations. Foremost, there is a risk that investors interpret the use of the term in laws and regulations as an endorsement of the quality of the credit ratings issued by NRSROs, which may have encouraged investors to place undue reliance on the credit ratings issued by these entities. In addition, as demonstrated by recent events, there has been increasing concern about ratings and the ratings process. Further, by referencing ratings in the Commission's rules, market participants operating pursuant to these rules may be vulnerable to failures in the ratings process. In light of this, the Commission proposes to amend the regulations.

One impact of this change would be on Rule 2(a)-7 which generally requires that the long-term rating of any issuer whose bonds are held in a money market fund be at least double-A from two NRSROs. The proposed rule would eliminate such a rating requirement and, instead, impose requirements on money market fund managers to perform the necessary due diligence to ensure the bonds they purchase are suitably safe.

## SECTION VIII

# The State's GO Bond Rating

### OVERVIEW

The State of California's GO bond ratings are A+/A1/A+ from Fitch, Moody's and S&P, respectively. These are the same ratings as Louisiana, and lower than the GO ratings of all other states.

The State of California never has defaulted on its debt and almost certainly never will. The agencies ignore the many reasons this is true and, instead, focus on a number of factors extraneous to whether or not the State will pay its debt service. This focus on irrelevant factors lies at the core of the inaccurate way the agencies evaluate most municipal debt, as described in the preceding section.

Many of the criticisms the agencies level at the State may be well-founded. But the crucial point for taxpayers and investors is this: None of the criticisms have any bearing on whether the State will pay its debt service on time and in full.

### THE NATURE OF THE STATE'S GO BOND CREDIT

The Official Statement issued each time the State offers GO bonds explains for investors the bonds' security:

The Bonds are general obligations of the State, payable in accordance with the Bond Acts out of the General Fund. The Bond Acts provide that the State will collect annually in the same manner and at the same time

as it collects other State revenue an amount sufficient, in addition to the ordinary revenue of the State, to pay principal of and interest on the Bonds. The Bond Acts also contain a continuing appropriation from the General Fund of the sum annually necessary to pay the principal of and interest on the Bonds as they become due and payable. Under the Resolutions, it is an event of default of the State to fail to pay or to fail to cause to be paid the principal of or interest on the Bonds when due or to declare a moratorium on the payment of, or to repudiate, any Bond.

The full faith and credit of the State are pledged for the punctual payment of the principal of and the interest on the Bonds. All payments of principal of, premium, if any, and interest on all State general obligation bonds, including the Bonds, have an equal claim to the General Fund, subject only to the prior application of moneys in the General Fund to the support of the public school system and public institutions of higher education.

This explanation makes three important points:

- 1) Because of the continuing appropriation, the State has an obligation, and the authority, to pay GO debt service whether or not the State has a budget in place.

- 2) The State has an obligation, and the authority, when necessary, to collect revenue sufficient to pay GO debt service.
- 3) Only public schools have a higher claim than debt service on General Fund monies. On this point, consider: After paying schools, the General Fund still has more than 10 times the amount needed to pay the State's GO bond debt service.

In combination, these three factors provide an extremely strong credit. Debt service must be paid whether or not there is a budget. Available revenues must be used for debt service before anything else once the schools have been paid, and those available revenues far exceed the amount of debt service. Finally, the State has an explicit obligation to collect the revenues needed to pay debt service.

### THE AGENCIES FAIL TO EXPLAIN THE STATE'S CREDIT TO INVESTORS

Unfortunately, investors who read the rating agencies' descriptions of the State's bonds would never learn about these strengths. Each of the agencies, when they assign a rating, publishes an analysis of the bond issue that can run several pages. But until the last GO offering in June 2008, *none of the agencies ever made any mention of any of these factors.*

As the State sought ratings on its June 2008 issue, the STO asked each of the agencies to incorporate into their analyses a description of the bond security as provided to investors in the official statement. To varying and inadequate degrees, the agencies responded:

Moody's for the first time added language that read: "Bonds that are secured by the state's full faith and credit pledge benefit from a claim on General Fund revenues that is second in priority to expenditures for the support of public education."

S&P added new language to its rating report that read: "The bonds are secured by a general obligation of the state. The state constitution specifies that state general obligation debt service be given priority over other state expenditures, with the exception of the prior payment of local aid to school districts; the bond rating assigned reflects Standard & Poor's

assessment of the likelihood of both full and timely payment of debt service on the bonds."

Fitch made no changes to its previous description of the security for the bonds.

### STATE GETS NO CREDIT FOR ITS CONSERVATIVE DEBT POLICIES

The credit market turmoil has exposed the stresses that can arise when issuers pursue complex capital programs. In recent years, many issuers entered into interest rate swaps in addition to their heavy reliance on variable rate bonds and auction rate bonds.

As described earlier in this report, interest rates on variable rate and auction rate securities increased dramatically during the past 12 months. Many issuers found it advisable — or even necessary — to convert those bonds to fixed rate. However, if their bonds were tied to interest rate swaps, they often were forced to terminate the swaps at the same time. In many cases, that triggered substantial termination payments the issuers had to make. In all, the costs of enduring or converting these complex capital structures proved extremely expensive to many issuers. In the case of one — Jefferson County, Alabama — it has led to extreme financial stress that may result in a default on its sewer bonds.

The stress that complex capital structures can create should be a major factor considered by the rating agencies in assigning municipal bond ratings. However, it rarely is. Just as the meltdown of structured finance bonds caught the agencies by surprise, so did the fallout from derivative products on the municipal bond market.

The State has maintained a conservative debt management program for its GO bonds. The State's reliance on auction rate securities has been minimal (just over 1 percent of our debt). Likewise, the State's use of variable rate debt has been very low. And the State never has entered into any interest rate swaps on GO bonds.

This caution served the State well during this year's market turmoil. Yet the agencies never have cited this prudence as a plus when rating the State's bonds. Furthermore, as the market became aware of the importance of managing risk and minimizing the com-

plexity of an issuer's capital structure, only Moody's even took note of the State's conservative approach. Moody's wrote in its latest credit evaluation:

California general obligation bond law permits the state to issue variable rate debt up to 20 percent of the aggregate amount of long-term general obligation bonds (including deficit funding bonds) outstanding. As of March 1, 2008, the state had \$7.17 billion (or about 13 percent) principal amount of variable rate general obligation bonds outstanding, including mandatory tender bonds. The State of California currently has approximately \$4.4 billion outstanding in variable rate demand bonds and auction rate securities. The state had \$500 million outstanding in auction rate debt at the start of calendar year 2008. Of that amount, the state has redeemed \$400 million. The interest rate on the remaining \$100 million series does not reset until January 2009. The State of California does not have any swaps on its outstanding General Obligation or lease revenue bond debt.<sup>38</sup>

Moody's didn't describe it as a positive credit factor, but at least it mentioned the facts. Fitch and S&P completely ignored this important aspect of the State's debt management practices.

#### THE AGENCIES' CRITIQUE OF THE STATE

The agencies point to many weaknesses in the State's finances.

Fitch notes<sup>39</sup>:

- "Effective budgeting by the state is hampered by inflexibility imposed by voter initiatives. Historically, when faced with financial challenges, the state has had difficulty reaching consensus on solutions.
- "Structural imbalances have been significant during this decade, and despite progress in recent years to reduce them, significant imbalances are projected for

the next fiscal year and after. Budget and cash imbalances in the current fiscal year have been closed through issuance of deficit bonds and measures taken by a recent legislative special session."

Moody's notes says the State's credit weaknesses include<sup>40</sup>:

- "Volatile financial operations due to wide tax revenue swings, persistent expenditure pressures arising from population growth and education spending policies."
- "Administrative and legal factors that weaken California's financial flexibility compared to 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."
- "A heavy reliance in recent years on borrowing to fund accumulated operating deficits, rather than on permanent adjustments to bring the budget into balance."

S&P points out<sup>41</sup>:

- "The state has a persistent structural deficit when excluding onetime budget items, such as \$3.3 billion of deficit financing bond proceeds in fiscal 2008."
- "State constitutional structural impediments — such as Proposition 1A's (2004) restrictions on cutting aid to counties, Proposition 98's (1988) 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 governor signed the fiscal 2008 budget 55 days late, and the fiscal 2009 budget is also likely to be late. While the 2007 budget was signed on time, passage of budgets for fiscals 2003 to 2006 were signed 10 days, 30 days, 48 days, and 82 days late, respectively."

<sup>38</sup> "Moody's Assigns A1 To \$1.5 B State Of California Various Purpose General Obligation Bonds," June 12, 2008.

<sup>39</sup> "Tax Supported New Issue State of California," Fitch Ratings, April 14, 2008.

<sup>40</sup> "Moody's Assigns A1 To \$1.5 B State Of California Various Purpose General Obligation Bonds," June 12, 2008.

<sup>41</sup> "Summary: California; General Obligation," Standard & Poor's, June 13, 2008.

Treasurer Lockyer agrees with much of the agencies' critique of the budget process. He consistently has advocated that the Governor and Legislature enact a structurally balanced budget that does not rely on borrowing or short-term fixes.

But, while the agencies make some valid comments on the State's finances, they fail to connect those weaknesses to any risk the State will not pay debt service. A tardy State budget affects a lot of people, but bondholders aren't among them. As noted above, a continuing appropriation ensures they get paid even when there is no budget.

In sum, the agencies' system fails to assign fair ratings to California bonds or provide investors useful information about the relative riskiness of alternative investments. They ignore the fact the State never has defaulted. They dismiss attributes that virtually guarantee the State will never miss a debt service payment. And they preoccupy themselves with irrelevant factors that, in the end, drain hard-earned dollars from taxpayers' pockets.

## APPENDIX A

## The State's Debt

**STATE OF CALIFORNIA  
OUTSTANDING AND AUTHORIZED BUT UNISSUED LEASE REVENUE BONDS  
AS OF JULY 1, 2008 (\$ THOUSANDS)**

| LEASE REVENUE BONDS                          | BONDS OUTSTANDING   | AUTHORIZED BUT UNISSUED |
|----------------------------------------------|---------------------|-------------------------|
| UNIVERSITY OF CALIFORNIA                     | \$ 2,025,269        | \$ 273,385              |
| CALIFORNIA STATE UNIVERSITY                  | 523,990             | 153,873                 |
| CALIFORNIA COMMUNITY COLLEGES                | 573,470             | 0                       |
| DEPARTMENT OF CORRECTIONS AND REHABILITATION | 2,065,685           | 7,880,931               |
| STATE BUILDINGS                              | 2,623,650           | 2,168,969               |
| ENERGY EFFICIENCY REVENUE BONDS              | 21,005              | 0                       |
| <b>TOTAL LEASE REVENUE BONDS</b>             | <b>\$ 7,833,069</b> | <b>\$ 10,447,158</b>    |

**STATE OF CALIFORNIA  
OUTSTANDING AND AUTHORIZED BUT UNISSUED SPECIAL REVENUE FUND BONDS (SELF LIQUIDATING)  
AS OF JULY 1, 2008 (\$ THOUSANDS)**

| SPECIAL REVENUE FUND BONDS        | BONDS OUTSTANDING  | AUTHORIZED BUT UNISSUED |
|-----------------------------------|--------------------|-------------------------|
| <b>ECONOMIC RECOVERY BOND ACT</b> | <b>\$9,120,285</b> | <b>0</b>                |

**STATE OF CALIFORNIA  
OUTSTANDING AND AUTHORIZED BUT UNISSUED  
GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)  
AS OF JULY 1, 2008 (\$ THOUSANDS)**

| GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)                                                                | VOTER AUTHORIZATION |            | BONDS<br>OUTSTANDING (a) | AUTHORIZED BUT<br>UNISSUED (b) |
|----------------------------------------------------------------------------------------------------------------|---------------------|------------|--------------------------|--------------------------------|
|                                                                                                                | DATE                | AMOUNT     |                          |                                |
| 1988 SCHOOL FACILITIES BOND ACT                                                                                | 11/8/1988           | \$ 800,000 | \$ 263,255               | \$ 2,255                       |
| 1990 SCHOOL FACILITIES BOND ACT                                                                                | 6/5/1990            | 800,000    | 303,515                  | 2,125                          |
| 1992 SCHOOL FACILITIES BOND ACT                                                                                | 11/3/1992           | 900,000    | 456,194                  | 1,859                          |
| CALIFORNIA CLEAN WATER, CLEAN AIR, SAFE NEIGHBORHOOD PARKS,<br>AND COASTAL PROTECTION ACT OF 2002              | 3/5/2002            | 2,600,000  | 1,074,745                | 1,507,410                      |
| CALIFORNIA LIBRARY CONSTRUCTION<br>AND RENOVATION BOND ACT OF 1988                                             | 11/8/1988           | 75,000     | 33,535                   | 2,595                          |
| CALIFORNIA PARK AND RECREATIONAL FACILITIES ACT OF 1984                                                        | 6/5/1984            | 370,000    | 53,365                   | 1,100                          |
| CALIFORNIA PARKLANDS ACT OF 1980                                                                               | 11/4/1980           | 285,000    | 10,440                   | -                              |
| CALIFORNIA READING AND LITERACY IMPROVEMENT AND<br>PUBLIC LIBRARY CONSTRUCTION AND RENOVATION BOND ACT OF 2000 | 3/7/2000            | 350,000    | 193,455                  | 129,895                        |
| CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1976                                                                | 6/8/1976            | 175,000    | 17,720                   | 2,500                          |
| CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1984                                                                | 11/6/1984           | 75,000     | 10,525                   | -                              |
| CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1986                                                                | 11/4/1986           | 100,000    | 41,845                   | -                              |
| CALIFORNIA SAFE DRINKING WATER BOND LAW OF 1988                                                                | 11/8/1988           | 75,000     | 38,430                   | 6,935                          |
| CALIFORNIA WILDLIFE, COASTAL, AND PARK LAND CONSERVATION ACT                                                   | 6/7/1988            | 776,000    | 260,745                  | 7,330                          |
| CHILDREN'S HOSPITAL BOND ACT OF 2004                                                                           | 11/2/2004           | 750,000    | 247,145                  | 500,875                        |
| CLASS SIZE REDUCTION KINDERGARTEN-UNIVERSITY<br>PUBLIC EDUCATION FACILITIES BOND ACT OF 1998 (HI-ED)           | 11/3/1998           | 2,500,000  | 2,223,665                | 62,700                         |
| CLASS SIZE REDUCTION KINDERGARTEN-UNIVERSITY<br>PUBLIC EDUCATION FACILITIES BOND ACT OF 1998 (K-12)            | 11/3/1998           | 6,700,000  | 5,570,320                | 11,860                         |
| CLEAN AIR AND TRANSPORTATION IMPROVEMENT BOND ACT OF 1990                                                      | 6/5/1990            | 1,990,000  | 1,116,195                | 204,620                        |
| CLEAN WATER BOND LAW OF 1970                                                                                   | 11/3/1970           | 250,000    | 1,500                    | -                              |
| CLEAN WATER BOND LAW OF 1974                                                                                   | 6/4/1974            | 250,000    | 3,545                    | -                              |
| CLEAN WATER BOND LAW OF 1984                                                                                   | 11/6/1984           | 325,000    | 37,095                   | -                              |
| CLEAN WATER AND WATER CONSERVATION BOND LAW OF 1978                                                            | 6/6/1978            | 375,000    | 11,715                   | -                              |
| CLEAN WATER AND WATER RECLAMATION BOND LAW OF 1988                                                             | 11/8/1988           | 65,000     | 37,255                   | -                              |
| COMMUNITY PARKLANDS ACT OF 1986                                                                                | 6/3/1986            | 100,000    | 18,505                   | -                              |
| COUNTY CORRECTIONAL FACILITY CAPITAL EXPENDITURE BOND ACT OF 1986                                              | 6/3/1986            | 495,000    | 101,455                  | -                              |
| COUNTY CORRECTIONAL FACILITY CAPITAL EXPENDITURE<br>AND YOUTH FACILITY BOND ACT OF 1988                        | 11/8/1988           | 500,000    | 208,505                  | -                              |
| COUNTY JAIL CAPITAL EXPENDITURE BOND ACT OF 1981                                                               | 11/2/1982           | 280,000    | 7,900                    | -                              |
| COUNTY JAIL CAPITAL EXPENDITURE BOND ACT OF 1984                                                               | 6/5/1984            | 250,000    | 2,400                    | -                              |
| DISASTER PREPAREDNESS AND FLOOD PREVENTION BOND ACT OF 2006                                                    | 11/7/2006           | 4,090,000  | 17,925                   | 4,072,075                      |
| EARTHQUAKE SAFETY AND PUBLIC BUILDINGS<br>REHABILITATION BOND ACT OF 1990                                      | 6/5/1990            | 300,000    | 200,415                  | 17,080                         |
| FISH AND WILDLIFE HABITAT ENHANCEMENT ACT OF 1984                                                              | 6/5/1984            | 85,000     | 13,195                   | -                              |
| HIGHER EDUCATION FACILITIES BOND ACT OF 1986                                                                   | 11/4/1986           | 400,000    | 31,900                   | -                              |
| HIGHER EDUCATION FACILITIES BOND ACT OF 1988                                                                   | 11/8/1988           | 600,000    | 168,250                  | 10,440                         |
| HIGHER EDUCATION FACILITIES BOND ACT OF JUNE 1990                                                              | 6/5/1990            | 450,000    | 168,405                  | 2,110                          |
| HIGHER EDUCATION FACILITIES BOND ACT OF JUNE 1992                                                              | 6/2/1992            | 900,000    | 516,755                  | 7,235                          |
| HIGHWAY SAFETY, TRAFFIC REDUCTION,<br>AIR QUALITY, AND PORT SECURITY BOND ACT OF 2006                          | 11/7/2006           | 19,925,000 | 1,082,550                | 18,842,450                     |
| HOUSING AND EMERGENCY SHELTER TRUST FUND ACT OF 2002                                                           | 11/5/2002           | 2,100,000  | 675,520                  | 1,414,395                      |
| 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    | 4,660                    | -                              |

**STATE OF CALIFORNIA  
OUTSTANDING AND AUTHORIZED BUT UNISSUED  
GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)  
AS OF JULY 1, 2008 (\$ THOUSANDS)**

| GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)                                                                | VOTER AUTHORIZATION |                       | BONDS                | AUTHORIZED BUT       |
|----------------------------------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------|----------------------|
|                                                                                                                | DATE                | AMOUNT                | OUTSTANDING (a)      | UNISSUED (b)         |
| KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION<br>FACILITIES BOND ACT OF 2002 (HIGHER EDUCATION)                     | 11/5/2002           | 1,650,000             | 1,423,645            | 191,410              |
| KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION<br>FACILITIES BOND ACT OF 2002 (K-12)                                 | 11/5/2002           | 11,400,000            | 9,416,325            | 1,665,520            |
| KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION<br>FACILITIES BOND ACT OF 2004 (HI-ED)                                | 3/2/2004            | 2,300,000             | 1,285,080            | 1,007,950            |
| KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION<br>FACILITIES BOND ACT OF 2004 (K-12)                                 | 3/2/2004            | 10,000,000            | 6,402,935            | 3,528,950            |
| KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION<br>FACILITIES BOND ACT OF 2006 (HI-ED)                                | 11/7/2006           | 3,087,000             | 70,775               | 3,016,225            |
| KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION<br>FACILITIES BOND ACT OF 2006 (K-12)                                 | 11/7/2006           | 7,329,000             | 344,185              | 6,984,815            |
| LAKE TAHOE ACQUISITIONS BOND ACT                                                                               | 8/2/1982            | 85,000                | 10,070               | -                    |
| NEW PRISON CONSTRUCTION BOND ACT OF 1986                                                                       | 11/4/1986           | 500,000               | 57,990               | -                    |
| NEW PRISON CONSTRUCTION BOND ACT OF 1988                                                                       | 11/8/1988           | 817,000               | 228,565              | 5,925                |
| NEW PRISON CONSTRUCTION BOND ACT OF 1990                                                                       | 6/5/1990            | 450,000               | 147,295              | 2,125                |
| PASSENGER RAIL AND CLEAN AIR BOND ACT OF 1990                                                                  | 6/5/1990            | 1,000,000             | 379,670              | -                    |
| PUBLIC EDUCATION FACILITIES BOND ACT OF 1996 (HIGHER EDUCATION)                                                | 3/26/1996           | 975,000               | 733,665              | 37,465               |
| PUBLIC EDUCATION FACILITIES BOND ACT OF 1996 (K-12)                                                            | 3/26/1996           | 2,025,000             | 1,415,780            | 12,965               |
| SAFE DRINKING WATER, CLEAN WATER,<br>WATERSHED PROTECTION, AND FLOOD PROTECTION ACT                            | 3/7/2000            | 1,970,000             | 1,218,825            | 628,682              |
| SAFE DRINKING WATER, WATER QUALITY AND SUPPLY,<br>FLOOD CONTROL, RIVER AND COASTAL PROTECTION BOND ACT OF 2006 | 11/7/2006           | 5,388,000             | 45,520               | 5,342,480            |
| SAFE NEIGHBORHOOD PARKS, CLEAN WATER,<br>CLEAN AIR, AND COASTAL PROTECTION BOND ACT OF 2000                    | 3/7/2000            | 2,100,000             | 1,515,690            | 432,700              |
| SAFE, CLEAN, RELIABLE WATER SUPPLY ACT                                                                         | 11/5/1996           | 995,000               | 669,060              | 220,155              |
| SCHOOL BUILDING AND EARTHQUAKE BOND ACT OF 1974                                                                | 11/5/1974           | 40,000                | 23,980               | -                    |
| SCHOOL FACILITIES BOND ACT OF 1988                                                                             | 6/7/1988            | 800,000               | 184,205              | -                    |
| SCHOOL FACILITIES BOND ACT OF 1990                                                                             | 11/6/1990           | 800,000               | 355,305              | -                    |
| SCHOOL FACILITIES BOND ACT OF 1992                                                                             | 6/2/1992            | 1,900,000             | 951,390              | 10,395               |
| SEISMIC RETROFIT BOND ACT OF 1996                                                                              | 3/26/1996           | 2,000,000             | 1,576,785            | 76,685               |
| STATE SCHOOL BUILDING LEASE-PURCHASE BOND LAW OF 1984                                                          | 11/6/1984           | 450,000               | 18,750               | -                    |
| STATE SCHOOL BUILDING LEASE-PURCHASE BOND LAW OF 1986                                                          | 11/4/1986           | 800,000               | 88,650               | -                    |
| STATE, URBAN, AND COASTAL PARK BOND ACT OF 1976                                                                | 11/2/1976           | 280,000               | 8,370                | -                    |
| STEM CELL RESEARCH AND CURES ACT OF 2004                                                                       | 11/2/2004           | 3,000,000             | 250,000              | 2,750,000            |
| VETERANS HOMES BOND ACT OF 2000                                                                                | 3/7/2000            | 50,000                | 12,915               | 37,085               |
| VOTING MODERNIZATION BOND ACT OF 2002                                                                          | 3/5/2002            | 200,000               | 83,260               | 73,420               |
| WATER CONSERVATION BOND LAW OF 1988                                                                            | 11/8/1988           | 60,000                | 33,120               | 8,820                |
| WATER CONSERVATION AND WATER QUALITY BOND LAW OF 1986                                                          | 6/3/1986            | 150,000               | 51,645               | 23,215               |
| WATER SECURITY, CLEAN DRINKING WATER,<br>COASTAL AND BEACH PROTECTION ACT OF 2002                              | 11/5/2002           | 3,440,000             | 1,237,465            | 2,165,275            |
| <b>TOTAL GENERAL OBLIGATION BONDS</b>                                                                          |                     | <b>\$ 120,102,000</b> | <b>\$ 45,465,459</b> | <b>\$ 57,882,106</b> |

(a) Includes the initial value of capital appreciation bonds rather than the accreted value. Excludes self-liquidating GO bonds.

(b) A portion of unissued bonds may be issued initially in the form of commercial paper notes. A total of not more than \$2.5 billion of commercial paper principal may be owing at one time.

## APPENDIX B

# Intended Issuances of Authorized General Fund-Supported Bonds During 2008-09 and 2009-10

### INTENDED ISSUANCES (\$ MILLIONS)

|                                           | 2008-2009       | 2009-2010       |
|-------------------------------------------|-----------------|-----------------|
| GENERAL OBLIGATION BONDS                  | \$11,000        | \$14,000        |
| LEASE REVENUE BONDS                       | \$701           | \$1,153         |
| <b>TOTAL GENERAL FUND-SUPPORTED BONDS</b> | <b>\$11,701</b> | <b>\$15,153</b> |

Intended issuances are based on State departmental expenditure projections provided by the Department of Finance and are subject to change. Intended issuances of General Fund-supported bonds *exclude*: 1) commercial paper and short-term obligations, such as revenue anticipation notes and warrants; 2) “self-liquidating” GO bonds such as the Veterans GO bonds; and 3) bonds of federal, state and local governments and their agencies that are not obligations of the State’s General Fund. Also excluded are 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. The intended issuances shown above include only currently authorized but unissued bonds. The intended issuances may increase should new bond programs be approved.

## APPENDIX C

## The State's Debt Service

**STATE OF CALIFORNIA  
OUTSTANDING DEBT SERVICE REQUIREMENTS  
LEASE REVENUE BONDS  
AS OF JULY 1, 2008**

| FISCAL YEAR<br>ENDING JUNE 30 | INTEREST                | PRINCIPAL (a)           | TOTAL                    |
|-------------------------------|-------------------------|-------------------------|--------------------------|
| 2009                          | \$ 393,816,506          | \$ 424,037,732          | \$ 817,854,238 (b)       |
| 2010                          | 376,775,272             | 421,486,634             | 798,261,906              |
| 2011                          | 345,221,081             | 437,290,000             | 782,511,081              |
| 2012                          | 323,807,103             | 422,385,000             | 746,192,103              |
| 2013                          | 302,853,866             | 434,190,000             | 737,043,866              |
| 2014                          | 281,028,665             | 440,580,000             | 721,608,665              |
| 2015                          | 258,516,101             | 462,005,000             | 720,521,101              |
| 2016                          | 235,283,064             | 448,810,000             | 684,093,064              |
| 2017                          | 212,254,427             | 457,645,000             | 669,899,427              |
| 2018                          | 189,194,992             | 474,510,000             | 663,704,992              |
| 2019                          | 165,600,297             | 439,080,000             | 604,680,297              |
| 2020                          | 143,510,871             | 415,295,000             | 558,805,871              |
| 2021                          | 123,722,599             | 358,955,000             | 482,677,599              |
| 2022                          | 105,454,867             | 336,315,000             | 441,769,867              |
| 2023                          | 89,695,323              | 291,435,000             | 381,130,323              |
| 2024                          | 75,729,548              | 211,765,000             | 287,494,548              |
| 2025                          | 65,064,837              | 222,435,000             | 287,499,837              |
| 2026                          | 54,330,019              | 215,390,000             | 269,720,019              |
| 2027                          | 43,401,138              | 226,280,000             | 269,681,138              |
| 2028                          | 31,979,724              | 222,025,000             | 254,004,724              |
| 2029                          | 21,508,039              | 165,115,000             | 186,623,039              |
| 2030                          | 13,383,432              | 136,200,000             | 149,583,432              |
| 2031                          | 7,207,296               | 82,900,000              | 90,107,296               |
| 2032                          | 3,814,316               | 54,935,000              | 58,749,316               |
| 2033                          | 1,379,500               | 32,005,000              | 33,384,500               |
| <b>TOTAL</b>                  | <b>\$ 3,864,532,880</b> | <b>\$ 7,833,069,366</b> | <b>\$ 11,697,602,246</b> |

(a) Includes scheduled mandatory sinking fund payments.

(b) Total represents the remaining debt service requirements through June 30, 2009.

Note: Numbers may not add due to rounding.

**STATE OF CALIFORNIA  
OUTSTANDING DEBT SERVICE REQUIREMENTS  
FIXED RATE GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)  
AS OF JULY 1, 2008**

| FISCAL YEAR<br>ENDING JUNE 30 | INTEREST                 | PRINCIPAL (a)            | TOTAL                    |
|-------------------------------|--------------------------|--------------------------|--------------------------|
| 2009                          | \$ 2,079,288,912         | \$ 1,853,475,000         | \$ 3,932,763,912 (b)     |
| 2010                          | 1,981,142,645            | 1,954,590,000            | 3,935,732,645            |
| 2011                          | 1,880,645,093            | 1,957,329,045            | 3,837,974,138            |
| 2012                          | 1,772,399,377            | 1,763,875,000            | 3,536,274,377            |
| 2013                          | 1,686,301,612            | 1,490,020,000            | 3,176,321,612            |
| 2014                          | 1,614,246,257            | 1,404,440,000            | 3,018,686,257            |
| 2015                          | 1,549,106,854            | 1,392,925,000            | 2,942,031,854            |
| 2016                          | 1,481,617,726            | 1,251,800,000            | 2,733,417,726            |
| 2017                          | 1,420,657,702            | 1,183,790,000            | 2,604,447,702            |
| 2018                          | 1,362,919,222            | 1,107,905,000            | 2,470,824,222            |
| 2019                          | 1,306,944,442            | 1,113,630,000            | 2,420,574,442            |
| 2020                          | 1,250,653,100            | 1,233,990,000            | 2,484,643,100            |
| 2021                          | 1,190,520,558            | 1,166,070,000            | 2,356,590,558            |
| 2022                          | 1,132,441,313            | 1,359,835,000            | 2,492,276,313            |
| 2023                          | 1,064,684,498            | 1,513,760,000            | 2,578,444,498            |
| 2024                          | 989,916,259              | 1,423,150,000            | 2,413,066,259            |
| 2025                          | 918,003,383              | 1,566,580,000            | 2,484,583,383            |
| 2026                          | 840,538,410              | 1,555,525,000            | 2,396,063,410            |
| 2027                          | 756,554,867              | 1,611,100,000            | 2,367,654,867            |
| 2028                          | 678,061,179              | 1,721,895,000            | 2,399,956,179            |
| 2029                          | 596,266,733              | 1,691,280,000            | 2,287,546,733            |
| 2030                          | 512,987,777              | 1,783,860,000            | 2,296,847,777            |
| 2031                          | 426,810,858              | 1,560,745,000            | 1,987,555,858            |
| 2032                          | 351,089,424              | 1,590,025,000            | 1,941,114,424            |
| 2033                          | 273,684,489              | 1,507,465,000            | 1,781,149,489            |
| 2034                          | 199,045,868              | 1,325,035,000            | 1,524,080,868            |
| 2035                          | 141,864,708              | 984,595,000              | 1,126,459,708            |
| 2036                          | 93,534,058               | 983,665,000              | 1,077,199,058            |
| 2037                          | 50,108,033               | 752,535,000              | 802,643,033              |
| 2038                          | 17,140,111               | 429,570,000              | 446,710,111              |
| <b>TOTAL</b>                  | <b>\$ 29,619,175,466</b> | <b>\$ 42,234,459,045</b> | <b>\$ 71,853,634,511</b> |

(a) Includes scheduled mandatory sinking fund payments.

(b) Total represents the remaining debt service requirements from August 1, 2008 through June 30, 2009.

Note: Numbers may not add due to rounding.

**STATE OF CALIFORNIA  
OUTSTANDING DEBT SERVICE REQUIREMENTS  
VARIABLE RATE GENERAL OBLIGATION BONDS (NON-SELF LIQUIDATING)  
AS OF JULY 1, 2008**

| FISCAL YEAR<br>ENDING JUNE 30 | INTEREST (a)          | PRINCIPAL (b)           | TOTAL                   |
|-------------------------------|-----------------------|-------------------------|-------------------------|
| 2009                          | \$ 49,755,937         | \$ -                    | \$ 49,755,937 (c)       |
| 2010                          | 52,819,000            | -                       | 52,819,000              |
| 2011                          | 52,819,000            | -                       | 52,819,000              |
| 2012                          | 52,869,133            | -                       | 52,869,133              |
| 2013                          | 52,961,529            | -                       | 52,961,529              |
| 2014                          | 52,718,294            | -                       | 52,718,294              |
| 2015                          | 52,718,294            | -                       | 52,718,294              |
| 2016                          | 52,818,118            | 53,650,000              | 106,468,118             |
| 2017                          | 51,631,783            | 358,375,000             | 410,006,783             |
| 2018                          | 46,915,197            | 461,250,000             | 508,165,197             |
| 2019                          | 41,311,523            | 223,175,000             | 264,486,523             |
| 2020                          | 38,169,142            | 213,925,000             | 252,094,142             |
| 2021                          | 35,473,472            | 166,775,000             | 202,248,472             |
| 2022                          | 33,401,495            | 79,650,000              | 113,051,495             |
| 2023                          | 32,284,736            | 101,650,000             | 133,934,736             |
| 2024                          | 30,808,323            | 277,700,000             | 308,508,323             |
| 2025                          | 27,150,516            | 181,600,000             | 208,750,516             |
| 2026                          | 24,630,602            | 325,675,000             | 350,305,602             |
| 2027                          | 20,724,249            | 53,100,000              | 73,824,249              |
| 2028                          | 19,953,256            | 80,200,000              | 100,153,256             |
| 2029                          | 17,825,908            | 103,800,000             | 121,625,908             |
| 2030                          | 15,406,019            | 107,000,000             | 122,406,019             |
| 2031                          | 12,887,112            | 110,225,000             | 123,112,112             |
| 2032                          | 10,357,052            | 113,675,000             | 124,032,052             |
| 2033                          | 7,770,912             | 116,975,000             | 124,745,912             |
| 2034                          | 5,198,898             | 26,600,000              | 31,798,898              |
| 2035                          | 3,888,350             | 25,000,000              | 28,888,350              |
| 2036                          | 2,596,404             | 25,000,000              | 27,596,404              |
| 2037                          | 1,304,296             | 25,000,000              | 26,304,296              |
| 2038                          | 12,350                | -                       | 12,350                  |
| 2039                          | 12,350                | -                       | 12,350                  |
| 2040                          | 11,324                | 1,000,000               | 1,011,324               |
| <b>TOTAL</b>                  | <b>\$ 899,204,573</b> | <b>\$ 3,231,000,000</b> | <b>\$ 4,130,204,573</b> |

(a) The estimate of future interest payments is based on rates in effect as of July 1, 2008. The interest rates for the daily, weekly and auction rate bonds range from 1.05 – 3.15 percent

(b) Includes scheduled mandatory sinking fund payments and the October 2007 Stem Cell Bonds.

(c) Total represents the remaining estimated debt service requirements through June 30, 2009.

Note: Numbers may not add due to rounding.

**STATE OF CALIFORNIA  
OUTSTANDING DEBT SERVICE REQUIREMENTS  
FIXED RATE SPECIAL REVENUE FUND SELF LIQUIDATING BONDS (ECONOMIC RECOVERY BONDS)  
AS OF JULY 1, 2008**

| FISCAL YEAR<br>ENDING JUNE 30 | INTEREST               | PRINCIPAL (a)           | TOTAL                   |
|-------------------------------|------------------------|-------------------------|-------------------------|
| 2009                          | \$148,168,866          | \$ 399,600,000          | \$547,768,866(b)        |
| 2010                          | 270,728,263            | 837,200,000             | 1,107,928,263           |
| 2011                          | 230,320,250            | 914,960,000             | 1,145,280,250           |
| 2012                          | 184,501,985            | 486,565,000             | 671,066,985             |
| 2013                          | 158,148,415            | 603,520,000             | 761,668,415             |
| 2014                          | 127,236,935            | 606,870,000             | 734,106,935             |
| 2015                          | 95,284,432             | 636,645,000             | 731,929,432             |
| 2016                          | 61,438,235             | 702,140,000             | 763,578,235             |
| 2017                          | 32,788,530             | 451,820,000             | 484,608,530             |
| 2018                          | 10,837,613             | 438,250,000             | 449,087,613             |
| 2019                          | 67,500                 | -                       | 67,500                  |
| 2020                          | 67,500                 | -                       | 67,500                  |
| 2021                          | 67,500                 | -                       | 67,500                  |
| 2022                          | 67,500                 | -                       | 67,500                  |
| 2023                          | 67,500                 | -                       | 67,500                  |
| 2034                          | 33,750                 | 1,500,000               | 1,533,750               |
| <b>TOTAL</b>                  | <b>\$1,319,824,773</b> | <b>\$ 6,079,070,000</b> | <b>\$7,398,894,773.</b> |

(a) Includes scheduled mandatory sinking fund payments.

(b) Total represents the remaining debt service requirements through June 30, 2009

Note: Numbers may not add due to rounding.

**STATE OF CALIFORNIA  
OUTSTANDING DEBT SERVICE REQUIREMENTS  
VARIABLE RATE SPECIAL REVENUE FUND SELF LIQUIDATING BONDS (ECONOMIC RECOVERY BONDS)  
AS OF JULY 1, 2008**

| FISCAL YEAR<br>ENDING JUNE 30 | INTEREST (a)         | PRINCIPAL (b)          | TOTAL                   |
|-------------------------------|----------------------|------------------------|-------------------------|
| 2009                          | \$59,602,459         | -                      | \$59,602,459 (c)        |
| 2010                          | 107,365,078          | -                      | 107,365,078             |
| 2011                          | 91,466,828           | -                      | 91,466,828              |
| 2012                          | 73,471,347           | 242,270,000            | 315,741,347             |
| 2013                          | 58,722,611           | 524,105,000            | 582,827,611             |
| 2014                          | 43,068,334           | 584,260,000            | 627,328,334             |
| 2015                          | 25,949,501           | 561,870,000            | 587,819,501             |
| 2016                          | 14,288,850           | -                      | 14,288,850              |
| 2017                          | 14,243,305           | -                      | 14,243,305              |
| 2018                          | 14,266,078           | -                      | 14,266,078              |
| 2019                          | 12,008,817           | 436,925,000            | 448,933,817             |
| 2020                          | 8,125,722            | 60,225,000             | 68,350,722              |
| 2021                          | 4,921,692            | 401,185,000            | 406,106,692             |
| 2022                          | 319,857              | 226,625,000            | 226,944,857             |
| 2023                          | 75,275               | -                      | 75,275                  |
| 2034                          | 27,171               | 3,750,000              | 3,777,17                |
| <b>TOTAL</b>                  | <b>\$527,922,925</b> | <b>\$3,041,215,000</b> | <b>\$3,569,137,925.</b> |

(a) The estimate of future interest payments is based on rates in effect as of July 1, 2008. The interest rates for the daily, weekly and auction rate bonds range from 1.05 – 1.50%. The series 2008B bonds bear interest at fixed rates ranging from 3.00-5.00% until reset date, and are assumed to bear interest at the rate of 2.87% from each reset date to maturity.

(b) Includes scheduled mandatory sinking fund payments.

(c) Total represents the remaining debt service requirements through June 30, 2009

Note: Numbers may not add due to rounding.

**STATE OF CALIFORNIA  
ESTIMATED DEBT SERVICE REQUIREMENTS ON INTENDED SALES  
OF AUTHORIZED BUT UNISSUED BONDS DURING  
FISCAL YEARS 2008-09 AND 2009-10**

| FISCAL YEAR<br>ENDING<br>JUNE 30, | FY 2008-09<br>GO SALES<br>DEBT SERVICE | FY 2009-10<br>GO SALES<br>DEBT SERVICE | FY 2008-09<br>LRB SALES<br>DEBT SERVICE | FY 2009-10<br>LRB SALES<br>DEBT SERVICE | TOTAL<br>DEBT SERVICE<br>ALL SALES |
|-----------------------------------|----------------------------------------|----------------------------------------|-----------------------------------------|-----------------------------------------|------------------------------------|
| 2009                              | \$ 206,250,000                         | \$ -                                   | \$ 8,273,093                            | \$ -                                    | \$ 214,523,093                     |
| 2010                              | 715,435,000                            | 175,000,000                            | 51,165,673                              | 11,790,690                              | 953,391,363                        |
| 2011                              | 715,433,250                            | 910,555,000                            | 51,164,925                              | 82,208,710                              | 1,759,361,885                      |
| 2012                              | 715,438,000                            | 910,552,250                            | 51,159,000                              | 82,209,938                              | 1,759,359,188                      |
| 2013                              | 715,433,250                            | 910,553,250                            | 51,155,785                              | 82,203,435                              | 1,759,345,720                      |
| 2014                              | 715,437,750                            | 910,556,500                            | 51,157,885                              | 82,211,143                              | 1,759,363,278                      |
| 2015                              | 715,433,250                            | 910,549,250                            | 51,172,395                              | 82,209,108                              | 1,759,364,003                      |
| 2016                              | 715,431,250                            | 910,553,000                            | 51,161,565                              | 82,214,143                              | 1,759,359,958                      |
| 2017                              | 715,436,500                            | 910,556,750                            | 51,168,383                              | 82,207,168                              | 1,759,368,800                      |
| 2018                              | 715,437,250                            | 910,553,500                            | 51,159,743                              | 82,209,613                              | 1,759,360,105                      |
| 2019                              | 715,436,000                            | 910,555,000                            | 51,157,613                              | 82,207,143                              | 1,759,355,755                      |
| 2020                              | 715,433,750                            | 910,555,750                            | 51,158,860                              | 82,210,295                              | 1,759,358,655                      |
| 2021                              | 715,430,000                            | 910,553,750                            | 51,154,743                              | 82,214,608                              | 1,759,353,100                      |
| 2022                              | 715,432,750                            | 910,550,250                            | 51,167,000                              | 82,209,980                              | 1,759,359,980                      |
| 2023                              | 715,433,000                            | 910,549,500                            | 51,165,870                              | 82,211,568                              | 1,759,359,938                      |
| 2024                              | 715,435,500                            | 910,548,500                            | 51,163,348                              | 82,209,015                              | 1,759,356,363                      |
| 2025                              | 715,433,000                            | 910,552,250                            | 51,155,053                              | 82,211,840                              | 1,759,352,143                      |
| 2026                              | 715,436,750                            | 910,553,250                            | 51,151,860                              | 82,208,795                              | 1,759,350,655                      |
| 2027                              | 715,435,500                            | 910,557,000                            | 51,163,270                              | 82,208,888                              | 1,759,364,658                      |
| 2028                              | 715,431,500                            | 910,556,250                            | 51,154,393                              | 82,200,488                              | 1,759,342,630                      |
| 2029                              | 715,434,750                            | 910,551,500                            | 51,155,493                              | 82,206,965                              | 1,759,348,708                      |
| 2030                              | 715,432,500                            | 910,550,500                            | 51,160,333                              | 82,205,925                              | 1,759,349,258                      |
| 2031                              | 715,435,250                            | 910,552,750                            | 51,153,030                              | 82,204,463                              | 1,759,345,493                      |
| 2032                              | 715,435,500                            | 910,554,750                            | 51,162,958                              | 82,204,800                              | 1,759,358,008                      |
| 2033                              | 715,433,500                            | 910,550,000                            | 51,162,630                              | 82,203,523                              | 1,759,349,653                      |
| 2034                              | 715,436,750                            | 910,549,000                            | 51,160,300                              | 82,216,960                              | 1,759,363,010                      |
| 2035                              | 715,434,500                            | 910,553,250                            | —                                       | 82,204,913                              | 1,708,192,663                      |
| 2036                              | 715,433,500                            | 910,550,500                            | —                                       | —                                       | 1,625,984,000                      |
| 2037                              | 715,432,000                            | 910,550,250                            | —                                       | —                                       | 1,625,982,250                      |
| 2038                              | 715,435,000                            | 910,552,500                            | —                                       | —                                       | 1,625,987,500                      |
| <b>TOTALS:</b>                    | <b>\$ 20,953,846,500</b>               | <b>\$ 25,670,476,000</b>               | <b>\$ 1,287,285,195</b>                 | <b>\$ 2,067,004,110</b>                 | <b>\$ 49,978,611,805</b>           |

Note: Numbers may not add due to rounding.

## APPENDIX D

# March 4, 2008 Letter To Rating Agencies

March 4, 2008

Mr. Michael Belsky  
Group Managing Director  
U.S. Public Finance  
Fitch Ratings  
70 W. Madison Street  
Chicago, IL 60602  
FAX: 312-422-6898

Ms. Gail Sussman  
Group Managing Director  
Public Finance  
Moody's Investors Service  
250 Greenwich Street  
New York, NY 10007  
FAX: 212-298-6846

Mr. William Montrone  
Head of U.S. Public Finance  
Department  
Standard & Poor's  
55 Water Street  
New York, NY 10041  
FAX: 212-438-2159

Dear Mr. Belsky, Ms. Sussman, and Mr. Montrone:

We, the undersigned representatives of major municipal bond issuers, urge the rating agencies you head to create new rating standards for U.S. municipal debt. For years, municipalities have been held to a higher standard than corporate issuers. This differential treatment undermines the functioning of an efficient and transparent capital market, a goal shared not just by investors and issuers, but rating agencies as well. For investors, the current system greatly inflates the risk of investing in municipal bonds relative to alternative investments, leading to investment decisions that are not based on the best information. For municipalities, the dual standard has cost our taxpayers and ratepayers billions of dollars in increased interest costs and bond insurance premiums.

Recent events in the debt markets have highlighted the problem. Many collateralized debt obligations (CDOs) and structured investment vehicles (SIVs) that your agencies rated triple-A have become insolvent or are at risk of insolvency. As a result, your agencies have been forced to downgrade those securities,

as well as the ratings of some of the bond insurers who guaranteed them. Meanwhile, the vast majority of municipal issuers have not shown strains that would suggest they may default on their bonds. Nonetheless, many strong municipal issuers continue to carry much lower ratings than our corporate counterparts, in some cases even lower than the bond insurers about whom the market has understandable concerns. To illustrate this point, we note recent credit default swap levels for bond insurers with triple-A ratings have been many times higher than the levels for many of the biggest and most stable — but lower-rated — municipal issuers.

The ratings services your agencies have provided historically have been critical to the smooth functioning of the municipal bond market. Given the myriad state and local issuers of tax-exempt debt, your agencies have served an important role in helping investors choose and price municipal bonds. That function will remain critical in the future. But we believe your rating scale bears too little relationship to most investors' paramount concern: the risk that issuers of the bonds they buy will default.

Across the country, for decades, the evidence has been clear and convincing. State and local governments almost never default on the bonds they issue. The safety of municipal bonds is grounded in a fundamental fact: a city or a state simply is not going to go out of business during the life of its bond issue. That possibility is much more likely in the case of a bank or bond insurer, or a special-purpose entity created simply to issue CDOs or SIVs.

The lack of foundation for the differential rating standards applied to corporate and municipal issuers has been demonstrated by your agencies' own default studies. Municipal bonds rated Baa by Moody's have had a default rate of only 0.13%, while corporate bonds rated Aaa by Moody's have defaulted at four times that rate, or 0.52%. Corporate bonds rated AAA by S&P have defaulted at almost twice the rate of municipal bonds rated BBB (0.60% and 0.32%, respectively).

We do not advocate that all municipal bonds should be rated triple-A. Certainly some deserve lower ratings, based on their unique circumstances. But bonds with an exceedingly low risk of default should be rated accordingly, whether issued by governmental entities or corporations. If some investors want fine rating distinctions among such bonds, perhaps gradations within the triple-A scale could serve that purpose. Some bonds could be Aaa1 or AAA+, while others could be Aaa3 or AAA-. But the triple-A rating on all those bonds would tell investors the truth: The risk of default is minimal.

We applaud some agencies' growing acknowledgement of the dual scale that exists today. Moody's, for example, will assign a "global scale rating," but only to taxable bonds. It simultaneously requires the assignment of a municipal scale rating. When the State of Oregon in 2003 sold \$2.1 billion in taxable general obligation bonds to fund its pension liabilities, Moody's assigned two ratings to the same bonds: Aaa global scale and Aa3 municipal scale. Similarly, when California sold taxable general obligation bonds in 2007, Moody's assigned ratings of "Aaa" global scale and "A1" municipal scale. These distinctions reflected both

states' substantial credit strength compared to most corporate issuers, and helped attract new buyers for the taxable bonds. But they also created confusion because the very same bonds carried two different ratings. Such confusion does not serve investors well. Investors increasingly function in a worldwide capital market where the trading of credit risk is not isolated to distinct taxable and tax-exempt cash markets. Municipal credits are compared to corporate credits in a great number of markets, including the interest rate swap and credit default markets. An integrated, global capital market requires an integrated, global rating scale.

This dual rating scale burdens taxpayers and ratepayers with substantial, added costs. Taxpayers pay a higher interest rate when municipal bonds have a rating lower than triple-A. Consider, for example, the State of California, which never has defaulted on its bonds and ranks as the largest municipal issuer in the nation. The difference between triple-A and single-A interest rates in today's market is about 0.38 percentage points.<sup>1</sup> California plans to issue \$61 billion of general obligation bonds for infrastructure projects already approved by voters. Over the 30-year life of those bonds, a 0.38% difference in interest rates would save taxpayers, and the state's General Fund, more than \$5 billion. While a sudden recalibration of your agencies' rating scale likely would not produce the full amount of those savings, even a portion would provide welcome relief to California taxpayers. Similar examples abound in states, cities and counties throughout the country, resulting in hundreds of billions of dollars in unnecessary costs to American taxpayers.

Taxpayers incur other costs imposed by the bond insurance industry, which exists in large part because of your municipal rating scales. Municipal issuers have paid enormous sums to buy bond insurance that — at least in the past — brought their ratings up to the level they would have been on a corporate, or global, rating scale. For example, the State of California, with a global scale rating from Moody's of Aaa, nonetheless paid \$102 million from 2003-07 to buy triple-A bond insurance on its general obligation bonds. Those purchases allowed the state to sell the bonds at a lower interest rate. But it would have been unnecessary to spend \$102 million of taxpayers' money for a triple-A rating if the bonds had been rated by the same criteria as non-municipal debt.

Further, what California actually bought when it paid for bond insurance was not a triple-A municipal rating, but a triple-A global scale rating. Moody's has stated, "Like other financial institutions and insurance companies, the financial guarantors are rated on the global scale." (*Mapping of Moody's Municipal Ratings to the Global Scale: Frequently Asked Questions, June 2007*) Now consider: As noted above, Moody's gave a triple-A global scale rating to taxable bonds California issued in 2007. Applying that rating to all general obligation bonds the state insured from 2003-07, including tax-exempt issues, means that when taxpayers spent \$102 million to insure those bonds, they effectively spent \$102 million to put an Aaa rating on top of the Aaa rating the state already possessed.

The recent problems of municipal bond insurers, ignited by their exposure to securities based on sub-prime

<sup>1</sup> Municipal Market Data yield differential between Aaa/AAA and A/A 30 year bonds as of February 25, 2008. Municipal Market Data yield differential between Aaa/AAA and A/A 30 year bonds as of February 25, 2008.

mortgages, have imposed serious, additional costs on numerous municipal issuers. The short-term municipal bond market has been built on the triple-A status of bond insurers. In part, the insurers' ratings have been used to satisfy regulatory requirements. But over time, the homogenizing nature of a market based on triple-A ratings meant that even issuers whose debt could be issued without bond insurance frequently found it useful to purchase insurance.

Under U.S. Securities and Exchange Commission Rule 2a-7, money market funds generally are allowed to buy securities only if they have long-term ratings of at least double-A. To provide that, many municipal issuers purchased bond insurance on their variable rate demand bonds (VRDBs). Of course, this would not have been necessary if municipal issuers were rated on a corporate scale. Corporations of much weaker credit quality comply with Rule 2a-7 without credit enhancement such as bond insurance.

The current turmoil in the tax-exempt variable rate market was sparked by the rating agencies' reassessment or downgrading of bond insurers. The agencies' actions caused many investors to worry that the insurers' ratings may drop below 2a-7's required levels. Already, insurer-backed VRDBs are costing much more than in the past. More troublesome, the liquidity facilities guaranteeing the demand feature of VRDBs can drop away if the bond insurer faces difficulties, at a time when the banks that remarket the bonds are facing their own sub-prime induced balance sheet problems. As a result, many issuers of VRDBs are finding that remarketing agents are putting their bonds to the liquidity banks, which in turn require issuers to pay them high taxable rates specified in the bond documents.

The fallout from the bond insurance upheaval also has hit the auction rate securities (ARS) market. Rating agencies' downgrades or reassessments of insurers — and the possibility of further downgrades in the future — have driven away many of the typical ARS buyers, including corporate money managers and wealthy individuals. Corporate money managers often have minimum rating requirements for the bonds they own. They relied on bond insurance for such ratings, since the underlying securities carried lower ratings assigned on a municipal rating scale. The well-publicized problems of failed auctions caused by insurer downgrades are imposing substantial costs on municipalities. Many issuers have found themselves paying interest rates as high as 15%-20% on debt that cost a fraction of that amount just a few weeks earlier.

We believe you share our desire to strengthen the municipal bond market that funds the infrastructure necessary to secure America's future. We respectfully request that you work with market participants — including issuers and investors — to develop a new, unified global rating approach that achieves that goal, and better serves investors and taxpayers.

Thank you.



Bill Lockyer  
State Treasurer, California



Denise L. Nappier  
State Treasurer, Connecticut



Ron G. Crane  
State Treasurer, Idaho



Michael L. Fitzgerald  
State Treasurer, Iowa



James B. Lewis,  
State Treasurer, New Mexico



Karen L. Sisson  
City Administrative Officer,  
City of Los Angeles



David G. Lemoine  
State Treasurer, Maine



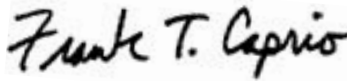
Randall Edwards  
State Treasurer, Oregon



Patrick Born  
Chief Financial Officer,  
City of Minneapolis



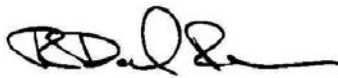
Kate Marshall  
State Treasurer, Nevada



Frank T. Caprio  
General Treasurer, Rhode Island



Roger L. Anderson  
Executive Director,  
New Jersey Educational  
Facilities Authority



R. David Rousseau  
Acting State Treasurer,  
New Jersey



Michael J. Murphy  
State Treasurer, Washington



Gary M. Breaux  
Director of Finance, East Bay  
Municipal Utility District



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