Debt Affordability Study

FIRST EDITION

PREPARED BY LEGISLATIVE BUDGET BOARD STAFF

FEBRUARY 2007

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February 16,2007

Honorable Governor of Texas
Honorable Members of the Eightieth Legislature Assembled in Regular Session

Ladies and Gentlemen:

The Debt Affordability Study is a report on the current debt position of and the debt burden carried by the state government of Texas. This project was requested by the Senate Finance Committee during the Seventy-Ninth Legislature as a joint effort between the Legislative Budget Board, the Texas Bond Review Board, and the Texas Public Finance Authority.

The Debt Affordability Study includes information on the current debt position of the state and five key debt burden ratios that highlight the state's future debt capacity. The recommendations in the report and the future debt capacity are not incorporated into the introduced General Appropriations Bill, but could be used to determine the amount of additional debt authorizations and debt service the state may wish to fund during the 2008-09 biennium.

The staff of the Legislative Budget Board appreciated the cooperation and assistance the Texas Bond Review Board and the Texas Public Finance Authority provided during the preparation of this report.

Respectfully submitted,

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Cover Photo Courtesy of House Photography

Acknowledgments

We would like to thank the following personnel at the Texas Bond Review Board and the Texas Public Finance Authority for their contributions and dedication to this project. We would also like to thank the State of Florida's Division of Bond Finance for its assistance during the preparation of this report.

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EXECUTIVE SUMMARY

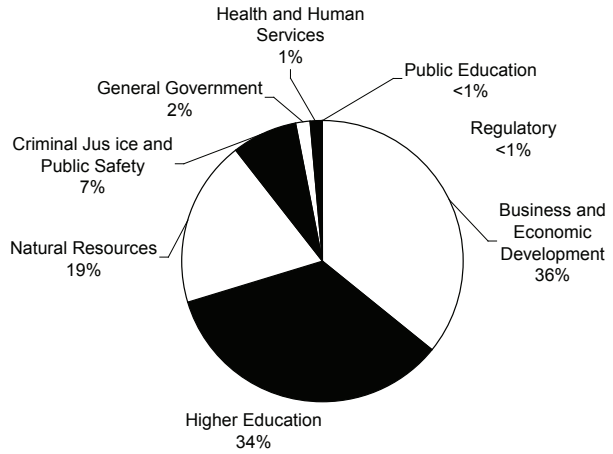
The Legislative Budget Board, the Texas Bond Review Board, and the Texas Public Finance Authority coordinated efforts to conduct the state's first debt affordability study (DAS). The state of Texas has traditionally used a decentralized approach to debt authorization and issuance. This debt affordability study provides policymakers a broad perspective on the state's debt position and is a tool for evaluating the fiscal impact of bond financing options.

OVERVIEW OF CURRENT STATE DEBT

The state uses long-term debt financing for a variety of projects and program areas. At the end of fiscal year 2006, Texas had $23.3 billion in debt outstanding. Of this amount, 36 percent is for business and economic development, 34 percent is for higher education, and 19 percent is for natural resources. The remaining debt is allocated among criminal justice, 7 percent; general government, 2 percent; health and human services, 1 percent; and less than 1 percent for public education and regulatory projects. **Figure 1** shows debt outstanding by government function.

The state's total debt outstanding has increased 106 percent over the last decade, increasing from $11.3 billion in fiscal year 1996 to the current $23.3 billion. Of this amount, not self-supporting debt comprised $3 billion and self-supporting debt comprised $20.4 billion.

FIGURE 1
STATE OF TEXAS DEBT OUTSTANDING BY GOVERNMENT FUNCTION, FISCAL YEAR 2006



SOURCE: Legislative Budget Board.

DEFINING DEBT AFFORDABILITY

Debt affordability is an integrated approach that helps analyze and manage state debt by factoring in historical debt use, financial and economic resources of the state, and long-term goals for capital needs. The debt affordability study presents the state's current debt burden with an overview of the state's historical and current debt, including five key ratios (listed on page 2) that illustrate the state's debt levels. One key component of debt affordability is determining the state's additional debt capacity, which is measured in terms of annual debt service capacity.

BENEFITS AND GOALS OF USING A DEBT AFFORDABILITY STUDY

Several other states have used a debt affordability study to assist in managing the state's debt and making financing decisions. The major benefits of using a debt affordability study include:

- Provides a big-picture view of the state's debt position;
- Matches available debt funding with prioritized capital needs, by providing a tool to integrate debt management in the capital planning process;
- Establishes a systemic approach to debt management;
- Helps centralize debt management and authorization decisions;
- Helps assess the effect of individual or a group of new debt authorizations on the state's debt burden;
- Evaluates the effect of fluctuating revenues on the state's ability to meet existing debt service obligations and to issue new debt;
- Ensures sufficient cash balances and reserves;
- Protects and enhances the state's bond rating and outlook; and
- Helps achieve the lowest cost financing for taxpayers.

States primarily use available revenues and/or debt proceeds to fund long-term capital and program needs. Legislators must strike a balance between using available revenues and using efficient, cost-effective debt issuance. A debt affordability approach assists in maximizing resources for debt financing.

KEY DEBT RATIOS

In developing a mechanism for the state to determine debt affordability, or the amount of debt the state can accommodate, the debt capacity model (DCM) calculates five key ratios that provide a big-picture view of Texas' debt and can be used as guidelines or decision-making tools for future debt authorization and debt service appropriations. Only not self-supporting debt is reflected in most of the ratios because as tax-supported debt it ties up General Revenue, and state tax rates and bases are largely within the control of the legislature. Information on the ratios below covers a five-year period from fiscal years 2007–2011. The five key ratios include:

Ratio 1: Not Self-supporting Debt Service as a Percentage of Unrestricted Revenues.
This ratio helps determine additional annual debt service capacity for not self-supporting debt. For the purposes of this study, guidelines used include a 2 percent target and a 3 percent maximum (or cap). Two percent was selected as the target because the state has historically carried a not self-supporting debt service burden of less than 2 percent of unrestricted revenues. In any given fiscal year, Texas is constitutionally bound not to exceed 5 percent of the average of unrestricted general revenues for the three preceding fiscal years. By getting a debt target and limit, a range of additional debt capacity can be calculated that allows flexibility in new debt authorizations and subsequent debt service appropriations.

If these guidelines are adopted, under the 2 percent target the state would have $221.1 million available for additional General Revenue supported debt service in fiscal year 2008. This amount translates to $2.5 billion in new bond authorizations. Under the 3 percent cap, for fiscal year 2008 up to $561.7 million in additional debt service would be available, which translates to $6.5 billion in new bond authorizations.

Ratio 2: Not Self-supporting Debt to Personal Income.
This ratio is used by credit (or bond) rating agencies, and is calculated by dividing total not self-supporting debt by total personal income. At current and projected debt and personal income levels, over a five-year period this ratio ranges from a high of 0.34 percent in fiscal year 2007 to a low of 0.19 percent in fiscal year 2011. When comparing Texas among a peer group of the 10 most populous states, according to figures in Moody's 2006 State Debt Medians report, Texas has the lowest debt to personal income ratio.

Ratio 3: Not Self-supporting Debt per Capita.
This ratio is used by credit rating agencies, and is calculated by dividing total not self-supporting debt by population. At current and projected debt and population levels, over a five-year period this ratio ranges from a high of $119.24 in fiscal year 2007 to a low of $80.33 in fiscal year 2011. When comparing Texas to a peer group of the 10 most populous states, according to figures in Moody's 2006 State Debt Medians report, Texas has the lowest debt per capita. In general, Texas has a low state debt burden, but this is due to having a higher local debt burden.

Ratio 4: Rate of Debt Retirement.
This ratio highlights the state's progress on retiring debt in a timely fashion. The current rate of retirement for not self-supporting debt is a 78.29 percent principal payout in a 10 year period, which is a high rate of retirement. A 50 percent principal payout at 10 years is considered the average ratio by the credit agencies. Texas' rate of retirement is higher than average because most of the not self-supporting debt is issued by the Texas Public Finance Authority, which uses a level principal debt service structure.

Ratio 5: Not Self-supporting Debt Service as a Percentage of Budgeted General Revenue.
This ratio shows how much of budgeted (or expended for complete fiscal years) General Revenues are dedicated to long-term financing, which is a reflection of the state's financial flexibility. Since fiscal year 1996, Texas has had a not self-supporting debt service commitment of less than 1.5 percent of expended General Revenues. The 2008–09 introduced General Appropriations Bill contains General Revenue biennial appropriations for annual debt service and maintains this low ratio at 1.34 percent for fiscal year 2008 and 1.33 percent for fiscal year 2009.

The ratios described in the Debt Ratios section and Appendix E provide more detailed information on the five key ratios. The ratios and guidelines presented in those sections generally reflect only not self-supporting debt. Policymakers may wish to examine both tax-supported debt service and other state-supported commitments in order to gain a full perspective on General Revenue debt service expenditures. The Debt Ratios section and Appendix F show the effect of special commitments funded from General Revenue Funds, such as tuition revenue bonds, the instructional facilities allotment, and the existing debt allotment.

RECOMMENDATIONS

To make the best use of the debt affordability study and the ratios calculated in the debt capacity model, the legislature should consider amending the Texas Government Code, Chapter 1231 to:

- Assign responsibility for the debt affordability study to the Texas Bond Review Board, with input from the Texas Public Finance Authority and the Legislative Budget Board;
- Require the Texas Bond Review Board to update the debt affordability study annually and submit to the Governor, Speaker of the House, Lt. Governor, Comptroller of Public Accounts, and members of each finance committee by December 1 prior to each regular legislative session;
- Establish target and cap guidelines for analysis of debt service as a percentage of unrestricted revenues (Ratio 1) prior to legislative sessions; and
- Monitor how year-to-year changes and new authorizations affect the other four ratios included in the debt capacity model.

INTRODUCTION

Texas has been conservative in debt issuance, though debt issuance has increased dramatically over the past decade. Using debt affordability to define an acceptable level of annual debt service, and thereby total issuance, would help policymakers use available revenues to meet the highest priority needs. This study includes information on the state's historical and current debt position, debt ratios used in the debt capacity model (DCM), a comparison to other states, and a summary of methodology used.

The DCM is used to determine an acceptable level of annual debt service, or debt capacity, which could be issued by the state over the next 10 years. The model uses Ratio 1, not self-supporting debt service as a percentage of unrestricted General Revenue Funds, to identify an acceptable level of debt service, given a target and cap. The model also determines four other debt measures. Rating agencies examine variations of these measures of debt capacity in determining a state's debt burden. Debt burden affects a state's credit rating and has an affect on debt issuance.

DEBT MANAGEMENT IN TEXAS

Texas has a decentralized approach to debt management. When the legislature authorizes the use of new debt, the authorizing legislation is typically considered by the legislative finance committees. The legislature appropriates debt service payments for existing debt in the General Appropriation Act, which is organized and considered by article based on governmental function. Subsequently, this process leads policymakers to review, develop, and approve proposed budget requests by agency or program. More information on this process is available in Appendix B.

CURRENT DEBT POSITION OF THE STATE

Debt used by the state of Texas typically falls into one of two major categories: (1) general obligation (GO) bonds and (2) non-general obligation bonds (revenue bonds). GO bonds and revenue bonds are typically issued for long-term financing of projects. Texas employs bond financing to achieve a variety of program goals. **Figure 2** shows some example projects with their debt and bond types.

GROWTH IN DEBT OUTSTANDING

At the end of fiscal year 2006, the state had approximately $23.3 billion in total debt outstanding. Of this amount, not self-supporting debt comprised $3 billion and self-supporting debt comprised $20.4 billion. **Figure 3** shows the debt outstanding for fiscal year 2006.

Debt financing has significantly increased over the last decade. The state's total debt outstanding has increased 106 percent from $11.3 billion in fiscal year 1996 to the current $23.3 billion. Both major bond type categories, GO and revenue, had significant increases in total debt outstanding. GO bond debt increased 51 percent from $5 billion in 1996 to $7.5 billion in 2006. Greater increases occurred in revenue bonds. Revenue debt outstanding increased 149 percent from $6.4 billion in 1996 to $15.8 billion in 2006. In addition, both types of debt (which includes self-supporting and not self-supporting debt) increased substantially over the last decade. **Figure 4** shows the historical debt outstanding trends for these two debt types.

SELF-SUPPORTING DEBT

Self-supporting debt is repaid with program revenues and represents 87 percent of total outstanding debt. Bond types used for self-supporting debt include GO bonds, such as Veterans' Land and Housing Bonds, and revenue bonds, such as Permanent University Fund Bonds. As of fiscal year 2006, the state had a total of $20.4 billion in outstanding self-supporting debt. Of this debt, 75 percent is revenue bonds and 25 percent is GO bonds. This debt allocation among bond types is consistent with the state's historical outstanding debt levels. In the period from fiscal years 1996 to 2006, revenue bonds comprised from 69 percent to 80 percent of self-supporting debt; during the same period GO bonds have comprised 20 percent to 31 percent of self-supporting debt. Self-supporting debt increased by $12.1 billion from 1996 to 2006, or 145 percent.

FIGURE 2
PROJECT EXAMPLES AND BOND TYPES

BOND TYPE	DEBT TYPE	BOND PROGRAMS
General obligation	Not self-supporting	Higher Education Constitutional Bonds Agriculture Water Conservation Bonds
General obligation	Self-supporting	Mobility Fund Bonds Veterans' Land and Housing Bonds
Revenue	Not self-supporting	Texas Military Facilities Commission Bonds Parks and Wildlife Improvement Bonds
Revenue	Self-supporting	Permanent University Fund (PUF) Texas State Affordable Housing Corporation Bonds Tuition Revenue Bonds

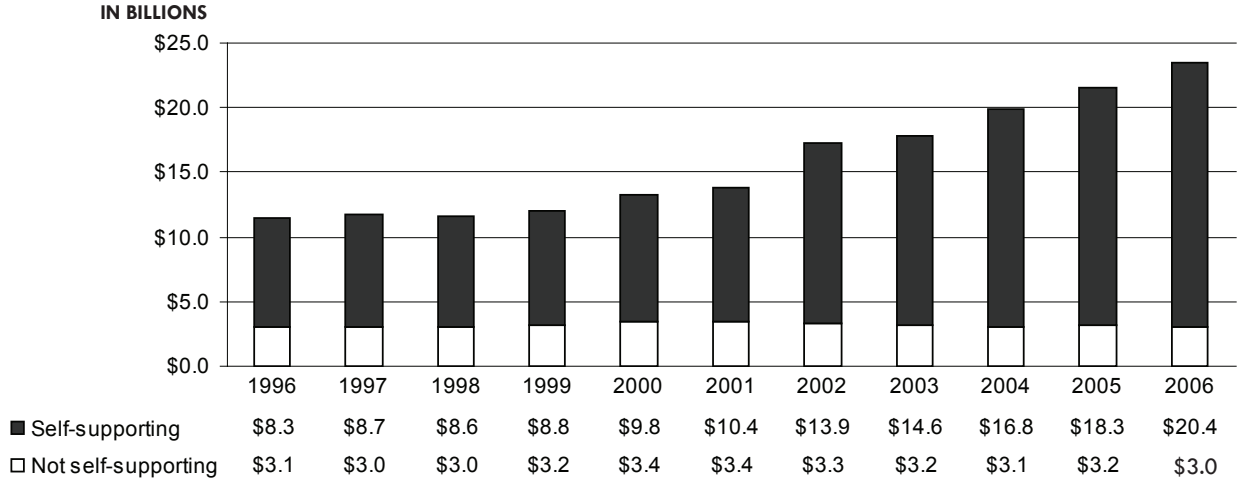
SOURCE: Legislative Budget Board.

FIGURE 3
DEBT OUTSTANDING BY DEBT AND BOND TYPE, FISCAL YEAR 2006

BOND TYPES	SELF-SUPPORTING	NOT SELF-SUPPORTING	TOTAL
General Obligation	5,180,673,000	2,353,267,000	7,533,940,000
Revenue	15,185,141,000	622,945,000	15,808,086,000
Total	**20,365,814,000**	**2,976,212,000**	**23,342,026,000**

SOURCES: Legislative Budget Board; Texas Bond Review Board.

FIGURE 4
TEXAS' DEBT OUTSTANDING, FISCAL YEARS 1996 TO 2006

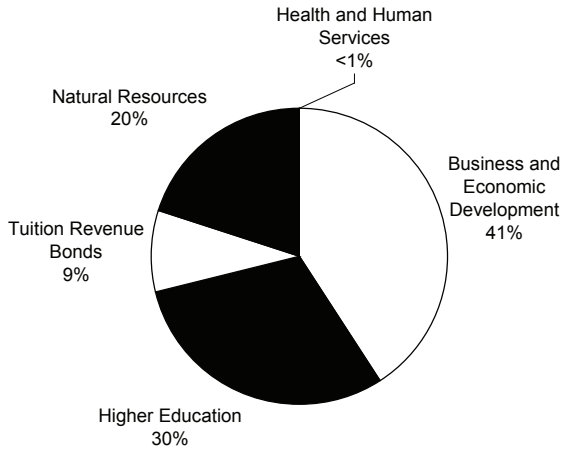


SOURCE: Legislative Budget Board.

A variety of programs and areas use self-supporting debt. Of the $20.4 billion outstanding at the end of fiscal year 2006, 41 percent is used for business and economic development projects, such as roads, 39 percent is used for higher education (9 percent is tuition revenue bonds), 20 percent is used for natural resources and less than 1 percent is used for health and human services. **Figure 5** shows the allocation of self-supporting debt outstanding.

The amount for higher education in **Figure 5** reflects $5.9 billion of university revenue bonds, of which, $1.8 billion is tuition revenue bonds. All college and university revenue bonds are equally secured by, and payable from, a pledge of all or a portion of certain revenue funds as defined by Chapter 55, Texas Education Code, of the applicable system or institution of higher education. Historically, however, the state has appropriated funds to the schools in an amount equal to all or a portion of the debt service for tuition revenue bonds.

FIGURE 5
SELF-SUPPORTING DEBT OUTSTANDING BY GOVERNMENT FUNCTION, FISCAL YEAR 2006



SOURCE: Legislative Budget Board.

NOT SELF-SUPPORTING DEBT

Not self-supporting debt is typically repaid with General Revenue Funds and comprises 13 percent of the total outstanding debt. Bond types used for not self-supporting debt include GO bonds and revenue bonds. At the end of fiscal year 2006, the state had a total of $3 billion in outstanding not self-supporting debt. Of this debt, 79 percent is GO bonds and 21 percent is revenue bonds. This debt allocation among bond types is consistent with historical outstanding debt. From fiscal years 1996 to 2006, GO bonds have comprised 78 percent to 85 percent of not self-supporting debt; during the same period revenue bonds have comprised 15 percent to 22 percent of not self-supporting debt. Not self-supporting debt levels have remained relatively stable over the last decade, decreasing by $64 million from 1996 to 2006, or 2 percent. Most not self-supporting debt is issued by the Texas Public Finance Authority (TPFA).

Not self-supporting debt is used to finance projects in a variety of programs and areas. Of the $3 billion debt outstanding at the end of fiscal year 2006, 58 percent was used for criminal justice, 15 percent was used for general government, and 14 percent was used for natural resources. The remaining 14 percent was divided among the following

areas: health and human services, 8 percent; higher education, 3 percent; business and economic development, 2 percent; public education, less than 1 percent and regulatory, less than 1 percent. **Figure 6** shows the allocation of not self-supporting debt outstanding.

VOLUME OF DEBT ISSUED

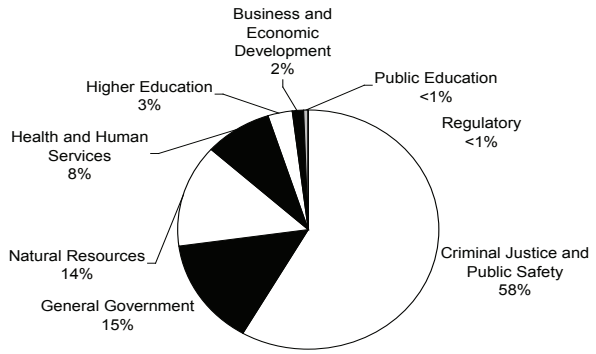
The use of bond financing for capital projects and other critical needs has increased over the last decade. Average annual issuance of new money bonds, refunding bonds, and commercial paper from fiscal years 1999 to 2006 has been $3.2 billion. During fiscal year 2006, the state issued $3.4 billion in new money bonds, refunding bonds, and commercial paper, which is a decrease of 17 percent from fiscal year 2005, when $4.1 billion was issued. The current estimate for fiscal year 2007 issuances totals $6.7 billion, with increases largely attributed to Texas Department of Transportation projects and the University of Texas System RFS and Permanent University Fund (PUF) bonds.

DEBT SERVICE COMMITMENTS

The state's total annual debt service payments for not self-supporting and self-supporting debt have increased 91 percent over the last decade, rising from $1.1 billion in 1996 to $2.1 billion in 2006. Not self-supporting debt increased by a smaller amount, 33 percent, from $319.7 million in fiscal year 1996 to $424.9 million in fiscal year 2006. Self-supporting debt service obligations doubled, rising 116 percent from $760 million to $1.6 billion over the 10-year period.

The required annual debt service amounts on existing, authorized but unissued, and projected not self-supporting debt will fluctuate between $414.5 million to $477.5 million through fiscal year 2010, dropping below $400 million in fiscal year 2012 and below $300 million in fiscal year 2015. **Figure 7** shows the historical (1996 to 2006) and future trends (2007 to 2016) in not self-supporting annual debt service amounts.

FIGURE 6
NOT SELF-SUPPORTING DEBT OUTSTANDING BY GOVERNMENT FUNCTION, FISCAL YEAR 2006



SOURCE: Legislative Budget Board.

The projection of future annual debt service obligations will be a major factor in determining the additional not self-supporting debt burden that the state can accommodate. Debt ratios and debt guidelines, intended as decision-making tools for the state's policymakers, are discussed in more detail in the Debt Ratios section.

RATE OF DEBT RETIREMENT

Credit analysts examine the length of time it takes for debt to be retired. For not self-supporting debt, the rate of principal retirement at 10 years is 78.29 percent. For self-supporting debt, the rate of principal retirement at 10 years is 39.67 percent. Credit agencies consider a 50 percent principal payout at 10 years the average ratio. A faster rate of retirement, which the state has for not self-supporting debt, creates additional capacity in future years. The rate of debt retirement is also Ratio 4 in the debt capacity model (DCM). Refer to the Debt Ratios section for more details.

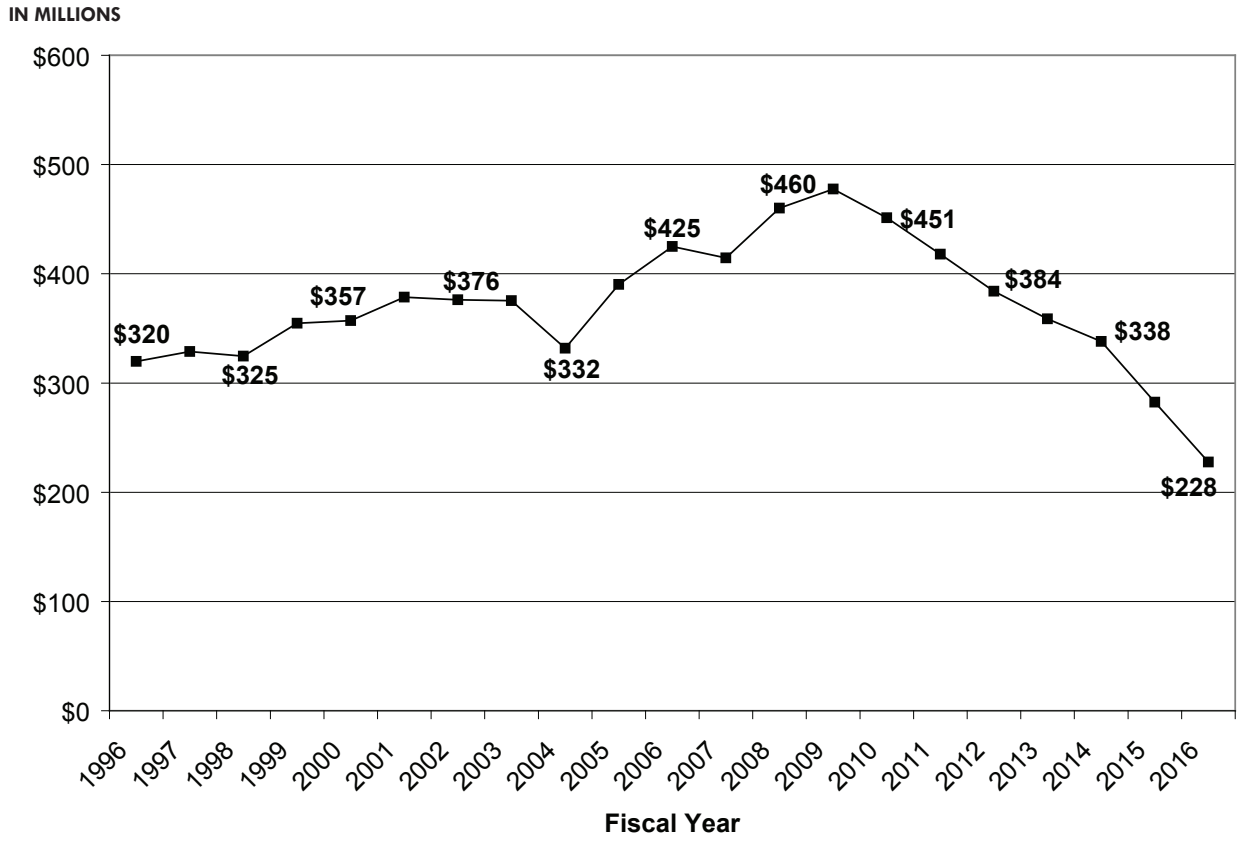
CREDIT RATINGS

Credit ratings provide investors a measure of risk and financial soundness of the issuer. An issuer's credit ratings affect the interest rate that the issuer is charged on bond issues. The interest rate affects the cost of financing. The better the credit rating, the lower the financing costs. The three major rating agencies are Moody's, Standard & Poor's, and Fitch. Each rating agency has similar rating scales for its investment grade bonds, detailed in Appendix C. Currently, Texas receives the second or third highest rating by all three bond agencies for its general obligation bonds. **Figure 8** shows those ratings.

The state's general obligation bond rating is the most crucial since the state has control over revenues and expenditures. Rating agencies consider four factors in determining a state's general obligation bond rating: economy, finances, debt, and management. **Figure 9** provides specific examples for each of these four factors.

Though Texas does not receive a AAA-rating, its bond ratings are strong. Its debt trades at rates close to that of AAA-rated states. The credit rating agencies cite a number of reasons why the state's general obligation rating is unlikely to receive an upgrade in the near future including rapid population growth and the subsequent infrastructure needs, the state's reliance on sales tax, continuing concerns about school

FIGURE 7
HISTORICAL AND PROJECTED ANNUAL DEBT SERVICE FOR NOT SELF-SUPPORTING DEBT, FISCAL YEARS 1996 TO 2016



SOURCE: Legislative Budget Board.

FIGURE 8
STATE OF TEXAS GENERAL OBLIGATION BOND RATINGS

CREDIT AGENCY	CREDIT RATING	OUTLOOK
Fitch	AA+	Stable
Moody's	Aa1	Stable
Standard & Poor's	AA	Stable

SOURCES: Fitch; Moody's; Standard & Poor's.

finance issues, and the state's modest reserve levels including the Economic Stabilization (or Rainy Day) Fund. Continuing to improve the state's debt management, through tools such as this report, will help Texas protect its current rating and potentially achieve a higher credit rating, thereby reducing the cost associated with long-term financing.

FIGURE 9
FACTORS AFFECTING STATE GENERAL OBLIGATION BOND RATINGS

ECONOMY	FINANCES
Population trends	Change in major general revenue sources
Wealth	Change in permanent or FTE positions
Economic diversity	Spending per capita
Economic stability	General fund balances, rainy day fund balance
Infrastructure needs	Accounting and financial reporting practices
	Tax and revenue administration
	Investment practices
DEBT	**MANAGEMENT**
Pay-down price for net long-term debt	Coherent structure of governance
Net debt per capita	Constitutional constraints
Net debt as a percent of personal income	Initiatives and referenda
Net debt as a percent of tax valuation	Executive branch controls
Annual debt service on net debt as a percentage of general fund	Mandates to balance budget
	Fund reserve policies

SOURCES: Legislative Budget Board; Texas Bond Review Board.

DEBT RATIOS IN THE DEBT CAPACITY MODEL

Debt ratios help assess the effect of bond issues on the state's fiscal position. Credit rating agencies use ratios as measures to evaluate a state's debt position and to help determine its credit rating. In developing a mechanism for the state to determine debt affordability, or the amount of debt the state can accommodate, the debt capacity model (DCM) calculates five key ratios that provide a big-picture view on Texas' debt. The DCM can be used as a decision-making tool for determining an optimal level of future debt authorization and debt service appropriations.

RATIO 1: DEBT SERVICE AS A PERCENTAGE OF UNRESTRICTED REVENUES

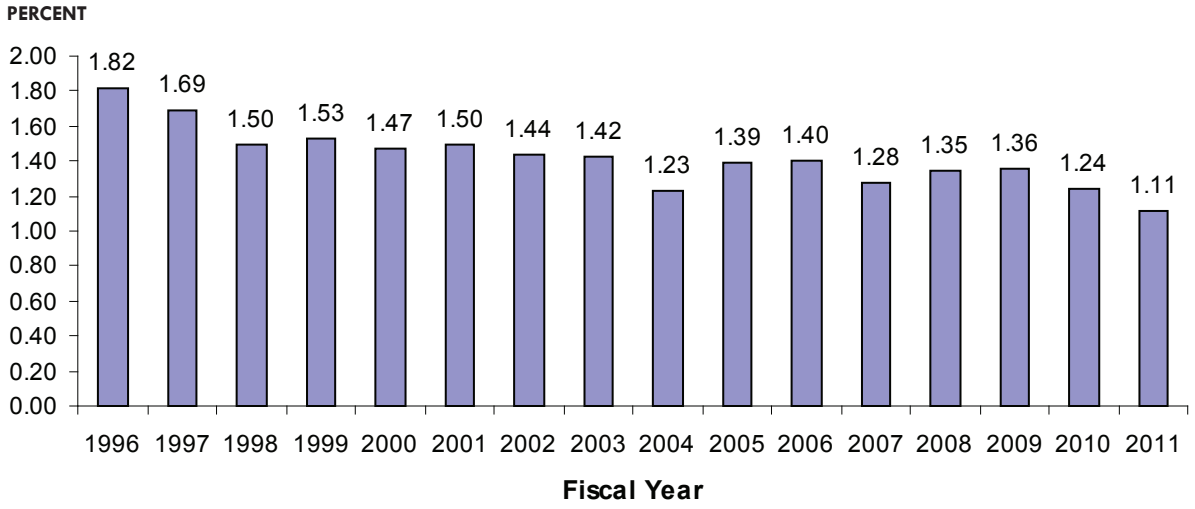
The ratio of debt service as a percentage of unrestricted revenues is calculated by dividing not self-supporting debt service by unrestricted revenues and serves as a critical determinant of debt capacity because both debt service appropriations and the ability to generate revenue through taxation, including tax rates and bases, are largely within the control of the state. The legislature appropriates debt service based on existing debt and new authorizations. State revenues available to pay debt service are determined by the tax rates the legislature sets, which include such taxes as sales, franchise, fuels, crude oil production, and natural gas production.

Figure 10 shows a historical and projected trend of the state's debt burden. The state may not authorize debt issuance that would result in more than 5 percent of unrestricted General Revenue Funds for debt service, based on a constitutional debt limit. Historically, Texas has expended less than 2 percent of its unrestricted revenues for not self-supporting general obligation and revenue bond debt service.

Although Texas has a constitutional debt limit of 5 percent, as a practical matter actual not self-supporting debt service as a percent of unrestricted revenues has been much lower, less than 2 percent due to budget demands. The impact of special debt commitments, such as tuition revenue bonds, also necessitate a target well below the constitutional debt limit.

Considering these commitments, setting target and cap guidelines below Texas' constitutional limit for annual debt service as a percentage of unrestricted revenues would provide the legislature with more realistic benchmarks against which to weigh the fiscal impact of new bond authorizations**.** For the purposes of this report guidelines include a 2 percent target and a 3 percent maximum. Two percent is used as the target because the state has historically carried a not self-supporting debt service burden of less than 2 percent of unrestricted revenues. Texas' low debt burden is also looked upon favorably by rating agencies. Using a 2 percent target, in fiscal year 2008 approximately $221.1 million would be available for additional debt service; at the 3 percent cap, $561.7 million would be available. This debt service capacity

FIGURE 10
HISTORICAL AND PROJECTED DEBT SERVICE AS A PERCENTAGE OF UNRESTRICTED REVENUES
FISCAL YEARS 1996 TO 2011



SOURCE: Legislative Budget Board.

translates into an estimated $2.5 billion to $6.5 billion in new bond authority.

As of January 2007, the required annual debt service amounts on authorized and issued, authorized but unissued, and projected not self-supporting debt from fiscal years 2007 to 2011 will fluctuate between $414.5 million to $477.5 million through 2011, dropping below $400 million in 2012 and below $300 million in 2015. If unrestricted revenues and debt service appropriations remain stable, debt service as a percentage of unrestricted revenues will range from 1.11 percent to 1.36 percent during the five-year period of fiscal years 2007 to 2011.

The historical and projected debt service ratios above factor in only not self-supporting debt for which the state legally bears responsibility. However, given the use of General Revenue for certain special debt commitments such as tuition revenue bonds (TRBs) for higher education and the existing debt allotment (EDA) and instructional facilities allotment (IFA) for public education, the legislature may wish to consider the impact of these commitments along with not self-supporting debt. **Figure 11** shows the impact on Ratio 1 for both not self-supporting debt and special debt commitments.

Although these special debt commitments do not count against the constitutional debt limit, they are paid from General Revenue and therefore impact the state's financial flexibility to meet other needs. If these commitments are considered, the impact is significant. Including only not self-supporting debt, in fiscal year 2008 Ratio 1 equals 1.35 percent. By adding tuition revenue bonds, the ratio increases to 2.31 percent. With all special debt commitments (TRBs, EDA, and IFA), Ratio 1 for fiscal year 2008 increases to 4.29 percent, which is close to the 5 percent constitutional debt limit. Appendix F provides more information on the impact of special debt commitments.

RATIO 2: NOT SELF-SUPPORTING DEBT TO PERSONAL INCOME

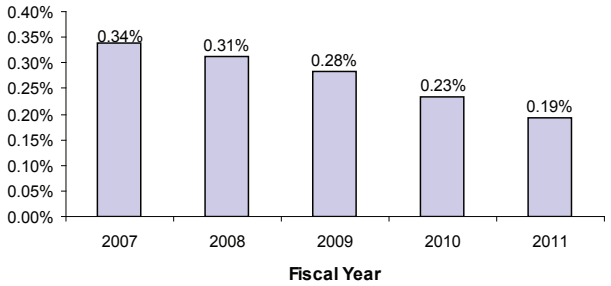
This measure is debt divided by total personal income. The capability of a state's populace to absorb the financial obligations associated with governmental debt is determined using this ratio. The ability of governments to transform personal income into governmental revenues through taxation make personal income a strong indicator of a governmental borrower's potential to repay debt obligations. This ratio plays an important role in the rating determined by credit agencies. Currently Texas' ratio projections show less than 0.5 percent for not self-supporting debt to personal income for fiscal years 2007 to 2011. Standard & Poor's considers 0 percent to 3 percent to be a low debt burden for this ratio. **Figure 12** displays these ratios for the current biennium and the two succeeding biennia.

FIGURE 11
IMPACT OF SPECIAL DEBT COMMITMENTS ON RATIO 1, DEBT SERVICE AS A PERCENT OF UNRESTRICTED REVENUES FISCAL YEARS 2007 TO 2011

SCENARIO	2007	2008	2009	2010	2011
Not Self-supporting Debt Service					
Annual Debt Service	$414,452,341	$460,057,198	$477,505,625	$451,299,605	$417,889,900
Debt Service as a Percent of Unrestricted Revenues	1.28%	1.35%	1.36%	1.24%	1.11%
Not Self-supporting Debt Service and Tuition Revenue Bonds					
Annual Debt Service and Payments	591,539,893	785,072,386	803,137,208	777,354,727	741,970,311
Debt Service as a Percent of Unrestricted Revenues	1.83%	2.31%	2.28%	2.14%	1.97%
Not Self-supporting Debt Service and all Special Debt Commitments					
Annual Debt Service and Payments	1,342,479,149	1,462,152,961	1,461,270,015	1,431,107,117	1,388,055,205
Debt Service as a Percent of Unrestricted Revenues	4.14%	4.29%	4.15%	3.95%	3.68%

SOURCE: Legislative Budget Board.

FIGURE 12
NOT SELF-SUPPORTING DEBT TO PERSONAL INCOME
FISCAL YEARS 2007 TO 2011



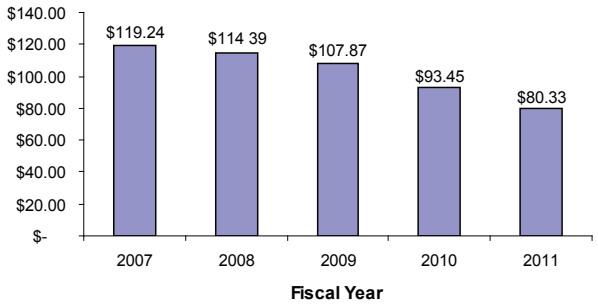
SOURCE: Legislative Budget Board.

RATIO 3: NOT SELF-SUPPORTING DEBT PER CAPITA

For this ratio the amount of not self-supporting debt is divided by the state's population to calculate the dollar amount of debt per person. Like Ratio 2, this ratio plays an important role in the ratings the state receives from credit rating agencies.

In fiscal year 2007, the not self-supporting debt per capita is $119.24. For fiscal year 2008, the projected amount is $114.39 and the projection for fiscal year 2009 is $107.87. Less than $1,000 of state debt per capita is considered low by Standard & Poor's. **Figure 13** shows the debt per capita for fiscal years 2007 to 2011. Overall, the state has maintained a low tax-supported debt burden for its residents, though this may be due in part to local debt burdens that are higher relative to other states. Texas ranks ninth among most populous states in debt per capita and third in local debt per capita.

FIGURE 13
NOT SELF-SUPPORTING DEBT PER CAPITA
FISCAL YEARS 2007 TO 2011



SOURCE: Legislative Budget Board.

RATIO 4: RATE OF DEBT RETIREMENT

The rapidity at which long-term debt obligations are repaid measures the extent to which repayments create capacity for future debt issuance. As stated previously, credit rating agencies examine the length of time it takes for debt to be retired. The average expectation for a bond with a 20-year bond term is to retire 25 percent of the principal at five years and retire 50 percent of the principal at 10 years.

Texas' not self-supporting debt, the focus of the debt affordability study, is retired at a rate of 78.29 percent for fiscal years 2006 to 2015, which exceeds the rating agencies' benchmark of 50 percent. This rapid rate of debt retirement is primarily due to the fact that the Texas Public Finance Authority (TPFA), which issues most of the state's non self-supporting debt, structures General Revenue supported debt with level principal payments, rather than level debt service. When bonds are structured with level principal payments, the principal payments are the same throughout the amortization period. Although annual debt service will be higher in the earlier years, it will steadily decline as the bonds are paid off. In comparison, bonds can be structured with level debt service payments each fiscal period, much like a mortgage or car loan. Level debt service can be easier for budgeting purposes, since the payments are the same in each fiscal period, and is frequently appropriate for financings where project revenues will support the debt service, such as housing or water utilities. However, by keeping debt service constant in each period, very little principal is repaid in the first few payments. As a result, debt is retired more slowly and more interest is paid over the life of the debt than with a level principal structure.

Texas' self-supporting debt is lagging slightly behind the industry standard of 50 percent of principal paid at 10 years through the bond term. The rate of principal retirement at 10 years for self-supporting debt is 39.67 percent for fiscal years 2006 to 2015. The self-supporting debt rate of retirement may be due to housing and water bonds which have a 30-year term to match the useful life of these projects.

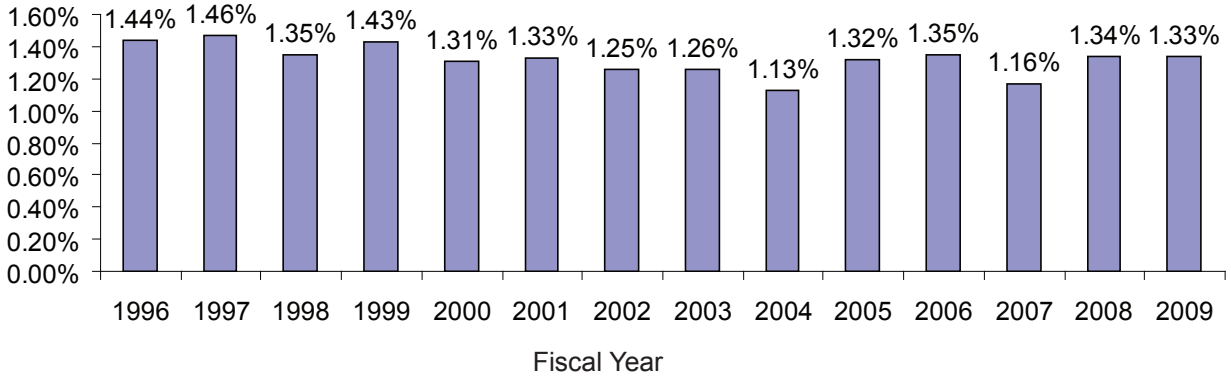
RATIO 5: NOT SELF-SUPPORTING DEBT SERVICE AS A PERCENTAGE OF BUDGETED GENERAL REVENUE

This ratio measures the percentage of the state's general revenue budget (or expenditures, in the case of historical years) devoted to debt service. This ratio is similar to Ratio 1, but is more restricted because the pool of available General

Revenue in this ratio is limited to budgeted General Revenue, which is generally less than all unrestricted General Revenue that is available for debt service. The higher the percentage of the budget reserved for debt service, the less financial flexibility the state has for responding to economic slowdowns, unexpected expenditures or changes in budget priorities for operational or fixed capital outlay expenditures. Historically, Texas has had a not self-supporting debt service commitment of less than 1.5 percent of expended general revenues. **Figure 14** shows the historical trends in debt service as a percentage of general revenue expended from fiscal years 1996 to 2009.

In the fiscal years 1996 to 2006, Texas expended 1.13 percent to 1.46 percent of budgeted General Revenue Funds for debt service on not self-supporting debt. Including debt service for authorized and issued, authorized and unissued as well as projected items, current estimates for annual debt service show that the state will maintain a low ratio for fiscal year 2007, at 1.16 percent. Projections for the next biennium include 1.34 percent for fiscal year 2008 and 1.33 percent for fiscal year 2009, based on the amounts appropriated in the introduced 2008–09 General Appropriations Bill.

FIGURE 14
DEBT SERVICE AS A PERCENTAGE OF BUDGETED GENERAL REVENUE
FISCAL YEARS 1996 TO 2009



SOURCE: Legislative Budget Board.

COMPARISON TO OTHER STATES

The use of debt affordability studies or debt capacity is becoming more common, particularly by states with a "highest" or "high" rating from credit rating agencies. At least 14 states use a debt affordability model or tool. Of the seven states that receive an Aaa rating from Moody's, four of them—Georgia, Maryland, South Carolina, and Virginia—use a debt affordability tool. In addition, 10 non-AAA rated states also use a debt affordability tool. Eight of the states receive a high rating from Moody's (Aa1, Aa2, or Aa3), one state receives an upper medium rating (A3), and one state does not have a general obligation (GO) rating. These 10 states include California, Florida, Kentucky, Minnesota, New York, North Carolina, Ohio, Oregon, Washington, and West Virginia. Bond ratings are an important component of the issuance process and eight of these highly rated states use a debt affordability study. **Figure 15** shows information on the comparison between highly rated states and debt affordability use.

Although Texas does not have a AAA-rating, its current bond rating is strong. Another important aspect to consider along with bond ratings is Texas' debt burden in comparison to other states. Viewing Texas' current debt position along with states of comparable population size helps put the ratios described previously into perspective. According to Moody's Investors Service, state and local government debt makes up 5 percent of the total credit market. Moody's annual State Debt Medians report tracks four major measures: net tax-supported debt, gross tax-supported debt, net tax-supported debt per capita, and net tax-supported debt as a percentage of personal income. The measure of gross tax-supported debt is intended to capture the extent to which a state has indirectly leveraged it resources, providing a more complete view of debt. The major difference between gross and net, as listed by Moody's, is debt issued for self-supporting programs. Moody's cites these debt burden measures as the most commonly used measurements in determining state bond ratings. The numbers listed throughout this section for Texas are slightly different from the calculations in the Debt Capacity Model (DCM) ratios based on data available to the rating agency at the time it created its report.

Figure 16 compares Texas to a peer group of the 10 most populous states' median and the national median. For 2001, Texas' net tax-supported debt and gross tax-supported debt totals were above the national median, yet the state continues

FIGURE 15
COMPARISON OF STATE BOND RATINGS AND DEBT AFFORDABILITY USAGE

STATE	USES A DEBT AFFORDABILITY STUDY?	FITCH	MOODY'S	STANDARD & POOR'S
Delaware	No	AAA	Aaa	AAA
Georgia	Yes	AAA	Aaa	AAA
Maryland	Yes	AAA	Aaa	AAA
Missouri	No	AAA	Aaa	AAA
Utah	No	AAA	Aaa	AAA
Virginia	Yes	AAA	Aaa	AAA
Florida	Yes	AAA	Aa1	AAA
Minnesota	Yes	AAA	Aa1	AAA
North Carolina	Yes	AAA	Aa1	AAA
South Carolina	Yes	AA+	Aaa	AAA
New Mexico	No	AA+	Aa1	Not Rated
Ohio	Yes	AA+	Aa1	AA+
Vermont	No	AA+	Aa1	AA+
Nevada	No	AA+	Aa1	AA
Texas	Yes	AA+	Aa1	AA

SOURCES: Fitch; Moody's, Standard & Poor's; Texas Bond Review Board.

FIGURE 16
HISTORICAL DATA OF TEXAS COMPARED TO PEER GROUP AND NATIONAL MEDIANS

	NET TAX-SUPPORTED DEBT (BILLIONS)		GROSS TAX-SUPPORTED DEBT (BILLIONS)		NET TAX-SUPPORTED DEBT PER CAPITA		NET TAX-SUPPORTED DEBT AS A PERCENTAGE OF PERSONAL INCOME	
	2001	2006	2001	2006	2001	2006	2001	2006
Texas	$5.2	$7.0	$9.1	$13.2	$251	$307	1.0	1.0
Peer Group Median	$9.0	$13.9	$12.1	$18.7	$716	$946	2.6	3.1
National Median	$1.9	$3.1	$3.3	$5.1	$541	$754	2.1	2.5

SOURCES: Legislative Budget Board; Moody's.

to remain below the peer group median. For net debt per capita and net debt as a percentage of personal income, Texas is below both the peer group and national medians. For 2006, Texas' debt measures show the state maintains a low debt burden, though these measures have increased above 2001 levels. For net tax-supported debt and gross tax-supported debt, Texas' totals are higher than the national median, but lower than that of its peers. For net tax-supported debt per capita and net tax-supported debt as a percentage of personal income, Texas is lower than both its peer group and national medians. However, in comparing Texas to other states, it is important to note that the relationship between state debt and local debt is very important. States with a high state debt burden may be due in part to a low local debt burden, while states with a low state debt burden may be due to in part to a high local debt burden. According to BRB, among the ten most populous states, Texas ranks third in local debt per capita and ninth in state debt per capita, with an overall rank of sixth for both local and state debt per capita. In Texas, 84 percent of state and local debt is debt held at the local level.

Though Texas' debt burden compared to other states is low, the state's low debt may result from a higher local debt burden than found in other states. Texas' local debt issuance and debt outstanding have both grown in recent years. During fiscal years 2001 to 2005, local debt issuance volume increased 54 percent from $17.7 billion to $27.2 billion. As of fiscal year 2005, Texas local governments had $119.4 billion in debt outstanding, which represents a 38 percent (or $32.8 billion) increase over fiscal year 2001. In recent years, the majority of local debt proceeds have been used for school facilities (38 percent), water-related infrastructure (20 percent), and general purpose (16 percent).

Figure 17 compares Texas with the top 10 most populous states on the basis of four debt burden measures in Moody's 2006 State Debt Medians. In comparison to peer states, Texas ranks low on all debt burden measures, although as mentioned previously, this may be due to the local debt burden. For net tax-supported debt, Texas ranks ninth with $7 billion, compared to the group median of $13.9 billion. For gross tax-supported debt, Texas ranks seventh with $13.2 billion, compared to the group median of $18.7 billion. For net tax-supported debt per capita, Texas ranks tenth with $307, compared to the group median of $946. For net tax-supported debt as a percentage of personal income, Texas ranks tenth with 1 percent, compared to the group median of 3.1 percent.

Within the 10 most populous states, California is the only state with an upper medium bond rating; Georgia receives a AAA-rating from all three credit agencies and the remaining eight states, including Texas, receive bond ratings in the AA-rating category. Texas' low debt burden is cited as a strong point by the three rating agencies.

FIGURE 17
STATE DEBT: TEXAS COMPARED TO TEN MOST POPULOUS STATES, 2006

STATE	POPULATION	NET TAX SUPPORTED DEBT (BILLIONS)		GROSS TAX SUPPORTED DEBT (BILLIONS)		NET TAX SUPPORTED DEBT PER CAPITA		NET TAX SUPPORTED DEBT AS A % OF PERSONAL INCOME		MOODY'S CREDIT RATING
California	36,132,147	$57.7	1	64.4	1	$1,597	4	4.6	4	A2
Texas	22,859,968	7.0	9	13.2	7	307	10	1.0	10	Aa1
New York	19,254,630	49.5	2	49.6	2	2,569	2	6.7	2	Aa3
Florida	17,789,864	17.4	5	17.5	6	976	5	3.2	5	Aa1
Illinois	12,763,371	25.9	4	26.2	4	2,026	3	5.9	3	Aa3
Pennsylvania	12,429,616	9.5	7	12.8	8	762	8	2.3	8	Aa2
Ohio	11,464,042	10.5	6	10.6	9	915	6	2.9	6	Aa1
Michigan	10,120,860	6.9	10	19.9	5	683	9	2.1	9	Aa2
Georgia	9,072,576	7.1	8	7.1	10	784	7	2.7	7	Aaa
New Jersey	8,717,925	28.6	3	33.1	3	3,276	1	7.9	1	Aa3
	Mean	$22.0		$25.4		$1,390		3.9		
	Median	$13.9		$18.7		$946		3.1		

SOURCES: Legislative Budget Board; Texas Bond Review Board; Moody's; U.S. Census Bureau.

CONCLUSION

The debt affordability study (DAS) and the debt capacity model (DCM) can serve as useful tools to Texas policymakers. Ongoing use of the DAS and DCM would ensure continuous process improvements and measurement from the effects of bond issuance. Establishing a more comprehensive approach to debt management would:

- Help protect and potentially enhance the state bond rating and outlook;
- Help achieve the lowest cost financing for taxpayers;
- Provide the legislature information to assist in the budget process;
- Monitor the amount and purpose of debt authorized, outstanding, and annual debt service obligations; and
- Centralize the analysis of state debt and capital planning on a statewide level, regardless of program or function.

The use of the DAS would help centralize the debt management process, provide policymakers a tool with which to view the big-picture of existing debt obligations, and help assess the affect of increases in additional annual debt service for new projects. The debt affordability study does not prioritize state projects in the capital planning and authorization process, though it can be combined with that process.

RECOMMENDATIONS

To make the best use of the debt affordability study and the ratios calculated in the debt capacity model (DCM), the legislature should consider amending the Texas Government Code, Chapter 1231 to:

- Assign responsibility for the debt affordability study to the Texas Bond Review Board, with input from the Texas Public Finance Authority and the Legislative Budget Board;
- Require the Texas Bond Review Board to update the debt affordability study annually and submit to the Governor, Speaker of the House, Lt. Governor, Comptroller of Public Accounts, and members of each finance committee by December 1 prior to each regular legislative session;
- Establish target and cap guidelines for analysis of debt service as a percentage of unrestricted revenues (Ratio 1) prior to legislative sessions; and
- Monitor how year-to-year changes and new authorizations affect the other four ratios included in the debt capacity model.

APPENDIX A

METHODOLOGY AND REVENUE FORECASTING

To create a debt affordability study that provides useful information for policymakers, Legislative Budget Board staff created a debt capacity model (DCM), which uses revenue and debt information to calculate the five debt burden ratios described in the study. This financial model allows for economic sensitivity analyses by considering the state's financial condition, economic and demographic trends and outstanding debt levels. Local debt was omitted from the analysis in the DCM.

ECONOMIC ASSUMPTIONS

The DCM explains three separate scenarios to show the effect of economic factors on additional debt capacity. The model uses information and projections for fiscal years 2007 to 2016 on revenues, personal income, and population changes. Scenario A, called the base scenario, uses a 10-year average for revenues available for debt service (4.00 percent growth), a 10-year annual average for personal income (5.99 percent growth), and a 10-year annual average (1.78 percent growth) for population increase. All the figures listed in this report are based on Scenario A.

Scenario B, called the positive scenario, reflects a 0.5 percent increase in available revenues over the base scenario. Total personal income and population changes are based on the highest annual growth in a 10-year period. Scenario C, called the negative scenario, assumes a 0.5 percent decrease relative to the base scenario in revenues available for debt service. For total personal income and population changes, these are based on the lowest rates in a 10-year period. **Figure A1** shows the different growth rates for each scenario.

FIGURE A1
PERCENTAGE CHANGE IN ECONOMIC FACTORS IN THE DEBT CAPACITY MODEL

ECONOMIC FACTOR	BASE SCENARIO (A)	POSITIVE SCENARIO (B)	NEGATIVE SCENARIO (C)
Revenues Available for Debt Service	4.00	4.50	3.50
Total Personal Income	5.99	6.71	5.52
Population Change	1.78	1.96	1.67

SOURCE: Legislative Budget Board.

In conducting an economic sensitivity analyses with the DCM, these three scenarios showed little difference on additional debt service capacity. For example, using Ratio 1, debt service as a percentage of unrestricted revenues, and assuming a 2 percent target, there are only slight differences among these three scenarios in the amount of additional debt service capacity for fiscal year 2008:

- Base scenario (A): $221.1 million;
- Positive scenario (B): $227.6 million; and
- Negative scenario (C): $214.7 million.

Overall, the range for this ratio is only $12.9 million. While the numbers for each scenario and ratio are available, for clarity, only the base scenario figures are included in this report.

REVENUES AVAILABLE FOR DEBT SERVICE

To determine the ratios calculated in the DCM, a forecast of unrestricted general revenue was required. To produce this forecast, Table 11 from the *Texas Comptroller of Public Accounts 2006 Cash Report* was recreated from the revenue object level data. The calculations used to determine unrestricted general revenue for Table 11 were then applied to object level estimates for fiscal years 2007-2011.

The Comptroller's January *2007 Biennial Revenue Estimate 2008–09* was used for fiscal years 2007 through 2009. Generally, estimates for 2010 and later were based on the CPA's estimate of average annual growth rate for each revenue object from 2005 through 2009. Growth rates for the sales tax and motor vehicle sales tax after 2009 were based on the CPA' s average estimated growth rate from fiscal year 2006 through 2009. Cigarette tax revenues were adjusted to reflect an irregular collections cycle. Oils and natural gas tax revenues after 2009 were estimated using the Comptroller's fall 2006 forecast of natural gas and oil price and production. Under current federal law, state inheritance tax collections would resume during the forecast period; however, given the uncertainty about the resumption of the federal estate tax, the DCM model does not include inheritance tax revenue after fiscal year 2007.

The DCM forecast method does not include revenue from the tax changes enacted by the Seventy-ninth Legislature,

Third Called Session, 2006, because that revenue is statutorily dedicated and, as such, is not considered unrestricted revenue available for debt service on not self-supporting debt. The DCM and its ratios can be adjusted at any point when the Comptroller's office issues a new revenue update.

FORECAST OF DEBT ISSUANCE

If there are no changes to existing debt or new authorizations, approximately $757.6 million in new not self-supporting debt is expected to be issued between fiscal years 2007 to 2011, which includes authorized but unissued debt and projected debt. This debt is comprised of the following items:

- $236.5 million in General Obligation Commercial Paper, series 2002A;
- $282.6 million in General Obligation Commercial Paper, series 2002A;
- $125 million in General Obligation Commercial Paper, series 2002B;
- $9 million in revenue bonds for the Texas Historical Commission;
- $15 million in revenue bonds for the Texas Parks and Wildlife Department;
- $23.8 million in GO bonds for the Texas Water Development Board EDAP series; and
- $65.6 million in GO bonds for Higher Education Assistance Fund (HEF) Bonds.

The amounts listed above do not include tuition revenue bonds.

These issuance amounts reflect the two types of debt mentioned: authorized but unissued debt and projected debt. In the debt capacity model (DCM), authorized but unissued debt is previously authorized debt that has a reasonable degree of certainty about time and amount of issuance because the legislature has appropriated debt service. Projected debt, as used in the DCM, serves two purposes. The first purpose is to include authorized but unissued debt where there is less certainty regarding timing and issuance amounts because it has not received debt service appropriations from the legislature. The second purpose is to include proposed projects, with total issuance amounts and debt service needed. This function is a way for the legislature to use the DCM to assess the impact of new debt authorizations.

APPENDIX B

TEXAS' DEBT AND BOND OVERVIEW

Currently, 17 state agencies and institutions of higher education in Texas have authority to issue bonds, as listed in **Figure B1**. The Texas Bond Review Board (BRB), the state's debt oversight agency, approves all state bond issues and lease purchases that have an initial principal amount greater than $250,000 or a term longer than five years unless a state bond issue is specifically exempt. The Texas Public Finance Authority (TPFA) is authorized to issue bonds on behalf of 18 active state agencies and three universities as well as for specific projects as authorized by the legislature. TPFA also provides staff for the Charter School Finance Corporation. The TPFA also administers the state's Master Lease Purchase Program (MLPP). As a result, the TPFA issues a significant portion of the state's debt that is payable from General Revenue and is responsible for the ongoing administration of such debt.

TYPES OF DEBT USED BY THE STATE OF TEXAS

Municipal bonds are interest-bearing certificates issued by a governmental entity as evidence that money was borrowed, and specify the bonds maturity date, interest rate, payment schedule, and the revenue source that will be pledged to make payments. Interest earnings on municipal bonds are typically exempt from federal income taxes. Consequently, investors will accept a lower interest rate than taxable bonds, such as corporate bonds and U.S. Treasury bonds. Federal tax law, however, limits issuance, investment, and use of proceeds of tax-exempt bonds.

General obligation (GO) bonds are legally secured by a constitutional pledge of the first monies coming into the State Treasury that are not constitutionally dedicated for another purpose. GO bonds must initially be approved by a two-thirds vote of both houses of the legislature and by a majority of the voters. After this approval bonds may be issued in installments as determined by the issuing agency or institution. GO bonds are issued for general government functions, such as, prisons, MHMR facilities, and parks.

Revenue Bonds are legally secured by a specific revenue source and do not require voter approval. Revenue bonds are typically issued for enterprise activities, such as utilities, airports, and toll roads. Lease Revenue or Annual Appropriation Bonds are also revenue bonds.

Commercial Paper (CP) can be secured by the state's general obligation pledge or by a specified revenue source. Maturity for CP ranges from 1 to 270 days. As the paper matures, it can be paid off or reissued ("rolled over") at a new interest rate. The interest rate on CP is usually considerably lower than the long-term interest rate.

Tax and Revenue Anticipation Notes (TRANs) are issued by the Texas Comptroller of Public Accounts, Treasury Operations to address cash flow shortages caused by the mismatch in the timing of revenues and expenditures in the General Revenue Fund. TRANs must be repaid by the end of the biennium in which they are used, but are usually repaid by the end of each fiscal year. TRANs are repaid with tax receipts and other revenues in the General Revenue Fund and must be approved by the Cash Management Committee, which is comprised of the Governor, Lieutenant Governor, Comptroller of Public Accounts, and Speaker of the House.

Master Lease Purchase Program (MLPP) is a lease revenue-financing program established in 1992, primarily to finance capital equipment acquisitions by state agencies, authorized by the Texas Government Code, §1232.103. MLPP may also

FIGURE B1
STATE BOND ISSUERS

Texas Public Finance Authority	Texas Tech University System
Texas Department of Transportation	The University of North Texas
Texas Water Development Board	Texas State Affordable Housing Corporation
Texas Veteran's Land Board (General Land Office)	Texas Higher Education Coordinating Board
Texas A&M University System	The University of Texas System
Texas Department of Housing and Community Affairs	University of Houston System
Office of Economic Development and Tourism	Texas Woman's University
Texas State Technical College System	Texas Agriculture Finance Authority
Texas State University System	

SOURCE: Texas Bond Review Board; Texas Public Finance Authority.

be used to finance other types of projects that have been specifically authorized by the legislature and approved by the TPFA Board. The financing vehicle for the MLPP program is a tax-exempt revenue commercial paper program.

GENERAL REVENUE EFFECT—SELF-SUPPORTING VS. NOT SELF-SUPPORTING DEBT

Self-supporting (SS) debt is repaid with revenues other than General Revenue Funds and can be issued as either general obligation debt or revenue debt. Examples of self-supporting debt include GO bonds issued by the Texas Water Development Board, which are repaid from loans made to communities for water and wastewater projects.

Not self-supporting (NSS) debt is intended to be repaid with state general revenues and can be issued as either general obligation debt or revenue debt. Examples of not self-supporting debt include: HEF Bonds, Texas Water Development Board Economic Distressed Areas Program, State Participation, and Water Conservation bonds, and TPFA GO and revenue bonds. Not self-supporting revenue bonds include bonds such as TPFA's Master Lease Purchase Program, Military Facilities Commission Bonds, and Parks and Wildlife Improvement Bonds.

Refunding bonds are issued to refinance existing bonds to: change bond covenants, obtain lower interest rates, or change repayment schedules (i.e., "restructure" the bonds). Federal tax law only allows one advance refunding, of tax-exempt bonds issued after 1986.

DEBT ISSUED BY UNIVERSITIES

Revenue bonds: Under Chapter 55 of the Texas Education Code, universities may issue revenue bonds or notes to finance permanent improvements for their institution(s). The universities may establish, and most have established, system-wide revenue financing programs that pledge all system-wide revenue, except legislative appropriations, to the repayment of the revenue bonds and notes ("Revenue Financing System").

Tuition revenue bonds (TRB): In addition to the general authority of Chapter 55 of the Texas Education Code, the legislature periodically authorizes tuition revenue bonds for specific institutions, for specific projects or purposes. TRBs are revenue bonds issued by the institution, equally secured by and payable from the same pledge for the institution's other revenue bonds. However, historically the legislature has appropriated General Revenue to the institution to offset all or a portion of the debt service on the bonds. For the purposes of the DAS, TRBs are considered self-supporting debt.

PUF/HEF: The University of Texas and Texas A&M University Systems may issue obligations backed by income of the Permanent University Fund (PUF), in accordance with Texas Constitution, Art. VII, §18. Texas' other institutions may issue Higher Education Fund (HEF) bonds, in accordance with Texas Constitution, Art. VII, §17.

CONSTITUTIONAL LIMIT ON DEBT PAYABLE FROM GENERAL REVENUE FUNDS

Article III, §49-j of the Texas Constitution prohibits the legislature from authorizing additional state debt if the annual debt service in any fiscal year on state debt payable from the General Revenue Fund exceeds 5 percent of the average of unrestricted general revenue from the preceding three fiscal years. The Constitution also stipulates that state debt payable from the General Revenue Fund does not include debt that, although backed by the full faith and credit of the state, is reasonably expected to be paid from other revenue sources and is not expected to create a general revenue draw.

As of August 31, 2006, the debt-limit ratio for outstanding debt was 1.33 percent for authorized and issued bonds. With the inclusion of authorized but unissued debt the debt-limit ratio was 1.87 percent, as defined by the constitutional debt limit.

BOND ISSUANCE PROCESS

The state's bond issuance process is initiated with the legislature's authorization of projects or programs and the authorization to issue bonds through statute or the General Appropriations Act. General Obligation bonds must be approved by a two-thirds vote of both houses of the legislature and by a majority of the voters. The state issuer then develops the capital project and obtains necessary approval(s) from its board including preliminary authorization of the project, the financing mechanism (bonds or commercial paper), par amount, method of sale, finance team, and any parameters deemed necessary by the issuer's governing board.

The financing team typically includes:

(1) bond counsel to analyze legal and tax issues and prepare legal and tax-exempt opinions;

(2) a financial advisor to assist with structuring the bond issue, selecting the method of sale, obtaining bond rating and/or credit enhancement, and negotiating

the sale with the underwriter or conducting the bid opening;

(3) underwriter to act as a dealer that purchases a new issue of municipal securities to resale to investors, and

(4) disclosure counsel to advise on continuing disclosure requirements.

Once the issuer and the finance team have structured the transaction and prepared the legal documents, the issuer must obtain Bond Review Board approval unless the transaction is an exempt issue. Upon evaluation of issuance and finance costs, the agency approves the maximum par amount, cost of issuance, and underwriter's spread per $1,000 for the bond issuance.

The issuer will then proceed with the bond sale as a competitive, negotiated, or private placement sale. After the sale of bonds, the Office of the Attorney General issues an opinion on the legal issuance of the bonds and approves the bond issue before delivery. The Texas Comptroller of Public Accounts then registers the bonds and records the sale.

APPENDIX C

CREDIT RATINGS

Three agencies issue credit ratings for state bonds: Fitch, Moody's, and Standard & Poor's. The ratings these agencies give have a significant impact on interest rates for a given bond issue, and therefore, the cost of long-term financing. **Figure C1** shows a summary of the investment grade ratings scale by each agency.

FIGURE C1
INVESTMENT GRADE BOND RATINGS BY RATING AGENCY

RATING	FITCH	MOODY'S	STANDARD & POOR'S
Highest	AAA	Aaa	AAA
High	AA+	Aa1	AA+
	AA	Aa2	AA
	AA-	Aa3	AA-
Medium	A+	A1	A+
	A	A2	A
	A-	A3	A-
Lower medium	BBB+	Baa1	BBB+
	BBB	Baa2	BBB
	BBB-	Baa3	BBB-

SOURCE: Fitch Ratings; Moody's; Standard & Poor's.

APPENDIX D

TEXAS' DEBT OUTSTANDING

Figure D1, adapted from the 2006 Annual Report of the Texas Bond Review Board, provides more detailed information on the state's debt outstanding.

FIGURE D1
TOTAL DEBT OUTSTANDING, FISCAL YEAR 2006

BOND AND DEBT TYPE	ENDING BALANCE, 8/31/06
General Obligation Bonds	
Self-Supporting	
Veterans' Land and Housing	$1,852,137,000
Water Development	887,340,000
Economic Development Bank	45,000,000
Park Development	20,080,000
College Student Loans	625,601,000
Farm and Ranch Security	0
Texas Agricultural Authority	25,000,000
Mobility Fund	1,725,515,000
Total, Self-Supporting	**$5,180,673,000**
Not Self-Supporting	
Higher Education Constitutional	$56,702,000
TPFA	1,978,685,000
Park Development	3,300,000
Agriculture Water Conservation	7,410,000
Water Development – EDAP	165,725,000
Water Development – State Participation	141,445,000
Total, Not Self-Supporting	**$2,353,267,000**
Total, General Obligation Bonds	**$7,533,940,000**
Non-General Obligation Bonds	
Self-Supporting	
PUF – Texas A&M System	429,210,000
PUF – University of Texas System	1,032,860,000
College and University Revenue	5,857,034,000
Texas Dept. of Housing and Community Affairs	2,305,689,000
Texas State Affordable Housing Corp.	515,148,000
Texas Small Business IDC	99,335,000
Economic Development	13,000,000
Texas Water Resources Finance Authority	21,315,000
College Student Loan Bonds	0
Texas Dept. of Transportation	2,199,994,000
Texas Workers' Compensation Fund	24,217,000
Veterans' Financial Assistance	25,689,000
TPFA (Special Revenue)	25,565,000
TPFA Workers' Unemployment Compensation	712,935,000
State Highway Fund	688,850,000
Texas Water Development Board (State Revolving)	1,234,300,000
Total, Self-Supporting	**$15,185,141,000**
Not Self-Supporting	
Texas Public Finance Authority Bonds	454,085,000
TPFA Master Lease Purchase Program	105,290,000
Texas Military Facilities Commission	21,690,000
Parks and Wildlife Improvement (TPFA)	41,880,000
Total, Not Self-Supporting	**$622,945,000**
Total, Non-General Obligation Bonds	**$15,808,086,000**
Total Debt Outstanding	**$23,342,026,000**

SOURCE: Texas Bond Review Board.

APPENDIX E

DEBT CAPACITY MODEL (DCM) RATIOS

The information presented in Appendix E focuses on existing and planned debt issuances for not self-supporting debt.

Figure E1 shows Ratio 1, debt service as a percentage of unrestricted revenues, based on current debt levels, for fiscal years 2007 to 2011. As mentioned in the Debt Capacity Model Ratios section of this report, if no new debt is added to the existing or planned issuances, debt service as a percentage of unrestricted revenues will be less than 2 percent (ranging from a high of 1.36 percent to a low of 1.11 percent in fiscal years 2007 to 2011).

The report uses a 2 percent target for this ratio, along with a 3 percent cap, which would allow the state to remain well below its constitutional limit of 5 percent. If these guidelines are followed and there are no new authorizations, during fiscal years 2007 to 2011, a 2 percent target would allow for an additional debt service capacity ranging from $221.1 million to $335.5 million during this period; under a 3 percent maximum an additional debt service capacity of $557.3 million to $712.2 million would be available during these years. **Figure E1** provides specific information by fiscal year.

The following example shows how a newly authorized $20 million project (and therefore $20 million in bond issuance) would impact Ratio 1. In this example a $20 million project is authorized and issued during September 2008, with the first payment in April 2008. The effect of this single project on Ratio 1 over a five-year period is shown in **Figure E2**. The example assumes a 20-year repayment term with 6 percent interest and level principal payments.

As shown in **Figure E2**, a single $20 million bond issuance has a small impact on the annual debt service capacity—less than 0.1 percent. Debt service for this project reduces annual debt service capacity by $700,000 in fiscal year 2008 and $2.17 million in fiscal year 2009.

Assuming level principal payments on a 20-year bond term set at 6 percent interest, a $250.0 million authorization (and September 2007 issuance) for a group of projects would reduce annual debt service capacity by $8.8 million in fiscal year 2008 and by $27.1 million in fiscal year 2009. It will also raise Ratio 1 from 1.35 percent to 1.38 percent in fiscal year 2008 and from 1.36 percent to 1.43 percent in fiscal year 2009. The DCM provides policymakers the ability to look at the impact of an individual project, such as the $20

FIGURE E1
RATIO 1, DEBT SERVICE AS A PERCENTAGE OF UNRESTRICTED REVENUES, FISCAL YEARS 2007 TO 2011

	2007	2008	2009	2010	2011
Projected Unrestricted Revenue	$34,416,649,789	$35,009,702,173	$36,185,678,151	$37,606,429,483	$39,221,186,271
Not Self-supporting Debt Service					
Authorized and Issued	405,282,841	417,638,140	411,604,186	375,992,489	343,934,820
Authorized and Unissued	7,200,601	25,030,792	35,120,525	38,532,447	38,280,692
Projected	1,968,900	17,388,266	30,780,914	36,774,668	35,674,388
Total Debt Service	**414,452,341**	**460,057,198**	**477,505,625**	**451,299,605**	**417,889,900**
Debt Service as a Percent of Unrestricted Revenue					
Authorized and Issued	1.25%	1.23%	1.17%	1.04%	0.91%
plus Authorized and Unissued	1.27%	1.30%	1.27%	1.14%	1.01%
plus Projected	1.28%	1.35%	1.36%	1.24%	1.11%
Additional Debt Service Capacity					
Target (2%)	233,350,908	221,105,053	226,574,576	274,045,794	335,532,059
Cap (3%)	557,252,533	561,686,179	578,614,676	636,718,493	712,243,039

SOURCE: Legislative Budget Board.

FIGURE E2
SAMPLE $20 MILLION PROJECT AND ITS IMPACT ON RATIO 1

	2007	2008	2009	2010	2011
Projected Unrestricted Revenue	$34,416,649,789	$35,009,702,173	$36,185,678,151	$37,606,429,483	$39,221,186,271
Not Self-supporting Debt Service					
Authorized and Issued	405,282,841	417,638,140	411,604,186	375,992,489	343,934,820
Authorized and Unissued	7,200,601	25,030,792	35,120,525	38,532,447	38,280,692
Projected	1,968,900	17,388,266	30,780,914	36,774,668	35,674,388
Sample project - $20 million	0	700,000	2,170,000	2,110,000	2,050,000
Total Debt Service	**414,452,341**	**460,757,198**	**479,675,625**	**453,409,605**	**419,939,900**
Debt Service as a Percent of Unrestricted Revenue					
Existing Debt	1.28%	1.35%	1.36%	1.24%	1.11%
With $20 Million project	1.28%	1.35%	1.36%	1.25%	1.11%
Additional Debt Service Capacity					
Target (2%)	233,350,908	220,405,053	224,404,576	271,935,794	333,482,059
Difference from Figure E1	0	(700,000)	(2,170,000)	(2,110,000)	(2,050,000)
Cap (3%)	557,252,533	560,986,179	576,444,676	634,608,493	710,193,039
Difference from Figure E1	0	(700,000)	(2,170,000)	(2,110,000)	(2,050,000)

SOURCE: Legislative Budget Board.

million project example, or a larger amount for a group of projects, such the $250 million project example. **Figure E3** shows the impact of the $250 million project.

Figure E4 provides detail on Ratio 2, Not Self-supporting Debt to Personal Income for fiscal years 2007 to 2011. The three major credit rating agencies consider this ratio when determining bond ratings. For fiscal years 2007 to 2011, at current debt levels Texas will maintain a ratio of not self-supporting to personal income from a high of 0.34 percent to a low of 0.19 percent, which is considered a low debt burden.

The $250 million example mentioned in Ratio 1 can also impact Ratio 2. If the $250 million group of projects is authorized and issued to September 2007, the debt to personal income ratio would be impacted, increasing from 0.31 percent to 0.34 percent in fiscal year 2008.

Figure E5 shows not self-supporting debt per capita. This ratio is also important to credit rating agencies. For fiscal years 2007 to 2011, Texas will have a low debt per capita, ranging from $119.24 to a low of $80.33.

The $250 million group of projects impacts Ratio 3 as well. In fiscal year 2008, debt per capita would increase from $114.39 to $124.67. In fiscal year 2009, the $250 million issuance would impact Ratio 3 by increasing debt per capita from $107.87 to $117.99.

FIGURE E3
SAMPLE $250 MILLION PROJECT AND ITS IMPACT ON RATIO 1

	2007	2008	2009	2010	2011
Projected Unrestricted Revenue	$34,416,649,789	$35,009,702,173	$36,185,678,151	$37,606,429,483	$39,221,186,271
Not Self-supporting Debt Service					
Authorized and Issued	405,282,841	417,638,140	411,604,186	375,992,489	343,934,820
Authorized and Unissued	7,200,601	25,030,792	35,120,525	38,532,447	38,280,692
Projected	1,968,900	17,388,266	30,780,914	36,774,668	35,674,388
Sample project - $250 million	0	8,750,000	27,125,000	26,375,000	25,625,000
Total Debt Service	**414,452,341**	**468,807,198**	**504,630,625**	**477,674,605**	**443,514,900**
Debt Service as a Percent of Unrestricted Revenue					
Existing Debt	1.28%	1.35%	1.36%	1.24%	1.11%
With $250 Million project	1.28%	1.38%	1.43%	1.32%	1.18%
Additional Debt Service Capacity					
Target (2%)	233,350,908	212,355,053	199,449,576	247,670,794	309,907,059
Difference from Figure E1	0	(8,750,000)	(27,125,000)	(26,375,000)	(25,625,000)
Cap (3%)	557,252,533	552,936,179	551,489,676	610,343,493	686,618,039
Difference from Figure E1	0	(8,750,000)	(27,125,000)	(26,375,000)	(25,625,000)

SOURCE: Legislative Budget Board.

FIGURE E4
RATIO 2, NOT SELF-SUPPORTING DEBT TO PERSONAL INCOME, FISCAL YEARS 2007 TO 2011

	2007	2008	2009	2010	2011
Not Self-supporting Debt					
Beginning Outstanding	$2,802,518,793	$2,843,009,779	$2,780,887,657	$2,666,143,030	$2,354,552,266
Planned Issuances	307,055,000	237,400,000	210,200,000	2,900,000	0
Retirement - Existing Debt	(265,644,014)	(282,964,122)	(294,741,626)	(273,607,764)	(254,676,733)
Retirement - New Debt	(920,000)	(16,558,000)	(30,203,000)	(40,883,000)	(41,648,000)
Ending Outstanding	2,843,009,779	2,780,887,657	2,666,143,030	2,354,552,266	2,058,227,533
Total Personal Income	**$836,590,000,000**	**$889,051,000,000**	**$945,842,000,000**	**$1,004,490,000,000**	**$1,064,714,000,000**
Not Self-supporting Debt Service to Personal Income	0.34%	0.31%	0.28%	0.23%	0.19%

SOURCE: Legislative Budget Board.

FIGURE E5
RATIO 3, NOT SELF-SUPPORTING DEBT PER CAPITA, FISCAL YEARS 2007 TO 2011

	2007	2008	2009	2010	2011
Not Self-supporting Debt Outstanding	$2,843,009,779	$2,780,887,657	$2,666,143,030	$2,354,552,266	$2,058,227,533
Projected Population	23,843,480	24,310,894	24,716,214	25,195,487	25,623,084
Not Self-supporting Debt Per Capita	$119.24	$114.39	$107.87	$93.45	$80.33

SOURCES: Legislative Budget Board; Comptroller of Public Accounts.

APPENDIX F

DEBT CAPACITY MODEL RATIOS AND SPECIAL DEBT COMMITMENTS

There are two versions of the debt capacity model (DCM). The first model considers the state's obligation to its not self-supporting debt. The second model, illustrated in the tables in this appendix, shows the effect of other commitments on the DCM ratios. Other commitments, which provide debt service reimbursements but are not the state's legal obligation include: tuition revenue bonds for higher education and for public schools, the existing debt allotment (EDA), and instructional facilities allotment (IFA). Tables are included to illustrate the effect of special debt commitments for policymakers who wish to consider not only the state's not self-supporting debt, but also related debt service obligations that are paid with General Revenue.

DESCRIPTION OF OTHER DEBT

Three special debt service commitments are either reimbursed by, or receive a contribution from, the state. These obligations include:

Tuition Revenue Bonds (TRB): TRBs are revenue bonds issued by the individual higher education institutions, systems, or the Texas Public Finance Authority (on behalf of certain institutions) for new building construction or renovation. All college and university revenue bonds are equally secured by and payable from a pledge of all or a portion of certain "revenue funds" as defined in the Texas Education Code, Chapter 55. Though legally secured through an institution's tuition and fee revenues, historically the state has reimbursed the universities for the debt service for these bonds with General Revenue Funds. During the Seventy-ninth Legislature's Third Called Session, 2006, House Bill 153 passed, which authorized $1.8 billion for tuition revenue bonds. No debt service was appropriated at that time for these new bonds, but full payment reimbursements are included in the introduced 2008–09 General Appropriations Bill.

Existing Debt Allotment (EDA): In 1999, the Legislature added Subchapter B to Chapter 46 of the Texas Education Code to create the Existing Debt Allotment (EDA). The EDA is similar to the Instructional Facilities Allotment (IFA) program in that it provides tax rate equalization for local debt service taxes. The original qualification for EDA eligibility was debt "for which the district levied and collected taxes in the 1998–99 school year." In addition, EDA must be used for debt that is not receiving IFA funds. In the initial biennium of operation, the EDA was limited to $0.12 per $100 of valuation but was raised in 2001 to the current level of $0.29 per $100 of valuation.

EDA funding is shared between state and local resources. State assistance is based on the lesser of actual debt service or the tax rate limit established by the tax effort in the last year of the preceding biennium. The EDA program operates without applications and has no award cycles. Instead, the program is based on a statutory definition of eligible debt, presently defined as those debts for which the first payment was during the 2004–05 school year (Texas Education Code §46.033). Only general obligation bonds are eligible for the program. The projects originally financed by the debt do not impact eligibility, as there is no restriction to instructional facilities.

Instructional Facilities Allotment (IFA): The Instructional Facilities Allotment (IFA) program was authorized in House Bill 4 by the Seventy-fifth Legislature, 1997. The provisions that authorize the IFA program are incorporated into the Texas Education Code as Chapter 46. The IFA program, which became effective on September 1, 1997, provides assistance to school districts in making debt service payments on qualifying bonds and lease-purchase agreements. To receive assistance, districts must make application to the Texas Education Agency (TEA). Bond or lease-purchase proceeds must be used for the construction or renovation of an instructional facility. A maximum allotment is determined based upon the annual debt service payment or $250 per student in average daily attendance (ADA), whichever is lesser.

Figure F1 shows the total payments for tuition revenue bonds, the existing debt allotment, and the instructional facilities allotment. For tuition revenue bonds, it is assumed that the new authorization from May 2006 would include appropriations for full debt service reimbursements for all years shown.

There are two options for the legislature to use if it wishes to assess the impact of these special debt commitments on the five debt ratios. The first one, shown in the main text of this report, would be to add these items to the total sum of not

FIGURE F1
ANNUAL PAYMENTS FOR SPECIAL DEBT COMMITMENTS, FISCAL YEARS 2007 TO 2011

COMMITMENT	2007	2008*	2009*	2010*	2011*
Existing Tuition Revenue Bonds	$177,087,552	$172,827,214	$170,424,762	$164,830,314	$162,855,603
New Tuition Revenue Bonds (House Bill 153)	0	152,187,974	155,206,821	161,224,808	161,224,808
Existing Debt Allotment	443,092,587	387,448,999	376,562,572	377,987,995	376,556,421
Instructional Facilities Allotment	307,846,669	289,631,576	281,570,235	275,764,396	269,528,473
Annual Payments Total	**$928,026,808**	**$1,002,095,763**	**$983,764,390**	**$979,807,512**	**$970,165,305**

Note:* Amounts shown assume no further statutory change to Existing Debt Allotment eligibility or increased Instructional Facilities Allotment appropriations for new grants. For new TRBs, the amounts listed for fiscal years 2008 and 2009 are based on the amounts from the 2008–09 introduced General Appropriations Bill. For fiscal years 2010 and 2011, these amounts are estimated.

SOURCES: Legislative Budget Board; Texas Bond Review Board; Texas Public Finance Authority.

self-supporting debt service (**Figure 11,** page 12). This method can be useful if the object is to assess all General Revenue-supported debt commitments in a comprehensive manner. However, TRBs are classified as self-supporting revenue debt, which does not count against the constitutional debt limit. EDA and IFA are reimbursements to local school districts where the debt is held locally, and these items also do not count against the constitutional debt limit.

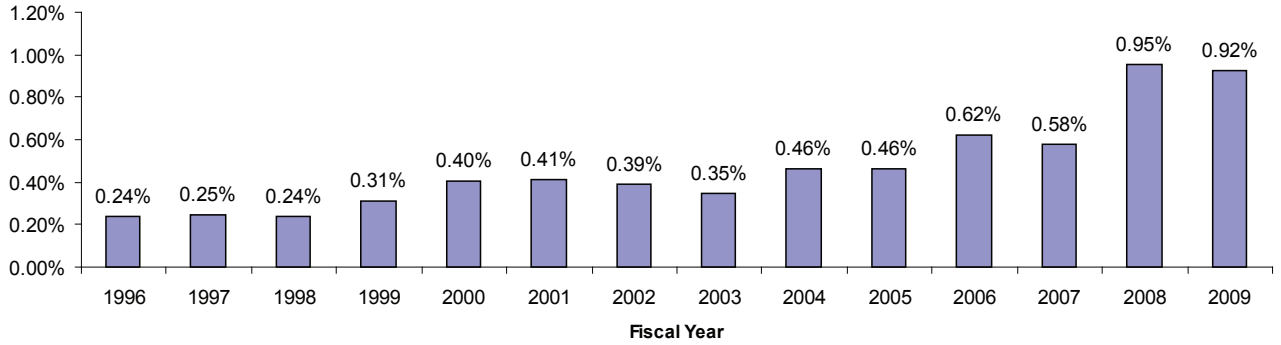
The second option would be to establish a Ratio 1 target and cap specifically for special debt commitments. Tuition revenue bonds provide a good example of how to employ this method and the information below describes this option. Historically, appropriated debt service reimbursements for tuition revenue bonds have remained at less than 0.65 percent of available unrestricted General Revenues, and more often less than 0.50 percent. **Figure F2** shows tuition revenue bond debt service reimbursements as a percentage of unrestricted General Revenue Funds.

To understand the effect of the new authorization with existing debt, **Figure F3** shows a five-year view of annual debt service requirements for tuition revenue bonds. Assuming full debt service payment reimbursements are appropriated by the state (which is included in the introduced 2008–09 General Appropriations Bill), the new $1.8 billion authorization in House Bill 153 from the Seventy-ninth Legislature's Third Called Session, 2006, nearly doubles the annual debt service requirement.

If the concept of target and cap guidelines in Ratio 1 were to be applied to tuition revenue bond debt service, by following historical appropriations, the legislature could use 0.5 percent as a target and 1.0 percent as a cap. If these guideline ratios were in place, with existing TRB debt service plus debt service for the new $1.8 billion authorized in May 2006, the state's capacity to handle additional TRB debt is reduced. **Figure F4** shows the effect of existing and new tuition revenue bond debt service using sample target and cap debt capacity guidelines.

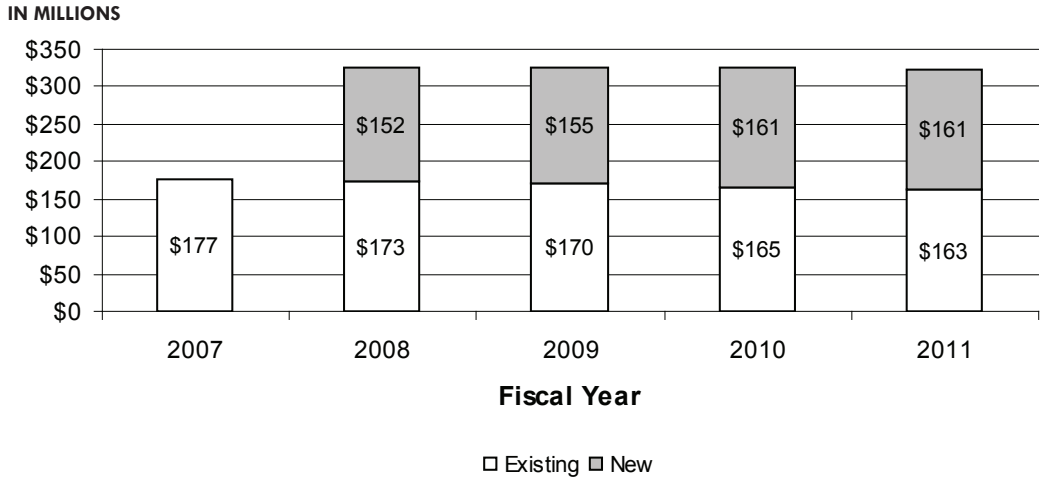
Similar Ratio 1 guidelines could be established for other items or a selected group of items to help monitor the growth or contraction of special debt commitments where the annual reimbursement is paid from unrestricted general revenues, like not self-supporting general obligation bonds.

FIGURE F2
APPROPRIATED TUITION REVENUE BOND REIMBURSEMENT PAYMENTS AS A PERCENTAGE OF UNRESTRICTED GENERAL REVENUE FUNDS, FISCAL YEARS 1996 TO 2009



SOURCE: Legislative Budget Board.

FIGURE F3
ANNUAL PAYMENT AMOUNTS FOR TUITION REVENUE BONDS, FISCAL YEARS 2007 TO 2011



SOURCE: Legislative Budget Board.

FIGURE F4
TUITION REVENUE BOND PAYMENTS WITH DEBT SERVICE CAPACITY GUIDELINES, FISCAL YEARS 2007 TO 2011

COMMITMENT	2007	2008	2009	2010	2011
Existing Tuition Revenue Bonds	$177,087,552	$172,827,214	$170,424,762	$164,830,314	$162,855,603
New Tuition Revenue Bonds (House Bill 153)	0	152,187,974	155,206,821	161,224,808	161,224,808
Annual Payment Total	$177,087,552	$325,015,188	$325,631,583	$326,055,122	$324,080,411
TRB Debt Service as a Percent of Unrestricted Revenues	0.55%	0.95%	0.92%	0.90%	0.86%
Additional Debt Service Capacity					
Target (0.5%)	(15,136,739)	(154,724,625)	(149,611,533)	(144,718,772)	(135,724,921)
Cap (1.0%)	146,814,073	15,565,937	26,408,518	36,617,577	52,630,569

SOURCE: Legislative Budget Board.

APPENDIX G

DEBT ISSUANCE POLICIES

(CREATED BY THE TEXAS BOND REVIEW BOARD)

INTRODUCTION

The Seventy-seventh Legislative Regular Session, 2001, passed House Bill 2190 requiring the Texas Bond Review Board to develop and adopt debt issuance guidelines and policies for state issuers to ensure that state debt is prudently managed.

The following policies were created by the Bond Review Board per the requirements of House Bill 2190, to standardize and rationalize the issuance and management of debt by the State of Texas. The primary objective of the guidelines is to establish conditions for the use of debt and to create procedures and policies that minimize the state's debt service and issuance costs, retain the highest possible credit rating, and maintain full and complete financial disclosure and reporting. The policies apply to all debt issued by the state, including leases and any other forms of indebtedness supported by state General Revenue. However, all state issuers regardless of the type of debt issued should develop and maintain their own debt policies based on their unique goals and programs.

Regular, updated debt policies can be an important tool to ensure the use of the state's limited resources to meet its commitments to provide needed services to the citizens of Texas and to maintain sound financial management practices. These policies are therefore guidelines for general use, and allow flexibility for issuers to be able to respond to changed economic conditions. One function of these debt policies is to stimulate discussion and broaden appreciation of debt issues. These policies should be reviewed as a guideline once every biennium. Derivatives will be added after the Government Finance Officers Association (GFOA) adopts its policies.

CREDITWORTHINESS OBJECTIVES

Policy 1: Credit Ratings

The State of Texas seeks to maintain the highest possible credit ratings for all categories of short- and long-term general obligation debt that can be achieved without compromising delivery of basic services and programs and achievement of adopted policy objectives.

The state recognizes that external economic, natural, or other events may affect the creditworthiness of its debt occasionally. Nevertheless, the executive and legislative branches of state government are committed to ensuring that actions within their control are prudent and necessary to maintain the creditworthiness objectives of the state.

Policy 2: Financial Disclosure

The State of Texas is committed to full and complete financial disclosure, and to cooperating fully with rating agencies, institutional and individual investors, state departments and agencies, other levels of government, and the general public to share clear, comprehensible, and accurate financial information. The State of Texas is committed to meeting secondary disclosure requirements on a timely and comprehensive basis.

Official statements accompanying debt issues, Comprehensive Annual Financial Reports, and continuing disclosure statements will strive to meet the minimum standards (to the extent applicable to each debt issue) promulgated by regulatory bodies and professional organizations such as the Securities and Exchange Commission (SEC), Municipal Securities Rulemaking Board (MSRB), the Governmental Accounting Standards Board (GASB), and follow Generally Accepted Accounting Principles (GAAP).

The state Comptroller of Public Accounts, in conjunction with individual issuers, shall be responsible for ongoing disclosure to established state and national information repositories and for maintaining compliance with disclosure standards promulgated by national regulatory bodies.

Policy 3: Capital Planning

To enhance creditworthiness and prudent financial management, the state will prepare a systematic capital plan and conduct long-term financial planning. This planning process will involve the cooperation and coordination of data and information among all state agencies and oversight bodies, including the Bond Review Board and the Legislative Budget Board. The result of the planning process will be a Comprehensive Capital Expenditures Plan prepared by the Bond Review Board and submitted to the state leadership,

pursuant to SB1, Article 9, Section 6.38, Seventy-seventh Regular Session, 2001. This plan will be updated and adjusted periodically as necessary. The plan will be implemented via the adoption of biennial capital budget items through the Legislative Appropriations Request process.

Policy 4: Debt Limits
The state will keep outstanding debt within the limits prescribed by the state's constitution, specifically Article 3, Section 49-j; and at levels consistent with its creditworthiness objectives.

PURPOSES AND USES OF DEBT

Policy 5: Capital Financing
Debt will be issued for a capital project when it is an appropriate means to achieve a fair allocation of costs between current and future beneficiaries or in the case of emergency. Debt should not be issued to finance operating costs, except in the case of short-term borrowing to meet cash flow needs.

Policy 6: Asset Life
The state should consider long-term financing for the acquisition, maintenance, replacement, or expansion of physical assets (including land) only if they have a useful life of at least five years. Debt should be used only to finance capital projects, except in case of emergency. State debt should not be issued for periods exceeding the useful life or average useful lives of the project or projects to be financed except in the case of an emergency or when it is appropriate to achieve a fair allocation of costs between current and future beneficiaries.

DEBT STANDARDS AND STRUCTURE

Policy 7: Length of Debt
Debt will be structured for the shortest period consistent with a fair allocation of costs to current and future beneficiaries or users, and within applicable federal tax law.

Policy 8: Debt Structure
Debt should be structured to achieve the lowest possible net cost to the state or state issuer, given market conditions, the nature of the capital project, and the nature and type of security provided. Moreover, to the extent possible, the state issuer will design the repayment of its overall debt so as to recapture rapidly its credit capacity or the state's credit capacity for future use.

Policy 9: Level Principal Debt Service
A level principal repayment structure should be considered for use for bonds repaid from General Revenue of the state. This structure results in 50 percent of the debt being repaid in 10 years (if financed for a 20-year term), and creates future capacity for debt service on additional bond issues. A level debt service structure should be reserved for bonds repaid from a dedicated revenue stream, if necessary or appropriate.

Policy 10: Backloading
"Backloading" of debt service costs will be considered only: (1) when natural disasters or extraordinary or unanticipated external factors make the short-term cost of the debt prohibitive; (2) when the benefits derived from the debt issuance can clearly be demonstrated to be greater in the future than in the present; (3) when such structuring is beneficial to the issuer's overall amortization schedule; or (4) when such structuring will allow debt service to more closely match project revenues during the early years of the project's operation.

Policy 11: Variable Rate Debt
A state issuer may choose to issue securities that pay a rate of interest that varies according to pre-determined formula or results from a periodic remarketing of the securities, consistent with state law and covenants of pre-existing bonds.

Variable rate debt should be converted to fixed rate debt as necessary to maintain the creditworthiness objectives of the state, to meet particular needs of a financing program, or to lock in low fixed interest rates when advantageous. An issuer should take into account the amount of time that variable rate debt has been outstanding when determining the final maturity of the fixed rate debt.

Policy 12: Subordinate Debt
A state issuer should issue subordinate debt only if it is financially beneficial as defined by the issuer or consistent with creditworthiness objectives.

Policy 13: Derivatives
State issuers should consider the use of derivative products when products meet the specific needs of a financing program or provide a demonstrated economic benefit to the state that outweighs the costs and risks of the transaction. Appropriate public finance professionals, including financial advisors and legal counsel should be retained to ensure that the state receives fair market value for the transaction.

Policy 14: Refundings
State issuers should perform periodic reviews of all outstanding debt to determine refunding opportunities. Refunding should be considered (within federal tax law constraints) when there is a net economic benefit of the refunding or the refunding is necessary to eliminate restrictive covenants essential to operations and management.

Advance refundings for economic savings should be undertaken when a net present value savings of at least 3 percent) of the refunded debt can be achieved. Current refundings, which produce a positive net present value savings, may also be considered. Refundings with no savings or negative savings should not be considered unless there is a compelling public policy objective such as restructuring to eliminate restrictive bond convenants or to provide additional financial flexibility.

Policy 15: BANs
Use of bond anticipation notes (BANs) will be undertaken only if the transaction costs plus interest on the debt are less than the cost of internal financing, or available cash is insufficient to meet working capital requirements.

Policy 16: COPs
Lease Transactions Involving Certificates of Participation (COPs) or Participation Interests (PIs)–The Bond Review Board discourages the use of COPs or PIs in lease with option to purchase (LWOP) transactions. LWOP transactions utilizing COPs and PIs often require higher interest rates and are considerably more complex to structure and document with commensurately higher legal costs than lease revenue bond issues. In addition, to protect the state's credit ratings should it later become desirable to exit the LWOP, such transactions would require expensive credit enhancement. Consequently, unless a unique situation justifies the issuance of COPs or PIs in an LWOP transaction, the Bond Review Board does not consider such transactions to be the most cost-effective means of financing and recommends issuers utilize lease revenue bond financings as an alternative.

Policy 17: Credit Enhancements
Credit enhancement (letters of credit, bond insurance, etc.) may be used, but only when net debt service on the bonds is reduced by more than the costs of the enhancement.

DEBT ADMINISTRATION AND PROCESS

Policy 18: Investment of Bond Proceeds
Bond proceeds should be invested as part of an investment schedule that reflects the anticipated need to draw down funds for project purposes. Through careful matching of investment maturity dates, a state issuer can maximize its return while ensuring the necessary cash flow. Investments will be consistent with those authorized by existing state law and by the issuer's investment policies.

Policy 19: Competitive Sale
Bids should be awarded on a true interest cost basis (TIC), providing other bidding requirements are satisfied. In such instances where the Issuer deems all bids received unsatisfactory, it may, at the election of the issuer, subsequently sell through a negotiated sale in accordance with its standard procedures.

Policy 20: Negotiated Sale
Negotiated sales of debt should be considered in the following circumstances: (1) when the complexity of the issue requires specialized expertise; (2) when the negotiated sale would result in substantial savings in time or money; or (3) when market conditions are unusually volatile or uncertain.

Policy 21: Underwriters
For all negotiated sales, underwriters should be required to demonstrate sufficient capitalization and experience related to the debt issuance and should be able to show minority and women participation within their firms.

Policy 22: HUB Participation
Issuers are required to make a good faith effort to achieve 33 percent participation by HUB firms in the underwriting and issuance of debt. Issuers should also encourage underwriters to make similar good faith efforts in include HUB participation in syndicates for competitive sales.

Policy 23: Bond Counsel
State issuers should retain outside bond counsel for all bond transactions where necessary to market the bonds. Bonds issued by the state issuers should include a written opinion by bond counsel affirming that the state issuer is authorized to issue the debt, stating that the state issuer has met all state constitutional and statutory requirements necessary for issuance, and the issue is tax-exempt, if applicable.

Policy 24: Financial Advisor
State issuers should consider retaining an external financial advisor if the issuer does not possess the expertise for the transaction being considered. The use of a financial advisor for a particular bond sale should be at the discretion of the issuer on a case-by-case basis.

Policy 25: Compensation for Services
Compensation for bond counsel, underwriters' counsel, financial advisors, and other services should be reasonable based on the level of services rendered, desired qualifications, expertise, industry standards, and complexity of the issue.

Policy 26: RFP/RFQ Process
State issuers shall make all final determinations of selection for legal and other services in accordance with Chapter 1201, Texas Government Code. The determination will be made following an independent review of responses to requests for proposals (RFPs) or requests for qualifications (RFQs). The RFP, and RFQs should be reviewed by at least the issuer's financial professional charged with debt oversight and or the agency's financial advisor.

Policy 27: Arbitrage Compliance
State issuers shall maintain a system of record keeping and reporting to meet the arbitrage rebate compliance requirements of federal tax code.

Policy 28: Intergenerational Housing
Housing developments that commingle age-restricted units and family units must meet the definition of intergenerational housing and abide by the Board's policy.

Policy 29: Property Tax Exemption
The Bond Review Board will approve applications for the issuance of bonds to finance multifamily housing revenue developments for which the organization is designated a Community Housing Development (CHDO) and qualifies for 100 percent property exemption under Section 11.182 of the Texas Tax Code only if the application includes a payment in lieu of taxes (PILOT payment) in an amount equal to 50 percent of the property taxes that would have been imposed by the applicable school district for the tax year for which the exemption applies, payable to the Texas Comptroller of Public Accounts and submitted to the Comptroller by February 1 of the year following approval of the project.

APPENDIX H

CONSTITUTIONAL DEBT LIMIT

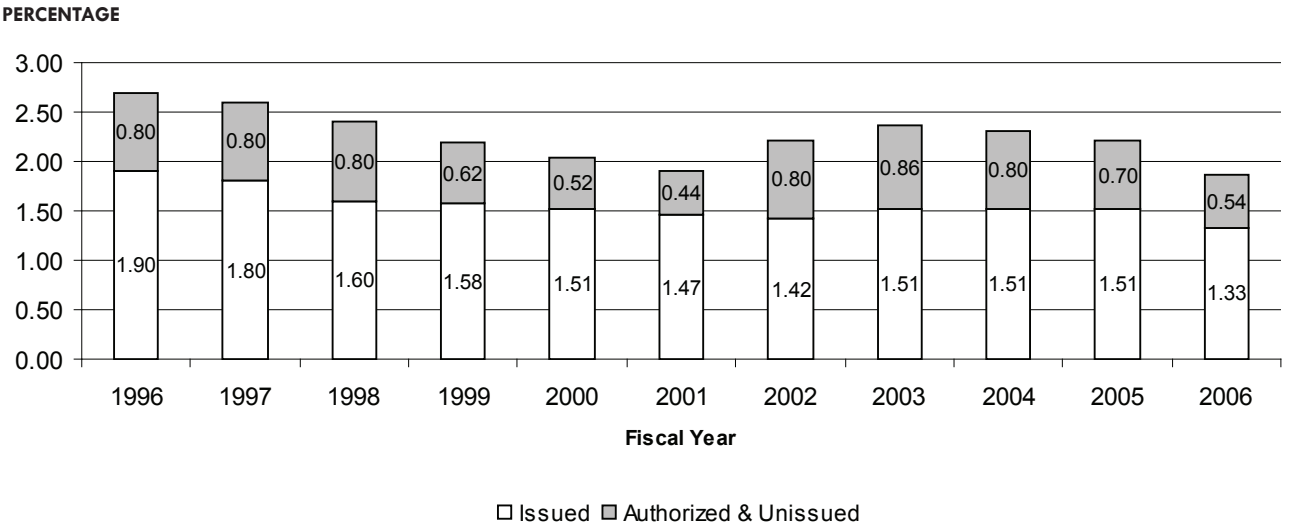
Texas has a constitutional debt limit which limits not self-supporting debt service payments by General Revenue to 5 percent of the average unrestricted General Revenue Funds of the three preceding fiscal years. **Figure H1** shows the constitutional debt limit ratio from fiscal years 1996 to 2006. The total constitutional debt limit ratio (with authorized and issued debt service as well as authorized but unissued debt service) ranged from a high of 2.70 percent in fiscal year 1996 to a low of 1.87 percent in fiscal year 2006.

Ratio 1 in the debt capacity model mimics the constitutional debt limit calculation, but there are some differences. The debt capacity model is intended to provide debt calculations based on realistic uses of debt financing. However, the constitutional debt limit calculation has to include certain items that are not calculated in Ratio 1.

The first (and major) cause of difference between the constitutional debt limit ratio and Ratio 1 is the debt service used for the Higher Education Fund (HEF) bonds. The constitutional debt limit calculation assumes the maximum amount of debt service available for these bonds is used, but in actuality less than a quarter of the debt service is used. For example, in fiscal year 2006, $87.5 million were available for debt service but only $5.6 million were used by institutions of higher education for debt service.

Another difference is caused by the omission in the calculation of the constitutional debt limit of 10 percent of the Water Development Board, Economically Distressed Areas Program (EDAP) bonds. Proceeds from the sale of the EDAP bonds are used to makes loans or grants to local governments or other political subdivisions of the state for projects involving water conservation, transportation, storage, and treatment. Up to 90 percent of the bonds can be used for grants. The 10 percent amount assumes a minimum amount of loans, which would be repaid to the state, and is therefore, omitted in the debt limit calculation.

FIGURE H1
CONSTITUTIONAL DEBT SERVICE LIMIT AS A PERCENTAGE OF UNRESTRICTED GENERAL REVENUE FUNDS
FISCAL YEARS 1996 TO 2006



SOURCE: Legislative Budget Board.