

## Prepared by the Texas Bond Review Board Staff

### Texas Local Government Capital Appreciation Bond Analysis

#### Overview

Capital appreciation bonds (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 generally higher than for CIBs, and CABs can be more expensive than CIBs because of the compounding interest. However, CABs can be an effective financing tool if they are used moderately and with reasonable terms.

*Premium* CABs (PCABs) provide a lower initial stated par amount and are sold with a premium. PCABs are issued to raise additional proceeds, preserve debt limits, and help local governments reach tax rate targets. Local governments issue more PCABs than non-premium CABs.

Over the past decade, total CAB maturity amounts outstanding have decreased by 45.2 percent from \$16.93 billion in fiscal year 2012 to \$9.27 billion in fiscal year 2021. Additionally, CAB maturity amounts outstanding have decreased 5.9 percent from \$9.85 billion outstanding in fiscal year 2020. The outstanding CAB maturities range from fiscal years 2022 to 2054.

Heavy use of CABs can result in rating agency downgrades.

CABs are often used to refund existing CAB and CIB debt.

#### **CABs Issued**

*Table 4.1* shows that the total CAB par issued for Texas local governments during fiscal year 2021 was 0.3 percent (\$124.9 million) of the total CAB and CIB debt issued (\$47.44 billion). Public School Districts (School Districts) issuances accounted for 95.1 percent (\$118.7 million) of the total CABs issued for local governments during fiscal year 2021. Of the total par issued by School Districts, 0.7 percent was issued as CAB par. CABs have been used by School Districts to enable them to remain under the 50-cent debt ceiling that limits the property taxes assessed for debt service costs to 50 cents per \$100 of assessed value. CAB issuances by School Districts are general obligation (tax) debt repaid with ad valorem taxes.

For CAB debt previously issued and outstanding in fiscal year 2021, Texas local governments will owe \$5.32 in interest and principal for every \$1 of principal borrowed.

The 84<sup>th</sup> Legislature (2015) passed House Bill 114, effective September 1, 2015, which 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 85<sup>th</sup> Legislature (2017) passed Senate Bill 295, which extends the allowed maturity date for CABs issued for refunding purposes and financing transportation projects.

Table 4.1 Texas Local Government Capital Appreciation Bonds Issued in Fiscal Year 2021 (\$ in thousands)							
Entity Type	Total Par Issued (CIB and CAB)	CAB Par	CAB Par/ Total Par	% of CAB Par Issued	CAB Premium	CAB Maturity Amount	% of CAB Maturity Amount
Public School Districts	\$17,805,461	\$118,750	0.67%	95.10%	\$651,701	\$854,325	98.42%
Cities, Towns, Villages	13,678,082	0	0.00%	0.00%	0	0	0.00%
Water Districts	7,088,513	3,735	0.05%	2.99%	1,477	5,440	0.63%
Other Special Districts	5,015,689	0	0.00%	0.00%	0	0	0.00%
Counties	2,167,563	694	0.03%	0.56%	1,093	1,835	0.21%
Comm Colleges/Junior Colleges	1,527,660	1,687	0.11%	1.35%	4,358	6,410	0.74%
Health/Hospital Districts	157,371	0	0.00%	0.00%	0	0	0.00%
<b>Total</b>	<b>\$47,440,338</b>	<b>\$124,866</b>	<b>0.26%</b>	<b>100.00%</b>	<b>\$658,629</b>	<b>\$868,010</b>	<b>100.00%</b>

Excludes commercial paper & conduit debt.  
**Source:** Texas Bond Review Board - Bond Finance Office

Table 4.2 shows CAB issued amounts for the last five fiscal years. Since 2017, the total amount of CAB par issued has increased 145.0 percent from \$51.0 million in fiscal year 2017 to \$124.9 million in fiscal year 2021.

Table 4.2 Texas Local Government Capital Appreciation Bonds Par Amount Issued by Fiscal Year (\$ in millions)					
	2017*	2018	2019	2020	2021
Public School Districts	\$38.1	\$16.3	\$1.5	\$91.7	\$118.7
Cities, Towns, Villages	1.2	0.4	-	0.4	-
Water Districts and Authorities	11.6	0.6	0.3	1.2	3.7
Other Special Districts and Authorities	-	-	-	-	-
Counties	-	-	-	1.2	0.7
Community and Junior Colleges	0.0	-	-	0.3	1.7
Health/Hospital Districts	-	-	-	-	-
<b>Total CAB Par Amount Issued</b>	<b>\$51.0</b>	<b>\$17.3</b>	<b>\$1.9</b>	<b>\$94.8</b>	<b>\$124.9</b>
<b>Total Par Amount Issued**</b>	<b>\$29,920.6</b>	<b>\$32,624.6</b>	<b>\$29,721.6</b>	<b>\$40,827.4</b>	<b>\$47,440.3</b>
<b>CAB Par Amount % of Total</b>	<b>0.17%</b>	<b>0.05%</b>	<b>0.01%</b>	<b>0.23%</b>	<b>0.26%</b>

\* 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.

Three ratios have been developed to compare CAB issuances. The first is the “Maturity Value/Par” ratio, which is calculated by dividing the CAB maturity amount by the CAB par amount and represents the total amount to be repaid (principal plus interest) compared to the par amount borrowed. This ratio disregards premiums received on PCABs.

The second is the “Maturity Value/Proceeds” ratio, which is calculated by dividing the CAB maturity amount by the total CAB proceeds, including the additional proceeds received as premium on PCAB issuances. This ratio represents the total amount to be repaid at maturity (principal plus interest) compared to the total amount of proceeds received (par plus premium).

The third is the “Accreted Interest/Proceeds” ratio (AIPR), which is calculated by dividing the CAB maturity amount minus the original par amount by the total proceeds including the CAB premium. This ratio represents the total amount of interest to be paid at maturity compared to the total amount of proceeds received including premium (par plus premium).

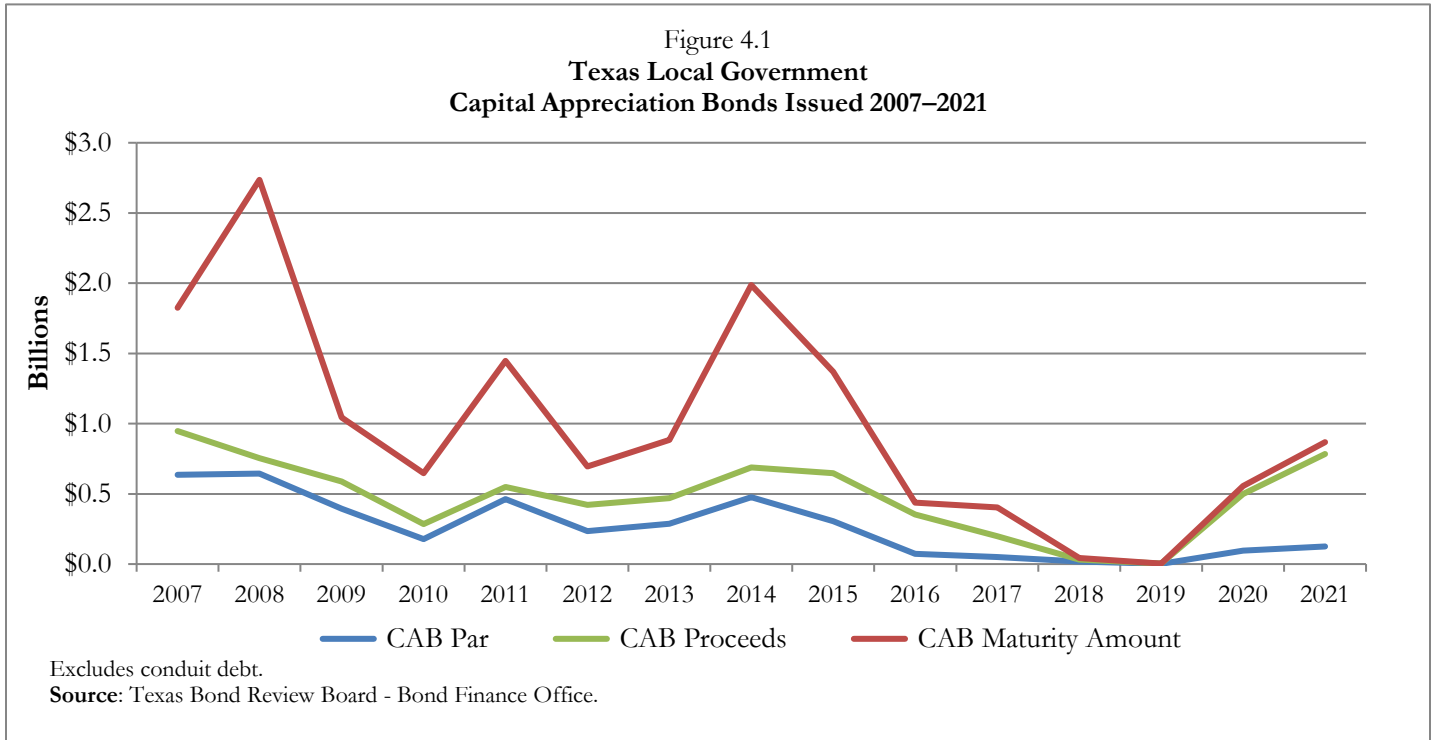
Table 4.3 lists the top 20 most expensive CABs issued and outstanding as of fiscal year-end 2021 as defined by the “Maturity Value/Proceeds” ratio. CABs become increasingly more expensive as interest continues to compound with longer term maturities. For comparison, the Maturity Value/Proceeds ratio for CIBs is generally less than 2.0 and the AIPR is generally less than 1.0. The decline in the Maturity Value/Proceeds ratio compared to the Maturity Value/Par ratio shows the effect of including the premiums on PCABs in the comparison. When the Maturity Value/Proceeds ratio equals the Maturity Value/Par ratio, this means the CAB was sold at par without generating a premium.

Table 4.3  
Texas Local Government  
Top 20 Most Expensive Capital Appreciation Bonds Outstanding as of August 31, 2021

Issuer	Issue	Closing Date	CAB Maturity Date	Maturity Value/Par	Maturity Value/Proceeds	Accreted Interest / Proceeds Ratio
Forney ISD	Unl Tax Ref Bonds Txbl Ser 2014A	2/18/2014	8/15/2053	12.69	10.87	10.01
Forney ISD	Unl Tax Ref Bonds Ser 2014	2/18/2014	8/15/2053	10.17	8.34	7.52
Harris County-Houston Sports Authority	Sr Lien Rev Ref Bonds Ser 2001A	5/17/2001	5/15/2041	7.10	7.10	6.10
Forney ISD	Unl Tax Ref Bonds Txbl Ser 2013B	8/27/2013	8/15/2043	7.94	6.89	6.03
Hutto ISD	Unl Tax Ref Bonds Ser 2012A	5/3/2012	8/1/2044	249.18	6.71	6.68
Harris County-Houston Sports Authority	Third Lien Rev Ref Bonds Ser 2004A-3	8/5/2004	5/15/2040	6.41	6.41	5.41
Harris County-Houston Sports Authority	Jr Lien Rev Bonds Ser 2001H	1/2/2002	5/15/2042	6.15	6.15	5.15
Anna ISD	Unl Tax School Bldg Bonds Ser 2010	4/8/2010	8/15/2043	12.00	5.82	5.33
Forney ISD	Unl Tax Ref Bonds Ser 2013A	8/27/2013	8/15/2043	9.35	5.49	4.90
Lake Worth ISD	Unl Tax Ref Bonds Ser 1995	9/21/1995	8/15/2024	8.25	5.31	4.66
Robstown ISD	Unl Tax School Bldg & Ref Bonds Ser 1994	1/4/1995	8/15/2022	13.16	5.26	4.86
Anna ISD	Unl Tax School Bldg Bonds Ser 2009	10/15/2009	8/15/2042	7.57	5.26	4.56
Galena Park ISD	Unl Tax School Bldg & Ref Bonds Ser 1996	8/20/1996	8/15/2031	6.09	5.11	4.27
Crowley ISD	Unl Tax Ref & School Bldg Bonds Ser 1993	5/19/1993	8/1/2023	9.87	5.04	4.53
Central Texas Regional Mobility Authority	Sr Lien Rev Bonds Ser 2010	3/11/2010	7/1/2040	5.03	5.03	4.03
Hillsboro ISD	Unl Tax School Bldg & Ref Bonds Ser 2001	2/15/2001	8/15/2031	75.90	4.94	4.88
Alvarado ISD	Unl Tax Ref Bonds Ser 1995	6/29/1995	8/15/2025	14.78	4.83	4.50
Frisco ISD	Unl Tax School Bldg & Ref Bonds Ser 2002	9/24/2002	8/15/2034	11.65	4.79	4.37
Crowley ISD	Unl Tax School Bldg & Ref Bonds Ser 2002	2/19/2002	8/1/2031	47.10	4.78	4.67
Harris County-Houston Sports Authority	Sr Lien Rev Ref Bonds Ser 2014A	12/23/2014	5/15/2054	4.77	4.77	3.77

Excludes commercial paper and conduit debt.  
Source: Texas Bond Review Board - Bond Finance Office

Figure 4.1 illustrates the total CAB par amount issued, the total proceeds received (including premiums on PCABs), and CAB maturity amounts (total debt-service owed at maturity) since 2007.



**CABs Outstanding**

Table 4.4 provides a comparison between the total CAB debt outstanding and total CIB and CAB debt outstanding for each type of local government entity. The CAB maturity amount outstanding (principal plus interest) is 2.4 percent (\$9.27 billion) of total debt-service owed by local governments. School Districts owe the most CAB debt service at 48.6 percent of total CAB debt-service owed among all local governments. While CAB par was 0.7 percent of total CIB and CAB par outstanding at fiscal year-end 2021, CAB interest accounted for 6.0 percent of total interest owed.

Table 4.4 Texas Local Government Capital Appreciation Bonds Outstanding as of August 31, 2021 (\$ in thousands)											
Entity Type	Total Par Outstanding (CIB+CAB)	CAB Par Outstanding	CAB Par/ Total Par	Total Interest Outstanding (CIB+CAB)	CAB Interest	CAB Interest/ Total Interest	Total Debt Service (CIB+CAB)	CAB Maturity Amount Outstanding	CAB Maturity Amount/ Total Debt Service	% of CAB Par Outstanding	% of CAB Maturity Amount Outstanding
Public School Districts	\$96,912,189	\$755,249	0.78%	\$49,389,197	\$3,750,586	7.59%	\$146,301,386	\$4,505,836	3.08%	43.36%	48.58%
Cities, Towns, Villages	83,189,242	177,629	0.21%	35,277,649	902,984	2.56%	118,466,891	1,080,612	0.91%	10.20%	11.65%
Water Districts	39,438,878	95,983	0.24%	15,766,354	200,102	1.27%	55,205,231	296,085	0.54%	5.51%	3.19%
Other Special Districts	19,510,421	656,836	3.37%	14,857,902	2,551,636	17.17%	34,368,323	3,208,472	9.34%	37.71%	34.59%
Counties	15,173,132	30,424	0.20%	6,069,658	79,941	1.32%	21,242,790	110,365	0.52%	1.75%	1.19%
Comm Colleges / Junior Colleges	6,018,199	14,506	0.24%	2,533,575	20,609	0.81%	8,551,774	35,115	0.41%	0.83%	0.38%
Health & Hospital Districts	3,507,195	11,149	0.32%	2,045,774	26,757	1.31%	5,552,969	37,906	0.68%	0.64%	0.41%
Total	\$263,749,257	\$1,741,776	0.66%	\$125,940,109	\$7,532,615	5.98%	\$389,689,366	\$9,274,391	2.38%	100.00%	100.00%

Excludes commercial paper, conduit debt and Build America Bond subsidies.  
 Source: Texas Bond Review Board - Bond Finance Office

Figure 4.2 below shows the maturity amount (principal plus interest) for each local government entity with CABs outstanding since 2007.

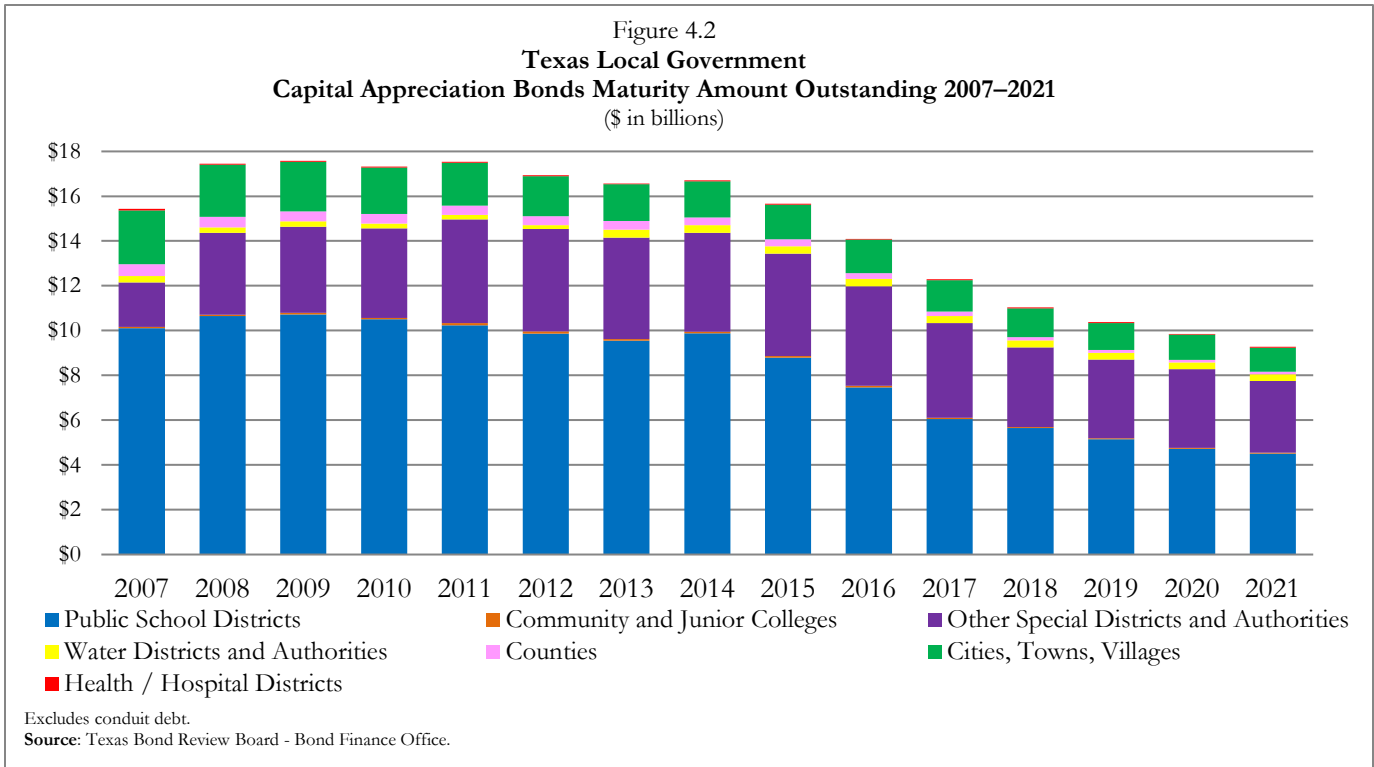


Figure 4.3 shows CIB debt service and CAB debt service for all local governments since 2007. In fiscal year 2021, CAB maturity amounts accounted for 2.4 percent (\$9.27 billion) of the total debt service outstanding.

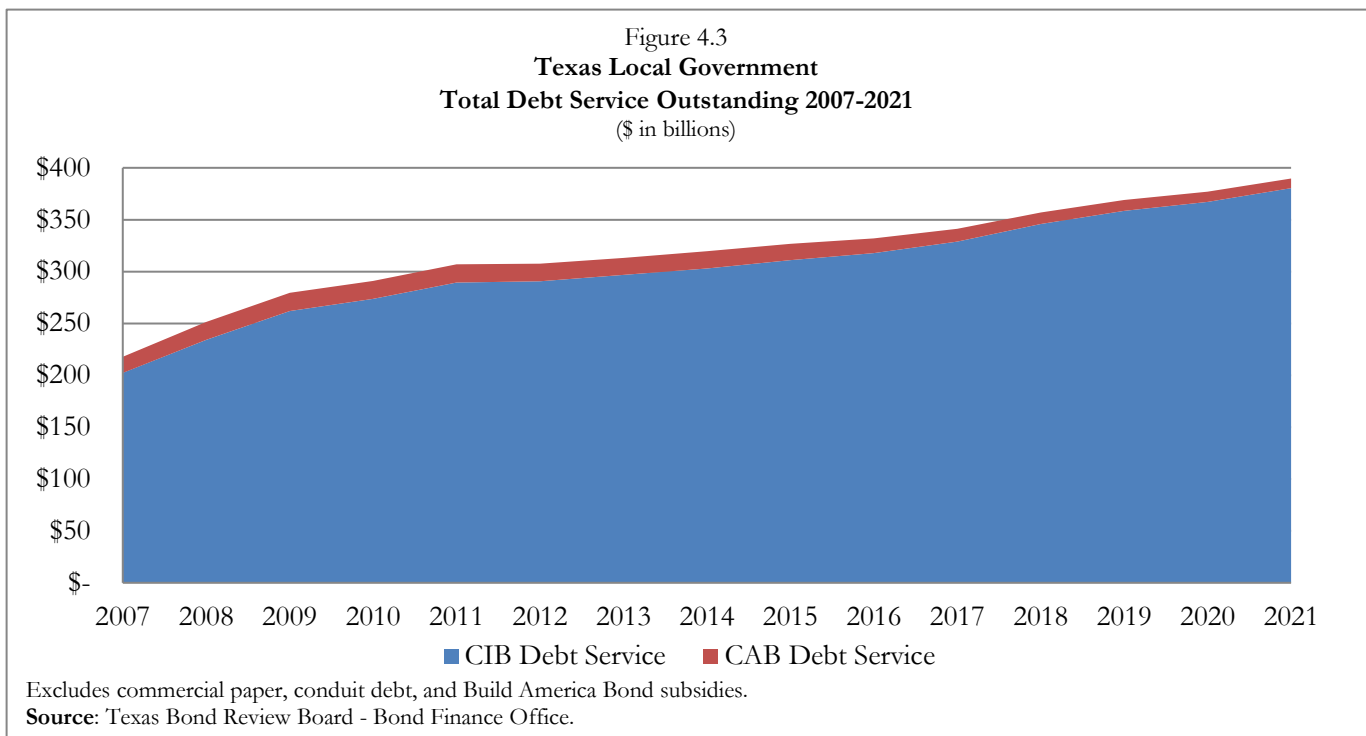


Figure 4.4 compares the ratio of total debt service to total par outstanding for CIB and CAB debt for all local governments. On average, issuers of CAB debt paid \$3.69 in principal and interest for every \$1 of principal borrowed since 2007 compared to \$1.62 for CIB debt.

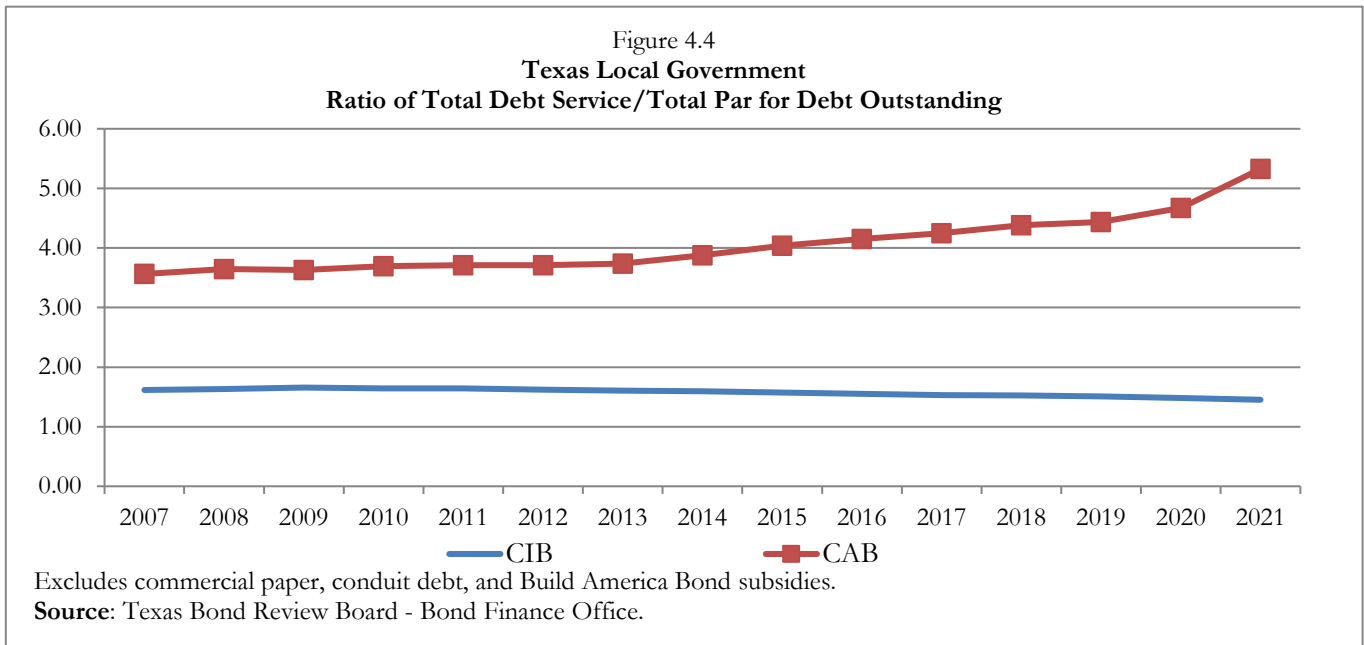


Figure 4.5 compares the ratio of School District debt service to ISD debt outstanding for CIB and CAB debt. On average, School Districts paid \$4.12 in principal and interest for every \$1 of principal borrowed since 2007 for CAB debt compared to \$1.58 for CIB debt.

