

# Dallas Independent School District

Municipal Market Update, Outstanding Debt Profile and Preliminary Growth Rate/Tax Rate Sensitivity Analysis for November 2015 Bond Election

October 6, 2015



RBC Capital Markets

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INVESTMENT BANKERS

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# Municipal Market Update

## SECTION 1



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# Long-Term Market

## Market Overview

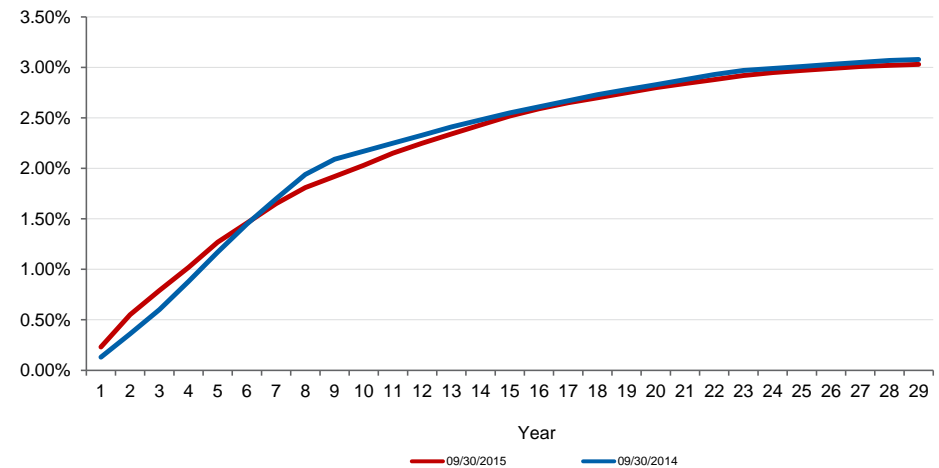
### Marco Market Overview

- Equity markets worldwide initially sold off when the weak jobs report was released on Friday. However there was a large turnaround as the day went on, and stocks ended up on the day.
- The markets apparently came to the view, for one day at least, that weak economic news is good because it could work to keep the Fed on hold into 2016 with any plan to start increasing its short-term interest rate targets.
- For the week as a whole, the Dow Jones Industrial Average and the S&P 500 Index both increased 1%, while the NASDAQ was up 0.5%. Equities had a tough third quarter, with both the Dow Jones and the S&P declining 7%.
- Treasury yields declined the entire week, giving up some of those gains on Friday as stocks recovered, but still finished with lower yields for the day. For the week as a whole, the yield on the 10-yr bond was down 17bps (closing on Friday at less than 2%), and the yield on the 30-yr bond was down 13bps.

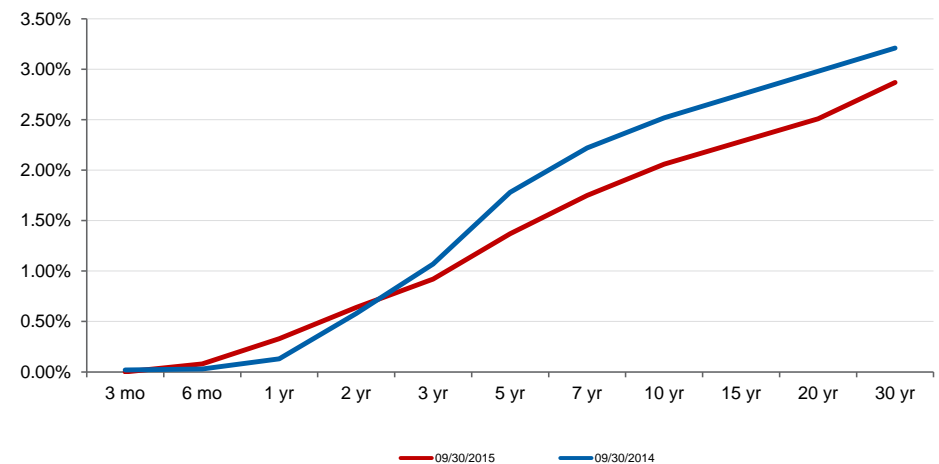
### Municipal Market Overview

- Municipal bond yields decreased last week, underperforming the sharp decreases in yield experienced by Treasuries. Muni yields on the Municipal Market Data (MMD) AAA GO curve decreased by between 8bps and 11bps for maturities of 10-yrs and longer.
- Historically, Munis have underperformed Treasuries on sharp Treasury rallies, and then sometimes made up the lost ground in coming trading days.
- The market was aided in September by the decline in new issue volume, which was \$18.3bn for the month, down by 27% from the \$25.2bn in September of 2014.
- This upcoming week sees a return to a more robust new issue calendar, with more than \$8bn in new issues slated to sell. Municipal bond mutual funds saw outflows during the week, basically reversing the inflows seen in the previous week. According to data from Lipper, overall funds saw outflows of \$252mm for the week vs. \$231mm of inflows in the previous week.

### Municipal GO “AAA” MMD Yield Curve Changes



### U.S. Treasury Yield Curve Changes



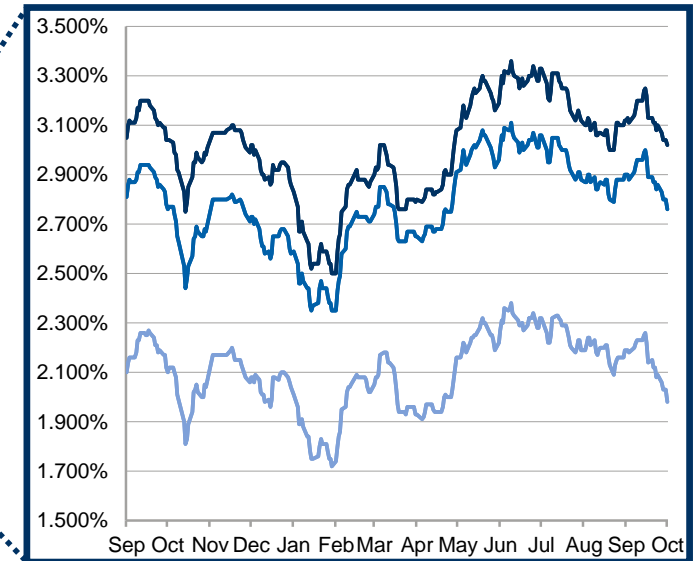
# Current Municipal Market Conditions: “AAA” MMD

After closing at 3.10% the previous week, the 30-year “AAA” MMD decreased by 8 bps from September 25 – October 2 to a current rate of 3.02%

“AAA” MMD January 1, 2007 to Present



Shift in “AAA” MMD Since September 2014



January 1, 2007 to Present

	10 Year	20 Year	30 Year
Maximum	4.860%	5.740%	5.940%
Minimum	1.470%	2.100%	2.470%
Current	1.980%	2.760%	3.020%

Shift in 30-year “AAA” MMD

2008	2009	2010	2011	2012	2013	2014
0.790%	-0.900%	0.520%	-1.130%	-0.740%	1.330%	-1.340%

September 2, 2014 to Present

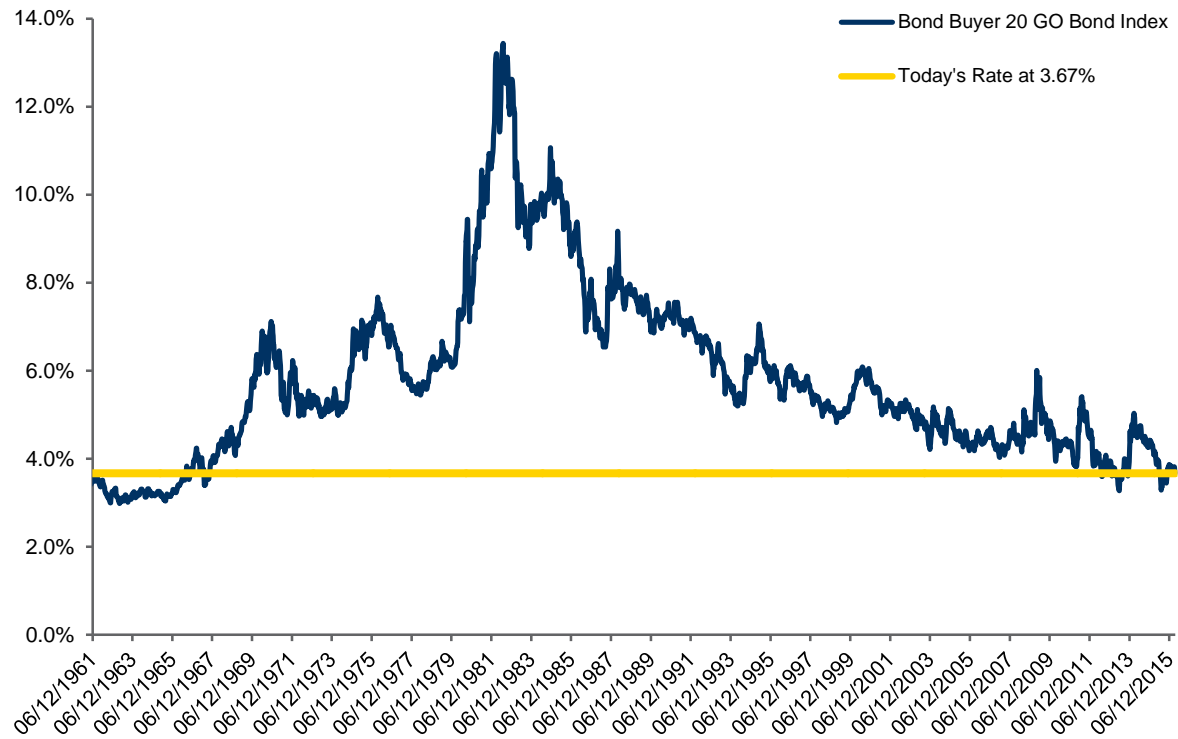
	10 Year	20 Year	30 Year
Maximum	2.380%	3.110%	3.360%
Minimum	1.720%	2.350%	2.500%
Average	2.110%	2.792%	3.016%

Source: TM3, Thomson Reuters  
10, 20, and 30 year “AAA” MMD shown to represent different average lives of municipal transactions  
Rates as of October 2, 2015

# Bond Buyer 20 General Obligation Bond Index

## 54 Year Historical Perspective

### Bond Buyer 20 GO Index since January 1961



### % of Time in Each Range Since 1961

Yield Range		
Less than 3.50%	8.86%	
3.50% - 4.00%	7.81%	
4.01% - 4.50%	11.24%	
4.51% - 5.00%	10.57%	
5.01% - 5.50%	14.74%	
5.51% - 6.00%	10.26%	
6.01% - 6.50%	7.95%	
6.51% - 7.00%	7.25%	
7.01% - 7.50%	6.55%	
7.51% - 8.00%	3.85%	
Greater than 8.00%	10.96%	
<b>Total</b>	<b>100.00%</b>	

Source: Bloomberg as of October 1, 2015  
 Weekly yields and indexes released by the Bond Buyer. Updated every Thursday at approximately 6:00pm EST. 20 Bond General Obligation Yield with 20 year maturity, rated AA2 by Moody's Arithmetic Average of 20 bonds' yield to maturity.

**Today's 3.68% level is lower than 89.85% of historical rates since January 1961**

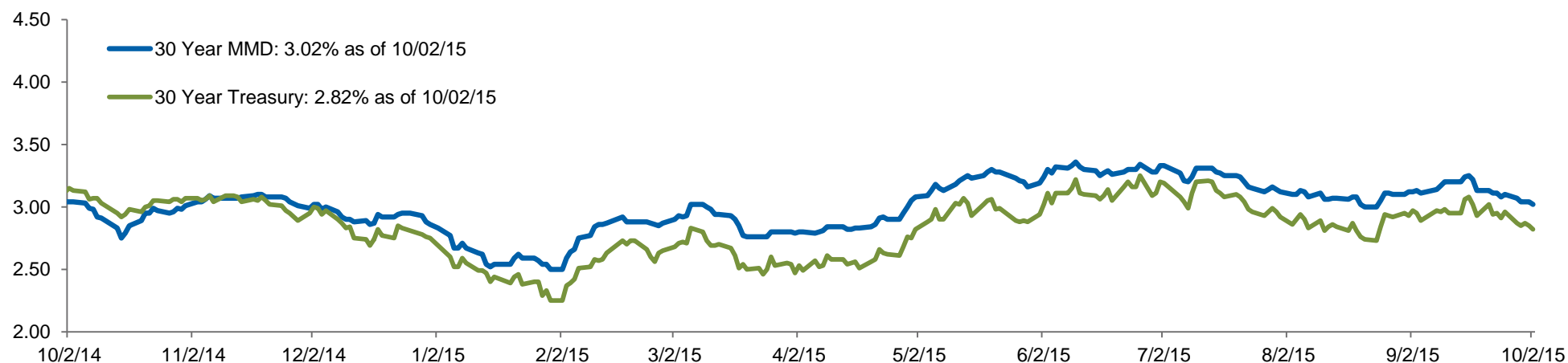
# RBC Economic Outlook

- **Municipal Supply in 2014:** \$334 billion
- **RBC Municipal Supply Forecast for 2015:** \$335 billion (\$303 billion YTD)
- **The Current Market:**
  - US equities gained last week, with the DJIA and SPX advancing 1% and the Nasdaq rising 0.45%.
  - August payrolls were revised lower, and the unemployment rate held at 5.1%.
  - UST10 yield hit an intra-day low of 1.90% on Friday morning (-13bp) but retraced gains to close at 1.99% (-4bp).
  - Municipal supply averaged \$4.7bn per week in September, totaling \$23.5bn for the month.
  - New-issue volume totaled \$6.3bn last week and will rise to \$10.3bn this week.
  - Investors continue to direct the majority of their cash and focus to the primary market versus the secondary.
- **US Treasuries:**
  - 10 year: 2.45% forecasted for end of 2015 (1.99% as of Oct. 2, 2015)
  - 30 year: 3.20% forecasted for end of 2015 (2.82% as of Oct. 2, 2015)

## RBC Economic Outlook and Interest Rate Forecasts<sup>(1)</sup>

	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16
Real GDP (QoQ)	3.00	2.90	3.00	2.80	3.00	2.70
Core Inflation (YoY)	1.80	2.00	2.10	2.00	2.00	2.10
Unemployment	5.20	5.10	5.10	5.10	5.00	5.00
IOER <sup>(2)</sup>	0.25	0.50	0.75	1.00	1.25	1.75
2-Year Notes	0.75	1.05	1.30	1.60	1.80	2.15
5-Year Notes	1.50	1.80	1.95	2.15	2.35	2.50
10-Year Notes	2.10	2.45	2.60	2.80	3.00	3.15
30-Year Bonds	2.90	3.20	3.30	3.40	3.60	3.75

## Markets Have Experienced Significant Volatility Over the Last Year



(1) RBC Rate and Economic Forecast as of October 2, 2015.

(2) Interest on Excess Reserves – RBC expects IOER, not the Fed Funds effective rate, to be the targeted policy rate in the initial stages of the tightening cycle.



# Outstanding Debt

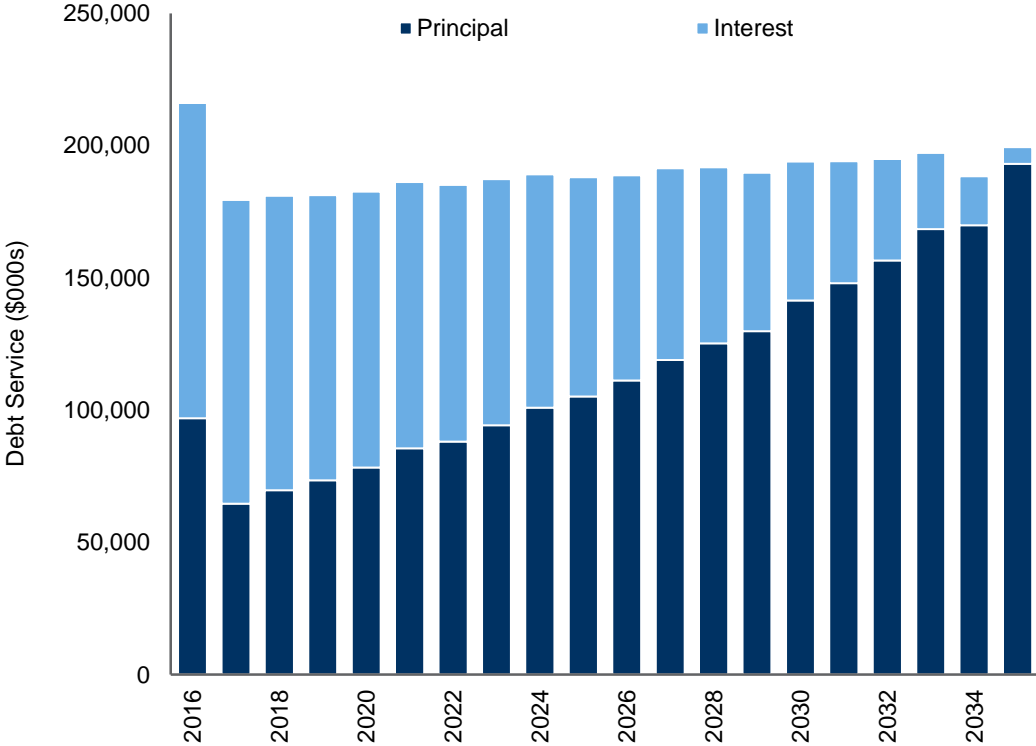
## SECTION 2



RBC Capital Markets

# Outstanding Debt

## Unlimited Tax Debt by Principal & Interest



Dallas Independent School District  
Outstanding Unlimited Tax Debt by Principal & Interest

FYE (8/31)	Principal	Interest	Total
2016	\$ 96,975,000	\$ 119,091,210	\$ 216,066,210
2017	64,630,000	114,813,829	179,443,829
2018	69,680,000	111,313,105	180,993,105
2019	73,455,000	107,834,569	181,289,569
2020	78,315,000	104,297,245	182,612,245
2021	85,555,000	100,634,748	186,189,748
2022	88,120,000	96,998,759	185,118,759
2023	94,305,000	92,957,100	187,262,100
2024	100,885,000	88,202,730	189,087,730
2025	105,195,000	82,835,169	188,030,169
2026	111,165,000	77,542,128	188,707,128
2027	118,905,000	72,475,375	191,380,375
2028	125,285,000	66,451,598	191,736,598
2029	129,830,000	59,961,250	189,791,250
2030	141,415,000	52,520,403	193,935,403
2031	148,025,000	46,017,244	194,042,244
2032	156,580,000	38,298,418	194,878,418
2033	168,490,000	28,713,491	197,203,491
2034	169,950,000	18,416,263	188,366,263
2035	193,165,000	6,229,571	199,394,571
<b>Total</b>	<b>\$ 2,319,925,000</b>	<b>\$ 1,485,604,201</b>	<b>\$ 3,805,529,201</b>

# Outstanding Debt

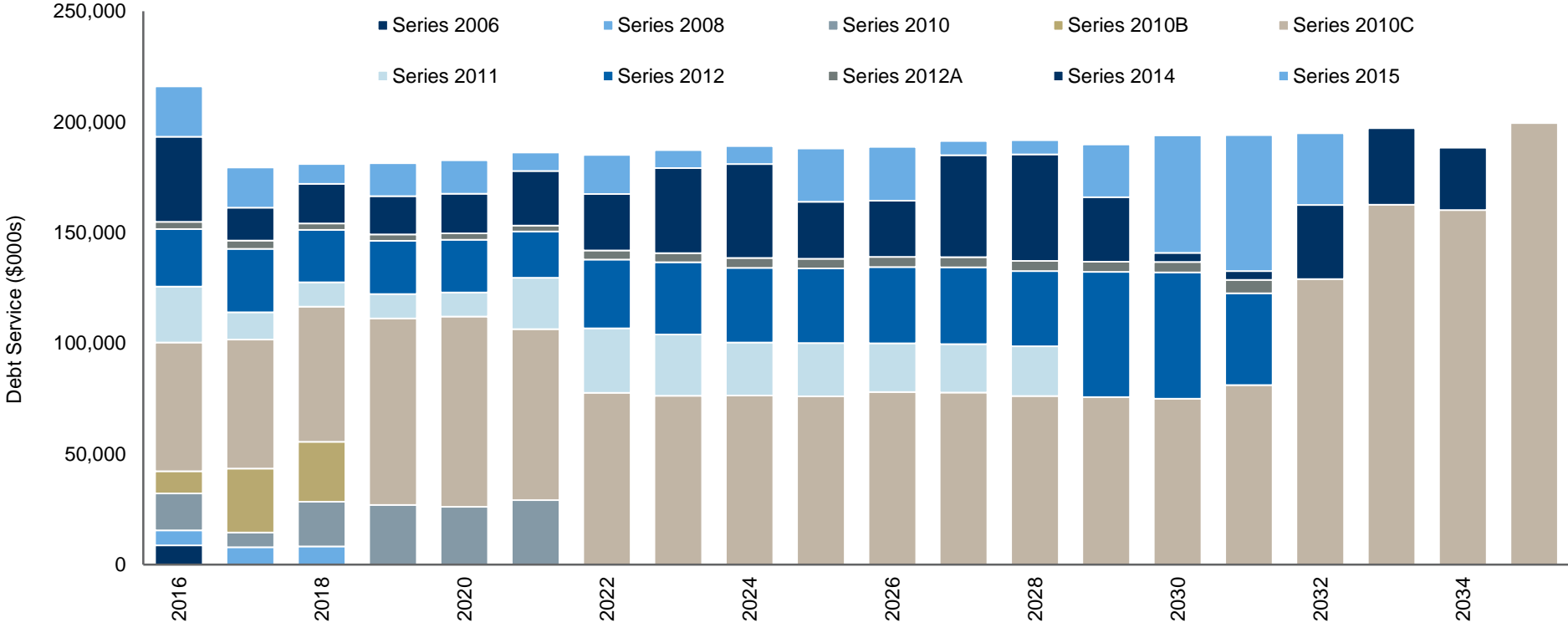
## Unlimited Tax Debt by Series

### Dallas Independent School District Outstanding Unlimited Tax Debt Service by Series

FYE (8/31)	Unlimited Tax School Building Bonds, Series 2006	Unlimited Tax School Building Bonds, Series 2008	Unlimited Tax Refunding Bonds, Series 2010	Unlimited Tax Refunding Bonds, Series 2010B	Unlimited Tax School Building Bonds Taxable, Series 2010C	Unlimited Tax Refunding Bonds, Series 2011	Unlimited Tax Refunding Bonds, Series 2012	Unlimited Tax Refunding Bonds Taxable, Series 2012A	Unlimited Tax Refunding Bonds, Series 2014	Unlimited Tax Refunding Bonds, Series 2015	Total Annual Debt Service
2016	\$ 8,725,600	\$ 6,695,263	\$ 16,698,725	\$ 10,034,550	\$ 58,161,423	\$ 25,299,350	\$ 25,943,750	\$ 3,272,550	\$ 38,499,350	\$ 22,735,650	\$ 216,066,210
2017		7,790,719	6,670,825	28,979,188	58,161,423	12,407,975	28,684,150	3,695,300	14,839,350	18,214,900	179,443,829
2018		8,153,556	20,305,300	27,038,663	61,046,786	10,948,600	23,703,150	2,933,550	17,904,350	8,959,150	180,993,105
2019			26,945,800		84,257,969	10,967,725	24,092,400	2,865,300	17,356,100	14,804,275	181,289,569
2020			26,142,425		85,874,520	10,940,100	23,734,150	2,937,550	17,947,600	15,035,900	182,612,245
2021			29,166,900		77,211,148	23,196,600	20,953,650	2,663,300	24,665,750	8,332,400	186,189,748
2022					77,646,334	29,059,725	31,096,050	4,069,550	25,575,000	17,672,100	185,118,759
2023					76,308,975	27,674,225	32,671,050	4,107,800	38,368,250	8,131,800	187,262,100
2024					76,361,105	23,932,975	33,816,300	4,442,800	42,402,750	8,131,800	189,087,730
2025					76,025,744	24,046,350	33,687,900	4,461,000	25,663,000	24,146,175	188,030,169
2026					77,953,253	21,993,100	34,527,700	4,578,400	25,364,500	24,290,175	188,707,128
2027					77,779,150	21,776,675	34,770,700	4,545,800	46,068,250	6,439,800	191,380,375
2028					76,122,723	22,524,375	33,932,900	4,658,800	48,058,000	6,439,800	191,736,598
2029					75,705,500		56,488,650	4,656,400	29,101,000	23,839,700	189,791,250
2030					74,915,353		57,063,650	4,717,800	4,090,000	53,148,600	193,935,403
2031					81,156,294		41,431,750	5,985,200	4,090,000	61,379,000	194,042,244
2032					129,003,218				33,480,000	32,395,200	194,878,418
2033					162,607,991				34,595,500		197,203,491
2034					160,194,763				28,171,500		188,366,263
2035					199,394,571						199,394,571
<b>Total</b>	<b>\$ 8,725,600</b>	<b>\$ 22,639,538</b>	<b>\$ 125,929,975</b>	<b>\$ 66,052,400</b>	<b>\$ 1,845,888,239</b>	<b>\$ 264,767,775</b>	<b>\$ 536,597,900</b>	<b>\$ 64,591,100</b>	<b>\$ 516,240,250</b>	<b>\$ 354,096,425</b>	<b>\$ 3,805,529,201</b>

# Outstanding Debt

## Unlimited Tax Debt by Series



Preliminary Growth Rate/Tax Rate  
Sensitivity Analysis for November  
2015 Bond Election

SECTION 3



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## Growth Rate/Tax Rate Sensitivity Analysis - Background

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- The School Board called an election for November 2015 in the amount of \$1,600,000,000 (the “2015 Bond Authorization”). As part of the discussion on the potential tax rate impact of this election, administration presented its projections of future tax base growth to substantiate its belief that the full authorization could be issued without an increase in the District’s existing debt tax (Interest & Sinking Fund or “I&S” tax) rate. Separately, administration has requested a “Sensitivity” analysis to determine the minimum levels of growth that must be achieved to meet the goal of maintaining the existing I&S tax rate of 24.2 cents. That is the purpose of this presentation.
- It is important to note that there are a variety of factors that impact the tax rate. These include the existing tax base and the projected growth in that tax base (the subject of this analysis); and a number of other factors including but not limited to: The structure of the bonds meaning whether the bonds are long-term fixed rate bonds or some form of shorter term variable rate bonds, market conditions at the time of issuance, total amount of bonds issued, available surplus I&S fund balances to manage the tax rate and still other factors.
- In order to focus specifically on the issue of the minimum growth rates required to meet the target, assumptions must be made to hold all the other factors constant. In that regard, administration required that the most conservative assumptions be made in regards to those factors:
  - Fixed rate long-term current interest bonds – This analysis shows two scenarios; one at a 20-year final maturity and the other at a 30-year final maturity. Note that State Law permits the issuance of bonds with up to 40-year final maturities but administration does not wish to consider such an option as it would have a negative impact on the total amount of interest paid on an issue.
  - Relatively high interest rate assumptions – The current market interest rates for a 20-year fixed rate “Aaa/AAA/AAA” rated Permanent School Fund guaranteed bond issue is approximately 3.30%. For purposes of this analysis, we have assumed an interest rate of 4.5% for the 20-year scenario and 5.0% for the 30-year scenario.
  - Issuance of the total amount of authorization (if approved by the voters) of \$1,600,000,000 over 4 years as follows: \$400,000,000 in FY 2016, \$600,000,000 in FY 2018 and \$600,000,000 in FY 2020. If the projected growth rate assumptions are not realized, the actual sale of bonds could be delayed somewhat to allow additional time for growth.
- **It should be noted that the structures assumed for this analysis are for the sole purpose of determining the minimum tax base growth rates required. This should not be taken as a “Plan of Finance” or a commitment to adopt a specific plan of action. Final structuring decisions will be made at the time of issuance and will be based on a combination of factors including targeting the existing tax rate (no tax rate increase); lowering overall interest expense to the District and its tax payers and maintaining reasonable levels of flexibility to manage potential unforeseen circumstances.**

## Growth Rate/Tax Rate Sensitivity Analysis

### Summary of Financial Findings for Minimal Required TAV Growth Scenarios – 2015 Bond Authorization

Description	Scenario 1	Scenario 2
Amortization Period	20 Years	30 Years
Bond Installments	Three Sales	Three Sales
Final Maturity	2040	2050
<b>Resulting Tax Rate Structure</b>	<b>Maintained</b>	<b>Maintained</b>
<b>Outstanding Debt Service Base Year*</b>	<b>\$3,805,529,201</b>	<b>\$3,804,329,201</b>
<b>Plus: Projected New Debt Service</b>	<b>2,713,140,345</b>	<b>3,412,990,025</b>
<b>Total Projected Outstanding Debt Service</b>	<b>\$6,518,669,546</b>	<b>\$7,217,319,226</b>
<b>Base Year I&amp;S Tax Rate (FY2015/16)</b>	<b>\$0.2420</b>	<b>\$0.2420</b>
<b>Projected I&amp;S Tax Rate Following Bond Election</b>	<b>\$0.2420</b>	<b>\$0.2420</b>
<b>Increase from Bond Election</b>	<b>\$0.0000</b>	<b>\$0.0000</b>
<b>Tax Increase on Taxable Home Value</b>		
<b>Year 1 Annual Tax Increase Per Homeowner</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Year 1 Monthly Tax Increase Per Homeowner</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Year 2 Annual Tax Increase Per Homeowner</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Year 2 Monthly Tax Increase Per Homeowner</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Tax Increase over Base Year</b>	<b>\$0.00</b>	<b>\$0.00</b>

\*Assumes the base year outstanding debt service is reduced in FY2035 from utilizing assumed surplus I&S Fund balances in the amount of \$1.2 million collected for purposes of prior debt for Scenario 2.

# Growth Rate/Tax Rate Sensitivity Analysis – Statement of Assumptions

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## General Assumptions:

- Bond election in November 2015 for authorization amount of \$1,600,000,000 (the “2015 Bond Authorization”).
- The District issues the 2015 Bond Authorization in three sales - \$400,000,000 in FY 2016, \$600,000,000 in FY 2018 and \$600,000,000 in FY 2020.
- Fixed rate current interest bond structures.
- The tax rate is calculated based on estimated Taxable Assessed Valuations (these numbers vary depending on growth rate assumptions). Assumes a tax collection rate of 98.75%.
- The District’s 2015/16 taxable assessed valuation (“TAV”) is \$91,173,603,390, which reflects a 6.47% increase over 2014/15. *This value is based on the certified report from Dallas Central Appraisal District and takes into account the possible new homestead exemption level of \$25,000 that will be voted on in November 2015.*
- All new money bonds are sold based on the underlying rating of the District (Aa1/AA/AA+) with the enhancement of the Texas Permanent School Fund Guarantee Program (Aaa/AAA/AAA). Ratings shown in order of Moody’s/S&P/Fitch.

## Scenario One:

- The maximum maturity for each bond sale will be 20 years from the respective bond sale dates noted above.
- An interest rate of 4.50% for each bond sale.
- **RESULT OF ANALYSIS:**
  - TAV growth of 6.0% in 2016/17, 3.50% growth in 2017/18, 3.0% growth in 2018/19, 2.50% growth in 2019/20 and 2020/21, 2.0% growth in 2021/22 through 2023/24, 1.50% growth in 2024/25 through 2026/27, and 0.50% growth thereafter.

## Scenario Two:

- The maximum maturity for each bond sale will be 30 years from the respective bond sale date.
- An interest rate of 5.00% for each bond sale.
- The currently existing debt service shown is reduced in FY2035 by \$1.2 million utilizing surplus Interest & Sinking (I&S) fund balances in the amount of \$1.2 million collected for purposes of prior debt.
- **RESULT OF ANALYSIS:**
  - TAV growth of 6.0% in 2016/17, 3.50% growth in 2017/18 through 2019/20, 2.50% growth in 2020/21, 1.00% growth in 2021/22 through 2023/24 and constant (zero %) thereafter.

All assumptions are preliminary and subject to change.