2017 ANNUAL REPORT

TEXAS BOND REVIEW BOARD

Fiscal Year Ended August 31, 2017

Texas Bond Review Board
Annual Report 2017

Fiscal Year Ended August 31, 2017

Greg Abbott, Governor
Chairman

Dan Patrick, Lieutenant Governor

Joe Straus, Speaker of the House of Representatives

Glenn Hegar, Comptroller of Public Accounts

Robert B. Latsha II
Interim Executive Director

December 2017

Overview

Background

The Texas Bond Review Board (BRB) is responsible for the approval of all state debt issues (excluding Permanent University Fund debt, Tax and Revenue Anticipation Notes and self-supporting debt issued by institutions of higher education with an unenhanced rating of AA- or higher) and lease purchase obligations with an initial principal amount greater than $250,000 or a term of longer than five years. The BRB is also responsible for the collection, analysis and reporting of information on state debt as well as the debt of local political subdivisions in Texas. In addition, the BRB administers the state's Private Activity Bond Allocation Program. This report discusses the activities undertaken by the Board and related events of the past fiscal year.

As of August 2017, Texas' general obligation (GO) debt was rated at Aaa/AAA/AAA/AAA by the credit rating agencies, Moody's Investors Service (Moody's), Standard & Poor's (S&P), Fitch Ratings (Fitch) and Kroll Bond Rating Agency (KBRA), respectively. All four rating agencies maintain their outlook as "stable."

On April 11, 2017, Fitch reaffirmed its AAA rating for the U.S. with a long-term outlook of stable. On June 6, 2017, S&P reaffirmed its AA+ long-term debt rating for the United States and maintained its long-term outlook as stable. In addition, on July 13, 2017 the Kroll Bond Rating Agency reaffirmed a long-term rating of AAA with a stable outlook for the State of Texas' GO Bonds. In addition, on October 12, 2017, Moody's reaffirmed the United States government's Aaa rating and maintained its outlook as stable. Texas' GO borrowing costs have not been impacted by changes in U.S. credit ratings.

Texas ended fiscal 2017 with a total consolidated General Revenue Fund cash balance of $3.52 billion *(Figure 1.1)*, a 42.4 percent decrease from the fiscal 2016 year-end closing balance of $6.11 billion.

According to Moody's 2017 State Debt Medians, Texas ranked 41st among all states in net tax-supported debt per capita. Texas had $383 in net tax-supported debt per capita compared to the national mean and median of $1,473 and $1,006, respectively. Texas' net tax-supported debt per capita ranked second lowest when compared to that of the eight other states rated AAA.

Total not self-supporting debt increased from $2.85 billion at the end of fiscal 2008 to $7.18 billion at the end of fiscal 2017, an increase of 152.1 percent, and an increase of 7.1 percent from the $6.71 billion outstanding in fiscal 2016. The increase during fiscal 2017 was primarily due to the issuance of highway improvement bonds by the Texas Transportation Commission ($588.8 million) and cancer prevention bonds by Texas Public Finance Authority ($222.9 million).

The most recent U.S. Census Bureau data for state and local debt outstanding show that for census years 2014-15, Texas was the nation's 2nd most populous state and ranked 2nd among the ten most populous states in terms of Local Debt Per Capita, 7th in State Debt Per Capita and 4th in Total State and Local Debt Per Capita with 82.6 percent of the state's total debt burden at the local level.

Constitutional Debt Limit
As of August 31, 2017 Texas' constitutional debt limit (CDL) remained below the maximum of 5 percent for a total of 2.35 percent which includes 1.43 percent calculated for debt outstanding and 0.92 percent calculated for authorized but unissued debt. Included in the CDL is the $767.7 million of revenue bonds authorized by the 84th Legislature for the Texas Facilities Commission. The CDL declined 0.9 percent from the 2.37 percent calculated for outstanding and authorized but unissued debt calculated for fiscal 2016. The CDL is expected to continue to decrease slightly with the issuance of authorized debt.

State and Local Financings in FY 2017
State Debt
In fiscal year 2017 the state's total debt outstanding (including conduit debt) increased 6.6 percent to $53.01 billion compared to $49.75 billion in fiscal 2016 and $47.09 billion in fiscal 2015.

Bonds issued by Texas state agencies, colleges and universities during fiscal year 2017 increased by 19.1 percent to an aggregate total of $8.65 billion compared to $7.26 billion issued in fiscal 2016. Fiscal year 2017 issues included $5.33 billion in new-money and $3.32 billion in refunding bonds. Other debt issued included $1.35 billion of commercial paper.

As of August 31, 2017, a total of $8.18 billion was authorized for state commercial paper (CP) or variable-rate note (VRN) programs. Of this amount $2.00 billion was outstanding at fiscal-year end 2017*,* approximately $550.0 million less than the amount outstanding at fiscal year-end 2016.

Texas state issuers expect to issue approximately $5.70 billion in bonds, CP and VRN during fiscal 2018, a projected decrease of $2.04 billion (26.4%) over the amount projected for fiscal 2017.

Local Debt
As of fiscal year-end 2017 Texas local governments (excluding conduit debt) had $218.03 billion in outstanding debt*,* an increase of $28.45 billion (15.0 percent) since fiscal 2013. Of the 2017 total 65.3 percent ($142.37 billion) is GO debt to be repaid from local tax collections while the remaining 34.7 percent ($75.67 billion) will be repaid from revenues generated by various projects such as water, sewer and electric utility fees. Since fiscal 2013, tax-supported debt outstanding increased 18.9 percent ($22.60 billion) and revenue debt outstanding increased 8.4 percent ($5.85 billion).

School Districts accounted for 36.6 percent ($79.91 billion) of all local debt outstanding and Cities accounted for 32.9 percent ($71.66 billion). Water districts held the third highest percentage and accounted for 12.4 percent ($27.05 billion) of all local debt outstanding. The remaining 18.1 percent ($39.42 billion) was held by Community and Junior Colleges, Counties, Health/Hospital Districts and Other Special Districts.

Texas issuance of local debt has fluctuated over the past decade from a low of $21.68 billion in fiscal 2010 to a high of $39.39 billion in fiscal 2016. Additionally, the local issuance total in fiscal 2017 decreased $9.41 billion (23.9 percent) from the issuance total in fiscal 2016.

Over the past five fiscal years, new-money debt issuance totaled $75.19 billion and refunding debt totaled $83.71 billion. During that time the top three issuers of new-money volume were school districts, cities and water districts that together comprised 86.7 percent of the new-money volume ($65.2 billion) and 82.3 percent of the refunding transaction volume ($68.9 billion).

Issuance Costs

Excluding issuances of conduit and private placement debt, during fiscal 2017 the weighted average of issuance costs for state bond issuers was $5.26 per $1,000 compared to $5.20 per $1,000 for fiscal 2016. The issuances ranged in size from $11.6 million to $770.2 million.

Private Activity Bond Allocation Program and Other Bonding Authority

Texas again experienced an increase in volume cap for the Program Year 2017 Private Activity Bond (PAB) Allocation Program. The 2017 volume cap was set at $2,786,259,600, an increase of $39.3 million (1.4 percent) over the calendar 2016 cap. The total size of the PAB program including 2017 volume cap and carryforward, was $7.63 billion, a 16.4 percent increase from the 2016 total. As of November 15, 2017, $3.41 billion had been allocated and application requests totaled $6.20 billion, an increase of 82.0 percent from program year 2016.

As of November 15, 2017, Texas had $178.7 million in unused Qualified Energy Conservation Bond authority.

85th Legislature - Regular Session and 1st Called Special Session

No new state debt authorizations were approved during the 85th Legislative Session. The 85th Legislature appropriated debt service for the 2018-19 biennium to CPRIT to issue $600 million in GO debt under the $3 billion in authority approved by voters in 2007. In addition, the Texas Public Finance Authority is authorized to issue on behalf of the Texas Facilities Commission the remainder of the $767,670,000 of revenue bonds originally authorized during the 2016-17 biennium for the office buildings and utility infrastructure in the capital complex and the office building and parking structure in the North Austin complex.

Additional Detail

This report concludes with seven appendices. Appendix A provides a detailed description of each state bond transaction closed in fiscal 2017. Appendix B reports on commercial paper and variable-rate debt programs used by state agencies and universities. Appendix C provides a background discussion of Texas Swap Programs and reports on swaps outstanding and debt-service requirements. While not a debt of the state, the aggregate notional amount of interest rate swaps outstanding at the state level was $5.07 billion at fiscal year-end 2017. Appendix D provides an overview of the costs of issuance and underwriting spread. Appendix E provides a brief description of each of the state's bond issuing entities. Appendix F provides a brief overview of the Private Activity Bond Program. Appendix G provides a glossary of terms.

For limitations on the purpose and use of this report, see the disclosure preceding Chapter 1.

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Cautionary Statements

Chapter 1231 of the Texas Government Code directs issuers of state securities to report their securities transactions to the Bond Review Board (BRB). Chapter 1231 also requires the BRB to report the data to the governor, lieutenant governor, the speaker of the house, and each member of the legislature in an annual report within 90 days of the end of each state fiscal year. 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 and defeasance 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, State Energy Conservation Office (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 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 data could be affected by changes in legislative and oversight direction, agency financing decisions, prevailing interest rates, market conditions, and other factors that cannot be predicted. Consequently, actual future data could differ from the estimates, 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 refers to credit ratings. An explanation of the significance of the ratings may be obtained from the rating agencies furnishing the ratings. Ratings reflect only the respective views of each rating agency. In reporting ratings herein, the BRB does not intend to endorse the ratings or make any recommendation to buy, sell or hold securities.

This report is intended to meet chapter 1231 requirements and inform the state leadership and the Legislature. 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
Texas Debt in Perspective

As of September 27, 2013 Texas' general obligation (GO) debt is rated Aaa/AAA/AAA/AAA by the credit rating agencies, Moody's Investors Service (Moody's), Standard & Poor's (S&P), Fitch Ratings (Fitch) and Kroll Bond Rating Agency (KBRA), respectively. All three rating agencies maintain their outlook as "stable". Table 1.2 provides a tier-ranking of each state relative to the states rated AAA by three rating agencies.

On April 11, 2017, Fitch reaffirmed its AAA rating for the U.S. with a long-term outlook of stable. Similarly, on June 6, 2017, S&P reaffirmed its AA+ long-term debt rating for the United States and maintained its long-term outlook as stable. The Kroll Bond Rating Agency reaffirmed a long-term rating of AAA on July 13, 2017 with a stable outlook for the State of Texas' GO Bonds. In addition, on October 12, 2017, Moody's reaffirmed the United States government's Aaa rating and maintained its outlook as stable. Texas' GO borrowing costs have not been impacted by changes in U.S. credit ratings.

According to Moody's 2017 State Debt Medians, Texas ranked 41st among all states in net tax-supported debt per capita. Texas had $383 in net tax-supported debt per capita compared to the national mean and median of $1,473 and $1,006, respectively.

STATE DEBT

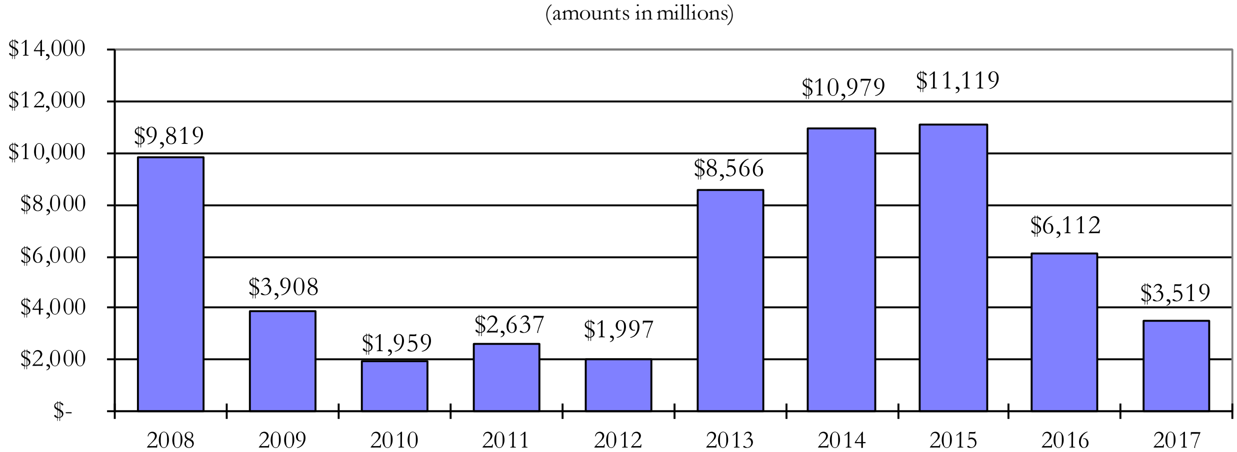
Texas' Financial Position

Texas ended fiscal 2017 with a total consolidated General Revenue Fund cash balance of $3.52 billion *(Figure 1.1)*, a 42.4 percent decrease from the fiscal 2016 year-end closing balance of $6.11 billion.

Total Tax Collections increased by 3.5 percent to $48.17 billion. Total Net Revenues and Other Sources decreased by 4.3 percent to $134.91 billion, and Total Expenditures and Other Uses decreased by 5.8 percent to $137.50 billion *(Table 1.1)*.

The Sales Tax remains the state's primary source of revenue and accounted for 59.9 percent of Total Tax Collections during fiscal 2017. Sales Tax revenues increased 2.3 percent from the prior fiscal year to $28.86 billion. The Natural Gas Production Tax revenue increased 69.8 percent ($404.0 million), the Cigarette and Tobacco Tax revenue increased 11.2 percent ($63.0 million), and the Oil Production and Regulation Tax revenue increased 23.6 percent ($403.1 million) while the state's Motor Vehicle Sales/Rental Tax revenue and Franchise Tax

Figure 1.1
ENDING CASH BALANCE IN TEXAS' CONSOLIDATED GENERAL REVENUE FUND
(amounts in millions)



Source: Texas Comptroller of Public Accounts, 2017 Annual Cash Report.

Table 1.1

STATEMENT OF CASH CONDITION

CONSOLIDATED GENERAL REVENUE FUND

(amounts in thousands)

	Fiscal 2016	Fiscal 2017	% Change
Revenues and Beginning Balance			
Beginning Balance, September 1	$ 11,129,456	$ 6,112,123	-45.1%
Tax Collections			
General Revenue Fund			
Sales Tax	28,201,301	28,855,135	2.3%
Motor Vehicle Sales / Rental Taxes	4,593,369	4,510,052	-1.8%
Motor Fuel Taxes	3,513,716	3,583,734	2.0%
Franchise Tax	2,845,291	2,731,479	-4.0%
Insurance Taxes	2,226,725	2,376,092	6.7%
Natural Gas Production Tax	578,799	982,763	69.8%
Cigarette and Tobacco Taxes	561,916	624,893	11.2%
Alcoholic Beverages Taxes	1,182,549	1,217,711	3.0%
Oil Production and Regulation Taxes	1,704,282	2,107,335	23.6%
Inheritance Tax	0	0	0.0%
Utility Taxes	434,965	439,065	0.9%
Hotel Occupancy Tax	521,152	530,716	1.8%
Other Taxes	182,616	208,575	14.2%
Total Tax Collections	**$ 46,546,681**	**$ 48,167,550**	**3.5%**
Federal Income	35,445,563	34,023,584	-4.0%
Licenses, Fees, Permits, Fines, & Penalties	9,492,112	8,037,514	-15.3%
Interest and Investment Income	69,896	22,907	-67.2%
Net Lottery Proceeds	2,219,965	2,053,244	-7.5%
Sales of Goods and Services	179,866	179,704	-0.1%
Settlements of Claims	597,126	505,914	-15.3%
Land Income	18,187	26,768	47.2%
Contributions to Employee Benefits	55	57	3.6%
Other Revenue Sources	5,415,240	6,060,034	11.9%
Interfund Transfers/Investment Transactions	41,016,695	35,834,735	-12.6%
Total Net Revenue and Other Sources	**$ 141,001,386**	**$ 134,912,011**	**-4.3%**
Expenditures and Ending Balance			
General Government	2,951,242	3,161,488	7.1%
Education	33,755,752	32,641,686	-3.3%
Employee Benefits	4,111,416	4,328,417	5.3%
Health and Human Services	50,597,763	48,937,600	-3.3%
Public Safety and Corrections	4,772,233	4,922,010	3.1%
Lottery Winnings Paid	672,822	557,026	-17.2%
Other Expenditures*	3,113,380	2,726,147	-12.4%
Interfund Transfers / Investment Transactions	46,044,098	40,230,505	-12.6%
Total Expenditures and Other Uses	**$ 146,018,706**	**$ 137,504,879**	**-5.8%**
Net Increase to Petty Cash Accounts	-14	-34	**-142.9%**
Ending Balance, August 31	**$ 6,112,123**	**$ 3,519,222**	**-42.4%**

Source: Texas Comptroller of Public Accounts, 2017 Cash Report, Tables 1 & 11.

* Includes Transportation, Natural Resources/Recreational Services, Regulatory Agencies, Payment of Interest and Capital Outlays.

Totals may not sum due to rounding.

revenue decreased by 1.8 percent ($83.3 million) and 4.0 percent ($113.8 million), respectively.

85th Legislature - Regular Session and 1st Called Special Session

No new state debt authorizations were approved during the 85th Legislative Session. The 85th Legislature appropriated debt service for the 2018-19 biennium to the Cancer Prevention and Research Institute of Texas (CPRIT) to issue $600 million in General Obligation (GO) debt under the $3 billion in authority approved by voters in 2007. In addition, the Texas Public Finance Authority (TPFA) is authorized to issue on behalf of the Texas Facilities Commission (TFC) the remainder of the $767,670,000 of revenue bonds originally authorized during the 2016-17 biennium for the office buildings and utility infrastructure in the capital complex and the office building and parking structure in the North Austin complex.

84th Texas Legislature

The 84th Legislature authorized the issuance of $767.7 million of revenue bonds and appropriated those bond proceeds in the General Appropriations Act to the TFC for the North Austin and Capitol Complex projects. The bonds are anticipated to be repaid with lease payments from state agencies subject to biennial appropriation by the Legislature. Such lease payments were appropriated to the TFC for the 2016-2017 biennium. In addition, the 84th Legislature appropriated debt service for the TFC to issue $1.35 billion of Prop 12 GO debt and for CPRIT to issue $600 million in GO debt for the biennium.

The Legislature also authorized $3.10 billion in Tuition Revenue Bond (TRB) debt with the passing of HB 100. Historically, the legislature has appropriated funds in an amount equal to all or a portion of the debt service on TRB debt issued.

Additionally, the 84th Legislature passed HB 122 which limits the issuance of debt secured by the Texas Mobility Fund solely to refundings or issuances that replace variable-rate debt.

83rd Legislature – Regular Session, 1st, 2nd and 3rd Called Special Session

The 83rd Legislature appropriated debt service for the 2014-15 biennium for the Texas Transportation Commission to issue $2 billion of Prop 12 GO debt, for CPRIT to issue $600 million in GO debt and for TPFA to issue $146.2 million in GO debt for various state agencies.

Senate Joint Resolution (SJR) 1 of the Regular Session proposed the creation of a State Water Implementation Fund that would be administered, without further appropriation, by the Texas Water Development Board (TWDB). HB 1025 authorized the transfer of $2 billion from the state's Economic Stabilization Fund (ESF), also known as the Rainy Day Fund, to implement the state's water plan. Voters approved the proposed amendments to the Texas Constitution at the November 5, 2013 bond election.

SJR 1 of the 3rd Called Special Session proposed a constitutional amendment diverting half of the oil and gas tax revenues to be deposited into the ESF to the State Highway Fund to provide transportation funding for repairs and maintenance of public roads. Voters approved the proposed amendment to the Texas Constitution at the November 4, 2014 general election.

Additional Bonding Authority

In October 2008 the Heartland Disaster Tax Relief Act of 2008 created $1.86 billion in tax-exempt bonding authority for the Hurricane Ike disaster area which includes 34 counties along the Texas coast. The Hurricane Ike Authority expired on January 1, 2013.

In February 2009 the American Recovery and Reinvestment Act of 2009 (ARRA) created new types of bonding authority and expanded authority under existing programs. *(See Chapter 4 for more detail related to additional bonding authority.)*

Recent Credit Rating Agency Reports on Texas' General Obligation Debt

On April 27, 2017, Fitch affirmed its AAA rating and stable outlook on Texas' GO debt. In its report of that date entitled "Fitch Rates Texas Water Development Board's $113MM GO Bonds' AAA; Outlook Stable", Fitch stated that "Texas' long-term AAA Issuer Default Rating (IDR) reflects an economy that continues to grow despite the severe contraction in its globally important energy sector, its conservative financial operations and low long-term liability burden. The oil price plunge that began in late 2014 interrupted a long period of economic and revenue growth, but diversification over time is resulting in continued economic gains, fiscal performance remains steady, and a high reserve balance provides ample cushion against unexpected revenue weakness."

On July 13, 2017, the Kroll Bond Rating Agency affirmed its long-term rating of AAA with a stable outlook to the State of Texas' GO Bonds. Key rating strengths include: a very large and diversified state economic base, conservative financial management and budgeting policies and procedures, a high level of financial reserves and strong liquidity position and low debt burden. Key rating concerns include: the volatility in oil and gas prices still impacting economic activity and revenue collections as shown in 2015 and 2016, a potential negative impact of current franchise tax litigation, and increasing budget pressure due to recent constitutional amendment diverting sales tax revenues to transportation purposes.

S&P's latest action on Texas' GO rating was to affirm its AAA rating and stable outlook on October 24, 2017. In its report of that date entitled "Texas Appropriations; General Obligation; General Obligation Equivalent Security; Joint Criteria" S&P stated that " The rating reflects our view of the state's "diverse and resilient economy that we expect will outpace the nation in terms of job growth and productivity despite a potential near-term uptick in unemployment related to Hurricane Harvey: strong revenue forecasting and cash management practices, including comprehensive monthly revenue and expenditure cash monitoring and forecasts, as well as a willingness to maintain strong liquidity to meet constitutionally defined priorities, including the repayment of debt service; low overall net debt; rising unfunded pension and long-term liabilities, which we believe will require active management to ensure that benefit costs remain affordable; and potential long-term budgetary pressures related to growing public school expenses and modification to the school funding formula, which is compounded by a reduction in recurring general fund revenue during the biennium."

On October 24, 2017, Moody's affirmed its Aaa rating and stable outlook on Texas' GO debt. In its report of that date entitled "New Issue – Moody's assigns Aaa to Texas' $184M GO college student loan bonds, Series 2018; outlook stable", Moody's stated that "The Aaa rating reflects the strong fundamentals of the Texas economy; a rainy day fund that provides a healthy budgetary cushion; and low bonded debt levels. Those strengths are offset by lower energy prices that have slowed the economy in parts of the state, above-average pension liabilities and ongoing pressure to maintain structural budget balance as the state seeks to maintain education and property tax relief spending amid high population growth, in a lower revenue growth environment."

Table 1.2

STATE BOND RATINGS as of September 2017

States With a General Obligation Rating

Steps from AAA Ranking	State	Moody's Investors Service	Standard & Poor's	Fitch Ratings
-	Delaware	Aaa	AAA	AAA
-	Georgia	Aaa	AAA	AAA
-	Maryland	Aaa	AAA	AAA
-	Missouri	Aaa	AAA	AAA
-	North Carolina	Aaa	AAA	AAA
-	Tennessee	Aaa	AAA	AAA
-	**TEXAS**	**Aaa**	**AAA**	**AAA**
-	Utah	Aaa	AAA	AAA
-	Virginia	Aaa	AAA	AAA
1	Florida	Aa1	AAA	AAA
1	South Carolina	Aaa	AA+	AAA
1	Vermont	Aaa	AA+	AAA
2	Minnesota	Aa1	AA+	AAA
3	Arkansas	Aa1	AA	**
3	New Mexico	Aa1	AA	**
3	New York	Aa1	AA+	AA+
3	Ohio	Aa1	AA+	AA+
3	Oregon	Aa1	AA+	AA+
3	Washington	Aa1	AA+	AA+
4	Alabama	Aa1	AA	AA+
4	Hawaii	Aa1	AA+	AA
4	Massachusetts	Aa1	AA	AA+
4	Montana	Aa1	AA	AA+
4	New Hampshire	Aa1	AA	AA+
5	Nevada	Aa2	AA	AA+
5	Wisconsin	Aa1	AA	AA
6	Alaska	Aa3	AA	AA+
6	Oklahoma	Aa2	AA	AA
6	Mississippi	Aa2	AA	AA
6	Maine	Aa2	AA	AA
6	Michigan	Aa1	AA-	AA
6	Rhode Island	Aa2	AA	AA
7	West Virginia	Aa2	AA-	AA
9	California	Aa3	AA-	AA-
9	Louisiana	Aa3	AA-	AA-
12	Connecticut	A1	A+	A+
10	Pennsylvania	Aa3	A+	AA-
17	New Jersey	A3	A-	A
26	Illinois	Baa3	BBB-	BBB
	States With Only An Issuer Credit Rating			
*	Arizona	Aa2	AA	**
*	Colorado	Aa1	AA	**
*	Idaho	Aa1	AA+	AA+ (Implied GO)
*	Indiana	Aaa	AAA	AAA (Lease)
*	Iowa	Aaa	AAA	AAA (Implied GO)
*	Kansas	Aa2	AA-	**
*	Kentucky	Aa3	A+	AA- (Implied GO)
*	Nebraska	**	AAA	**
*	North Dakota	Aa1	AA+	**
*	South Dakota	Aaa	AAA	AAA (Implied GO)
*	Wyoming	**	AA+	**

* Issuer Credit Rating.

** Not rated

Source: Moody's Investors Service, Standard & Poor's, and Fitch Ratings.

Factors Affecting the Rating of Texas' General Obligation Debt

Credit rating agencies consider four primary factors when rating a state's debt: economy, finances, debt and management. Within economic factors, the agencies review the state's income, employment, economic diversity and demographics. Financial factors considered are the state's revenues, cost structure, balance sheet health and liquidity. Debt factors reviewed include debt ratios and debt security and structure. Management factors include: budget development and management practices; constitutional constraints, initiatives and referenda; executive branch controls; mandates to maintain a balanced budget; rainy day funds; and political polarization.

The sometimes overlapping conclusions reached by all three major rating agencies reflect their collective judgment that several challenges may arise if Texas is faced with a low-revenue environment. Among the most prominent and commonly cited of these problems are: (1) the state's heavy dependence on the sales tax without support from a state income tax; (2) issues related to unfunded pension liabilities, funding for public schools, and assistance programs such as Medicaid; and (3) the state's continued rapid population growth that will necessitate budget increases for operating costs as well as increases in capital expenditures for growing infrastructure needs including transportation and water development.

Table 1.2 provides a tier ranking of each state's rating relative to states that are rated Triple-A by all three major rating agencies. Texas is one of nine states that is rated Triple-A by Moody's, S&P and Fitch.

Changes in State Bond Ratings

During the past year, four states received upgrades in ratings. Moody's upgraded Wisconsin one notch to Aa1 from Aa2. Fitch upgraded Indiana, Minnesota and South Dakota one notch each to AAA from AA+.

Twelve states received ratings downgrades: Illinois and Connecticut were downgraded by all three major credit rating agencies. Alaska, New Jersey, and New Mexico were downgraded by Moody's and S&P. Oklahoma was downgraded by both S&P and Fitch while Kentucky and West Virginia were downgraded by Moody's only. In addition, Louisiana, Massachusetts, Pennsylvania and Wyoming were downgraded by S&P. *(Table 1.3)*.

Texas' Debt Ratios Compared to AAA-Rated and Other States

According to Moody's 2017 State Debt Medians, Texas ranked 41st among all states in net tax-supported debt per capita. Texas had $383 in net tax-supported debt per capita compared to the national mean and median of $1,473 and $1,006, respectively (*Table 1.4*). Texas' net tax-supported debt per capita ranked second lowest when compared to that of the eight other states rated AAA *(Table 1.5)*. By comparison, AAA-rated Delaware had the highest debt per capita at $2,544. Additionally, Texas' 2016 personal income (the most recent data available) per capita of $46,274 is above that of five other AAA states: Georgia, Missouri, North Carolina, Tennessee and Utah.

Texas' net tax-supported debt as a percent of calendar 2015 personal income was 0.8 percent, 41st among all the states and below the national mean and median of 3.0 percent and 2.5 percent, respectively *(Table 1.4)*. Compared to the eight other states also rated AAA by all three major rating agencies, Texas ranked second lowest on this measure with the mean and median for all AAA-rated states at 2.4 percent and 2.1 percent, respectively *(Table 1.5)*.

The most recent U.S. Census Bureau data for state and local debt outstanding show that for

Table 1.3
CHANGES IN STATE BOND RATINGS
September 2016 to September 2017

State	Moody's	Standard & Poor's	Fitch
Upgrades			
Indiana*			AA+ to AAA
Minnesota			AA+ to AAA
South Dakota*			AA+ to AAA
Wisconsin	Aa2 to Aa1		
Downgrades			
Alaska	Aa2 to Aa3	AA+ to AA	
Connecticut	Aa3 to A1	AA- to A+	AA- to A+
Illinois	Baa2 to Baa3	BBB+ to BBB-	BBB+ to BBB
Kentucky*	Aa2 to Aa3		
Louisiana		AA to AA-	
Massachusetts		AA+ to AA	
New Jersey	A2 to A3	A to A-	
New Mexico	AAA to Aa1	AA+ to AA	
Oklahoma		AA+ to AA	AA+ to AA
Pennsylvania		AA- to A+	
West Virginia	Aa1 to Aa2		
Wyoming*		AAA to AA+	

* Issuer Credit Rating.

Sources: Moody's Investors Service, Standard & Poor's, and Fitch Ratings.

census years 2014-15, Texas was the nation's 2nd most populous state and ranked 2nd among the ten most populous states in terms of Local Debt Per Capita, 7th in State Debt Per Capita and 4th in Total State and Local Debt Per Capita *(Table 1.6)* with 82.6 percent of the state's total debt burden at the local level. Listed by decreasing amount outstanding, local debt is issued by Public School Districts; Cities, Towns and Villages; Water Districts; Special Districts; Counties; Community and Junior Colleges and Health/Hospital Districts.

Texas state and local debt outstanding as a percentage of gross state product has remained relatively constant indicating that economic growth has kept pace with state and local debt outstanding (Figure 1.2).

Many communities throughout Texas are continuing to experience significant population growth with increasing demand for infrastructure, programs and services. Net migration into the state, according to the U.S. Census Bureau, increased 6.9 percent (1.8 million) over the past five years forcing many small and medium-sized communities to increase financing for infrastructure such as roads, schools, water and wastewater services to meet expanded needs. Based on projections of current demographic trends, Texas will continue to experience increasing demand for expenditures in these areas.

General Obligation Debt Has Increased Over the Past Decade

General obligation (GO) debt pledges "the full faith and credit of the state" to back the payment of the debt. In the event that program or project revenue is insufficient to pay debt service on self-supporting debt, the first monies coming into the state treasury not otherwise constitutionally appropriated shall be used to pay the debt service.

Some GO debt, such as that issued by the Texas Veterans' Land Board is self-supporting, and other GO debt, such as that issued by the Texas Public Finance Authority to finance programs for the Cancer Prevention and Research Institution of Texas, Texas Department of Criminal Justice, the Texas Department of Aging and Disability Services and the Texas Youth Commission, is not self-supporting and must receive annual appropriations from the legislature for debt-service payments from the state's general revenue fund.

Total not self-supporting debt increased from \$2.85 billion at the end of fiscal 2008 to \$7.18 billion at the end of fiscal 2017, an increase of 152.1 percent, and an increase of 7.1 percent from the \$6.71 billion outstanding in fiscal 2016. The increase during fiscal 2017 was primarily due to the issuance of highway improvement bonds by TTC (\$588.8 million) and cancer prevention bonds by TPFA (\$222.9 million). Estimated scheduled annual debt service as a percentage of unrestricted general revenue increased in fiscal 2017 to 1.39 percent *(Figure 1.3).*

Table 1.4

SELECTED TAX-SUPPORTED DEBT MEASURES BY STATE

State	Moody's Rating	Net Tax-Supported Debt as a % of 2015 Personal Income	Rank	Net Tax-Supported Debt Per Capita	Rank
Hawaii	Aa1	10.5%	1	$5,018	3
Massachusetts	Aa1	9.8%	2	5,983	2
Connecticut	Aa3	9.7%	3	6,505	1
New Jersey	A3	7.3%	4	4,388	4
Washington	Aa1	5.4%	5	2,717	6
Delaware	Aaa	5.4%	6	2,544	7
New York	Aa1	5.3%	7	3,070	5
Kentucky	Aa2*	5.3%	8	2,057	12
Mississippi	Aa2	5.2%	9	1,847	13
Illinois	Baa2	5.1%	10	2,511	8
Oregon	Aa1	4.4%	11	1,842	14
Rhode Island	Aa2	4.3%	12	2,131	10
California	Aa3	4.2%	13	2,217	9
Wisconsin	Aa2	3.8%	14	1,739	15
Maryland	Aaa	3.8%	15	2,122	11
Louisiana	Aa3	3.7%	16	1,615	17
Kansas	Aa2*	3.4%	17	1,575	18
New Mexico	Aa1	3.3%	18	1,260	22
Alaska	Aa2	3.0%	19	1,691	16
Minnesota	Aa1	2.9%	20	1,480	20
Virginia	Aaa	2.9%	21	1,486	19
Pennsylvania	Aa3	2.7%	22	1,337	21
West Virginia	Aa2	2.6%	23	989	27
Alabama	Aa1	2.6%	24	1,019	25
Ohio	Aa1	2.5%	25	1,087	23
Georgia	Aaa	2.5%	26	992	26
Vermont	Aaa	2.2%	27	1,068	24
Florida	Aa1	2.2%	28	961	28
Utah	Aaa	2.1%	29	824	31
Maine	Aa2	2.1%	30	889	30
Arizona	Aa2*	1.8%	31	696	32
New Hampshire	Aa1	1.6%	32	897	29
North Carolina	Aaa	1.6%	33	659	34
Michigan	Aa1	1.6%	34	689	33
Arkansas	Aa1	1.5%	35	588	36
South Carolina	Aaa	1.5%	36	564	39
South Dakota	Aaa*	1.4%	37	641	35
Nevada	Aa2	1.4%	38	587	37
Missouri	Aaa	1.4%	39	579	38
Idaho	Aa1*	1.1%	40	424	40
Texas	**Aaa**	**0.8%**	**41**	**383**	**41**
Oklahoma	Aa2	0.8%	42	365	42
Tennessee	Aaa	0.8%	43	322	44
Indiana	Aaa*	0.8%	44	310	45
Colorado	Aa1*	0.7%	45	353	43
Iowa	Aaa*	0.5%	46	228	46
Montana	Aa1	0.5%	47	207	47
North Dakota	Aa1*	0.3%	48	151	48
Wyoming	NGO**	0.1%	49	41	49
Nebraska	NGO**	0.0%	50	18	50
Mean		3.0%		$1,473	
Median		2.5%		$1,006	

* Issuer Rating (No G.O. Debt)

** No general obligation debt

Analysis based on calendar year 2016 data.

Source: Moody's Investors Service, *2017 State Debt Medians - May 3, 2017.*

Table 1.5

SELECTED DEBT MEASURES FOR TEXAS AND STATES RATED AAA

State	Rating*	Net Tax-Supported Debt as a % of 2015 Personal Income	Rank	Net Tax-Supported Debt Per Capita	Rank	2016 Personal Income Per Capita
Delaware	AAA	5.4%	6	2,544	7	47,869
Georgia	AAA	2.5%	26	992	26	42,159
Maryland	AAA	3.8%	15	2,122	11	58,052
Missouri	AAA	1.4%	39	579	38	42,926
North Carolina	AAA	1.6%	33	659	34	42,244
Tennessee	AAA	0.8%	43	322	44	43,326
TEXAS	AAA	0.8%	41	383	41	46,274
Utah	AAA	2.1%	29	824	31	40,925
Virginia	AAA	2.9%	21	1,486	19	52,957
Mean of AAA States		**2.4%**		**$1,101**		**$46,304**
Median of AAA States		**2.1%**		**$824**		**$43,326**

* Rated Aaa by Moody's, and AAA by Standard & Poor's and Fitch Ratings.
Analysis based on calendar year 2016 data.

Sources: Moody's Investors Service, *2017 State Debt Medians;* Bureau of Economic Analysis, State BEAR Facts

Unrestricted general revenue increased 3.2 percent in fiscal 2017 to $52.23 billion from $50.62 billion in fiscal 2016 *(Figure 1.4)*. Unrestricted general revenue is generally the most available funding source to make debt-service payments and to fund appropriations for state operations.

Authorized but Unissued Debt Decreases

Authorized but unissued debt (debt that has been authorized by the legislature and may be issued at any time without further legislative action) decreased by 10.7 percent from approximately $15.68 billion at the end of fiscal 2016 to approximately $14.00 billion at the end of fiscal 2017. This decrease is mainly attributable to GO issuances by TTC ($588.8

Table 1.6

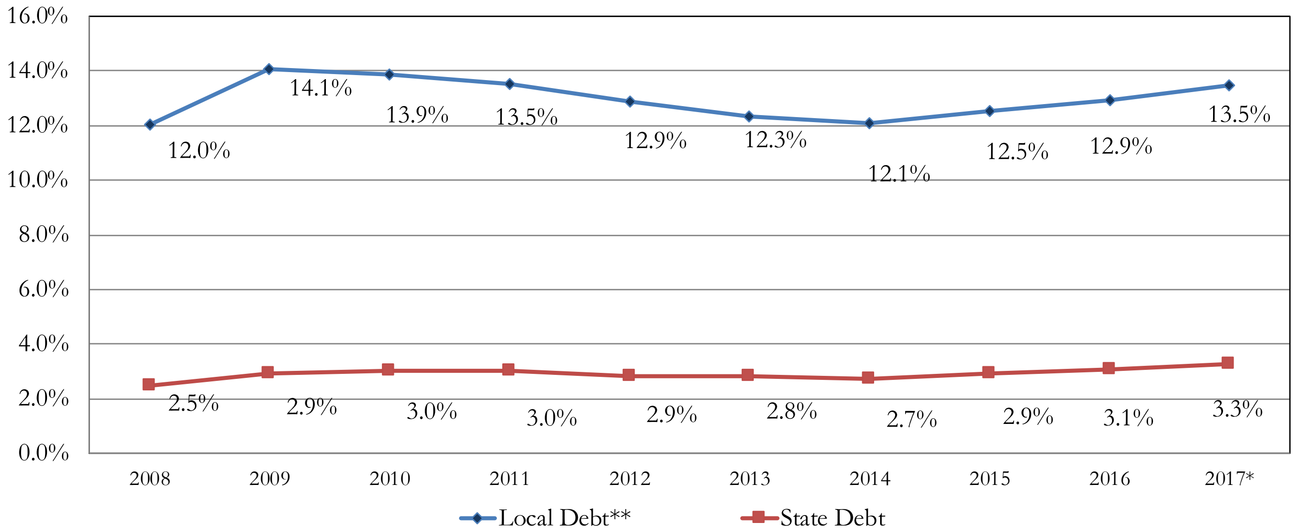
TOTAL STATE AND LOCAL DEBT OUTSTANDING: TEN MOST POPULOUS STATES

	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	Per Capita Rank	Amount (millions)	% of Total Debt	Per Capita Amount	Per Capita Rank
New York	19,745	$346,128	$17,530	1	$137,369	39.7%	$6,957	1	$208,759	60.3%	$10,573	1
Illinois	12,801	148,532	11,603	2	64,221	43.2%	5,017	2	84,311	56.8%	6,586	4
California	39,250	420,979	10,726	3	151,715	36.0%	3,865	3	269,264	64.0%	6,860	3
Texas	**27,862**	**277,647**	**9,965**	**4**	**48,238**	**17.4%**	**1,731**	**7**	**229,409**	**82.6%**	**8,234**	**2**
Pennsylvania	12,784	127,130	9,944	5	47,052	37.0%	3,681	4	80,078	63.0%	6,264	5
Michigan	9,928	76,462	7,702	6	33,245	43.5%	3,349	5	43,217	56.5%	4,353	8
Ohio	11,614	85,737	7,382	7	33,109	38.6%	2,851	6	52,628	61.4%	4,531	7
Florida	20,612	148,661	7,212	8	33,315	22.4%	1,616	9	115,346	77.6%	5,596	6
Georgia	10,310	56,155	5,447	9	13,248	23.6%	1,285	10	42,907	76.4%	4,162	9
North Carolina	10,147	50,140	4,941	10	17,464	34.8%	1,721	8	32,677	65.2%	3,220	10
MEAN		**$173,757**	**$9,245**		**$57,898**	**33.6%**	**$3,207**		**$115,860**	**66.4%**	**$6,038**	

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: 2014-2015,* the most recent data available. July 2016 U.S. Census Bureau, Population Division.

Figure 1.2
STATE AND LOCAL DEBT AS A PERCENT OF GROSS STATE PRODUCT



* Uses gross state product as reported for 2016 - Most recent data available.
** Excludes conduit debt of local governments
Source: Texas Bond Review Board - Bond Finance Office; U.S Department of Commerce Bureau of Economic Analysis

million), VLB ($250.0 million), TPFA ($222.9 million) and THECB ($158.1 million). Of the $14.00 billion of authorized but unissued debt remaining as of fiscal year-end 2017, approximately $10.93 billion is GO debt while $3.07 billion is non-GO debt. Approximately $2.93 billion of the authorized but unissued amount is considered not self-supporting and includes GO and non-GO debt payable from general revenue.

Texas' Constitutional Debt Limit and Debt-Management Policy

In 1997 the 75th Legislature passed and voters approved HJR 59 that added Section 49-j to Article III of the Texas Constitution. This amendment states that additional tax-supported debt may not be authorized if the maximum annual debt service on debt payable from general revenue, including authorized but unissued debt, exceeds 5 percent of the average annual unrestricted General Revenue Fund revenues for the previous three fiscal years.

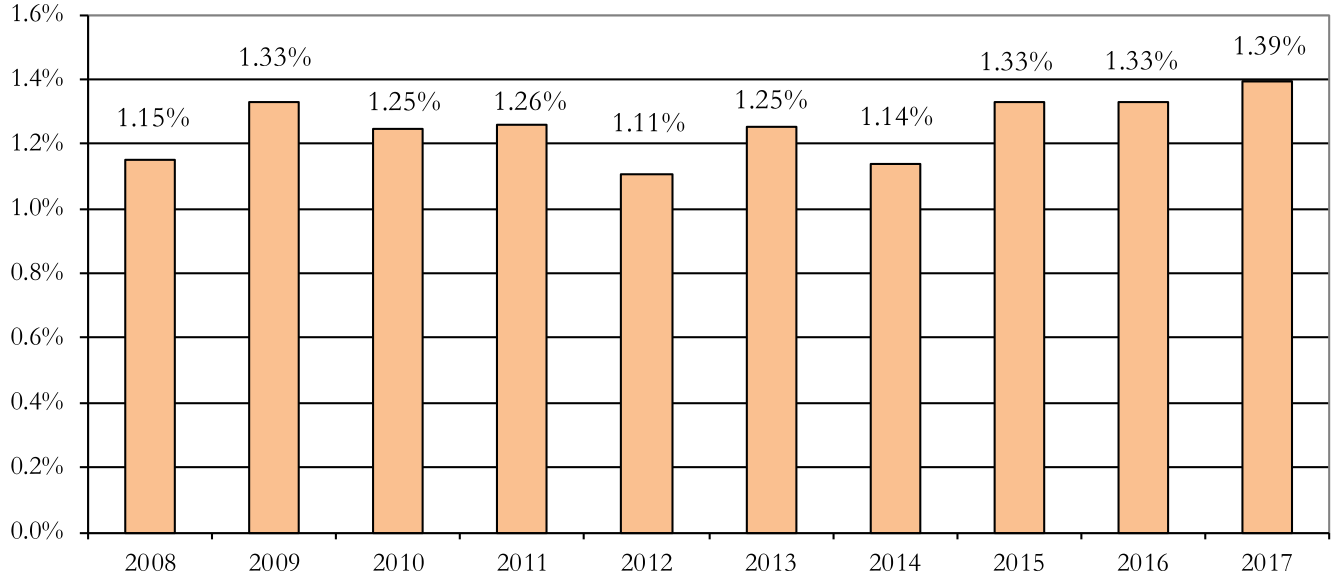
As of August 31, 2017 Texas' constitutional debt limit (CDL) remained below the maximum of 5 percent with 1.43 percent calculated for debt outstanding and 0.92 percent calculated for authorized but unissued debt for a total of 2.35 percent. Included in the CDL is the $767.7 million of revenue bonds authorized by the 84th Legislature for the Texas Facilities Commission. The CDL declined 0.9 percent from the 2.37 percent calculated for outstanding and authorized but unissued debt calculated for fiscal 2016.

The slight decrease in the CDL was mainly due to an increase in the three-year rolling average of unrestricted general revenue available to pay debt service and a decline in the debt service on authorized but unissued debt payable from general revenue. This decline in authorized but unissued debt service is due to the issuance of $588.8 million by TTC during FY 2017 for highway improvement projects and $222.9 million by TPFA for cancer research projects, both of which were authorized by voters at the November 2007 General Election. The CDL is expected to continue to decrease slightly with the issuance of authorized debt.

HB 2190 passed in the 77th Legislature directed the BRB to adopt formal debt policies and issuer guidelines to provide guidance to issuers of state securities and to ensure that state debt is prudently managed. These policies and guidelines are posted on

Figure 1.3

ANNUAL NOT SELF-SUPPORTING SCHEDULED DEBT SERVICE AS A PERCENTAGE OF UNRESTRICTED GENERAL REVENUE



Sources: Texas Bond Review Board - Bond Finance Office and the Texas Comptroller of Public Accounts.

the agency's website.

SB 1332 passed in the 80th Legislature amended the agency's statutes to require the BRB to adopt a state policy related to the risks and effects of derivative agreements. This policy was adopted in fiscal 2009 and is available on the agency's website.

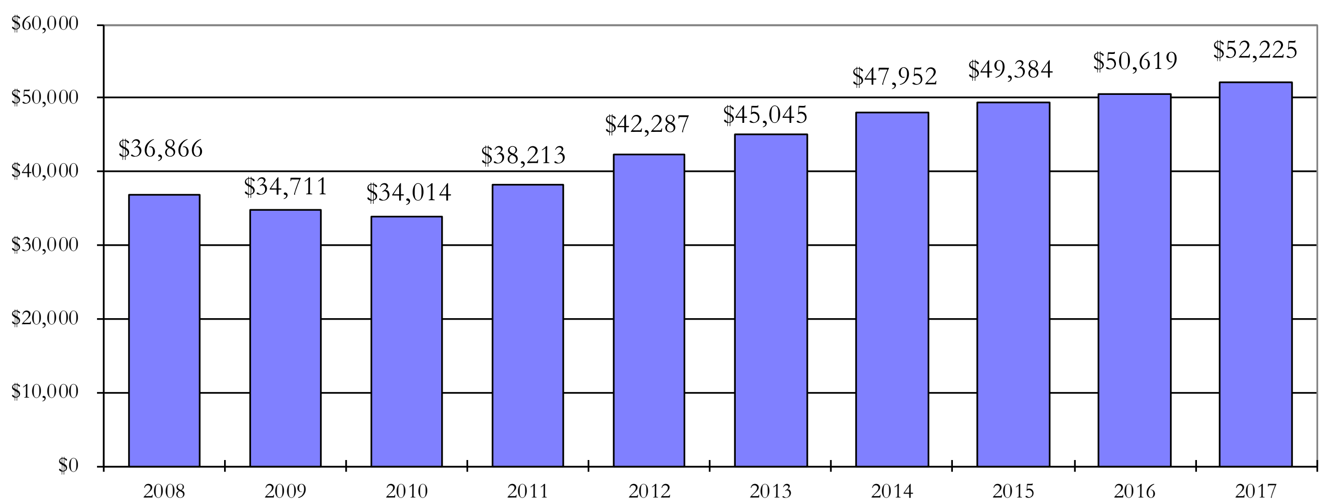
Capital Planning Review and Approval Process

The 76th Legislature (1999) passed legislation that biennially directs the BRB to produce the state's Capital Expenditure Plan (CEP). The legislation specifies that all state agencies and higher education institutions appropriated funds by the General Appropriations Act (GAA) are required to report capital planning

Figure 1.4

UNRESTRICTED GENERAL REVENUE

(millions of dollars)



Source: Texas Comptroller of Public Acounts information for projects that fall within four specific project areas: (1) acquisition of land and other real property; (2) construction of buildings and facilities; (3) renovations of buildings and other facilities estimated to exceed $1 million for a single state agency or institution of higher education; and (4) major information resources projects estimated to exceed $1 million. In previous reports, the BRB requested that all planned expenditures exceeding $250,000 must be reported, but the threshold was adjusted to $1 million in 2006 for future reports.

From a budgetary and capital planning standpoint, a number of state agencies work together to coordinate the budgetary and capital reporting and approval process for state agencies. They include the Governor's Office of Budget, Planning & Policy (GOBPP), the Legislative Budget Board (LBB), the Texas Higher Education Coordinating Board, the Texas Facilities Commission, the Comptroller of Public Accounts, House Committee on Appropriations (HAC) and Senate Finance Committee (SFC).

The legislature defines the types of projects and cost thresholds to be reported in the CEP. The BRB coordinates the submission of capital projects through the CEP, develops the report and determines the effect of the additional capital requests on the state's budget and debt capacity. The completed plan is then provided to the GOBPP and the LBB to develop recommendations for appropriations to the legislature.

The GOBPP and LBB also assess short-term and long-term budget needs. Through the HAC and SFC, the legislature makes the final decisions on projects to be funded for the two-year biennial period. Approved capital and operating budgets are integrated into the GAA that authorizes specific debt issuance for capital projects. Through the capital budgeting process, capital projects are approved for the two-year biennial period. Additionally, the CEP reports on the preceding year and the remaining two out years for identifying long-term needs of the state and for future planning purposes.

The 2018-19 CEP was released September 1, 2016, pursuant to House Bill 1, Article IX, Section 11.03 of the 84rd Legislature and covers the out years 2020-21. This report represents the ninth published CEP for the state. The CEP is a management tool for state decision makers to use in assessing future individual capital expenditure requests within the framework of the state's overall financial position. The 2018-19 CEP is available on the agency's website.

Debt Affordability Study

The state's Debt Affordability Study (DAS) is designed to provide the state leadership with an integrated approach to manage state debt by assessing historical debt use and analyzing the state's financial and economic resources in conjunction with long-term needs contained in the CEP. The BRB, LBB and the Texas Public Finance Authority prepared the state's first DAS, released in February 2007. With the passage of SB 1332 (80th Legislature), the BRB in conjunction with the LBB is responsible for subsequent editions of the DAS. Historical DAS reports are available on the agency's website. The 2018 DAS will be released in February 2018.

LOCAL DEBT

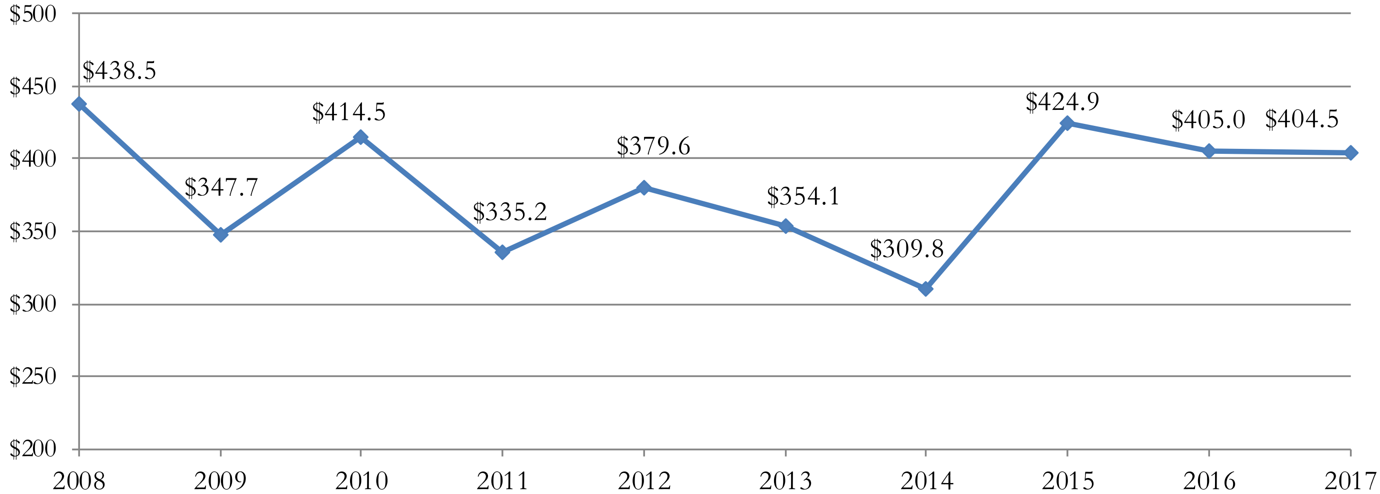
Local Debt Issuance Process

Local governments in Texas issue debt to finance construction and renovation of government facilities (i.e., schools, public safety buildings, city halls and county courthouses), public infrastructure (i.e., roads, water and sewer systems) and various other projects authorized by law. Key factors that affect a government's need and ability to borrow funds for infrastructure development

Figure 1.5

Nationwide Government Debt Issuance

(amounts in billions)



Source: The Bond Buyer

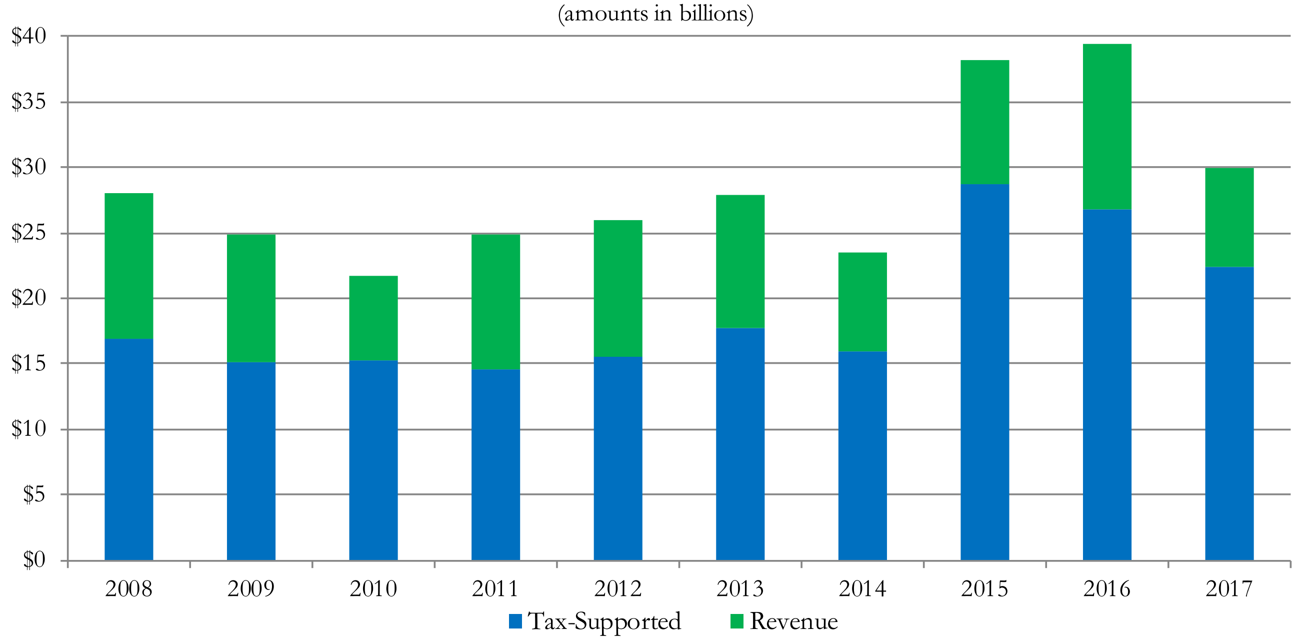
include population changes, revenue sources, tax rates and levies, interest rates and construction costs. Local governments issue two main types of debt – tax (general obligation or GO) and revenue. General obligation debt is secured by the full faith and credit of the issuer's ad valorem tax revenue while revenue debt is secured by a specified revenue source.

State law sets limitations on certain local government debt issuers by setting maximum ad valorem tax rates per $100 of assessed property valuation. These rates vary by government type, but all must generate sufficient funds based on annual ad valorem

Figure 1.6

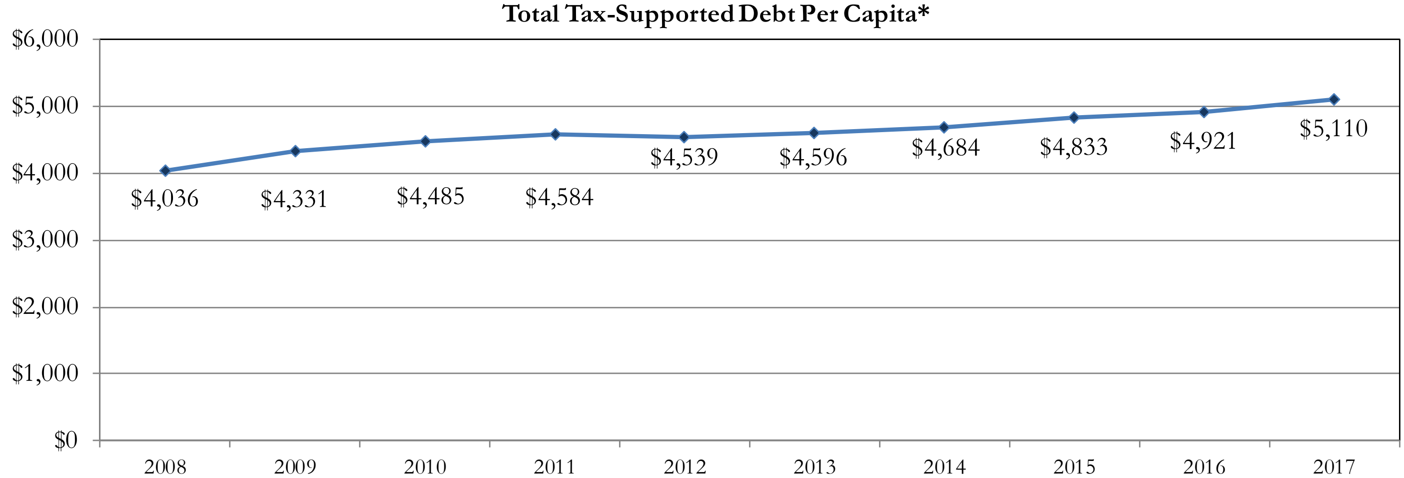
Texas Local Government Debt Issuance

(amounts in billions)



Source: Texas Bond Review Board - Bond Finance Office
Excludes Commercial Paper and Conduit

Figure 1.7
Texas Local Government
Total Tax-Supported Debt Per Capita*



*Includes debt secured by a combination of ad valorem taxes and other revenue sources. Excludes Conduit Debt.
Source: Texas Bond Review Board - Bond Finance Office; July 2016 U.S. Census Bureau, Population Division.

tax collections to provide for the payment of the debt service on outstanding and projected ad valorem tax (GO) debt. Additionally, all public securities issued by local debt issuers must be approved by the Office of the Attorney General – Public Finance Division (OAG) and registered with the Texas Comptroller of Public Accounts. For reporting purposes issuances that combine both tax-supported and revenue bonds are categorized as tax-supported debt.

Texas Bond Review Board and Local Government Debt

The Texas Bond Review Board (BRB) has no direct oversight of local government debt issuance. Chapter 1231 of the Texas Government Code requires the BRB to prepare statistical reports on local government debt. This information on debt issued by political subdivisions is primarily collected by the OAG in its review and approval of public securities under Chapter 1202 of the Government Code and then forwarded to the BRB for its report on local debt statistics pursuant to Section 1202.008 of the Government Code. Conduit debt issued by nonprofit corporations as well as local indebtedness not approved by the OAG will not be reflected in this report.

All reporting on local debt is presented on the agency's website and on the Texas Open Data Portal. Visitors to the BRB website can search databases and access the Data Portal to download spreadsheets that contain debt outstanding, debt ratios and population data by government type at each fiscal-year end. The BRB posts this information to its website and the Data Portal annually within four months after the close of the fiscal year. In fiscal 2017, approximately 5,196 different users of the BRB's website downloaded over 19,700 spreadsheets containing Texas local government debt data.

The BRB separates the local government issuances into seven categories: Cities, Towns, Villages (Cities); Public School Districts (School Districts); Water Districts and Authorities (WD); Counties; Other Special Districts and Authorities (OSD); Community and Junior Colleges (CCD); and Health/Hospital Districts and Authorities (HHD).

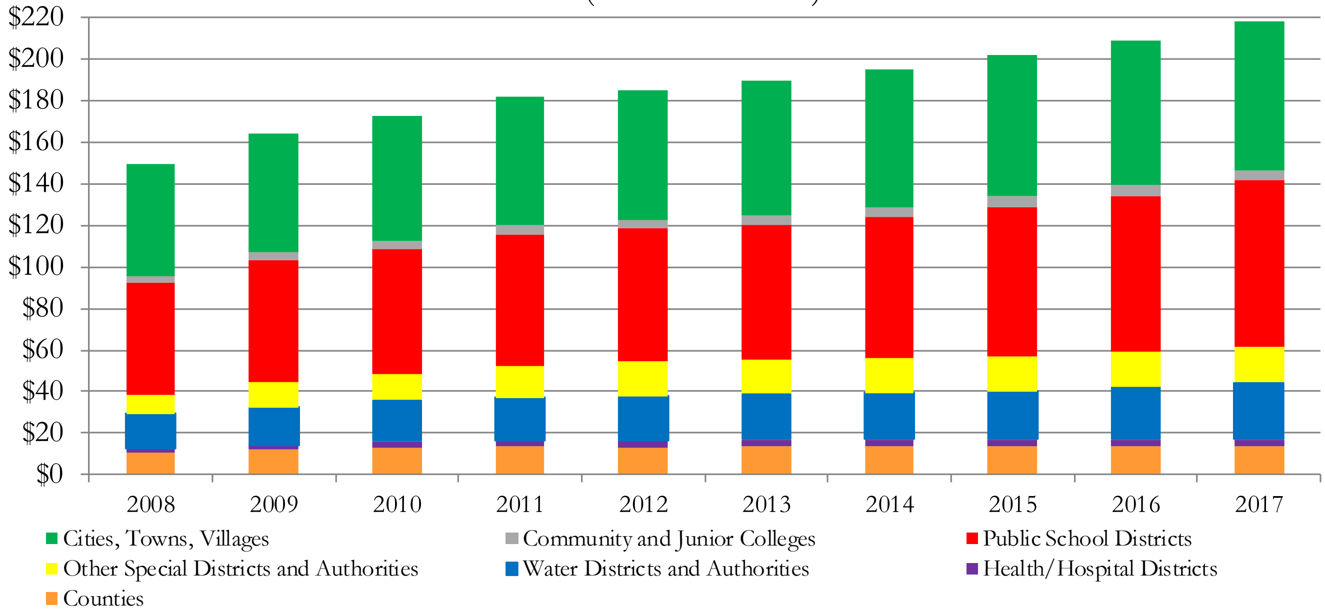
The data in this report and on the website is compiled from information provided to the Bond Review Board from various sources and has not been independently verified.

Figure 1.8

Texas Local Government

Debt Outstanding by Fiscal Year

(amounts in billions)



Excludes Conduit Debt

Source: Texas Bond Review Board - Bond Finance Office

Nationwide Debt Issuance Continues to Decline from Peak Years

Over the past decade nationwide issuance of government debt has fluctuated from issuances totaling $438.50 billion in fiscal 2008 to a total of $404.50 billion issued in fiscal 2017 *(Figure 1.5)*. Texas issuance of local debt (excluding conduit debt) has fluctuated over the past decade from a low of $21.68 billion in fiscal 2010 to a high of $39.39 billion in fiscal 2016. Additionally, the local issuance total in fiscal 2017 decreased $9.41 billion (23.9 percent) from the issuance total in fiscal 2016. *(Figure 1.6)*.

Majority of Local Debt Issuance Supports Educational Facilities and Equipment

During the five-year reporting period, 43.8 percent of Texas' new-money local debt issuance was used to finance educational facilities and equipment including school buses. General-purpose debt, which includes public improvements, continued to be the second highest use (21.5 percent), and the third highest use (17.1 percent) was for water-related financings. (This figure was likely understated because some issuers, especially cities, borrow for multiple purposes in one transaction, over half of which involve financings for water and transportation purposes). The fourth highest use (7.3 percent) was to finance transportation projects including roads, toll ways, bridges, parking facilities, airports, rapid transit and other public transportation needs including the acquisition of hybrid diesel-electric buses.

The remaining 10.3 percent of local debt issuance was used for the following additional categories: utility systems, commerce, computer technology, economic development, fire protection, health related facilities, housing, power, prison/detention centers, public safety, recreation, solid waste, and toll roads.

School Districts, Cities and Water Districts Account for more than 86 percent of New-Money and Refunding Transactions

Over the past five fiscal years, new-money debt issuance totaled $75.19 billion and refunding debt totaled $83.71 billion. During that time the top three issuers of new-money volume were school districts, cities and water districts that together comprised 86.7 percent of the new-money volume ($65.20 billion) and 82.3 percent of the refunding transaction volume ($68.90 billion).

Fiscal 2017 was a low year for refundings at $11.56 billion, a decrease of 49.7 percent from the record total of $23.00 billion issued during fiscal 2016. Over the past five fiscal years, 96.4 percent of local governmental refundings achieved both a cash and present value savings, 1 percent provided only a net present value savings with a cash loss, and 1.3 percent resulted in a loss in both. In the latter cases, the primary objective was to restructure debt-service requirements to more evenly match budget flows and thus avoid raising taxes during times of economic weakness.

Since fiscal 2013, refundings for Texas local issuers achieved cash savings of $12.44 billion with a present value savings of $9.39 billion including $2.25 billion in cash savings and $1.49 billion in present value savings realized in fiscal 2017.

Capital Appreciation Bonds

During fiscal 2017 local governments issued $51.0 million of capital appreciation bonds (CABs), a decrease of 30.9% from fiscal 2016. Additionally, CABs only account for approximately 0.2 percent of the total par amount issued by Texas local governments. School Districts issued approximately 74.7 percent of the total CABs issued by local governments during fiscal 2017 (Table 1.7).

CABs are sold at a discounted price called the par amount. They are often sold in combination with current interest bonds (CIBs). While the debt service for CIBs is paid throughout the life of the obligation, principal and interest on CABs is paid at maturity. Interest on CABs compounds semiannually and accumulates over the life of the bond, and the amount paid at the maturity is called the maturity value. Interest rates for CABs are

Table 1.7
Texas Local Government
Capital Appreciation Bonds Par Amount Issued by Fiscal Year
(amounts in millions)

	2013*	**2014**	**2015**	**2016**	**2017****
Public School Districts	$218.7	$471.9	$214.1	$70.5	38.1
Cities, Towns, Villages	-	-	0.3	0.7	1.2
Water Districts and Authorities	69.6	1.0	1.4	2.5	11.6
Community and Junior Colleges	2.2	1.0	-	-	0.0
Health/Hospital Districts	0.0	1.3	-	-	-
Other Special Districts and Authorities	0.0	-	-	-	-
Counties	-	1.4	-	-	-
Total CAB Par Amount Issued	**$290.5**	**$476.7**	**$215.9**	**$73.8**	**$51.0**
Total Par Amount Issued* **	$27,852.7	$23,543.6	$38,146.5	$39,387.0	$29,976.4
CAB Par Amount % of Total	**1.0%**	**2.0%**	**0.6%**	**0.2%**	**0.2%**

* HHDs issued $30,000 and OSDs issued $34,998 of CABs in 2013
** CCDs issued $35,000 of CABs in 2017
*** Includes current interest bonds, excludes Commercial Paper authorizations and Conduit issuances.
Source: Bond Review Board - Bond Finance Office

generally higher than for CIBs. The total debt outstanding figures are understated to the extent that these bonds are reported at their par issuance price rather than their maturity value.

Local governments issue more premium CABs than non-premium CABs. Premium CABs have lower initial stated par amounts to: (1) lessen the impact of an issuance on par-based debt limits (i.e., the "50-cent test" for school districts as provided in Texas Education Code Section 45.0031), (2) increase the amount of proceeds not subject to debt limits and (3) help local governments reach tax-rate targets.

The 84th Legislature passed House Bill 114, effective September 1, 2015, that prohibits Texas local governments from issuing CABs secured by property taxes with terms of more than 20 years, and (with some exceptions) from refunding CABs to extend their maturity dates. It also limits each government's CAB debt to no more than 25 percent of its total outstanding bond debt including principal and interest. The 85th Legislature passed Senate Bill 295, which extends the allowed maturity date for CABs issued for refunding purposes and financing transportation projects.

Texas Local Governments: $218.03 Billion of Outstanding Debt

As of fiscal year-end 2017 Texas local governments (excluding conduit debt) had $218.03 billion in outstanding debt *(Table 1.8),* an increase of $28.45 billion (15.0 percent) since fiscal 2013. Of the 2017 total 65.3 percent ($142.37 billion) is GO debt to be repaid from local tax collections while the remaining 34.7 percent ($75.67 billion) will be repaid from revenues generated by various projects such as water, sewer and electric utility fees. Since fiscal 2013, tax-supported debt outstanding increased 18.9 percent ($22.60 billion) and revenue debt outstanding increased 8.4 percent ($5.85 billion).

School Districts accounted for 36.6 percent ($79.91 billion) of all local debt outstanding and Cities accounted for 32.9 percent ($71.66 billion). Water districts held the third highest percentage and accounted for 12.4 percent ($27.05 billion) of all local debt outstanding. The remaining 18.1 percent ($39.42 billion) was held by Community and Junior Colleges, Counties, Health/Hospital Districts and Other Special Districts (*Table 1.8*).

The most recent U.S. Census Bureau data, for census years 2014-2015, showed that Texas continued to be ranked 2nd in population, 2nd among the ten most populous states in terms of Local Debt Per Capita, 4th in Total State and Local Debt Per Capita and 7th in State Debt Per Capita.

Total tax-supported debt per capita increased by 3.8 percent from $4,921 in fiscal 2016 to $5,110 in fiscal 2017. Over the past 10 years debt per capita has increased by 26.6 percent ($1,074) while the state's population has increased by 16.6 percent (4.0 million) (*Figure 1.7*).

Over the past decade, total local debt outstanding (excluding conduit debt) increased by 46.0 percent from $149.39 billion to $218.03 billion. During this period debt for School Districts increased 47.2 percent from $54.28 billion to $79.91 billion. Other notable increases included Other Special Districts (roads, power and housing issuances) which increased 95.2 percent from $8.89 billion to $17.35 billion and Hospital Districts which increased 89.9 percent from $1.77 billion to $3.36 billion (*Figure 1.8*).

Tax-Supported Debt Rises 18.9 Percent in Five Years

Total Tax-supported debt has increased from $119.76 billion in fiscal 2013 to $142.37 billion in fiscal 2017 (18.9 percent) *(Table 1.9).* Tax-supported debt for Texas School Districts increased over the past five years from $64.84 billion in fiscal 2013 to $79.61 billion in fiscal 2017 (22.8 percent) while public school attendance for districts with debt outstanding increased by 3.9 percent to 4,658,560 students. School district debt is primarily used to finance instructional facilities while only a handful of school districts carry revenue debt for constructing, improving and equipping athletic/stadium facilities.

Over the five-year period tax-supported debt carried by Texas Cities, Towns and Villages has increased from $27.74 billion to $31.27 billion (12.7 percent) and accounted for 22.0 percent of all tax-supported debt.

During the past five fiscal years, tax-supported debt for Water Districts including navigation and port districts, river authorities, municipal utility districts (MUDs) and municipal water authorities increased from $10.37 billion to $13.68 billion (31.9 percent) and accounted for 9.6 percent of all tax-supported debt.

During the same period, County tax-supported debt increased from $11.10 billion to $11.70 billion (5.4 percent).

During the five-year period, enrollment for the 50 junior and community college districts in Texas has increased slightly from 774,342 to 786,234 (1.5 percent). Tax-supported debt outstanding increased from $3.31 billion to $3.65 billion (10.0 percent) during the same time period.

During the five-year period, tax-supported debt for Health/Hospital Districts increased from $2.21 billion to $2.30 billion (3.8 percent). Population increases along with the increasing healthcare needs of aging baby boomers also contributed to increased debt issuance. In addition, aging healthcare facilities continue to be renovated or replaced to accommodate advances in medical technology, energy efficiency and to comply with new fire and building codes.

During the five-year period, tax-supported debt for Other Special Districts decreased from $191.8 million to $172.0 million (10.4 percent). The majority of Other Special District issuances are issued as revenue debt.

Revenue Debt – 8.4 Percent Increase in Five Years

Since fiscal 2013 revenue debt has increased by 8.4 percent ($5.85 billion) from $69.82 billion to $75.67 billion *(Table 1.9)*.

City revenue debt increased by 8.3 percent from $37.29 billion to $40.39 billion in the five-year period. As the state's population increased by 6.9 percent (1.8 million) since fiscal 2013, urban areas have experienced particularly rapid growth that has created the need for new infrastructure including roads and construction for new and expanded water and sewer systems. The majority of city revenue debt has been used to finance utility-related projects including water, wastewater and in some localities, electric utility systems.

Since fiscal 2013, Community College Districts revenue debt rose by 16.1 percent from $1.05 billion to $1.23 billion as a response to increased enrollments, and revenue debt for Water Districts increased 15.7 percent from $11.56 billion to $13.37 billion, while Other Special Districts revenue debt increased 8.3 percent from $15.86 billion to $17.18 billion.

During the five-year period, revenue debt for Counties decreased 15.7 percent, from $2.55 billion to $2.15 billion; revenue debt for Health/Hospital Districts decreased 11.2 percent, from $1.19 billion to $1.06 billion; and revenue debt for School Districts decreased 6.2 percent, from $318.6 million to $298.7 million.

Table 1.8

Texas Local Governments

Debt Outstanding As of August 31, 2017

(amounts in millions)

Type of Issuer		Tax-Supported*	Revenue**	Total Debt
Public School Districts	Voter-approved tax	78,716.8		78,716.8
	Maintenance tax (ed. equipment)	891.6		891.6
	Lease-purchase contracts		297.2	297.2
	Revenue (athletic facilities)		1.5	1.5
	Subtotal	**$ 79,608.4**	**$ 298.7**	**$ 79,907.1**
Cities, Towns, Villages	Tax	31,265.9		31,265.9
	Revenue		40,195.9	40,195.9
	Sales Tax		190.8	190.8
	Lease-purchase contracts		4.9	4.9
	Subtotal	**$ 31,265.9**	**$ 40,391.6**	**$ 71,657.5**
Water Districts and Authorities	Tax	13,677.7		13,677.7
	Revenue		13,370.3	13,370.3
	Sales Tax		0.2	0.2
	Subtotal	**$ 13,677.7**	**$ 13,370.6**	**$ 27,048.3**
Other Special Districts and Authorities	Tax	172.0		172.0
	Revenue		12,323.7	12,323.7
	Sales Tax		4,772.0	4,772.0
	Lease-purchase contracts		82.5	82.5
	Subtotal	**$ 172.0**	**$ 17,178.2**	**$ 17,350.2**
Counties	Tax	11,699.4		11,699.4
	Revenue		2,080.0	2,080.0
	Lease-purchase contracts		66.2	66.2
	Subtotal	**$ 11,699.4**	**$ 2,146.2**	**$ 13,845.5**
Community and Junior Colleges	Tax	3,645.4		3,645.4
	Revenue		1,225.1	1,225.1
	Subtotal	**$ 3,645.4**	**$ 1,225.1**	**$ 4,870.5**
Health/Hospital Districts and Authorities	Tax	2,296.5		2,296.5
	Revenue		1,000.5	1,000.5
	Sales Tax		58.0	58.0
	Subtotal	**$ 2,296.5**	**$ 1,058.6**	**$ 3,355.1**
	Total Local Debt Outstanding	**$ 142,365.2**	**$ 75,668.9**	**$ 218,034.1**

*Includes debt secured by a combination of ad valorem taxes and other revenue sources.

**Excludes conduit debt.

Source: Texas Bond Review Board - Bond Finance Office

Table 1.9
Texas Local Government
Debt Outstanding by Fiscal Year
(amounts in millions)

	8/31/2013	8/31/2014	8/31/2015	8/31/2016	8/31/2017
Public School Districts					
Tax-Supported*	$64,842.2	$67,707.4	$71,990.2	$74,606.1	$79,608.4
Revenue**	318.6	275.6	337.8	311.2	298.7
Total	**$65,160.8**	**$67,983.1**	**$72,328.1**	**$74,917.3**	**$79,907.1**
Cities					
Tax-Supported*	$27,735.2	$28,397.3	$29,537.1	$30,579.7	$31,265.9
Revenue**	37,290.3	38,275.3	38,851.8	39,107.4	40,391.6
Total	**$65,025.5**	**$66,672.6**	**$68,389.0**	**$69,687.0**	**$71,657.5**
Water Districts and Authorities					
Tax-Supported*	$10,369.0	$10,745.9	$11,322.8	$12,534.1	$13,677.7
Revenue**	11,560.5	11,812.9	11,721.5	12,800.1	13,370.6
Total	**$21,929.5**	**$22,558.9**	**$23,044.3**	**$25,334.2**	**$27,048.3**
Other Special Districts and Authorities					
Tax-Supported*	$191.8	$201.1	$194.2	$177.1	$172.0
Revenue**	15,857.0	16,185.2	16,217.6	16,889.1	17,178.2
Total	**$16,048.8**	**$16,386.3**	**$16,411.8**	**$17,066.2**	**$17,350.2**
Counties					
Tax-Supported*	$11,098.0	$11,112.1	$11,259.7	$11,221.3	$11,699.4
Revenue**	2,546.8	2,474.9	2,471.6	2,303.2	2,146.2
Total	**$13,644.8**	**$13,587.1**	**$13,731.3**	**$13,524.5**	**$13,845.5**
Community College Districts					
Tax-Supported*	$3,314.4	$3,351.1	$3,612.4	$3,676.8	$3,645.4
Revenue**	1,054.8	1,116.6	1,153.8	1,108.2	1,225.1
Total	**$4,369.2**	**$4,467.7**	**$4,766.2**	**$4,785.0**	**$4,870.5**
Health/Hospital Districts and Authorities					
Tax-Supported*	$2,213.0	$2,378.4	$2,375.7	$2,392.4	$2,296.5
Revenue**	1,192.3	1,061.2	1,092.7	1,099.1	1,058.6
Total	**$3,405.4**	**$3,439.6**	**$3,468.3**	**$3,491.5**	**$3,355.1**
Total Tax-Supported*	$119,763.7	$123,893.5	$130,292.0	$135,187.5	$142,365.2
Total Revenue**	$69,820.3	$71,201.8	$71,847.0	$73,618.2	$75,668.9
Total Debt Outstanding	**$189,583.9**	**$195,095.3**	**$202,139.0**	**$208,805.7**	**$218,034.1**

*Includes debt secured by a combination of ad valorem taxes and other revenue sources.

**Excludes conduit debt.

Source: Texas Bond Review Board - Bond Finance Office

Chapter 2
State Debt Issued in FY 2017 and Debt Outstanding

In fiscal year 2017 the state's total debt outstanding (including conduit debt) increased 6.6 percent to $53.01 billion compared to $49.75 billion in fiscal 2016 and $47.09 billion in fiscal 2015.

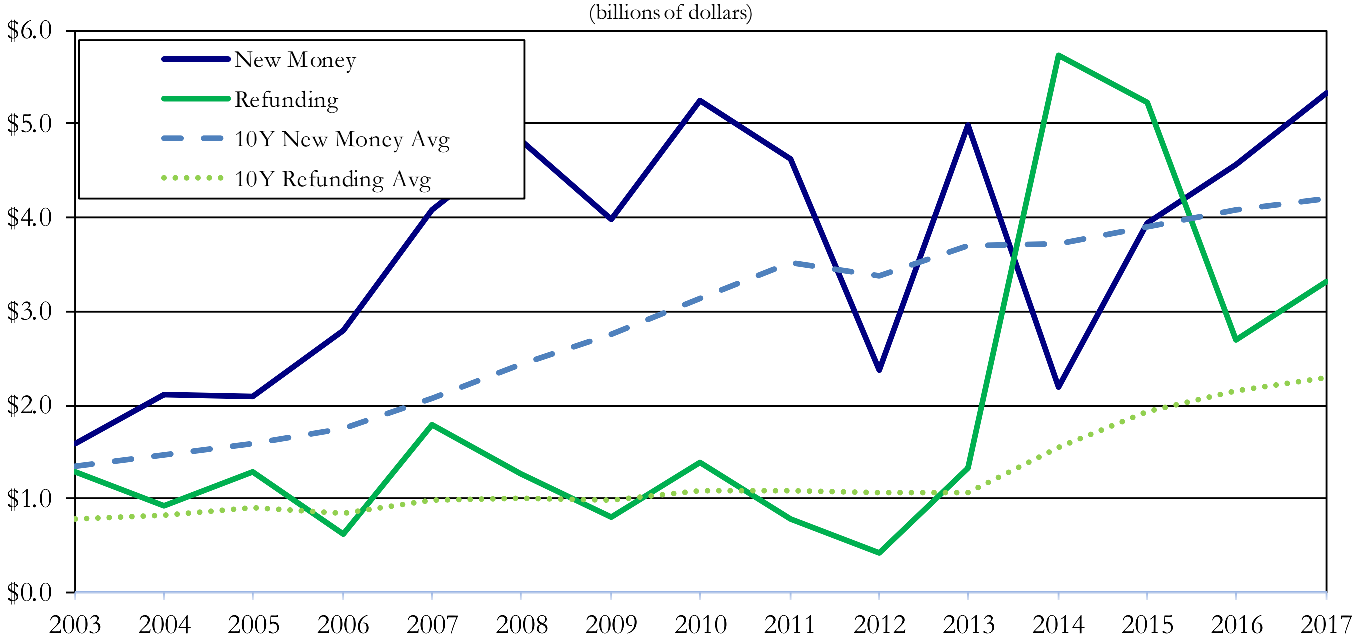
Bonds issued by Texas state agencies, colleges and universities during fiscal year 2017 increased by 19.1 percent to an aggregate total of $8.65 billion compared to $7.26 billion issued in fiscal 2016. Fiscal year 2017 issues included $5.33 billion in new-money and $3.32 billion in refunding bonds. Other debt issued included $1.35 billion of commercial paper.

Detail on bond transactions can be found in Appendix A, and detail on commercial paper and variable-rate notes can be found in Appendix B.

New-Money and Refunding Issuances Increase in FY 2017
A total of $8.65 billion in bonds was issued in fiscal year 2017. Of that amount $5.33 billion (61.6%) was issued as new-money bonds, an increase of $755.4 million (16.5%) from $4.57 billion issued during fiscal 2016. The remaining $3.32 billion (38.4%) was issued as refunding bonds, an increase of $626.9 million (23.3%) from $2.69 billion issued during fiscal year 2016. (*Figure 2.1*). Net present value savings from fiscal 2017 refundings totaled $226.6 million.

Of the $5.33 billion in new-money bonds issued in fiscal 2017, approximately $1.47 billion (27.6%) was issued by Texas Transportation Commission (TTC), $770.2 million (14.5%) was issued by Texas A&M University System (TAMUS), $626.7 million was issued by Texas Water Development Board (TWDB) (11.8%), and $380.3 million (7.1%) was issued by Texas State University System (TSUS).

Figure 2.1
TEXAS NEW MONEY AND REFUNDING BOND ISSUES 2003- 2017
(billions of dollars)



Source: Texas Bond Review Board - Bond Finance Office.

Table 2.1
TEXAS BONDS ISSUED DURING FISCAL 2017
SUMMARIZED BY ISSUER

ISSUER	REFUNDING BONDS	NEW-MONEY BONDS	TOTAL BONDS ISSUED	New-Money Use of Proceeds
Texas Public Finance Authority	$ 458,675,000	$ 219,890,000	$ 678,565,000	Education Facilities and CPRIT Program
Texas Transportation Commission	859,525,000	1,474,965,000	2,334,490,000	Highway improvement projects
Grand Parkway Transportation Corporation	83,775,000	-	83,775,000	Highway improvement projects
Texas Water Development Board	62,275,000	626,660,000	688,935,000	Water Financial Assistance Programs and SWIRFT
The Texas A&M University System	114,589,148	770,210,852	884,800,000	Acquire, purchase, construct, and equip various facilities
The University of Texas System	1,316,455,000	306,925,000	1,623,380,000	Acquire, purchase, construct, and equip various facilities
University of North Texas System	118,305,000	242,165,000	360,470,000	Acquire, purchase, construct, and equip various facilities
University of Houston System	93,460,000	297,625,000	391,085,000	Acquire, purchase, construct, and equip various facilities
Stephen F. Austin State University	21,497,200	39,707,800	61,205,000	Acquire, purchase, construct, and equip various facilities
Texas Tech University System	83,969,700	290,765,300	374,735,000	Acquire, purchase, construct, and equip various facilities
Texas State University System	76,215,000	380,310,000	456,525,000	Acquire, purchase, construct, and equip various facilities
Texas Woman's University	-	83,155,000	83,155,000	Acquire, purchase, construct, and equip various facilities
Texas Veterans Land Board	-	250,000,000	250,000,000	Veteran's Home Loan Program
Texas Higher Education Coordinating Board	-	158,065,000	158,065,000	College Student Loan Program
Texas State Affordable Housing Corporation	-	25,503,000	25,503,000	Multifamily bonds
Texas Dept. of Housing and Comm. Affairs	29,610,000	162,340,952	191,950,952	Single family mortgage bonds and multifamily bonds
Total Texas Bonds Issued	**$ 3,318,351,048**	**$ 5,328,287,904**	**$ 8,646,638,952**	

Of the $3.32 billion in refunding bonds issued in fiscal 2017, the University of Texas System (UTS) issued $1.32 billion (39.8%), TTC issued $859.5 million (25.9%), the Texas Public Finance Authority (TPFA) issued $458.7 million (13.8%) and the University of North Texas System (UNTS) issued $118.3 million (3.6%) (*Table 2.1*).

Build America Bonds Outstanding for FY 2017

In fiscal year 2009 the American Recovery and Reinvestment Act of 2009 (ARRA) created Build America Bonds (BABs) that could be issued as Tax Credit BABs or Direct-Payment BABs. Authority to issue BABs expired on December 31, 2010. As of August 31, 2017, TTC, UTS, TPFA and University of Houston System (UHS) had $3.52 billion, $1.63 billion, $181.8 million and $76.0 million of BABs outstanding, respectively.

Under the Budget Control Act of 2011, across-the-board sequestration took effect on March 1, 2013, and direct-pay bonds such as BABs experienced a 7.6 percent reduction of the original 35 percent federal subsidy on BABs interest payments. The Internal Revenue Service reported that effective October 1, 2014, issuers of BABs and other direct-pay bonds would have their subsidy payments processed in FY 2015 reduced by 7.3 percent. In fiscal years 2016 and 2017 the subsidy payments were further reduced by an anticipated 6.8 percent and 6.9 percent, respectively. In fiscal year 2018 the subsidy payments are expected to be reduced by 6.6 percent.

Interim Financing Decreases in FY 2017

Several state agencies and institutions of higher education have established variable-rate debt financing programs that provide financing for equipment or capital projects or provide loans to eligible entities.

As of August 31, 2017, a total of $8.18 billion was authorized for state CP or VRN programs. Of this amount $2.00 billion was outstanding at fiscal-year end 2017 *(Table B1 in Appendix B),* approximately $550.0 million less than the amount outstanding at fiscal year-end 2016.

Additional information about individual CP and VRN programs is included in Appendix B.

Table 2.2

TEXAS STATE DEBT ISSUES EXPECTED DURING FISCAL 2018

ISSUER	APPROXIMATE AMOUNT	PURPOSE	APPROXIMATE ISSUE DATE
General Obligation Debt			
Self-Supporting			
Texas Higher Education Coordinating Board	$195,000,000	College Student Loan Bonds	Aug-18
Texas Veterans Land Board	250,000,000	Proceeds will be used to augment the Veterans' Housing Assistance Program	Mar-18
Texas Water Development Board	45,000,000	DFUND New Money/Refunding	Dec-17
Texas Water Development Board	TBD	DFUND New Money bonds	May-18
Total Self-Supporting	**$490,000,000**		
Not Self-Supporting			
Total Not Self-Supporting	**$0**		
Total General Obligation Debt	**$490,000,000**		
Non-General Obligation Debt			
Self-Supporting			
Texas Dept. of Housing and Comm Affairs	75,000,000	Single Family First-Time Home Buyer Program	Nov-17
Texas Dept. of Housing and Comm Affairs	75,000,000	Single Family First-Time Home Buyer Program	Mar-18
Texas Dept. of Housing and Comm Affairs	100,000,000	Single Family First-Time Home Buyer Program	Jul-18
Texas Department of Transportation	200,000,000	Midtown Express SH 183 TIFIA Loan	Jan-18
Texas Department of Transportation	330,000,000	New money Bonds - SH 249	Apr-18
Texas Water Development Board	TBD	Drinking Water State Revoloving Fund	Mar-18
Texas Water Development Board	TBD	SWIRFT New Money Bonds	Apr-18
Texas State Technical College	3,600,000	Purchase of furnishings and instructional equipment at the TSTC campuses in Abilene	Nov-17
Texas State University System	10,000,000	SHSU - Lowman Student Center Phase 2 (Renovation)	Apr-18
Texas State University System	12,612,894	Texas State University - Library Learning Commons (New Construction)	Apr-18
Texas State University System	79,040,409	Texas State University - Hilltop Complex (New Construction)	Apr-18
Texas State University System	11,520,000	Texas State University - Infrastructure Research Laboratory (New Construction)	Apr-18
Texas Woman's University	13,100,000	Science & Technology Center (RFS)	TBD
The Texas A&M University System - RFS*	704,000,000	RFS Bonds/Commercial Paper Notes for the financing of educational facilities	TBD
The Texas A&M University System - PUF*	663,000,000	PUF Bonds/Commercial Paper Notes for the financing of educational facilities	TBD
The University of Texas System - RFS*	975,000,000	RFS Bonds/Commercial Paper Notes for the financing of educational facilities	TBD
The University of Texas System - PUF*	600,000,000	PUF Bonds/Commercial Paper Notes for the financing of educational facilities	TBD
University of Houston System	80,000,000	UH Replace Quad Housing	TBD
University of Houston System	61,000,000	UH Parking Garage 5	TBD
University of Houston System	20,000,000	UH Renovate Energy Research Park Buildings 2 and 3	TBD
University of Houston System	10,000,000	UH Renovate Energy Research Park Building 11	TBD
University of Houston System	21,771,115	UH Clear Lake Construct Freshman Housing	TBD
University of Houston System	3,750,000	UH Clear Lake Dining Facilities Upgrade and Addition	TBD
University of Houston System	9,000,000	UH Downtown Student Parking Garage	TBD
University of Houston System	2,544,475	UH Victoria Land Acquisition	TBD
University of Houston System	2,000,000	UH Victoria Recreation Center	TBD
University of Houston System	4,500,000	UH Victoria Recreation Center	TBD
University of Houston System	15,000,000	UH Victoria Construct New Dining Hall	TBD
University of Houston System	6,000,000	UH Victoria Building and Land Purchases/Renovation	TBD
University of Houston System	6,500,000	UH Victoria Campus Infrastructure Improvement	TBD
University of North Texas System	65,585,000	Various projects	TBD
Total Self-Supporting	**$4,159,523,893**		
Not Self-Supporting			
Texas Public Finance Authority*	TBD	TFC and MLPP CP Programs	TBD
Total Not Self-Supporting	**$0**		
Total Non-General Obligation Debt	**$4,159,523,893**		
Conduit Debt			
Grand Parkway Transportation Corp.	630,000,000	Grand Parkway H&I Project TIFIA Loan	Nov-17
Private Activity Bond Surface Trans. Corp.	280,000,000	New money Bonds - North Tarrant Express 3C	Mar-18
TPFA Charter School Finance Corporation	TBD	Charter School Financing	TBD
Texas State Affordable Housing Corporation	14,000,000	Spring Garden - Balch Springs Apartments	Dec-17
Texas State Affordable Housing Corporation	20,000,000	Multi-Family Residential Bond Projects	Jun-18
Texas Windstorm Insurance Association	TBD	Insurance Claims	TBD
Texas Dept. of Housing and Comm Affairs	18,000,000	Emli at Liberty Crossing Multi-Family Residential Bond Project	Oct-17
Texas Dept. of Housing and Comm Affairs	20,000,000	Balch Springs Multi-Family Residential Bond Projects	Oct-17
Texas Dept. of Housing and Comm Affairs	62,000,000	Vista on Gessner Multi-Family Residential Bond Project	Jan-18
Texas Dept. of Housing and Comm Affairs	8,800,000	Crosby Plaza Apartments	Mar-18
Total Conduit	**$1,052,800,000**		
Total All Debt	**$5,702,323,893**		

*Commercial Paper or Variable-Rate Note Program

Source: Texas Bond Review Board - Bond Finance Office.

Projected Issuances in FY 2018

Texas state issuers expect to issue approximately $5.70 billion in bonds, CP and VRN during fiscal 2018 *(Table 2.2)*, a projected decrease of $2.04 billion (26.4%) over the amount projected for fiscal 2017.

General Obligation Debt Outstanding Increases in FY 2017

Texas General Obligation (GO) debt has a constitutional pledge of the full faith and credit of the state to repay the debt and requires passage of a proposition by a vote of two-thirds of both houses of the Texas Legislature and a majority of Texas voters.

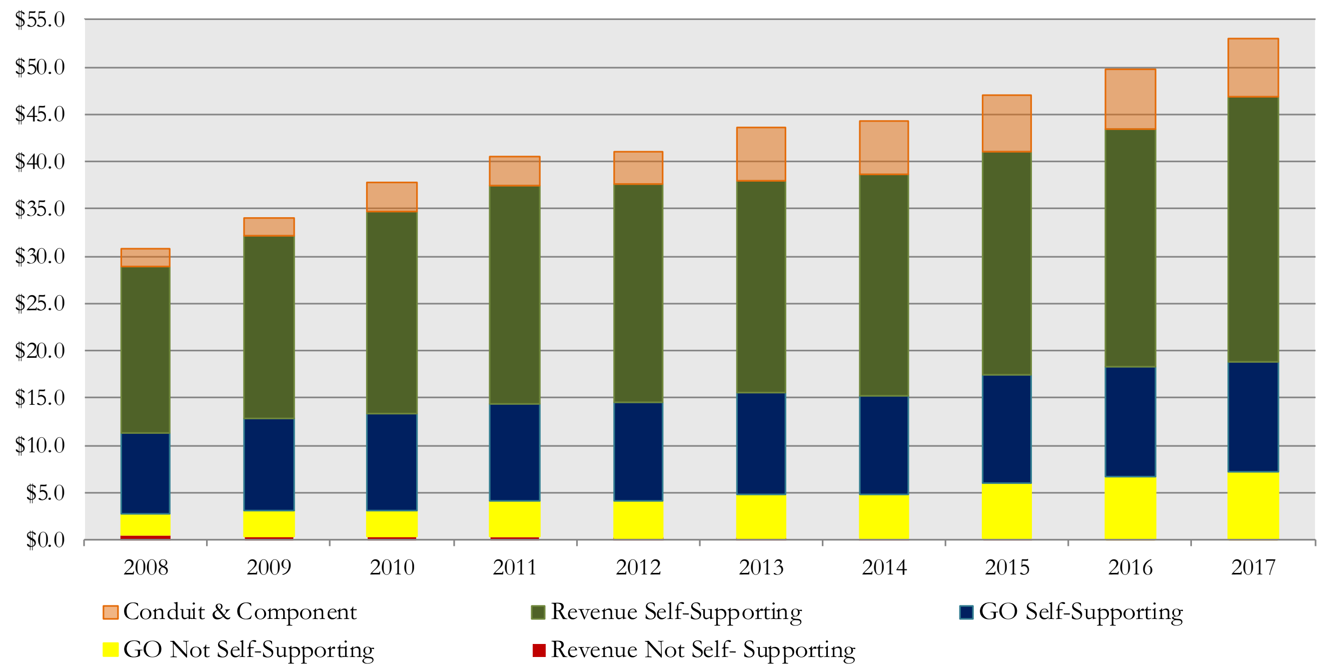
As of fiscal year-end 2017, $18.68 billion (35.2%) of the state's $53.01 billion in total debt outstanding was backed by the state's GO pledge, an increase of $416.2 million (2.3%) from the $18.27 billion backed by the GO pledge at the end of fiscal 2016 *(Figure 2.2 and Table 2.3)*. The increase was primarily the result of issuances of $588.8 million of TTC Highway Improvement bonds, $250.0 million of Texas Veterans' Land Board (VLB) mortgage revenue bonds, $158.1 million of Texas Higher Education Coordinating Board (THECB) student loan bonds, and $222.9 million of bonds issued by TPFA for cancer research.

Governmental Revenue Debt Outstanding Increases in FY 2017

The repayment of revenue debt is dependent on project revenue or revenue from a designated fund. The Constitution prohibits any pledge of state funds beyond the current biennium. Investors may require a higher rate of interest to compensate for the additional risks associated with revenue debt.

Excluding conduit and component debt, $28.09 billion (50.6%) of the state's $53.01 billion in total debt outstanding as of fiscal year-end 2017 was backed by non-GO revenue pledges, an increase of $2.89 billion (11.5%) from the $25.20 billion backed by non-GO

Figure 2.2
STATE OF TEXAS DEBT OUTSTANDING
(amounts in billions)



Source: Texas Bond Review Board - Bond Finance Office

revenue pledges at the end of fiscal 2016 *(Figure 2.2 and Table 2.3)*.

Colleges and universities are the largest issuer of revenue debt with $15.12 billion outstanding. See *Table 2.5* and *Table 2.6* for more detail on college and university debt outstanding.

Conduit Revenue and Component Debt
The state is authorized by statute to issue conduit debt for certain purposes including charter schools, transportation, single family mortgages, multifamily dwellings and economic development. Debt-service for conduit debt is typically provided by project revenue and is secured by a third party.

Although conduit revenue debt obligations bear the name of the agency as the issuer, the agency is not financially liable for the debt beyond the revenues provided by a lease or loan with the third party on whose behalf they are issued. For example, the Texas Department of Housing and Community Affairs (TDHCA) is not liable for debt service for issuances of its multifamily mortgage revenue bonds beyond the revenues it receives from the borrower that is acquiring, constructing, or renovating the multifamily facility.

Component debt obligations are issued by legally separate units of the agency, and the agency is not financially liable for the debt. For example, the Texas Public Finance Authority (TPFA) is not liable for debt service for issuances of the Texas Public Finance Authority Charter School Finance Corporation.

Of the state's $53.01 billion in debt outstanding as of fiscal year-end 2017, $6.24 billion (11.8%) was state conduit and component debt which includes $3.01 billion of debt outstanding by Grand Parkway Transportation Corporation (GPTC) (*Table 2.3*). As conduit debt, GPTC debt service is payable solely from payments received from transportation projects it finances. The $6.24 billion of conduit and component debt outstanding represents a decrease of $40.8 million (0.6%) from the $6.28 billion outstanding at the end of fiscal 2016.

General Revenue Supported Debt Increases in FY 2017
All debt does not have the same financial impact on the state's general revenue. Self-supporting debt relies on sources other than the state's general revenue to pay debt service; thus self-supporting debt does not directly impact state finances. Debt service for not self-supporting debt is primarily derived from the state's general revenue fund and thus draws on the same sources used by the legislature to finance state government.

As of August 31, 2017, Texas had a total of $7.18 billion in GO and non-GO not self-supporting debt outstanding to be repaid from the state's general revenue compared to $6.71 billion outstanding at fiscal-year end 2016. During fiscal 2017 non-GO not self-supporting debt decreased by $12.7 million, but GO not self-supporting debt increased by $489.1 million for a net increase in not self-supporting debt of $476.4 million (7.1%) *(Figure 2.3)*.

Variable Rate Debt Outstanding Increases in FY 2017
State issuers and institutions of higher education have established variable-rate debt financing programs to provide financing for equipment and capital projects, provide loans to eligible entities, diversify their debt portfolio, and take advantage of lower short-term interest rates.

Variable rate debt outstanding totaled $7.81 billion in fiscal 2017. Of this amount, approximately $2.00 billion (25.6%) was short-term commercial paper (CP) or variable-rate notes (VRN), and the remaining $5.81 billion (74.4%) was long-term variable-rate debt. See *Table B1 in Appendix B* for more information regarding CP and VRN programs.

Table 2.3

STATE OF TEXAS DEBT OUTSTANDING

(amounts in thousands)

	8/31/2013	8/31/2014	8/31/2015	8/31/2016	8/31/2017
General Obligation Debt					
Self-Supporting					
Veterans' Land and Housing Bonds	$2,381,811	$2,437,480	$2,672,253	$2,782,245	$2,875,515
Water Development Bonds	1,197,775	1,127,385	1,090,430	1,308,360	1,259,490
Water Development Bonds-State Participation	121,590	119,825	118,340	113,080	104,350
Water Development Bonds - WIF	217,765	208,990	199,855	190,375	171,835
Economic Development Bank Bonds	45,000	45,000	45,000	45,000	45,000
College Student Loan Bonds	751,925	812,950	826,965	920,595	1,020,215
Texas Agricultural Finance Authority	9,000	9,000	6,750	5,250	0
Texas Mobility Fund Bonds	5,957,720	5,648,660	6,400,485	6,268,985	6,093,175
Texas Public Finance Authority - TMVRLF	47,400	36,370	35,220	34,015	25,420
Total, Self-Supporting	**$10,729,986**	**$10,445,660**	**$11,395,298**	**$11,667,905**	**$11,595,000**
Not Self-Supporting [1]					
Higher Education Constitutional Bonds [2]	$22,962	$17,955	$6,521	$35,204	$25,986
Texas Public Finance Authority Bonds	1,652,310	1,623,567	1,512,875	1,395,260	1,289,230
Cancer Prevention and Research Institute of Texas	343,450	486,595	716,440	966,520	1,143,710
Park Development Bonds	8,480	7,010	5,260	3,725	2,220
Water Development Bonds - EDAP [3]	211,220	195,240	216,210	236,830	213,425
Water Development Bonds - State Participation	0	0	0	0	0
Water Development Bonds - WIF	526,290	497,615	468,755	439,450	409,115
TTC GO Transportation Bonds	1,854,835	1,814,690	2,991,410	3,521,965	4,004,360
Total, Not Self-Supporting	**$4,619,547**	**$4,642,671**	**$5,917,471**	**$6,598,954**	**$7,088,046**
Total General Obligation Debt	**$15,349,533**	**$15,088,332**	**$17,312,769**	**$18,266,859**	**$18,683,046**
Non-General Obligation Debt					
Self-Supporting					
Permanent University Fund Bonds					
The Texas A&M University System	$707,905	$810,430	$953,145	$968,675	$932,850
The University of Texas System	1,816,750	1,960,470	2,169,085	2,615,155	2,695,035
College and University Revenue Bonds [4]	10,531,928	11,251,859	11,652,483	12,870,655	15,120,288
Texas Water Resources Finance Authority Bonds	0	0	0	0	0
TxDOT Toll Revenue Bonds [6]	2,484,540	2,478,721	2,402,352	2,401,472	2,721,029
Texas Department of Housing & Community Affairs - SF	898,980	694,365	567,675	521,460	533,325
Economic Development Program (Leverage Fund)	25,000	20,000	25,000	20,000	15,000
Veterans' Financial Assistance Bonds	0	0	0	0	0
Texas Workforce Commission Unemp Comp Bonds	1,201,255	926,435	628,355	298,625	0
State Highway Fund	3,843,780	4,460,525	4,461,105	3,972,595	4,417,980
Water Development Bonds - State Revolving Fund	810,438	774,178	670,115	609,935	164,010
Water Development Bonds - SWIRFT	0	0	0	810,410	1,392,700
Total, Self-Supporting	**$22,320,576**	**$23,376,984**	**$23,529,316**	**$25,088,982**	**$27,992,217**
Not Self-Supporting [1]					
Texas Public Finance Authority Bonds	$130,422	$98,260	$68,175	$45,835	$45,470
TPFA Master Lease Purchase Program	64,967	62,112	43,019	44,480	35,850
Texas Military Facilities Commission Bonds	12,045	10,585	8,640	7,680	6,740
Parks and Wildlife Improvement Bonds	17,480	14,770	11,150	8,375	5,575
Total, Not Self-Supporting	**$224,914**	**$185,727**	**$130,984**	**$106,370**	**$93,635**
Conduit, Component and Related Organizations [5]					
Texas Windstorm Insurance Association	$0	$0	$500,000	$458,400	$414,600
Texas Small Business I.D.C. Bonds	1,620	0	0	0	0
Texas Dept. of Housing and Community Affairs Bonds - MF	1,012,353	997,898	965,353	957,970	875,230
Texas State Affordable Housing Corporation	437,162	292,945	280,262	241,536	228,300
Texas Grand Parkway Transportation Corporation [6]	2,920,075	2,900,940	2,900,940	2,900,940	3,007,779
Texas PAB Surface Transportation Corporation	1,015,000	1,289,030	1,289,030	1,561,665	1,561,665
TPFA Charter School Finance Corporation	256,395	195,056	176,410	163,646	155,744
Total Conduit, Component and Related Organizations	**$5,642,605**	**$5,675,868**	**$6,111,994**	**$6,284,157**	**$6,243,318**
Total Non-General Obligation Debt	**$28,188,096**	**$29,238,579**	**$29,772,294**	**$31,479,509**	**$34,329,170**
Total Debt Outstanding	**$43,537,628**	**$44,326,911**	**$47,085,064**	**$49,746,368**	**$53,012,216**

1 Not self-supporting debt (general obligation and non-general obligation) depends solely on the state's general revenue fund for debt service.

2 While not explicitly a general obligation or full faith and credit bond, the revenue pledge in Constitutional Bonds has the same effect.

3 Economically Distressed Areas Program (EDAP) bonds depend on the state's general revenue fund for 90% of their debt service.

4 Tuition Revenue Bonds are included in these totals. See Table 2.5.

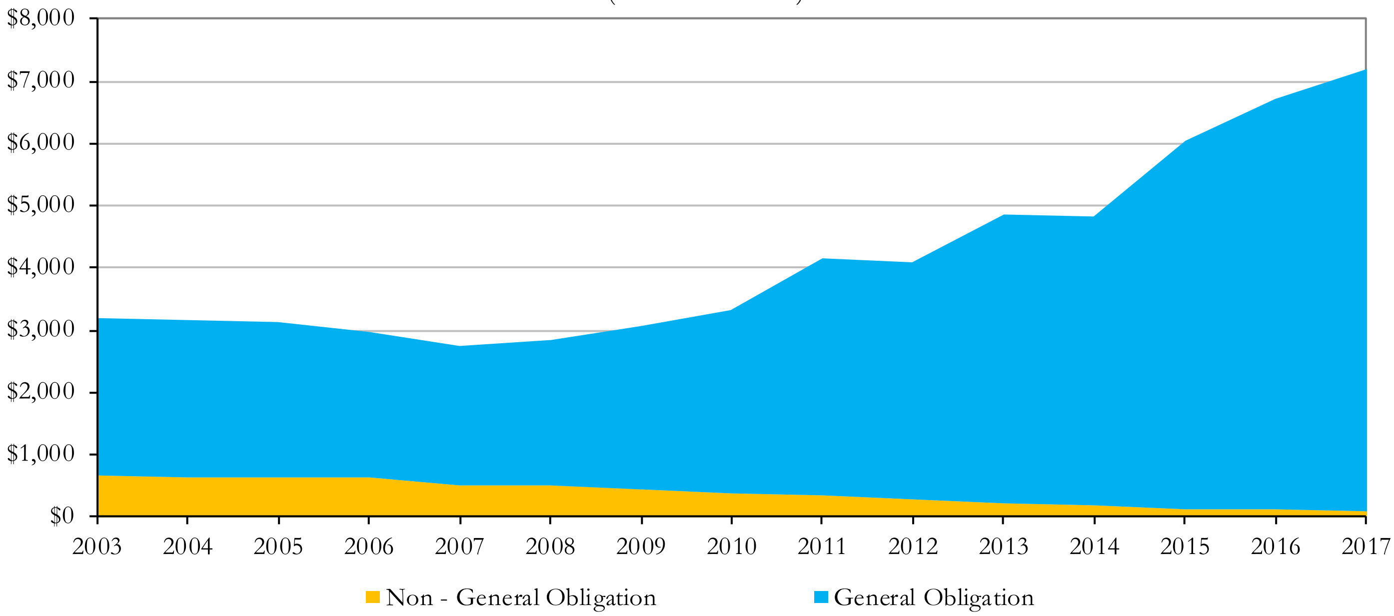
5 This section contains debt that is not a legal liability of the state but rather is backed by third party entities.

6 Includes TIFIA loan debt outstanding. Amortization schedule provided by TxDot.

Note: Certain lease purchase, SECO LoanSTAR and other revolving loan program debt is not included.

Source: Texas Bond Review Board - Bond Finance Office.

Figure 2.3
TEXAS STATE DEBT OUTSTANDING
BACKED BY GENERAL REVENUE (NOT SELF-SUPPORTING)
(amounts in millions)



Source: Texas Bond Review Board - Bond Finance Office.

Variable-rate debt decreased by approximately $510.6 million (6.1%) in fiscal 2017 to $7.81 billion compared with $8.32 billion outstanding in fiscal 2016. Variable-rate GO debt accounted for $3.26 billion (41.7%) and revenue debt accounted for $4.55 billion (58.3%) of the total amount of variable-rate debt outstanding at the end of fiscal year 2017. Variable-rate GO debt decreased by $201.4 million (5.8%) and variable revenue debt decreased by $309.2 million (6.4%) from amounts outstanding at fiscal-year end 2016 (Table 2.3A).

The largest issuers of variable-debt are: UTS with $2.92 billion outstanding, VLB with $2.75 billion outstanding, TTC with $1.01 billion outstanding, and TDHCA with $369.9 million outstanding.

Scheduled Debt-Service Payments from General Revenue Increase for FY 2018

During fiscal years 2015, 2016, and 2017 scheduled debt service from general revenue was $544.8 million, $656.2 million, and $673.3 million, respectively. Scheduled debt-service payments from general revenue are expected to increase by 7.9 percent to $726.6 million in fiscal 2018 *(Figure 2.4)*. (See *Table 2.4* for debt-service requirements by fiscal year for Texas state bonds.) See the *State of Texas Annual Cash Report 2017* published by the Texas Comptroller of Public Accounts for actual debt-service paid by the state from General Revenue.

Debt service for tuition revenue bond (TRB) debt is not included in this analysis. Although college and university revenue debt is payable from a pledge of certain "revenue funds" of the applicable system or institution of higher education, pursuant to authorizations to individual institutions in Chapter 55, Texas Education Code, the legislature has historically appropriated funds in an amount equal to all or a portion of the debt service on tuition revenue debt issued. (For revenue debt outstanding and debt-service requirements for each system or

Table 2.3A **STATE OF TEXAS VARIABLE RATE DEBT OUTSTANDING** **(amounts in thousands)**					
	8/31/2013	**8/31/2014**	**8/31/2015**	**8/31/2016**	**8/31/2017**
General Obligation Debt					
Texas Department of Agriculture	$9,000	$9,000	$6,750	$5,250	$0
Texas Department of Transportation	225,840	220,740	400,000	400,000	400,000
Texas Economic Development Bank	45,000	45,000	45,000	45,000	45,000
Texas Higher Education Coordinating Board	0	0	0	0	0
Texas Tech University[1]	0	4,456	0	7,642	1,540
Texas Public Finance Authority	276,380	22,500	321,460	284,760	11,600
Texas Water Development Board	0	0	51,140	74,925	57,960
Veterans Land Board	2,221,895	2,285,780	2,528,325	2,645,575	2,745,630
Total General Obligation Variable Rate Debt	**$2,778,115**	**$2,587,476**	**$3,352,675**	**$3,463,152**	**$3,261,730**
Revenue Debt					
Texas A&M University System	$12,325	$118,753	$160,705	$178,962	$295,974
Texas Department of Housing and Community Affairs	576,590	544,765	505,650	424,595	369,940
Texas Department of Transportation	325,000	775,000	975,000	625,000	614,370
Texas Economic Development Bank	26,620	20,000	25,000	20,000	15,000
Texas Grand Parkway Transportation Corporation	943,330	190,730	190,730	190,730	0
Texas State Affordable Housing Corporation	28,119	33,167	23,201	0	0
Texas State Technical College	2,179	1,989	3,524	3,194	2,878
Texas State University System	0	0	0	2,588	10,258
Texas Tech University System	55,614	110,507	22,483	44,454	41,713
Texas Water Development Board	60,678	48,683	0	0	0
Texas Public Finance Authority	126,785	127,810	128,992	150,650	154,358
TPFA Charter School Finance Corporation	4,780	4,556	4,311	4,046	3,756
University of Houston System	59,296	53,031	71,641	56,367	49,117
University of North Texas System	56,522	91,067	157,567	66,015	69,060
University of Texas System	2,238,465	2,397,830	2,748,487	3,093,790	2,924,768
Total Revenue Variable Rate Debt	**$4,516,302**	**$4,517,888**	**$5,017,292**	**4,860,391**	**$4,551,192**
Total Variable Rate Debt	**$7,294,417**	**$7,105,364**	**$8,369,967**	**$8,323,542**	**$7,812,922**

[1] While not explicitly a general obligation or full faith and credit bond, the revenue pledge in Constitutional Bonds has the same effect.

Includes Commerical Paper and Variable-Rate Notes

Source: Texas Bond Review Board - Bond Finance Office.

institution, see *Tables 2.5 and 2.6*, respectively.)

Authorized but Unissued Debt Decreases in FY 2017

Authorized but unissued debt is defined as debt that may be issued without further legislative or voter action. As of August 31, 2017 Texas had $14.00 billion in authorized but unissued debt compared to $15.68 billion in fiscal 2016 *(Table 2.7)*. Of the $14.00 billion, $10.93 billion (78.1%) was GO debt. Of the GO debt, $8.94 billion (81.7%) was self-supporting and $2.00 billion (18.3%) was not self-supporting. This is a decrease of $955.1 million compared to $2.95 billion in not self-supporting authorized but unissued GO debt at fiscal year-end 2016. The overall decrease resulted mainly from new money issuances of $588.8 million and $222.9 million by TTC and TPFA, respectively.

Authorized but unissued not self-supporting revenue debt totaled $935.7 million at the end of fiscal 2017 compared to $994.1 million at fiscal year-end 2016. The remaining authorized but unissued revenue debt was self-supporting

Table 2.4

DEBT-SERVICE REQUIREMENTS OF TEXAS STATE DEBT BY FISCAL YEAR

(amounts in thousands)

	2018	2019	2020	2021	2022	2023 & beyond
General Obligation Debt						
Self-Supporting						
Veterans' Land and Housing Bonds	$231,248	$248,008	$248,177	$235,072	$225,071	$2,278,754
Water Development Bonds	111,217	112,964	112,244	110,875	101,857	1,442,214
Water Development Bonds - State Participation	7,024	6,928	7,567	7,043	9,606	120,061
Water Development Bonds - WIF	19,010	20,642	19,330	20,473	20,484	129,928
Economic Development Bank Bonds	2,048	2,048	2,048	2,048	2,048	91,987
Park Development Bonds	0	0	0	0	0	0
College Student Loan Bonds	110,942	111,189	94,623	98,109	91,354	994,352
Texas Agriculture Finance Authority	0	0	0	0	0	0
Texas Mobility Fund Bonds	355,656	364,750	372,067	379,512	387,078	8,743,599
Texas Public Finance Authority - TMVRLF	2,146	2,140	2,138	2,138	2,136	22,305
Total Self-Supporting	**$839,291**	**$868,668**	**$858,192**	**$855,270**	**$839,634**	**$13,823,199**
Not Self-Supporting [1]						
Higher Education Constitutional Bonds [2]	$4,522	$4,515	$3,302	$3,175	$3,173	$12,887
Texas Public Finance Authority Bonds	188,328	182,683	153,429	148,682	143,830	867,489
Park Development Bonds	843	795	743	0	0	0
Agriculture Water Conservation Bonds	0	0	0	0	0	0
Cancer Prevention and Research Institute of Texas	101,556	98,956	97,752	96,339	94,739	1,026,292
Water Development Bonds - EDAP [3]	29,872	29,161	25,976	24,084	23,285	145,241
Water Development Bonds - State Participation	0	0	0	0	0	0
Water Development Bonds - WIF	49,857	48,804	47,695	46,593	45,456	311,955
TTC GO Transportation Bonds	320,439	316,300	311,852	307,377	302,880	5,256,339
Total Not Self-Supporting	**$695,418**	**$681,214**	**$640,749**	**$626,250**	**$613,362**	**$7,620,203**
Total General Obligation Debt Service	**$1,534,709**	**$1,549,882**	**$1,498,942**	**$1,481,520**	**$1,452,996**	**$21,443,402**
Non-General Obligation Debt						
Self-Supporting						
Permanent University Fund Bonds						
The Texas A&M University System	$81,890	$82,753	$82,698	$84,899	$84,670	$915,253
The University of Texas System	188,502	188,497	188,502	188,504	188,502	3,572,825
College and University Revenue Bonds	1,430,556	1,408,110	1,375,960	1,360,301	1,334,623	15,764,026
Texas Water Resources Finance Authority Bonds	0	0	0	0	0	0
TxDOT Toll Revenue Bonds [4]	121,276	127,416	133,766	143,531	156,538	5,093,714
Texas Dept of Housing & Community Affairs - SF	38,354	39,539	37,924	38,063	41,767	1,213,884
Economic Development Program (Leverage Fund)	1,198	1,200	1,201	1,201	1,200	17,978
Veterans' Financial Assistance Bonds	0	0	0	0	0	0
Texas Workforce Commission Unemp Comp Bonds	0	0	0	0	0	0
State Highway Fund	425,164	425,161	425,172	425,155	425,161	4,118,655
Water Development Bonds - State Revolving Fund	18,443	18,443	18,442	18,441	18,441	129,093
Water Development Bonds - SWIRFT	81,763	85,158	85,853	85,513	91,157	2,114,391
Total Self-Supporting	**$2,387,145**	**$2,376,278**	**$2,349,517**	**$2,345,608**	**$2,342,058**	**$32,939,819**
Not Self-Supporting [1]						
Texas Public Finance Authority Bonds	$17,176	$8,325	$5,078	$3,126	$3,051	$19,269
TPFA Master Lease Purchase Program	9,708	8,372	7,757	7,068	4,578	3,496
Texas Military Facilities Commission Bonds	1,242	1,253	1,256	1,259	917	1,845
Parks and Wildlife Improvement Bonds	3,058	2,090	723	0	0	0
Total Not Self-Supporting	**$31,183**	**$20,040**	**$14,815**	**$11,452**	**$8,546**	**$24,610**
Conduit, Component and Related Organizations						
Texas Windstorm Insurance Association	$80,305	$80,301	$80,285	$80,330	$80,303	$160,703
Texas Small Business I.D.C. Bonds	0	0	0	0	0	0
Texas Dept. of Housing & Community Affairs - MF	52,293	52,436	54,328	53,025	53,224	1,296,590
Texas State Affordable Housing Corporation	20,891	14,692	14,715	14,677	14,718	382,272
Texas Grand Parkway Transportation Corporation [4]	89,755	89,755	89,755	124,282	124,329	6,914,276
Texas PAB Surface Transportation Corporation	104,081	104,081	104,081	104,081	104,081	3,201,560
TPFA Charter School Finance Corporation	11,097	11,106	11,153	11,157	11,313	199,983
Total Conduit, Component and Related Organizations	**$358,420**	**$352,371**	**$354,316**	**$387,551**	**$387,968**	**$12,155,384**
Total Non-General Obligation Debt Service	**$2,776,749**	**$2,748,689**	**$2,718,648**	**$2,744,611**	**$2,738,572**	**$45,119,813**
Total Debt Service	**$4,311,458**	**$4,298,571**	**$4,217,590**	**$4,226,131**	**$4,191,568**	**$66,563,215**

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.

4 Includes TIFIA loan debt outstanding. Amortization schedule provided by TxDot.

Notes: The debt-service figures do not include the early redemption of bonds under the state's various loan programs or cash defeasances after August 31, 2017, or the Build America Bond subsidy payments. Certain lease purchase, SECO LoanSTAR and other revolving loan program debt is not included.

Future debt-service payments for variable-rate bonds is calculated based on interest rates provided by the issuer. Future debt-service payments for commercial paper is calculated at five percent for a 20-year period.

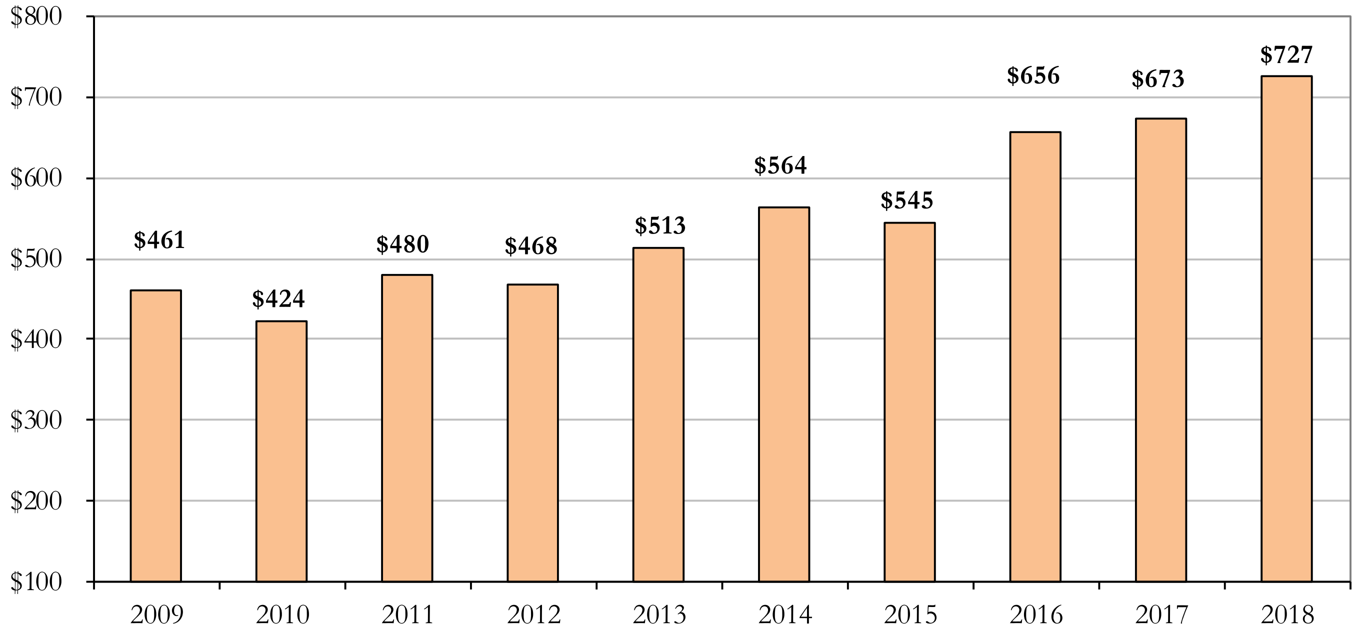
Detail may not add to total due to rounding.

Source: Texas Bond Review Board - Bond Finance Office.

Figure 2.4

ANNUAL DEBT SERVICE SCHEDULED TO BE PAID FROM GENERAL REVENUE

(amounts in millions)



Source: Texas Bond Review Board - Bond Finance Office.

and decreased from $2.83 billion to $2.13 billion.

85th Legislature - Regular Session and 1st Called Special Session

No new state debt authorizations were approved during the 85th Legislative Session. The 85th Legislature appropriated debt service for the 2018-19 biennium to the Cancer Prevention and Research Institute of Texas (CPRIT) to issue $600 million in GO debt under the $3 billion in authority approved by voters in 2007. In addition, TPFA is authorized to issue on behalf of the Texas Facilities Commission (TFC) the remainder of the $767,670,000 of revenue bonds originally authorized during the 2016-17 biennium for the office buildings and utility infrastructure in the capital complex and the office building and parking structure in the North Austin complex.

Debt Authority – 84th Texas Legislature

In the General Appropriations Act, the 84th Legislature authorized the issuance of $767.7 million of revenue bonds and appropriated those bond proceeds in the General Appropriations Act to TFC for the North Austin and Capitol Complex projects. The bonds are anticipated to be repaid with lease payments from state agencies and are subject to biennial appropriation by the Legislature of funds available for payment. Lease payments were appropriated to TFC for the 2016-2017 biennium.

The Legislature also authorized $3.10 billion in TRB debt with the passing of HB 100. Historically, the legislature has appropriated funds in an amount equal to all or a portion of the debt service on tuition revenue debt issued. As of August 31, 2017 remaining authorized but unissued TRB debt totaled $46.1 million.

Table 2.5

TEXAS COLLEGE AND UNIVERSITY REVENUE DEBT OUTSTANDING

(amounts in thousands)

College and University Revenue Debt	FY 2015 Non-TRB	FY 2015 TRB	FY 2015 Total	FY 2016 Non-TRB	FY 2016 TRB	FY 2016 Total	FY 2017 Non-TRB	FY 2017 TRB	FY 2017 Total
Midwestern State University	$93,615	$13,705	$107,320	$91,135	$12,015	$103,150	$89,450	$59,150	$148,600
Stephen F. Austin State University	94,870	36,230	131,100	101,518	33,360	134,878	93,090	64,544	157,634
Texas Southern University	96,658	62,545	159,203	114,930	56,200	171,130	108,253	102,860	211,113
Texas State Technical College System	52,414	6,345	58,759	50,110	43,125	93,235	47,454	40,565	88,019
Texas State University System	720,292	125,818	846,110	692,706	111,317	804,023	810,196	300,397	1,110,593
Texas Tech University System	461,854	156,914	618,768	460,976	141,603	602,579	501,725	355,868	857,593
Texas Woman's University	39,194	29,615	68,809	55,996	26,830	82,826	102,439	54,945	157,384
The Texas A&M University System	1,776,233	397,575	2,173,808	2,072,012	354,170	2,426,182	2,100,614	1,057,232	3,157,846
The University of Texas System	5,188,947	871,165	6,060,112	5,622,360	1,239,445	6,861,805	5,794,878	1,401,930	7,196,808
University of Houston System	758,596	143,430	902,026	811,501	243,891	1,055,392	861,367	422,105	1,283,472
University of North Texas System	405,937	120,530	526,467	427,385	108,070	535,455	425,461	325,764	751,225
Total Revenue Debt Outstanding	**$9,688,612**	**$1,963,871**	**$11,652,483**	**$10,500,629**	**$2,370,026**	**$12,870,655**	**$10,934,927**	**$4,185,360**	**$15,120,288**

* TRB - Tution Revenue Bond

Notes:

No capital appreciation bonds outstanding as of August 31, 2017. The debt outstanding figures include the accretion on capital appreciation bonds for prior years.

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 Chapter 55, Texas Education Code, as amended, of the applicable system or institution of higher education. Historically, however, the state has appropriated funds to the schools in an amount equal to all or a portion of the debt service on revenue bonds issued pursuant to certain specific authorizations to individual institutions in Chapter 55, Texas Education Code ("Tuition Revenue Bonds").

Amounts do not include premium on capital appreciation bonds.

Includes commercial paper notes outstanding.

Excludes HEAF and PUF debt.

Source: Texas Bond Review Board - Bond Finance Office.

Additionally, the 84th Legislature passed HB 122 which limits the issuance of debt secured by the Texas Mobility Fund solely to refundings or issuances that replace variable-rate debt.

Debt Authority – 83rd Texas Legislature

The 83rd Legislature authorized up to $2.0 billion to be withdrawn from the Economic Stabilization Fund (ESF) to be used only in support of projects for the State Water Plan. While this created no new debt authority, the money may be used in conjunction with the TWDB debt programs to provide low-interest loans, credit enhancement agreements, deferral of interest obligations, and funding for government entities that develop and manage water supplies under specific TWDB debt programs. Voters approved the proposed amendments to the Texas Constitution at the November 5, 2013 bond election.

Debt Authority – 83rd Texas Legislature, Special Session

No new state debt authorizations were approved during the 83rd Legislature, Special Session. SJR 1 of the 3rd Called Special Session proposed a constitutional amendment diverting half of the oil and gas tax revenues to be deposited into the ESF to the State Highway Fund to provide transportation funding for repairs and maintenance of public roads. Voters approved the proposed amendment to the Texas Constitution at the November 4, 2014 general election.

Long-Term Contracts and Lease Purchases

Long-term contracts and lease or installment-purchase agreements can serve as cost-effective financing alternatives to the issuance of bonds. Like bonds, these agreements are a method of financing capital purchases over time, and payments on these contracts and agreements are generally subject to biennial legislative appropriations.

The equipment lease purchases approved by the Bond Review Board are typically financed through the Texas Public Finance Authority's Master Lease Purchase Program and are included in the state's total debt outstanding.

Texas Swaps Outstanding

At the end of fiscal 2017, three state issuers had swap agreements in place: VLB, UTS, and TDHCA. Each entered the swap market in 1994, 1999, and 2004, respectively. As of

Table 2.6

DEBT-SERVICE REQUIREMENTS OF TEXAS COLLEGE AND UNIVERSITY REVENUE DEBT BY FISCAL YEAR

(amounts in thousands)

College and University Revenue Debt	2018	2019	2020	2021	2022	2023 & Beyond
The University of Texas System - Non-TRB	$462,694	$453,878	$429,707	$425,736	$426,639	$7,375,726
The University of Texas System - TRB	201,323	201,323	201,319	201,318	201,320	765,715
The University of Texas System - TOTAL*	$664,017	$655,201	$631,025	$627,054	$627,959	$8,141,441
The Texas A&M University System - Non-TRB	$177,671	$175,876	$174,832	$169,678	$163,675	$2,344,250
The Texas A&M University System - TRB	106,250	106,254	105,263	105,148	105,274	795,326
The Texas A&M University System - TOTAL	$283,920	$282,130	$280,095	$274,826	$268,949	$3,139,576
Texas Tech University System - Non-TRB	$50,250	$49,677	$49,823	$47,044	$40,129	$466,428
Texas Tech University System - TRB	42,386	40,732	41,206	41,162	37,421	232,119
Texas Tech University System - TOTAL	$92,635	$90,409	$91,029	$88,207	$77,551	$698,547
Texas State University System - Non-TRB	$74,212	$74,303	$74,090	$72,324	$71,397	$849,848
Texas State University System - TRB	39,841	35,679	35,659	34,788	35,390	231,486
Texas State University System - TOTAL	$114,052	$109,982	$109,750	$107,112	$106,786	$1,081,334
University of Houston System - Non-TRB	$82,771	$80,411	$80,332	$80,255	$71,326	$896,541
University of Houston System - TRB	42,426	41,951	39,569	39,605	39,385	398,873
University of Houston System - TOTAL*	$125,197	$122,363	$119,901	$119,860	$110,711	$1,295,414
The University of North Texas System - Non-TRB	$38,001	$37,403	$37,773	$37,781	$37,768	$472,071
The University of North Texas System - TRB	36,214	36,200	33,186	33,171	33,172	262,346
The University of North Texas System - TOTAL	$74,215	$73,603	$70,959	$70,952	$70,940	$734,418
Texas Woman's University - Non-TRB	$8,960	$8,676	$8,666	$8,666	$8,663	$103,952
Texas Woman's University - TRB	7,114	7,112	6,448	6,438	6,437	40,094
Texas Woman's University - TOTAL	$16,074	$15,787	$15,114	$15,104	$15,100	$144,046
Texas State Technical College System - Non-TRB	$4,882	$4,827	$4,787	$4,533	$4,537	$42,987
Texas State Technical College System - TRB	3,765	3,744	3,759	3,757	3,753	38,239
Texas State Technical College System - TOTAL	$8,646	$8,571	$8,546	$8,290	$8,290	$81,227
Stephen F. Austin State University - Non-TRB	$10,350	$10,094	$11,109	$11,573	$11,598	$55,262
Stephen F. Austin State University - TRB	7,445	7,440	6,440	5,388	5,384	59,304
Stephen F. Austin State University - TOTAL	$17,795	$17,535	$17,549	$16,961	$16,981	$114,566
Midwestern State University - Non-TRB	$6,250	$6,290	$6,438	$6,469	$6,496	$106,352
Midwestern State University - TRB	5,881	5,883	5,196	5,107	4,501	57,018
Midwestern State University - TOTAL	$12,131	$12,173	$11,635	$11,577	$10,997	$163,370
Texas Southern University - Non-TRB	$9,474	$7,964	$7,964	$7,963	$7,964	$90,366
Texas Southern University - TRB	12,398	12,392	12,392	12,395	12,394	79,721
Texas Southern University - TOTAL	$21,872	$20,356	$20,356	$20,358	$20,359	$170,088
Total College and University Revenue Debt	**$1,430,556**	**$1,408,110**	**$1,375,960**	**$1,360,301**	**$1,334,623**	**$15,764,026**

*Excludes Build America Bond subsidy payments.

Legend: TRB = Tuition Revenue Bonds

Notes: 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 Chapter 55, Texas Education Code, as amended, of the applicable system or institution of higher education. Historically, however, the state has appropriated funds to the schools in an amount equal to all or a portion of the debt service on revenue bonds issued pursuant to certain specific authorizations to individual institutions in Chapter 55, Texas Education Code ("Tuition Revenue Bonds"). The table includes commercial paper, but excludes HEAF and PUF debt.

Source: Texas Bond Review Board - Bond Finance Office

Table 2.7

TEXAS DEBT AUTHORIZED BUT UNISSUED

(amounts in thousands)

	8/31/2013	8/31/2014	8/31/2015	8/31/2016	8/31/2017
General Obligation Debt					
Self-Supporting					
Veterans' Land and Housing Bonds	$1,606,274	$1,551,634	$1,317,891	$1,208,929	$1,116,689
Water Development Bonds	6,258,633	6,360,469	6,279,132	5,998,014	5,973,405
Farm and Ranch Loan Bonds [1]	300,000	300,000	300,000	300,000	300,000
College Student Loan Bonds	1,383,565	1,322,540	1,308,525	1,214,895	1,115,275
Texas Agricultural Finance Authority Bonds	221,000	221,000	223,250	224,750	230,000
Texas Public Finance Authority - TMVRLF	200,405	200,405	200,405	200,405	200,405
Texas Mobility Fund Bonds	*	*	*	*	*
Texas Rail Relocation and Improvement Fund	*	*	*	*	*
Total Self-Supporting	**$9,969,877**	**$9,956,048**	**$9,629,203**	**$9,146,993**	**$8,935,774**
Not Self-Supporting [2]					
Agricultural Water Conservation Bonds	$164,840	$164,840	$164,840	$164,840	$164,840
Higher Education Constitutional Bonds	***	***	***	***	***
Texas Public Finance Authority [3]	2,954,697	2,669,547	2,370,637	2,037,487	1,779,437
Transportation Commission GO Transportation Bonds	2,901,360	2,901,360	1,442,008	697,008	0
Water Development Bonds - EDAP [4]	151,976	151,976	101,748	53,492	53,492
Water Development Bonds - State Participation	0	0	0	0	0
Water Development Bonds - WIF	101,836	0	0	0	0
Total Not Self-Supporting	**$6,274,709**	**$5,887,723**	**$4,079,233**	**$2,952,827**	**$1,997,769**
Total General Obligation Debt	**$16,244,586**	**$15,843,771**	**$13,708,436**	**$12,099,820**	**$10,933,543**
Non-General Obligation Debt					
Self-Supporting					
Permanent University Fund Bonds [5]					
The Texas A&M University System	$546,300	$567,111	$524,165	$548,407	$680,110
The University of Texas System	691,660	794,612	785,535	419,009	530,885
College and University Revenue Bonds	**	**	**	**	
Texas Turnpike Authority Bonds	**	**	**	**	**
Texas Water Resources Finance Authority Bonds	**	**	**	**	**
Texas Water Development Bonds (Water Resources Fund)	**	**	**	**	**
Texas Workers' Compensation Fund Bonds	**	**	**	**	**
Texas Workforce Commission Unemp Comp Bonds	***	***	***	***	***
Nursing Home Liability Insurance	75,000	75,000	75,000	75,000	75,000
FAIR Plan	75,000	75,000	75,000	75,000	75,000
Veterans' Financial Assistance Bonds	771,440	771,440	771,440	771,440	771,440
State Highway Fund Revenue Bonds	1,400,667	700,149	700,149	700,149	0
Water Development Board - State Revolving Fund	**	**	**	**	**
Total Self-Supporting	**$3,560,067**	**$2,983,312**	**$2,931,289**	**$2,589,005**	**$2,132,435**
Not Self-Supporting [2]					
Texas Public Finance Authority Bonds	$120,881	$120,881	$888,551	$888,551	$871,551
TPFA Master Lease Purchase Program	85,033	87,888	106,981	105,520	64,100
Texas Military Facilities Commission Bonds	**	**	**	**	**
Total Not Self-Supporting	**$205,914**	**$208,769**	**$995,532**	**$994,071**	**$935,651**
Conduit					
Texas Windstorm Insurance Association	***	***	***	***	***
Texas Small Business I.D.C. Bonds	**	**	**	**	**
Texas Department of Housing & Community Affairs	**	**	**	**	**
Texas State Affordable Housing Corporation	**	**	**	**	**
Total, Conduit	**$0**	**$0**	**$0**	**$0**	**$0**
Total Non-General Obligation Debt	**$3,765,981**	**$3,192,081**	**$3,926,821**	**$3,583,076**	**$3,068,086**
Total Debt	**$20,010,567**	**$19,035,852**	**$17,635,257**	**$15,682,896**	**$14,001,629**

* No bond issuance limit, but debt service on all bonds issued and proposed to be issued pursuant to the Article III, Section 49-k and 49-o of the Texas Constitution can not be greater than the Comptroller's certified projection that the amount of money dedicated to the fund is equal to at least 110 percent of the debt-service requirements for as long as the obligations are outstanding.

** No issuance limit has been set by the Texas Constitution. Bonds may be issued by the agency without further authorization by the Legislature. However, university bonds rated lower than AA- or its equivalent may not be issued without the approval of the Bond Review Board. All bonds must be approved by the Attorney General.

*** No bond issuance limit, but HECB debt service may not exceed $196.88 million per year; TWIA has an annual limit of $500 Million in "Class 1," $250 Million of "Class 2," and $250 million of "Class 3" public securities.; and TWC may not exceed $2 billion per issuance.

[1] Effective in November 1995, state voters authorized the use of $200 million of the existing $500 million Farm and Ranch Program authority for the purposes of the Texas Agricultural Finance Authority (TAFA). Of the $200 million, the Bond Review Board has approved an initial amount of $25 million for the Texas Agricultural Fund Program of TAFA.

[2] Bonds that are not self-supporting depend solely on the state's general revenue for debt service.

[3] Includes $3 billion for cancer prevention that was authorized by voters in November 2007 of which $1.71 billion remains unissued.

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

[5] Issuance of PUF bonds by A&M is limited to 10 percent, and issuance by UT is limited to 20 percent of the cost value of investments and other assets of the PUF, except real estate. The PUF value used is as of August 31, 2017.

Source: Texas Bond Review Board - Bond Finance Office

August 31, 2017, the aggregate notional amount of swaps outstanding at the state level was $5.07 billion. Interest rate swaps are primarily used as financial-management tools to reduce interest expense and hedge against interest rate, tax, basis and other risks. (See *Appendix C* for a background discussion of swaps and related data.)

State issuers are authorized to enter into swap agreements under the Texas Government Code, Section 1371 which grants special authority to enter into credit agreements. However, TDHCA and VLB have broad authority to enter into swaps under Section 2306.351 of the Texas Government Code and Sections 161.074, 162.052 and 164.010 of the Texas Natural Resources Code, respectively.

At the end of fiscal 2017, VLB was a party to 54 pay-fixed, receive-variable rate (synthetic fixed-rate) swaps associated with its variable-rate demand bond issues. The total notional amount for these swaps was $2.45 billion at fiscal year-end 2017. UTS had six Revenue Financing System swap agreements and two Permanent University Fund swap agreements totaling $1.43 billion in notional amount. TDHCA had four such swaps on single-family bonds totaling $102.0 million in notional amount.

Additionally, at the end of fiscal 2017 VLB had two outstanding basis rate (pay-variable, receive-variable) swaps with $60.1 million in notional amount. UTS had six Revenue Financing System and two PUF basis rate agreements totaling $1.02 billion in notional amount.

The Net Fair Values for the swap agreements in place at the end of fiscal 2017 for the three state issuers were as follows: VLB, negative $218.1 million; UTS, negative $222.3 million; and TDHCA, negative $11.3 million. A negative fair value on a swap agreement indicates that the state issuer would owe its counterparty the amount indicated if the swaps were terminated. (See *Tables C1 and C2 in Appendix C* for details regarding Texas' interest rate swaps outstanding and fair value data at August 31, 2017.) VLB and TDHCA have the unilateral option to terminate their swap agreements. UTS has the unilateral option to terminate all of its swap agreements except for the MMD basis swap associated with its RFS 2016A bonds. Under this swap agreement Deutsche Bank has the right to optionally terminate the swap on or after February 15, 2030 provided the mark-to-market value of the swap is positive to UTS and Deutsche Bank agrees to pay this amount to UTS.

See *Table C3 and Table C4 in Appendix C* for debt-service requirements of variable-rate and fixed-rate debt outstanding and net interest rate swap payments. At fiscal year-end 2017, estimated debt-service requirements and net swap payments for VLB's pay-fixed, receive-variable swaps totaled $3.11 billion; and that of UTS totaled $2.13 billion. TDHCA had only synthetic fixed-rate swaps outstanding, the estimated debt-service requirements and net swap payments for which totaled $159.5 million. UTS had eight basis swaps outstanding, the estimated debt-service requirements and net swap payments for which totaled $1.39 billion. VLB had two basis swaps outstanding, the estimated debt-service requirements and net swap payments for which totaled $32.2 million.

Chapter 3
State Bond Issuance Costs

Excluding issuances of conduit and private placement debt, during fiscal 2017 the weighted average of issuance costs for state bond issuers was $5.26 per $1,000 compared to $5.20 per $1,000 for fiscal 2016. The issuances ranged in size from $11.6 million to $770.2 million. Appendix A of this report details the issuance costs associated with each of these issues as well as the conduit and private placement issues.

Issuance Costs for Texas Bond Issuers

In fiscal 2017 the average issue size for Texas' state issuers increased to $256.1 million from $212.6 million in fiscal 2016 (*Table 3.1*). Excluding conduit and private placement issues, 22 (68.8%) of the 32 transactions completed in fiscal 2017 were $100.0 million or greater in size compared to 23 (74.2%) of the 31 transactions completed in fiscal 2016.

Underwriters' spreads began to increase after the financial downturn in fiscal 2008 due to higher underwriting risk in the municipal bond market and higher issuance costs associated with the introduction of Build America Bonds (BABs). The BABs program expired on December 31, 2010. Since 2009 underwriting spreads have declined to levels seen prior to the financial downturn.

In fiscal 2017, the weighted average underwriting spread accounted for 69.9 percent of all issuance costs. As a result of increases in other underwriter's spread costs in fiscal 2017, the weighted average underwriting spread per $1,000 of bonds issued increased to $3.68 from $3.66 in fiscal 2016 (*Figure 3.1*). *(See Comparison of Issuance Costs by Transaction Size below).*

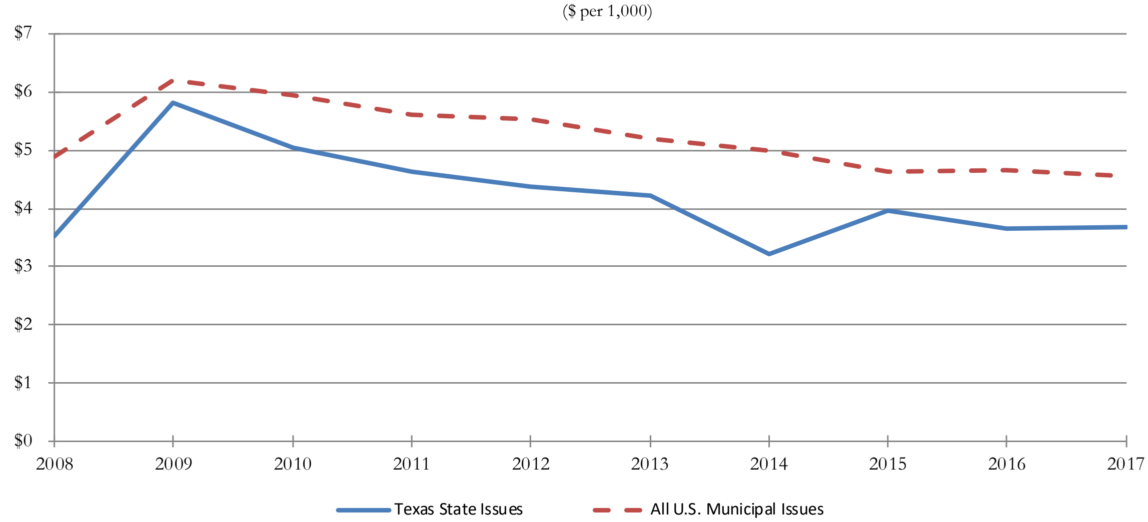
During fiscal 2017 fees per bond increased slightly overall compared to fiscal 2016. Other Issuance Costs (bond counsel, financial advisor, rating agency, printing and other costs) per $1,000 increased to an average of $1.58 ($405,107) compared to $1.54 ($326,511) in fiscal 2016.

Table 3.1
WEIGHTED AVERAGE ISSUANCE COSTS FOR TEXAS BOND ISSUES
(Excludes Private Placement, Conduits and Remarketings)

	Fiscal 2016			**Fiscal 2017**		
	Count	**Average Cost Per Bond Issue**	**Average Cost Per $1,000 of Bonds Issued**	**Count**	**Average Cost Per Bond Issue**	**Average Cost Per $1,000 of Bonds Issued**
Average Issue Size (In Millions)	31	$212.6		32	$256.1	
Costs of Issuance:						
Underwriter's Spread:						
Takedown	29	$730,161	$3.42	31	$859,131	$3.35
Spread Expenses	31	68,524	0.32	31	73,399	0.28
Underwriter's Counsel	27	34,317	0.15	29	44,988	0.17
Other Underwriter's Spread Costs*	7	121,763	1.01	8	157,360	1.10
Underwriter's Spread Subtotal	31	$779,073	$3.66	32	$942,729	$3.68
Other Issuance Costs:						
Bond Counsel	31	$81,249	$0.38	32	$103,754	$0.41
Financial Advisor	25	95,315	0.43	27	113,582	0.46
Printing	31	2,563	0.01	31	1,817	0.01
Other	31	64,798	0.30	32	80,911	0.32
Other Issuance Costs Subtotal	31	$225,476	$1.06	32	$282,260	$1.10
Rating Agencies:						
Moody's	30	$46,283	$0.24	31	$58,514	$0.24
Standard & Poor's	25	41,184	0.17	21	49,822	0.17
Fitch	14	51,001	0.18	16	66,932	0.24
Rating Agency Costs Subtotal	31	$101,035	$0.48	32	$122,847	$0.48
Total	31	$1,105,585	$5.20	32	$1,347,836	$5.26

Note: Figures exclude bond insurance premiums.
* Management Fee, Structuring Fee or Underwriter's Risk.
Source: Texas Bond Review Board

Figure 3.1
GROSS UNDERWRITING SPREADS: 2008 - 2017
TEXAS STATE BOND ISSUES vs. All U.S. MUNICIPAL BOND ISSUES
($ per 1,000)



Note: 2017 Municipal figures are through August 21, 2017. Amounts represent dollars per $1,000 face value of bond issues. Gross spreads include managers' fees, underwriting fees, average takedowns, and expenses. Private placements, conduits, short-term notes maturing in 12 months or less, and remarketings of variable-rate securities are excluded.

Sources: The Bond Buyer - 2017 in Statistics Midyear Review (08/17); Thomson Financial Securities; and Texas Bond Review Board - Bond Finance Office.

Underwriting Costs for Texas Bond Issuers Compared to National Costs

Excluding conduit and private placement issuances, during fiscal 2017 Texas' state bond issuers paid lower average underwriting fees compared to the national averages *(Figure 3.1).* This difference is primarily due to the generally higher credit quality of Texas issuers and the market's receptivity to Texas issues. Statistics published by Thomson Financial Securities Data show that underwriting spreads nationally averaged $4.55 per $1,000 compared to Texas' average of $3.68 per $1,000.

During fiscal 2017 Texas issuers saw lower weighted average underwriting costs with negotiated transactions but not with competitive transactions when compared to the national averages as reported by Thomson Financial Securities (*Figure 3.2*). Texas' average of $3.38 per $1,000 for negotiated sales and $7.88 per $1,000 for competitively bid sales were 25.6 percent lower and 72.4 percent higher than the national averages, respectively.

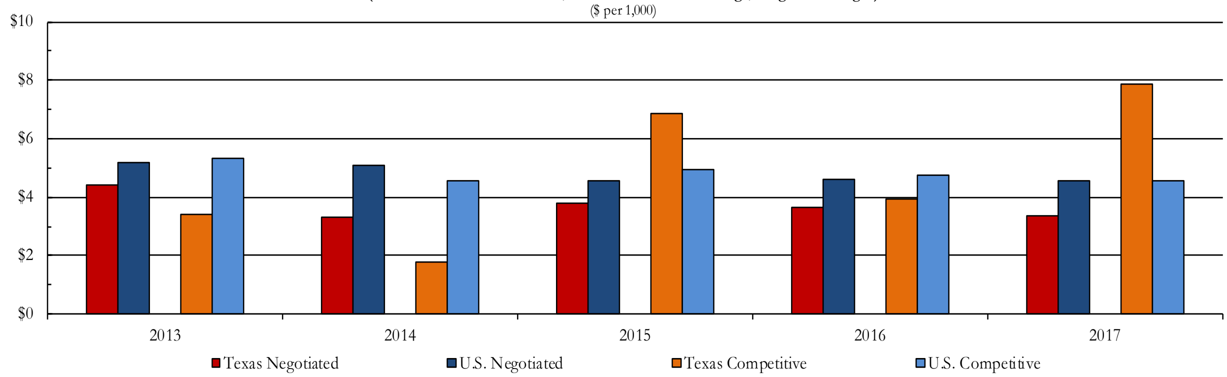
Comparison of Issuance Costs by Transaction Size

Larger bond issues usually have a lower cost per $1000 because certain fixed costs of issuance, including some legal and financial advisory services and document drafting fees, do not vary proportionately with the size of the bond issue.

Texas' issuance costs increased slightly overall in fiscal 2017 and were generally consistent with those experienced during fiscal 2013-2016 (*Figure 3.3*). Appendix A details the issuance costs for each transaction in fiscal 2017.

Figure 3.2

GROSS UNDERWRITING SPREADS: 2013 - 2017
NEGOTIATED vs. COMPETITIVE MUNICIPAL ISSUES
(Excludes Private Placements, Conduits and Remarketings; weighted averages)
($ per 1,000)



Note: 2017 U.S. figures are through August 21, 2017. Amounts represent dollars per $1,000 face value of bond issues. Gross spreads include manager's fees, underwriting fees, average takedowns, and expenses. Private placements, short-term notes maturing in 12 months or less, and remarketings of variable-rate securities are excluded.
Sources: The Bond Buyer - 2017 in Statistics Midyear Review (08/17); Thomson Financial Securities; and Texas Bond Review Board - Bond Finance Office.

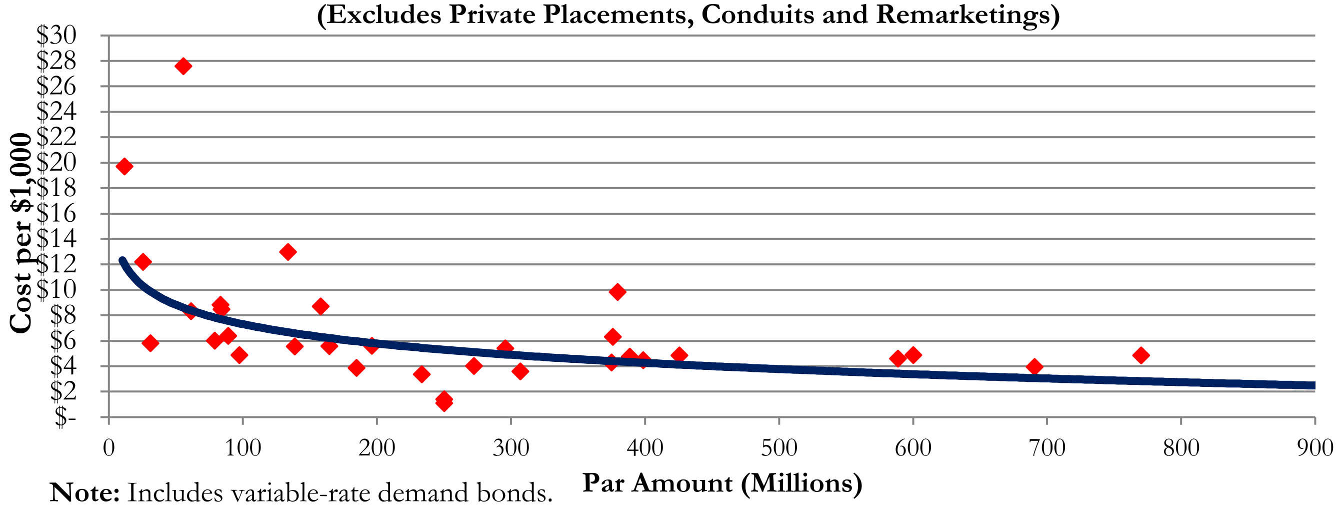
Trends in State Bond Issuance Costs in 2017

The characteristics of 32 non-conduit bond transactions were reviewed to determine trends in issuance costs during fiscal 2017. Of those, 29 were negotiated sales and three were competitive sales. Of the 29 negotiated sales, nine were less than $100 million in size, ten were from $101-$300 million, six were from $301-$500 million, three were from $501-$700 million and one was greater than $700.0 million. The three competitive transactions were for $11.6 million, $158.1 million, and $379.5 million, respectively. The two private placements issued during 2017 are excluded from this analysis.

As in the past, the cost per $1,000 in fiscal 2017 generally decreased as transaction size increased (*Figure 3.3*).

Figure 3.3

COSTS OF ISSUANCE: FY 2013-2017
(Excludes Private Placements, Conduits and Remarketings)

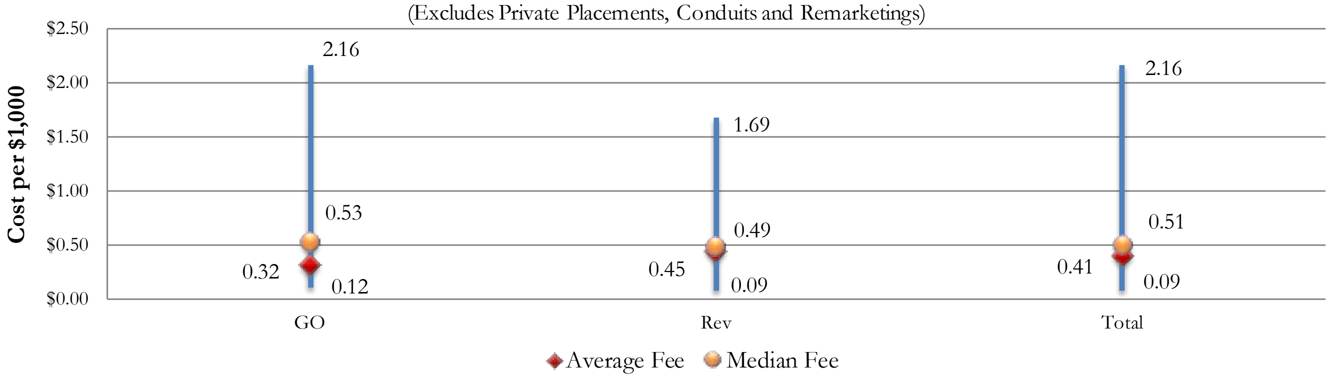


Note: Includes variable-rate demand bonds.
Source: Texas Bond Review Board - Bond Finance Office

Figure 3.4

Range of Bond Counsel Fees for Fiscal 2017

(Excludes Private Placements, Conduits and Remarketings)



Note: Includes Co-Bond Counsel Fees and variable-rate demand bonds.
Sources: Texas Bond Review Board - Bond Finance Office.

Issuance Costs for State General Obligation and Revenue Bonds in 2017

Four component fees comprise most of the costs of issuing bonds: bond counsel, financial advisor, underwriters' spread and credit rating agencies. To analyze these fees on a cost per $1,000 basis for state general obligation (GO) and revenue issues, data from fiscal year 2017 is shown graphically in *Figures 3.4, 3.5, 3.6 and 3.7*. Each cost of issuance component has been compared by bond type (general obligation vs. revenue) and by total bonds issued.

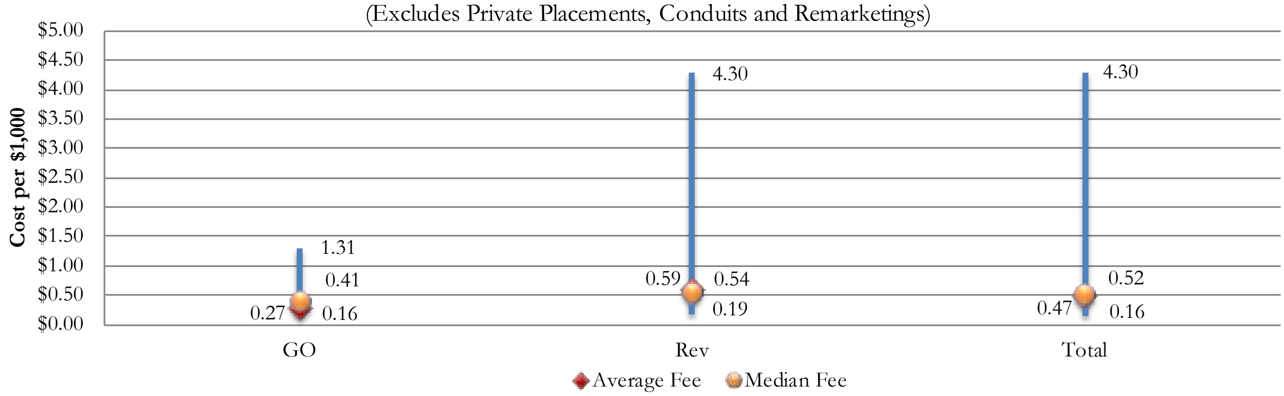
Cost of issuance data was obtained from eight GO transactions and 24 revenue transactions representing five state agencies and eight institutions of higher education.

Figure 3.4 shows the bond counsel cost per $1,000 for bonds issued during 2017. The total weighted average cost for bond counsel fees was $0.41 per $1,000 an increase of $0.02 per $1,000 compared to $0.39 per $1,000 for fiscal 2016. GO bonds had lower costs per $1,000 than revenue bonds with a weighted average cost of $0.32 per $1,000 compared to $0.45 per $1,000 for revenue bonds. Additionally, the fees for GO bonds had a larger variance than

Figure 3.5

Range of Financial Advisor Fees for Fiscal 2017

(Excludes Private Placements, Conduits and Remarketings)

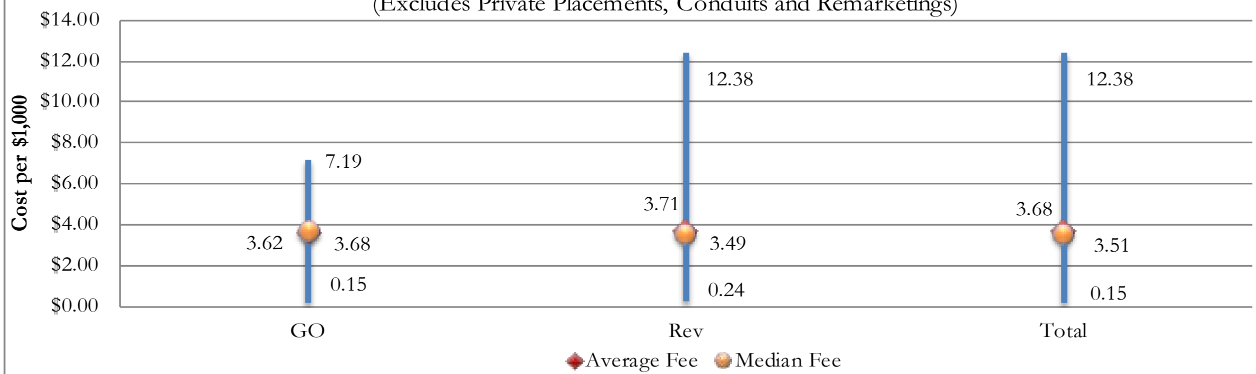


Note: Includes Co-Financial Advisor fees and variable-rate demand bonds.
Sources: Texas Bond Review Board - Bond Finance Office.

Figure 3.6

Range of Total Underwriter's Spread for Fiscal 2017

(Excludes Private Placements, Conduits and Remarketings)



Note: Includes variable-rate demand bonds. Total Underwriter's Spread includes; Takedown, Spread Expenses, Management & Structuring Fees, Underwriting Risk and Underwriter's Counsel.
Sources: Texas Bond Review Board - Bond Finance Office.

the fees for revenue bonds. The fees for GO bonds ranged from $0.12 to $2.16 per $1,000 while the fees for revenue bonds ranged from $0.09 to $1.69 per $1,000.

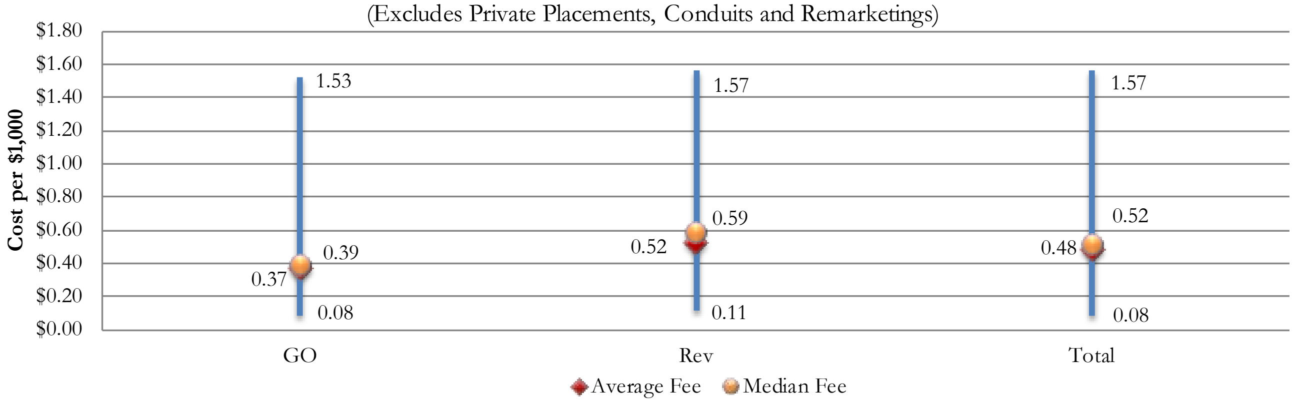
Figure 3.5 shows the cost per $1,000 for the 27 transactions with a financial advisor fee. The total weighted average cost for financial advisor fees was $0.47 per $1,000, unchanged compared to $0.47 per $1,000 for fiscal 2016. GO bonds had a weighted average cost of $0.27 per $1,000 compared to $0.59 per $1,000 for revenue bonds. The difference in the range of fees for financial advisor was greater for revenue bonds than GO bonds. GO transactions had a minimum fee of $0.16 and a maximum fee of $1.31 per $1,000 and revenue bonds had a minimum fee of $0.19 and a maximum fee of $4.30 per $1,000.

Figure 3.6 shows the total underwriters' spread for all transactions and includes the following: management and structuring fees, underwriting risk, spread expenses and underwriter's counsel. The total weighted average cost was $3.68 per $1,000, an increase of $0.02 per $1,000 compared to $3.66 per $1,000 for fiscal 2016. GO bonds had an

Figure 3.7

Range of Total Ratings Fees for Fiscal 2017

(Excludes Private Placements, Conduits and Remarketings)



Note: Includes variable-rate demand bonds. Total ratings fee may include ratings fees from Moody's, S&P and Fitch.
Sources: Texas Bond Review Board - Bond Finance Office.

average weighted cost of $3.62 and revenue bonds had an average weighted cost of $3.71 per $1,000. The fees for GO bonds had a narrow range from a minimum fee of $0.15 to a maximum fee of $7.19 per $1,000. Revenue bonds ranged from $0.24 to $12.38 per $1,000.

Figure 3.7 shows the cost per $1,000 for ratings agency fees. The total weighted average cost was $0.48 per $1,000, unchanged compared to $0.48 per $1,000 in fiscal 2016. The average weighted cost for GO bonds was below the total average cost at $0.37 per $1,000 while the average weighted cost for revenue bonds was higher at $0.52 per $1,000.

Chapter 4
Texas Private Activity Bond Allocation Program and Other Bonding Authority

Texas again experienced an increase in volume cap for the Program Year 2017 Private Activity Bond (PAB) Allocation Program. The 2017 volume cap was set at $2,786,259,600, an increase of $39.3 million (1.4 percent) over the, calendar 2016 cap. The total size of the PAB program including 2017 volume cap and carryforward, was $7.63 billion, a 16.4 percent increase from the 2016 total. As of November 15, 2017, $3.41 billion had been allocated and application requests totaled $6.20 billion, an increase of 82.0 percent from Program Year 2016.

As of November 15, 2017, Texas had $178.7 million in unused Qualified Energy Conservation Bond authority.

Volume Cap

Texas is second only to California in population and resulting volume cap. Texas experienced an increase in volume cap for the 2017 PAB Allocation Program. Based on its population, the 2017 volume cap was set at $2,786,259,600, an increase of $39.3 million (1.4 percent) over the calendar 2016 cap of $2,746,911,400.

The volume cap increase can be attributed not only to the growth of the state's population, but also to federal legislation that increased the per-capita formula. On December 20, 2000 federal legislation was passed that accelerated the increase in private-activity volume cap, the first such increase since the Tax Reform Act of 1986. The cap phase-in began January 1, 2001 when the limit was increased from $50 per capita to $62.50 per capita. The second part of the plan occurred in January 2002 when the cap multiplier increased to $75 per capita or $225 million, whichever is greater. The multiplier was indexed to inflation beginning in 2003 resulting in increases in 2007, 2008, 2009, 2011 and 2014 to the current level of $100 per capita.

Including 2017 volume cap and carryforward, for Program Year 2017 the state had a total of $7.63 billion of volume cap available among the six subceilings of which $3.45 billion (44.7%) had been allocated as of November 15, 2017 *(Table 4.1)*.

Table 4.1
STATE OF TEXAS
PRIVATE ACTIVITY BOND ALLOCATION PROGRAM
2017 AVAILABLE VOLUME CAP vs. ALLOCATION AMOUNTS
(as of November 15, 2017)

SUBCEILING	AVAILABLE* VOLUME CAP	PERCENT OF TOTAL	ISSUED 2017 ALLOCATION	ISSUED CARRYFORWARD ALLOCATION	ISSUED PERCENT OF TOTAL
Single Family Housing	$ 3,132,754,908	41.0%	$ 918,015,269	$ 2,111,916,906	39.7%
State-Voted Issues	223,402,708	2.9%	-	-	0.0%
Small Issue IDBs	55,725,192	0.7%	-	-	0.0%
Multifamily Housing	2,307,058,111	30.2%	57,342,400	328,999,700	5.1%
Student Loan Bonds	292,557,258	3.8%	-	-	0.0%
All Other Issues	1,622,961,581	21.3%	-	-	0.0%
TOTAL	**$ 7,634,459,758**	**100.0%**	**$ 975,357,669**	**$ 2,440,916,606**	**44.7%**

*Includes carryforward amounts. Carryforward is reserved volume cap from the prior 3 years.
Source: Texas Bond Review Board - Private Activity Bond Program.

Table 4.2
STATE OF TEXAS
PRIVATE ACTIVITY BOND ALLOCATION PROGRAM
2017 REQUESTED VOLUME CAP

SUBCEILINGS	AVAILABLE VOLUME CAP*	REQUESTED ALLOCATION*	REQUESTS AS A % OF AVAILABILITY
Mortgage Revenue Bonds	$ 3,132,754,908	$ 4,081,432,451	130.3%
State-Voted Issue Bonds	223,402,708	200,000,000	89.5%
Industrial Development Bonds	55,725,192	20,000,000	35.9%
Multifamily Rental Project Bonds	2,307,058,111	1,503,149,350	65.2%
Student Loan Bonds	292,557,258	50,000,000	17.1%
All Other Bonds Requiring Allocation	1,622,961,581	341,551,340	21.0%
TOTALS	**$ 7,634,459,758**	**$ 6,196,133,141**	**81.2%**

*Includes carryforward amounts. Carryforward is reserved volume cap from the prior 3 years.
Source: Texas Bond Review Board - Private Activity Bond Program.

Total bonding authority demand increased during the 2017 Program Year compared to the 2016 Program Year. As of November 15th, 81.2 percent had been requested in 2017 compared to 51.9 percent in 2016.

Additionally, after the 2016 collapse, the Bond Review Board (BRB) received $2.05 billion in requests; after the collapse in 2017, the BRB received $2.49 billion in requests. Applications received for Program Year 2017, including carryforward requests, totaled $6.20 billion or 81.2 percent of the total available allocation of $7.63 billion *(Table 4.2),* an increase of 82.0 percent from the $3.40 billion of the available allocation requested in 2016.

Current Allocation Trends

Excluding carryforward, as of November 15, 2017 $975.4 million of Program Year 2017 volume cap had been allocated. As of the same date in Program Years 2014, 2015 and 2016, $240.1 million (9.1%), $84.9 million (3.1%) and $169.5 million, respectively, of total volume cap (excluding carryforward) had been allocated.

While most of the 2017 applications were for residential rental transactions and the amounts requested are limited by statute and scope, applications for single-family mortgage revenue bonds requested record amounts of volume cap. As a result, the number of applications slightly decreased for 2017 but the amount of volume cap requested increased *(Table 4.3).* Many issuers have been waiting for the spread between tax-exempt rates and taxable rates to widen before seeking volume cap, or they applied for volume cap with the intention of converting it to carryforward. Larger transactions provide economies of scale that may still take advantage of tax-exempt rates.

Table 4.3
STATE OF TEXAS
PRIVATE ACTIVITY BOND ALLOCATION PROGRAM
2012 TO 2017 ISSUED ALLOCATION
(as of November 15, 2017)

YEAR	AVAILABLE ALLOCATION*	REQUESTED ALLOCATION*	ISSUED VOLUME CAP ALLOCATION	ISSUED CARRYFORWARD ALLOCATION	NUMBER OF APPLICATIONS RECEIVED	ISSUED AS A % OF AVAILABILITY
2012	5,390,400,333	2,400,582,178	470,691,078	393,270,937	53	16.0%
2013	4,717,858,332	1,940,837,372	439,286,597	372,573,787	56	17.2%
2014	5,276,952,525	2,776,186,213	240,066,000	811,211,000	47	19.9%
2015	6,461,406,313	4,355,040,098	84,850,000	1,071,125,213	71	17.9%
2016	6,561,415,029	3,403,690,252	169,538,280	681,068,500	104	13.0%
2017	7,634,459,758	6,196,133,141	975,357,669	2,440,916,606	92	44.7%

*Includes carryforward amounts. Carryforward is reserved volume cap from the prior 3 years.
Source: Texas Bond Review Board - Private Activity Bond Program.

As of November 15, 2017 no mortgage revenue bonds (MRBs) had closed utilizing Program Year 2017 volume cap; however, issuers had converted $918.0 million of Program Year 2017 volume cap to mortgage credit certificate (MCC) programs. Using carryforward volume cap, Texas Department of Housing and Community Affairs used approximately $2.11 billion to close MCC programs. Multifamily issuers closed 16 projects as of November 15, 2017 using $329.0 million of carryforward and $57.3 million of volume cap compared to 19 projects closing in 2016.

At the beginning of Program Year 2017, the carryforward amount of $4.85 billion was 174.0 percent of the 2017 Program Year volume cap of $2.79 billion, and many issuers that applied for a reservation were forced to use carryforward volume cap (as required by IRS Code) before using 2017 volume cap.

To date, much more carryforward ($2.44 billion) was allocated than actual 2017 volume cap ($975.4 million) during the Program Year (*Figure 4.1*). Project requests after the August 15th collapse date were not subject to subceiling limits, and because closing dates generally extend into the next program year, issuers were able to convert their reservations into carryforward. This cycle of issuers not using current year volume cap will likely continue for several years as issuers with carryforward must close that volume cap before using current year volume cap.

As of November 15, 2017 none of the state's 2017 PAB volume cap remained unencumbered. Any amounts returned will be converted to carryforward.

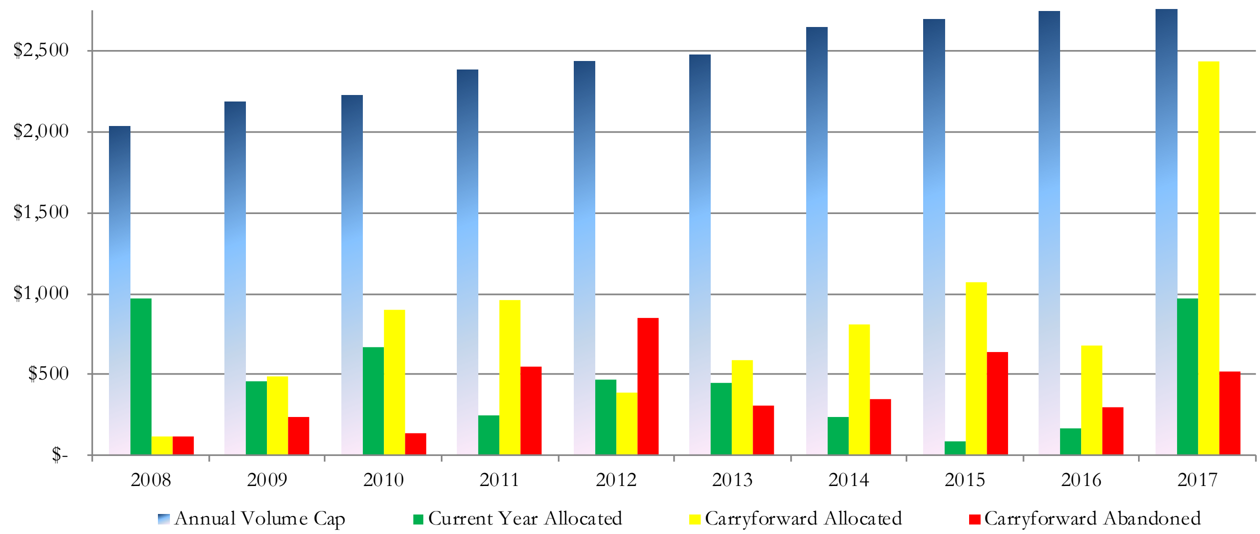
82nd Legislature Changes

House Bill (HB) 2911 simplified the reservation process for Higher Education Authorities (HEAs) in Subceiling #5. Prior to the change, HEAs were required to provide evidence of student loan need-based demand. HEAs which were able to show the greatest demand received weighted reservations and thus the largest allocations. HB 2911 redefined the assignment of student loan bond allocation to equal the total amount of the allocation for the student loan subceiling divided by the number of qualified HEAs thus removing the need-based provisions.

Prior Legislative Changes

The 81st Legislative Session (2009) passed Senate Bill (SB) 2064 to provide issuers using PAB authority with increased flexibility during difficult market conditions such as those experienced in fiscal year 2009, and to respond to the announcement of new federal bond programs and new federal guidelines for the existing Program.

Figure 4.1
STATE OF TEXAS
PRIVATE ACTIVITY BOND ALLOCATION PROGRAM
Current Year vs. Carryforward Allocated
(amounts in millions)



* 2009 and 2010 Carryforward numbers also include HERA cap
Source: Texas Bond Review Board - Private Activity Bond Program.

SB 2064 made the following changes both to the Program and also to the responsibilities of the BRB:

- If designated by the applicable state official, the BRB is now authorized to administer other bond authority programs created by federal legislation;
- The BRB now has specific authority to administer and create rules for any additional state ceiling that may be created by federal legislation;
- Certain facilities including sewage facilities, solid waste disposal and qualified hazardous waste facilities are now permitted to include multiple projects on one application but are still required to pay an application fee for each facility;
- The project limit for single-family and multifamily issuers was increased to $40.0 million and $20.0 million, respectively;
- Issuers subject to a utilization percentage will not be penalized if in a previous Program Year less than 50 percent of volume cap dedicated to single-family issuers was not allocated for such purposes;
- The last day to apply for a reservation and to receive a reservation was changed from December 1 to November 15; and
- Any unencumbered volume cap at the end of the program year may be granted to any state agency that requests it.

The 80th Legislative Session (2007) gave the Texas Economic Development Bank priority over all other issuers within Subceiling #6 as well as all issuers with carryforward applications. HB 3552 made a number of changes within Subceiling #4 including a provision allowing applications for multiple-site multifamily projects.

The 79th Legislative Session (2005) raised the maximum cap per project on Subceiling #6 from $25.0 million to $50.0 million.

Legislation passed during the 76th, 77th and 78th Legislative Sessions shifted the distribution of the state's ceiling for the Program among the Subceilings.

Hurricane Ike Bond Authority

In October 2008 the Heartland Disaster Tax Relief Act (HDTRA) of 2008 created $1,863,270,000 in tax-exempt bonding authority for 34 counties affected by Hurricane Ike. The authority to issue bonds for areas affected by Hurricane Ike expired at the end of 2012.

Hurricane Ike bonds were used for: 1) the acquisition, construction, renovation, and reconstruction of nonresidential real property; 2) the acquisition, construction, renovation, and reconstruction of qualified residential rental property; 3) financing the repair or reconstruction of public utility property; 4) rehabilitation projects at certain existing facilities; and 5) the issuance of qualified mortgage bonds.

Borrowers using Hurricane Ike bond proceeds must have suffered an actual business loss or have received a designation that the business being replaced suffered a loss attributable to Hurricane Ike.

HDTRA required the Governor of Texas to designate projects "on the basis of providing assistance to areas in the order in which assistance is most needed."

On April 10, 2009 the Governor issued Proclamation 41-3177 designating projects in Brazoria, Chambers, Galveston, Jefferson and Orange counties as having priority for utilization of Hurricane Ike bonds. On the same date Proclamation 41-3178 allocated up to $300.0 million in authority to Jefferson County Industrial Development Corporation for use by Jefferson Refinery LLC.

The 81st Texas Legislature passed legislation authorizing the BRB to administer the qualified Hurricane Ike disaster area bond program under the direction of the Governor. On December 7, 2009 Governor Perry issued Proclamation 41-3232 providing for administration of the qualified Hurricane Ike disaster area bond program and naming priorities for the designation of such bonds. In February 2012, the Governor issued Proclamation 41-3293 that removed the group priorities and allowed all issuers to apply for any remaining bonding authority. As of the expiration of the program (January 1, 2013), approximately $1.86 billion of the total authority was allocated (99.6%).

Other Bonding Authority

In February 2009 the American Recovery and Reinvestment Act of 2009 (ARRA) created two new types of bonding authority: Build America Bonds (*see Chapters 1 and 2*) and Qualified School Construction Bonds (QSCB). In addition, ARRA expanded three existing authorities: Qualified Zone Academy Bonds, Qualified Energy Conservation Bonds (QECB) and Clean Renewable Energy Bonds. All of these programs have expired except for the QECB Program which has no expiration date.

Texas was allocated $252,378,000 in QECB authority to be used for qualified energy conservation purposes. Large cities and counties received an allocation based on population size. Other issuers seeking the remaining authority may request a reservation directly from the state.

As of November 15, 2017 all allocated issuers in Texas had $171.2 million in unused Qualified Energy Conservation Bond authority. Texas had $7.6 million remaining in state authority.

Appendix A – Summary of State Bonds Issued During Fiscal Year 2017

This appendix details the issuance costs associated with each state bond transactions issued during fiscal year 2017 and is automatically generated based on information reported to the Bond Review Board (BRB) by each state debt issuer. Historically Underutilized Business (HUB) status and transaction costs are reported to the BRB by the issuing agencies and entities. For the purposes of this appendix, to identify the controlling ownership of firms based on race, gender, and ethnicity, the businesses are classified as Asian-Pacific American (AP), Black American (BA), Hispanic American (HA), Native American (NA), Woman-Owned (WO), Disabled-Veteran (DV), or not belonging to one of these categories. Although "HUB" is used in this appendix, it does not imply that the firms listed as such are certified with the Texas Comptroller of Public Accounts.

STATE BONDS ISSUED

Issuance Name	Par Amount	Closing Date
Stephen F. Austin State University Revenue Financing System Revenue Refunding and Improvement Bonds, Series 2016	$61,205,000	9/29/2016
Texas A&M University System Revenue Financing System Revenue Bonds, Series 2017A (Taxable)	$388,705,000	1/31/2017
Texas A&M University System Revenue Financing System Revenue Bonds, Series 2017B (Taxable)	$398,670,000	6/21/2017
Texas A&M University System Revenue Financing System Revenue Bonds, Series 2017C	$97,425,000	6/21/2017
Texas Department of Housing and Community Affairs Multifamily Housing Revenue Bonds (Pass-Through-Skyline Place Apartments), Series 2016	$18,750,000	9/15/2016
Texas Department of Housing and Community Affairs Multifamily Note (Mercantile Apartments) Series 2016	$29,500,000	9/30/2016
Texas Department of Housing and Community Affairs Single Family Revenue Bonds Series 2017A, Refunding Bonds Series 2017B and Revenue Bonds Series 2017C	$133,700,952	6/22/2017
Texas Department of Housing and Community Affairs Single Family Series 2016 Issuer Note	$10,000,000	9/28/2016
Texas Higher Education Coordinating Board College Student Loan Bonds Series 2016	$158,065,000	12/13/2016
Texas Public Finance Authority General Obligation Refunding Bonds Series 2017A	$138,615,000	3/29/2017
Texas Public Finance Authority Midwestern State University Revenue Financing System Revenue and Refunding Bonds, Series 2016AB	$84,040,000	9/15/2016
Texas Public Finance Authority State of Texas General Obligation and Refunding Bonds, Taxable Series 2017 (CPRIT)	$375,000,000	2/8/2017
Texas Public Finance Authority State of Texas General Obligation Refunding Bonds (Texas Military Value Revolving Loan Program), Taxable Series 2016	$25,420,000	12/7/2016
Texas Public Finance Authority Texas Southern University Revenue Financing System Revenue Bonds, Series 2016	$55,490,000	9/15/2016
Texas State Affordable Housing Corporation Multifamily Housing Revenue Bonds (Peoples El Shaddai and St. James Manor Apartments Project), Series 2016	$21,300,000	12/7/2016
Texas State Affordable Housing Corporation Multifamily Tax-Exempt Mortgage-Backed Securities (M-TEMS) Series 2017 (FN) (Brooks Manor Apartments)	$4,203,000	7/21/2017
Texas State University System Revenue Financing System Revenue and Refunding Bonds Series 2017A	$425,545,000	1/31/2017
Texas State University System Revenue Financing System Revenue Bonds Series 2017B (Taxable)	$30,980,000	1/31/2017
Texas Tech University System Revenue Financing System Refunding and Improvement Bonds Series 2017A	$79,035,000	2/22/2017
Texas Tech University System Revenue Financing System Refunding and Improvement Bonds, Taxable Series 2017B	$295,700,000	2/22/2017
Texas Transportation Commission General Obligation Mobility Fund Refunding Bonds, Series 2017A and Series 2017B	$770,155,000	2/1/2017
Texas Transportation Commission Grand Parkway Transportation Corporation Subordinate Tier Toll Revenue Refunding Bonds, Series 2016 (TELA Supported)	$83,775,000	12/7/2016
Texas Transportation Commission Highway Improvement General Obligation Bonds Series 2016A	$588,755,000	11/2/2016
Texas Transportation Commission State Highway Fund First Tier Revenue Bonds Series 2016A and First Tier Revenue Refunding Put Bonds Series 2016B	$690,580,000	10/26/2016
Texas Transportation Commission Toll Revenue Converting Note (IH 35E Managed Lane Project) TIFIA Loan	$285,000,000	11/3/2016
Texas Veterans Land Board State of Texas Veterans Bonds, Series 2017	$250,000,000	1/19/2017
Texas Water Development Board State of Texas General Obligation Bonds, Water Financial Assistance Bonds, Series 2017ABC	$88,870,000	6/20/2017
Texas Water Development Board State Water Implementation Revenue Fund for Texas Revenue Bonds Series 2016 (Master Trust)	$600,065,000	10/13/2016

Issuance Name	Par Amount	Closing Date
Texas Woman's University Revenue Financing System Bonds, Series 2017AB	$83,155,000	5/23/2017
University of Houston System Consolidated Revenue and Refunding Bonds Series 2017A	$379,450,000	2/16/2017
University of Houston System Consolidated Revenue and Refunding Bonds, Series 2017B (Taxable)	$11,635,000	2/16/2017
University of North Texas System Revenue Financing System Refunding and Improvement Bonds, Series 2017A	$196,165,000	1/31/2017
University of North Texas System Revenue Financing System Refunding and Improvement Bonds, Series 2017B (Taxable)	$164,305,000	1/31/2017
University of Texas System Permanent University Fund Bonds, Series 2016B	$272,350,000	9/1/2016
University of Texas System Revenue Financing System Bonds Series 2016F	$376,030,000	9/1/2016
University of Texas System Revenue Financing System Bonds, Series 2016J	$306,925,000	1/4/2017
University of Texas System Revenue Financing System Refunding Bonds Series 2016H	$233,350,000	11/17/2016
University of Texas System Revenue Financing System Refunding Bonds Series 2016I	$184,725,000	11/30/2016
University of Texas System Revenue Financing System Taxable Bonds Series 2016G (VRDO)	$250,000,000	9/15/2016
Total	**$8,646,638,952**	

Issuer **Stephen F. Austin State University**

Issuance Revenue Financing System Revenue Refunding and Improvement Bonds, Series 2016

Purpose Proceeds of the Bonds will be used for (i) refunding certain outstanding obligations of the Board heretofore issued by the Texas Public Finance Authority (the "Authority") on behalf of the University (ii) acquiring, purchasing, constructing, improving, renovating, enlarging or equipping property and facilities, including roads and related infrastructure, for a science, technology, engineering and mathematics research building at the University (the "Tuition Revenue Bond Project") and (iii) paying the costs of issuance associated with the Bonds.

Actual Par $61,205,000
Sale Type Negotiated
Sale Date 9/7/2016
Closing Date 9/29/2016

Series Name	TIC	NIC	Is Variable
RFS Rev Ref and Improvement Bonds, Series 2016	2.51%	2.84%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.16
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$49,141	0.80
Escrow Agent	Wilmington Trust, NA	NO	$500	0.01
Escrow Verification	Causey Demgen & Moore, PC	NO	$2,450	0.04
Financial Advisor	First Southwest Co., LLC	NO	$76,553	1.25
Miscellaneous		NO	$1,096	0.02
Miscellaneous	Wells Fargo Bank, NA	NO	$1,000	0.02
Paying Agent/Registrar	Wilmington Trust, NA	NO	$4,000	0.07
Printing	iDeal	NO	$3,760	0.06
	Total		**$148,000**	**2.42**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA-	$40,000	0.65
Rating Fee	Moody's	A1	$52,000	0.85
		Total	**$92,000**	**1.50**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$50,730	0.83
Takedown	$219,303	3.58
Total	**$270,033**	**4.41**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Locke Lord, LLP	NO	$40,000	0.65	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
JP Morgan Securities, Inc.	NO	50.00%			50.00%	$109,652
Raymond James & Assoc., Inc.	NO	25.00%			25.00%	$54,826
Hutchinson Shockey Erley & Co.	NO	25.00%			25.00%	$54,826
		Total			**100%**	**$219,304**

Issuer **Texas A&M University System**

Issuance Revenue Financing System Revenue Bonds, Series 2017A (Taxable)

Purpose The proceeds from the sale of the Bonds will be used for the purpose of providing construction funds for projects for participants within the A&M System, refunding a portion ($5,000,000) of the Board's outstanding commercial paper notes and paying the cost of issuance.

Actual Par $388,705,000
Sale Type Negotiated
Sale Date 1/10/2017
Closing Date 1/31/2017

Series Name	TIC	NIC	Is Variable
RFS Rev Bonds, Series 2017A (Taxable)	3.17%	3.18%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.02
Bond Counsel	Andrews Kurth Kenyon, LLP	NO	$126,000	0.32
Disclosure Counsel	Andrews Kurth Kenyon, LLP	NO	$30,000	0.08
Financial Advisor	First Southwest Co., LLC	NO	$195,353	0.50
Miscellaneous		NO	$50,016	0.13
Paying Agent/Registrar	Amegy Bank, NA	NO	$2,500	0.01
Printing	First Southwest Co., LLC	NO	$3,760	0.01
	Total		**$417,129**	**1.07**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$80,000	0.21
Rating Fee	Moody's	Aaa	$101,500	0.26
Rating Fee	S&P	AAA	$98,060	0.25
		Total	**$279,560**	**0.72**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$112,561	0.29
Takedown	$1,035,751	2.66
Total	**$1,148,312**	**2.95**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Kassahn & Ortiz, PC	NO	$40,814	0.11	Yes
Underwriter's Counsel	Norton Rose Fulbright US, LLP	NO	$17,492	0.05	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Citigroup Global Markets, Inc.	NO	40.00%			40.00%	$414,300
Cabrera Capital Markets, LLC	**HA**	10.00%			10.00%	$103,575
Stern Brothers & Co.	**WO**	10.00%			10.00%	$103,575
Mischler Financial Group, Inc.	NO	10.00%			10.00%	$103,575
Fidelity Capital Markets	NO	10.00%			10.00%	$103,575
SAMCO Capital Markets, Inc.	NO	10.00%			10.00%	$103,575
Jefferies & Co., Inc.	NO	10.00%			10.00%	$103,575
		Total			**100%**	**$1,035,750**

Issuer **Texas A&M University System**

Issuance Revenue Financing System Revenue Bonds, Series 2017B (Taxable)

Purpose Proceeds of the Ser 2017B Bonds will be used to (i) provide construction funds for projects for participants within the A&M System (ii) refund a portion of the RFS Bonds Ser 2010A in the amount of $4,580,000 and a portion of the RFS Bonds Ser 2010B in the amount of $10,890,000 and paying cost of issuing the Series 2017B bonds.

Actual Par $398,670,000
Sale Type Negotiated
Sale Date 6/6/2017
Closing Date 6/21/2017

Series Name	TIC	NIC	Is Variable
RFS Rev Bonds, Series 2017B (Taxable)	2.85%	2.87%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.02
Bond Counsel	Andrews Kurth Kenyon, LLP	NO	$101,256	0.25
Disclosure Counsel	Andrews Kurth Kenyon, LLP	NO	$24,108	0.06
Escrow Agent	Amegy Bank, NA	NO	$1,350	0.00
Escrow Verification	Causey Demgen & Moore, PC	NO	$2,813	0.01
Financial Advisor	Hilltop Securities, Inc.	NO	$199,576	0.50
Miscellaneous	BOK Financial Securities, Inc.	NO	$300	0.00
Paying Agent/Registrar	Amegy Bank, NA	NO	$2,500	0.01
Printing	ImageMaster, LLC	NO	$611	0.00
Printing	ImageMaster, LLC	NO	$2,009	0.01
Travel		NO	$10,350	0.03
		Total	**$354,373**	**0.89**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$0	0.00
Rating Fee	Moody's	Aaa	$79,206	0.20
Rating Fee	S&P	AAA	$91,210	0.23
		Total	**$170,416**	**0.43**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$110,017	0.28
Takedown	$1,155,144	2.90
Total	**$1,265,161**	**3.17**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Co-Underwriter's Counsel	Bates & Coleman, PC	**BA**	$18,081	0.05	Yes
Underwriter's Counsel	Orrick Herrington & Sutcliffe, LLP	NO	$42,190	0.11	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Bank of America Merrill Lynch	NO	40.00%			40.00%	$462,058
William Blair & Co., LLC	NO	10.00%			10.00%	$115,514
Stifel Nicolaus & Co., Inc.	NO	10.00%			10.00%	$115,514

Piper Jaffray & Co.	NO	10.00%			10.00%	$115,514
Frost Bank	NO	10.00%			10.00%	$115,514
BOK Financial Securities, Inc.	NO	10.00%			10.00%	$115,514
BNY Mellon Capital Markets	NO	10.00%			10.00%	$115,514
		Total			**100%**	**$1,155,142**

Issuer **Texas A&M University System**

Issuance Revenue Financing System Revenue Bonds, Series 2017C

Purpose Proceeds used to (i) refund a portion of the RFS Ser 2010A in the amount of $35,915,000 and (ii) a portion of the RFS Ser 2010B in the amount of $69,965,000

Actual Par $97,425,000
Sale Type Negotiated
Sale Date 6/6/2017
Closing Date 6/21/2017

Series Name	TIC	NIC	Is Variable
RFS Rev Bonds, Series 2017C	2.51%	2.86%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.10
Bond Counsel	Andrews Kurth Kenyon, LLP	NO	$24,744	0.25
Disclosure Counsel	Andrews Kurth Kenyon, LLP	NO	$5,892	0.06
Escrow Agent	Amegy Bank, NA	NO	$1,350	0.01
Escrow Verification	Causey Demgen & Moore, PC	NO	$687	0.01
Financial Advisor	Hilltop Securities, Inc.	NO	$48,771	0.50
Miscellaneous		NO	$300	0.00
Paying Agent/Registrar	Amegy Bank, NA	NO	$2,500	0.03
Printing	ImageMaster, LLC	NO	$149	0.00
Printing	ImageMaster, LLC	NO	$491	0.01
	Total		**$94,384**	**0.97**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$0	0.00
Rating Fee	Moody's	Aaa	$23,794	0.24
Rating Fee	S&P	AAA	$22,290	0.23
		Total	**$46,084**	**0.47**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$26,886	0.28
Takedown	$308,344	3.16
Total	**$335,230**	**3.44**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Co-Underwriter's Counsel	Bates & Coleman, PC	**BA**	$4,419	0.05	Yes
Underwriter's Counsel	Orrick Herrington & Sutcliffe, LLP	NO	$10,310	0.11	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Bank of America Merrill Lynch	NO	40.00%			40.00%	$123,338
William Blair & Co., LLC	NO	10.00%			10.00%	$30,834
Stifel Nicolaus & Co., Inc.	NO	10.00%			10.00%	$30,834
Piper Jaffray & Co.	NO	10.00%			10.00%	$30,834
Frost Bank	NO	10.00%			10.00%	$30,834

BOK Financial Securities, Inc.	NO	10.00%			10.00%	$30,834
BNY Mellon Capital Markets	NO	10.00%			10.00%	$30,834
		Total			**100%**	**$308,342**

Issuer **Texas Department of Housing and Community Affairs Multifamily**

Issuance Multifamily Housing Revenue Bonds (Pass-Through-Skyline Place Apartments), Series 2016

Purpose The Bonds are being issued by the Issuer to finance the cost of the acquisition and rehabilitation of a 318-unit residential rental housing development known as Skyline Place Apartments in Dallas, Texas and pay certain additional costs.

Actual Par $18,750,000
Sale Type Negotiated
Sale Date 9/9/2016
Closing Date 9/15/2016

Series Name	TIC	NIC	Is Variable
Multifamily Housing Rev Bonds (Pass-Through-Skyline Place Apartments), Series 2	2.64%	2.63%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.51
Bond Counsel	Bracewell, LLP	NO	$90,000	4.80
Co-Financial Advisor	Kipling Jones & Co., Ltd.	**BA**	$5,000	0.27
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$6,500	0.35
Financial Advisor	George K Baum & Co.	NO	$35,000	1.87
Issuer Fees	Texas Department of Housing & Community Affairs	NO	$188,441	10.05
Printing	ImageMaster, LLC	NO	$2,000	0.11
Private Activity Fee		NO	$9,750	0.52
Trustee	Wilmington Trust, NA	NO	$6,000	0.32
Trustee Counsel	Petruska & Assoc., LLC	NO	$7,000	0.37
	Total		**$359,191**	**19.16**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa	$23,000	1.23
		Total	**$23,000**	**1.23**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$123,750	6.60
Total	**$123,750**	**6.60**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Eichner Norris & Neumann, PLLC	NO	$35,000	1.87	No

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Red Capital Markets, LLC	NO	100.00%	100.00%	$123,750		
		Total	**100%**	**$123,750**		

Issuer **Texas Department of Housing and Community Affairs Multifamily**

Issuance Multifamily Note (Mercantile Apartments) Series 2016

Purpose The proceeds of the Note will be used for the development of Mercantile Apartments, a 324-unit, new construction residential rental property located in Fort Worth.

Actual Par $29,500,000
Sale Type Private Placement
Sale Date 9/30/2016
Closing Date 9/30/2016

Series Name	TIC	NIC	Is Variable
Multifamily Note (Mercantile Apartments) Series 2016	4.56%	4.52%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.32
Bond Counsel	Bracewell, LLP	NO	$175,000	5.93
Co-Financial Advisor	Kipling Jones & Co., Ltd.	**BA**	$5,000	0.17
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$6,500	0.22
Financial Advisor	George K Baum & Co.	NO	$35,000	1.19
Issuer Fees	Texas Department of Housing & Community Affairs	NO	$284,457	9.64
Private Activity Fee	Bond Review Board	NO	$7,556	0.26
Trustee	Bank of Texas, NA	NO	$5,500	0.19
Trustee Counsel	Naman Howell Smith & Lee, PLLC	NO	$9,500	0.32
	Total		**$538,013**	**18.24**

Issuer **Texas Department of Housing and Community Affairs Single Family**

Issuance Revenue Bonds Series 2017A, Refunding Bonds Series 2017B and Revenue Bonds Series 2017C

Purpose The Series A Bonds will be deposited to the 2017A Mortgage Loan Account of the Mortgage Loan Fund and used to purchase 2017A Mortgage Certificates and pay a portion of the cost of issuance of the Series A Bonds. The series B bonds will be applied to refund and redeem the refunded bonds. The Series C Bonds will be deposited to the 2017C Mortgage Loan Account of the Mortgage Loan Fund and used to purchase 2017C Mortgage Certificates, and pay a portion of the costs of issuance of the Series C Bonds

Actual Par $133,700,952
Sale Type Negotiated
Sale Date 6/8/2017
Closing Date 6/22/2017

Series Name	TIC	NIC	Is Variable
Ref Bonds Ser 2017B	2.75%	2.75%	No
Rev Bonds Ser 2017A	2.79%	2.80%	No
Rev Bonds Ser 2017C	3.10%	3.10%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$28,500	0.21
Bond Counsel	Bracewell, LLP	NO	$225,323	1.69
Co-Disclosure Counsel	Mahomes Bolden, PC	**BA**	$12,500	0.09
Co-Financial Advisor	Kipling Jones & Co., Ltd.	NO	$25,000	0.19
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$38,937	0.29
Escrow Agent	Bank of New York	NO	$750	0.01
Financial Advisor	George K Baum & Co.	NO	$133,701	1.00
Financial Advisor	George K Baum & Co.	NO	$200,551	1.50
Miscellaneous	Causey Demgen & Moore, PC	NO	$7,000	0.05
Printing	ImageMaster, LLC	NO	$2,177	0.02
Private Activity Fee		NO	$25,500	0.19
Trustee	Bank of New York	NO	$9,000	0.07
Trustee Counsel	McGuire Craddock & Strother, PC	NO	$20,000	0.15
		Total	**$728,938**	**5.45**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aa1	$76,500	0.57
Rating Fee	S&P	AA+	$66,000	0.49
		Total	**$142,500**	**1.07**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$133,701	1.00
Spread Expenses	$64,578	0.48
Takedown	$668,505	5.00
Total	**$866,784**	**6.48**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Chapman & Cutler, LLP	NO	$50,000	0.37	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Ramirez & Co., Inc.	**HA**	50.00%	100.00%	$133,701	50.00%	$334,253
RBC Capital Markets	NO	25.00%			25.00%	$167,126
Jefferies & Co., Inc.	NO	25.00%			25.00%	$167,126
		Total	**100%**	**$133,701**	**100%**	**$668,505**

Issuer **Texas Department of Housing and Community Affairs Single Family**

Issuance Series 2016 Issuer Note

Purpose Proceeds of the Note will be used to make and acquire second lien mortgage loans to qualifying borrowers in the Department's RMRB Program in order to provide down payment and closing cost assistance to such borrowers.

Actual Par $10,000,000
Sale Type Private Placement
Sale Date 9/8/2016
Closing Date 9/28/2016

Series Name	TIC	NIC	Is Variable
Series 2016 Issuer Note	1.00%	1.00%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.95
Bond Counsel	Bracewell, LLP	NO	$34,583	3.46
Financial Advisor	George K Baum & Co.	NO	$17,500	1.75
	Total		**$61,583**	**6.16**

Issuer **Texas Higher Education Coordinating Board**

Issuance College Student Loan Bonds Series 2016

Purpose Proceeds from the sale of the bonds will be used to fund an ongoing student loan program which provides low interest loans to eligible students at institutions of higher education in the State.

Actual Par $158,065,000
Sale Type Competitive
Sale Date 12/1/2016
Closing Date 12/13/2016

Series Name	TIC	NIC	Is Variable
College Student Loan Bonds Ser 2016	4.11%	4.44%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$107,225	0.68
Escrow Agent	Wells Fargo Bank, NA	NO	$1,000	0.01
Financial Advisor	First Southwest Co., LLC	NO	$79,033	0.50
Paying Agent/Registrar	Wells Fargo Bank, NA	NO	$1,000	0.01
	Total		**$188,258**	**1.19**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa	$33,250	0.21
Rating Fee	S&P	AAA	$20,000	0.13
		Total	**$53,250**	**0.34**

Fee Name	Actual Fee	$ Per 1000
Takedown	$1,136,645	7.19
Total	**$1,136,645**	**7.19**

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Citigroup Global Markets, Inc.	NO	100.00%			100.00%	$1,136,645
		Total			**100%**	**$1,136,645**

Issuer **Texas Public Finance Authority**

Issuance General Obligation Refunding Bonds Series 2017A

Purpose Refund certain outstanding GO CP notes in the amount of $156,210,000 issued by TPFA and pay cost of issuance.

Actual Par $138,615,000
Sale Type Negotiated
Sale Date 3/9/2017
Closing Date 3/29/2017

Series Name	TIC	NIC	Is Variable
GO Ref Bonds Series 2017A	3.05%	3.32%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.07
Bond Counsel	Norton Rose Fulbright US, LLP	NO	$120,000	0.87
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$37,993	0.27
Escrow Agent	TTSTC	NO	$502	0.00
Financial Advisor	Coastal Securities, Inc.	NO	$64,007	0.46
Miscellaneous		NO	$8,388	0.06
Printing	ImageMaster, LLC	NO	$977	0.01
	Total		**$241,367**	**1.74**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa	$38,250	0.28
Rating Fee	S&P	AAA	$25,000	0.18
		Total	**$63,250**	**0.46**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$59,385	0.43
Takedown	$408,539	2.95
Total	**$467,924**	**3.38**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Mahomes Bolden Warren Sigmon, PC	**BA**	$38,000	0.27	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
RBC Capital Markets	NO	45.00%			45.00%	$149,143
Piper Jaffray & Co.	NO	25.00%			25.00%	$82,962
Siebert Cisneros Shank & Co., LLC	**BA**	10.00%			11.00%	$36,455
Loop Capital Markets, LLC	**BA**	10.00%			9.86%	$32,665
Ramirez & Co., Inc.	**HA**	10.00%			9.11%	$30,203
		Total			**100%**	**$331,428**

Issuer **Texas Public Finance Authority**

Issuance Midwestern State University Revenue Financing System Revenue and Refunding Bonds, Series 2016AB

Purpose The proceeds from the sale of the bonds will be used for the purpose of (i) acquiring, purchasing, constructing, improving, renovating, enlarging and/or equipping property, buildings, structures, facilities, roads or related infrastructure for an academic expansion and revitalization; (ii) refunding certain outstanding Parity Obligations and (iii) paying the costs related to issuing the bonds.

Actual Par $84,040,000
Sale Type Negotiated
Sale Date 8/25/2016
Closing Date 9/15/2016

Series Name	TIC	NIC	Is Variable
Midwestern State University RFS Rev and Ref Bonds, Series 2016A	2.60%	2.86%	No
Midwestern State University RFS Rev and Ref Bonds, Series 2016B	3.04%	3.07%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$19,000	0.23
Bond Counsel	Andrews Kurth, LLP	NO	$50,000	0.60
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$37,251	0.44
Escrow Agent	Wilmington Trust, NA	NO	$3,800	0.05
Escrow Verification	Grant Thornton, LLP	NO	$5,000	0.06
Financial Advisor	First Southwest Co., LLC	NO	$82,070	0.98
Printing	Financial Printing Resources, Inc.	NO	$298	0.00
Travel		NO	$4,633	0.06
		Total	**$202,052**	**2.40**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA-	$50,000	0.60
Rating Fee	Moody's	A1	$60,000	0.71
		Total	**$110,000**	**1.31**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$21,675	0.26
Spread Expenses	$52,701	0.63
Structuring Fee	$7,000	0.08
Takedown	$320,346	3.81
Total	**$401,722**	**4.78**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Winstead Sechrest & Minick, PC	NO	$25,212	0.30	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Loop Capital Markets, LLC	**BA**	40.00%	100.00%	$21,675	52.07%	$166,807
RBC Capital Markets	NO	30.00%	0.00%	$0	24.36%	$78,044
Raymond James & Assoc., Inc.	NO	30.00%	0.00%	$0	23.57%	$75,496
		Total	**100%**	**$21,675**	**100%**	**$320,347**

Issuer **Texas Public Finance Authority**

Issuance State of Texas General Obligation and Refunding Bonds, Taxable Series 2017 (CPRIT)

Purpose Proceeds of the Bonds will be used (i) by the Cancer Prevention and Research Institute of Texas ("CPRIT") to make grants for cancer research and prevention and pay for the operation of CPRIT, as authorized by the Constitutional Provision, (ii) to refund certain outstanding general obligation commercial paper notes of the State issued by the Authority (the "Refunded Notes") for CPRIT and (iii) to pay the costs of issuing the Bonds.

Actual Par $375,000,000
Sale Type Negotiated
Sale Date 1/25/2017
Closing Date 2/8/2017

Series Name	TIC	NIC	Is Variable
State of Texas GO and Ref Bonds, Taxable Series 2017 (CPRIT)	3.47%	3.50%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$44,546	0.12
Disclosure Counsel	Andrews Kurth Kenyon, LLP	NO	$31,896	0.09
Escrow Agent	TTSTC	NO	$501	0.00
Financial Advisor	Coastal Securities, Inc.	NO	$60,133	0.16
Miscellaneous		NO	$3,259	0.01
Printing	ImageMaster, LLC	NO	$1,026	0.00
		Total	**$150,861**	**0.40**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa	$64,000	0.17
Rating Fee	S&P	AAA	$33,037	0.09
		Total	**$97,037**	**0.26**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$30,000	0.08
Spread Expenses	$81,968	0.22
Takedown	$1,251,562	3.34
Total	**$1,363,530**	**3.64**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Bracewell, LLP	NO	$40,000	0.11	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Jefferies & Co., Inc.	NO	45.00%		$30,000	44.73%	$559,828
Citigroup Global Markets, Inc.	NO	25.00%			18.05%	$225,867
Raymond James & Assoc., Inc.	NO	7.50%			16.87%	$211,200
Mesirow Financial, Inc.	NO	7.50%			9.53%	$119,336
Estrada Hinojosa & Co., Inc.	**HA**	7.50%			5.47%	$68,478
Academy Securities	**DV**	7.50%			5.34%	$66,853
		Total		**$30,000**	**100%**	**$1,251,562**

Issuer **Texas Public Finance Authority**

Issuance State of Texas General Obligation Refunding Bonds (Texas Military Value Revolving Loan Program), Taxable Serie

Purpose The bonds are being issued for the purpose of (i) refunding GO Bonds Ser 2017B Taxable (Texas Military Value Revolving Loan Program) and pay cost of issuance.

Actual Par $25,420,000
Sale Type Negotiated
Sale Date 11/17/2016
Closing Date 12/7/2016

Series Name	TIC	NIC	Is Variable
State of Texas GO Ref Bonds (Texas Military Value Revolving Loan Program), Tax	3.18%	3.23%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.37
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$55,000	2.16
Disclosure Counsel	Escamilla & Poneck, LLP	**HA**	$40,030	1.57
Escrow Agent	TTSTC	NO	$500	0.02
Financial Advisor	First Southwest Co., LLC	NO	$33,369	1.31
Miscellaneous		NO	$3,584	0.14
Printing	Financial Printing Resources, Inc.	NO	$774	0.03
	Total		**$142,757**	**5.62**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa	$18,730	0.74
Rating Fee	S&P	AAA	$20,062	0.79
		Total	**$38,792**	**1.53**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$12,710	0.50
Spread Expenses	$20,971	0.83
Takedown	$95,400	3.75
Total	**$129,081**	**5.08**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Norton Rose Fulbright US, LLP	NO	$15,000	0.59	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
SAMCO Capital Markets, Inc.	NO	50.00%	100.00%	$12,710	47.67%	$45,473
Ramirez & Co., Inc.	**HA**	25.00%			30.10%	$28,717
Stifel Nicolaus & Co., Inc.	NO	25.00%			22.23%	$21,209
		Total	**100%**	**$12,710**	**100%**	**$95,399**

Issuer **Texas Public Finance Authority**

Issuance Texas Southern University Revenue Financing System Revenue Bonds, Series 2016

Purpose The proceeds from the sale of the Bonds will be used for the purpose of (i) acquiring, purchasing, constructing, improving, renovating, enlarging or equipping property and facilities, including roads and related infrastructure, for the Robert J. Terry Library on the University's campus in Houston, Texas, and (ii) paying the costs of issuance of the Bonds.

Actual Par $55,490,000
Sale Type Negotiated
Sale Date 8/23/2016
Closing Date 9/15/2016

Series Name	TIC	NIC	Is Variable
Texas Southern University RFS Rev Bonds, Series 2016	2.84%	3.01%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.17
Bond Counsel	Winstead, PC	NO	$70,000	1.26
Bond Insurance Fee	BAM Insured	NO	$923,238	16.64
Co-Bond Counsel	Mahomes Bolden, PC	**BA**	$25,000	0.45
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$55,000	0.99
Financial Advisor	First Southwest Co., LLC	NO	$50,000	0.90
Paying Agent/Registrar	US Bank, NA	NO	$500	0.01
Printing	ImageMaster, LLC	NO	$1,545	0.03
Travel		NO	$2,556	0.05
	Total		**$1,137,339**	**20.50**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	BBB	$35,000	0.63
Rating Fee	Moody's	Baa3	$52,000	0.94
Rating Fee	S&P	AA	$0	0.00
		Total	**$87,000**	**1.57**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$16,647	0.30
Spread Expenses	$40,585	0.73
Takedown	$250,094	4.51
Total	**$307,326**	**5.54**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Greenberg Traurig, LLP	NO	$27,745	0.50	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Mesirow Financial, Inc.	NO	50.00%	100.00%	$16,647	54.26%	$135,703
RBC Capital Markets	NO	25.00%			24.60%	$61,533
Siebert Cisneros Shank & Co., LLC	**BA**	25.00%			21.14%	$52,858
		Total	**100%**	**$16,647**	**100%**	**$250,094**

Issuer **Texas State Affordable Housing Corporation Multifamily**

Issuance Multifamily Housing Revenue Bonds (Peoples El Shaddai and St. James Manor Apartments Project), Series 2016

Purpose The proceeds of the bonds will be used for the acquisition and rehabilitation of People's El Shaddai and St. James Manor (the Properties), both a 100-unit general population development originally constructed in 1970 and 1969, respectively, and located in the City of Dallas, Dallas.

Actual Par $21,300,000
Sale Type Private Placement
Sale Date 12/7/2016
Closing Date 12/7/2016

Series Name	TIC	NIC	Is Variable
Multifamily Housing Rev Bonds (Peoples El Shaddai & St. James Manor Apartmen	5.09%	5.09%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.45
Bond Counsel	Norton Rose Fulbright US, LLP	NO	$90,000	4.23
Financial Advisor	Hilltop Securities, Inc.	NO	$62,600	2.94
Issuer Counsel	Mahomes Bolden, PC	**BA**	$26,040	1.22
Issuer Fees	Texas State Affordable Housing Corp.	NO	$31,800	1.49
Private Activity Fee	Bond Review Board	NO	$28,775	1.35
Private Placement Fee	R4 Capital	NO	$213,000	10.00
Trustee	Wilmington Trust, NA	NO	$5,500	0.26
Trustee Counsel	Bracewell, LLP	NO	$6,000	0.28
	Total		**$473,215**	**22.22**

Issuer **Texas State Affordable Housing Corporation Multifamily**

Issuance Multifamily Tax-Exempt Mortgage-Backed Securities (M-TEMS) Series 2017 (FN) (Brooks Manor Apartments)

Purpose Brooks Manor Apartments, a 50-unit residential rental housing facility consisting of 10 residential buildings and one non-residential building located at 444 Jefferson Street, West Columbia, Texas 77486.

Actual Par $4,203,000
Sale Type Negotiated
Sale Date 7/18/2017
Closing Date 7/21/2017

Series Name	TIC	NIC	Is Variable
Multifamily Tax-Exempt Mortgage-Backed Securities (M-TEMS) Ser 2017 (FN) (Br	4.19%	4.19%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$4,203	1.00
Bond Counsel	Norton Rose Fulbright US, LLP	NO	$70,000	16.65
Issuer Counsel	Mahomes Bolden, PC	**BA**	$15,000	3.57
Issuer Fees	Texas State Affordable Housing Corp.	NO	$26,500	6.31
Private Activity Fee		NO	$6,250	1.49
Private Placement Fee	Stifel Nicolaus & Co., Inc.	NO	$47,030	11.19
TEFRA Notice		NO	$2,349	0.56
Trustee	BOKF, NA	NO	$6,500	1.55
Trustee Counsel	Naman Howell Smith & Lee, PLLC	NO	$6,000	1.43
	Total		**$183,832**	**43.74**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Eichner Norris & Neumann, PLLC	NO	$35,000	8.33	No

Issuer **Texas State University System**

Issuance Revenue Financing System Revenue and Refunding Bonds Series 2017A

Purpose Acquiring, constructing, improving certain members of the revenue financing system, refunding a portion of the Ser 2008 and 2009 bonds and paying cost of issuance.

Actual Par $425,545,000
Sale Type Negotiated
Sale Date 1/6/2017
Closing Date 1/31/2017

Series Name	TIC	NIC	Is Variable
RFS Rev and Ref Bonds Ser 2017A	2.94%	3.27%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.02
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$160,611	0.38
Escrow Agent	Amegy Bank, NA	NO	$2,000	0.00
Escrow Verification	Grant Thornton, LLP	NO	$4,000	0.01
Financial Advisor	First Southwest Co., LLC	NO	$268,762	0.63
Miscellaneous		NO	$3,262	0.01
Miscellaneous		NO	$8,982	0.02
Miscellaneous	The Bank of New York Mellon Trust Co.	NO	$600	0.00
Paying Agent/Registrar	Amegy Bank, NA	NO	$3,000	0.01
Printing	ImageMaster, LLC	NO	$1,123	0.00
	Total		**$461,840**	**1.09**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA	$107,196	0.25
Rating Fee	Moody's	Aa2	$113,721	0.27
		Total	**$220,917**	**0.52**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$182,834	0.43
Takedown	$1,197,895	2.82
Total	**$1,380,729**	**3.24**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Norton Rose Fulbright US, LLP	NO	$127,664	0.30	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Barclays Capital, Inc.	NO				44.26%	$530,162
Citigroup Global Markets, Inc.	NO				14.87%	$178,184
Piper Jaffray & Co.	NO				13.57%	$162,574
Morgan Stanley & Co., Inc.	NO				13.48%	$161,420
Ramirez & Co., Inc.	**HA**				11.65%	$139,530
Frost Bank	NO				2.17%	$26,026
		Total			**100%**	**$1,197,896**

Issuer **Texas State University System**

Issuance Revenue Financing System Revenue Bonds Series 2017B (Taxable)

Purpose The 2017B bonds are being issued for the purpose of building infrastructure for certain members of the Revenue Financing System and paying certain certain costs of issuance.

Actual Par $30,980,000
Sale Type Negotiated
Sale Date 1/6/2017
Closing Date 1/31/2017

Series Name	TIC	NIC	Is Variable
RFS Rev Bonds Ser 2017B (Taxable)	3.72%	3.74%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.31
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$11,693	0.38
Financial Advisor	First Southwest Co., LLC	NO	$19,566	0.63
Miscellaneous		NO	$238	0.01
Miscellaneous		NO	$8,135	0.26
Paying Agent/Registrar	Amegy Bank, NA	NO	$3,000	0.10
Printing	ImageMaster, LLC	NO	$1,123	0.04
	Total		**$53,255**	**1.72**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA	$7,804	0.25
Rating Fee	Moody's	Aa2	$8,279	0.27
		Total	**$16,083**	**0.52**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$17,758	0.57
Takedown	$92,904	3.00
Total	**$110,662**	**3.57**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Norton Rose Fulbright US, LLP	NO	$9,294	0.30	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Piper Jaffray & Co.	NO				39.75%	$36,928
Estrada Hinojosa & Co., Inc.	**HA**				20.50%	$19,048
Raymond James & Assoc., Inc.	NO				19.87%	$18,464
Barclays Capital, Inc.	NO				19.87%	$18,464
		Total			**100%**	**$92,904**

Issuer **Texas Tech University System**

Issuance Revenue Financing System Refunding and Improvement Bonds Series 2017A

Purpose Building roads, infrastructure and facilities for the University System and refunding $26,480,000 of the RFS CP Notes Ser A and paying cost of issuance of Ser 2017A bonds.

Actual Par $79,035,000
Sale Type Negotiated
Sale Date 1/31/2017
Closing Date 2/22/2017

Series Name	TIC	NIC	Is Variable
RFS Ref and Improvement Bonds Ser 2017A	3.15%	3.46%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.12
Bond Counsel	Norton Rose Fulbright US, LLP	NO	$75,611	0.96
Financial Advisor	First Southwest Co., LLC	NO	$42,681	0.54
Issuer Fees		NO	$633	0.01
Miscellaneous		NO	$1,085	0.01
Paying Agent/Registrar	Amegy Bank, NA	NO	$2,500	0.03
Printing	First Southwest Co., LLC	NO	$738	0.01
	Total		**$132,748**	**1.68**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA+	$23,200	0.29
Rating Fee	Moody's	Aa1	$22,778	0.29
Rating Fee	S&P	AA+	$21,935	0.28
		Total	**$67,913**	**0.86**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$35,970	0.46
Takedown	$239,595	3.03
Total	**$275,565**	**3.49**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth Kenyon, LLP	NO	$17,783	0.23	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Citigroup Global Markets, Inc.	NO	40.00%			54.96%	$131,671
JP Morgan Securities, Inc.	NO	12.00%			10.99%	$26,327
Siebert Cisneros Shank & Co., LLC	**BA**	12.00%			9.36%	$22,418
RBC Capital Markets	NO	12.00%			9.30%	$22,283
Morgan Stanley & Co., Inc.	NO	12.00%			7.89%	$18,896
Raymond James & Assoc., Inc.	NO	12.00%			7.51%	$18,000
		Total			**100%**	**$239,595**

Issuer **Texas Tech University System**

Issuance Revenue Financing System Refunding and Improvement Bonds, Taxable Series 2017B

Purpose Proceeds from the sale fo the bonds will be used for facilities, roads and infrastructure of the University System and refunding $23,854,000 of the outstanding CP Notes, a portion of the Refunding and Improvement Bonds Series 2009 and $3,147,667.15 of Municipal Lease Purchase Agreement dated as of November 8, 2006 by and between Government Capital Corporation and Angelo State University.

Actual Par $295,700,000
Sale Type Negotiated
Sale Date 1/31/2017
Closing Date 2/22/2017

Series Name	TIC	NIC	Is Variable
RFS Ref and Improvement Bonds, Taxable Series 2017B	3.33%	3.36%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	Norton Rose Fulbright US, LLP	NO	$224,909	0.76
Escrow Agent	Amegy Bank, NA	NO	$1,000	0.00
Escrow Verification	Causey Demgen & Moore, PC	NO	$2,750	0.01
Financial Advisor	First Southwest Co., LLC	NO	$159,686	0.54
Issuer Fees		NO	$2,367	0.01
Miscellaneous		NO	$3,526	0.01
Miscellaneous	The Bank of New York Mellon Trust Co.	NO	$300	0.00
Paying Agent/Registrar	Amegy Bank, NA	NO	$2,500	0.01
Printing	First Southwest Co., LLC	NO	$2,762	0.01
	Total		**$409,300**	**1.38**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA+	$86,800	0.29
Rating Fee	Moody's	Aa1	$85,222	0.29
Rating Fee	S&P	AA+	$82,065	0.28
		Total	**$254,087**	**0.86**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$115,884	0.39
Takedown	$821,370	2.78
Total	**$937,254**	**3.17**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth Kenyon, LLP	NO	$66,533	0.23	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Raymond James & Assoc., Inc.	NO	32.00%			35.25%	$289,533
Citigroup Global Markets, Inc.	NO	20.00%			19.07%	$156,635
Siebert Cisneros Shank & Co., LLC	**BA**	12.00%			11.42%	$93,800
RBC Capital Markets	NO	12.00%			11.42%	$93,800

JP Morgan Securities, Inc.	NO	12.00%			11.42%	$93,800
Morgan Stanley & Co., Inc.	NO	12.00%			11.42%	$93,800
		Total			**100%**	**$821,368**

Issuer **Texas Transportation Commission**

Issuance General Obligation Mobility Fund Refunding Bonds, Series 2017A and Series 2017B

Purpose Refund portions of Ser 2006A, Ser 2007 and Ser 2008 to achieve debt service savings, and to pay the costs of issuing the Bonds.

Actual Par $770,155,000
Sale Type Negotiated
Sale Date 1/19/2017
Closing Date 2/1/2017

Series Name	TIC	NIC	Is Variable
GO Mobility Fund Ref Bonds, Series 2017A	3.55%	3.91%	No
GO Mobility Fund Ref Bonds, Series 2017B			No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$19,000	0.02
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$154,793	0.20
Contingency		NO	$11,521	0.02
Disclosure Counsel	Bracewell, LLP	NO	$100,000	0.13
Escrow Agent	US Bank, NA	NO	$250	0.00
Escrow Verification	AMTEC	NO	$1,900	0.00
Financial Advisor	Estrada Hinojosa & Co., Inc.	**HA**	$127,580	0.17
Miscellaneous	Wells Fargo Bank, NA	NO	$1,500	0.00
Paying Agent/Registrar	US Bank, NA	NO	$600	0.00
Printing	ImageMaster, LLC	NO	$1,990	0.00
	Total		**$419,134**	**0.54**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$110,000	0.14
Rating Fee	Moody's	Aaa	$93,500	0.12
Rating Fee	S&P	AAA	$67,774	0.09
		Total	**$271,274**	**0.35**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$170,985	0.22
Takedown	$2,888,081	3.75
Total	**$3,059,066**	**3.97**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Mahomes Bolden, PC	**BA**	$29,406	0.04	Yes
Underwriter's Counsel	Norton Rose Fulbright US, LLP	NO	$47,609	0.06	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Barclays Capital, Inc.	NO	45.00%			62.32%	$1,799,938
Ramirez & Co., Inc.	**HA**	19.00%			9.77%	$282,196
Frost Bank	NO	6.00%			7.06%	$203,895
Bank of America Merrill Lynch	NO	6.00%			6.16%	$177,883

RBC Capital Markets	NO	6.00%			4.80%	$138,653
Goldman Sachs & Co.	NO	6.00%			4.22%	$121,856
Mesirow Financial, Inc.	NO	6.00%			3.04%	$87,805
Blaylock Beal Van, LLC	NO	6.00%			2.45%	$70,662
Fidelity Capital Markets	NO	0.00%			0.15%	$4,444
IFS Securities, Inc.	NO	0.00%			0.03%	$750
UMB Bank, NA	NO	0.00%			0.00%	$0
Mischler Financial Group, Inc.	**VO**	0.00%			0.00%	$0
Drexel Hamilton, LLC	**VO**	0.00%			0.00%	$0
Coastal Securities, Inc.	NO	0.00%			0.00%	$0
Academy Securities	**VO**	0.00%			0.00%	$0
		Total			**100%**	**$2,888,082**

Issuer **Texas Transportation Commission Grand Parkway Transportation Corporation**

Issuance Subordinate Tier Toll Revenue Refunding Bonds, Series 2016 (TELA Supported)

Purpose Proceeds of the Grand Parkway System Subordinate Tier Toll Revenue Refunding Bonds, Series 2016 (TELA Supported) (the Bonds) will be used to: 1) refinance the 2014B Bonds, and 2) pay costs of issuance of the obligations.

Actual Par $83,775,000
Sale Type Private Placement
Sale Date 11/30/2016
Closing Date 12/7/2016

Series Name	TIC	NIC	Is Variable
Subordinate Tier Toll Rev Ref Bonds, Series 2016 (TELA Supported)	2.21%	2.21%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.11
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$123,785	1.48
Financial Advisor	Estrada Hinojosa & Co., Inc.	**HA**	$35,038	0.42
Miscellaneous		NO	$13,178	0.16
Trustee	US Bank, NA	NO	$3,500	0.04
Trustee Counsel	Locke Lord, LLP	NO	$5,000	0.06
	Total		**$190,001**	**2.27**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$35,000	0.42
Total	**$35,000**	**0.42**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Chapman & Cutler, LLP	NO	$35,000	0.42	Yes

Issuer **Texas Transportation Commission**

Issuance Highway Improvement General Obligation Bonds Series 2016A

Purpose Proceeds from the bonds will be used to: 1) pay or reimburse the State Highway Fund for the costs of highway improvement projects, 2) pay: a) the costs of administering the projects, and b) the cost of issuing the Bonds.

Actual Par $588,755,000
Sale Type Negotiated
Sale Date 10/18/2016
Closing Date 11/2/2016

Series Name	TIC	NIC	Is Variable
Highway Improvement GO Bonds Ser 2016A	3.26%	3.67%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.02
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$88,842	0.15
Disclosure Counsel	Bracewell, LLP	NO	$58,876	0.10
Financial Advisor	Estrada Hinojosa & Co., Inc.	**HA**	$101,845	0.17
Miscellaneous		NO	$10,993	0.02
Paying Agent/Registrar	US Bank, NA	NO	$300	0.00
Printing	ImageMaster, LLC	NO	$1,993	0.00
	Total		**$272,349**	**0.46**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$95,000	0.16
Rating Fee	Moody's	Aaa	$110,000	0.19
Rating Fee	S&P	AAA	$51,810	0.09
		Total	**$256,810**	**0.44**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$108,545	0.18
Takedown	$2,080,925	3.53
Total	**$2,189,470**	**3.72**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Co-Underwriter's Counsel	Kassahn & Ortiz, PC	**BA**	$23,550	0.04	Yes
Underwriter's Counsel	Orrick Herrington & Sutcliffe, LLP	NO	$35,325	0.06	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Citigroup Global Markets, Inc.	NO	30.02%			29.68%	$617,521
Wells Fargo Bank, NA	NO	30.02%			29.65%	$616,958
JP Morgan Securities, Inc.	NO	6.66%			10.18%	$211,836
Raymond James & Assoc., Inc.	NO	6.66%			6.83%	$142,215
Jefferies & Co., Inc.	NO	6.66%			6.37%	$132,576
Goldman Sachs & Co.	NO	6.66%			6.33%	$131,735
Loop Capital Markets, LLC	**BA**	6.66%			5.47%	$113,788
Frost Bank	NO	6.66%			5.31%	$110,470

Fidelity Capital Markets	NO	0.00%			0.14%	$2,888
IFS Securities, Inc.	**BA**	0.00%			0.05%	$938
		Total			**100%**	**$2,080,925**

Issuer **Texas Transportation Commission**

Issuance State Highway Fund First Tier Revenue Bonds Series 2016A and First Tier Revenue Refunding Put Bonds Series 20

Purpose The Ser 2016A bonds are being issued to finance State Highway Improvement projects that are eligible for funding with revenues dedicated under Article VIII Section 7-a of the Tx Const. and pay the costs of issuing the bonds. The Ser 2016B bonds are being issued to refund the Ser 2006B variable rate bonds and pay the costs of issuing the bonds.

Actual Par $690,580,000
Sale Type Negotiated
Sale Date 10/6/2016
Closing Date 10/26/2016

Series Name	TIC	NIC	Is Variable
First Tier Rev Ref Put Bonds Ser 2016B			Yes
SHF First Tier Rev Bonds Ser 2016A	1.82%	2.05%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$19,000	0.03
Bond Counsel	Andrews Kurth Kenyon, LLP	NO	$170,242	0.25
Disclosure Counsel	Bracewell, LLP	NO	$110,121	0.16
Financial Advisor	Estrada Hinojosa & Co., Inc.	**HA**	$127,826	0.19
Miscellaneous		NO	$11,092	0.02
Miscellaneous	Wells Fargo Bank, NA	NO	$500	0.00
Paying Agent/Registrar	US Bank, NA	NO	$600	0.00
Printing	ImageMaster, LLC	NO	$3,704	0.01
		Total	**$443,085**	**0.64**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa	$110,000	0.16
Rating Fee	S&P	AAA	$62,652	0.09
		Total	**$172,652**	**0.25**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$190,981	0.28
Takedown	$1,930,479	2.80
Total	**$2,121,460**	**3.07**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Mahomes Bolden, PC	**BA**	$38,500	0.06	Yes
Underwriter's Counsel	Winstead, PC	NO	$71,500	0.10	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Morgan Stanley & Co., Inc.	NO	30.00%			30.68%	$523,654
RBC Capital Markets	NO	30.00%			29.42%	$502,270
Jefferies & Co., Inc.	NO	100.00%			100.00%	$223,425
Bank of America Merrill Lynch	NO	6.67%			10.58%	$180,648
JP Morgan Securities, Inc.	NO	6.67%			8.98%	$153,361

Siebert Cisneros Shank & Co., LLC	**BA**	6.67%			5.72%	$97,589
Piper Jaffray & Co.	NO	6.67%			5.15%	$87,887
Ramirez & Co., Inc.	**HA**	6.67%			4.95%	$84,441
Frost Bank	NO	6.67%			4.41%	$75,230
Fidelity Capital Markets	NO	0.00%			0.12%	$1,974
Mischler Financial Group, Inc.	**DV**	0.00%			0.00%	$0
IFS Securities, Inc.	**BA**	0.00%			0.00%	$0
Drexel Hamilton, LLC	**DV**	0.00%			0.00%	$0
Coastal Securities, Inc.	NO	0.00%			0.00%	$0
Academy Securities	**DV**	0.00%			0.00%	$0
		Total			**200%**	**$1,930,479**

Issuer **Texas Transportation Commission**

Issuance Toll Revenue Converting Note (IH 35E Managed Lane Project) TIFIA Loan

Purpose Proceeds of the Texas Transportation Commission Toll Revenue Converting Note (IH 35 Managed Lanes Project) will be used to: 1) finance a portion of the costs and construction and development of the IH35E improvements, and 2) pay costs of issuance of the Note.

Actual Par $285,000,000
Sale Type Private Placement
Sale Date 11/3/2016
Closing Date 11/3/2016

Series Name	TIC	NIC	Is Variable
Toll Rev Converting Note (IH 35E Managed Lane Project) TIFIA Loan - Mandato			No
Toll Rev Converting Note (IH 35E Managed Lane Project) TIFIA Loan - Schedule			No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$372,935	1.31
Financial Advisor	KPMG, LLP	NO	$648,976	2.28
Miscellaneous		NO	$497,768	1.75
Miscellaneous	Nossaman, LLP	NO	$172,446	0.61
Miscellaneous	TIFIA Joint Program Office	NO	$13,000	0.05
Trustee	Amegy Bank, NA	NO	$5,000	0.02
	Total		**$1,719,625**	**6.03**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	DBRS	BBB	$184,750	0.65
Rating Fee	Fitch	BBB-	$200,000	0.70
		Total	**$384,750**	**1.35**

Issuer **Texas Veterans Land Board**

Issuance State of Texas Veterans Bonds, Series 2017

Purpose The proceeds of the bonds will be used to originate loans to eligible Texas veterans in the Veterans' Housing Assistance Program Fund II.

Actual Par $250,000,000
Sale Type Negotiated
Sale Date 1/18/2017
Closing Date 1/19/2017

Series Name	TIC	NIC	Is Variable
State of Texas Veterans Bonds, Series 2017			Yes

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.04
Bond Counsel	Bracewell & Giuliani, LLP	NO	$125,000	0.50
Co-Bond Counsel	Lannen & Oliver, PC	**BA**	$30,375	0.12
Financial Advisor	George K Baum & Co.	NO	$87,500	0.35
Liquidity Provider's Counsel	Chapman & Cutler, LLP	NO	$25,000	0.10
Liquidity Provider's Foreign Co	Yumoto Ota & Miyazaki	NO	$1,655	0.01
Printing	Island Printing	NO	$1,094	0.00
TEFRA Notice	Bracewell & Giuliani, LLP	NO	$12,500	0.05
	Total		**$292,624**	**1.17**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aaa/VMIG-1	$20,000	0.08
		Total	**$20,000**	**0.08**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$37,000	0.15
Total	**$37,000**	**0.15**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Co-Underwriter's Counsel	Mahomes Bolden, PC	**BA**	$5,000	0.02	Yes
Underwriter's Counsel	Locke Lord, LLP	NO	$25,000	0.10	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Jefferies & Co., Inc.	NO	75.00%			75.00%	$0
Academy Securities	**DV**	25.00%			25.00%	$0
		Total			**100%**	**$0**

Issuer **Texas Water Development Board**

Issuance State of Texas General Obligation Bonds, Water Financial Assistance Bonds, Series 2017ABC

Purpose The Series 2017A bonds will be issued to provide funds for the Water Financial Assistance Account for water assistance projects, a current refund of certain outstanding Water Financial Assistance bonds and to pay costs of issuance. The Series 2017B bonds will be issued to current refund certain outstanding Water Financial Assistance bonds within the EDAP program and to pay costs of issuance. The Series 2017C taxable bonds will be issued to current refund certain outstanding Water Financial Assistance bonds, originally issued for the benefit of rural political subdivisions and to pay costs of issuance.

Actual Par $88,870,000
Sale Type Negotiated
Sale Date 5/16/2017
Closing Date 6/20/2017

Series Name	TIC	NIC	Is Variable
WFA and Ref Bonds, Ser 2017A	3.28%	3.69%	No
WFA Ref Bonds, Ser 2017B (EDAP)	2.52%	2.85%	No
WFA Ref Bonds, Taxable Ser 2017C	3.49%	3.51%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$28,500	0.32
Bond Counsel	Norton Rose Fulbright US, LLP	NO	$50,000	0.56
Disclosure Counsel	Bracewell, LLP	NO	$17,000	0.19
Escrow Agent	The Bank of New York Mellon Trust Co.	NO	$2,250	0.03
Escrow Verification	Grant Thornton, LLP	NO	$3,750	0.04
Financial Advisor	First Southwest Co., LLC	NO	$94,638	1.06
Paying Agent/Registrar	The Bank of New York Mellon Trust Co.	NO	$2,287	0.03
Printing	ImageMaster, LLC	NO	$2,497	0.03
Travel		NO	$1,978	0.02
	Total		**$202,900**	**2.28**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$35,000	0.39
Rating Fee	Moody's	Aaa	$27,200	0.31
Rating Fee	S&P	AAA	$25,000	0.28
		Total	**$87,200**	**0.98**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$43,200	0.49
Takedown	$235,747	2.65
Total	**$278,947**	**3.14**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth Kenyon, LLP	NO	$25,000	0.28	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Estrada Hinojosa & Co., Inc.	**HA**	40.00%			43.76%	$103,157
Raymond James & Assoc., Inc.	NO	20.00%			22.35%	$52,698
Loop Capital Markets, LLC	**BA**	20.00%			17.57%	$41,414
Hutchinson Shockey Erley & Co.	NO	20.00%			16.32%	$38,478
		Total			**100%**	**$235,747**

Issuer **Texas Water Development Board**

Issuance State Water Implementation Revenue Fund for Texas Revenue Bonds Series 2016 (Master Trust)

Purpose Provide funds to finance projects to implement the State Water Plan through the purchase or entering into of bonds, notes, agreements or other evidences of indebtedness purchased from, or entered into with a Political Subdivision to evidence the obligation to repay Political Subdivision Obligations made or incurred pursuant thereto and to pay the costs of issuance of the Bonds. Bank of America Merrill Lynch bought $80,275,000 for its own inventory and did not technically submit a member order and a member allotment.

Actual Par $600,065,000
Sale Type Negotiated
Sale Date 9/20/2016
Closing Date 10/13/2016

Series Name	TIC	NIC	Is Variable
State Water Implementation Rev Fund for Texas Rev Bonds Ser 2016 (Master Trus	3.28%	3.64%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$19,000	0.03
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$51,569	0.09
Disclosure Counsel	Mahomes Bolden, PC	**BA**	$45,193	0.08
Financial Advisor	First Southwest Co., LLC	NO	$227,344	0.38
Miscellaneous		NO	$10,110	0.02
Printing	ImageMaster, LLC	NO	$2,395	0.00
Trustee	The Bank of New York Mellon Trust Co.	NO	$59,692	0.10
		Total	**$415,303**	**0.69**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$145,000	0.24
Rating Fee	S&P	AAA	$115,000	0.19
		Total	**$260,000**	**0.43**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$121,699	0.20
Takedown	$2,136,835	3.56
Total	**$2,258,534**	**3.76**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Locke Lord, LLP	NO	$50,000	0.08	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Bank of America Merrill Lynch	NO	44.00%			51.58%	$1,102,103
Citigroup Global Markets, Inc.	NO	7.00%			9.36%	$199,996
Morgan Stanley & Co., Inc.	NO	7.00%			8.96%	$191,368
RBC Capital Markets	NO	7.00%			8.09%	$172,850
Mesirow Financial, Inc.	NO	7.00%			5.51%	$117,788
BOK Financial Securities, Inc.	NO	7.00%			4.99%	$106,587
Ramirez & Co., Inc.	NO	7.00%			3.99%	$85,181

Coastal Securities, Inc.	NO	7.00%			3.93%	$84,025
SAMCO Capital Markets, Inc.	NO	7.00%			3.60%	$76,938
		Total			**100%**	**$2,136,836**

Issuer **Texas Woman's University**

Issuance Revenue Financing System Bonds, Series 2017AB

Purpose Acquiring, purchasing, constructing, improving, renovating, enlarging or equipping property, buildings, structures, activities, services, operations or other facilities of the University and paying costs of issuance

Actual Par $83,155,000
Sale Type Negotiated
Sale Date 4/25/2017
Closing Date 5/23/2017

Series Name	TIC	NIC	Is Variable
RFS Bonds, Ser 2017A	3.10%	3.39%	No
RFS Bonds, Ser 2017B	3.80%	3.83%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$19,000	0.23
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$60,750	0.73
Financial Advisor	RBC Capital Markets	NO	$151,798	1.83
Miscellaneous		NO	$4,420	0.05
Paying Agent/Registrar	BOK Financial Securities, Inc.	NO	$800	0.01
Printing	Ipreo	NO	$1,950	0.02
	Total		**$238,718**	**2.87**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aa3	$61,000	0.73
		Total	**$61,000**	**0.73**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$62,366	0.75
Spread Expenses	$75,162	0.90
Takedown	$297,736	3.58
Total	**$435,264**	**5.23**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth Kenyon, LLP	NO	$54,051	0.65	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Hilltop Securities, Inc.	NO	50.00%	50.00%	$31,183	50.00%	$148,868
JP Morgan Securities, Inc.	NO	25.00%	25.00%	$15,593	25.00%	$74,434
Raymond James & Assoc., Inc.	NO	25.00%	25.00%	$15,593	25.00%	$74,434
		Total	**100%**	**$62,368**	**100%**	**$297,736**

Issuer **University of Houston System**

Issuance Consolidated Revenue and Refunding Bonds Series 2017A

Purpose Proceeds from the sale of the Bonds will be used to refund and defease certain outstanding notes and bonds of the System, and finance the acquisition, purchase, construction, improvement, enlargement, and equipping of property, buildings, structures, activities, services, operations and other facilities, roads, or related infrastructure for or on behalf of the System, including individual campuses of the System and pay cost of issuance of the bonds.

Actual Par $379,450,000
Sale Type Competitive
Sale Date 1/19/2017
Closing Date 2/16/2017

Series Name	TIC	NIC	Is Variable
Consolidated Rev and Ref Bonds Ser 2017A	3.42%	3.76%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	Andrews Kurth Kenyon, LLP	NO	$206,471	0.54
Escrow Agent	Wells Fargo Bank, NA	NO	$4,500	0.01
Escrow Verification	Grant Thornton, LLP	NO	$4,500	0.01
Financial Advisor	First Southwest Co., LLC	NO	$202,135	0.53
Miscellaneous		NO	$5,000	0.01
Paying Agent/Registrar	Wells Fargo Bank, NA	NO	$2,000	0.01
Printing	First Southwest Co., LLC	NO	$4,851	0.01
	Total		**$438,957**	**1.16**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aa2	$151,500	0.40
Rating Fee	S&P	AA	$100,906	0.27
		Total	**$252,406**	**0.67**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$934,582	2.46
Spread Expenses	$45,534	0.12
Takedown	$2,066,487	5.45
Total	**$3,046,603**	**8.03**

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Bank of America Merrill Lynch	NO	100.00%	100.00%	$934,582	100.00%	$2,066,487
		Total	**100%**	**$934,582**	**100%**	**$2,066,487**

Issuer **University of Houston System**

Issuance Consolidated Revenue and Refunding Bonds, Series 2017B (Taxable)

Purpose Proceeds from the sale of the Bonds will be used to finance the acquisition, purchase, construction, improvement, enlargement, and equipping of property, buildings, structures, activities, services, operations and other facilities, roads, or related infrastructure for or on behalf of the System, including individual campuses of the System and pay cost of issuance of the bonds.

Actual Par $11,635,000
Sale Type Competitive
Sale Date 1/19/2017
Closing Date 2/16/2017

Series Name	TIC	NIC	Is Variable
Consolidated Rev and Ref Bonds, Ser 2017B (Taxable)	3.61%	3.63%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.82
Bond Counsel	Andrews Kurth Kenyon, LLP	NO	$11,216	0.96
Financial Advisor	First Southwest Co., LLC	NO	$50,022	4.30
Miscellaneous		NO	$5,000	0.43
Paying Agent/Registrar	Wells Fargo Bank, NA	NO	$2,000	0.17
Printing	First Southwest Co., LLC	NO	$149	0.01
	Total		**$77,887**	**6.69**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Moody's	Aa2	$4,507	0.39
Rating Fee	S&P	AA	$3,094	0.27
		Total	**$7,601**	**0.65**

Fee Name	Actual Fee	$ Per 1000
Management Fee	$40,198	3.45
Spread Expenses	$9,773	0.84
Takedown	$94,013	8.08
Total	**$143,984**	**12.38**

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Robert W Baird & Co., Inc.	NO	100.00%		$40,198	100.00%	$94,013
		Total		**$40,198**	**100%**	**$94,013**

Issuer University of North Texas System

Issuance Revenue Financing System Refunding and Improvement Bonds, Series 2017A

Purpose The proceeds from the sale of the Series 2017A Bonds will be used for the purposes of 1) acquiring, purchasing, constructing, improving, renovating, enlarging, or equipping property, buildings, structures, facilities, roads, or related infrastructure throughout the University System; 2) refunding a portion of the Board's outstanding Parity Obligations for debt service savings; and 3) refunding a portion ($7,612,814.20) of the Board's outstanding Ser A Commercial Paper Notes; 4) and pay cost of issuance.

Actual Par $196,165,000
Sale Type Negotiated
Sale Date 1/6/2017
Closing Date 1/31/2017

Series Name	TIC	NIC	Is Variable
RFS Ref and Improvement Bonds, Series 2017A	3.11%	3.46%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.05
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$132,235	0.67
Escrow Agent	BOK Financial Securities, Inc.	NO	$1,875	0.01
Escrow Verification	Causey Demgen & Moore, PC	NO	$1,361	0.01
Financial Advisor	First Southwest Co., LLC	NO	$100,070	0.51
Miscellaneous		NO	$2,988	0.02
Miscellaneous		NO	$7,852	0.04
Miscellaneous	The Bank of New York Mellon Trust Co.	NO	$150	0.00
Paying Agent/Registrar	BOK Financial Securities, Inc.	NO	$400	0.00
Printing	ImageMaster, LLC	NO	$1,829	0.01
	Total		**$258,260**	**1.32**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA	$68,024	0.35
Rating Fee	Moody's	Aa2	$82,173	0.42
		Total	**$150,197**	**0.77**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$104,876	0.53
Takedown	$589,163	3.00
Total	**$694,039**	**3.54**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth Kenyon, LLP	NO	$52,297	0.27	Yes
Underwriter's Counsel	Mahomes Bolden, PC	**BA**	$26,149	0.13	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
JP Morgan Securities, Inc.	NO	40.00%			49.93%	$294,191
Bank of America Merrill Lynch	NO	12.00%			15.22%	$89,680
Wells Fargo Bank, NA	NO	12.00%			13.84%	$81,538
Blaylock Beal Van, LLC	**BA**	12.00%			9.43%	$55,556

Raymond James & Assoc., Inc.	NO	12.00%			7.75%	$45,673
Rice Financial Products Co.	**BA**	12.00%			3.82%	$22,526
		Total			**100%**	**$589,164**

Issuer **University of North Texas System**

Issuance Revenue Financing System Refunding and Improvement Bonds, Series 2017B (Taxable)

Purpose The proceeds from the sale of the Series 2017B Bonds will be used for the purpose of 1) aquiring, purchasing, constructing, improving, renovating, enlarging or equipping property, buildings, structures, facilities, roads, or related infrastructure throughout the University System; 2) refunding a portion of the Board's outstanding bonds for debt service savings; and 3) refunding a portion of the Board's outstanding ($14,252,185.80) Series A Commercial Paper; and 4) pay costs of issuance.

Actual Par $164,305,000
Sale Type Negotiated
Sale Date 1/6/2017
Closing Date 1/31/2017

Series Name	TIC	NIC	Is Variable
RFS Ref and Improvement Bonds, Series 2017B (Taxable)	3.46%	3.50%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.06
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$129,611	0.79
Escrow Agent	BOK Financial Securities, Inc.	NO	$1,875	0.01
Escrow Verification	Causey Demgen & Moore, PC	NO	$1,140	0.01
Financial Advisor	First Southwest Co., LLC	NO	$82,157	0.50
Miscellaneous		NO	$1,709	0.01
Miscellaneous	The Bank of New York Mellon Trust Co.	NO	$150	0.00
Paying Agent/Registrar	BOK Financial Securities, Inc.	NO	$400	0.00
Printing	ImageMaster, LLC	NO	$440	0.00
	Total		**$226,982**	**1.38**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AA	$56,976	0.35
Rating Fee	Moody's	Aa2	$68,827	0.42
		Total	**$125,803**	**0.77**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$87,240	0.53
Takedown	$478,545	2.91
Total	**$565,785**	**3.44**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth Kenyon, LLP	NO	$43,815	0.27	Yes
Underwriter's Counsel	Mahomes Bolden, PC	**BA**	$21,907	0.13	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Barclays Capital, Inc.	NO	40.00%			39.38%	$188,440
Citigroup Global Markets, Inc.	NO	15.00%			16.23%	$77,665
FTN Financial Capital Markets	NO	15.00%			15.84%	$75,813
Loop Capital Markets, LLC	**BA**	15.00%			14.80%	$70,813
UMB Bank, NA	NO	15.00%			13.75%	$65,813
		Total			**100%**	**$478,544**

Issuer **University of Texas System**

Issuance Permanent University Fund Bonds, Series 2016B

Purpose Proceeds from the sale of the Bonds, together with other available moneys of the Board, if any, will be used for the purpose of refunding $319,000,000 in aggregate principal amount of the Tax-Exempt CP and pay costs of issuance of the Bonds.

Actual Par $272,350,000
Sale Type Negotiated
Sale Date 8/3/2016
Closing Date 9/1/2016

Series Name	TIC	NIC	Is Variable
PUF Bonds, Ser 2016B	2.82%	3.13%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	Bracewell & Giuliani, LLP	NO	$100,000	0.37
Miscellaneous		NO	$1,144	0.00
Paying Agent/Registrar	US Bank, NA	NO	$3,500	0.01
Printing	ImageMaster, LLC	NO	$1,621	0.01
	Total		**$115,765**	**0.43**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$0	0.00
Rating Fee	Moody's	Aaa	$31,000	0.11
		Total	**$31,000**	**0.11**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$54,362	0.20
Takedown	$894,848	3.29
Total	**$949,210**	**3.49**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth, LLP	NO	$27,500	0.10	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
JP Morgan Securities, Inc.	NO	64.00%			62.70%	$561,071
Barclays Capital, Inc.	NO	6.00%			15.21%	$136,149
Stifel Nicolaus & Co., Inc.	NO	6.00%			11.07%	$99,040
Mesirow Financial, Inc.	NO	6.00%			4.72%	$42,210
Jefferies & Co., Inc.	NO	6.00%			4.54%	$40,613
Academy Securities	**DV**	6.00%			1.65%	$14,734
Blaylock Beal Van, LLC	**BA**	6.00%			0.12%	$1,031
		Total			**100%**	**$894,848**

Issuer **University of Texas System**

Issuance Revenue Financing System Bonds Series 2016F

Purpose The bonds are being issued for the purpose of refunding a portion of the Board's RFS CP Notes Ser A in the aggregate principal amount of $465,019,000 and paying cost of issuance.

Actual Par $376,030,000
Sale Type Negotiated
Sale Date 8/2/2016
Closing Date 9/1/2016

Series Name	TIC	NIC	Is Variable
RFS Bonds Ser 2016F	2.91%	3.39%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$156,947	0.42
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$15,000	0.04
Miscellaneous		NO	$1,105	0.00
Paying Agent/Registrar	Bank of Texas, NA	NO	$3,500	0.01
Printing	ImageMaster, LLC	NO	$1,770	0.00
		Total	**$187,822**	**0.50**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$0	0.00
Rating Fee	Moody's	Aaa	$45,000	0.12
Rating Fee	S&P	AAA	$60,902	0.16
		Total	**$105,902**	**0.28**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$64,805	0.17
Takedown	$2,013,875	5.36
Total	**$2,078,680**	**5.53**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth, LLP	NO	$27,500	0.07	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Morgan Stanley & Co., Inc.	NO	6.00%			40.16%	$808,755
Goldman Sachs & Co.	NO	64.00%			31.21%	$628,625
Bank of America Merrill Lynch	NO	6.00%			17.74%	$357,308
Ramirez & Co., Inc.	**HA**	6.00%			4.03%	$81,234
Frost Bank	NO	6.00%			3.20%	$64,422
Piper Jaffray & Co.	NO	6.00%			3.09%	$62,234
Estrada Hinojosa & Co., Inc.	**HA**	6.00%			0.56%	$11,297
		Total			**100%**	**$2,013,875**

Issuer **University of Texas System**

Issuance Revenue Financing System Bonds, Series 2016J

Purpose The Bonds are being issued for the purpose of (i) financing the costs of campus improvements of certain members of the RFS and paying the costs of issuance of the bonds.

Actual Par $306,925,000
Sale Type Negotiated
Sale Date 11/29/2016
Closing Date 1/4/2017

Series Name	TIC	NIC	Is Variable
RFS Bonds, Series 2016J	2.56%	2.80%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.03
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$128,484	0.42
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$15,000	0.05
Escrow Agent	US Bank, NA	NO	$1,250	0.00
Paying Agent/Registrar	Bank of Texas, NA	NO	$3,000	0.01
Printing	ImageMaster, LLC	NO	$1,796	0.01
	Total		**$159,030**	**0.52**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$30,000	0.10
Rating Fee	Moody's	Aaa	$72,500	0.24
Rating Fee	S&P	AAA	$56,781	0.19
		Total	**$159,281**	**0.52**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$51,473	0.17
Takedown	$731,963	2.38
Total	**$783,436**	**2.55**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth, LLP	NO	$27,500	0.09	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Wells Fargo Bank, NA	NO	60.00%			59.56%	$435,953
Ramirez & Co., Inc.	**HA**	8.00%			14.57%	$106,659
Stifel Nicolaus & Co., Inc.	NO	8.00%			10.96%	$80,251
Hilltop Securities, Inc.	NO	8.00%			7.00%	$51,231
George K Baum & Co.	NO	8.00%			4.68%	$34,276
Estrada Hinojosa & Co., Inc.	**HA**	8.00%			2.11%	$15,456
Fidelity Capital Markets	NO	0.00%			1.11%	$8,138
		Total			**100%**	**$731,963**

Issuer **University of Texas System**

Issuance Revenue Financing System Refunding Bonds Series 2016H

Purpose Refunding Series 2006D and 2006F for savings and paying the cost of issuance of the bonds.

Actual Par $233,350,000
Sale Type Negotiated
Sale Date 8/2/2016
Closing Date 11/17/2016

Series Name	TIC	NIC	Is Variable
RFS Ref Bonds Ser 2016H	2.35%	2.63%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.04
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$109,162	0.47
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$15,000	0.06
Electronic Bidding	Causey Demgen & Moore, PC	NO	$4,000	0.02
Escrow Agent	US Bank, NA	NO	$500	0.00
Escrow Verification	Causey Demgen & Moore, PC	NO	$2,000	0.01
Paying Agent/Registrar	Bank of Texas, NA	NO	$3,200	0.01
Printing	ImageMaster, LLC	NO	$1,788	0.01
	Total		**$145,150**	**0.62**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$0	0.00
Rating Fee	Moody's	Aaa	$28,500	0.12
Rating Fee	S&P	AAA	$43,170	0.19
		Total	**$71,670**	**0.31**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$48,952	0.21
Takedown	$522,968	2.24
Total	**$571,920**	**2.45**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel		NO	$27,500	0.12	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Barclays Capital, Inc.	NO	60.00%			57.30%	$299,658
Raymond James & Assoc., Inc.	NO	8.00%			16.08%	$84,071
Loop Capital Markets, LLC	**BA**	8.00%			11.44%	$59,841
Frost Bank	NO	8.00%			6.92%	$36,174
Fidelity Capital Markets	NO	8.00%			6.88%	$35,966
Estrada Hinojosa & Co., Inc.	**HA**	8.00%			1.39%	$7,258
		Total			**100%**	**$522,968**

Issuer **University of Texas System**

Issuance Revenue Financing System Refunding Bonds Series 2016I

Purpose Refund RFS Ser 2016E and Ser 2010A and pay cost of issuance.

Actual Par $184,725,000
Sale Type Negotiated
Sale Date 10/25/2016
Closing Date 11/30/2016

Series Name	TIC	NIC	Is Variable
RFS Ref Bonds Ser 2016I	1.47%	1.64%	No

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$9,500	0.05
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$95,367	0.52
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$15,000	0.08
Electronic Bidding	Causey Demgen & Moore, PC	NO	$4,000	0.02
Escrow Agent	US Bank, NA	NO	$1,250	0.01
Escrow Verification	Causey Demgen & Moore, PC	NO	$2,750	0.01
Paying Agent/Registrar	Bank of Texas, NA	NO	$2,400	0.01
Printing	ImageMaster, LLC	NO	$1,716	0.01
Travel		NO	$1,077	0.01
	Total		**$133,060**	**0.72**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA	$0	0.00
Rating Fee	Moody's	Aaa	$50,000	0.27
Rating Fee	S&P	AAA	$34,174	0.19
		Total	**$84,174**	**0.46**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$51,957	0.28
Takedown	$445,012	2.41
Total	**$496,970**	**2.69**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth, LLP	NO	$27,500	0.15	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
Morgan Stanley & Co., Inc.	NO	60.00%			59.92%	$266,645
FTN Financial Capital Markets	NO	8.00%			12.05%	$53,643
William Blair & Co., LLC	NO	8.00%			10.71%	$47,666
Siebert Cisneros Shank & Co., LLC	**BA**	8.00%			9.55%	$42,484
Piper Jaffray & Co.	NO	8.00%			7.67%	$34,143
Blaylock Beal Van, LLC	**BA**	8.00%			0.10%	$431
		Total			**100%**	**$445,012**

Issuer **University of Texas System**

Issuance Revenue Financing System Taxable Bonds Series 2016G (VRDO)

Purpose The bonds are being issued for the purpose of refunding a portion of the Board's RFS CP Notes Ser A (Tax Exempt) in the aggregate principal amount of $250,000,000. The Board will use lawfully available funds to pay the costs of issuance of the bonds.

Actual Par $250,000,000
Sale Type Negotiated
Sale Date 9/14/2016
Closing Date 9/15/2016

Series Name	TIC	NIC	Is Variable
RFS Taxable Bonds Ser 2016G			Yes

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000
Attorney General		NO	$19,000	0.08
Bond Counsel	McCall Parkhurst & Horton, LLP	NO	$103,382	0.41
Disclosure Counsel	McCall Parkhurst & Horton, LLP	NO	$15,000	0.06
Miscellaneous		NO	$3,159	0.01
Paying Agent/Registrar	US Bank, NA	NO	$750	0.00
Printing	ImageMaster, LLC	NO	$1,412	0.01
	Total		**$142,703**	**0.57**

Fee Name	Rating Agency	Assigned Rating	Actual Fee	$ Per 1000
Rating Fee	Fitch	AAA/F1+	$0	0.00
Rating Fee	Moody's	Aaa/VMIG1	$29,000	0.12
Rating Fee	S&P	AAA/A-1+	$46,250	0.19
		Total	**$75,250**	**0.30**

Fee Name	Actual Fee	$ Per 1000
Spread Expenses	$36,000	0.14
Takedown	$25,000	0.10
Total	**$61,000**	**0.24**

Fee Name	Firm Name	HUB	Actual Fee	$ Per 1000	UW Paid
Underwriter's Counsel	Andrews Kurth, LLP	NO	$27,500	0.11	Yes

Firm Name	HUB	% of Risk	Mgmt Fee %	Mgmt Fee $	Take Down %	Take Down $
RBC Capital Markets	NO	50.00%			50.00%	$12,500
Wells Fargo Bank, NA	NO	50.00%			50.00%	$12,500
		Total			**100%**	**$25,000**

Appendix B
State Commercial Paper and Variable-Rate Note Programs

Several state agencies and institutions of higher education have established variable-rate debt financing programs that provide financing for equipment or capital projects or provide loans to eligible entities.

As of August 31, 2017, a total of $8.18 billion was authorized for state commercial paper or variable-rate note programs. Of this amount, $2.00 billion was outstanding as of the end of fiscal 2017 *(Table B1),* approximately $550.0 million less than the amount outstanding at fiscal year-end 2016.

A summary of each commercial paper or variable-rate debt program is provided below.

Texas Department of Agriculture
In 1991, the Texas Agricultural Finance Authority (TAFA), a public authority within the Texas Department of Agriculture, was authorized to establish a taxable commercial paper note program. TAFA issues commercial paper to purchase and guarantee loans made to businesses involved in the production, processing, marketing and exporting of Texas agricultural products. The commercial paper notes are a general obligation of the state; however, the program is designed to be self-supporting.

During fiscal 1995, TAFA established a second general obligation taxable commercial paper note program to make funds available for the Farm and Ranch Finance Program. The program was established to provide loans and other financial assistance through local lending institutions to eligible borrowers for the purchase of farm or ranch land.

Texas Department of Housing and Community Affairs
The Texas Department of Housing and Community Affairs (TDHCA) established a single-family mortgage revenue commercial paper program in 1994. The program enables TDHCA to capture mortgage payments and prepayments and recycle them into mortgage loans. By issuing commercial paper notes to satisfy the mandatory redemption provisions of outstanding single-family mortgage revenue bonds instead of using the payments and prepayments to redeem bonds, TDHCA is able to preserve the private activity volume cap and generate new mortgage loans.

While still legislatively authorized, the program was terminated in July 2009. TDHCA has no plans to use the authority, and reauthorization from the Bond Review Board (BRB) would be required to reestablish the program.

Texas Department of Transportation
In July 2005, the Texas Transportation Commission (the Commission), the governing body of the Texas Department of Transportation, authorized a commercial paper program to issue up to $500.0 million in commercial paper to carry out transportation functions.

In June 2013, the Commission suspended the commercial paper program and created the State Highway Fund Revenue Flexible Rate Revolving Notes Program in an aggregate par amount not to exceed $750.0 million to carry out transportation functions.

Texas Economic Development and Tourism Office
In 1992, the Department of Commerce, subsequently the Texas Economic Development and Tourism Office (the "Office") was granted $300.0 million of authority to issue commercial paper to fund loans to Texas businesses under three programs. Under the first program marketed as the Texas Leverage Fund, the Office approves loans to local industrial development corporations. Revenues from an optional local half-cent sales tax for economic development secure these loans. The second program provides for the purchase of small business loans which are fully guaranteed by the U.S. Small Business Administration. A third program may make loans directly to businesses from program reserves. The program is designed to be self-supporting, and the commercial paper issued by the Office is taxable. The BRB has authorized a

Table B1

TEXAS COMMERCIAL PAPER AND VARIABLE-RATE NOTE PROGRAMS

as of August 31, 2017

ISSUER	**TYPE OF PROGRAM**	**AMOUNT AUTHORIZED**	**AMOUNT ISSUED FISCAL 2017**	**AMOUNT OUTSTANDING**
Texas Department of Agriculture [1]				
TAFA	Commercial Paper - Series A	$ 50,000,000	$ -	$ -
Farm and Ranch Loans	Commercial Paper - Series B	25,000,000	-	-
Texas Dept. of Housing & Community Affairs	Commercial Paper	-	-	-
Texas Department of Transportation				
State Highway Fund	Commercial Paper - Series A	500,000,000	-	-
State Highway Fund	Flexible-Rate Notes	750,000,000	-	-
Texas Economic Dev & Tourism Office [2]	Commercial Paper	25,000,000	-	15,000,000
Texas Public Finance Authority				
Revenue	Commercial Paper - 2003	150,000,000	5,000,000	35,850,000
Revenue	Commercial Paper - 2016A	767,670,000	17,000,000	17,000,000
General Obligation	Commercial Paper - 2002A	850,000,000	-	-
General Obligation	Commercial Paper - 2002B	175,000,000	-	-
General Obligation	Commercial Paper - 2008	1,000,000,000	35,150,000	11,600,000
General Obligation - Cancer Prevention	Commercial Paper - Series A	450,000,000	116,900,000	-
Research Institute of Texas [3]	Commerical Paper - Series B		-	-
Texas State University System	Commercial Paper	240,000,000	41,610,000	10,258,000
Texas Tech University System				
Revenue Financing System	Commercial Paper	150,000,000	75,287,000	43,253,000
The Texas A&M University System				
Permanent University Fund	Flexible-Rate Notes	125,000,000	-	-
Permanent University Fund	Commercial Paper		30,000,000	55,650,000
Revenue Financing System	Commercial Paper	300,000,000	182,014,000	240,324,000
The University of Texas System				
Permanent University Fund	Flexible-Rate Notes	400,000,000	-	-
Permanent University Fund [3]	Commercial Paper - Series A	750,000,000	-	81,000,000
Permanent University Fund [3]	Commercial Paper - Series B		175,000,000	400,000,000
Revenue Financing System [3]	Commercial Paper - Series A	1,250,000,000	6,895,000	303,268,000
Revenue Financing System [3]	Commercial Paper - Series B		557,000,000	709,000,000
University of Houston System				
Revenue Financing System	Commercial Paper - Series A-1	125,000,000	30,919,000	7,425,000
Revenue Financing System	Commercial Paper - Series A-2		27,900,000	41,347,000
University of North Texas System				
Revenue Financing System	Commercial Paper - Series A	100,000,000	31,467,000	12,300,000
Revenue Financing System	Commercial Paper - Series B		13,168,000	12,975,000
Total		**$ 8,182,670,000**	**$ 1,345,310,000**	**$ 1,996,250,000**

Source: Texas Bond Review Board - Bond Finance Office.

[1] Represents the maximum amount authorized by the Bond Review Board; however, the Texas Agricultural Finance Authority (Department of Agriculture) has approved a $100 million program amount.

[2] Represents the maximum amount authorized by the Bond Review Board; however, the program has a $300 million program amount.

[3] Represents cumulative total amount for Series A (tax-exempt) & B (taxable) with no limitation on the amount issued in each series, provided that the total outstanding amount will not exceed the maximum authorization.

maximum authority of $25.0 million for the Texas Leverage Fund.

Texas Public Finance Authority

In 1992, the Texas Public Finance Authority (TPFA) established a Master Lease Purchase Program (MLPP) that is funded through commercial paper. The commercial paper issued to date has primarily been used to finance the purchase of equipment with shorter useful lives such as computers and telecommunications equipment. TPFA also has the authority to use the commercial paper to provide interim financing for capital projects undertaken on behalf of state agencies. The MLPP commercial paper is a special revenue obligation of the state, payable only from legislative appropriations to the participating agencies for lease payments.

During fiscal 1993, TPFA established a variable-rate financing program that is secured by the state's general obligation pledge. The proceeds are used to provide interim financing for capital projects that are authorized by the legislature and financed through general obligation bonds. In 2002, TPFA established a commercial paper program that is also secured by the state's general obligation pledge to provide financial assistance to border counties for roadways in colonias.

In 2008, TPFA established another commercial paper program that is also secured by the state's general obligation pledge to: (i) provide interim financing for maintenance, improvement, repair, construction and equipment-acquisition projects for state agencies, (ii) refund and refinance the Notes, and (iii) pay the costs of issuance of the Notes.

In the November 2007 general election, Texas voters authorized TPFA to issue $3.00 billion of general obligation debt over ten years to finance cancer research. During fiscal 2009, TPFA established a commercial paper program that is also secured by the state's general obligation pledge to provide financing of certain projects for the Cancer Prevention and Research Institute of Texas. The first issuance occurred in September 2009.

Texas State University System
On May 22, 2014, The Texas State University System adopted the Eighteenth Supplemental Resolution to the Master Resolution Establishing the Texas State University System Revenue Financing System Commercial Paper Program, Series A; Authorizing the Issuance of Tax-Exempt and Taxable Commercial Paper Notes in an amount not to exceed $240.0 million.

Texas Tech University System and Texas Tech University Health Sciences Center
In November 1997, the Board of Regents of Texas Tech University System (the "TTU System") authorized a Revenue Financing System commercial paper program to provide interim financing for capital projects, including construction, acquisition, renovation and equipment for facilities of the TTU System. The commercial paper is secured by a pledge of all legally available revenues of the TTU System, including pledged tuition fees, general fees and other revenue sources.

The Texas A&M University System
The Texas A&M University System (the "A&M System") has authorized three variable-rate financing programs: a flexible-rate note program and a commercial paper program, both secured by the Permanent University Fund (PUF), as well as a commercial paper program secured by the A&M System revenues. The A&M System's PUF flexible-rate note program and the PUF commercial paper program were established in 1988 and 2008, respectively, to provide interim financing and equipping of facilities for eligible construction projects. The A&M System's total outstanding PUF commercial paper notes and flexible-rate notes may not exceed $125.0 million in principal amount at any time.

The A&M System's Revenue Financing System (RFS) Commercial Paper Program was established in 1992 to provide interim financing for capital projects, including construction, acquisition, and renovation or equipping of facilities throughout the A&M System. Outstanding RFS commercial paper may not exceed $300.0 million in principal amount at any time and is secured by a pledge of all legally available revenues to the A&M System, including pledged tuition revenue and fees, general fees and other revenue sources. The A&M System has a self-liquidity facility for this program.

The University of Texas System
The University of Texas System (the "UT System") has two primary interim financing programs: a Revenue Financing System (RFS) commercial paper program and a Permanent University Fund (PUF) commercial paper note program, both of which feature both taxable and tax-exempt commercial paper options.

The UT System's RFS commercial paper note program was established in 1990 to provide interim financing for capital projects, including construction, acquisition and renovation or equipping of facilities. RFS commercial paper notes are secured by a pledge of all legally available revenues of the UT System, including pledged tuition fees, general fees and other revenue sources. The UT System's aggregate amount of outstanding RFS commercial paper notes may not exceed $1.25 billion in principal amount at any time.

The UT System's PUF commercial paper note program was established in 2008 to replace a previously authorized $400 million PUF flexible-rate note program. The UT System expects to utilize the PUF commercial paper note program as its primary short-term financing vehicle for PUF-related projects but will maintain the flexible-rate note program. PUF commercial paper notes provide interim financing for eligible capital projects, including construction, acquisition and renovation or equipping of facilities. PUF commercial paper notes are secured by the UT System's share of distributions from the total return on all PUF investments. The UT System's outstanding PUF commercial paper notes may not exceed $750 million in principal amount at any time.

University of Houston System

In August 2006, the Board of Regents of the University of Houston System (the "UH System") authorized a Revenue Financing System commercial paper program. The program was established to provide interim financing for capital projects, including construction, acquisition, renovation and equipment for facilities of the UH System. The commercial paper is secured by a pledge of all legally available revenues of the UH System, including pledged tuition fees, general fees and other revenue sources.

University of North Texas System

In May 2004, the Board of Regents of the University of North Texas System (the "UNT System") authorized a Revenue Financing System commercial paper program in an initial amount not to exceed $50.0 million. The program was established to provide interim financing for capital projects, including construction, acquisition, renovation and equipment for facilities of the UNT System. The commercial paper is secured by a pledge of all legally available revenues of the UNT System, including pledged tuition fees, general fees and other revenue sources. In fiscal 2008, the commercial paper program was increased to an amount not to exceed $100.0 million of which $25.0 million may be issued as taxable notes.

Other State Issuers of Variable-Rate Debt

Several other state issuers have the authority to issue debt in variable-rate form. State issuers may utilize variable-rate debt in order to diversify their debt portfolio and to take advantage of lower short-term interest rates as available.

The Veterans Land Board is one example of a state issuer that has issued variable-rate housing assistance bonds to diversify its debt portfolio. Similarly, the Texas Water Development Board is authorized to issue subordinate-lien variable-rate demand revenue bonds as part of the State Revolving Fund program.

Comptroller of Public Accounts Liquidity Facility Provider Duties

The 73rd Legislature passed legislation that authorized the Comptroller of Public Accounts to enter into agreements to provide liquidity for obligations issued for governmental purposes by an agency of the state. Pursuant to Section 404.027 of the Texas Government Code, the Comptroller may enter into agreements to provide liquidity for agency obligations issued for governmental purposes if it does not conflict with the Treasury's liquidity needs. Eligible obligations include commercial paper, variable-rate demand obligations and bonds. For fiscal year 2017, the Comptroller of Public Accounts provided daily liquidity commitments totaling $669.5 million out of a total of $1,029.2 million in such commitments for state obligations.

Appendix C
State Issuers' Use of Swaps

Interest rate swaps are part of a larger class of financial instruments called derivatives whose value is based on the performance of an underlying financial asset, index or other investment. While a variety of derivative products are available, Texas issuers most often use interest rate swaps. Swaps are primarily used as tools for financial management to reduce interest expense and hedge against interest-rate, tax, basis and other risks described below. Swaps can also increase financial flexibility and are used to achieve objectives consistent with the issuer's overall program goals and financial policies. See *Table C1* for the total number of swaps outstanding by issuer at August 31, 2017.

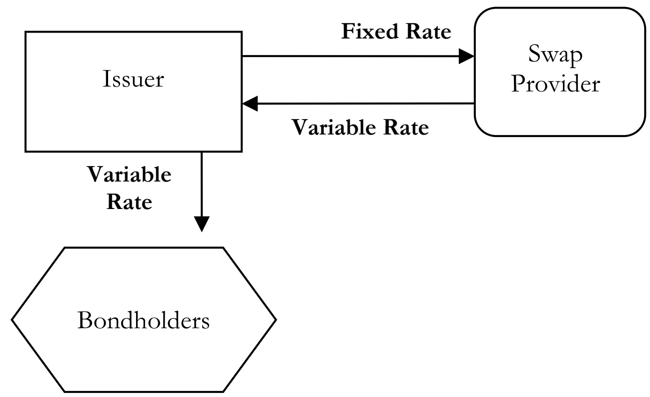
Swaps Used by State Issuers

An interest rate swap is created when a debt issuer and a financial institution, each referred to as a counterparty, enter into a contract to exchange interest payments. The types of swaps most often utilized by Texas issuers are pay-fixed, receive-variable and pay-variable, receive-variable (basis) interest rate swaps. As of August 31, 2017, pay-fixed, receive-variable swaps comprised approximately 78.6 percent ($3.98 billion) of the state's $5.07 billion in total notional amount of swaps outstanding. The balance were basis swaps.

<u>Pay-fixed, receive-variable swap (synthetic fixed-rate swap)</u>

By accepting certain risks with pay-fixed, receive-variable swaps, issuers may be able to lower their borrowing costs compared to issuing traditional, fixed-rate bonds. Under this arrangement which creates *synthetic fixed-rate debt,* the issuer agrees to make fixed-rate payments to the swap counterparty and the swap counterparty agrees to pay the issuer variable, index-based rate payments that are expected to be comparable to the rates payable on the variable-rate debt associated with the swap agreement. This swap program is illustrated below.

Synthetic Fixed-Rate Swap



To structure such a transaction, issuers must analyze the impact of issuing either natural or synthetic fixed-rate debt. If the spread between the two is sufficient to compensate the issuer for accepting certain risks associated with synthetic fixed-rate debt, the issuer will execute the swap and issue the associated variable-rate debt. The issuer remains obligated to make debt-service payments to the variable-rate bond holders, even if the variable-rate payment received from the swap counterparty does not cover the variable-rate payment due on the associated bonds (see discussion on Basis Risk).

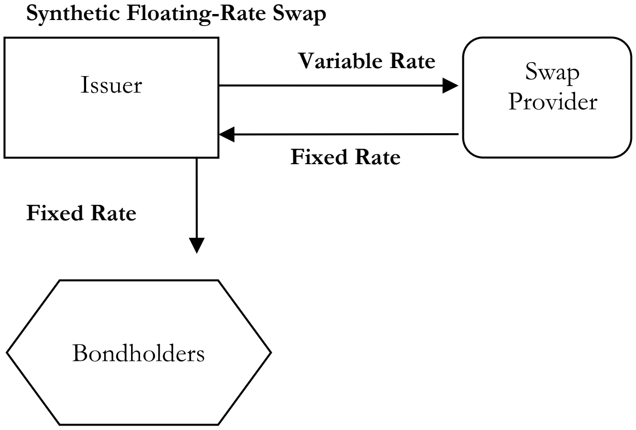
The variable rates received under most of the state's pay-fixed, receive-variable interest rate swaps are based on the London Interbank Offered Rates (LIBOR) taxable rate index. Certain other of the state's pay-fixed, receive-variable interest rate swaps are based on the tax-exempt Securities Industries and Financial Market Association (SIFMA) Swap Index, formerly known as the BMA Swap Index produced by Municipal Market Data (MMD).

During fiscal 2009 two pay-fixed, receive-variable swap contracts, associated with the Veterans Land Board (VLB) Veterans' Housing Assistance Program, Fund II Series 2004A and 2005B Bonds were terminated as a result of the bankruptcy of Lehman Brothers and are now classified as variable-rate debt. No swap contracts were terminated in fiscal 2010, but during fiscal 2011 VLB exercised its option to terminate its only synthetic floating rate swap due to the contract's favorable fair market value. During fiscal 2017, VLB added a pay-fixed, receive-variable swap to its Series 2017 bonds with an initial notional amount of $250.0 million.

Pay-variable, receive-fixed swap (synthetic floating-rate swap)

Conversely, *synthetic floating-rate debt* is created when the issuer sells fixed-rate debt and enters into a fixed-to-floating rate swap. The issuer agrees to pay variable-rate payments to the counterparty and in exchange receives a fixed-rate payment from the swap counterparty. As with synthetic fixed-rate debt, the rate to be paid is tied to an underlying reference index such as the *taxable* LIBOR or the *tax-exempt* SIFMA Index. This swap program is illustrated below.

Synthetic Floating-Rate Swap



As of August 31, 2017, no synthetic floating-rate swaps were outstanding.

Pay-variable, receive-variable swap (basis swap)

The pay-variable, receive-variable swaps (called *basis* swaps) are LIBOR-to-SIFMA basis swaps that effectively convert the variable rate on the associated taxable variable-rate bond issues from a *taxable* LIBOR-based rate to a *tax-exempt* SIFMA-based rate.

On January 31, 2013, Texas Department of Transportation terminated its three basis swap agreements with JP Morgan, Goldman Sachs and Morgan Stanley.

As of August 31, 2017, basis swaps comprised approximately 21.4 percent ($1.08 billion) of the state's total notional amount of swaps outstanding. During fiscal 2017, the University of Texas System added a municipal market data (MMD) basis swap to its Series 2016A bonds which will provide a fixed spread on the notional amount outstanding of $255.8 million.

Risk Analysis

State issuers considering entering into an interest-rate swap agreement must assess the risks associated with the transaction. Some issuers include contractual limitations or options that assist in reducing those risks. For example, the VLB has the option to terminate its swap agreements at any time. Generally, the risks associated with interest rate swaps fall into the following categories:

Termination Risk – the risk that an interest rate swap could be terminated prior to its scheduled termination date as a result of any of several events relating to either the issuer or its counterparty. The issuer or the counterparty may terminate a swap if the other party fails to perform under the terms of the swap agreement. If a swap has a negative fair value, the issuer would owe the respective counterparty a termination payment equal to the swap's fair value at the time of termination (see discussion on Fair Value).

Credit Risk – the risk that either the counterparty or the issuer will not fulfill its obligations specified by the terms of the swap agreement. State issuers mitigate this risk by entering into transactions with highly-rated counterparties. The issuers also mitigate concentrations of credit risk by diversifying their swap portfolios among different counterparties. Credit risk also includes the risk of the occurrence of an event that would modify the credit rating of an issuer or its counterparty.

Basis Risk – the risk of a shortfall between the interest payment received and the interest payment paid on the related debt issue. An issuer mitigates this risk by: 1) matching the swap's notional amount and amortization schedule to the associated bond issue's principal amount and amortization schedule and 2) selecting a variable-rate leg for the swap that is reasonably expected to match the interest rate on the associated variable-rate bonds over the life of the bond issue.

Rollover Risk – the risk associated with the counterparty's option to terminate the swap. If the swap is terminated by the counterparty, the associated variable-rate bonds would no longer have a synthetic fixed rate and would be subject to interest-rate risk to the extent the variable-rate bonds were not hedged with another swap or with variable-rate assets on the issuer's balance sheet.

Tax Risk – the risk associated with potential changes in the taxation of the issuer's tax-exempt, variable-rate bonds as a result of changes in marginal income tax rates and other changes in the federal and state tax systems.

Fair Value – the value of a swap estimated by using market-standard practice that includes a calculation of future net settlement payments required by the swap based on market expectations implied by the current yield curve for interest rate transactions. For a swap with embedded options, additional calculations are made to determine the value of the options.

When the fair value of a swap is positive, the counterparty is liable to the issuer for the fair value in the event of termination of the swap. In this instance the issuer is exposed to counterparty credit risk; however, issuer swap agreements contain varying collateral agreements and insurance policies with counterparties to mitigate credit risk.

Due to the general reduction in interest rates over the last several years, the net fair value of the state's outstanding swaps was negative at August 31, 2017, indicating that Texas swap issuers would be liable for payments to the counterparty for the fair values of the swaps in the unlikely event of termination. However, it is important to note that issuers have achieved significant savings in interest costs by use of interest rate swaps. (See *Table C2* for the terms, counterparty credit ratings and fair values for the state's swaps outstanding by issuer at August 31, 2017.)

Additional Derivative Products

In addition to interest rate swaps, additional derivative products used by Texas issuers include the following:

Options on swaps – sale or purchase of options to commence or cancel interest rate swaps. Several of the VLB swaps contain embedded options called barrier options that provide for the VLB to be "knocked out" of the swaps by the respective counterparties for varying periods of time upon the breach of certain predetermined barriers. In each of these cases, the respective counterparties paid the VLB an up-front premium for the option.

Interest rate caps – financial contracts called caps, collars or floors limit or bound exposure to interest rate volatility.

Rate locks – rate locks are often based on interest rate swaps and may be used to hedge against a rise in interest rates for an upcoming fixed-rate bond issue.

Management Policy

State issuers with swap transactions outstanding or those issuers contemplating entering into swap agreements have adopted derivative or swap-management policies outlining the objectives, management, oversight, monitoring, selection and restrictions for their derivative or swap agreements.

With the passage of Senate Bill 1332 during the 80th Legislature, the Bond Review Board's (BRB) statutes were modified to add a definition of interest rate management (derivative) agreements and to require the BRB to develop a related policy. In fiscal 2009 the BRB engaged a swap advisor to assist with the development of a state interest rate management policy and analysis of interest rate management agreements. This policy can be found on the agency's website.

In fiscal 2010 the BRB amended its administrative rules to require issuers that enter into derivative agreements to submit additional information for staff review including a copy of all schedules to the Master Agreement and/or the Credit Support Annex and transaction confirmations. Additionally, issuers must notify the Bond Review Board within 10 days of material adverse changes involving the parties to derivative agreements.

Table C1

NOTIONAL AMOUNTS - INTEREST RATE SWAPS

As of August 31, 2017 (Unaudited)

(amounts in thousands)

	Original Notional Amount	Current Notional Amount	Current Fair Value	Total # of Swaps
Veterans Land Board				
Pay-Fixed, Receive-Variable Total	$3,345,540	$2,450,175	-$218,465	54
Pay-Variable, Receive-Variable Total	71,630	60,075	336	2
TOTAL VLB	**$3,417,170**	**$2,510,250**	**-$218,129**	**56**
Texas Department of Housing and Community Affairs				
Pay-Fixed, Receive-Variable Total	$331,005	$102,000	-$11,340	4
TOTAL TDHCA	**$331,005**	**$102,000**	**-$11,340**	**4**
The University of Texas System				
Pay-Fixed, Receive-Variable Total	$1,681,851	$1,431,502	-$247,924	8
Pay-Variable, Receive-Variable Total	1,037,508	1,021,578	25,583	8
TOTAL UTS	**$2,719,359**	**$2,453,080**	**-$222,341**	**16**
Totals				
Pay-Fixed, Receive-Variable	$5,358,396	$3,983,677	-$477,729	66
Pay-Variable, Receive-Variable	1,109,138	1,081,653	25,919	10
TOTAL INTEREST RATE SWAPS	**$6,467,534**	**$5,065,330**	**-$451,810**	**76**

Source: Texas Bond Review Board - Bond Finance Office.

Table C2
VETERANS LAND BOARD - INTEREST RATE SWAPS
As of August 31, 2017 (Unaudited)
(amounts in thousands)

PAY-FIXED, RECEIVE VARIABLE

(Synthetic Fixed Rate) Bond Issue	Original Notional Amount	Current Notional Amount	Effective Date	Swap Termination Date	Fixed-Rate Paid	Variable-Rate Received	Counterparty Credit Ratings	Current Fair Value
Vet Hsg Ref Bds Ser '95	$88,490	$0	11/29/1995	12/01/2016	5.52%	Actual Bond Rate	BBB+ / Baa1	0
Vet Land Ref Bds Ser '99A	40,025	7,135	06/01/1999	12/01/2018	5.11%	68% of 6M LIBOR	BBB+ / Baa1	-294
Vet Hsg Fund II Bds Ser 2001A-2	20,000	20,000	12/03/2001	12/01/2029	4.30%	68% of 1M LIBOR	BBB+/Baa1	-4,528
Vet Hsg Fund II Bds Ser 2001C-2	25,000	24,265	12/18/2001	12/01/2033	4.37%	68% of 1M LIBOR	AA- / Aa2	-7,329
Vet Land Bds Ser 2002	20,000	13,820	02/21/2002	12/01/2032	4.14%	68% of 1M LIBOR	BBB+/ A3	-3,041
Vet Hsg Fund II Bds Ser 2002A-2	38,300	23,405	07/10/2002	06/01/2033	3.87%	68% of 1M LIBOR	A+ / Aa3	-5,877
Vet Hsg Fund II Bds Ser 2003A	50,000	23,015	03/04/2003	06/01/2034	3.30%	68% of 1M LIBOR	A+ / Aa3	-3,239
Vet Hsg Fund II Bds Ser 2003B	50,000	24,255	12/01/2003	06/01/2034	3.40%	100% of 6M LIBOR	AA- / Aa2	-3,368
Vet Hsg Fund II Bds Ser 2004B	50,000	26,775	09/15/2004	12/01/2034	3.68%	100% of 6M LIBOR	A+ / Aa3	-4,678
Vet Hsg Fund II Bds Ser 2005A	50,000	26,375	02/24/2005	06/01/2035	3.28%	68% of 1M LIBOR	AA- / Aa2	-3,856
Vet Hsg Fund II Bds Ser 2006A	50,000	28,715	06/01/2006	12/01/2036	3.52%	100% of 6M LIBOR	AA/Aa3	-5,135
Vet Hsg Fund II Bds Ser 2006D	50,000	30,200	09/20/2006	12/01/2036	3.69%	68% of 1M LIBOR	A+ / A1	-5,834
Vet Hsg Fund II Bds Ser 2007A	54,160	30,375	02/22/2007	06/01/2037	3.65%	100% of 1M LIBOR	AA- / Aa2	-6,010
Vet Hsg Fund II Bds Ser 2007B	50,000	32,025	06/26/2007	06/01/2038	3.71%	68% of 1M LIBOR	A+ / Aa3	-6,367
Vet Hsg Fund II Bds Ser 2008A	50,000	31,990	03/26/2008	12/01/2038	3.19%	68% of 1M LIBOR	AA/Aa3	-5,116
Vet Hsg Fund II Bds Ser 2008B	50,000	33,120	09/11/2008	12/01/2038	3.23%	68% of 1M LIBOR	AA- / Aa2	-5,566
Vet Hsg Ser 2010C	74,995	57,855	08/20/2010	12/01/2040	2.31%	68% of 1M LIBOR	BBB+/ A3	-4,485
Vet Hsg Ser 2011A	74,995	57,655	03/09/2011	06/01/2041	2.68%	68% of 1M LIBOR	A-/Baa2	-6,419
Vet Hsg Ser 2011B	74,995	58,840	08/25/2011	12/01/2041	2.37%	68% of 1M LIBOR	A-/Baa2	-4,920
Vet Hsg Ser 2011C	74,995	59,945	12/15/2011	06/01/2042	1.92%	68% of 3M LIBOR	AA- / Aa2	-2,467
Vet Hsg Ser 2012A	74,995	60,065	07/01/2012	12/01/2042	1.69%	68% of 3M LIBOR	AA- / Aa2	-1,197
Vet Hsg Ser 2012B	100,000	80,300	11/01/2012	12/01/2042	1.45%	68% of 3M LIBOR	AA- / Aa2	-110
Vet Hsg Ser 2013A	99,995	85,295	03/20/2013	06/01/2043	1.70%	68% of 3M LIBOR	AA- / Aa2	-1,700
Vet Hsg Ser 2013B	149,995	128,785	08/23/2013	12/01/2043	2.15%	68% of 1M LIBOR	AA- / Aa2	-8,944
Vet Hsg Tax Ref Bds Ser 2013C	39,560	33,495	12/01/2006	12/01/2026	5.46%	100% of 6M LIBOR	A+ / Aa3	-6,463
Vet Hsg Tax Ref Bds Ser 2013C	50,000	25,290	12/01/2007	06/01/2029	4.66%	100% of 1M LIBOR	A+ / Aa3	-7,063
Vet Hsg Tax Ref Bds Ser 2013C	16,950	8,610	12/01/2009	12/01/2021	6.22%	100% of 6M LIBOR	A+ / Aa3	-967
Vet Hsg Tax Ref Bds Ser 2013C	65,845	54,195	12/01/2009	06/01/2031	5.45%	100% of 6M LIBOR	A+ / Aa3	-13,448
Vet Hsg Ser 2014A	150,000	133,125	02/27/2014	06/01/2044	2.18%	68% of 1M LIBOR	AA-/Aa2	-9,765
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	47,865	24,345	12/01/2003	06/01/2021	5.19%	100% of 6M LIBOR	AA- / Aa2	-1,775
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	50,000	14,025	06/01/2004	12/01/2024	5.45%	100% of 6M LIBOR	A+ / Aa3	-2,064
Vet Hsg Fund II Tax Ref Bds Ser 2014B-1 & B-2	43,870	21,610	12/01/2004	06/01/2020	5.35%	100% of 1M LIBOR	A+ / Aa3	-1,169
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	19,860	9,800	12/01/2005	12/01/2023	4.93%	100% of 1M LIBOR	A+ / Aa3	-1,171
Vet Hsg Fd I/II Tax Ref Bds Ser 2014B-1 & C-2	24,885	18,015	12/01/2005	06/01/2026	5.15%	100% of 1M LIBOR	A+ / Aa3	-2,963
Vet Land Tax Ref Bds Ser 2014B-3	39,960	19,300	12/01/2000	12/01/2020	6.11%	100% of 6M LIBOR	AA- / Aa2	-1,753
Vet Land Tax Ref Bds Ser 2014B-3	22,795	15,470	12/01/2005	12/01/2026	6.52%	100% of 6M LIBOR	A+ / Aa3	-3,538
Vet Hsg Fund I Tax Ref Bds Ser 2014C-1	22,605	12,880	12/01/2002	06/01/2023	4.91%	100% of 6M LIBOR	AA- / Aa2	-1,331
Vet Hsg Fund I Tax Ref Bds Ser 2014C-1	21,795	19,255	08/01/2012	12/01/2033	3.76%	68% of 1M LIBOR	AA/Aa3	-4,351
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	38,570	32,560	06/01/2006	12/01/2026	5.83%	100% of 1M LIBOR	A+ / Aa3	-6,622
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	22,325	14,990	06/01/2006	12/01/2027	5.79%	100% of 6M LIBOR	A+ / Aa3	-3,126
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	66,720	55,815	06/01/2010	12/01/2031	5.40%	100% of 1M LIBOR	A+ / Aa3	-15,893
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	49,995	30,950	12/01/2010	06/01/2032	2.79%	100% of 1M LIBOR	AA- / Aa2	-1,580
Vet Land Tax Ref Bds Ser 2014C-3	50,000	20,595	06/01/2006	12/01/2027	6.54%	100% of 6M LIBOR	A+ / Aa3	-5,286
Vet Land Tax Ref Bds Ser 2014C-3	16,480	13,315	12/01/2010	12/01/2030	5.21%	100% of 1M LIBOR	A+ / Aa3	-3,269
Vet Land Tax Ref Bds Ser 2014C-4	27,685	18,435	12/01/2002	12/01/2021	4.94%	100% of 6M LIBOR	BBB+/ A3	-1,818
Vet Land Tax Ref Bds Ser 2014C-4	50,000	13,850	12/01/2003	12/01/2023	5.12%	100% of 1M LIBOR	A+ / Aa3	-1,662
Vet Land Tax Ref Bds Ser 2014C-4	24,755	15,955	12/01/2004	12/01/2024	5.46%	100% of 6M LIBOR	BBB+/ A3	-2,339
Vet Land Tax Ref Bds Ser 2014C-4	31,030	16,915	06/01/2006	12/01/2026	4.61%	100% of 6M LIBOR	AA- / Aa2	-2,269
Vet Land Tax Ref Bds Ser 2014C-4	41,050	27,125	12/01/2006	12/01/2027	6.51%	100% of 1M LIBOR	A+ / Aa3	-7,101
Vet Hsg Ser 2014D	100,000	90,760	09/10/2014	06/01/2045	1.94%	68% of 1M LIBOR	AA-/Aa2	-4,561
Vet Hsg Ser 2015A	125,000	114,060	02/11/2015	06/01/2045	1.51%	68% of 1M LIBOR	A-/Baa2	-966
Vet Hsg Ser 2015B	125,000	119,160	07/22/2015	06/01/2046	1.77%	68% of 1M LIBOR	AA-/Aa2	-4,116
Vet Hsg Ser 2016	250,000	242,375	12/01/2016	12/01/2046	1.56%	68% of 1M LIBOR	AA-/Aa2	-3,782
Vet Hsg Ser 2017	250,000	249,690	08/01/2017	12/01/2047	1.18%	68% of 1M LIBOR + 0.085%	A+/A1	4,226
Pay-Fixed, Receive-Variable Total	**$3,345,540**	**$2,450,175**						**-$218,465**

PAY-VARIABLE, RECEIVE-VARIABLE (Basis Swap) Bond Issue	Original Notional Amount	Current Notional Amount	Effective Date	Swap Termination Date	Variable-Rate Paid	Variable-Rate Received	Counterparty Credit Ratings	Current Fair Value
Vet Land Tax Ref Bds Ser 2014C-3	$40,000	$28,445	08/05/2002	12/01/2032	131.25% of SIFMA	100.00% of 1M LIBOR	BBB+ / A3	-302
Vet Hsg Fund II Bds Ser 2009A	31,630	31,630	03/05/2009	12/01/2023	100.00% of SIFMA	94.35% of 3M LIBOR	AA- / Aa2	638
Pay-Variable, Receive-Variable Total	**$71,630**	**$60,075**						**$336**
TOTAL VLB INTEREST RATE SWAPS	**$3,417,170**	**$2,510,250**						**-$218,129**

Source: Texas Bond Review Board - Bond Finance Office.

Table C2 (continued)

TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS - INTEREST RATE SWAPS
As of August 31, 2017 (Unaudited)
(amounts in thousands)

PAY-FIXED, RECEIVE VARIABLE (Synthetic Fixed Rate) Bond Issue	Original Notional Amount	Current Notional Amount	Effective Date	Swap Termination Date	Fixed-Rate Paid	Variable-Rate Received	Counterparty Credit Ratings	Current Fair Value
TDHCA SF Variable Rate Ref MRB Ser 2004B	$53,000	$27,020	09/01/2004	09/01/2034	3.67%	65.5% of LIBOR + .20%	AA-/Aa2/AA	-2,202
TDHCA SF Variable Rate MRB Ser 2004D	35,000	18,920	01/01/2005	03/01/2035	3.08%	*	A/A1/A+	-1,125
TDHCA SF Variable Rate Ref MRB Ser 2005A	100,000	25,675	08/01/2005	09/01/2036	4.01%	*	A+/Aa3/AA-	-4,150
TDHCA SF Variable Rate Ref MRB Ser 2007A	143,005	30,385	06/05/2007	09/01/2038	4.01%	*	A+/Aa3/AA-	-3,863
TOTAL TDHCA INTEREST RATE SWAPS	**$331,005**	**$102,000**						**-$11,340**

* Lessor of (a) or (b) where (a) equals the greater of (i) 65% X LIBOR or (ii) 56% X LIBOR + .45% and b) equals 1M LIBOR.

Note: TDHCA is not a party to the Multifamily swap agreements and therefore is not required to report market value on financial statements.

Source: Texas Bond Review Board - Bond Finance Office.

THE UNIVERSITY OF TEXAS - INTEREST RATE SWAPS
As of August 31, 2017 (Unaudited)
(amounts in thousands)

PAY-FIXED, RECEIVE VARIABLE (Synthetic Fixed Rate) Bond Issue	Original Notional Amount	Current Notional Amount	Effective Date	Swap Termination Date	Fixed-Rate Paid	Variable-Rate Received	Counterparty Credit Ratings	Current Fair Value
UT RFS Refunding Bonds, Series 2007B-1	$172,730	$163,843	12/20/2007	08/01/2034	3.81%	SIFMA	A+/Aa3	-34,663
UT RFS Refunding Bonds, Series 2007B-2	172,730	163,843	12/20/2007	08/01/2034	3.81%	SIFMA	AA-/Aa2	-34,675
UT RFS Bonds, Series 2008B-1	155,000	119,905	03/18/2008	08/01/2036	3.90%	SIFMA	A+/Aa3	-27,491
UT RFS Bonds, Series 2008B-2	375,485	249,640	03/18/2008	08/01/2039	3.61%	SIFMA	A+/Aa3	-46,105
UT RFS Bonds, Series 2008B-3	155,000	119,905	03/18/2008	08/01/2036	3.90%	SIFMA	BBB+/A3	-27,429
UT PUF Bonds, Series 2008A-1	200,453	182,183	11/03/2008	07/01/2038	3.70%	SIFMA	AA-/Aa2	-46,211
UT PUF Bonds, Series 2008A-2	200,453	182,183	11/03/2008	07/01/2038	3.66%	SIFMA	A+/A1	-44,393
UT RFS Bonds, Series 2016G	250,000	250,000	12/01/2016	08/01/2045	2.00%	100% of 1M LIBOR	A+/A1	13,043
Pay-Fixed, Receive-Variable Total	**$1,681,851**	**$1,431,502**						**-$247,924**

PAY-VARIABLE, RECEIVE-VARIABLE (Basis Swap) Bond Issue	Original Notional Amount	Current Notional Amount	Effective Date	Swap Termination Date	Variable-Rate Paid	Variable-Rate Received	Counterparty Credit Ratings	Current Fair Value
UT PUF Bonds, Series 2008A-3	$198,113	$182,183	10/25/2011	07/01/2038	SIFMA	93.40% of 3M LIBOR	AA-/Aa2	5,946
UT RFS Bonds, Series 2008B-4	90,270	90,270	08/01/2009	08/01/2039	SIFMA	102.5% of 3M LIBOR	AA-/A1	6,476
UT RFS Bonds, Series 2008B-5	92,045	92,045	08/01/2009	08/01/2030	SIFMA	96% of 3M LIBOR	AA-/A1	3,200
UT RFS Bonds, Series 2008B-6	117,190	117,190	08/01/2009	08/01/2035	SIFMA	103% of 3M LIBOR	AA-/A1	7,517
UT PUF Bonds, Series 2006B	284,065	284,065	01/01/2009	07/01/2035	SIFMA	82.04% of 1M LIBOR	A+/A1	-693
UT RFS Bonds, Series 2016A-1*	255,825	255,825	04/15/2017	08/15/2046	2.43%	2.90%	A-/Baa2	-2,671
UT RFS Bonds, Series 2016A-2*	0	0	06/15/2017	08/15/2046	2.62%	3.17%	A-/Baa2	2,375
UT RFS Bonds, Series 2016A-3*	0	0	12/15/2017	08/15/2046	2.31%	3.01%	A-/Baa2	3,433
Pay-Variable, Receive-Variable Total	**$1,037,508**	**$1,021,578**						**$25,583**
TOTAL UTS INTEREST RATE SWAPS	**$2,719,359**	**$2,453,080**						**-$222,341**

* MMD Basis Swap - For the 2016A-1, 2016A-2, and 2016A-3 swaps, UTS receives fixed spread on $255.825 million of fixed-rate bonds outstanding.

Source: Texas Bond Review Board - Bond Finance Office.

Table C3

ESTIMATED DEBT-SERVICE REQUIREMENTS OF VARIABLE-RATE DEBT OUTSTANDING AND NET INTEREST RATE SWAP PAYMENTS [EXCLUDES PAY-VARIABLE, RECEIVE-VARIABLE (BASIS) SWAPS]

As of August 31, 2017 (Unaudited)

(amounts in thousands)

Texas Department of Housing and Community Affairs

Fiscal Year	Variable-Rate Bonds*		Interest Rate	
Ending 8/31/17	**Principal**	**Interest**	**Swaps, Net**	**Total**
2018	$0	$873	$2,710	$3,583
2019	0	863	2,710	3,573
2020	0	865	2,710	3,575
2021	0	861	2,710	3,571
2022	0	863	2,710	3,573
2023-2027	6,155	4,288	13,183	23,626
2028-2032	27,080	3,621	10,804	41,505
2033-2037	63,705	1,669	5,037	70,411
2038-2042	5,915	39	129	6,083
Total Debt Service and Net Interest Rate Swap Payments	**$102,855**	**$13,942**	**$42,703**	**$159,500**

*Does not indude multifamily bonds outstanding.

Source: Texas Department of Housing and Community Affairs

The University of Texas System

Fiscal Year	Variable-Rate Bonds		Interest Rate	
Ending 8/31/17	**Principal**	**Interest (1)**	**Swaps, Net (2)**	**Total**
2018	$27,140	$11,595	$36,813	$75,548
2019	28,155	11,391	36,016	75,562
2020	27,065	11,180	35,189	73,434
2021	28,055	10,977	34,396	73,428
2022	46,425	10,767	33,573	90,766
2023-2027	265,260	48,306	145,956	459,523
2028-2032	307,955	37,650	103,616	449,221
2033-2037	339,775	26,450	58,930	425,154
2038-2042	111,670	14,657	12,996	139,323
2043-2047	250,000	8,250	5,721	263,971
Total Debt Service and Net Interest Rate Swap Payments	**$1,431,500**	**$191,223**	**$503,205**	**$2,125,928**

(1) As required by GASB Statement No. 38, annual debt-service requirements are computed using the System's interest rates in effect on August 31, 2017 on its Series 2008A Bonds, Series 2007B Bonds, Series 2008B Bonds, and Series 2016G Bonds.

(2) Reflects net payments on pay-fixed, receive-variable interest rate swaps based on interest rates in effect at August 31, 2017, applied on the respective notional amounts of the swaps through their respective termination dates.

Source: The University of Texas System

Veterans Land Board

Fiscal Year	Variable-Rate Bonds		Interest Rate	
Ending 8/31/17	**Principal**	**Interest**	**Swaps, Net**	**Total**
2018	$157,115	$29,950	$44,606	$231,671
2019	170,300	27,865	40,975	239,140
2020	169,030	25,686	37,299	232,015
2021	160,030	23,556	33,820	217,406
2022	151,480	21,548	30,600	203,628
2023-2027	646,180	81,186	109,814	837,180
2028-2032	470,890	45,037	52,696	568,623
2033-2037	291,465	21,029	19,907	332,401
2038-2042	181,330	7,623	6,426	195,379
2043-2047	52,085	802	695	53,582
2048-2052	270	1	0	271
Total Debt Service and Net Interest Rate Swap Payments	**$2,450,175**	**$284,283**	**$376,838**	**$3,111,296**

Source: Veterans Land Board

Table C4

ESTIMATED DEBT-SERVICE REQUIREMENTS OF VARIABLE-RATE DEBT OUTSTANDING AND NET INTEREST RATE SWAP PAYMENTS

[PAY-VARIABLE, RECEIVE-VARIABLE (BASIS) SWAPS ONLY]

As of August 31, 2017 (Unaudited)

(amounts in thousands)

The University of Texas System

Fiscal Year	**Variable Rate Bonds** [1]		**Interest Rate**	
Ending 8/31/17	**Principal**	**Interest** [2]	**Swaps, Net** [3]	**Total**
2018	$3,003	$3,613	-$2,403	$4,212
2019	3,110	3,590	-2,390	4,310
2020	3,225	3,567	-2,377	4,415
2021	3,340	3,543	-2,362	4,520
2022	3,463	3,518	-2,348	4,632
2023-2027	43,903	17,179	-11,499	49,582
2028-2032	135,063	13,763	-9,358	139,467
2033-2037	212,113	8,313	-5,564	214,862
2038-2042	74,470	628	-423	74,674
Total Debt Service and Net Interest Rate Swap Payments	**$481,688**	**$57,713**	**-$38,725**	**$500,675**

(1) Includes principal and interest due on certain related bonds, which are also included in Table C3.

(2) As required by GASB Statement No. 38, annual debt-service requirements are computed using the System's interest rates in effect on August 31, 2017 on its Series 2008B Bonds, Series 2008A Bonds, and Series 2006B Bonds.

(3) Reflects net payments on pay-variable, receive-variable interest rate swaps based on interest rates in effect at August 31, 2017, applied on the respective notional amounts of the swaps through their respective termination dates.

Source: The University of Texas System

The University of Texas System

PUF Bonds, Series 2006B

Fiscal Year	**Fixed Rate Bonds** [1]		**Interest Rate**	
Ending 8/31/17	**Principal**	**Interest**	**Swaps, Net** [2]	**Total**
2018	$0	$14,852	-$639	$14,212
2019	0	14,852	-639	14,212
2020	24,740	14,852	-639	38,952
2021	25,980	13,615	-584	39,011
2022	27,335	12,251	-525	39,061
2023-2027	55,405	47,127	-2,020	100,513
2028-2032	104,045	23,333	-1,000	126,378
2033-2037	46,560	6,142	-263	52,439
Total Debt Service and Net Interest Rate Swap Payments	**$284,065**	**$147,022**	**-$6,309**	**$424,778**

(1) Reflects scheduled principal and interest of Permanent University Fund Bonds, Series 2006B.

(2) Reflects net payments on pay-variable, receive-variable interest rate swaps based on interest rates in effect at August 31, 2017, applied on the respective notional amounts of the swaps through their respective termination dates.

Source: The University of Texas System

Table C4 (continued)

ESTIMATED DEBT-SERVICE REQUIREMENTS OF VARIABLE-RATE DEBT OUTSTANDING AND NET INTEREST RATE SWAP PAYMENTS [PAY-VARIABLE, RECEIVE-VARIABLE (BASIS) SWAPS ONLY]

As of August 31, 2017 (Unaudited)

(amounts in thousands)

The University of Texas System

RFS 2016A MMD Basis Swap

Fiscal Year	Fixed Rate Bonds		Interest Rate	
Ending 8/31/17	**Principal**	**Interest**	**Swaps, Net**	**Total**
2018	$0	$9,854	-$2,622	$7,232
2019	0	9,854	-2,622	7,232
2020	0	9,854	-2,622	7,232
2021	0	9,854	-2,622	7,232
2022	0	9,854	-2,622	7,232
2023-2027	0	49,272	-13,111	36,161
2028-2032	0	49,272	-13,111	36,161
2033-2037	0	49,272	-13,111	36,161
2038-2042	0	49,272	-13,111	36,161
2043-2047	255,825	39,418	-10,489	284,754
Total Debt Service and Net Interest Rate Swap Payments	**$255,825**	**$285,776**	**-$76,043**	**$465,558**

Source: The University of Texas System

Veterans Land Board

Fiscal Year	Variable-Rate Bonds		Interest Rate	
Ending 8/31/17	**Principal**	**Interest**	**Swaps, Net**	**Total**
2018	$1,205	$482	-$54	$1,633
2019	1,280	461	-52	1,689
2020	1,365	438	-49	1,754
2021	1,445	413	-46	1,812
2022	1,535	388	-44	1,879
2023-2027	9,250	1,490	-168	10,572
2028-2032	10,995	568	-64	11,499
2033-2037	1,370	12	-1	1,381
Total Debt Service and Net Interest Rate Swap Payments	**$28,445**	**$4,252**	**-$478**	**$32,219**

Source: Veterans Land Board

Appendix D
Debt Issuance Costs

Issuance costs are composed of the professional fees and expenses paid to service providers and underwriters to market bonds to investors. Professional services commonly used in the marketing of all types of municipal securities are listed below:[1]

• Underwriter - The underwriter or underwriting syndicate acts as a dealer that purchases a new issue of municipal securities from the issuer for resale to investors. The underwriter may acquire the securities either by negotiation with the issuer or by award on the basis of competitive bidding.

The largest portion of the costs associated with the issuance of bonds is the fee paid to the underwriter (or underwriting syndicate), known as the "underwriting spread." The spread is the underwriter's compensation for purchasing the bonds from the issuer and reselling them in the bond market. It consists of four components:

- Takedown - Represents the discount that the members of the syndicate receive when they purchase the bonds from the issuer;
- Management fee - Compensation to the underwriters for creating and implementing the financing package;
- Underwriting fee - A risk premium to compensate the underwriters for market risk of the underwriting; and
- Expenses - Costs associated with the marketing of the bonds such as CUSIP, travel, printing and underwriter's legal fees.

• Bond Counsel - Bond counsel is retained by the issuer to provide legal advice and a legal opinion that: 1) the issuer is authorized to issue the proposed securities; 2) the issuer has met all legal requirements necessary for issuance; and 3) if appropriate, the interest on the proposed securities is exempt from federal income taxation and where applicable, from state and local taxation. Bond counsel prepares and/or reviews documentation and advises the issuer regarding: 1) authorizing resolutions or ordinances; 2) trust indentures; 3) official statements; 4) validation proceedings; 5) disclosure requirements; and 6) litigation.

• Financial Advisor - The financial advisor advises the issuer on matters pertinent to a proposed issue such as structure, timing, marketing, pricing, terms and bond ratings. A financial advisor may also be employed to provide advice on subjects unrelated to a new issue of securities such as advising on cash flow and investment matters as well as the issuer's overall debt-management policies.

• Disclosure Counsel – An attorney or law firm retained by the issuer to provide advice on issuer disclosure obligations and to prepare the official statement and/or continuing disclosure agreement.

• Credit Rating Agencies - Credit rating agencies provide public or private ratings on the credit quality of securities issues to help investors assess the probability of timely repayment of principal and interest on municipal securities. Ratings are initially released before issuance and are reviewed periodically after issuance and may be amended to reflect changes in the issuer's creditworthiness.

• Paying Agent/Registrar - The paying agent is responsible for transmitting payments of principal and interest from the issuer to the security holders and maintaining records of the owners of registered bonds on behalf of the issuer.

• Printer - The printer produces the official statement, notice of sale and any bonds required to be transferred between the issuer and purchasers of the bonds.

Choosing the Method of Sale: Negotiated versus Competitive

Selecting the method of sale is one of the most important decisions an issuer of securities must make. Both negotiated and competitive sales have distinct advantages and disadvantages described below.

[1] Definitions adapted from the Municipal Securities Rulemaking Board's *Glossary of Municipal Securities Terms.*

In a negotiated sale an underwriter is chosen in advance of the sale and agrees to buy the bonds at a mutually-agreed future date for resale. As part of the preparation for the underwriting at that future date, the underwriter actively markets the bonds to potential buyers to ensure a successful resale at the time of the underwriting. In more complicated financings, pre-sale marketing can be crucial to obtaining the lowest possible interest cost. In addition, the negotiated method of sale offers issuers greater timing and structural flexibility than competitive sales, as well as more influence in directing bond distribution to selected underwriting firms and investors.

Disadvantages of negotiated sales are a lack of competition in pricing and the possible appearance of favoritism. These factors can result in wider fluctuations in underwriting spreads for negotiated transactions than for comparable competitive transactions.

Conditions that suggest a negotiated sale are market volatility and securities for which market demand is difficult to ascertain. Often called "story bonds," these include securities issued by an infrequent issuer or an issuer with weak or declining credit rating(s) or securities that contain innovative structuring, derivatives or other complexities.

In a competitive sale, sealed or electronic bids from a number of underwriters are opened on a predetermined sale date and time. The bonds are then awarded to the underwriter submitting the lowest bid that meets the terms and conditions of the sale. Generally, underwriters that bid competitively perform less pre-sale marketing because they will not know if they have been awarded the underwriting contract until the day the bids are opened.

Advantages of the competitive bid include: 1) bids are developed in a competitive environment where market forces determine the price; 2) spreads are typically lower; and 3) the winning bid is developed in an open process among underwriters. Disadvantages of the competitive sale include: 1) limited flexibility in timing the sale and structuring the transaction; 2) limited pre-sale marketing; 3) minimum control over the distribution of bonds; and 4) the likelihood that underwriters' bids will include a risk premium to compensate for uncertainty regarding market demand.

Conditions that suggest a competitive sale are a stable, predictable market in which market demand for the securities can be relatively easily determined. Stable market conditions lessen the underwriters' risk of holding unsold balances.

Market demand is generally easier to assess for securities that: 1) are issued by well-known, highly-rated issuers that regularly access the debt market; 2) are conventionally structured, such as serial and term coupon bonds; and 3) have a strong source of repayment and thus a high credit rating. These conditions will generally lead to aggressive bidding resulting in lower costs of issuance since the underwriters will be able to more easily assess market demand without extensive pre-marketing activities.

In determining the method of sale, factors such as size, complexity, market conditions and time frame most influence the issuer's decision. Issuers should focus primarily on how their bonds are being priced in the market and focus secondarily on the underwriting spread. For example, reducing the takedown (selling) component of the underwriters' spread to reduce costs may result in reducing the sales effort needed to successfully place the issue which in turn could result in a lower price (higher yield) for the issue in aftermarket trading.

Appendix E
Texas State Debt Programs

COLLEGE STUDENT LOAN BONDS

Statutory/Constitutional Authority: Article III, Sections 50b, 50b-1, 50b-2, 50b-3, 50b-4, 50b-5, 50b-6 and 50b-7 of the Texas Constitution, adopted in 1965, 1969, 1989, 1991, 1995, 1999, 2007 and 2011, respectively, authorize the issuance of general obligation bonds by the Texas Higher Education Coordinating Board (HECB). Sections 50b, 50b-1, 50b-2, 50b-3, were subsequently repealed in 1999. Section 50b-7 authorizes the HECB to issue College Student Loan Bonds in an aggregate principal amount of outstanding bonds that at all times may not exceed $1,860,000,000.

Chapter 52 of the Texas Education Code (the Act) authorizes the administration of various student loan programs and the related issuance of private activity bonds. Pursuant to the Act, the HECB administers the State of Texas College Student Loan Bonds Interest and Sinking Fund, which was established by the Act as a fund in the State Treasury. Money received by the Board in each Fiscal Year as repayment of student loans granted under the Act and interest thereon must first be deposited in the Interest and Sinking Fund in an amount sufficient to pay the interest on and principal of previously issued bonds, and any additional bonds coming due during the ensuing fiscal year.

The HECB is required to obtain the approval of the Attorney General's Office and the Bond Review Board prior to issuance and to register its bonds with the Comptroller of Public Accounts.

Purpose: Proceeds from the sale of bonds are used to make College Access Loans (CAL) to eligible students attending public or private colleges and universities in Texas. The CAL loan is an alternative educational loan that may be used to cover the amount of the student's cost of attendance that is not covered by other resources.

CAL loans are extended under this program by authority of the Act and the administrative rules of the HECB, found at Title 19 Texas Administrative Code, Chapter 22, Subchapter C.

Security: The first monies coming into the Comptroller of Public Accounts - Treasury Operations, not otherwise dedicated by the Constitution, are pledged to pay debt service on the general obligation bonds.

Dedicated/Project Revenue: Principal and interest repayments on the loans are pledged to pay debt service on the bonds issued by the Coordinating Board and related administrative costs. No draw on general revenue is anticipated.

Contact:
Ken Martin
Assistant Commissioner
Financial Services
Texas Higher Education Coordinating Board
512-427-6173
ken.martin@thecb.state.tx.us

COLLEGE AND UNIVERSITY REVENUE BONDS

Statutory Authority: Section 55.13 of the Texas Education Code authorizes the governing boards of institutions of higher education to issue revenue bonds to provide funds to acquire, construct, improve, enlarge and equip property, buildings, structures or facilities.

The Texas Public Finance Authority (TPFA) acts as the exclusive issuer of revenue debt for Midwestern State University and Texas Southern University. Stephen F. Austin State University, Texas State Technical College System as well as general academic teaching institutions as defined by Section 61.003 of the Texas Education Code have the option to use TPFA as the issuer.

The governing boards are required to obtain the approval of the Bond Review Board unless exempted under Sec. 1231.041 of the Texas Government Code. Approval by the Attorney General's Office prior to issuance is required on all transactions and college and university revenue bond issuers are required to register their bonds with the Comptroller of Public Accounts.

Purpose: Proceeds are used to acquire, purchase, construct, improve, enlarge and/or equip property, buildings, structures, activities, services, operations or other facilities.

Security: The revenue bonds issued by the institutions' governing boards are secured by the income of the institutions and are not an obligation of the state of Texas. Neither the state's full faith and credit nor its taxing power is pledged toward payment of the bonds.

Dedicated/Project Revenue: Debt service is payable from the institution's pledged revenues. Pledged revenues include the pledged tuition and any or all of the revenues, funds and balances lawfully available to the governing boards and derived from or attributable to any member of the Revenue Financing System.

Contact:
Individual colleges and universities.

FARM AND RANCH LOAN BONDS

Statutory/Constitutional Authority: Article III, Section 49-f, of the Texas Constitution, adopted in 1985, authorizes the issuance of general obligation bonds by the Veterans Land Board. The program was transferred in 1993 from the Veterans Land Board to the Texas Agricultural Finance Authority with the passage of HB 1684 by the 73rd Legislature. In 1995, a constitutional amendment was approved that expanded the use of existing bond authority and allows no more than $200 million of the authority to be used for the purposes defined in Article III, Section 49-i, of the Texas Constitution and for other rural economic development programs. In 1997, HB 2499, 75th Legislature increased the maximum loan amount available through the program to $250,000. In 2001, SB716, 77th Legislature authorized the Authority to provide a guarantee to a local lender for an eligible applicant.

Purpose: Proceeds from the sale of the general obligation bonds may be used to make loans of up to $250,000 to each eligible Texan for the purchase of farms and ranches.

Security: The bonds are general obligations of the state of Texas. The first monies coming into the Comptroller of Public Accounts - Treasury Operations, not otherwise dedicated by the Constitution, are pledged to pay debt service on the bonds.

Dedicated/Project Revenue: Principal and interest payments on the farm and ranch loans are pledged to pay debt service on the bonds issued by the Texas Agricultural Finance Authority. The program is designed to be self-supporting; therefore, no draw on general revenue is anticipated.

Contact:
Karen Reichek
Director of Contracts and Grants
Rural Economic Development Division
Texas Department of Agriculture
(512) 936-2450

HIGHER EDUCATION CONSTITUTIONAL BONDS

Statutory/Constitutional Authority: Article VII, Section 17, of the Texas Constitution, adopted in 1985, authorizes the issuance of constitutional appropriation bonds (generally referred to as Higher Education Assistance Fund or HEF bonds) by institutions of higher education not eligible to issue bonds payable from and secured by the income of the Permanent University Fund (PUF). Legislative approval of bond issues is not required;

however, approval of the Bond Review Board and the Attorney General is required and the bonds must be registered with the Comptroller of Public Accounts.

Purpose: Proceeds from the sale of bonds are used by qualified institutions for library materials, land acquisition, new construction, major repairs and renovations or equipment.

Security: The first $175 million coming into the Comptroller of Public Accounts - Treasury Operations, not otherwise dedicated by the Constitution, goes to qualified institutions of higher education to fund certain land acquisition, construction and repair projects. In 2005, the 79th Legislature increased the total allocation to qualified institutions to $262.5 million beginning in fiscal year 2008. Fifty percent of this amount may be pledged to pay debt service on any bonds or notes issued. While not explicitly a general obligation or full-faith and credit bond, the stated pledge has the same effect.

Dedicated/Project Revenue: Debt service is payable solely from state General Revenue Fund appropriations to institutions of higher education.

Contact:
Individual colleges and universities.

PERMANENT UNIVERSITY FUND BONDS

Statutory/Constitutional Authority: Article VII, Section 18, of the Texas Constitution, initially adopted in 1947, as amended in November 1984, authorizes the Boards of Regents of The University of Texas and The Texas A&M University Systems to issue revenue bonds payable from and secured by the income of the Permanent University Fund (PUF). The constitutional amendment approved by voters on November 2, 1999, allows for distributions from the PUF to be based on the "total return" on all PUF investment assets, including current income as well as capital gains. Neither legislative approval nor Bond Review Board approval is required. Approval of the Attorney General is required and the bonds must be registered with the Comptroller of Public Accounts.

Purpose: Proceeds are used for acquiring land either with or without permanent improvements, constructing and equipping buildings or other permanent improvements, major repair and rehabilitation of buildings and other permanent improvements, acquiring capital equipment and library books and library materials and refunding PUF bonds or PUF notes.

Security: Bonds are equally and ratably secured by and payable from a first lien on and pledge of the interest of the UT System or the A&M System in the Available University Fund. The total amount of PUF bonds is subject to the constitutional limitation in that the aggregate amount of bonds payable from the Available University Fund cannot, at the time of issuance, exceed 30% of the cost value of investments and other assets of the PUF, exclusive of real estate.

The PUF bonds do not constitute general obligations of the UT Board or A&M Board, the Systems, the state of Texas or any political subdivision of the state of Texas. Neither the UT Board nor the A&M Board have taxing power, and neither the credit nor the taxing power of the state of Texas or any political subdivision thereof is pledged as security for the bonds.

Dedicated/Project Revenue: Bonds are repaid from the Available University Fund which consists of distributions from the "total return" on all investment assets of the PUF including the net income attributable to the surface of PUF land, in amounts determined by the UT Board.

Contacts:
Terry Hull
Associate Vice Chancellor for Finance
The University of Texas System
(512) 499-4494
thull@utsystem.edu

Maria Robinson
Chief Investment Officer and Treasurer
The Texas A&M University System
(979) 458-6330
mrobinson@tamus.edu

TEXAS AGRICULTURAL FINANCE AUTHORITY BONDS

Statutory/Constitutional Authority: The Texas Public Finance Authority (the "Authority") is authorized to issue general obligation and revenue bonds on behalf of the Texas Agricultural Finance Authority ("TAFA") pursuant to Agriculture Code Section 58.041. This authority was transferred from TAFA to the Authority effective September 1, 2009. The issuance of general obligation debt for TAFA programs is authorized by the Texas Constitution, Article III, Sections 49-f and 49-i.

Purpose: Chapter 58 of the Texas Agriculture Code created TAFA under the Texas Agricultural Finance Act and authorizes TAFA to establish programs to support agricultural business in Texas. Under the Agricultural Finance Act, TAFA is authorized to use bond proceeds for loans and other financing assistance for the purchase of farm and ranch land. In addition, proceeds may be used to establish a Texas Agricultural Fund for rural economic development programs and to establish a Rural Microenterprise Development Fund to fund programs that foster and stimulate the creation and expansion of small businesses in rural areas. TAFA may use the proceeds to provide loan guarantees, insurance, coinsurance, loans and indirect loans or purchases or acceptances of assignments of loans or other obligations.

Security: In addition to general obligation bonds, TAFA may issue up to $500 million in revenue bonds for the purpose of providing money to carry out its programs. Before authorizing the issuance of any general obligation bonds for programs funded by the Texas Agricultural Development Fund or the Rural Microenterprise Development Fund, the TAFA board must determine that the issuance of revenue bonds is not an economically advisable alternative. TAFA's revenue bonds are secured by pledged revenues and liens on TAFA's property, revenues, income or other resources of the authority, including mortgages or other interests in property financed with bond proceeds.

Dedicated/Project Revenue: Debt service on revenue debt issued by TAFA is not an obligation of the state and is payable solely from any loan repayments and other pledged revenue and assets of TAFA. Debt service on general obligation debt is payable from pledged repayments on loans made under a financial assistance program funded by bond proceeds, or state general revenue if income is insufficient to make debt-service payments.

Contacts:
Jason Fearneyhough
Deputy Commissioner
Texas Department of Agriculture
(512) 936-2450
grants@texasagriculture.gov

Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Statutory Authority: The Texas Low-Level Radioactive Waste Disposal Authority (the "Authority") was created in 1981 (Texas Health and Safety Code, Chapter 402), and authorized to issue revenue bonds in 1987 to finance certain costs related to the creation of a radioactive waste disposal site. The Authority was required to obtain the approval of the Attorney General's Office and the Bond Review Board prior to issuance and to register its bonds with the Comptroller of Public Accounts. In 1997, HB 1077, 75th Legislature authorized the Texas Public Finance Authority to issue the bonds on behalf of the Texas Low-Level Radioactive Waste Disposal Authority.

The 76th Legislature abolished the Authority effective September 1, 1999 and transferred all of its duties, responsibilities and resources to the Texas Natural Resource Conservation Commission ("the Commission") that has since been renamed the Texas Commission on Environmental Quality.

Although the statutory authority remains, it is unlikely that any such bonds will be issued.

Contact:
Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS BONDS

Statutory Authority: The Texas Department of Housing and Community Affairs (the "Department") was created pursuant to Chapter 762, 1991 Tex. Sess. Law Serv. 2672, the Act, codified as Chapter 2306, Texas Government Code. The Department is the successor agency to the Texas Housing Agency (THA) and the Texas Department of Community Affairs, both of which were abolished by the Act with their functions and obligations transferred to the Department.

Pursuant to the Act, the Department may issue bonds, notes or other obligations to finance or refinance residential housing and to refund bonds previously issued by the THA, the Department or certain other quasi-governmental issuers. The Act specifically provides that the revenue bonds of the THA become revenue bonds of the Department. Legislative approval of bond issues is not required; however, the Department is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts.

Purpose: Proceeds from the sale of bonds are used to provide assistance to individuals and families of low, very low and moderate income and persons with special needs to obtain decent, safe and sanitary housing.

Security: Any bonds issued are obligations of the Department and are payable solely from the revenues and funds pledged for the payment thereof. The Department's bonds are not an obligation of the state of Texas, and neither the state's full faith and credit nor its taxing power is pledged toward payment of the Department's bonds.

Dedicated/Project Revenue: Revenue received by the Department from the repayment of loans and investment of bond proceeds is pledged to the payment of principal and interest on bonds issued.

Contacts:
Monica Galuski
Director of Bond Finance
Texas Department of Housing and Community Affairs
(512) 935-9268
monica.galuski@tdhca.state.tx.us

Marni Holloway
Director of Multifamily Finance
Texas Department of Housing and Community Affairs
(512) 475-3726
marni.holloway@tdhca.state.tx.us

TEXAS DEPARTMENT OF TRANSPORTATION BONDS

Statutory/Constitutional Authority: The Texas Transportation Commission ("Commission"), the governing body of the Texas Department of Transportation ("TxDOT") is authorized to issue both revenue and general obligation bonds.

In 1997, the Texas Turnpike Authority ("TTA") was established by SB 370, 75th Legislature (Texas Transportation Code, Chapter 361). Effective November 6, 2001, SB 342, 77th Legislature abolished the TTA board and assigned all duties, including authority to issue bonds for toll projects to the Commission, which provides for all the management of the TTA's affairs as a division of TxDOT. The Commission's authority to issue toll revenue bonds is provided by Subchapter C of Chapter 228, Texas Transportation Code.

In 2001, voters approved Article III, Section 49-k of the Texas Constitution, and Subchapter M of Chapter 201, Texas Transportation Code, which established the Texas Mobility Fund within the state treasury and authorized the Commission to issue general obligation bonds payable from the revenues of the fund.

In 2003, voters approved Proposition 14 that added Article III, Section 49-n of the Texas Constitution which, along with the enabling legislation, Section 222.003, Texas Transportation Code, authorized the issuance of $3 billion in securities payable from the revenues of the State Highway Fund. In 2005 the program capacity was increased to $6 billion with a maximum annual issuance of $1.5 billion.

In 2007, voters approved Proposition 12 that added Article III, Section 49-p to the Texas Constitution. In 2009, HB 1, 81st Legislature, First Called Session ratified Section 222.004 to the Texas Transportation Code that authorized the issuance of $5 billion in highway improvement general obligation bonds.

Purpose: Proceeds from the sale of toll revenue bonds may be used to pay for all or part of the cost of a toll project provided that they are only used to pay costs of the project for which they are issued. In 2002, the Commission issued the Central Texas Turnpike System Revenue Obligations to finance a portion of the planning, design, engineering and construction of the initial phase of the Central Texas Turnpike System (SH 130 Segments 1 through 4, SH 45 North, and Loop 1).

Revenues and obligations secured by the Texas Mobility Fund may be used for acquisition, construction, maintenance, reconstruction and expansion of state highways and the participation by the state in the costs of constructing publicly-owned toll roads and other public transportation projects.

State Highway Fund Revenue bonds (Proposition 14 Bonds) may be used to finance state highway improvement projects that are eligible for funding with constitutionally dedicated revenues. Of the $6 billion currently authorized, $1.2 billion must be used to fund projects that improve highway safety.

Highway improvement general obligation bonds (Proposition 12 Bonds) may be used to pay all or part of the costs of highway improvement projects.

Security: Project revenue bonds issued pursuant to Chapter 228, Texas Transportation Code (including Central Texas Turnpike System bonds) are not an obligation of the Commission, TxDOT, nor the state and are payable solely from the revenues of the project for which the securities are issued or other eligible sources.

Obligations of the Texas Mobility Fund (the "Fund") are secured by and payable from a pledge of revenues dedicated to and on deposit in the Fund. Pledged revenues of the Fund primarily consist of driver's license fees, driver record information fees, motor vehicle inspection fees and certificate of title fees. Bonds secured by the Fund may also carry the state's full faith and credit, pledging the state's taxing power toward payment of the bonds if the dedicated revenues in the Fund are insufficient for repayment of the bonds.

State Highway Fund Revenue bonds are payable from a lien on pledged revenues consisting primarily of certain fees and reimbursements deposited to the credit of the State Highway Fund. Major sources of revenue for the State Highway Fund consist of state motor fuels tax receipts, state motor vehicle registration fees and federal reimbursements.

Highway improvement general obligation bonds carry the state's full faith and credit, pledging the state's taxing power toward payment of the bonds.

Dedicated/Project Revenue: Project revenue bonds are repaid from revenue of the project for which the bonds were issued. Debt service on Texas Mobility Fund bonds and State Highway Fund Revenue bonds is payable from the revenues dedicated to each fund except that Texas Mobility Fund bonds also carry the state's general obligation pledge. Highway improvement general obligation bonds issued pursuant to Section 222.004, Texas Transportation Code are payable from the state's general revenues including Proposition 7 deposits to the State Highway Fund. In 2015, voters approved Proposition 7 that added Article VIII, Section 7-c to the Texas Constitution and directs the Comptroller of Public Accounts to deposit in the State Highway Fund $2.5 billion of the net revenue from the state sales and use tax that exceeds the first $28 billion of that revenue coming into the state treasury in that fiscal year, beginning in FY 2018.

Contact:
Benjamin Asher
Director, Project Finance, Debt and Strategic Contracts Division Texas Department of Transportation
(512) 463-8611
benjamin.asher@txdot.gov

TEXAS PRIVATE ACTIVITY BOND SURFACE TRANSPORTATION CORPORATION BONDS

Statutory Authority: The Texas Transportation Commission ("Commission") is authorized pursuant to the authority in the Texas Transportation Code, Chapter 431, Subchapters A through C ("Chapter 431"), to create transportation corporations to assist and act on behalf of the Commission to promote and develop new and expanded public transportation facilities and systems. Such transportation corporations are authorized to issue bonds for the same purpose for which they were created including issuance of private activity bonds for public transportation facilities and systems to be developed pursuant to comprehensive development agreements entered into by the Texas Department of Transportation ("TxDOT") as authorized by Subchapter E of Chapter 223, Texas Transportation Code. Pursuant to Chapter 431, the Commission created the Texas Private Activity Bond Surface Transportation Corporation ("Corporation") as a conduit issuer of private activity bonds in 2008.

Purpose: Proceeds from the sale of the Corporation's revenue bonds may be used to carry out the purposes for which the Corporation was created, including the development and expansion of public transportation projects, provided that obligations are only used to pay costs of the project for which they are issued.

Security: Bonds issued are payable solely from the revenues, funds, and other sources pledged for the payment thereof. The Corporation's bonds are not obligations of the state, and neither the state's full faith and credit nor its taxing power is pledged toward the payment of the Corporation's bonds.

Dedicated/Project Revenue: Revenue received by the Corporation from the repayment of loans and investment of bond proceeds is pledged to the payment of principal and interest on the bonds issued.

Contact:
Benjamin Asher
Director, Project Finance, Debt and Strategic Contracts Division
Texas Department of Transportation
(512) 463-8611
benjamin.asher@txdot.gov

GRAND PARKWAY TRANSPORTATION CORPORATION BONDS

Statutory Authority: The Texas Transportation Commission ("Commission") is authorized pursuant to the authority in the Texas Transportation Code, Chapter 431, Subchapters A through C ("Chapter 431"), to create transportation corporations to assist and act on behalf of the Commission to promote and develop new and expanded public transportation facilities and systems. Such transportation corporations are authorized to issue bonds for the same purpose for which they were created including issuance of bonds for public transportation facilities and systems to be developed pursuant to comprehensive development agreements entered into by the Texas Department of Transportation ("TxDOT") as authorized by Subchapter E of Chapter 223, Texas Transportation Code. Pursuant to Chapter 431, the Commission created the Grand Parkway Transportation Corporation ("Corporation") in 2012 to develop, finance, refinance, design, construct, reconstruct, expand, operate or maintain some or all of the segments of the State Highway 99 (Grand Parkway) toll project that are to be developed by TxDOT.

Purpose: Proceeds from the sale of the Corporation's toll revenue bonds may be used to carry out the purposes for which the Corporation was created, in particular developing, financing, refinancing, designing, constructing, reconstructing, expanding, operating or maintaining some or all of the segments of the Grand Parkway toll project to be developed by TxDOT.

Security: Bonds issued are secured by the Trust Estate created and pledged pursuant to the Master Trust Agreement, as supplemented, which includes the toll revenues, funds, and other sources pledged as part of the Trust Estate. The Corporation and TxDOT have entered into a Toll Equity Loan Agreement, as amended, ("TELA") that makes support available for eligible costs of the Grand Parkway through advances by TxDOT if toll revenues and certain fund balances are insufficient to pay certain expenses including debt service on TELA supported bonds. The Corporation's bonds are not obligations of the state, and neither the state's full faith and credit nor its taxing power is pledged toward the payment of the Corporation's bonds.

Dedicated/Project Revenue: Corporation bonds are supported by the Trust Estate pursuant to the Master Trust Agreement, as supplemented, including tolls and other revenues of the Grand Parkway System (currently comprised of Segment D in Harris County and Segments E, F-1, F-2, and G in Harris and Montgomery Counties) and certain other funds held by the trustee under the Master Trust Agreement. The Corporation is in the process of issuing additional obligations for paying the costs of extending, expanding and improving the Grand Parkway System including the H and I Project.

Contact:
Benjamin Asher
Director, Project Finance, Debt and Strategic Contracts Division
Texas Department of Transportation
(512) 463-8611
benjamin.asher@txdot.gov

TEXAS ECONOMIC DEVELOPMENT AND TOURISM BONDS

Statutory/Constitutional Authority: In 1989, specific authority was provided by Section 71, Article XVI of the Texas Constitution to fund the Product Development and Small Business Incubator (PDSBI) program. As the successor office to the Texas Department of Economic Development, the Economic Development and Tourism Office (the "Office") within the Office of the Governor was created by SB 275, 78th Legislature, which authorizes the Office to issue both general obligation and revenue bonds. This legislation also provided the statutory authority for the Texas Economic Development Bank to issue bonds to fund the PDSBI Program.

Purpose: Proceeds from the sale of bonds are used to fund the PDSBI program. The money from these funds provides financial assistance to promote domestic business development through loans to finance the commercialization of new and improved products and processes and foster the development of small businesses in the State.

Security:
The full faith and credit of the state is pledged for the payment of the bonds.

Dedicated/Project Revenue: Revenue of the Office, primarily from the repayment of loans and the disposition of debt instruments, is pledged to the payment of principal and interest on bonds issued.

Contact:
Nicole Ryf
Director, Economic Development Finance
Office of the Governor
(512) 936-0101
nicole.ryf@gov.texas.gov

TEXAS MILITARY FACILITIES COMMISSION BONDS

Statutory Authority: The Texas Military Facilities Commission (the "Commission") was created in 1997 by SB 352, 75th Legislature, as the successor agency to the National Guard Armory Board, which was created as a state agency in 1935 (Texas Government Code, Chapter 435) and authorized to issue long-term debt. Legislative approval of bond issues is not required; however, the Commission is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts.

In 1991, SB 3, 72nd Legislature, authorized the Texas Public Finance Authority (the "Authority") to issue bonds on behalf of the Texas Military Facilities Commission (Texas Government Code, Section 435.041).

SB 1724, Acts of the 80th Legislature (2007) abolished the Commission and transferred all its duties, responsibilities, property and assets to the Adjutant General's Department. To preserve the pledged revenue stream and meet the state's obligations under the bonds, the Commission's title to facilities, the rental and other income of which is pledged to the bonds, was transferred to the Texas Public Finance Authority effective September 1, 2007. The Authority will continue leasing the facilities to the Adjutant General's Department which is obligated to continue making rental payments until the bonds are retired after which the Authority will transfer title to the facilities to the Adjutant General.

Purpose: Proceeds from the sale of bonds are used to acquire land, to construct, remodel, repair or equip buildings for the Texas National Guard.

Security: Any bonds issued are obligations of the Authority and are payable from "rents, issues, and profits" of the facilities leased to the Adjutant General's Department. The bonds are not general obligations of the state of Texas and neither the state's full faith and credit nor its taxing power is pledged toward payment of the bonds.

Dedicated/Project Revenue: The rent payments used to retire the bonds are paid by the Adjutant General's Department primarily with general revenue funds appropriated by the legislature. Independent project revenue, in the form of other income from properties owned by the Adjutant General's Department is also used to pay a small portion of debt service.

Contacts:
Amanda Hafer
Deputy Chief Fiscal Officer
Texas Military Department
(512) 782- 5253
amanda.hafer@military.texas.gov

Pamela Darden
Chief Fiscal Officer
Texas Military Department
(512) 782-5688
pamela.a.darden@ military.texas.gov

Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS PARKS AND WILDLIFE DEPARTMENT BONDS

Statutory/Constitutional Authority: Article III, Section 49-e, of the Texas Constitution, adopted in 1967, authorized the Texas Parks and Wildlife Department (the "Department") to issue general obligation bonds to acquire and develop state parks. In 1991, SB 3, 72nd Legislature, authorized the Texas Public Finance Authority (the "Authority") to issue bonds on behalf of the Department. In 1997, HB 3189, 75th Legislature, codified in the Texas Parks and Wildlife Code, Section 13.0045, authorized the Authority to issue revenue bonds or other revenue obligations not to exceed $60.0 million in the aggregate on behalf of the Department for construction and renovation projects for parks and wildlife facilities.

Purpose: Proceeds from the sale of general obligation bonds are used to purchase and develop state park lands. Proceeds from the sale of revenue bonds are used to finance the repair, renovation, improvement and equipping of parks and wildlife facilities.

Security: General obligation debt issued on behalf of the Department is payable from revenues and income of the Department. In the event that such income is insufficient to repay the debt, the first monies coming into the Comptroller of Public Accounts - Treasury Operations, not otherwise dedicated by the Constitution, are pledged to pay debt service on the bonds.

Revenue obligations issued on behalf of the Department are to be repaid from rent payments made by the Department to the Authority. The Department may receive legislative appropriations of general revenue for its required rental payments.

Dedicated/Project Revenue: Debt service on general obligation park development bonds is payable from entrance fees to state parks. Additionally, sporting goods sales tax revenue may also be used to pay debt service on general obligation park development bonds.

The Department's lease obligations to the Authority for revenue bonds are repaid from the Department's general revenue appropriation for lease payments.

Contacts:
Jessica Davisson
Infrastructure Division Director
Texas Parks and Wildlife Department
(512) 389-4741
jessica.davisson@tpwd.texas.gov

Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS PUBLIC FINANCE AUTHORITY BONDS

Statutory/Constitutional Authority: The Texas Public Finance Authority (the "Authority") is authorized to issue both revenue and general obligation bonds.

The Authority was initially created by the legislature in 1983, by Texas Revised Civil Statutes Ann., Article 601d (now Chapter 1232, Texas Government Code) and was authorized to issue revenue bonds to finance state office buildings.

Article III, Section 49-h, of the Texas Constitution, adopted in 1987, authorized the Authority to issue general obligation bonds for correctional and mental health facilities.

In 1989, the Authority was authorized to establish a Master Lease Purchase Program. This program was created to finance the purchase of equipment on behalf of various state agencies at tax-exempt interest rates.

In 1991, the Authority was given the responsibility of issuing revenue bonds for the Texas Workers' Compensation Fund under Subchapter G, Chapter 5, of the Texas Insurance Code.

The 73rd Legislature authorized the Authority, effective January 1, 1992, to issue bonds on behalf of the Texas Military Facilities Commission, Texas National Research Laboratory Commission, Texas Parks and Wildlife Department and the Texas State Technical College. In 1993, the Authority was authorized to issue bonds or other obligations to finance alternative fuels equipment and infrastructure projects for state agencies, institutions of higher education and political subdivisions.

The 74th Legislature authorized the Authority to issue building revenue bonds on behalf of the Texas Department of State Health Services (formerly the Texas Department of Health) for financing a Public Health Laboratory in Travis County and to issue general obligation bonds on behalf of the Texas Juvenile Probation Commission.

The 75th Legislature authorized the Authority to issue bonds on behalf of the Texas Low-Level Radioactive Waste Disposal Authority (see Texas Commission on Environmental Quality), Midwestern State University, Texas Southern University and Stephen F. Austin State University. Other legislation passed by the 75th Legislature authorized the Authority to issue revenue bonds on behalf of the Texas Health and Human Services Commission and the Texas Parks and Wildlife Department. The legislature also authorized the Authority to issue bonds to finance the Texas State History Museum on behalf of the State Preservation Board.

The 76th Legislature authorized the Authority to issue revenue obligations to finance automated information systems for the Texas Department of Human Services' electronic benefits transfer (EBT) and integrated eligibility (TIERS) programs.

In 2001, constitutional amendments were adopted authorizing the issuance of: (1) up to $850 million of general obligation bonds to finance construction, renovation and equipment acquisitions for thirteen state agencies (Texas Constitution, Article III, Section 50-f); and (2) up to $175 million of general obligation bonds to finance assistance to border counties for roadways in colonias (Texas Constitution, Article III, Section 49-l). Additionally, the 77th Legislature authorized the Authority to issue bonds to finance nursing home liability insurance and to establish a corporation to issue bonds for charter schools. Bonds issued for charter schools do not constitute state debt.

In 2003, the 78th Legislature authorized the Authority to issue revenue bonds on behalf of the Texas Workforce Commission to fund the unemployment compensation program. (See the Texas Labor Code, Chapter 203, Subchapter F.) The 78th Legislature also authorized: (1) the Authority's issuance of general obligation bonds to finance assistance to local governments for economic development projects to enhance the military value of military facilities. Texas voters approved SJR 55 on September 13, 2003 and amended the Texas Constitution, Article III, Section 49-n and Texas Government Code, Chapter 436; and (2) the Authority's issuance of up to $75 million of revenue bonds to fund the FAIR Plan which provides residential property insurance of last resort.

The 79th Legislature authorized the Authority to issue revenue bonds to finance building improvements for the Texas Department of Transportation and to refinance certain of the Texas Building and Procurement Commission's lease-purchase agreements (now the Texas Facilities Commission).

The 80th Legislature authorized the Authority to issue $3.00 billion of general obligation debt to finance cancer research (Texas Constitution, Article III, Section 67) and $1.00 billion to finance capital projects for certain state agencies (Texas Constitution, Article III Section 50-g).

In 2011, the Sunset Advisory Commission conducted a review of the Authority pursuant to the Texas Government Code Chapter 325. HB 2251, 82nd Legislature, Regular Session (2011) became effective June 17, 2011 authorizing the continuation of the Authority for another twelve years. The legislation also authorized Stephen F. Austin State University to issue debt on its own (under prior law the Authority was the exclusive issuer of debt for that university) and authorized Texas State Technical College System and other general academic teaching institutions to contract with the Authority to issue or refund debt on their behalf.

The Authority is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts. The issuance of not self-supporting debt for Proposition 4 and Proposition 8 constitutional authorizations also requires Legislative Budget Board approval.

Purpose: Proceeds from the sale of general obligation bonds issued under Article III, Section 49-h are used to finance the cost of constructing, acquiring and/or renovating prison facilities, youth correction facilities and mental health/mental retardation facilities. Proceeds of obligations issued under Article III, Section 50-f are used for state agency renovation, construction and equipment acquisition projects. Proceeds of obligations issued under Article III, Section 49-l are used to provide assistance to border counties for colonia roadway projects. Proceeds from the sale of general obligation bonds issued under Article III, Section 67 are used to finance grants for cancer research and the operation of the Cancer Prevention and Research Institute of Texas. Proceeds from the sale of building revenue bonds are used to purchase, construct, renovate and maintain state buildings. Proceeds of bonds issued under Article III, Section 49-n are used to fund the Texas Military Value Revolving Loan Fund to make loans to certain defense communities for improved military value or economic development projects. Proceeds from the sale of bonds for the Workers' Compensation Fund were used to fund the Workers' Compensation Insurance Fund. Proceeds from the issuance of commercial paper under the Master Lease Purchase Program are used to finance equipment purchases of state agencies. (For a description of the use of funds for bonds issued on behalf of the Texas Military Facilities Commission, the Texas Parks and Wildlife Department and the Texas state colleges and universities that are clients of the Authority, see the applicable sections in this Appendix.) Proceeds of bonds issued on behalf of the Texas National Research Laboratory Commission were used to finance costs of the Superconducting Super Collider; however, the project was canceled in 1995. The revenue bonds issued for the project were defeased in 1995, and the general obligation bonds were economically defeased in November 1999.

Security: Issued building revenue bonds are obligations of the Authority and are payable from "rents, issues, and profits" resulting from leasing projects to the state. These sources of revenue come primarily from legislative appropriations. The general obligation bonds pledge the first monies not otherwise appropriated by the Constitution that come into the state treasury each fiscal year to pay debt service on the bonds. Revenue debt issued for the Unemployment Compensation Insurance Fund was secured by a special obligation assessment imposed on Texas employers by the Texas Workforce Commission. Revenue bonds issued for the Master Lease Purchase Program are secured by lease payments from state agencies which come from state appropriations.

Dedicated/Project Revenue: Debt service on all general obligation bonds, except the park development bonds and military value revolving program bonds is payable solely from the state's General Revenue Fund. Debt service on the general obligation bonds for park development is paid first from department revenues as described in the applicable section of this appendix. Debt service in the form of loan repayments is paid by participating defense communities to the Military Preparedness Commission to pay debt on the outstanding bonds. Debt service on the revenue bonds is payable from lease payments which are primarily general revenue funds appropriated to the respective agencies and institutions by the legislature. The legislature, however, has the option to appropriate lease payments to be used for debt service on the bonds from any other source of funds that is lawfully available. For example, debt service on the bonds issued on behalf of the Texas Department of State Health Services is appropriated from lab fees collected by the Department. Bonds issued on behalf of the Workers' Compensation Fund which are fully economically defeased and were paid in full in December 2006, were payable solely from maintenance tax surcharges authorized in Article 5.76 of the Texas Insurance Code. Issued university revenue bonds are repaid from pledged revenue such as tuition and fees. The university bonds are self-supporting, and the state's credit is not pledged for their repayment.

Contact:
Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS PUBLIC FINANCE AUTHORITY/TEXAS WINDSTORM INSURANCE ASSOCIATION BONDS

Statutory/Constitutional Authority: In the event of catastrophe, the Texas Public Finance Authority (the "Authority") is authorized to issue revenue obligations for the Texas Windstorm Insurance Association (the "Association") pursuant to Subchapters B-1 and M, Chapter 2210, of the Texas Insurance Code (the "Act").

The Authority and the Association are required to obtain the approval of the State Insurance Commissioner, the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts.

Purpose: Proceeds from the sale of revenue bonds issued may be used to pay incurred claims and operating expenses of the Association; to pay for the purchase of reinsurance for the Association; to provide a reserve fund; and to pay capitalized interest and principal on the public securities for the period determined necessary by the Association.

Security: The bonds are special obligations of the Authority and the Association equally and ratably secured solely by and payable solely from a pledge of and lien on the Pledged Revenues. Pledged Revenues consist of revenues received by the Association from the assessment of the surcharges pursuant to the Authorizing Law, amounts on deposit in the Obligation Revenue Fund and accounts created therein and in the Program Fund and accounts created therein, including all derived investment income.

Dedicated/Project Revenue: Debt service on bonds issued by the Association is payable from any one or a combination of the following: premiums and other revenue of the Association, assessments on Association members, and premium surcharges on property insurance policies in the catastrophe area.

Contact:
Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS PUBLIC FINANCE AUTHORITY CHARTER SCHOOL FINANCE CORPORATION

Statutory/Constitutional Authority: The Texas Public Finance Authority Charter School Finance Corporation (the "Corporation" or "Issuer") is a public, non-profit corporation created by the Texas Public Finance Authority (the "Authority" or "Sponsoring Entity") and exists as an instrumentality of the state pursuant to Texas Education Code, Section 53.351 as amended (the "Act"). The Corporation is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts.

Purpose: Pursuant to the Act, the Issuer is authorized to issue revenue bonds and to lend the proceeds thereof to any authorized charter schools for the purpose of aiding such schools in financing or refinancing "educational facilities" (as such term is defined in the Act) and facilities which are incidental, subordinate or related thereto or appropriate in connection therewith.

Security: The bonds are special and limited obligations of the Issuer, payable solely from revenues to be derived under the loan agreement, the Issuer Master Notes, and in certain circumstances, out of amounts secured through the exercise of remedies provided in the Indenture, the loan agreement, the deed of trust and the Issuer Master Notes. The bonds are not obligations of the state of Texas or any entity other than the Issuer. The Issuer has no taxing power.

Dedicated/Project Revenue: The Issuer issues the bonds and loans the proceeds to the Borrower (an eligible open-enrollment charter school) to finance education facilities of the Borrower. The Borrower's obligations under the Loan Agreement are expected to be paid primarily from the state general revenue allocation the Borrower receives as a charter school, pursuant to Chapter 12 of the Texas Education Code.

Contact:
Lee Deviney
Executive Director
Texas Public Finance Authority
(512) 463-5544
lee.deviney@tpfa.state.tx.us

TEXAS SMALL BUSINESS INDUSTRIAL DEVELOPMENT CORPORATION BONDS

Statutory Authority: The Texas Small Business Industrial Development Corporation (TSBIDC) was created as a private non-profit corporation in 1983 (Title 83, Article 5190.6, Sections 4-37, Tex. Rev. Civ. Stat. Ann. as codified in the Local Government Code, Chapter 503) pursuant to the Development Corporation Act of 1979, and was authorized to issue revenue bonds. The authority of TSBIDC to issue bonds was repealed by the legislature, effective September 1, 1987. HB 2667, as an act of the 84th Legislature, repealed Chapter 503 of the Texas Local Government Code and Subchapter N, Chapter 481, Texas Government Code which terminated the program.

Purpose: Proceeds from the sale of the TSBIDC bonds were used to provide financing to state and local governments and to businesses and non-profit corporations for the purchase of land, facilities, and equipment for economic development.

Security: The bonds were obligations of the Corporation. The Corporation's bonds were not an obligation of the state of Texas or any political subdivision of the state. All Texas Small Business Industrial Development Corporation Bonds have been defeased as of January 2014.

Dedicated/Project Revenue: Debt service on bonds issued by the TSBIDC were payable from the repayment of loans made from bond proceeds and investment earnings on bond proceeds.

Contact:
Nicole Ryf
Director, Economic Development Finance
Office of the Governor
(512) 936-0101
nicole.ryf@gov.texas.gov

TEXAS STATE AFFORDABLE HOUSING CORPORATION

Statutory Authority: Chapter 2306, Subchapter Y of the Texas Government Code, authorizes the Texas State Affordable Housing Corporation (the "Corporation") to issue bonds. In accordance with the Texas Government Code, as amended, the Corporation is authorized to issue statewide 501(c)(3) bonds, qualified residential rental project bonds, and qualified mortgage revenue bonds under Section 2306.555. The 77th Legislature established the Professional Educators Home Loan Program under Section 2306.562. The 78th Legislature authorized the Fire Fighter, Law Enforcement or Security Officer, and Emergency Medical Services Personnel Home Loan Program under Section 2306.5621. The 83rd Legislature reauthorized both of the Corporation's profession-specific single family programs by adding all eligible occupations under the Professional Educators Home Loan Program to the Homes for Texas Heroes (formerly known as the Fire Fighter, Law Enforcement or Security Officer, and Emergency Medical Services Personnel) Home Loan Program, creating a single program under Section 2306.5621.

The Corporation is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts.

Purpose: The Corporation's primary public purpose is to facilitate the provision of housing and the making of affordable loans to individuals and families of low, very low and extremely low income for eligible participants under its programs. The Corporation is required to perform such activities and services that will promote and facilitate the public health, safety and welfare through the provision of adequate, safe and sanitary housing for individuals and families of low, very low and extremely low income.

Security: Any bonds issued are payable solely from the revenues and funds pledged for the payment thereof. The Corporation's bonds are not obligations of the state of Texas, and neither the state's full faith and credit nor its taxing power is pledged toward the payment of the Corporation's bonds.

Dedicated/Project Revenue: Revenue received by the Corporation from the repayment of loans and investment of bond proceeds is pledged to the payment of principal and interest on the bonds issued.

Contact:
David Long
President
Texas State Affordable Housing Corporation
(512) 477-3555
dlong@tsahc.org

TEXAS WATER DEVELOPMENT BONDS

Statutory/Constitutional Authority: The Texas Water Development Board (the "Board") is authorized to issue both revenue and general obligation bonds.

General Obligation: The Board issues self-supporting general obligation bonds for the Development Fund and Rural Water Assistance Programs. The Board may issue not self-supporting general obligation bonds for the State Participation (SP), Water Infrastructure Fund (WIF), Economically Distressed Areas Program (EDAP) and the Agricultural Water Conservation Loan Program.

General Obligation Authority: Article III, Sections 49-c, 49-d, 49-d-1, 49-d-2, 49-d-4, 49-d-6, 49-d-7, 49-d-8, 49-d-9, 49-d-10, 49-d-11 and 50-d of the Texas Constitution, initially adopted in 1957, contain the authorization for the issuance of general obligation bonds by the Board.

The 71st Legislature (1989) passed comprehensive legislation that established the EDAP. Article III, Section 49-d-7(b), provides for subsidized loans and grants from the proceeds of bonds authorized by this section. The 80th Legislature authorized an additional $250 million in general obligation bonds for the EDAP detailed in Article III, Section 49-d-10.

General Obligation Approval: Legislative appropriation and voter approval are required for the issuance of general obligation debt. Legislative appropriation is required for not self-supporting debt while no further legislative action is required for self-supporting debt. The issuance of not self-supporting debt also requires Legislative Budget Board review. The Board is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts.

General Obligation Purpose: Proceeds from the sale of the general obligation bonds are used to make loans (and grants under the EDAP) to political subdivisions of Texas for the performance of various projects related to water conservation, transportation, storage and treatment.

General Obligation Security: The general obligation bonds are secured by program revenues and the first monies coming into the Comptroller of Public Accounts - Treasury Operations not otherwise dedicated by the Constitution. The Development Fund Program is designed to be self-supporting. No general revenue draw has been made on this program since 1980. All outstanding series of the SP Program are considered self-supporting. No general revenue draw has been made on this program since 2010.

The EDAP is anticipated to have general revenue draws. The WIF Program includes certain series that are self-supporting and others that are not self-supporting. The not self-supporting series are anticipated to have general revenue draws.

Revenue Debt Authority: The Texas Water Resources Fund administered by the Board was created in 1987 by the 70th Legislature (Texas Water Code, Section 17.853), to issue revenue bonds that facilitate the conservation of water resources. The State Water Implementation Revenue Fund for Texas (SWIRFT), administered by the Board, was created in 2013 by the 83rd Legislature (Texas Water Code, Chapter 15, Subchapter H), to issue revenue bonds to provide financing or refinancing for projects included in the state water plan. Constitutional related provisions applicable to the SWIRFT are detailed in Article III Section 49-d-13 of the Texas Constitution.

Revenue Debt Approval: Further legislative approval of specific bond issues is not required; however, the Board is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts. For the SWIRFT, the Texas Constitution requires that the Board provide written notice to the Legislative Budget Board for approval before issuing a revenue bond.

Revenue Debt Purpose: Proceeds from the sale of revenue bonds authorized under Texas Water Code, Section 17.853, are used to provide funds to the State Water Pollution Control Revolving Fund (also known as the Clean Water State Revolving Loan Fund) or any other state revolving fund that is created under Subchapter J, Chapter 15 of the Texas Water Code, including Drinking Water State Revolving Fund, and to provide financial assistance to local government jurisdictions through the acquisition of their obligations. SWIRFT bond proceeds will be used to provide financial assistance to local government jurisdictions through acquisition of their obligations for the purpose of financing state water plan projects.

Revenue Debt Security: Any revenue bonds issued are obligations of the Board and are payable solely from the income of the program including the repayment of loans to political subdivisions. Principal and interest payments on the loans to political subdivisions for projects are pledged to pay debt service on the revenue debt issued by the Board.

Contact:
Rebecca Trevino, CPA
Chief Financial Officer
Texas Water Development Board
(512) 936-0809
Rebecca.Trevino@twdb.texas.gov

TEXAS WATER RESOURCES FINANCE AUTHORITY BONDS

Statutory Authority: The Texas Water Resources Finance Authority (the "Authority") was created in 1987 (Texas Water Code, Chapter 20) and given the authority to issue revenue bonds. The Authority is required to obtain the approval of the Bond Review Board and the Attorney General's Office prior to issuance and to register its bonds with the Comptroller of Public Accounts. No such bonds are currently outstanding.

Purpose: Proceeds from the sale of bonds are used to finance the acquisition of the bonds of local government jurisdictions including local jurisdiction bonds that are owned by the Texas Water Development Board.

Security: Issued bonds are obligations of the Authority and are payable from funds of the Authority. The Authority's bonds are not an obligation of the state of Texas, and neither the state's full faith and credit nor its taxing power is pledged toward payment of Authority bonds.

Dedicated/Project Revenue: Revenue from the payment of principal and interest on local jurisdiction bonds acquired is pledged to the payment of principal and interest on bonds issued.

Contact:
Rebecca Trevino, CPA
Chief Financial Officer
Texas Water Development Board
(512) 936-0809
Rebecca.Trevino@twdb.texas.gov

VETERANS' LAND AND HOUSING ASSISTANCE BONDS

Statutory/Constitutional Authority: Article III, Section 49-b, of the Texas Constitution, initially adopted in 1946, authorized the issuance of general obligation bonds to finance the Veterans Land Program. Article III, Section 49-b-1, of the Texas Constitution, adopted in 1983, authorized additional land bonds and created the Veterans' Housing Assistance Program and established the Veterans' Housing Assistance Fund within the program. Article III, Section 49-b-2, of the Texas Constitution, adopted in 1993, authorized additional land bonds and the issuance of general obligation bonds to finance the Veterans' Housing Assistance Program, Fund II. Article III, Section 49-b, amended in 2001 and 2003, also authorizes the Veterans Land Board to use assets from the Veterans' Land Fund, the Veterans' Housing Assistance Fund or the Veterans' Housing Assistance Fund II in connection with veterans' cemeteries and veterans' long-term care facilities. Chapter 164 of the Texas Natural Resources Code authorized the Veterans Land Board to issue revenue bonds for its programs including the financing of veterans' long-term care facilities.

Purpose: Proceeds from the sale of the general obligation bonds are loaned to eligible Texas veterans for the purchase of land, housing and home improvements. Proceeds from the sale of revenue bonds are used to make land loans to veterans, to make home mortgage loans to veterans or to provide for veterans' skilled nursing-care homes. Additionally, funds are used to provide cemeteries for veterans.

Security: In addition to program revenues, the general obligation bonds pledge the first monies coming into the Comptroller of Public Accounts - Treasury Operations not otherwise dedicated by the Constitution. The revenue bonds issued under Chapter 164 are special obligations of the Board and are payable only from and secured by the revenue and assets pledged to secure payment of the bonds under the Texas Constitution and Chapter 164. The revenue bonds do not create or constitute a pledge, gift, or loan of the full faith, credit or taxing authority of the state.

Dedicated/Project Revenue: Debt service on the general obligation bonds is payable from principal and interest payments on the underlying loans to veterans. Debt service for the revenue bonds is paid from all available revenue from the projects financed which is pledged as security for the bonds. The programs are designed to be self-supporting and have never had to rely on the General Revenue Fund.

Contact:
Rusty Martin
Deputy Commissioner of Funds Management
Texas Veterans Land Board
(512) 463-5120
rusty.martin@glo.state.tx.us

Appendix F
The Private Activity Bond Program

Since the passage of the Tax Reform Act of 1986 (the "Tax Act"), federal law has limited the use of tax-exempt financing for private activities. Tax-exempt private activity bonds may be used to finance certain privately-owned projects that serve a public purpose and meet the following tests: 1) Private Business Use Test - more than 10 percent of the proceeds are to be used for any private business use; 2) Private Security or Payment Test - payment on principal or interest of more than 10 percent of the proceeds is to be directly or indirectly secured by, or payments are to be derived from a private business use; and 3) Private Loan Financing Test - proceeds are to be used to make or finance loans to persons other than governmental units.

The Tax Act authorizes the issuance of six types (subceilings) of private activity bond issues: 1) Single-Family housing projects (permitted to issue qualified mortgage revenue bonds (MRB) or mortgage credit certificates (MCC); 2) Certain state-voted bond issues; 3) Qualified small-issue industrial development bonds (IDBs) or enterprise zone bonds (EZBs); 4) Multifamily residential rental projects; 5) Student loan bonds; and 6) All other issues that include a variety of exempt facilities such as sewage facilities, solid and hazardous waste disposal facilities. In recent years a widening variety of projects have been permitted to utilize tax-exempt private activity bonds including transportation facilities, environmental enhancements to hydroelectric generating facilities and qualified public educational facilities.

In addition, the Tax Act imposes a volume ceiling (or cap) on the aggregate principal amount of tax-exempt private activity bonds that may be issued within each state during any calendar year. The current volume cap is the greater of $100 per capita or $301.5 million. Based on the per capita amount, the state's volume cap for calendar year 2017 was $2.79 billion.

Section 146(e) of the Internal Revenue Code provides for each state to devise an allocation formula or a process for allocating the state's volume cap. This provision gives each state the ability to allocate this limited resource in a manner consistent with its own specific needs.

Chapter 1372 of the Texas Government Code mandates the allocation process for the state of Texas. The Private Activity Bond Allocation Program (PAB or Program) regulates the volume cap and monitors the amount of demand and use of private activity bonds each year. The BRB has administered this program since January 1, 1992.

The federal government determines the state's private activity ceiling, but historically the demand for financing for qualified private activities outstrips the supply of available volume cap. In an effort to address the excess demand over supply for most types of PAB financing, the Legislature devised a lottery system that ensures an allocation opportunity for each eligible project type.

With the exception of single-family housing and student loan bonds, reservations of state ceilings are initially allocated by lottery for applications received from October 5 through October 20 of the preceding program year, and thereafter on a first-come, first-served basis. Single-family housing and student loan bonds have a separate priority system based on prior applications and prior bond issues. This system is in place from January through August 14th of each year. On August 15th (the collapse date) all unreserved allocation from all the subceilings are combined and redistributed by lottery number or on a first-come, first-served basis if all applicants from the lottery have received a reservation.

Contact:
Robert B. Latsha II
Interim Executive Director
Texas Bond Review Board
(512) 463-1741
rob.latsha@brb.texas.gov

Appendix G
Glossary

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

Allocation – The amount of private activity bond authority obtained from the state ceiling and assigned to a bond issuer that is using the issuance proceeds for a private activity that qualifies for exemption from federal income tax under the IRS Code.

Allotment – Amount of securities distributed to each member of the underwriting syndicate to fill orders.

Authorized but unissued – Debt that has been authorized for a specific purpose by the voters and/or the legislature but has not yet been issued. Authorized but unissued debt can be issued without the need for further legislative action.

Bond – Debt instrument in which an investor loans money to the issuer that specifies: when the loan is due ("term" or "maturity" such as 20 years), the interest rate the borrower will pay (such as 5%), when the debt-service payments will be made (such as monthly, semi-annually, annually) and the revenue source pledged to make the payments.

Bond Counsel – Attorney retained by the issuer to give a legal opinion that the issuer is authorized to issue the proposed securities, the legal requirements necessary for issuance have been met and the proposed securities will be exempt from federal income taxation and state and local taxation where applicable.

Bond Insurance – A legal commitment by an insurance company to make timely payments of principal and interest in the event that the issuer of the debt is unable to make the payments.

Build America Bonds (BABs) – a debt instrument created by the American Recovery and Reinvestment Act of 2009 (ARRA) that could be issued as Tax Credit BABs or Direct–Payment BABs. Tax Credit BABs provide a tax credit to investors equal to 35 percent of the interest payable by the issuer. Direct–Payment BABs provide a direct federal subsidy payment to state and local governmental issuers equal to 35 percent of the interest payable. With the implementation of the Budget Control Act of 2011, the BAB subsidies were reduced by 7.6 percent to 32.34 percent of the interest payable. Authority to issue BABs expired in December 2010.

Capital Appreciation Bonds (CABs) – A municipal security on which the investment return on an initial principal amount is reinvested at a stated compounded rate until maturity. At maturity the investor receives a single payment (the "maturity value") representing both the initial principal amount and the total investment return.

CAB Maturity Amount - The single payment for a capital appreciation bond an investor receives at maturity representing both the initial principal amount and interest. For capital appreciation bonds compound accreted values are calculated as interest in the year of maturity.

CAB Par Amount - The face amount assigned to a capital appreciation bond at issuance and paid to the investor at maturity.

CAB Premium - The amount by which the price paid for a (CAB) security exceeds par value.

Carryforward – A private activity bond term for the three types of state ceiling that can be carried over for use by an issuer in the subsequent three years. The three types are:

1) Traditional Carryforward - The amount of the state ceiling not reserved before November 15 and any amount previously reserved that becomes available on or after that date because of a reservation cancellation.
2) Non-Traditional Carryforward - The amount of state ceiling reserved by an issuer for a specific purpose and for which the closing date extends beyond the year in which the reservation was granted.
3) Unencumbered Carryforward - The amount of state ceiling at the end of the year that is not reserved, nor designated as carryforward, and for which no application for carryforward is pending.

Certificate of Obligation – A bond issued by a city, county or certain hospital districts without the approval of voters to finance public projects. Although voter approval is not required, the sale can be stopped if 5 percent of the total voters in the taxing area sign a petition and submit it prior to approval of the ordinance to sell such certificates.

Certificate of Participation – Financing in which an individual buys a share of the lease revenues of an agreement made by a municipal or governmental entity, rather than the bond being secured by those revenues.

Charter School – Charter schools were created by the Texas Legislature in 1995 as part of the public-school system. Under Texas Education Code Chapter 12, the purpose of charter schools is to improve student learning, to increase the choice of learning opportunities within the public-school system, to create professional opportunities that will attract new teachers to the public-school system, to establish a new form of accountability for public schools and to encourage different and innovative learning methods.

Commercial Paper – 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.

Competitive Sale – A sale in which the issuer solicits bids from underwriting firms and sells the securities to the underwriter or syndicate offering the most favorable bid that meets the specifications of the notice of sale.

Component Unit (CU) – A legally separate entity for which the elected officials of the primary government (PG) are financially accountable. The nature and significance of the CUs relationship with the PG is such that exclusion from the PG’s financial reports would be misleading or create incomplete financial statements.

Conduit Issuer – An issuer, usually a government agency, that issues municipal securities to finance revenue-generating projects in which the funds generated are used by a third party (known as the "conduit borrower" or "obligor") for debt-service payments.

Costs of Issuance – The expenses associated with the sale of a new issue of municipal securities including underwriting costs, legal fees, rating agency fees and other fees associated with the transaction.

Coupon – The interest rate paid on a security.

Counterparty Risk – The risk to each party in a swap contract that the counterparty will not fulfill its contractual obligations.

Current Interest Bond (CIB) – A bond in which interest payments are made on a periodic basis throughout the life of the bond as opposed to a bond such as a capital appreciation bond that pays interest only at maturity. This term is most often used in the context of a combination issuance of bonds that includes both capital appreciation bonds and current interest bonds.

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

CUSIP – A unique nine-character identification for each class of security approved for trading in the U.S. CUSIPs are used to facilitate clearing and settlement for market trades.

Dealer Fee – Cost of underwriting, trading or selling securities.

Debt Outstanding – The amount of unpaid principal on a debt that will continue to generate interest until paid off.

Debt per Capita – A measurement of the value of a government's debt expressed in terms of the amount attributable to each citizen under the government's jurisdiction. The formula is the debt outstanding as of August 31 divided by the estimated residential population of the issuer.

Debt Service – The amount that is required to cover the repayment of principal and interest on a debt for a particular period.

Defeasance - A provision that voids a debt when the borrower sets aside cash, securities or investments sufficient to service the borrower's debt.

Derivative - A financial instrument whose value is based on one or more underlying assets. An example is a swap contract between two counterparties that specifies conditions (especially the dates, underlying variables and notional amounts) under which payments are to be made between the parties.

Disclosure – The act of releasing accurately and completely all material information to investors and the securities markets for outstanding or to be issued securities.

Disclosure Counsel – An attorney or law firm retained by the issuer to provide advice on issuer disclosure obligations and to prepare the official statement and/or continuing disclosure agreement.

Discount – The amount by which the price paid for a security is less than its par value.

Escrow – Fund established to hold monies or securities pledged to pay debt service.

Escrow Agent – Commercial bank or trust company retained to hold the investments purchased with the proceeds of an advance refunding and to use the invested funds to pay debt service on the refunded debt.

Financial Advisor – A securities firm that assists an issuer on matters pertaining to a proposed issue such as structuring, timing, marketing, fairness of pricing, terms and debt ratings.

Fiscal Year – Information is sorted on the fiscal year of the state, September 1 through August 31. Debt–service adjustments have been made for local governments with different fiscal years. Information is provided on cash, not accrual basis.

Fixed Rate – An interest rate that does not change during the entire term of the obligation.

General Obligation (GO) Debt – Debt legally secured by a constitutional pledge of the first monies coming into the State Treasury not otherwise constitutionally dedicated for another purpose. General obligation debt must be approved by a 2/3 vote of both houses of the Texas Legislature and by 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 beginning in 1985 through Constitutional Amendment to fund permanent capital improvements for certain public higher education institutions. This term may refer either to Higher Education Assistance Fund (HEAF) 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).

Indenture – Deed or contract which may be in the form of a resolution that sets forth the legal obligations between the issuer and the securities holders. The indenture also names the trustee that represents the interests of the securities holders.

Issuer – A legal entity that sells securities for the purpose of financing its operations. Issuers are legally responsible for the obligations of the issue and for reporting financial conditions, material developments and any other operational activities.

Lease Purchase – Financing 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.

Lease-Revenue Bonds – Bonds issued by a non–profit corporation or government issuer which are secured by lease payments made by the government for use of specified property.

Letter of Credit – A credit enhancement used by an issuer to secure a higher rating for its securities. A Letter of Credit is usually a contractual agreement between a major financial institution and the issuer consisting of an unconditional pledge of the institution's credit to make debt-service payments in the event of a default.

Liquidity – The relative ability of a security to be readily traded or converted into cash without substantial transaction costs or loss in value.

Liquidity Provider – A financial institution that facilitates the trading of a security by insuring that it will be purchased if tendered to the issuer or its agent because it cannot be immediately remarketed to new investors.

Management Fee – Component of the underwriting spread that compensates the underwriters for assistance in creating and implementing the financing.

Maturity Date – The date principal is due and payable to the security holder.

Mortgage Credit Certificate – A certificate issued by certain state or local governments that allows a taxpayer to claim a tax credit for some portion of the mortgage interest paid during a given tax year.

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

Negotiated Sale – A sale in which an issuer selects an underwriting firm or syndicate to assist with the issuance process. At the time of sale, the issuer negotiates a purchase price for its securities with that underwriting firm or syndicate.

Not Self-Supporting Debt – Either general obligation or revenue debt intended to be repaid with state general revenues.

Notice of Sale – Publication by an issuer describing the terms of sale of an anticipated new offering of municipal securities.

Official Statement – The document published by the issuer which provides complete and accurate material information to investors on a new issue of municipal securities including the purposes of the issue, repayment provisions and the financial, economic and social characteristics of the issuing government.

Par – The face value of a security that is due at maturity. A "par bond" is a bond selling at its face value.

Paying Agent – The entity responsible for processing debt-service payments from the issuer to the security holders.

Permanent School Fund (PSF) - The PSF was created in 1854 by the 5th Legislature expressly for the benefit of public schools. In addition, the Constitution of 1876 stipulated that certain lands and proceeds from the sale of those lands would also be dedicated to the PSF. The Constitution requires that distributions from the returns on the PSF be made to the Available School Fund to be used for the benefit of public and charter schools, and allows the PSF to be used to guarantee bonds issued by public and charter schools.

Permanent School Fund Bond Guarantee Program (BGP) – The BGP was created in 1983 as an alternative for school districts to avoid the cost of private bond insurance by obtaining a PSF guarantee for voter-approved public-school bond issuances. In order to qualify for the BGP guarantee, school districts and charter schools must be accredited by the state, have investment grade bond ratings (but below AAA), and have their applications approved by the Commissioner of Education. Bonds guaranteed by the BGP are rated triple–A.

Permanent University Fund (PUF) – The PUF is a state endowment contributing to the support of 21 institutions and certain 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).

Premium – The amount by which the price paid for a security exceeds par value.

Premium Capital Appreciation Bond (PCAB) – A type of CAB that has a stated yield or accretion rate that is higher than its actual current yield to investors. This difference results in a lower initial stated par amount which preserves debt capacity.

Principal – The face value of a bond, exclusive of interest.

Printer – A business that produces the official statement, notice of sale and any bonds required to be transferred between the issuer and purchasers of the bonds. The costs associated with a printer are typically rolled into the Costs of Issuance.

Private Activity Bond (PAB) – A tax-exempt bond issued by or on behalf of local or state government for the purpose of financing the project of a private user, and generally, the government does not pledge its credit.

Private Placement – A securities sale in which an issuer sells its securities directly to investors through a placement agent without a public offering.

Proceeds – The amount received by the seller from the sale of an asset or debt.

Put Bond – A bond that allows the holder to force the issuer to repurchase the security at specified dates before maturity. The repurchase price is set at the time of issue and is usually par value.

Qualified Energy Conservation Bonds (QECB) – A bond that enables qualified government issuers to borrow money to fund energy conservation projects. The U.S. Department of the Treasury subsidizes the issuer's borrowing costs.

Rating Agency – An entity that provides publicly available ratings of the credit quality of securities issuers, measuring the probability of the timely repayment of principal and interest on municipal securities.

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

Registrar – An entity responsible for maintaining ownership records on behalf of the issuer.

Remarketing Fee – Compensation to an agent for remarketing a secondary offering of short-term securities, usually for a mandatory or optional redemption or put (return of the security to the issuer).

Reservation – The notice given by the BRB to a private activity bond issuer reserving a specific amount of the state ceiling for a specific issue of bonds for 120 to 180 days, depending on the type of bond issuance.

Revenue Debt – Debt that is legally secured by a specified revenue source(s). Revenue debt does not require voter approval and usually has a maturity based on the life of the project to be financed.

Self-Supporting Debt – Debt that is designed to be repaid with revenues other than state general revenues. Self-supporting debt can be either general obligation debt or revenue debt.

Selling Group – Group of municipal securities brokers and dealers that assist in the distribution of a new issue of securities.

Serial Bond – A bond issue in which a portion of the outstanding bonds matures at regular intervals until all of the bonds have matured.

Spread Expenses – Component of the underwriting spread representing the costs of operating the syndicate such as financial advisors, legal counsel, travel, printing, day loans, wire fees and other associated fees.

State ceiling – The amount of private activity bond authority granted to a state under the IRS Code to issue tax-exempt private activity bonds during a calendar year.

Structuring Fee – Component of the underwriting spread that compensates the underwriters for assistance with developing a marketable securities offering within the issuer’s legal and financial constraints.

Swap – A derivative in which counterparties exchange cash flows of one party's financial instrument for those of the other party's financial instrument.

Syndicate – Group of underwriters formed to purchase a new issue of securities from the issuer and offer it for resale to investors.

Takedown – The discount that the members of the syndicate receive when they purchase the securities from the issuer. Takedown is also known as the selling concession.

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

Term Bond – A bond issue in which all or a large part of the issue comes due in a single maturity. Term bond issuers make periodic payments into a sinking fund for mandatory redemption of term bonds before maturity or for payment at maturity.

Trustee – Bank or trust company designated by the issuer or borrower under the indenture or resolution as the custodian of funds. The trustee represents the interests of the security holders including making debt-service payments.

Tuition Revenue Bonds (TRB) – Revenue bonds issued by the revenue finance systems of institutions of higher education or the Texas Public Finance Authority (on behalf of certain institutions), for new building construction or renovation. The Legislature has to authorize the projects in statute, and the TRBs cannot be used for auxiliary space, such as dormitories. 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.

Underwriter – An investment banking firm that purchases securities directly from the issuer and resells them to investors.

Underwriting Spread – Amount representing the difference between the price at which securities are bought from the issuer by the underwriter and the price at which they are re-offered to the investor. The underwriting spread generally includes the takedown, management fee, expenses and underwriting fee.

Underwriting Risk Fee – A portion of the underwriting spread designed to compensate the underwriter for the risk associated with market shifts and interest rate fluctuations.

Underwriter's Counsel – Attorney who prepares or reviews the issuer's offering documents on behalf of the underwriter and prepares documentation for the underwriting agreement and the agreement among underwriters.

Underwriter's Risk – The underwriter's risk of resale.

Variable Rate – An interest rate that fluctuates based on market conditions or a predetermined index or formula. (Fixed rates do not change during the life of the obligation.)

Years to Maturity - The period of time for which a financial instrument remains outstanding. Maturity refers to a finite time period at the end of which the financial instrument will cease to exist, and the principal is repaid with interest.

Yield – The investor's rate of return.

Zero Coupon Bond – A bond that is issued at a deep discount to its face value but pays no interest.

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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