Debt Capacity Appendix

GO BANS Variable Interest Rate Assumption – The Components

GO BANs - Variable Interest Rate	2018	2019	2020	2021	2022	2023	2024	2025
a. 70% of 1-Month LIBOR	1.14%	1.66%	2.01%	2.10%	2.10%	2.10%	2.10%	2.10%
b. Spread: GO BANs vs. 70% of LIBOR	0.51%	0.51%	0.51%	0.51%	0.51%	0.51%	0.51%	0.51%
c. Factor Adjustment - New Legislation	0.35%	0.47%	0.54%	0.56%	0.56%	0.56%	0.56%	0.56%
= (a + b + c)	2.00%	2.64%	3.07%	3.17%	3.17%	3.17%	3.17%	3.17%

	2018	2019	2020	2021	2022	2023	2024	2025
GO BANs - Variable Interest Rate	2.00%	2.64%	3.07%	3.17%	3.17%	3.17%	3.17%	3.17%
Prior	1.46%	1.74%	1.97%	2.06%	2.19%	2.27%	2.27%	2.27%
Net Change	0.54%	0.90%	1.10%	1.11%	0.98%	0.90%	0.90%	0.90%

WAKE COUNTY

Additional Notes/Sensitivity Analysis on Capacity Calculation

Sales Tax Growth

- Recession, negative changes in consumer spending patterns, or changes by NC General Assembly, would result in downward adjusting of sales tax assumptions, reducing capacity, or require increase in property tax

Federal Tax Law Changes

- All debt has been modeled as tax-exempt debt. Changes in the tax exemption status for local government OR further changes in the corporate tax rate might impact County's cost of short-term debt and impact calculated capacity

Size of Building Programs Requested by WCPSS and WTCC

- If seven year CIP programs from WCPSS and WTCC are reduced, calculations of capacity and cost of debt and capital will change

Deviation from Debt Management Practices

- Rating agencies all report that rating is sensitive to shifts in fundamental credit characteristics, including deterioration of County's reserve and liquidity or deviation from strong financial management and debt practices

Moody's

Moody's U.S. Local Government GO Scorecard - Wake County 6/30/17

Criteria	Weight	Aaa = 1	Aa = 2	A = 3	Wake County Value	Wake County Score
Economy/Tax Base (30%)						
Tax Base Size: Full Value	10%	> $12B	$12B > n > $1.4B	$1.4B > n > $240M	$141B	1
Full Value Per Capita	10%	> $150,000	$150,000 > n > $65,000	$65,000 > n > $35,000	$141B/1,046,791 = $135,090	2
Median Family Income	10%	> 150% of US median	150% to 90% of US median	90% to 75% of US median	128.6% per Moody's	2
Finances (30%)						
Fund Balance as % of Revenues	10%	> 30%	30% > n > 15%	15% > n > 5%	33.7%	1
5-Year Dollar Change in Fund Balance as % of Revenues	5%	> 25%	25% > n > 10%	10% > n > 0%	5.8%	3
Cash Balance as % of Revenues	10%	> 25%	25% > n > 10%	10% > n > 5%	28.9%	1
5-Year Dollar Change in Cash Balance as % of Revenues	5%	> 25%	25% > n > 10%	10% > n 0%	5.9%	3
Management (20%)						
Institutional Framework (legal ability to match resources with spending)	10%	Very strong	Strong	Moderate	Very strong	1
Operating History: 5-Year Average of Operating Revenues/ Operating Expenditures	10%	> 1.05x	1.05x > n > 1.02x	1.02x > n > 0.98x	101.2%	3
Debt/Pensions (20%)						
Net Direct Debt/Full Value	5%	< 0.75%	0.75% < n < 1.75%	1.75% < n < 4.00%	1.5%	2
Net Direct Debt/Operating Revenues	5%	< 0.33x	0.33x < n < 0.67x	0.67x < n < 3.00x	1.7x	3
3-Year Average of Moody's Adjusted Net Pension Liability/ Full Value	5%	< 0.90%	0.90% < n < 2.10%	2.10% < n < 4.80%	0.2% per Moody's	1
3-Year Average of Moody's Adjusted Net Pension Liability/ Operating Revenues	5%	< 0.40x	0.40x < n < 0.80x	0.80x < n < 3.60x	0.2% per Moody's	1
Overall weighted average score		0.50 to 1.50	1.50 to 1.83	1.83 to 2.17	Overall weighted average score	1.75
					Credits for institutional presence and regional economic center	-0.33
					Adjusted score	1.42

Aaa=1	
Aa=2	
A=3	

Standard and Poor's

S&P Rating Matrix for Wake County

Factor	Score	Weight	Score x Weight
1. Institutional framework	1	10%	0.10
2. Economy	1	30%	0.30
3. Management	1	20%	0.20
4. Budget flexibility	1	10%	0.10
5. Budgetary performance	2	10%	0.20
6. Liquidity	1	10%	0.10
7. Debt and contingent liabilities	3	10%	0.30
Indicative rating			1.30 (1 - 1.64 = AAA)
Overriding factors			N/A
Final GO rating			AAA

S&P utilizes a scoring matrix for each category:

- Institutional Framework: autonomous control of major revenues, LGC oversight

- Management: board governance and policies

- Economy: market value per capita and per capita effective buying income

- Budgetary Flexibility: fund balance as a % of expenditures

- Budgetary Performance: net gov't funds and net general funds (revenues as % of expenditures)

- Liquidity: cash as a % of debt service and cash as a % of governmental funds expenditures

- Debt & Contingent Liabilities: debt as a % of gov't revenues and debt services as a % of gov't expenditures

WAKE COUNTY

Fitch

Revenue Framework		Metric
Growth propects for revenues without revenue-raising measures		10-year performance of
aaa	Strong - Growth in line with or above the level of U.S. economic performance	general fund revenues in
aa	Solid - Growth below U.S. economic performance but above the level of inflation	comparison to growth in
a	Slow - Growth in line with the level of inflation	national GDP and inflation*
Independent legal ability to raise operating revenues without external approval		
aaa	High - Maximum revenue increase of 3x the decline in revenue caused by a 1% decline in GDP	No legal limitations
aa	Sunstantial - Maximum revenue increase of 2x the decline in revenue caused by a 1% decline in GDP	on revenues
a	Satisfactory - Maximum revenue increase equal to the decline in revenue caused by a 1% decline in GDP	
Other	Third-party funding risk; unusually concentrated or volatile revenue base	
Expenditure Framework		**Metric**
Natural pace of spending growth relative to expected revenue growth		Time series data reviewed,
aaa	Slower to equal	but mainly Fitch's analysis
aa	In line with to marginally above	of and expectations for
a	Above	main spending areas
Flexibility of main expenditure items		(DS+pension ARC+OPEB contr)/expend
aaa	Ample ability to cut spending throughout the economic cycle	Carrying costs <10% aaa
aa	Solid ability to cut spending throughout the economic cycle	Carrying costs <20% aa*
a	Adequate ability to cut spending; limits to budget management may result in cuts to core services	Carrying costs <25% a
Other	Potential funding pressures including litigation, internal service fund liabilities and contingent obligations	
Long-term Liability Burden		**Metric**
Combined burden of debt and unfunded pension liabilities		Overall debt/income
aaa	Low liability burden in relation to resource base	Liab-to-income <10% aaa*
aa	Moderate liability burden in relation to resource base	Liab-to-income <20% aa
a	Elevated (but still in the moderate range) liability burden in relation to resource base	Liab-to-income <40% a
Other	Derivatives exposure, short-term debt, variable-rate debt, bullet maturity debt, large OPEB liability	Direct debt/governmental rev
Operating Performance		**Metric**
Financial resilience through downturns		Scenario analysis results
aaa	Exceptionally strong gap-closing capacity; high level of flexibility during economic downturns	
aa	Very strong gap-closing capacity; adequate level of flexibility during economic downturns	
a	Strong gap-closing capacity; financial operations challenged during economic downturns	
Budget management during economic recovery		Historical and expected budgeting
aaa	Rapid rebuilding of financial flexibility; no material deferral of required spending	practices. Dollar difference between
aa	Consistent efforts in support of financial flexibility; limited to no deferral of required spending	pension ARC/ADEC and actual funding
a	Some deferral of required spending	as % of spending.
Other	Liquidity or market acess concerns; third party risk to operations; exceptional taxpayer dissatisfaction	
*See Metrics.		

WAKE COUNTY