Texas Bond Review Board

Debt Affordability Study

February 2012

This study provides data on the state's historical, current and projected debt positions and develops financial data from which policymakers can review various debt strategies by use of the study's Debt Capacity Model.

Debt Affordability Study
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Rick Perry, Governor
Chairman

David Dewhurst, Lieutenant Governor

Joe Straus, Speaker of the House of Representatives

Susan Combs, Comptroller of Public Accounts

Robert C. Kline
Executive Director

Executive Summary

The 80th Legislature (2007) passed Senate Bill 1332 that amended the Texas Government Code Chapter 1231 to require the Texas Bond Review Board in consultation with the Legislative Budget Board to prepare annually the state's Debt Affordability Study (DAS).

The DAS' Debt Capacity Model (DCM) assesses the impact on general revenue of the state's annual debt-service requirements for current and projected levels of not self-supporting (NSS) debt over the next five years. Credit rating agencies examine variations of these debt capacity measures to assess the state's debt burden, a key factor affecting the state's credit rating and thus capacity for debt issuance.

State Debt Outstanding and the Constitutional Debt Limit
At the end of FY2011, Texas had $40.50 billion in total debt outstanding. Of this amount $4.15 billion (10.2%) was NSS debt, and $36.36 billion (89.8%) was self-supporting. The state's total debt outstanding has increased from $17.11 billion in FY2002 to the current $40.50 billion as of August 31, 2011.

As of August 31, 2011 the Constitutional Debt Limit (CDL) for outstanding debt was 1.35 percent and 3.70 percent for outstanding and authorized but unissued debt.

Assumptions for the Debt Capacity Model
The DCM contains assumptions for the fiscal years under review (2012-2016) including:

- Estimates of unrestricted general revenue (UGR)
- Estimates of NSS debt issuance
- Estimates of appropriations for Special Debt Commitments (Tuition Revenue Bonds, Instruction Facilities Allotment and Existing Debt Allotment)
- Estimates of Texas' future population and total personal income

Ratios used in the Debt Capacity Model
The DCM uses five ratio calculations to assess the impact of the state's annual debt-service requirements paid from general revenue for current and projected levels of NSS debt over the next five years. A summary of each ratio is below:

- Ratio 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue measures the impact of debt service on the rolling three year average of UGR. Because NSS debt service as a percentage of UGR has historically been below 2 percent, Ratio 1 is set up with a target of 2 percent, a cap at 3 percent and a maximum of 5 percent. Ratio 1 resembles the CDL but is only a guideline while the CDL is a legal limit set by the state's constitution. Ratio 1 is calculated two ways: 1) using only NSS debt service and 2) using NSS debt service plus Special Debt Commitments to show their impact on the state's debt capacity (see *Chapters 1, 3 and Appendix C*).
- Ratio 2: Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue is similar to Ratio 1 but is generally more restrictive because the amount of available general revenue in this ratio is limited to budgeted general revenue.
- Ratio 3: Not Self-Supporting Debt as a Percentage of Personal Income is a direct indicator of a governmental borrower's ability to repay debt obligations by transforming personal income into revenues through taxation.

- Ratio 4: Not Self-Supporting Debt per Capita measures the dollar amount of debt per person.
- Ratio 5: Rate of Debt Retirement is the rate at which long-term debt is retired and measures the extent to which new debt capacity is created for future debt issuance.

Major Findings

- Additional debt-service capacity for the Ratio 1 target of 2 percent is $255.3 million for fiscal 2012 and steadily decreases to a negative $75.0 million by fiscal year 2016. (see *Figure 1.2, Chapter 3 and Appendix C*)
- Additional debt-service capacity for the Ratio 1 target of 2 percent including Special Debt Commitments is a negative $716.4 million beginning in fiscal 2012 and decreases to a negative $1.11 billion by fiscal 2016.
- Including Special Debt Commitments, total debt service exceeds Ratio 1's target of 2 percent and cap of 3 percent beginning in fiscal 2012 but remains below the 5 percent max through 2016.
- Special Debt Commitments are projected to account for more than half of total debt service for fiscal years 2012-2016.
- For the 2012-2016 period NSS debt service including Special Debt Commitments will peak in fiscal 2016 (see *Figure 1.2*).
- NSS debt as a percentage of personal income and debt per capita are better than rating agency benchmarks through fiscal 2016.
- The rate of debt retirement for NSS debt for the five and ten year periods exceeds rating agency benchmarks. However, the rate of debt retirement is expected to decline as the remaining $4 billion of Texas Transportation Commission (Proposition 12) debt is issued with level debt service instead of level principal payments and maturities longer than 20 years.

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Cautionary Statements

Chapter 1231 of the Texas Government Code directs the Bond Review Board (BRB) to annually prepare a study regarding the state's current debt burden. The report must analyze the amount of additional not self-supporting debt the state can accommodate; include analysis which may serve as a guideline for debt authorizations and debt-service appropriations by including ratios of such debt to personal income, population, budgeted and expended general revenue, as well as the rate of debt retirement and a target and limit ratio for not self-supporting debt service as a percentage of unrestricted general revenues. BRB shall deliver the report to the governor, lieutenant governor, comptroller of public accounts, Senate Committee on Finance and House Appropriations Committee. This report is intended to satisfy these Chapter 1231 duties.

The data in this report and on the BRB's website is compiled from information reported to the BRB from various sources and has not been independently verified. The reported debt data of state agencies may vary from actual debt outstanding, and the variance for a specific issuer could be substantial.

State debt data compiled does not include all installment purchase obligations, but certain lease-purchase obligations are included. In addition, SECO LoanSTAR Revolving Loan Program and certain other revolving loan program debt and privately-placed loans are not included. Outstanding debt excludes debt for which sufficient funds have been escrowed to retire the debt either from proceeds of refunding debt or from other sources.

Future revenues, population and personal income information of the state are derived from third-party estimates. They are inherently subject to various known and unknown risks and uncertainties, including the possible invalidity of underlying assumptions and estimates; possible changes or developments in social, economic, business, industry, market, legal, and regulatory circumstances and conditions; extreme weather events; and actions taken or omitted to be taken by third parties, including consumers, taxpayers, and legislative, judicial, and other governmental authorities and officials, all of which are beyond the control of the BRB. Future debt issuance is based on estimates supplied by each issuing agency. Future debt service on variable rate, commercial paper, and other short-term and demand debt is estimated on the basis of interest rate and refinancing assumptions described in the report. Actual future issuance and debt service could be affected by changes in agency financing decisions, prevailing interest rates, market conditions, and other factors that cannot be predicted. Consequently, actual future data could differ from estimates included in this report, and the difference could be substantial. The BRB assumes no obligation to update any such estimate of future data.

Historical data and trends presented are not intended to predict future events or continuing trends, and no representation is made that past experience will continue in the future.

This report is intended to meet Chapter 1231 requirements and inform the state leadership and the Legislature to provide a guideline for state debt authorizations and debt-service appropriations. This report is not intended to inform investors in making a decision to buy, hold, or sell any securities, nor may it be relied upon as such. Data is provided as of the date indicated and may not reflect debt, debt service, population or other data as of any subsequent date. This data may have changed from the date as of which it is provided. For more detailed or more current information, see the issuers' web sites or their filings at Electronic Municipal Market Access (EMMA®). The BRB does not control or make any representation regarding the accuracy, completeness or currency of any such site, and no referenced site is incorporated herein by that reference or otherwise.

Chapter 1 – Summary of Results

Background
The 80th Legislature (2007) passed Senate Bill 1332 that amended the Texas Government Code Chapter 1231 to require the Texas Bond Review Board in consultation with the Legislative Budget Board annually to prepare the state's Debt Affordability Study (DAS).

As defined in this study, debt affordability is the determination of the state's capacity for additional not self-supporting (NSS) debt, i.e., debt funded from unrestricted general revenues that has a direct impact on state finances. Debt affordability provides an integrated approach that helps manage and prioritize state debt by analyzing data on historical, current and projected uses of NSS debt in conjunction with the financial and economic resources of the state and its long-term capital needs.

Debt service for NSS debt depends solely on legislative appropriations from the state's general revenue fund and thus draws upon the same sources otherwise used to finance the operation of state government. The DAS' Debt Capacity Model (DCM) provides financial data policymakers can use to review the impact of various strategies for NSS debt to determine acceptable levels of annual debt service and thus prioritize the state's available revenues to meet the highest priority needs.

The DCM uses five ratio calculations to assess the impact on general revenue of the state's annual debt-service requirements for current and projected levels of NSS debt over the next five years. Credit rating agencies examine variations of these debt capacity measures to assess the state's debt burden, a key factor affecting the state's credit rating and thus capacity for debt issuance.

Summary of Results
The following explains the ratios used in the DAS. The table below shows the results of the study.

Ratio 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue
Ratio 1 is calculated by dividing future debt service by the rolling three year average of unrestricted general revenue (UGR). Statute requires the DAS to include a target and cap for Ratio 1, both of which can be adjusted as requested or as directed by the board or legislature. Since Texas has historically appropriated less than 2 percent of its unrestricted general revenue for NSS debt service, this study utilizes 2 percent as the target ratio, 3 percent for the cap ratio and a maximum of 5 percent in its analysis of Ratio 1.

Ratio 1 of the DCM can be used to assess the impact of increasing or decreasing the debt-service capacity of general revenue special debt commitments. Special debt commitments (SDC) consist of tuition revenue bonds (TRBs) for higher education and the Existing Debt Allotment (EDA) and Instructional Facilities Allotment (IFA) for public education.

Figure 1.1 illustrates Ratio 1 for NSS annual debt service and SDC. *Figure 1.2* provides additional detail showing the impact of SDC on Ratio 1. (See *Chapter 3* and *Appendix C*.)

Figure 1.1
Debt Service Commitments as a Percentage of Unrestricted General Revenue

	2012	2013	2014	2015	2016
February 2012					
Annual NSS Debt Service	1.31%	1.56%	1.97%	2.15%	2.18%
Tuition Revenue Bonds (TRBs)	0.80%	0.76%	0.75%	0.73%	0.69%
IFA and EDA	1.82%	1.84%	1.98%	1.88%	1.78%
Total	**3.94%**	**4.16%**	**4.71%**	**4.76%**	**4.65%**

SOURCE: Texas Bond Review Board.

Results

- Excluding SDC, additional NSS annual debt-service capacity declines from $255.3 million for the 2 percent target for fiscal 2012 and becomes negative $75 million by fiscal years 2016 (see *Figure 1.2, Chapter 3 and Appendix C*).

- Including SDC, additional debt-service capacity for the 2 percent target is negative $716.4 million starting in fiscal 2012 and becomes increasingly negative to more than $1.11 billion by fiscal 2016. SDC are projected to account for more than half of total debt service for fiscal years 2012-2016

Ratio 2: Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue

This ratio is similar to Ratio 1 but uses the budgeted general revenue figures for fiscal years 2012 and 2013 based on the General Appropriations Act. Unrestricted General Revenue (UGR) in Ratio 1 is based on the rolling three-year average (FY2010-2012).

Results

Ratio 2 is 1.10 percent for fiscal 2012 and rises to 1.64 percent by fiscal 2013. Historically, Texas' NSS debt-service commitment has been less than 1.5 percent of budgeted general revenue as shown in *Figure 3.3*. However, in fiscal year 2013, the ratio rises by 54 basis points due to a 15.9 percent decrease in budgeted general revenue.

Ratio 3: Not Self-Supporting Debt as a Percentage of Personal Income

This ratio is NSS debt divided by total personal income and is a direct indicator of a governmental borrower's ability to repay debt obligations by transforming personal income into revenues through taxation. This ratio is a component of the state's credit ratings.

Results

Ratio 3 is 0.50 percent for fiscal 2012 and peaks at 0.70 percent in fiscal 2015. These figures are below the rating agency benchmark of 3 percent.

Ratio 4: Ratio 4: Not Self-Supporting Debt per Capita

This ratio is the amount of NSS debt divided by the state's population and measures the dollar amount of debt per person. Like Ratio 3, Ratio 4 is a component of the state's credit rating.

Results
Ratio 4 is $205.98 for fiscal 2012 and peaks to $317.77 in fiscal 2015. These figures are below the rating agency benchmark of $1,000 per Capita.

<u>Ratio 5: Rate of Debt Retirement</u>
The rate at which long-term debt is retired measures the extent to which new debt capacity is created for future debt issuance. Credit rating agencies review the length of time needed for debt to be retired with the expectation that on average, 25 percent of the principal amount of debt with a 20-year maturity is retired in five years and 50 percent is retired in 10 years.

Results
In five years 32.3 percent of NSS debt will be retired; 56.9 percent will be retired in 10 years. These figures are above rating agency benchmarks.

Figure 1.2 summarizes the ratio analysis for fiscal years 2012 through 2016. The negative numbers in Ratio 1 indicate shortfalls in debt service when compared to the corresponding target, cap or maximum percentage.

Figure 1.2
Summary of Ratios 1-5

Fiscal Year	2012		2013		2014		2015		2016	
RATIO 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue										
NSS Debt Service										
Issued	$ 467,654,940	1 26%	$ 462,671,775	1 19%	$ 482,369,523	1 23%	$ 458,275,465	1 13%	$ 397,354,545	0 95%
Authorized but Unissued	17,517,427	0 05%	145,809,876	0 37%	257,938,834	0 65%	334,529,478	0 83%	405,780,531	0 97%
Projected	-	0 00%	-	0 00%	35,751,165	0 09%	77,824,832	0 19%	108,623,176	0 26%
Total NSS Debt Service (excluding SDC)	$ 485,172,367	1 31%	$ 608,481,651	1 56%	$ 776,059,521	1 97%	$ 870,629,774	2 15%	$ 911,758,252	2 18%
Special Debt Commitments	971,740,914	2 62%	1,010,888,192	2 60%	1,076,513,663	2 74%	1,052,472,989	2 60%	1,034,781,910	2 47%
Total Debt Service (including SDC)	$ 1,456,913,282	3 94%	$ 1,619,369,843	4 16%	$ 1,852,573,185	4 71%	$ 1,923,102,763	4 76%	$ 1,946,540,162	4 65%
SDC as a % of Total	66 7%		62 4%		58 1%		54 7%		53 2%	
Additional Debt-Service Capacity excluding SDC*										
Target (2%)	$ 255,307,383	0 69%	$ 169,444,523	0 44%	$ 10,599,794	0 03%	$ (61,937,144)	-0 15%	$ (74,970,520)	-0 18%
Cap (3%)	$ 625,547,258	1 69%	$ 558,407,610	1 44%	$ 403,929,452	1 03%	$ 342,409,171	0 85%	$ 343,423,345	0 82%
Max (5%)	$ 1,366,027,009	3 69%	$ 1,336,333,783	3 44%	$ 1,190,588,767	3 03%	$ 1,151,101,801	2 85%	$ 1,180,211,077	2 82%
Additional Debt-Service Capacity including SDC *										
Target (2%)	$ (716,433,531)	-1 94%	$ (841,443,670)	-2 16%	$(1,065,913,869)	-2 71%	$(1,114,410,133)	-2 76%	$(1,109,752,430)	-2 65%
Cap (3%)	$ (346,193,656)	-0 94%	$ (452,480,583)	-1 16%	$ (672,584,212)	-1 71%	$ (710,063,818)	-1 76%	$ (691,358,565)	-1 65%
Max (5%)	$ 394,286,095	1 06%	$ 325,445,591	0 84%	$ 114,075,103	0 29%	$ 98,628,812	0 24%	$ 145,429,167	0 35%
RATIO 2: Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue	1 10%		1 64%							
RATIO 3: Not Self-Supporting Debt as a Percentage of Personal Income	0 50%		0 59%		0 66%		0 70%		0 66%	
RATIO 4: Not Self-Supporting Debt Per Capita	$205 98		$249 18		$288 52		$317 77		$308 11	
Ratio 5: Rate of Debt Retirement in	5 Years	10 Years								
Not Self-Supporting Debt	32 3%	56 9%								
Self-Supporting Debt	16 3%	34 8%								

* Debt-service capacity available to meet target, cap or maximum percentages.

SOURCE: Texas Bond Review Board

Chapter 2 – Current Debt Position of the State

Texas has a decentralized approach to debt management. Debt issuance occurs at the level of the agency or institution of higher education rather than at the state level. With the exception of Tax Revenue Anticipation Notes, Permanent University Fund issuances and non-general obligation issuances by university systems that have an unenhanced long-term debt rating of at least AA- or its equivalent, the Bond Review Board provides oversight for all state debt issuances with a maturity of more than 5 years or a principal amount greater than $250,000.

When the legislature considers the issuance of new debt, the authorizing legislation is typically considered by legislative finance committees. The legislature usually appropriates debt-service payments for existing debt in the General Appropriations Act that is organized by article based on governmental function. Subsequently, this process leads policymakers to review, develop and approve proposed budget requests by agency or program.

Debt Types

Debt issued by the state of Texas falls into two major categories:

- **General Obligation (GO) debt** is legally secured by a constitutional pledge of the first monies coming into the state treasury that are not constitutionally dedicated for another purpose. GO debt must be passed by a 2/3 vote of both houses of the legislature and a majority of the voters.
- **Non-General Obligation (Revenue) debt** is legally secured by a specific revenue source and does not require voter approval.

State debt is further classified based on its impact on the state's General Revenue Fund:

- **Self-Supporting (SS) debt** is designed to be repaid with revenues other than state general revenue and can be either GO debt or revenue debt.
- **Not Self-Supporting (NSS) debt** is intended to be repaid with state general revenue and can be either GO debt or revenue debt.

Figure 2.1 illustrates the classifications for state debt and provides program examples for each type.

Figure 2.1
Debt Type and Project Examples

Debt Type	General Revenue Impact	Debt Program
General Obligation	Not self-supporting	Certain Texas Public Finance Authority Bonds Higher Education Constitutional Bonds
General Obligation	Self-supporting	Mobility Fund Bonds Veterans' Land and Housing Bonds
Revenue	Not self-supporting	Certain Texas Military Facilities Commission Bonds Parks and Wildlife Improvement Bonds
Revenue	Self-supporting	College and University Revenue Financing System Bonds State Highway Fund Bonds

Source: Texas Bond Review Board

State Debt Outstanding

Figure 2.2 provides detail for the state's total debt outstanding at August 31, 2011.

Figure 2.2
Current Debt Outstanding

Bond Types	Self-supporting	Not Self-Supporting	Total
General Obligation	$ 10,221,765,568	$ 3,813,222,636	$ 14,034,988,204
Revenue	$ 26,136,486,768	$ 332,682,468	$ 26,469,169,236
Total	$ 36,358,252,336	$ 4,145,905,104	$ 40,504,157,440

Source: Texas Bond Review Board

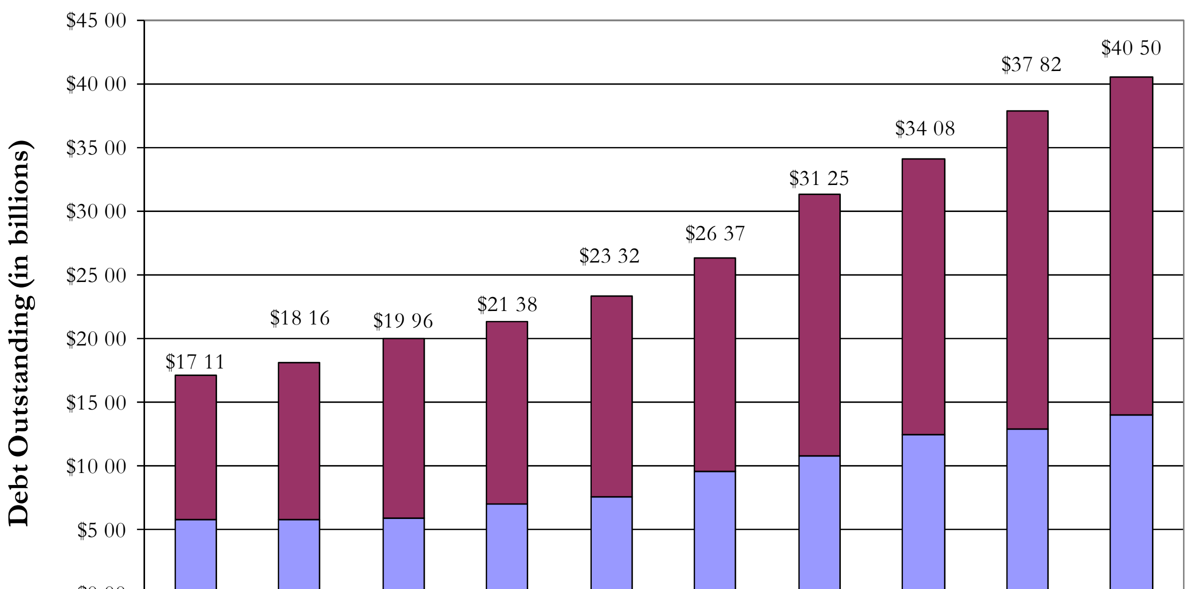
Growth Rates in Unrestricted General Revenue and Total Debt Outstanding

The state's Unrestricted General Revenue (UGR) increased from $26.33 billion in FY2002 to $38.21billion in FY2011, an increase of 45.1 percent over the 10-year period.

From FY2002 to FY2011, GO debt increased from $5.82 billion to $14.03 billion, an increase of 141.1 percent, most of which occurred in the last five fiscal years.

Figure 2.3 illustrates Texas' debt outstanding during the past 10-year period by debt type.

Figure 2.3
Texas' Debt Outstanding: Revenue and General Obligation Fiscal Years 2002 - 2011

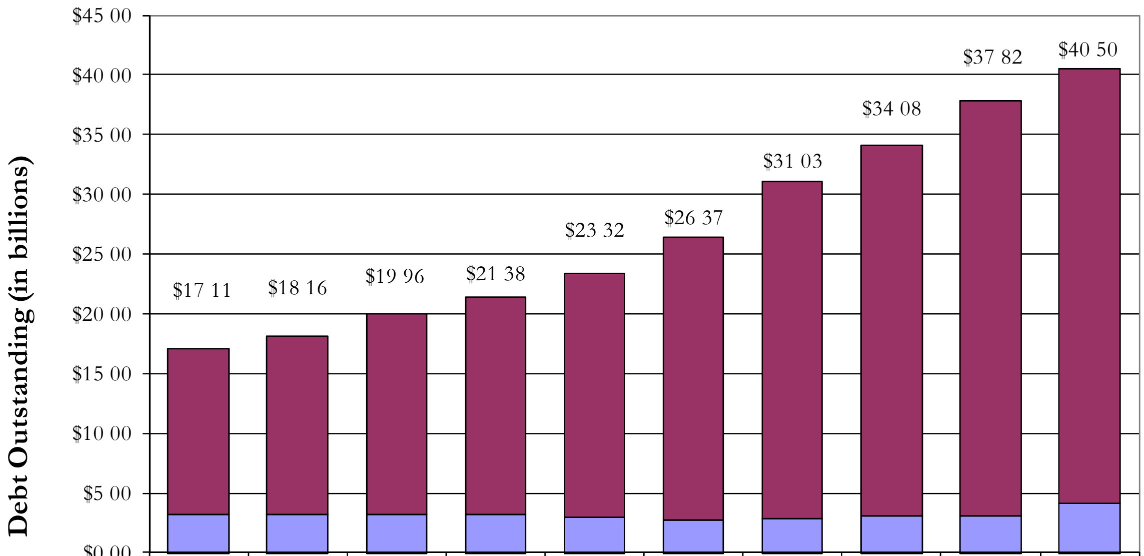


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
REV	$11 29	$12 34	$14 08	$14 38	$15 78	$16 78	$20 48	$21 63	$24 92	$26 47
GO	$5 82	$5 81	$5 89	$7 00	$7 54	$9 59	$10 78	$12 44	$12 90	$14 03
Total	$17 11	$18 16	$19 96	$21 38	$23 32	$26 37	$31 25	$34 08	$37 82	$40 50

SOURCE: Texas Bond Review Board.

During the 10-year period, revenue debt increased by 134.5 percent from $11.29 billion to $26.47 billion and the state's total debt outstanding increased by 136.7 percent from $17.11 billion to $40.50 billion.

Figure 2.4
Texas' Debt Outstanding: Self-Supporting and Not Self-Supporting Fiscal Years 2002 to 2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Self-supporting	$13 87	$14 96	$16 81	$18 23	$20 34	$23 62	$28 18	$31 01	$34 72	$36 36
Not Self-supporting	$3 24	$3 19	$3 15	$3 14	$2 98	$2 75	$2 85	$3 07	$3 09	$4 15
Total	$17 11	$18 16	$19 96	$21 38	$23 32	$26 37	$31 03	$34 08	$37 82	$40 50

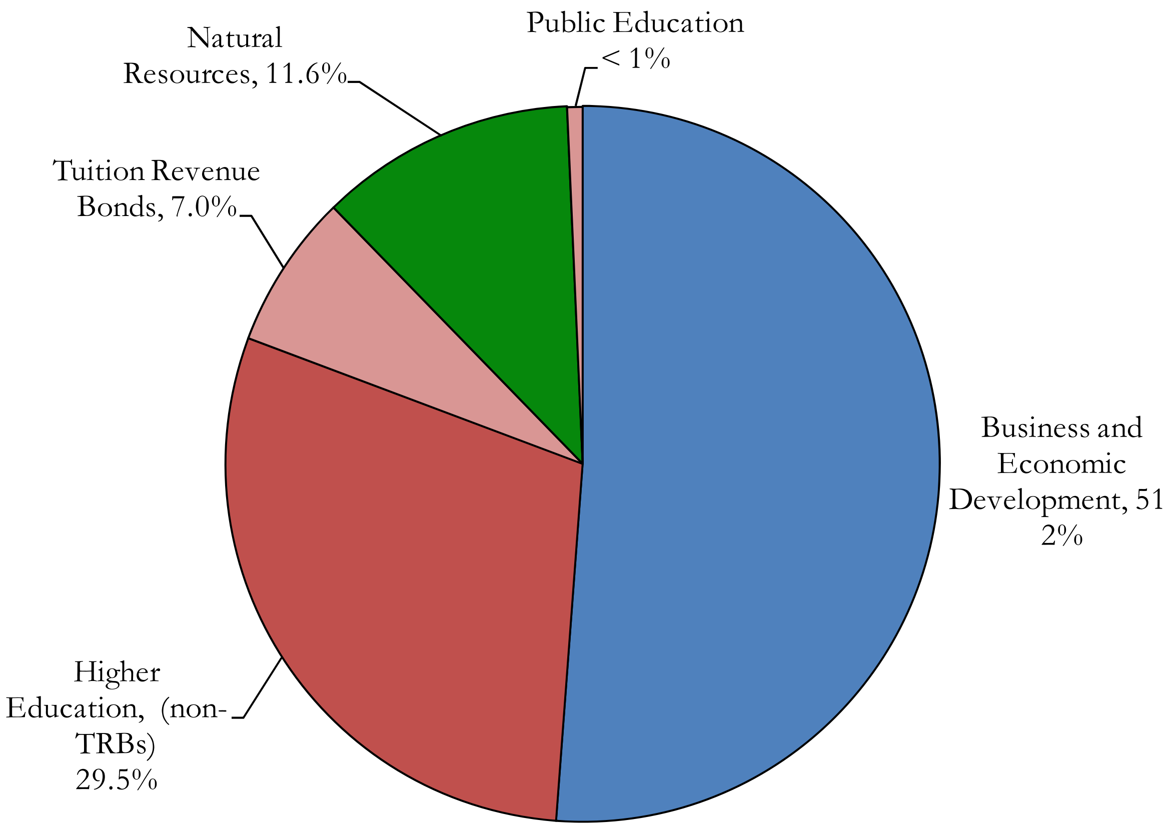
SOURCE: Texas Bond Review Board.

As shown in *Figure 2.4*, SS debt which is repaid with program revenues, increased by 162.1 percent. During the same time period, NSS debt which is typically repaid with general revenue increased by 28.1 percent. However, given the authorizations approved in the November 2007 general election coupled with projected issuances in FY2012-16, NSS debt outstanding is likely to continue to increase in upcoming fiscal years.

Self-Supporting Debt

SS debt includes both GO and revenue debt. At fiscal year-end 2011 SS debt comprised 89.8 percent of the state's total debt outstanding and consisted of 71.9 percent revenue and 28.1 percent GO debt. From fiscal years 2002 to 2011, those figures averaged 73.4 percent and 26.6 percent, respectively. *Figure 2.5* shows a breakdown by category of SS debt outstanding.

Figure 2.5
Self-Supporting Debt Outstanding, Fiscal Year 2011 ($36.36 billion)

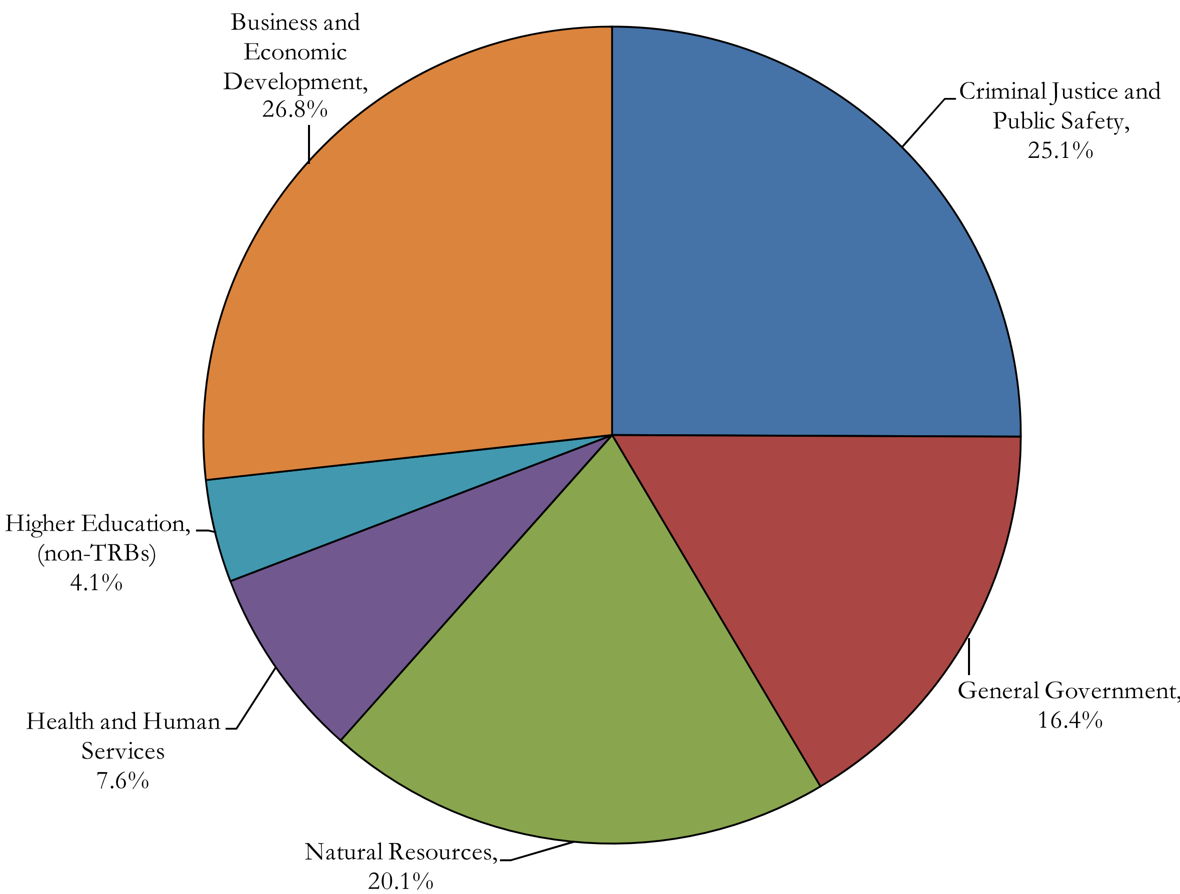


*Business and Economic Development includes Transportation debt.
SOURCE: Texas Bond Review Board.

Not Self-Supporting Debt

NSS debt is generally repaid from the state's General Revenue Fund. At fiscal year-end 2011 NSS debt comprised 10.2 percent of the state's total debt outstanding and consisted of 92.0 percent GO and 8.0 percent revenue debt. From fiscal years 2002 to 2011, those figures averaged 82.4 percent and 17.6 percent, respectively. *Figure 2.6* shows NSS debt by government function.

Figure 2.6
Not Self-Supporting Debt Outstanding Fiscal Year 2011 ($4.15 billion)

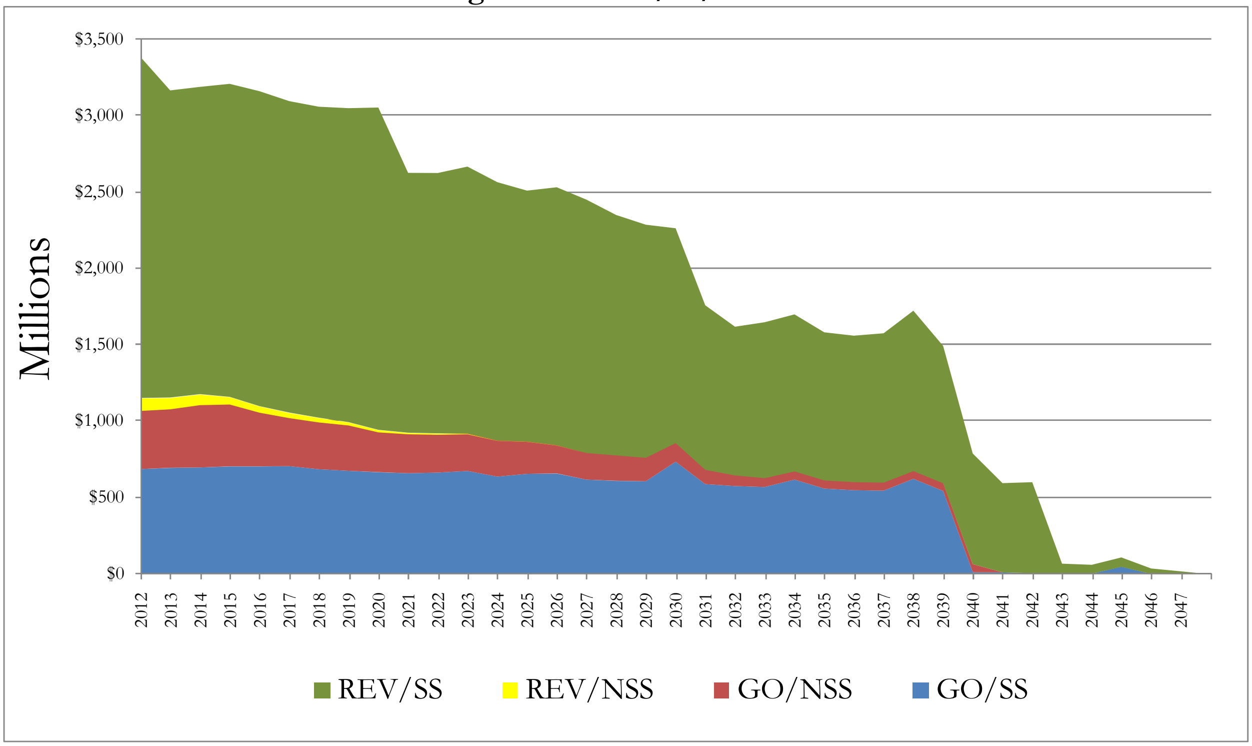


*Business and Economic Development includes Transportation debt.
SOURCE: Texas Bond Review Board.

Debt-Service Commitments

Figure 2.7 illustrates the projected annual debt service for NSS and SS debt outstanding as of August 31, 2011.

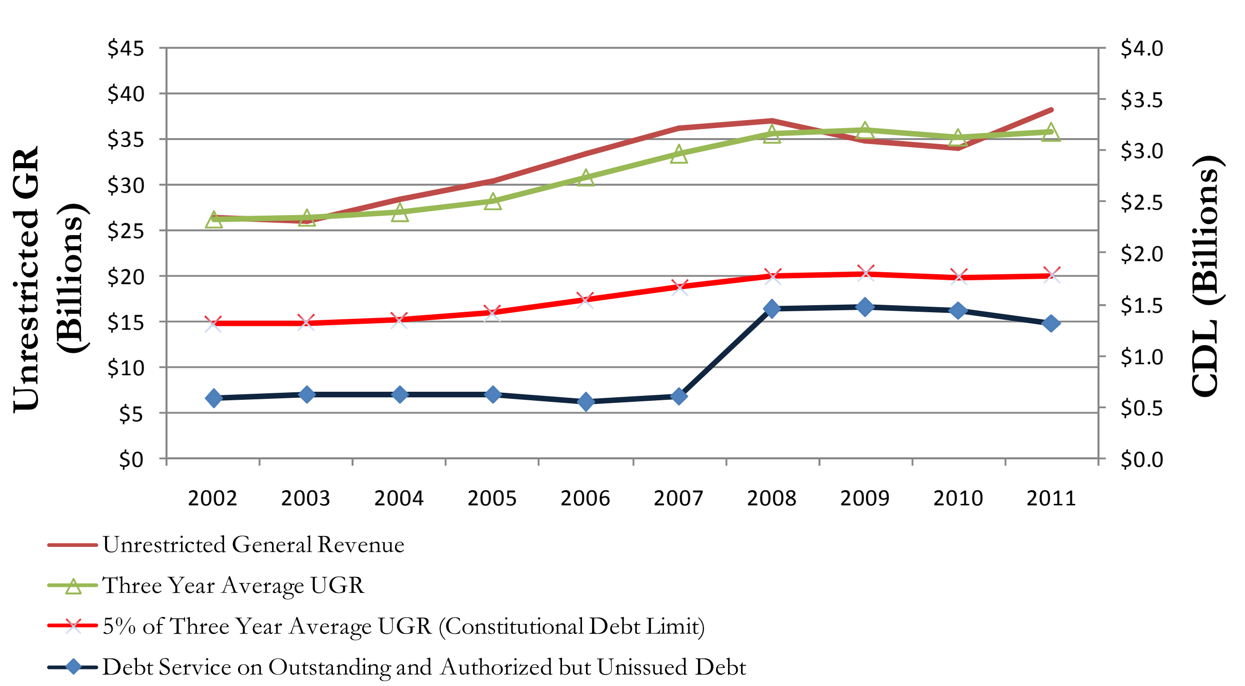
Figure 2.7
Texas Debt Service on Outstanding Debt as of 8/31/2011



SOURCE: Texas Bond Review Board.

The Constitutional Debt Limit
As of August 31, 2011 the Constitutional Debt Limit (CDL) percentage for not self-supporting (NSS) debt outstanding was 1.35 percent and 3.70 percent including both outstanding and authorized but unissued debt. These figures were 1.36 and 4.10, respectively for FY2010 and represent decreases of 0.7 percent and 9.8 percent, respectively. (See *Appendix D* for more discussion regarding the CDL.)

Figure 2.8
Unrestricted General Revenue and Constitutional Debt Limit, Fiscal Years 2002 to 2011



SOURCE: Texas Bond Review Board.

The two curves at the top of *Figure 2.8* show the state's UGR (brown curve) and the 3-year moving average for UGR (green curve) used to calculate the CDL. (Note the scale for those curves is on the left side of the graph.)

The red curve at the bottom of *Figure 2.8* shows the maximum amount of UGR available for debt service under the CDL, i.e., five percent of the moving average of the UGR. The blue curve shows debt service for outstanding and authorized but unissued NSS debt. (Note the scale for those curves is on the right side of the graph.) The white space between the red and blue curves represents available but unused debt-service capacity under the CDL.

During the 10-year period from FY2002 to FY2011, UGR increased by 45.1 percent from $26.33 billion to $38.21 billion. The maximum amount of UGR available for debt service increased by 127.3 percent from $580.0 million in FY2002 to $1.32 billion in FY2011. The increase in the blue (Debt Service on Outstanding and Authorized but Unissued Debt) curve for 2008 results from the increased debt service required for the authorized but unissued NSS debt approved by the voters in the November 2007 general election.

Chapter 3 - Debt Ratios in the Debt Capacity Model

An analysis of state debt ratios helps to assess the impact of bond issuances on the state's fiscal position. Credit rating agencies use ratios to evaluate the 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 prudently accommodate, the Debt Capacity Model (DCM) computes five key ratios that provide an overall view of Texas' debt burden. Projections of these ratios under varying debt assumptions can provide state leadership with guidelines for decision making for future debt authorization and debt-service appropriations.

Ratio 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue
Ratio 1 is calculated by dividing NSS debt service by a rolling three year average of unrestricted general revenue (UGR). The Comptroller's December 2011 Certification Revenue Estimate for 2012-13 was used for DCM calculations. Funds available for debt service are expected to increase during fiscal 2012 as a result of a slight projected increase in general revenue over the next five years.

This ratio is a critical determinant of debt capacity because both the ability to generate revenue through taxation and to appropriate funds for debt service are within the state's control. State revenues available to pay debt service are legislatively determined by taxation on such items as sales, business franchises, fuels, crude oil production and natural gas production. The legislature then appropriates required debt service based on the amounts needed for both existing and newly authorized debt.

Target and cap limits for Ratio 1 provide the legislature with realistic benchmarks against which to weigh the fiscal impact of new bond authorizations. For the purposes of this report, guideline ratios include a 2 percent target, a 3 percent cap to provide room for growth and flexibility and a maximum of 5 percent. Two percent is used as the target ratio because NSS debt service as a percent of UGR has historically been less than 2 percent.

Figure 3.1 shows that the required annual debt-service amounts on issued, authorized and unissued and projected NSS debt will increase from $485.2 million in fiscal year 2012 to a peak in 2016 of $911.8 million. If UGR and debt-service appropriations match projections, debt service as a percentage of UGR will increase from 1.31 percent in fiscal year 2012 to a peak in 2016 of 2.18 percent. (Neither *Figure 3.1* nor Ratio 1 should be confused with the Constitutional Debt Limit (CDL) calculation. See Appendix D for further discussion of the CDL.)

Negative numbers in *Figure 3.1* indicate shortfalls in debt service when compared to the corresponding target, cap or maximum percentage. Beginning in 2015 debt service is expected to exceed the 2 percent target level but remain under the 3 percent cap ratio.

It is important to note that *Figure 3.1* only considers the projected debt-service ratios for NSS debt for which the state's general revenue is required for repayment.

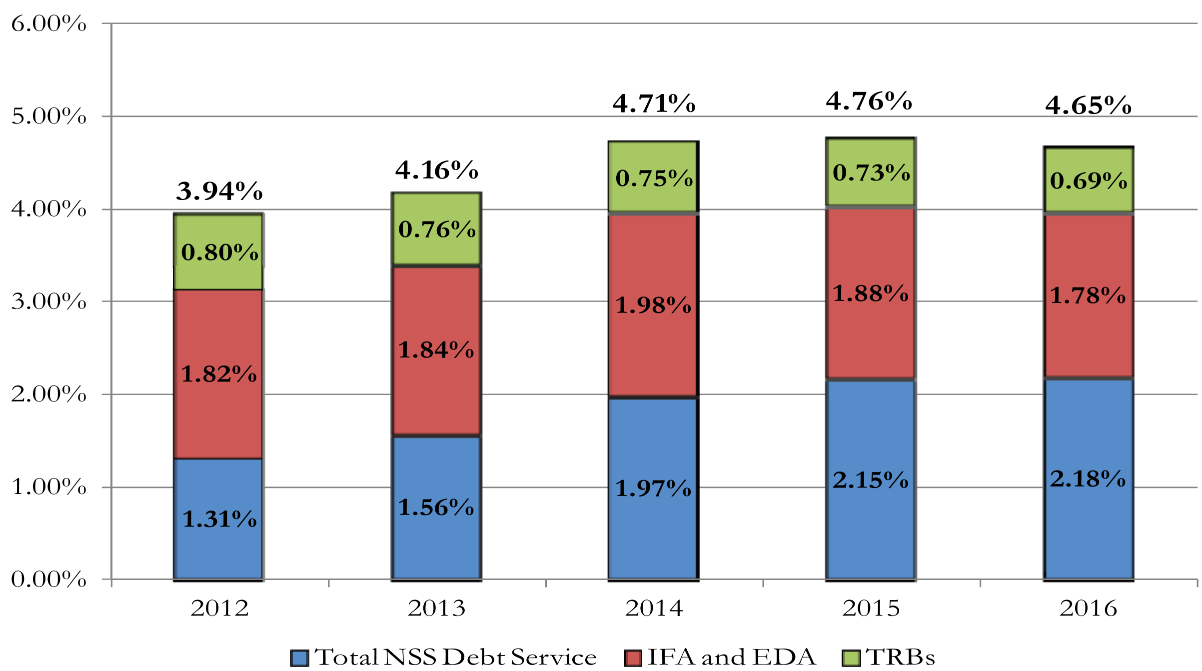
Figure 3.1
Ratio 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue, Fiscal Years 2012 to 2016

Fiscal Year	2012	2013	2014	2015	2016
Projected Unrestricted General Revenue	$ 38,844,774,399	$ 39,630,993,891	$ 39,523,128,991	$ 42,149,771,635	$ 43,845,259,084
Not Self-Supporting					
Annual Debt Service					
Issued Debt	$ 467,654,940	$ 462,671,775	$ 482,369,523	$ 458,275,465	$ 397,354,545
Authorized but Unissued Debt	$ 17,517,427	$ 145,809,876	$ 257,938,834	$ 334,529,478	$ 405,780,531
Projected Debt	$ -	$ -	$ 35,751,165	$ 77,824,832	$ 108,623,176
Total Debt Service	$ 485,172,367	$ 608,481,651	$ 776,059,521	$ 870,629,774	$ 911,758,252
Debt Service as a Percentage of Unrestricted General Revenue					
Issued Debt	1 26%	1 19%	1 23%	1 13%	0 95%
plus Authorized but Unissued Debt	1 31%	1 56%	1 88%	1 96%	1 92%
plus Projected	1 31%	1 56%	1 97%	2 15%	2 18%
Additional Debt-Service Capacity					
Target (2 0%)	$ 255,307,383	$ 169,444,523	$ 10,599,794	$ (61,937,144)	$ (74,970,520)
Cap (3 0%)	$ 625,547,258	$ 558,407,610	$ 403,929,452	$ 342,409,171	$ 343,423,345
Max (5 0%)	$ 1,366,027,009	$ 1,336,333,783	$ 1,190,588,767	$ 1,151,101,801	$ 1,180,211,077

SOURCE: Texas Bond Review Board.

Ratio 1 of the DCM can be used to provide various scenarios to assess the impact of increasing or decreasing the debt-service capacity of general revenue special debt commitments. Special Debt Commitments (SDC) consist of tuition revenue bonds (TRBs) for higher education and the Existing Debt Allotment (EDA) and Instructional Facilities Allotment (IFA) for public education. The impacts of these payments on total debt capacity are shown in *Figure 3.2*.

Figure 3.2
Debt Service Commitments as a Percentage of Unrestricted General Revenue



Ratio 1 resembles the CDL, but the latter includes certain items that are not included in Ratio 1. One difference is the calculation for debt service for the Higher Education Fund (HEF) bonds. Because debt service for HEF bonds is paid from a general revenue appropriation, the CDL calculation requires that the maximum amount of annual debt-service needed for these bonds is included. Ratio 1 uses a projection for actual debt service that is generally less than a quarter of the debt service used in the CDL calculation.

Another difference in the CDL calculation is the omission of certain debt service for Economically Distressed Areas Program (EDAP) bonds issued by the Texas Water Development Board (TWDB). Proceeds from the sale of the EDAP bonds are used to make 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, and at least 10 percent must be used to make loans. For purposes of the CDL calculation, the debt service on the 10 percent used for loans is assumed to be repaid from other revenue sources and is thus omitted from the CDL calculation.

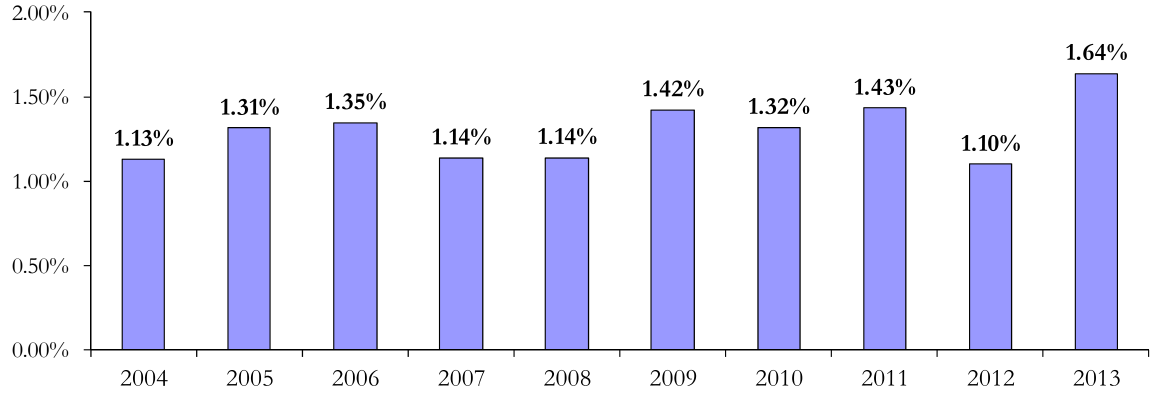
Also, the CDL calculation for authorized but unissued debt assumes a single issue date for all debt, level debt service, a conservative interest rate (6 percent in recent fiscal years) and a 20-year maturity. In comparison, Ratio 1 uses projections by each issuer to more accurately represent debt issuance timing, structure, interest rate and term.

Ratio 1 is 1.31 percent in fiscal year 2012 but increases to 3.94 percent with the addition of SDC and peaks at 4.76 percent in fiscal 2015. (See *Appendix C* for more information on the impact of special debt commitments.)

Ratio 2: Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue
This ratio is similar to Ratio 1 but is generally more restrictive because the amount of available general revenue in this ratio is limited to budgeted general revenue. UGR in Ratio 1 is based on a rolling three-year average (FY2010-2012) which has been lower than expected resulting in Budgeted General Revenue being higher than UGR and thus making Ratio 2 lower than Ratio 1.

Texas expended an average of 1.30 percent of budgeted general revenue for NSS debt service in fiscal years 2004-2013. Based on the amounts in the General Appropriations Act, NSS debt service as a percentage of budgeted general revenue is projected to be 1.10 percent and 1.64 percent for fiscal years 2012 and 2013, respectively (*Figure 3.3*). Historically, Texas' NSS debt-service commitment has been less than 1.5 percent of budgeted general revenue as shown in *Figure 3.3*. However, in fiscal year 2013, the ratio rises by 54 basis points due to a 15.9 percent decrease in budgeted general revenue.

Figure 3.3
Ratio 2: Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue, Fiscal Years 2004 to 2013



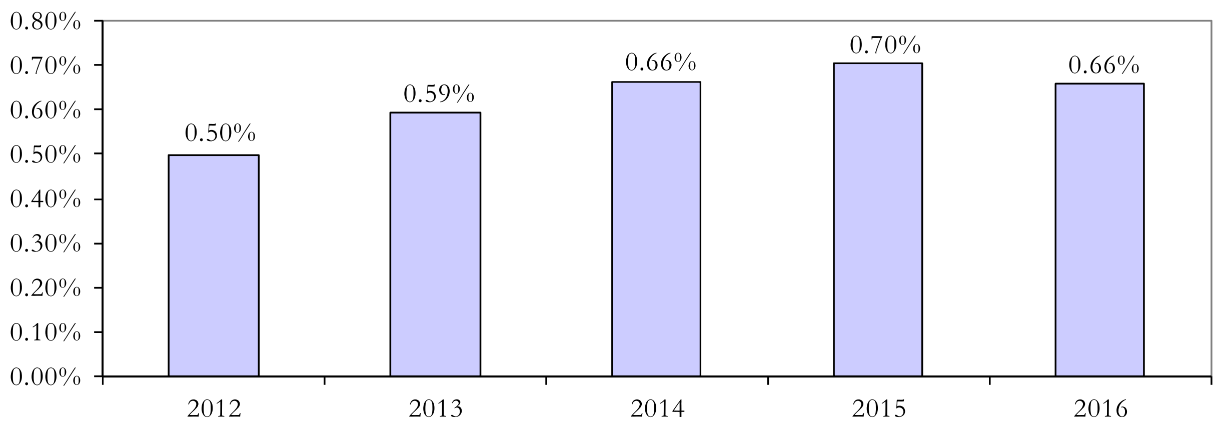
SOURCE: Texas Bond Review Board.

Ratio 3: Not Self-Supporting Debt as a Percentage of Personal Income

Ratio 3 is NSS debt divided by total personal income and is a direct indicator of a governmental borrower's ability to repay debt obligations by transforming personal income into revenues through taxation. This ratio is a component of the state's credit ratings.

Figure 3.4 shows that Ratio 3 ranges from 0.50 percent in 2012 to 0.70 percent for fiscal 2015. Standard and Poor's considers a debt burden of less than 3 percent to be low.

Figure 3.4
Ratio 3: Not Self-Supporting Debt as a Percentage of Personal Income, Fiscal Years 2012 to 2016



SOURCE: Texas Bond Review Board.

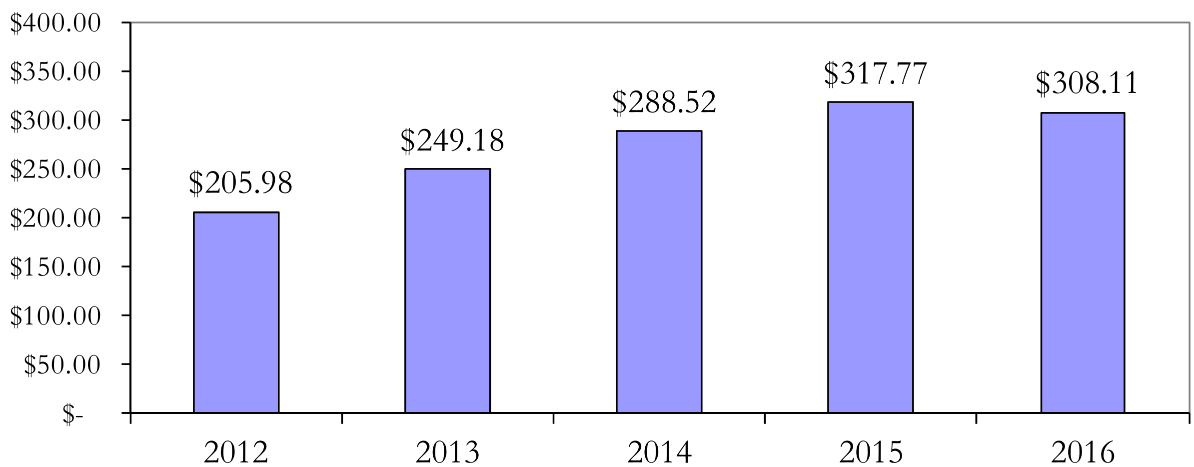
Ratio 4: Not Self-Supporting Debt per Capita

Ratio 4 is the amount of NSS debt divided by the state's population and measures the dollar amount of debt per person. Like Ratio 3, this ratio is a component of the state's credit ratings.

Based on population projections by the Comptroller of Public Accounts, the NSS debt per capita is expected to be $205.98 in fiscal 2012 and is projected to increase to $308.11 in fiscal 2016 (*Figure 3.5*). Standard & Poor's considers less than $1,000 of state debt per capita to be low.

Although tax-supported debt per capita and debt as a percent of personal income at the state level are low, it is important to note that Texas' local debt burden is higher than other states'. Among the nation's ten most populous states, Texas ranks second in population, tenth in state debt per capita but second in local debt per capita with an overall rank of fifth for total (state and local) debt per capita. Approximately 86.7 percent of total debt in Texas is local debt. See *Appendix F* for a comparison of Texas' debt with that of other states.

Figure 3.5
Ratio 4: Not Self-Supporting Debt per Capita, Fiscal Years 2012 to 2016



SOURCE: Texas Bond Review Board.

Ratio 5: Rate of Debt Retirement
The rate of debt retirement is calculated as Ratio 5 in the DCM. This rate measures the extent to which new debt capacity is created for future debt issuance. Annual debt service is higher in the earlier years for debt structured with level principal payments, but the more rapid principal amortization results in lower overall interest costs than those for level debt payments. Credit rating agencies use the rate of principal retirement for NSS debt as a measure of the state's debt capacity and have benchmarked a rate of 25 percent of the principal amount of 20-year maturities to be retired in five years and 50 percent in 10 years.

Of Texas' NSS debt, 32.3 percent will be retired in five years and 56.9 percent will be retired in 10 years (*See Figure 3.6).* This rapid rate of debt retirement has occurred primarily because the Texas Public Finance Authority, to date the state agency that has issued most of the state's NSS debt, structures NSS debt service with level principal payments rather than level debt-service payments. Level principal payments result in principal being paid at a faster rate than other structures such as level debt-service payments.

The rate decreased from last year's rates of 46.4 percent and 72.3 percent for the five year and ten year periods, respectively primarily due to the Texas Transportation Commission's (TTC) issuance of $1 billion of Proposition 12 Bonds in September 2010 with level debt service instead of level principal payments and a maturity of 30 years. The rate is expected to decline further as TTC continues to issue the remaining $4 billion of Proposition 12 debt with a similar structure.

Approximately 16.3 percent of Texas' self-supporting (SS) debt will be retired in five years and 34.8 percent of debt will be retired in 10 years. The slower rate of retirement for SS debt is due in part to the use of level debt service or other forms of delayed principal repayment as well as the issuance of debt with maturities of 30 years or more to match the useful life of the projects financed (i.e. housing and water development programs).

Figure 3.6
Ratio 5: Rate of Debt Retirement in Five and 10 Years for Not Self-Supporting and Self-Supporting Debt

	5 Years	10 Years
Not Self-Supporting Debt	32.3%	56.9%
Self Supporting Debt	16.3%	34.8%

Chapter 4 - Conclusion

The 80th Legislature mandated the Texas Bond Review Board, in consultation with the Legislative Budget Board, to prepare annually the state's Debt Affordability Study (DAS). The DAS and its Debt Capacity Model provide the state's policymakers, leadership and credit rating agencies with a comprehensive tool to evaluate current and proposed debt levels.

Statute requires the DAS to include a target and cap for Ratio 1, both of which can be adjusted as requested or as directed by the Legislature. Since Texas has historically appropriated less than 2 percent of its unrestricted general revenue (UGR) for not self-supporting (NSS) debt service, this study utilizes 2 percent as the target, 3 percent as the cap, and 5 percent as the maximum for the key ratio, NSS Debt Service as a Percentage of UGR (Ratio 1).

Major Findings – Figure 4.1

- Additional debt-service capacity for the Ratio 1 target of 2 percent is $255.3 million for fiscal 2012 and steadily decreases to a negative $75.0 million by fiscal year 2016. (see *Figure 1.2, Chapter 3 and Appendix C*)
- Additional debt-service capacity for the Ratio 1 target of 2 percent including Special Debt Commitments is a negative $716.4 million beginning in fiscal 2012 and decreases to a negative $1.11 billion by fiscal 2016.
- Including Special Debt Commitments, total debt service exceeds Ratio 1's target of 2 percent and cap of 3 percent beginning in fiscal 2012 but remains below the 5 percent max through 2016.
- Special Debt Commitments are projected to account for more than half of the total debt service for fiscal years 2012-2016.
- For the 2012-2016 period NSS debt service including Special Debt Commitments will peak in fiscal 2016 (see *Figure 4.1*).
- NSS debt as a percentage of personal income and debt per capita are better than rating agency benchmarks through fiscal 2016.
- The rate of debt retirement for NSS debt for the five and ten year periods exceed rating agency benchmarks. However, the retirement rates are expected to decline as the remaining $4 billion of Texas Transportation Commission (Proposition 12) debt is issued with level debt service instead of level principal payments and maturities longer than 20 years.

Figure 4.1 - Summary of Ratios 1 – 5

Fiscal Year	2012		2013		2014		2015		2016	
RATIO 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue										
NSS Debt Service										
Issued	$ 467,654,940	1.26%	$ 462,671,775	1.19%	$ 482,369,523	1.23%	$ 458,275,465	1.13%	$ 397,354,545	0.95%
Authorized but Unissued	17,517,427	0.05%	145,809,876	0.37%	257,938,834	0.65%	334,529,478	0.83%	405,780,531	0.97%
Projected	-	0.00%	-	0.00%	35,751,165	0.09%	77,824,832	0.19%	108,623,176	0.26%
Total NSS Debt Service (excluding SDC)	$ 485,172,367	1.31%	$ 608,481,651	1.56%	$ 776,059,521	1.97%	$ 870,629,774	2.15%	$ 911,758,252	2.18%
Special Debt Commitments	971,740,914	2.62%	1,010,888,192	2.60%	1,076,513,663	2.74%	1,052,472,989	2.60%	1,034,781,910	2.47%
Total Debt Service (including SDC)	$ 1,456,913,282	3.94%	$ 1,619,369,843	4.16%	$ 1,852,573,185	4.71%	$ 1,923,102,763	4.76%	$ 1,946,540,162	4.65%
SDC as a % of Total	66.7%		62.4%		58.1%		54.7%		53.2%	
Additional Debt-Service Capacity excluding SDC*										
Target (2%)	$ 255,307,383	0.69%	$ 169,444,523	0.44%	$ 10,599,794	0.03%	$ (61,937,144)	-0.15%	$ (74,970,520)	-0.18%
Cap (3%)	$ 625,547,258	1.69%	$ 558,407,610	1.44%	$ 403,929,452	1.03%	$ 342,409,171	0.85%	$ 343,423,345	0.82%
Max (5%)	$ 1,366,027,009	3.69%	$ 1,336,333,783	3.44%	$ 1,190,588,767	3.03%	$ 1,151,101,801	2.85%	$ 1,180,211,077	2.82%
Additional Debt-Service Capacity including SDC *										
Target (2%)	$ (716,433,531)	-1.94%	$ (841,443,670)	-2.16%	$(1,065,913,869)	-2.71%	$(1,114,410,133)	-2.76%	$(1,109,752,430)	-2.65%
Cap (3%)	$ (346,193,656)	-0.94%	$ (452,480,583)	-1.16%	$ (672,584,212)	-1.71%	$ (710,063,818)	-1.76%	$ (691,358,565)	-1.65%
Max (5%)	$ 394,286,095	1.06%	$ 325,445,591	0.84%	$ 114,075,103	0.29%	$ 98,628,812	0.24%	$ 145,429,167	0.35%
RATIO 2: Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue	1.10%		1.64%							
RATIO 3: Not Self-Supporting Debt as a Percentage of Personal Income	0.50%		0.59%		0.66%		0.70%		0.66%	
RATIO 4: Not Self-Supporting Debt Per Capita	$205.98		$249.18		$288.52		$317.77		$308.11	
Ratio 5: Rate of Debt Retirement in	5 Years	10 Years								
Not Self-Supporting Debt	32.3%	56.9%								
Self-Supporting Debt	16.3%	34.8%								

* Debt-service capacity is the available capacity to meet target, cap or maximum percentages.

SOURCE: Texas Bond Review Board

Appendix A - Methodology and the Debt Capacity Model

The core of the Debt Affordability Study is the Debt Capacity Model (DCM) which uses revenue and debt information to calculate the five debt ratios described in the study. This financial model provides a platform 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 contains three separate scenarios of general revenue available for not self-supporting (NSS) debt service to show the effect of economic factors on additional debt capacity. The model uses information and projections for FY2012 through 2021 for general revenues, personal income and population changes. Scenario A (base scenario) uses a 10-year average for general revenues available for NSS debt service (i.e., 3.51 percent growth from FY2012-2021), a 10-year annual average for personal income (i.e., 5.21 percent growth from FY2012-2021) and a 10-year annual average for population change (i.e., 1.71 percent growth from FY2012-2021). All the figures listed in this report are based on Scenario A.

As described in *Figure A1*, Scenario B (positive scenario) reflects a 0.5 percent increase in available general revenues over the base scenario. Total personal income and population change are based on the highest annual growth in the 10-year period (FY2012-2021). Scenario C (negative scenario) assumes a 0.5 percent decrease relative to the base scenario in general revenues available for NSS debt service. Total personal income and population changes are based on the lowest rates in the 10-year period (FY2012-2021).

Figure A1
Growth Rates of Economic Factors Used in the Debt Capacity Model

Economic Factor	Base Scenario (A)	Positive Scenario (B)	Negative Scenario (C)
Revenues Available for Debt Service, percent	3.51	4.01	3.01
Total Personal Income, percent	5.21	5.75	3.69
Population Change, percent	1.71	1.83	1.67

SOURCE: Texas Bond Review Board.

Revenues Available for Not Self-Supporting Debt Service

Because a revenue forecast was required to determine the ratios calculated in the DCM, Table 11 from the *Texas Comptroller of Public Accounts 2011 Cash Report* was recreated and matched at the revenue object code level. The Comptroller's December 2011 Certification Revenue Estimate was used for FY2012 through FY2013 and serves as the starting point for the Legislative Budget Board's revenue projections for the DCM. Estimates for many revenue sources for FY2014 and later were based on the estimated average annual growth rate for each revenue object from FY2005 through FY2013 using actual FY2005 collections and the Comptroller's estimates for FY2013.

Some exceptions to this method must be noted. Sales tax growth was set at 5 percent annually after FY2015. Motor sales taxes were projected to grow at the combined rate of inflation and population. Cigarette tax revenues were adjusted to reflect the irregular collections cycle. Revenues from the natural gas tax and oil production tax were estimated using the Comptroller's Winter 2011-12 forecast for natural gas and oil price and production. The estimate for interest on state deposits in the General Revenue Fund is held at the level of the Comptroller's FY2013 estimate in FY2014 and thereafter is set at the average for FY2005 through the Comptroller's estimate for FY2013. The estimate assumes no state inheritance tax after FY2011. Some of the minor revenue sources that were estimated by the Comptroller to have no growth between FY2011 through FY2013 were maintained at the FY2013 level throughout the forecast period. The revenue forecast does not include tax revenue deposited to the Property Tax Relief Fund because those revenues are statutorily dedicated. Revenue for FY2013 and FY2014 and the growth rates in FY2015 are affected by the speedups of sales tax, alcohol taxes, unclaimed property, and motor fuel taxes. The delay of two months of motor fuel transfers from FY2013 to FY2014 affects the amount of unrestricted revenue in FY2013 and FY2014 and the rate of growth of unrestricted revenue in FY2015.

Various scenarios can be created by simply varying the forecast assumptions in the DCM. The model can be rerun at any time when the Comptroller's office issues new revenue updates.

Appendix B - Debt Capacity – Ratio Analysis

The information presented in this appendix focuses on existing and projected debt issuances for NSS debt. Existing debt consists of both issued as well as authorized and unissued debt with a line item for each in the Ratio analyses.

Figure B1 illustrates Ratio 1 (Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue) assuming current and projected debt levels for FY2012-2016. As discussed in Chapter 3, if no new debt is added to the existing or projected issuances, not self-supporting (NSS) debt service as a percentage of unrestricted general revenue will be less than 3 percent - ranging from 1.31 percent in FY2012 to a high of 2.18 percent in FY2016.

The report uses 2 percent as the target and 3 percent as the cap for Ratio 1. If all debt issuances projected to occur between FY 2012 and 2016 are issued, the 2 percent target for Ratio 1 would be exceeded in FY2015 (See *Appendix D* for a list of projected debt issuances). Under the 3 percent cap, an additional debt-service capacity of $625.5 million and $343.4 million would be available in FY2012 and FY2016, respectively.

The negative numbers shown below indicate the amount of the shortfalls in debt service capacity at the target, cap, and maximum levels. Beginning in 2015 debt service is expected to exceed the 2 percent target level but remain under the 3 percent cap ratio in Ratio 1. Debt service will peak in 2016.

Figure B1
Ratio 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue, Fiscal Years 2012 to 2016

Fiscal Year	2012	2013	2014	2015	2016
Projected Unrestricted General Revenue	$ 38,844,774,399	$ 39,630,993,891	$ 39,523,128,991	$ 42,149,771,635	$ 43,845,259,084
Not Self-Supporting					
Annual Debt Service					
Authorized and Issued Debt	$ 467,654,940	$ 462,671,775	$ 482,369,523	$ 458,275,465	$ 397,354,545
Authorized and Unissued Debt	17,517,427	145,809,876	257,938,834	334,529,478	405,780,531
Projected Debt	-	-	35,751,165	77,824,832	108,623,176
Total Debt Service	$ 485,172,367	$ 608,481,651	$ 776,059,522	$ 870,629,775	$ 911,758,252
Debt Service as a Percentage of Unrestricted General Revenue					
Authorized and Issued Debt	1 26%	1 19%	1 23%	1 13%	0 95%
plus Authorized and Unissued Debt	1 31%	1 56%	1 88%	1 96%	1 92%
plus Projected	1 31%	1 56%	1 97%	2 15%	2 18%
Additional Debt-service Capacity					
Target (2 0%)	$ 255,307,383	$ 169,444,523	$ 10,599,794	$ (61,937,144)	$ (74,970,520)
Cap (3 0%)	$ 625,547,258	$ 558,407,610	$ 403,929,452	$ 342,409,171	$ 343,423,345
Max (5 0%)	$ 1,366,027,009	$ 1,336,333,783	$ 1,190,588,767	$ 1,151,101,801	$ 1,180,211,077

SOURCE: Texas Bond Review Board.

The Debt Capacity Model (DCM) provides policymakers with the ability to review the impact on the state's finances of a state-bond financed project or projects of any size. *Figure B2* shows the impact of new, NSS debt authorizations on Ratio 1. The first scenario assumes a $250 million project, and the second scenario assumes a $1 billion project. For purposes of this analysis, the debt was assumed to be issued in September 2012 with first debt-service payments in February 2013. The examples also assume a 20-year repayment term with 6 percent interest and level principal payments.

Figure B2
Impact of Additional Debt on Ratio 1

Fiscal Year	2012	2013	2014	2015	2016
Debt Service as a Percent of Unrestricted General Revenue					
Actual	1.31%	1.56%	1.97%	2.15%	2.18%
With $250M Project	1.31%	1.63%	2.04%	2.22%	2.24%
With $1B Project	1.31%	1.84%	2.25%	2.41%	2.42%
Additional Debt-Service Capacity					
Target (2.0%)					
Actual	$ 255,307,383	$ 169,444,523	$ 10,599,794	$ (61,937,144)	$ (74,970,520)
With $250M Project	$ 255,307,383	$ 142,929,323	$ (16,375,806)	$ (88,123,144)	$ (100,366,920)
With $1B Project	$ 255,307,383	$ 63,388,573	$ (97,298,056)	$ (166,676,894)	$ (176,552,170)
Cap (3.0%)					
Actual	$ 625,547,258	$ 558,407,610	$ 403,929,452	$ 342,409,171	$ 343,423,345
With $250M Project	$ 625,547,258	$ 531,892,410	$ 376,953,852	$ 316,223,171	$ 318,026,945
With $1B Project	$ 625,547,258	$ 452,351,660	$ 296,031,602	$ 237,669,421	$ 241,841,695

SOURCE: Texas Bond Review Board.

The $250 million project would decrease annual debt-service capacity by approximately $26.0 million in each fiscal year beginning in 2013, and Ratio 1 would rise from 1.31 percent in FY2012 to 2.24 percent in FY2016. Debt service for this project reduces annual debt-service capacity by the amount of debt service for the $250 million project each year.

The $1 billion project would decrease annual debt-service capacity by approximately $107.0 million in each fiscal year beginning in 2013, and Ratio 1 would rise from 1.31 percent in FY2012 to 2.42 percent in FY2016. Ratio 2 (Not Self-Supporting Debt Service as a Percentage of Budgeted General Revenue) would increase from 1.64 percent to 1.92 percent in FY2013.

Figure B3 illustrates Ratio 3 (Not Self-Supporting Debt as a Percentage of Personal Income) for FY2012-2016. For this time period Texas will maintain a percentage of NSS debt to personal income from 0.50 percent in FY2012 to 0.66 percent in FY2016. This percentage increases by 32 percent over the five-year period due to projected debt issuances during the period for existing authority and additional debt authorized by the 80th Legislature and approved by the voters in November 2007. Even at 0.66 percent, the rating agencies consider the percentage to be low.

Figure B3
Ratio 3: Not Self-Supporting Debt as a Percentage of Personal Income, Fiscal Years 2012 to 2016

Fiscal Year	2012	2013	2014	2015	2016
Not Self-Supporting Debt					
Beginning Outstanding	$ 4,145,905,105	$ 5,384,693,687	$ 6,627,865,483	$ 7,802,874,587	$ 8,737,947,134
Planned Issuances	1,526,150,000	1,555,950,000	1,513,734,000	1,348,250,000	303,600,000
Retirements - Existing Debt	283,026,418	278,568,205	245,774,896	275,668,253	257,771,352
Retirements - New Debt	4,335,000	34,210,000	92,950,000	137,509,200	168,744,200
Ending Outstanding	$ 5,384,693,687	$ 6,627,865,482	$ 7,802,874,587	$ 8,737,947,134	$ 8,615,031,582
Total Personal Income	$ 1,080,308,940,000	$ 1,120,142,550,000	$ 1,175,924,610,000	$ 1,243,507,190,000	$ 1,311,372,780,000
Not Self-Supporting Debt as a Percentage of Personal Income	0.50%	0.59%	0.66%	0.70%	0.66%
with $250 million project	0.50%	0.61%	0.68%	0.72%	0.68%
with $1 billion project	0.50%	0.68%	0.75%	0.78%	0.73%

SOURCE: Texas Bond Review Board and Comptroller of Public Accounts.

The $1 billion example mentioned in Ratio 1 also impacts Ratio 3. If the $1 billion project is authorized and issued in September 2012, the NSS debt as a percentage of personal income would increase from 0.59 percent to 0.68 percent in FY2013 and from 0.66 percent to 0.73 percent in FY2016.

Figure B4 illustrates the impact of the $250 million and $1 billion projects on Ratio 4 (Not Self-Supporting Debt per Capita).

Figure B4
Ratio 4: Not Self-Supporting Debt per Capita, Fiscal Years 2012 to 2016

Fiscal Year	2012	2013	2014	2015	2016
Not Self-Supporting Debt Outstanding	$ 5,384,693,687	$ 6,627,865,483	$ 7,802,874,587	$ 8,737,947,134	$ 8,615,031,582
Projected Population	26,141,990	26,599,090	27,044,210	27,497,440	27,960,730
Not Self-Supporting Debt Per Capita	$205.98	$249.18	$288.52	$317.77	$308.11
with $250 million project	$205.98	$258.58	$297.77	$326.86	$317.05
with $1 billion project	$205.98	$286.77	$325.50	$354.14	$343.88

SOURCE: Texas Bond Review Board and Comptroller of Public Accounts.

The $250 million and $1 billion project scenarios were structured with level principal over the 20-year term and do not impact Ratio 5 (rate of debt retirement) as Ratio 5 is calculated using authorized and issued debt and does not consider projected debt. For FY2012-2021, the NSS debt issued for both projects are retired at a rate of 50 percent.

Appendix C - Special Debt Commitments – TRBs, EDA and IFA

Two distinct versions of Ratio 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted Revenue have been computed. The first considers only debt service for not self-supporting (NSS) debt for which the state is legally obligated. The second shows the impact of special debt commitments on the DCM ratios for which the state appropriates debt service. They include tuition revenue bonds (TRBs) for higher education and the Existing Debt Allotment (EDA) and Instructional Facilities Allotment (IFA) for public schools. The following tables provide policymakers with metrics to review not only the impact of NSS debt but also the impact of these special debt commitments that are paid with general revenue.

Description of Special Debt Commitments

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

Tuition Revenue Bonds (TRBs)

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 revenue, historically the state has used general revenue to reimburse the universities for debt service for these bonds. House Bill 153 passed during the 79th Legislature's Third Called Session (2005) authorized $1.8 billion for TRBs.

Instructional Facilities Allotment (IFA)

The IFA program was authorized in House Bill 4 by the 75th Legislature (1997). The provisions that authorize the IFA program are incorporated into the Texas Education Code as Chapter 46. The IFA program provides assistance to school districts in making debt-service payments on qualifying bonds and lease-purchase agreements. Districts must make application to the Texas Education Agency (TEA) to receive assistance. 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 lesser of annual debt-service payments or $250 per student in average daily attendance (ADA).

Expansion of the IFA program through new award cycles is contingent on a specific appropriation for that purpose each biennium. Appropriations for the current biennium do not include funding for new IFA awards.

Existing Debt Allotment (EDA)

In 1999, the 76th Legislature added Subchapter B to Chapter 46 of the Texas Education Code to create the EDA. The EDA is similar to the 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." Legislative action each session updated the years defining qualifying debt to include debt through the last year of the biennium. 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 a level of

$0.29 per $100 of valuation. Currently, the guaranteed yield for EDA provides $35 per student in average daily attendance (ADA) per penny of tax effort.

The eligibility date for the EDA program was amended by the passage of House Bill 3646, 81st Legislature. Section 76 of the bill changed the Texas Education Code §46.033 to provide a permanent roll-forward provision to establish bond eligibility for the EDA program. The amendments to the section deleted the eligibility dates in the statute and replaced those dates with references to the last year of the preceding biennium. As a result, bonds that have been issued during a biennium, with the first payment made during that biennium, will become automatically eligible for the EDA in the following biennium without the need for legislative action.

EDA funding is shared between state and local resources. The amount of state aid on eligible bonds during the coming biennium (2012–13 and 2014–15) will be determined by the 2012–13 Interest and Sinking tax collections. If a district's 2010–11 tax rate did not include tax effort for newly eligible bonds, it is possible the district may not receive EDA funding for those bonds until the 2014–15 school year, depending on local circumstances.

The EDA program operates without applications and has no award cycles. Instead, the program is based on a statutory definition of eligible debt, presently determined by the first payment of debt service in accordance with Texas Education Code §46.033. Refunding bonds as defined by Texas Education Code §46.007 are also eligible for EDA assistance. Only general obligation debt is eligible for the program. The projects originally financed by the debt do not impact eligibility since no restriction to instructional facilities existed.

By statute, both EDA and IFA have a higher priority for appropriations than any other program funded under the Foundation School Program. The Foundation School Program, of which state support for school district bond indebtedness are a part, contains additional revenue sources not included in the definition of unrestricted General Revenue that are available to fund the state's obligations for EDA and IFA. These sources include lottery proceeds (GR), the Property Tax Relief Fund, and school district recapture payments. *Figure C1* shows the expected annual debt-service payments to be made for TRBs, EDA and IFA assuming no further statutory changes are made to EDA eligibility or new grants are made to IFA appropriations.

Figure C1
Annual Debt-Service Payments for Special Debt Commitments, Fiscal Years 2012 to 2016

Commitment	2012	2013	2014	2015	2016
Special Debt					
Outstanding Tuition Revenue Bonds	$ 281,322,781	$ 280,549,548	$ 280,510,747	$ 277,423,570	$ 273,910,370
Authorized but Unissued Tuition Revenue Bonds	$ 16,167,050	$ 16,168,400	$ 16,167,700	$ 16,167,800	$ 16,167,500
Instructional Facilities Allotment	$ 318,816,341	$ 324,631,348	$ 328,235,697	$ 316,642,326	$ 310,962,134
Existing Debt Allotment	$ 355,434,743	$ 389,538,897	$ 451,599,520	$ 442,239,292	$ 433,741,905
Total Debt Service	**$ 971,740,915**	**$ 1,010,888,193**	**$ 1,076,513,664**	**$ 1,052,472,988**	**$ 1,034,781,909**

SOURCE: Texas Bond Review Board and Legislative Budget Board.

Figure C2 summarizes Ratio 1 for fiscal years 2012 through 2016. The negative numbers indicate shortfalls in debt service when compared to the corresponding target, cap or maximum percentage. Excluding special debt commitments for Ratio 1, NSS Annual Debt Service exceeds the target capacity of 2 percent in 2015. With the addition of special debt commitments, debt service exceeds the 2 percent target and 3 percent cap in 2012.

Figure C2
Impact of Special Debt Commitments on Ratio 1, Fiscal Years 2012 to 2016

Fiscal Year	2012		2013		2014		2015		2016	
RATIO 1: Not Self-Supporting Debt Service as a Percentage of Unrestricted General Revenue										
NSS Debt Service										
Issued	$ 467,654,940	1.26%	$ 462,671,775	1.19%	$ 482,369,523	1.23%	$ 458,275,465	1.13%	$ 397,354,545	0.95%
Authorized but Unissued	17,517,427	0.05%	145,809,876	0.38%	257,938,834	0.66%	334,529,478	0.83%	405,780,531	0.97%
Projected	-	0.00%	-	0.00%	35,751,165	0.09%	77,824,832	0.19%	108,623,176	0.26%
Total NSS Debt Service	$ 485,172,367	1.31%	$ 608,481,651	1.57%	$ 776,059,522	1.97%	$ 870,629,775	2.15%	$ 911,758,252	2.18%
Additional Debt-Service Capacity (Without SDC)										
Target (2%)	$ 255,307,383	0.69%	$ 169,444,523	0.44%	$ 10,599,794	0.03%	$ (61,937,144)	-0.15%	$ (74,970,520)	-0.18%
Cap (3%)	$ 625,547,258	1.69%	$ 558,407,610	1.44%	$ 403,929,452	1.03%	$ 342,409,171	0.85%	$ 343,423,345	0.82%
Max (5%)	$ 1,366,027,009	3.69%	$ 1,336,333,783	3.44%	$ 1,190,588,767	3.03%	$ 1,151,101,801	2.85%	$ 1,180,211,077	2.82%
Debt Service including Special Debt Commitments										
NSS Debt Service	$ 485,172,367	1.31%	$ 608,481,651	1.57%	$ 776,059,522	1.97%	$ 870,629,775	2.15%	$ 911,758,252	2.18%
Special Debt Commitments	971,740,914	2.63%	1,010,888,192	2.60%	1,076,513,663	2.74%	1,052,472,989	2.60%	1,034,781,910	2.47%
Total	$ 1,456,913,281	3.94%	$ 1,619,369,843	4.16%	$ 1,852,573,185	4.71%	$ 1,923,102,764	4.76%	$ 1,946,540,162	4.65%
Additional Debt-Service Capacity (Includes SDC)										
Target (2%)	$ (716,433,531)	-1.94%	$ (841,443,670)	-2.16%	$ (1,065,913,869)	-2.71%	$ (1,114,410,133)	-2.76%	$ (1,109,752,430)	-2.65%
Cap (3%)	$ (346,193,656)	-0.94%	$ (452,480,583)	-1.16%	$ (672,584,212)	-1.71%	$ (710,063,818)	-1.76%	$ (691,358,565)	-1.65%
Max (5%)	$ 394,286,095	1.07%	$ 325,445,591	0.84%	$ 114,075,103	0.29%	$ 98,628,812	0.25%	$ 145,429,167	0.35%

Appendix D - Constitutional Debt Limit

Constitutional Debt Limit

Article III, Section 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 Texas 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, 2011 the Constitutional Debt Limit (CDL) percentage for not self-supporting (NSS) debt outstanding was 1.35 percent and 3.70 percent including both outstanding and authorized but unissued debt. These figures were 1.36 and 4.10, respectively for FY2010 and represent decreases of 0.7 percent and 9.8 percent, respectively.

Based on the authorizations for which the approximate issuance date is known, an estimated $6.25 billion in new, NSS debt is expected to be issued between fiscal years 2012 to 2016 and is included in each of the ratio analyses. This debt is comprised of the following items:

- $4.00 billion in General Obligation (GO) debt, related to Proposition 12 for transportation projects (TTC);
- $1.49 billion in GO debt, related to Proposition 15 for cancer research (TPFA);
- $499.1 million in GO debt for capital projects for certain state agencies (TPFA), including Proposition 4 authorization;
- $50.0 million in GO bonds for the Texas Water Development Board EDAP Series;
- $100.0 million in GO bonds for the Texas Water Development Board WIF Series; and
- $105.5 million in GO bonds for the Higher Education Assistance Fund.

Factors Affecting the Constitutional Debt Limit

Four main factors impact the CDL percentage. The first is the level of outstanding NSS debt service. Assuming all other variables are held constant, the CDL varies directly with the amount of NSS debt service to be paid.

The second factor is the inverse relationship between Unrestricted General Revenue (UGR) and the CDL, i.e., as UGR increases, the CDL percentage decreases and vice-versa. Because the calculation uses the average of UGR over the previous three years, the impact of a substantial change in UGR for one year is reduced.

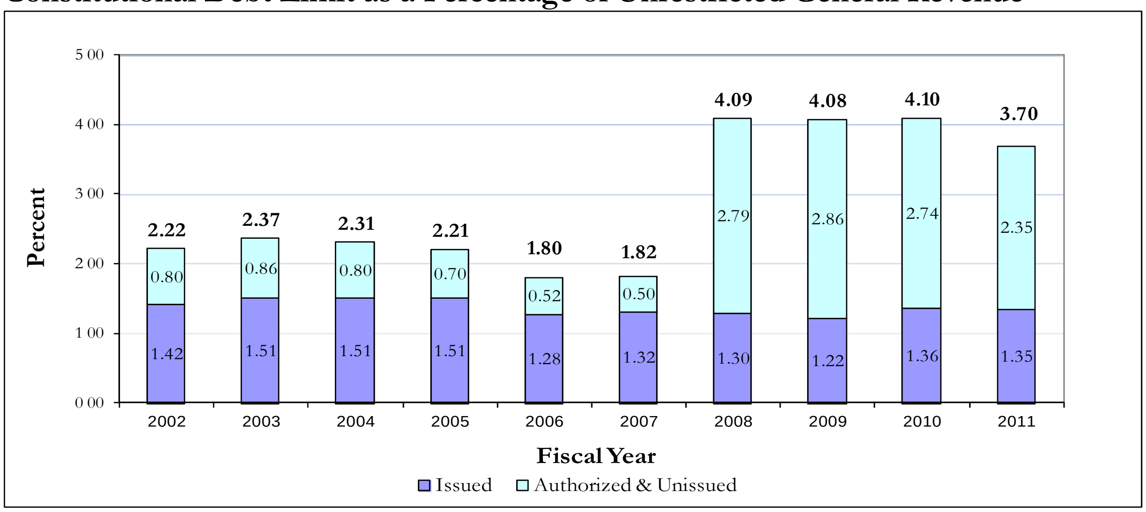
The third factor is the estimate of debt service for the authorized but unissued NSS debt. Debt-service amounts vary directly with interest rates, and a conservative rate of 5.0 percent was used for the Master Lease Purchase Program and 6 percent for all other authorized and unissued debt. In addition, debt service varies inversely with the debt-amortization period, and a conservative maturity of 20 years is used.

The impact of the fourth factor is determined by legislative action. The Constitution provides that debt service for NSS debt reasonably expected to be paid from other revenue sources and not expected to create a general revenue draw is excluded from the CDL calculation. Thus NSS debt is excluded from the CDL percentage if it becomes self-supporting (SS) through legislative action that provides debt-service support from an adequate revenue stream. For example, without a stated revenue stream for debt service, the remaining $4 billion transportation authorization approved by the 80th Legislature and later approved by voters in the November 2007 general election is defined as NSS debt but would be reclassified to SS if legislative action provided it with a dedicated revenue stream for debt service.

Another less important factor that impacts the CDL is the effect of debt reclassifications from NSS to SS debt. Reclassifications occurred for the first time in fiscal 2010 when seven bond series consisting of Texas Water Development Board State Participation Program and Water Infrastructure Fund debt were reclassified from NSS to SS. These reclassifications reduced the CDL by approximately 6 basis points (.06%).

Figure D1 shows the CDL percentages from FY2002-2011. For FY2011 the CDL percentage was 1.35 for issued debt and 3.70 for issued and authorized but unissued debt.

Figure D1
Constitutional Debt Limit as a Percentage of Unrestricted General Revenue



SOURCE: Texas Bond Review Board.

Calculation of the Constitutional Debt Limit

The CDL is calculated by dividing: 1) the total annual debt service for the fiscal year with the highest debt service for issued not self-supporting (NSS) debt, plus 2) an estimate of the projected annual debt service for one fiscal year for authorized but unissued NSS debt under the assumptions of an interest rate of 6 percent and 20-year maturity with level debt-service payments, by the average of UGR from the preceding three fiscal years. The Constitution prohibits the legislature from authorizing additional state debt if this calculation yields a percentage greater than five percent.

Calculation of the CDL requires the use of three components of state debt (see *Figures D2* through *D4*):

- *Unrestricted General Revenue*
- *Debt Service on Outstanding Debt*
- *Debt Service for Authorized But Unissued Debt*

Unrestricted General Revenue

UGR is the net amount of general revenue remaining after deducting all constitutional allocations and other restricted revenue from total general revenue. The UGR figure can be found in Table 11 in the *Comptroller's Annual Cash Report*. The average UGR was $35.65 billion for fiscal years 2009, 2010 and 2011. Thus the maximum amount available for debt service is five percent of $35.65 billion, or $1.78 billion (*Figure D2*).

Figure D2
Unrestricted General Revenue

Unrestricted General Revenue (amounts in thousands)	
General Revenue Available After Constitutional Dedications (Year Ending 8/31/09)	$ 34,711,114
General Revenue Available After Constitutional Dedications (Year Ending 8/31/10)	34,014,030
General Revenue Available After Constitutional Dedications (Year Ending 8/31/11)	38,213,158
Average Amount of Unrestricted General Revenue Available for the three preceding Fiscal Years	$ 35,646,101

Debt Service on Outstanding Debt

The Debt Service on the outstanding debt portion of the CDL calculation uses debt service for the peak year for GO and non-general obligation NSS debt. Due to debt service amortizations and staggered issuances, the peak year usually occurs within five years of the current year. For the August 31, 2011 CDL the peak debt service year is 2014 (*Figure D3*).

Figure D3
Not Self-Supporting Debt-Service Requirements of Texas State Debt by Fiscal Year

NOT SELF-SUPPORTING DEBT-SERVICE REQUIREMENTS OF TEXAS STATE DEBT BY FISCAL YEAR (amounts in thousands)	2012	2013	2014	2015	2016	2017 & beyond
Not Self-Supporting[1]						
General Obligation Debt						
Higher Education Constitutional Bonds [2]	$10,336	$10,328	$10,314	$7,459	$1,424	$6,303
Texas Public Finance Authority Bonds	236,424	216,734	243,054	244,928	196,612	1,383,558
Park Development Bonds	1,919	1,878	1,830	1,781	1,740	4,259
Agriculture Water Conservation Bonds	-	-	-	-	-	-
Texas Public Finance Authority - CPRIT	6,568	24,957	24,711	24,268	23,826	298,413
Water Development Bonds - EDAP [3]	21,439	21,298	21,193	21,063	20,744	162,872
Water Development Bonds - State Participation	2,139	2,119	2,104	2,089	3,809	42,864
Water Development Bonds - WIF	43,256	46,814	46,003	45,254	44,412	510,566
TTC GO Transporation Bonds	63,557	63,559	63,558	63,557	63,559	1,414,960
Total General Obligation Debt	**$385,638**	**$387,685**	**$412,767**	**$410,400**	**$356,125**	**$3,823,794**
Non-General Obligation Debt						
Texas Public Finance Authority Bonds	$57,069	$51,101	$50,239	$30,076	$25,650	$54,292
TPFA Master Lease Purchase Program	15,570	14,621	13,883	12,681	10,815	45,079
Texas Military Facilities Commission Bonds	1,988	1,980	1,974	1,674	1,377	9,977
Parks and Wildlife Improvement Bonds	7,390	7,284	3,507	3,445	3,388	9,820
Total Non-General Obligation Debt	**$82,017**	**$74,986**	**$69,602**	**$47,876**	**$41,230**	**$119,169**
Total Not Self-Supporting	**$467,655**	**$462,672**	**$482,370**	**$458,275**	**$397,355**	**$3,942,963**

1 Bonds that are not self-supporting (general obligation and non-general obligation) depend solely on the state's general revenue for debt service.

2 While not explicitly a general obligation or full faith and credit bond, the revenue pledge contained in Constitutional Bonds has the same effect. Debt service is paid from annual constitutional appropriation to qualified institutions of higher education from first monies coming into the state treasury not otherwise dedicated by the Constitution.

3 Economically Distressed Areas Program (EDAP) bonds do not depend totally on the state's general revenue fund for debt service.

Source: Texas Bond Review Board - Bond Finance Office.

As of August 31, 2011, debt service for issued debt will require 1.35 percent of the average of UGR for the prior three fiscal years.

Debt Service for Authorized but Unissued Debt

The CDL calculation for authorized but unissued debt is based on the debt-service requirement for one fiscal year for all authorized but unissued debt assuming that the debt is issued at the same time, matures in 20 years at 6 percent interest and amortizes with level debt-service payments. *Figure D4* illustrates the principal amounts used for the CDL calculation for authorized and unissued debt as of August 31, 2011.

Figure D4
Authorized but Unissued Not Self-Supporting Debt

Not Self-Supporting Program Name	General Obligation Authorization		
	Constitutional Authorization	Statutory Authorization	Total Authorized but Unissued (amounts in thousands)
Agricultural Water Conservation Bonds	Article III Section 50-d	Texas Water Code, Chapter 15, Subchapters G, H, I & J	$164,840
Higher Education Constitutional Bonds (HEF)	Article VII Section 17	No bond issuance limit, but debt service may not exceed $131.25	**
Texas Public Finance Authority	Article III 49-h, 49-h(a), 49-h-(c)(1), 49-h-(d)(1), 49-h(e)(1), 50-f, 49-l, 50-g, 67		3,258,005
Transportation Commission GO Transportation Bonds	Article III Section 49-p	Transportation Code, Section 222.04	4,000,002
Water Development Bonds - EDAP [1]	Article III Sections 49-d-7 & 40-d-10	Texas Water Code, Chapter 17, Subchapter K	201,975
Water Development Bonds - State Participation	Article III Sections 49-c, 49-d, 49-d-2, 49-d-6 thru 49-d-9	Texas Water Code, Chapter 16, Subchapters E & F, Chapter 17	0
Water Development Bonds - WIF [2]	Article III Sections 49-d-8 & 49-d-9	Texas Water Code, Chapter 15, Subchapter Q	200,000
Total General Obligation Authorized But Unissued			**$7,824,822**
	Revenue Authorization		
Texas Public Finance Authority Bonds		Texas Government Code, Sections 1232.104, 1232.110; Senate Bill 1, 81st Leg. RS, p. II-93, Rider 33	$152,114
TPFA Master Lease Purchase Program		Texas Government Code, Section 1232.103	60,740
Texas Military Facilities Commission Bonds	No issuance limit has been set by the Texas Constitution.	Bonds may be issued by the agency without further authorization by the Legislature. However, bonds may not be issued without the approval of the Bond Review Board and the Attorney General.	**
Total Revenue Authorized But Unissued			**212,854**
Total Not Self-Supporting			**$8,037,676**

[1] Economically Distressed Areas Program (EDAP) bonds do not depend totally on the state's general revenue fund for debt service.
[2] WIF bonds authorized with appropriations under the 81st Legislature will expire August 31, 2013.

As of August 31, 2011, debt service for authorized but unissued debt will require 2.35 percent of UGR for the prior three fiscal years.

Completing the CDL Calculation

For fiscal 2011 the CDL for both debt classifications was computed by adding the 1.35 percent computed for debt service on outstanding debt plus the 2.35 percent computed for debt service on authorized but unissued debt to obtain the total of 3.70 percent.

Calculation detail for the CDL for the fiscal 2011

Figure D5 illustrates the calculations made for fiscal 2011.

Additional debt capacity under the CDL

At fiscal year-end 2011, BRB staff estimated that slightly more than $5.3 billion in additional debt capacity was available before reaching the Constitutional Limit. However, because the interest rate for authorized but unissued debt is conservatively assumed to be 6%, debt issuance actually increases debt capacity under the CDL. Staff thus expects the CDL capacity for authorized but unissued debt to increase at fiscal year-end 2012 due to the issuance of $1.0 billion of Proposition 12 debt for the Texas Department of Transportation during fiscal 2012.

Figure D5
Constitutional Debt Limit Calculation

Constitutional Debt Limit - Article III Section 49-j
Based on estimated Debt Outstanding as of 8/31/11
(All figures are thousands, except percentages)

Maximum Annual Debt Service on Outstanding Debt *	**Authorized Debt**	**Debt Service**	**Percentage of UGR**
Debt Service on Bonds Payable from the General Revenue Fund			
General Obligation Bonds (Not Self-Supporting)		412,767	
(10 % of EDAP Considered Self-Supporting)		(2,119)	
Non-General Obligation Bonds (Not Self-Supporting)		55,719	
		466,367	
Debt Service on Commercial Paper Payable from the General Revenue Fund			
TPFA MLPP Commercial Paper ($89.3 million MLPP outstanding)***		13,883	
Lease-Purchase Payments Greater Than $250,000 Payable from the General Revenue Fund		-	
Total Debt Service on Outstanding Debt Payable from the General Revenue Fund		480,250	**1.35%**
Authorized but Unissued Debt			
TTC Prop 12 General Obligation Bonds (Not Self-Supporting)	4,000,002	$348,738.40	
General Obligation Bonds (Not Self-Supporting) excluding TTC Prop 12	3,824,820		
(10 % of EDAP Considered Self-Supporting)	(20,198)		
Non-General Obligation Bonds (Not Self-Supporting) excluding MLPP	152,114		
Total Authorized but Unissued Bonds Payable from the General Revenue Fund	3,956,736		
Estimated Debt Service on Authorized but Unissued Bonds Payable from the General Revenue Fund **		$344,966.28	
Estimated Debt Service on HEAF Bonds Payable from the General Revenue Fund		120,936	
Amount of Authorized but Unissued MLPP Commercial Paper	60,740		
Estimated Debt Service on MLPP Commercial Paper****		23,284	
Total Debt Service on Authorized but Unissued Debt Payable from the General Revenue Fund		$837,924.11	**2.35%**
Debt Service on Outstanding and Authorized but Unissued Debt		1,318,174	**3.70%**
Unrestricted General Revenue			
General Revenue Available After Constitutional Dedications (Year Ending 8/31/09)	34,711,114		
General Revenue Available After Constitutional Dedications (Year Ending 8/31/10)	34,014,030		
General Revenue Available After Constitutional Dedications (Year Ending 8/31/11)	38,213,158		
Average Amount of Unrestricted General Revenue Available for the three preceding Fiscal Years	35,646,101		
Debt Limit Percentages			
Debt Service on Outstanding Debt as a Percentage of Unrestricted General Revenue		**1.35**	
Debt Service on Authorized but Unissued Debt as a Percentage of Unrestricted General Revenue		**2.35**	
Debt Service on Outstanding and Authorized but Unissued Debt as a Percentage of General Revenue After Constitutional Dedications (**The Constitutional Debt Limit**)		**3.70**	

Notes:
* Debt service is based on maximum annual debt service payable from general revenue. The maximum amount occurs in FY 2014.
** Estimated debt service assumes 20 year, level debt service financing @ 6.0%
*** Amortization provided by TPFA
**** Interest rate provided by TPFA

Appendix E - State Debt Overview and Debt Outstanding

As the state's debt oversight agency, the Texas Bond Review Board (BRB) approves state debt issues and lease purchases that have an initial principal amount greater than $250,000 or a term longer than five years excluding the approval of Permanent University Fund debt, Tax and Revenue Anticipation Notes, and non-general obligation debt issuances by university systems that have an unenhanced long-term debt rating of at least AA- or its equivalent.

Texas has nineteen state agencies and institutions of higher education, as well as 3 non-profit corporations authorized to issue debt (*Figure E1*). For detail on state debt outstanding, see *Figure E2*.

Figure E1
State Debt Issuers

Midwestern State University	Texas State Affordable Housing Corporation
Office of Economic Development and Tourism	Texas State Technical College System
Stephen F. Austin State University	Texas State University System
Texas Department of Agriculture	Texas Tech University System
Texas Department of Housing and Community Affairs	Texas Veterans Land Board (General Land Office)
Texas Department of Transportation	Texas Water Development Board
Texas Higher Education Coordinating Board	Texas Woman's University
Texas Private Activity Bond Surface Transportation Corp	The Texas A&M University System
Texas Public Finance Authority	The University of North Texas System
Texas Public Finance Authority Charter School Finance Corp	The University of Texas System
Texas Southern University	University of Houston System

SOURCE: Texas Bond Review Board.

The Texas Public Finance Authority (TPFA) is authorized to issue debt on behalf of twenty state agencies and three universities as well as for specific projects as authorized by the legislature. TPFA issues a significant portion of the state's not self-supporting (NSS) debt payable from general revenue and administers the state's Master Lease Purchase Program. Although TPFA has issued most of the state's NSS debt, the Texas Transportation Commission is projected to become the largest issuer of such debt.

Types of Debt Used by the State of Texas

General Obligation (GO) debt is legally secured by a constitutional pledge of the first monies coming into the State Treasury not constitutionally dedicated for another purpose and must be approved by a 2/3 vote of both houses of the legislature and a majority of the voters. GO debt may be issued in installments as determined by the legislatively appropriated debt service or by the issuing agency or institution and often has a 20-year maturity with level principal payments. The final maturity may depend on the useful life of the project to be financed. Examples include GO bonds issued by TPFA to finance correctional and mental health facilities and GO bonds issued by the Veterans Land Board to finance land and housing loans to qualified veterans.

Revenue debt is legally secured by a specific revenue source(s), does not require voter approval and usually has a 20-year final maturity depending on the project to be financed. Examples include State Highway Fund bonds issued by the Texas Department of Transportation secured by the motor fuels tax and other revenues for construction and maintenance of the state's highway system, and bonds issued by institutions of higher education secured by tuition and fees used to finance projects such as classroom facilities, dormitories and other university buildings.

Commercial Paper (CP) is a short-term debt obligation with a maturity between 1 and 270 days. A CP program can be secured by the state's general obligation pledge or by a specified revenue source(s). A CP program secured by the state's general obligation pledge must be initially approved by 2/3 vote of both houses and a majority of the voters. When CP matures it can either be rolled-over (reissued) or refinanced (repaid) with long-term debt. Examples include CP issued by TPFA to finance its Master Lease Purchase Program and CP issued to finance the early stages of construction projects.

Tax and Revenue Anticipation Notes (TRAN) are issued by the Comptroller of Public Accounts - Treasury Operations to address cash flow shortfalls caused by the timing mismatch of revenues and expenditures in the general revenue fund. TRANs must be repaid by the end of the biennium in which they are issued but are usually repaid by the end of each fiscal year with tax receipts and other revenues of the general revenue fund and must be approved by the Cash Management Committee that is comprised of the Governor, Lieutenant Governor, Comptroller of Public Accounts and Speaker of the House as a non-voting member.

Lease purchases finance the purchase of an asset over time through lease payments that include principal and interest. They can be financed through a private vendor or through one of the state's pool programs such as TPFA's Master Lease Purchase Program. Lease purchase financings include purchases such as automobiles, computers, data/telecommunications equipment and equipment purchased for energy savings performance contracts.

Self-Supporting (SS) debt is repaid from revenues other than state general revenues. SS debt can be either GO or revenue debt. Examples of SS GO debt include Veterans Land Board bonds that are repaid from loan payments made by qualified veterans and related interest earnings, and GO bonds issued by the Texas Water Development Board that are repaid with loan payments made by political subdivisions for water projects and related interest earnings. Examples of SS revenue debt include bonds issued by institutions of higher education that are repaid from tuition, fees and other revenues generated by colleges and universities.

NSS debt is intended to be repaid with state general revenues. NSS debt can be either GO debt or revenue debt. NSS GO debt is included in the Constitutional Debt Limit. Examples of NSS GO debt include TPFA bonds to finance correctional and mental health facilities. Examples of NSS revenue debt include TPFA bonds to finance parks and wildlife improvements.

The legislature periodically authorizes Tuition Revenue Bonds (TRB) 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 and are considered to be SS debt. However, historically the legislature has appropriated general revenue to the institution to offset all or a portion of the debt service on TRBs.

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 the Texas Constitution, Article VII, Section 18. The state's other institutions may issue Higher Education Assistance Fund (HEF) bonds in accordance with the Texas Constitution, Article VII, Section 17.

Refunding bonds are issued to refinance existing bonds. They may be issued to obtain lower interest rates, change bond covenants or change repayment schedules (i.e., "restructure" the bonds). For tax-exempt bonds issued after 1986, federal tax law allows only one advance refunding but places no limit on the number of current refundings for an issue.

Debt Guidelines

The state's Debt Guidelines for State Issuers and Policies for Interest Rate Management Agreements can be found online at www.brb.state.tx.us/bfo/bfo.aspx.

Figure E2
Total Debt Outstanding, Fiscal Year 2011

Figure E2 Total Debt Outstanding, Fiscal Year 2011 (amounts in thousands)	
Debt Type	**Amount**
General Obligation Debt	
Veterans' Land and Housing Bonds	$2,031,611
Water Development Bonds	865,045
Water Development Bonds-State Participation	138,840
Water Development Bonds - WIF	226,530
Economic Development Bank Bonds	45,000
Park Development Bonds	0
College Student Loan Bonds	798,915
Texas Agricultural Finance Authority	9,000
Texas Mobility Fund Bonds	6,057,680
Texas Public Finance Authority - TMVRLF	49,145
Total - Self-Supporting	**$10,221,766**
Higher Education Constitutional Bonds [2]	$40,828
Texas Public Finance Authority Bonds	1,777,810
Cancer Prevention and Research Institute of Texas	282,820
Park Development Bonds	11,340
Agriculture Water Conservation Bonds	0
Water Development Bonds - EDAP [3]	194,775
Water Development Bonds - State Participation	35,580
Water Development Bonds - WIF	492,260
TTC GO Transporation Bonds	977,810
Total - Not Self-Supporting	**$3,813,223**
Total - General Obligation Debt	**$14,034,988**
Non-General Obligation Debt	
Permanent University Fund Bonds	
The Texas A&M University System	$644,425
The University of Texas System	1,714,230
College and University Revenue Bonds[4]	10,128,695
Texas Water Resources Finance Authority Bonds	0
Texas Department of Transportation Bonds - CTTS	2,538,949
Veterans' Financial Assistance Bonds	22,220
Texas Workforce Commission Unemp Comp Bonds	1,780,960
State Highway Fund	4,078,445
Water Development Board Bonds - State Revolving Fund	924,743
Total - Self-Supporting	**$21,832,667**
Texas Public Finance Authority Bonds	$198,877
TPFA Master Lease Purchase Program	89,260
Texas Military Facilities Commission Bonds	14,805
Parks and Wildlife Improvement Bonds	29,740
Total - Not Self-Supporting	**$332,682**
Texas Small Business I.D.C. Bonds	$60,000
Economic Development Program	20,000
Texas Dept. of Housing and Community Affairs Bonds	2,390,844
Texas State Affordable Housing Corporation	564,855
Texas PAB Surface Transportation Corporation	1,015,000
TPFA Charter School Finance Corporation	253,121
Total - Conduit	**$4,303,820**
Total - Non-General Obligation Debt	**$26,469,169**
Total - Debt Outstanding	**$40,504,157**

*Includes only debt authorized by the Bond Review Board
Source: Texas Bond Review Board

Appendix F – Other States Using Debt Affordability Studies

The use of debt affordability studies and debt capacity models is becoming more common, particularly by states with "highest" or "high" credit ratings. Of the seven states that receive triple-A ratings from all three rating agencies, four – Georgia, Maryland, North Carolina, and Virginia – use a debt affordability tool. In addition, other states including California, Kentucky, New York, Oregon, Washington and West Virginia use a debt affordability tool. *Figure F1* provides a comparison of highly-rated states that use debt affordability tools vs. highly-rated states that do not.

Figure F1
Comparison of Highly-Rated States and Debt Affordability Usage as of September 2011

State	Debt Affordability Study?	Moody's	Standard & Poor's	Fitch
Delaware	No	Aaa	AAA	AAA
Georgia	Yes	Aaa	AAA	AAA
Maryland	Yes	Aaa	AAA	AAA
Missouri	No	Aaa	AAA	AAA
North Carolina	Yes	Aaa	AAA	AAA
Utah	No	Aaa	AAA	AAA
Virginia	Yes	Aaa	AAA	AAA
South Carolina	Yes	Aaa	AA+	AAA
Florida	Yes	Aa1	AAA	AAA
Vermont	No	Aaa	AA+	AAA
New Mexico	No	Aaa	AA+	Not Rated
Tennessee	No	Aaa	AA+	AAA
Texas	Yes	Aaa	AA+	AAA

SOURCE: Moody's, Standard & Poor's and Fitch 2011 reports.

Factors Affecting State Debt Ratings

Moody's *2011 State Debt Medians* report provides a helpful framework to compare Texas' debt burden with other states. This report annually tracks four key debt measures: 1) net tax-supported debt, 2) gross tax-supported debt, 3) net tax-supported debt per capita and 4) 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 its resources, providing a more complete view of debt while net debt is only that debt issued for not self-supporting (NSS) 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 DCM due to timing differences for data available to Moody's at the time its report was created.)

Texas' Debt Compared to Other States

Based on U. S. Census Bureau data for the nation's 10 most populous states, Texas' Net Tax-Supported Debt and Gross Tax-Supported Debt are slightly higher than the median, but the state's Net Tax-Supported Debt per Capita and Net Tax-Supported Debt as a % of 2010 Personal Income are lower than the median (*Figure F2*). Texas ranks fifth for Net Tax-Supported Debt with $15.43

billion, compared to the group median of $14.51 billion. Texas ranks fifth for Gross Tax-Supported Debt with $24.06 billion, compared to the group median of $23.54 billion. Texas ranks tenth in Net Tax-Supported Debt per Capita with $612 compared to the group median of $1,089. For Net Tax-Supported Debt as a % of 2010 Personal Income, Texas ranks tenth with 1.6 percent compared to the group median of 2.9 percent (Please note that in *Figure F2*and *Figure F4* debt burdens are ranked on a scale of 1 to 10, with 1 being the highest debt burden. For *Figure F3*, 1 indicates the highest debt burden while 50 represents the lowest).

Figure F2
State Debt: Texas Compared to Ten Most Populous States, 2011

State	Population	Moody's Credit Rating	Net Tax-Supported Debt (billions)		Gross Tax-Supported Debt (billions)		Net Tax-Supported Debt per Capita		Net Tax-Supported Debt as a % of 2010 Personal Income	
California	37,691,912	A1	$94.72	1	$103.06	1	$2,542.00	2	6.0%	2
Texas	**25,674,681**	**Aaa**	**15.43**	**5**	**24.06**	**5**	**612.00**	**10**	**1.6%**	**10**
New York	19,465,197	Aa2	61.65	2	61.78	2	3,149.00	1	6.8%	1
Florida	19,057,542	Aa1	21.47	4	32.53	4	1,150.00	4	3.0%	5
Illinois	12,869,257	A1	30.85	3	32.74	3	2,383.00	3	5.7%	3
Pennsylvania	12,742,886	Aa1	13.58	6	18.84	7	1,075.00	6	2.7%	7
Ohio	11,544,951	Aa1	11.61	7	17.01	8	1,007.00	7	2.8%	6
Michigan	9,876,187	Aa2	7.57	9	23.02	6	762.00	9	2.2%	9
Georgia	9,815,210	Aaa	10.93	8	10.93	9	1,103.00	5	3.3%	4
North Carolina	9,656,401	Aaa	7.40	10	7.40	10	782.00	8	2.3%	8
Ten Most Populous Mean			**$27.52**		**$33.14**		**$1,456.50**		**3.6%**	
Ten Most Populous Median			**$14.51**		**$23.54**		**$1,089.00**		**2.9%**	
National Mean							**$1,404**		**3.5%**	
National Median							**$1,066**		**2.8%**	

SOURCE: Moody's 2011 State Debt Medians Report; U.S. Census Bureau – July 1, 2011 data.

Figure F3 provides selected tax-supported debt measures for all fifty states. Texas' Net Tax-Supported Debt as a % of 2010 Personal Income was 1.6 percent, fortieth among the states and below the national mean and median of 3.5 percent and 2.8 percent, respectively. Texas' Net Tax-Supported Debt per Capita was $612, thirty-ninth among the states and below the national mean of $1,404 and median of $1,066.

Figure F3
Selected Debt Measures by State

State	Moody's Rating	Net Tax-Supported Debt as a % of 2010 Personal Income	Rank	Net Tax-Supported Debt Per Capita	Rank
Hawaii	Aa2	10.1%	1	$4,236	3
Massachusetts	Aa1	9.5%	2	4,711	2
Connecticut	Aa2	9.5%	3	5,236	1
New Jersey	Aa3	7.9%	4	3,940	4
Delaware	Aaa	6.8%	5	2,676	6
New York	Aa2	6.8%	6	3,149	5
Washington	Aa1	6.2%	7	2,626	7
Kentucky	Aa2*	6.1%	8	1,961	12
California	A1	6.0%	9	2,542	8
Illinois	A1	5.7%	10	2,383	9
Oregon	Aa1	5.6%	11	2,006	11
New Mexico	Aaa	5.6%	12	1,827	13
Rhode Island	Aa2	5.3%	13	2,191	10
Mississippi	Aa2	5.1%	14	1,534	16
Wisconsin	Aa2	4.8%	15	1,795	14
Utah	Aaa	3.9%	16	1,222	20
West Virginia	Aa2	3.8%	17	1,221	21
Maryland	Aaa	3.5%	18	1,681	15
Louisiana	Aa2	3.5%	19	1,308	17
Georgia	Aaa	3.3%	20	1,103	24
Kansas	Aa1*	3.2%	21	1,239	19
Florida	Aa1	3.0%	22	1,150	23
Alaska	Aaa	3.0%	23	1,257	18
Ohio	Aa1	2.8%	24	1,007	27
Minnesota	Aa1	2.8%	25	1,159	22
Arizona	Aa3*	2.8%	26	910	28
South Carolina	Aaa	2.7%	27	887	29
Pennsylvania	Aa1	2.7%	28	1,075	25
Alabama	Aa1	2.6%	29	856	32
Virginia	Aaa	2.4%	30	1,058	26
Maine	Aa2	2.4%	31	865	31
Nevada	Aa2	2.3%	32	878	30
North Carolina	Aaa	2.3%	33	782	34
Michigan	Aa2	2.2%	34	762	36
Missouri	Aaa	2.2%	35	775	35
Vermont	Aaa	1.9%	36	747	37
New Hampshire	Aa1	1.9%	37	812	33
Oklahoma	Aa2	1.8%	38	634	38
Idaho	Aa1*	1.6%	39	519	41
Texas	**Aaa**	**1.6%**	**40**	**612**	**39**
Indiana	Aaa*	1.4%	41	471	42
Colorado	Aa1*	1.3%	42	524	40
Arkansas	Aa1	1.1%	43	361	44
Montana	Aa1	1.1%	44	371	43
Tennessee	Aaa	1.0%	45	345	45
South Dakota	NGO**	0.9%	46	328	46
North Dakota	Aa1*	0.8%	47	315	47
Iowa	Aaa*	0.2%	48	67	49
Wyoming	NGO**	0.1%	49	71	48
Nebraska	NGO**	0.0%	50	13	50
Mean		3.5%		$1,404	
Median		2.8%		$1,066	
Puerto Rico***	A3***	75.7%		$10,167	

* Issuer Rating (No G.O. Debt)
** No general obligation debt
*** Included for comparison purposes only. Not included in any totals, averages or median calculations.
Source: Moody's Investors Service, *2011 State Debt Medians*.

It is important to note that states with higher state debt levels may have lower local debt levels and vice-versa. During calendar year 2009 (most recent data available compared to other states) local debt accounted for approximately 86.7 percent of Texas' total debt burden. (Local debt includes debt issued by cities, school districts, water districts, counties, community colleges, special districts and health and hospital districts) Among the nation's ten most populous states, Texas ranks 2nd in population, 10th in state debt per capita but 2nd in local debt per capita with an overall rank of 5th for total state and local debt per capita (*Figure F4*).

Figure F4
Total State and Local Debt Outstanding

	Total State and Local Debt				State Debt				Local Debt			
State	Population (thousands)	Amount (millions)	Per Capita Amount	Per Capita Rank	Amount (millions)	% of Total Debt	Per Capita Amount	Capita Rank	Amount (millions)	% of Total Debt	Capita Amount	Capita Rank
New York	19,541	$293,510	$15,020	1	$122,652	41.8%	$6,277	1	$170,858	58.2%	$8,744	1
California	36,962	373,694	10,110	2	134,572	36.0%	3,641	3	239,122	64.0%	6,469	3
Illinois	12,910	128,100	9,923	3	56,962	44.5%	4,412	2	71,138	55.5%	5,510	6
Pennsylvania	12,605	117,684	9,336	4	41,924	35.6%	3,326	4	75,760	64.4%	6,010	4
Texas	24,782	**228,282**	**9,212**	**5**	**30,438**	**13.3%**	**1,228**	**10**	**197,844**	**86.7%**	**7,983**	**2**
Florida	18,538	147,177	7,939	6	38,885	26.4%	2,098	8	108,292	73.6%	5,842	5
Michigan	9,970	77,976	7,821	7	29,591	37.9%	2,968	5	48,385	62.1%	4,853	7
Ohio	11,543	73,943	6,406	8	27,949	37.8%	2,421	6	45,994	62.2%	3,985	9
Georgia	9,829	52,977	5,390	9	13,455	25.4%	1,369	9	39,522	74.6%	4,021	8
North Carolina	9,381	50,178	5,349	10	19,911	39.7%	2,122	7	30,267	60.3%	3,226	10
MEAN		**$154,352**	**$8,651**		**$51,634**	**33.8%**	**$2,986**		**$102,718**	**66.2%**	**$5,664**	

Note: Detail may not add to total due to rounding.
Source: U.S. Census Bureau, *State and Local Government Finances by Level of Government and by State: 2008-2009,* the most recent data available.

Appendix G – Investment Grade Credit Ratings

Rating Agencies

The three major credit rating agencies for state debt are Moody's Investors Service (Moody's), Standard & Poor's (S&P) and Fitch Ratings (Fitch). Their ratings have a significant impact on interest rates for a given issue and thus the cost of the financing. *Figure G1* provides a summary of the investment grade ratings scale by each agency.

Figure G1
Investment Grade Bond Ratings by Rating Agency

Rating	Moody's	S & P	Fitch
Highest	Aaa	AAA	AAA
High	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
Medium	A1	A+	A+
	A2	A	A
	A3	A-	A-
Lower medium	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-

SOURCE: Moody's; S&P and Fitch.

Ratings from these agencies provide investors with a measure of an issuer's overall financial soundness and ability to repay its debt. They have a direct impact on the interest rate state issuers will pay on debt issuances; higher credit ratings result in lower financing costs. Ratings for the state's general obligation (GO) debt are the most important because the state's full faith and credit is pledged to its repayment. GO rating provide a benchmark rate for the state's revenue debt.

Rating agencies consider four factors in determining a state's general obligation bond rating: economy, finances, debt and management. Specific items considered are shown in *Figure G2*.

Figure G2
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

Source: Texas Bond Review Board.

Ratings for Texas General Obligation Debt
Texas GO debt receives the highest available credit rating from Moody's and Fitch and the second highest available from S&P and is perceived as a strong credit in the municipal bond market.

S&P's outlook for the state's rating remains stable. In its May 2011 report, "State Review: Texas," S&P stated that "the stable outlook reflects S&P's expectation that the measures that are eventually adopted by the legislature to balance the 2012-13 biennial budget will not threaten the state's future budget stability by excessively relying on one-time measures and the deferral of current contributions to address future liabilities. We believe that an upgrade is unlikely within the next two years absent the adoption of measures that solve the structural budget imbalance that resulted from the school funding changes approved in 2006. Conversely, the ratings could be pressured if revenue collections perform significantly below current estimates, additional budget gaps develop in the upcoming biennium and state officials do not take prompt corrective action." S&P's latest action on Texas' GO rating was an upgrade from AA to AA+ in August 2009.

Moody's outlook for Texas' rating is stable. In its July 2011 report, "New Issue: Moody's Assigns Aaa Ratings to $657 Million Texas General Obligation (GO) New Money And Refunding Bonds, Issued Through Texas Public Finance Authority," Moody's stated that "the ratings reflect the strong fundamentals of the Texas economy and the expectation that it will continue to perform more strongly than the nation; a notably large rainy day fund that the state will use to help balance the current biennium but that still provides a healthy budgetary cushion; and low but rising debt levels. Those strengths are offset by a weaker GAAP-basis available fund balance than in recent years and structural budgetary imbalances that results partly from reliance in the current biennium on federal stimulus funds and from the costs of a school finance/property tax relief mechanism that could challenge the state's finances in the lower revenue environment." Moody's latest action on Texas' GO rating was to affirm its stable outlook in July 2011.

Fitch's outlook for Texas' rating is also stable. In its July 2011 report, "Fitch Affirms Texas Public Finance Authority State GO Bonds at AAA," Fitch stated that "the long-term AAA GO rating of the state of Texas reflects its low debt burden, conservative financial operations and a growth-oriented economy that is rapidly emerging from the recent recession. Financial pressures arise from the demand that rapid growth places on the state's consumption-based tax system, as well as from longer-term transportation needs and an increased state commitment to education and property tax reductions. The state's budget for the fiscal 2012-13 biennium relies on significant cuts to baseline projected spending to maintain balance, while preserving most of the forecast balance in the economic stabilization fund, the state's budget reserve." Fitch's latest action on Texas' GO rating was to affirm its stable outlook in July 2011.

The state's current GO bond ratings are shown in *Figure G3*.

Figure G3
State of Texas General Obligation Bond Ratings

Credit Agency	Credit Rating	Outlook
Moody's	Aaa	Stable
Standard and Poor's	AA+	Stable
Fitch	AAA	Stable

Source: Texas Bond Review Board.

Appendix H - Glossary

Advance Refunding – A refunding transaction in which the issue to be refunded remains outstanding for a period of more than 90 days after the issuance of the refunding issue.

Bond – A certificate of debt issued by a government or corporation guaranteeing payment of the original investment plus interest by a specific future date. The bond specifies the date the debt is due ("term" or "maturity," i.e. 20 years), the interest rate (i.e. 5%), the repayment dates (i.e. monthly, semi-annually, annually) and the revenue source pledged to make the payments.

Budgeted General Revenue – The amount of revenue that is budgeted by the legislature to be expended during each fiscal year for state operations. This figure is generally less than unrestricted general revenue available for debt service.

Commercial Paper (CP) – Short-term, unsecured promissory notes that mature within 270 days and are backed by a liquidity provider (usually a bank) that stands by to provide liquidity in the event the notes are not remarketed or redeemed at maturity.

Constitutional Debt Limit (CDL) – Article III, Section 49-j of the Texas Constitution which 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 Texas 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.

Current Refunding – A refunding transaction in which the securities to be refunded will mature or be redeemed within 90 days or less from the date of issuance of the refunding issue.

Debt Capacity Model (DCM) – Financial Model that assesses the impact on general revenue of the state's annual debt-service requirements for current and projected levels of not self-supporting debt over the next five years.

General Obligation (GO) Debt – Debt that is legally secured by a constitutional pledge of the first monies coming into the state treasury that are not constitutionally dedicated for another purpose. GO debt must be passed by a 2/3 vote of both houses of the legislature and a majority of the voters.

General Revenue (GR) – The amount of total state tax collections and federal monies distributed to the state for its operations.

Higher Education Fund (HEF) – Appropriations that became available in 1985 through Constitutional Amendment to fund permanent capital improvements for certain public higher education institutions. This term may refer either to HEAF (Higher Education

Assistance Fund) Treasury Funds (funds reimbursed from the State HEAF appropriation for university expenditures) or HEAF Bond Funds (monies received through the issuance of bonds and secured by HEAF Treasury Funds).

Instructional Facilities Allotment (IFA) – A program authorized in House Bill 1 by the 75th Legislature (1997). The provisions that authorize the IFA program are incorporated into the Texas Education Code as Chapter 46. The IFA program became effective on September 1, 1997 and provides assistance to school districts in making debt-service payments on qualifying bonds and lease-purchase agreements. Districts must make application to the Texas Education Agency (TEA) to receive assistance. 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 lesser of annual debt-service payments or $250 per student in average daily attendance (ADA).

Existing Debt Allotment (EDA) – A program created in 1999 by the 76th Legislature that added Subchapter B to Chapter 46 of the Texas Education Code. The EDA is similar to the 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." Legislative action each session updated the years defining qualifying debt to include debt through the last year of the biennium. 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 a level of $0.29 per $100 of valuation. Currently, the guaranteed yield for EDA provides $35 per student in average daily attendance (ADA) per penny of tax effort.

Lease Purchase – The purchase of an asset over time through lease payments that include principal and interest. Lease purchases can be financed through a private vendor or through one of the state's pool programs such as the Texas Public Finance Authority's Master Lease Purchase Program.

Municipal Bond – A debt security issued by a state, municipality or county. Municipal securities are exempt from federal taxes and from most state and local taxes.

Non-General Obligation (Revenue) Debt – Debt legally secured by a specific revenue source and does not require voter approval.

Not Self-Supporting (NSS) Debt – Debt that is intended to be repaid with state general revenue and can be either GO debt or revenue debt.

Permanent University Fund (PUF) – The PUF is a State endowment contributing to the support of 18 institutions and 6 agencies of The University of Texas System and The Texas A&M University System. The PUF was established by the Texas Constitution in 1876 with land grants ultimately totaling 2.1 million acres, primarily in West Texas (PUF Lands).

Refunding Bond – Bond issued to retire or defease all or a portion of outstanding debt.

Self-Supporting (SS) Debt – Debt that is designed to be repaid with revenues other than state general revenue and can be either GO debt or non-GO debt.

Special Debt Commitments – Revenue debt commitments supported by state general revenues: Tuition Revenue Bonds, Existing Debt Allotment and Instructional Facilities Allotment.

Tax and Revenue Anticipation Notes (TRAN) – Short-term loans that the state uses to address a cash flow problem created when expenditures must be incurred before tax revenues are received.

Tuition Revenue Bonds (TRB) – 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 revenue, historically the state has used general revenue to reimburse the universities for debt service for these bonds

Unrestricted General Revenue (UGR) – The net amount of general revenue remaining after deducting all constitutional allocations and other restricted revenue from total general revenue.

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TEXAS BOND REVIEW BOARD
300 West 15th Street – Suite 409
P.O. Box 13292
Austin, TX 78711-3292

512-463-1741
http://www.brb.state.tx.us