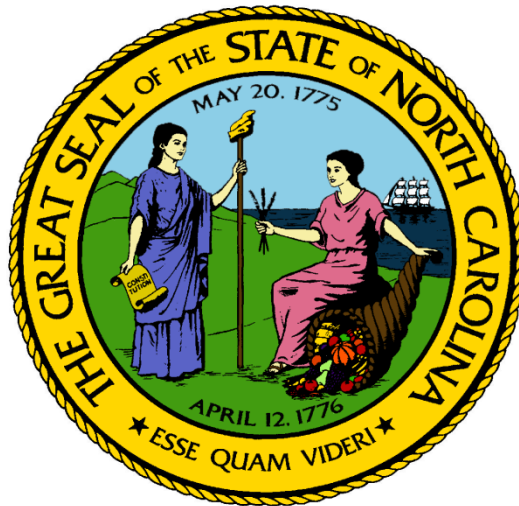


State of North Carolina



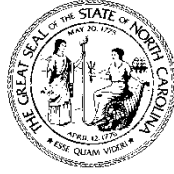
Debt Affordability Study

February 1, 2022

Debt Affordability Advisory Committee

**Department of State Treasurer
3200 Atlantic Avenue
Raleigh, NC 27604
Phone: 919-814-3807**

STATE OF NORTH CAROLINA
DEBT AFFORDABILITY ADVISORY COMMITTEE



February 1, 2022

To: Governor Roy Cooper
Lieutenant Governor Mark Robinson, President of the North Carolina Senate
Senator Phil Berger, President Pro Tempore of the North Carolina Senate
Representative Tim Moore, Speaker of the North Carolina House of Representatives
Members of the 2022 General Assembly through the Fiscal Research Division

Attached is the February 1, 2022 report of the Debt Affordability Advisory Committee submitted to you pursuant to North Carolina General Statute §142-101. The report was created to serve as a tool for sound debt management practices by the State of North Carolina.

The report provides the Governor and the General Assembly with a basis for assessing the impact of future debt issuance on the State's fiscal position and enables informed decision-making regarding both financing proposals and capital spending priorities. A secondary purpose of the report is to provide a methodology for measuring, monitoring and managing the State's debt levels, thereby protecting North Carolina's bond ratings of AAA/Aaa/AAA. The methodology used by the Committee to analyze the State's debt position incorporates trends in debt levels, peer group comparisons, and provides recommendations within adopted guidelines. The analysis includes the projected issuance of all authorized but unissued debt.

The Committee is reiterating its recommendation that the State recognize the magnitude of its unfunded pension and other post-employment benefit ("OPEB") obligations that cover retiree healthcare costs and to continue to address these liabilities with a continuing annual appropriation of \$100 million to the Unfunded Liability Solvency Reserve ("Solvency Fund") created by S.L. 2018-30. The Committee likewise is recommending continuing the single target calculation utilizing the limitation that debt service and the continuing annual appropriation to the Solvency Fund not exceed 4% of revenues.

I believe that these recommendations continue to address our unfunded liabilities and represent action to preserve and protect the State's "AAA" rating.

Respectfully submitted,

Dale R. Folwell, CPA,
State Treasurer of North Carolina
Chair, Debt Affordability Advisory Committee

Debt Affordability Advisory Committee Membership

Mr. Dale R. Folwell, CPA, State Treasurer, Chair

Mr. Ronald Penny, Secretary of Revenue

Dr. Linda M. Combs, State Controller

Mr. Charles Perusse, State Budget Director

Ms. Beth Wood, State Auditor

Mr. Frank H. Aikmus, Senate Appointee

Mr. Bradford B. Briner, Senate Appointee

Mr. Eugene W. “Gene” Chianelli, Jr., House Appointee

Mr. Donald G. Pomeroy II, House Appointee

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SUMMARY

Background and Context

A study of debt affordability is an essential management tool that helps to provide a comprehensive assessment of a government's ability to issue debt for its capital needs. S&P Global Ratings ("S&P"), one of the three major bond rating agencies, has stated that "Most of the 'AAA' states have a clearly articulated debt management policy. Evaluating the impact of new or authorized but unissued bond programs on future operating budgets as well as unfunded liabilities are an important element of debt management and assessing debt affordability." Control of debt burden is one of the key factors used by rating agencies' analysts in assessing credit quality. Other factors include economic vitality and diversity, fiscal performance and flexibility, administrative capabilities of government and environmental risk factors.

The Debt Affordability Advisory Committee (the "Committee" or "DAAC") is required to annually advise the Governor and the General Assembly of the estimated debt capacity of the General, Highway and Highway Trust Funds for the upcoming ten fiscal years. The legislation also directs the Committee to recommend other debt management policies it considers desirable and consistent with the sound management of the State's debt. The Committee hereby presents its study for 2022.

Debt Controls and Ratings

Debt capacity is a limited and scarce resource. It should be used only after evaluating the expected results and foregone opportunities. The Study enables the State to structure its future debt issuances within existing and future resource constraints by providing a comparison of its current debt position to relevant industry and peer group standards. The Study can thus be used to help develop and implement the State's capital budget and is premised on the concept that resources, not only needs, should guide the State's debt issuance program. The Committee's adopted guidelines attempt to strike a balance between providing sufficient debt capacity to allow for the funding of essential capital projects and imposing sufficient discipline so that the State does not create a situation that results in loss of future budgetary flexibility and a deteriorating credit position.

The State's ratings were affirmed in 2021 at Aaa (Moody's), AAA (S&P) and AAA (Fitch). All of the State's debt ratios remain at or below the median levels for the State's peer group comprised of all thirteen states currently rated "triple A" by all three rating agencies. North Carolina's debt is considered manageable at current levels. In affirming the State's rating, Moody's Investor Service (July 2021) stated, *"The State of North Carolina's (Aaa stable) very strong credit quality is exemplified by a diverse economy exhibiting strong growth before the coronavirus outbreak, and accelerating economic recovery coming out the pandemic amid the vaccine rollout. The state has had biennial budget impasses several times over the past six years, including the current biennium, but strong governance structures in place insure continued conservative fiscal practices and healthy reserves. Finally, the state's debt and pension burdens are among the lowest of the state sector, a key credit strength."*

The Committee has adopted the ratio of debt service as a percentage of revenues as the controlling metric that determines the State's debt capacity. Over the ten-year planning horizon, the State's DAAC general fund revenue projections show a positive growth trend not excessively impacted from earlier declines in economic activity caused by the COVID-19 pandemic. Debt service projections incorporate the future issuance of the remaining \$2.0 billion Build NC Bonds. Session Law 2021-180, ss. 40.9 (b) and (c) modified the "Connect NC Bond Act" (S.L. 2015-280) to limit the aggregate principal to be issued to \$1.6 billion (the amount previously issued). The remaining funds needed to

complete the projects funded under the Connect NC Bond Act (\$400 million) will be funded through an appropriation and from available premium funds from prior Connect NC bond issues. Therefore, no future debt service projections for Connect NC were incorporated into the debt capacity model.

The General Fund model results show that the State's General Fund has debt capacity of approximately \$1.416 billion in each of the next 10 years (up to just over \$4.0 billion in the first year) after incorporating the Committee's recommended policy that directs continuing annual appropriations of \$100 million to the Unfunded Liability Solvency Reserve (the "Solvency Fund") to begin to address the State's unfunded Pension and OPEB liabilities. Session Law 2021-180, s. 2.2.(a) has allocated \$40 million to the Solvency Fund for Fiscal Year 2022 and \$10 million for Fiscal Year 2023. The actual ratio of debt service to revenues is projected to peak at 2.4% this fiscal year.

Transportation debt service will increase markedly over the model horizon. Assuming all \$3 billion of the Build NC Bonds are issued, the 6% cap on Transportation debt service to revenues will be violated beginning in FY 2026 resulting in no available Transportation debt capacity. (**See Section II – Transportation Debt Affordability and Build NC Bonds Capacity Constraints – page 32** for more discussion; project funding is not projected to be significantly curtailed). Transportation debt service as a percentage of Transportation revenues peaks at 6.91% in FY 2028.

On a combined basis, the General Fund and Transportation Fund's debt service is projected to peak at approximately 2.61% of combined revenues in FY 2023.

Table 1

General Fund Debt Capacity using 4.0% debt service/revenues target ratio \$100 million per year to be used to address unfunded liabilities (In millions of dollars)					
Fiscal Year	2022	2023	2024	2025	2026
\$ to Unfunded Liabilities	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0
Total Additional Debt Capacity per Year *	\$4,353.5	\$827.6	\$1,924.9	\$1,310.4	\$616.7
Debt Capacity Available each and every Year	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5
* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.					

Table 2

Transportation Net Tax-Supported Debt Capacity using 6.0% debt service/revenues target ratio (In millions of dollars)					
Fiscal Year	2022	2023	2024	2025	2026
Total Additional Debt Capacity per Year *	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Debt Capacity Available Each and Every Year	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year. GAP Funding for North Carolina Turnpike Authority projects assumed to total \$49 million annually.					

Table 3

General Fund and Transportation Funds Combined Debt Service / Revenue Percentages					
Fiscal Year	2022	2023	2024	2025	2026
General Fund	2.39%	2.30%	2.09%	1.58%	1.27%
Transportation *	3.99%	4.66%	5.12%	5.74%	6.20%
Combined	2.60%	2.61%	2.49%	2.13%	1.91%
Note: Percentages are based on forecasted revenues and debt service. * GAP Funding for North Carolina Turnpike Authority projects assumed to total \$49 million annually.					

Over the past twelve years, the State has refunded approximately \$5.4 billion of outstanding debt, representing approximately 76% of the State's outstanding debt, achieving budgetary savings of over \$385 million. Refunding opportunities are continually monitored although additional savings are not likely to be realized during the coming year.

Interest Rate Levels

Interest rates have remained near historic lows with the 10-year benchmark Treasury closing at 1.51% on December 31, 2021. Federal Reserve policy has been accommodative but is transitioning to less accommodative. Without unanticipated shocks to the economy or other negative factors, most

economists see interest rates rising over the coming year, but major changes to interest rates that would significantly affect the State's capacity calculations are unlikely.

Other Recommendations

(See Appendices A and C for further discussion)

- **Unfunded Pension and Other Post-Employment Benefits (“OPEB”) Obligations**

The State currently has unfunded Pension and OPEB obligations totaling \$35.6 billion. The bond rating agencies are scrutinizing these liabilities and measures to address them more carefully. *Regarding OPEB, in July 2021, S&P wrote “the most recent material change to the OPEB plans was the repeal of retiree medical benefits for employees hired after January 1, 2021.”* The Committee recommends that the General Assembly adopt policies to address these liabilities, including a continuing appropriation to the Solvency Fund. See **(General Fund Analysis-Other beginning on page 16 and Appendix A)** for more detail.

- **Control of Debt Authorization Authority and Management**

Centralized debt authorization, issuance and management are considered one of North Carolina's credit strengths. Sponsoring agencies whose mission is to provide a particular service or assets are not in the best position to make decisions that prioritize the use of the State's debt capacity. In the Committee's view, the prioritization of capital projects and the issuance of obligations or entering into financial arrangements that create debt or debt-like obligations that increase the State's debt burden should remain the prerogative of the General Assembly.

- **State-Aid Intercept**

The Committee strongly opposes proposals that would utilize a back-up pledge of State appropriations to provide support for debt issued by other entities.

- **Structural Budget Balance and Continued Replenishment of Reserves Should Continue to be a Priority**

These are key ratings drivers contributing to the State's “AAA” rating.

- **Consider General Obligation Bonds as the Preferred Financing Vehicle**

The Committee recommends that the State consider General Obligation (“GO”) Bonds generally approved by voters as the preferred, but not exclusive, financing vehicle to provide funding for the State's capital projects. The Committee notes that the \$3 billion Build NC Bonds were not authorized as GO bonds, contrary to the Committee's standing recommendation, and will prove costlier to the State as a result.

- **Budget Adoption**

On November 18, 2021, the Governor signed into law the budget legislation (S.L. 2021-180) passed by the North Carolina General Assembly (NCGA). The approved budget totals \$26.03 billion for 2021-22 and \$26.98 billion for 2022-23. See **(Comments on the 2021-23 Biennium Budget) in Appendix A beginning on page 36.**

National Recognition for North Carolina’s Debt Affordability Study

In 2017, Pew Charitable Trusts (“Pew”) published a study on the debt affordability processes for all 50 states. Pew found that North Carolina is one of nine states they considered as “leading the way by producing studies that give policymakers a clear understanding of their states’ debt levels through, among other things, careful projections, smart benchmarking comparisons, multiple descriptive metrics, and analysis.” The Office of State Treasurer wishes to thank the DAAC and all of the contributors to the study without whose participation the production of the Study would not be possible.

SECTION I GENERAL FUND DEBT AFFORDABILITY

Review of General Fund Debt

Outstanding Debt

The State issues two kinds of tax-supported debt: GO Bonds and various kinds of “Special Indebtedness,” which are also known as non-GO debt or appropriation-supported debt. GO Bonds are secured by the full faith, credit and taxing power of the State. The payments on all other kinds of long-term debt, including Limited Obligation Bonds, Certificates of Participation (“COPs”), lease-purchase revenue bonds, capital lease obligations and installment purchase contracts are subject to appropriation by the General Assembly. Appropriation-supported debt may sometimes also be secured by a lien on facilities or equipment.

Debt that is determined to be self-supporting or supported by non-General Fund tax revenues does not constitute net tax-supported debt but is included in the definition of “gross” tax-supported debt used by some rating analysts.

The State's outstanding debt positions as of June 30, 2021 are shown below.

Chart 1

State of North Carolina Outstanding Net Tax-Supported Debt	
The State's total outstanding debt at June 30, 2021 totaled approximately \$8.5 billion of which \$5.7 billion was tax-supported.	
<u>Tax-Supported</u>	<u>Amounts (\$ millions)</u>
☐ General Obligation Debt	\$2,648.4
☐ General Fund (\$2,648.4)	
☐ Highway Fund (\$0)	
☐ Special Indebtedness	\$2,275.8
☐ General Fund (\$1,332.5)	
☐ Highway Fund (\$943.3)	
☐ NCTA Gap-Funded Appropriation Bonds	\$749.9
☐ Installment Purchase / Capital Leases ⁽¹⁾	\$12.5
Total General Fund Tax-Supported Debt	\$3,993.4
Total Highway Tax-Supported Debt	\$1,693.2
Total Tax-Supported Debt	<u>\$5,686.6</u>
<u>Non Tax-Supported</u>	
☐ GARVEEs	\$875.9
☐ NC Turnpike Authority (includes TIFIA)	\$1,837.4
☐ Guaranteed Energy Savings Contracts ⁽²⁾	<u>\$147.4</u>
Total Debt	<u>\$8,547.3</u>
(1) Lease information - OSBM and other sources.	
(2) Total GESCs entered into through June 30, 2021 was \$271.3 million.	

Trends in Amounts of General Fund Debt

After showing substantial growth in the early 2000s, the State's outstanding net tax-supported debt peaked in FY 2013 at approximately \$6.2 billion and has declined to approximately \$4.0 billion by June 30, 2021. The amount of outstanding debt is projected to level off and begin to decline over the next several years. Chart 2 below illustrates the outstanding amounts of General Fund net tax-supported debt over the last five years and projects the amount outstanding through FY 2026. Absent additional authorizations, the absolute level of General Fund tax-supported debt is not projected to exceed approximately \$3.5 billion over the projection period.

Chart 2

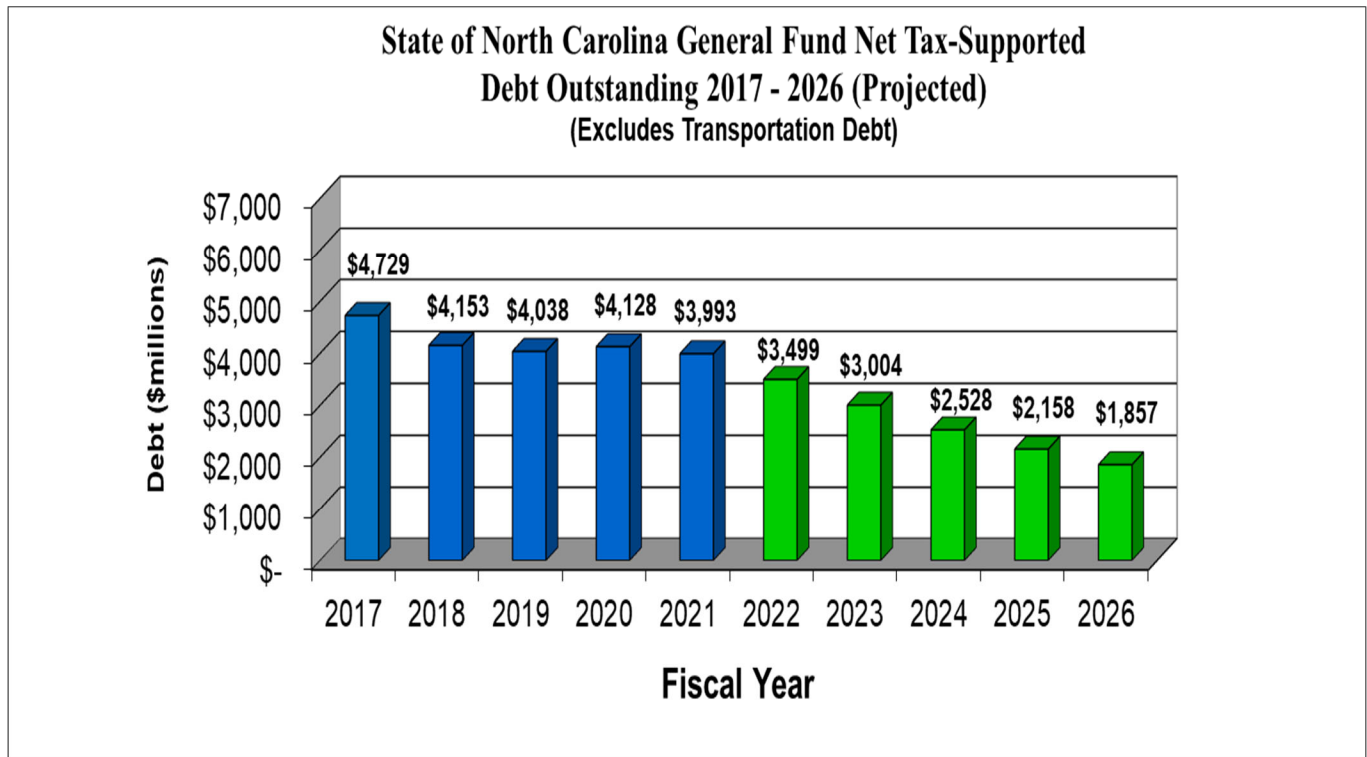
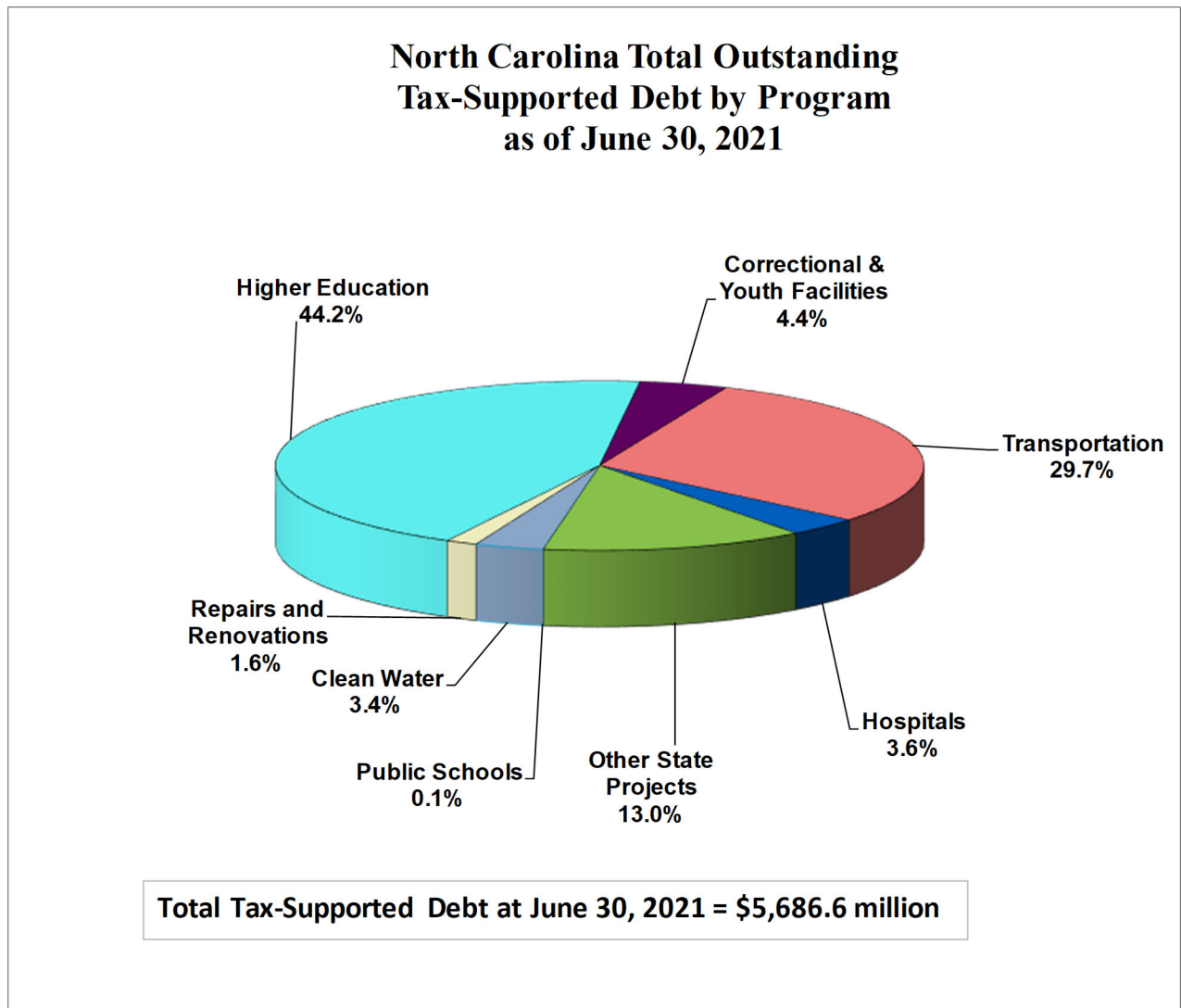


Chart 2 above incorporates all of the State's currently outstanding general fund debt. The State issues debt on a cash flow basis and bond issues are timed to provide funds as they are actually needed typically creating a lag between when debt is authorized and when it is actually issued. As of December 31, 2021, the State did not have any General Fund authorized but unissued tax-supported debt.

Uses of Total Outstanding Tax-Supported Debt

The following chart illustrates the uses for which the State has issued tax-supported debt, including that used for transportation purposes, calculated on the amount outstanding at June 30, 2021. The State has used the proceeds of its debt programs for many purposes with the two largest being to provide facilities and infrastructure for higher education (44.2%) and transportation (29.7%).

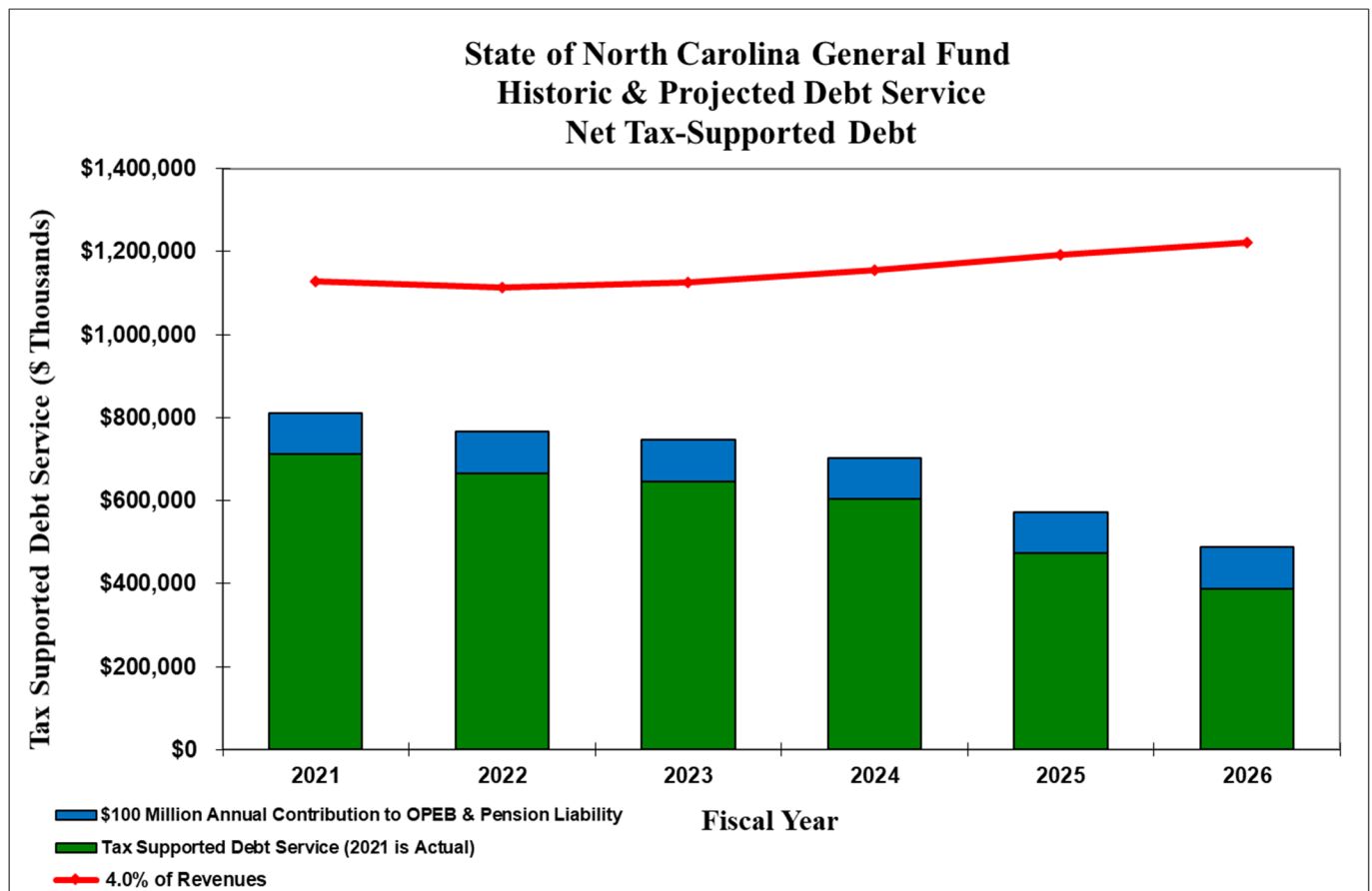
Chart 3



Debt Service

General Fund debt service as a percentage of revenues is projected to peak this fiscal year at about 2.40%. The absolute amount of annual debt service peaks at approximately \$665 million in FY 2022. The State's projected debt service is illustrated below in Chart 4. This chart also illustrates the amount of capacity for additional debt service that exists while remaining under the 4.00% guideline. Even after providing \$100 million annually for Pension and OPEB liabilities, there is capacity to issue additional debt in each and every year. The model calculates the additional debt that could be serviced by this capacity.

Chart 4



General Obligation Bonds versus Special Indebtedness

General Obligation (“GO”) indebtedness is usually considered to be the highest quality of all the various types of debt or debt-like instruments and usually carries the highest credit rating because the full faith and credit of the State is pledged to its repayment. Several factors contribute to the high rating, including the legal protections inherent in constitutionally permitted debt, investor confidence in the pledge of the full faith and credit of the State and the presumption of the availability of the government’s full resources. GO bonds are generally the most transparent of the various types of State debt obligations and typically carry the lowest interest cost. The Fiscal Research Division estimates that the costs of holding a GO bond referendum to be extremely modest and does not add substantially to the cost of the projects being financed.

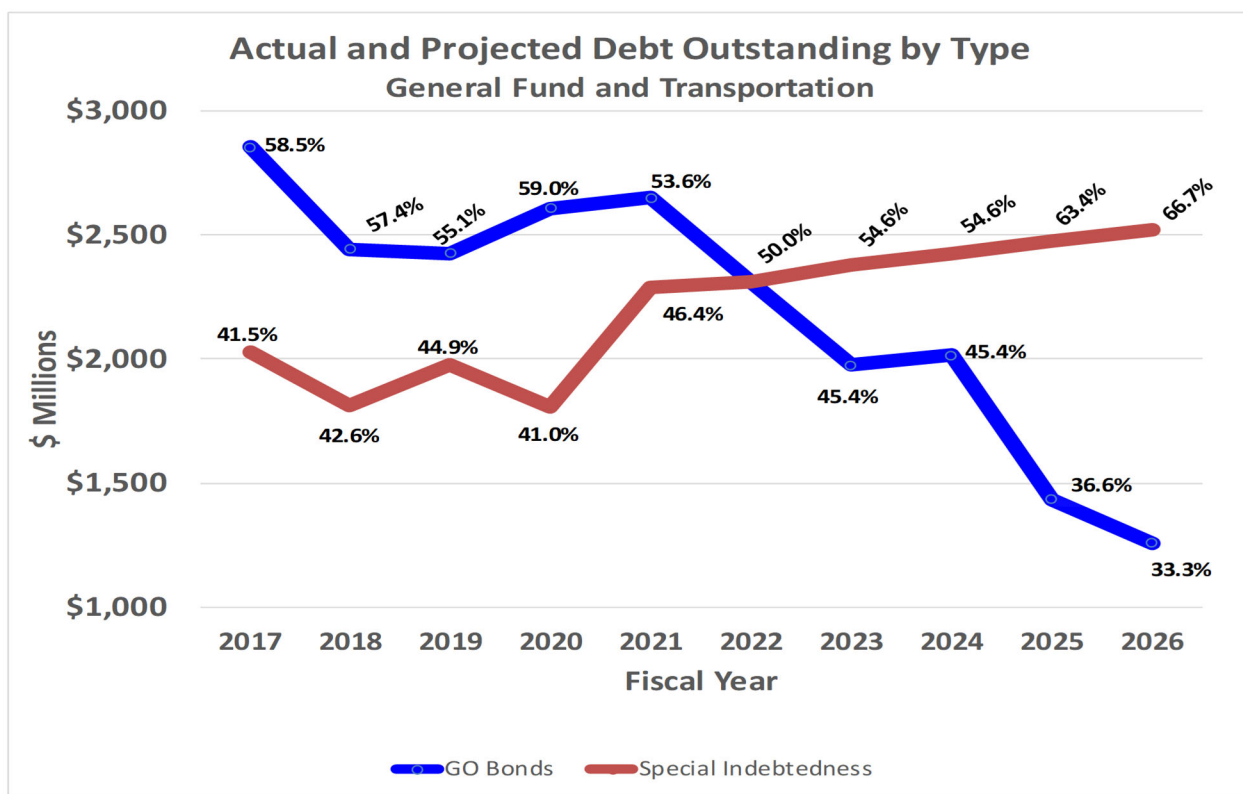
Special Indebtedness as defined in G.S. §142-82 (“SI”), is a commonly-used financing vehicle employed by most states and localities. Sometimes issued on an unsecured basis or sometimes secured by a specific stream of revenues, a lease payment or financing agreement (and sometimes by a security interest in the project being financed), such obligations are paid from annual appropriated amounts for debt service. Depending upon market conditions, additional credit support and structure, the financial markets usually assess an interest rate penalty of 5-25 basis points for the State’s appropriation-supported debt when compared with the State’s GO bonds. Using the more conservative penalty, this translates into approximately \$3.4 million of additional interest over the life of a typical \$100 million General Fund-supported debt issue.

The rating agencies note that most states have incorporated alternative financing methods, including lease-revenue, appropriation-supported or special-tax debt into their liability profile. GO debt represents 51% of overall state debt according to Moody's, although twelve states have no GO debt at all. Projecting both the payoff of existing debt (most GO) and the issuance of the Build NC Bonds (SI), GO debt will still represent over 50% of the State's debt portfolio through fiscal year 2022.

The State is currently limited in the amount of Special Indebtedness supported by the General Fund it may issue by the provisions of S.L. 2013-78 that limits the amount of Special Indebtedness that may be authorized to 25% of the total general fund-supported debt authorized after January 1, 2013. Currently the State has the ability to authorize approximately \$577 million of additional Special Indebtedness under these limits. There is no analogous provision relating to SI supported by Transportation funds.

The amount of the State's historic and projected outstanding appropriation-supported debt is shown below in Chart 5, with the percentage of appropriation-supported debt to total debt (including transportation debt) noted.

Chart 5



Two-Thirds Bonds

North Carolina's Constitution permits the State to issue GO bonds without a referendum, to the extent of two-thirds of the amount of GO bonds that have been paid down over the previous biennium. The State does not currently have any available capacity to issue Two-Thirds Bonds.

Review of State Credit Ratings and Comparative Ratios

Credit ratings are the rating agencies' assessment of a governmental entity's ability and willingness to repay debt on a timely basis. As a barometer of financial stress, credit ratings are an important factor in the public credit markets and can influence interest rates a borrower must pay.

Chart 6

North Carolina Credit Rating Matrix		
State of North Carolina		
General Obligation Bond Credit Ratings		
Rating Agency	Rating	Outlook
Fitch Ratings	AAA	Stable
Moody's Investors Service	Aaa	Stable
Standard & Poor's Rating Services	AAA	Stable

The State's general obligation bonds are rated AAA with a "stable" outlook by Fitch, AAA with a "stable" outlook by S&P and Aaa with a "stable" outlook by Moody's Investors Service. These ratings are the highest ratings attainable from all three rating agencies. In July 2021, S&P Global Ratings wrote, *"We believe rating pressure could potentially arise over the long term as a result of increasing service, infrastructure, and capital demands as the result of a growing population and recurring severe weather events. However, we expect North Carolina's fiscal management practices in place and commitment to structural balance will allow the state to address these pressures appropriately. If the state were to soften affordability guidelines or indicate a lack of commitment to demonstrated prudent management of its strong fiscal condition or structural balance, we could lower the rating."*

The major rating agencies have begun to incorporate a framework of Environmental, Social & Governance (ESG methodology) risk factors into their credit ratings. Traditional credit analysis is supplemented with ESG methodology scores to provide greater transparency in credit opinions. Environmental (E) risk examples include the impacts of air pollution, carbon regulations, natural disasters, water / land use, and environmental policies. Social (S) risk examples include demographic, labor and income, education, public health and safety, housing and access to basic needs. Governance (G) risk examples include institutional structure, policy credibility, budget management & transparency. North Carolina's bond ratings so far have not been impacted by the incorporation of the ESG methodology.

Comparison of Debt Ratios to Selected Medians

A comparison to peer group medians is helpful because absolute values are more useful with a basis

for comparison. In addition, the rating agencies combine General Fund and Transportation tax-supported debt in their comparative analysis. The sources for this information are reports issued by Moody's and S&P in 2021.

Chart 7 below compares North Carolina to its other twelve peer group states rated "triple A" by all three credit rating agencies (often termed "triple-triple A" or "AAA") is presented below. Our peer group states are of a diverse nature, but all demonstrate adherence to certain underlying core values including prudent use (in some cases, extremely modest use) of debt although not all have a formal debt affordability process. As shown in Chart 7, the State's debt ratios are at or below the median levels for its peer group.

Chart 7

North Carolina Net Tax-Supported Comparative Debt Ratios ⁽¹⁾					
State	Ratings (Fitch/S&P/Moody's)	Debt to Personal Income % ⁽¹⁾	Debt per Capita ⁽¹⁾	Debt as % Of GDP ⁽¹⁾	Debt Service Ratio ⁽²⁾
Iowa	AAA/AAA/Aaa ⁽³⁾	0.3%	\$157	0.26%	1.18%
Indiana	AAA/AAA/Aaa ⁽³⁾	0.5%	233	0.42%	1.17%
Tennessee	AAA/AAA/Aaa	0.5%	266	0.50%	2.12%
Texas	AAA/AAA/Aaa	0.7%	365	0.61%	2.65%
Missouri	AAA/AAA/Aaa	0.8%	413	0.79%	2.80%
South Dakota	AAA/AAA/Aaa ⁽³⁾	0.8%	482	0.78%	2.21%
North Carolina	AAA/AAA/Aaa	1.2%	581	1.05%	2.48%
Florida	AAA/AAA/Aaa	1.3%	710	1.41%	5.52%
Utah	AAA/AAA/Aaa	1.7%	866	1.44%	3.76%
Georgia	AAA/AAA/Aaa	1.9%	987	1.71%	5.78%
Virginia	AAA/AAA/Aaa	2.8%	1,746	2.72%	4.75%
Maryland	AAA/AAA/Aaa	3.5%	2,410	3.45%	5.75%
Delaware	AAA/AAA/Aaa	6.0%	3,400	4.44%	5.42%
	Peer Group Median	1.2%	\$581	1.05%	2.80%
Projected General Fund (GF) Tax-Supported Debt Ratios ⁽⁴⁾				GF Tax-Supported Debt Service as a % of DAAC Revenues	
North Carolina		Debt to Personal Income %	Debt per Capita		
2021 (Actual)		0.7%	\$376	2.50%	
2022		0.6%	326	2.40%	
2023		0.5%	277	2.30%	
2024		0.4%	231	2.10%	

⁽¹⁾ Source: Moody's 2021 State Debt Medians.

⁽²⁾ Source: S&P Report dated June 9, 2021, defined as debt service as a % of general fund spending.

⁽³⁾ Implied by all three rating agencies. Have not issued GO debt.

⁽⁴⁾ North Carolina projections are based on February 1, 2022 DAAC Report. All other data reported 1 year in arrears.

General Fund Guidelines, Debt Affordability Model and Results

General Fund Debt Capacity Recommendations

The Committee has adopted targets and outside guidelines to analyze and/or serve as the basis for calculating the recommended amount of General Fund–supported debt that the State could prudently authorize and issue over the next 10 years. Each measure is discussed in more detail below.

1. Net Tax-Supported Debt Service after a continuing appropriation of \$100 million to the Solvency Fund as a percentage of General Tax Revenues should be targeted at no more than 4.00% and not exceed 4.75%;
2. Net Tax-Supported Debt as a percentage of Personal Income should be targeted at no more than 2.5% and not exceed 3.0%; and
3. The amount of debt to be retired over the next ten years should be targeted at no less than 55% and not decline below 50%.

Net Tax-Supported Debt Service as a Percentage of General Tax Revenues (4.0% Target, 4.75% Ceiling)

The Committee has adopted the measure of annual debt service arising from net tax-supported debt as a percentage of general tax revenues as the basis to evaluate the State’s existing and projected debt burden for the General Fund and as the basis for calculating how much additional debt the State can prudently incur. The Committee notes that policy makers control both variables that determine this ratio. In addition, the Committee believes that by measuring what portion of the State’s resources is committed to debt-related fixed costs, this ratio is a measure of the State’s budgetary flexibility and its ability to respond to economic downturns. *In July 2021, Moody’s stated, “North Carolina has conservatively managed its debt profile, reflecting a state constitutional provision that limits the General Assembly’s ability to incur general obligation debt. The constitution stipulates that the total amount of legislatively authorized general obligation borrowing in any biennium is limited to two-thirds of the amount of debt paid down during the preceding biennium. Voters must approve any general obligation bond amount above the two-thirds limit. The General Assembly may approve appropriation backed debt. Most of the state’s debt is general obligation and appropriation debt, structured for a rapid rate of retirement.” “The state’s debt burden is below-average when compared with other states.”*

Because there is often a time lag, sometimes of multiple years, between when debt is authorized and when it is issued, the Committee determined that an optimized solution, whereby a fixed amount of debt could be authorized and issued each and every year over the model horizon provides a more useful management tool, and facilitates capital planning more effectively, than a measure that assumes that all available debt capacity is utilized in the year in which it is available. It provides decision makers with an estimate of how much debt could be issued annually (over the full 10 years) without exceeding the limits even if the amounts authorized at any one time are much larger. In practice, the limit imposed by the year(s) of the least capacity over the model horizon drives the calculation process.

DAAC Revenues

The model uses general tax revenues adjusted for one-time or non-recurring items, statutory transfers to the Savings Reserve Fund (“Rainy Day Fund”) plus certain investment income and miscellaneous revenues (“DAAC Revenues”). The Office of State Budget and Management (“OSBM”) has been consulted to provide actual projections through FY 2032. See Appendix B for more details on the

specific revenue items utilized by the model and the revenue projections utilized throughout the model horizon.

Debt Used in the General Fund Model Calculation

The model uses a definition of net tax-supported debt that includes all outstanding and authorized, but unissued, GO Bonds, Special Indebtedness, Capital Lease Obligations, Installment/Equipment Leasing Obligations and any other such obligations that are owed to a third party over a predetermined schedule payable from General Fund tax revenues. Excluded are obligations of Component Units, Transportation debt actually paid from Transportation revenues, unfunded amounts in the Pension Plans, Employment Security borrowings, OPEB liabilities and Energy Performance Contracts if the debt service is actually being paid from energy savings. See Appendix B for further details.

Debt Structuring Assumptions

The General Fund model uses a standard fixed-rate 20-year level principal or payment structure. See Appendix B for further details.

Model Solution

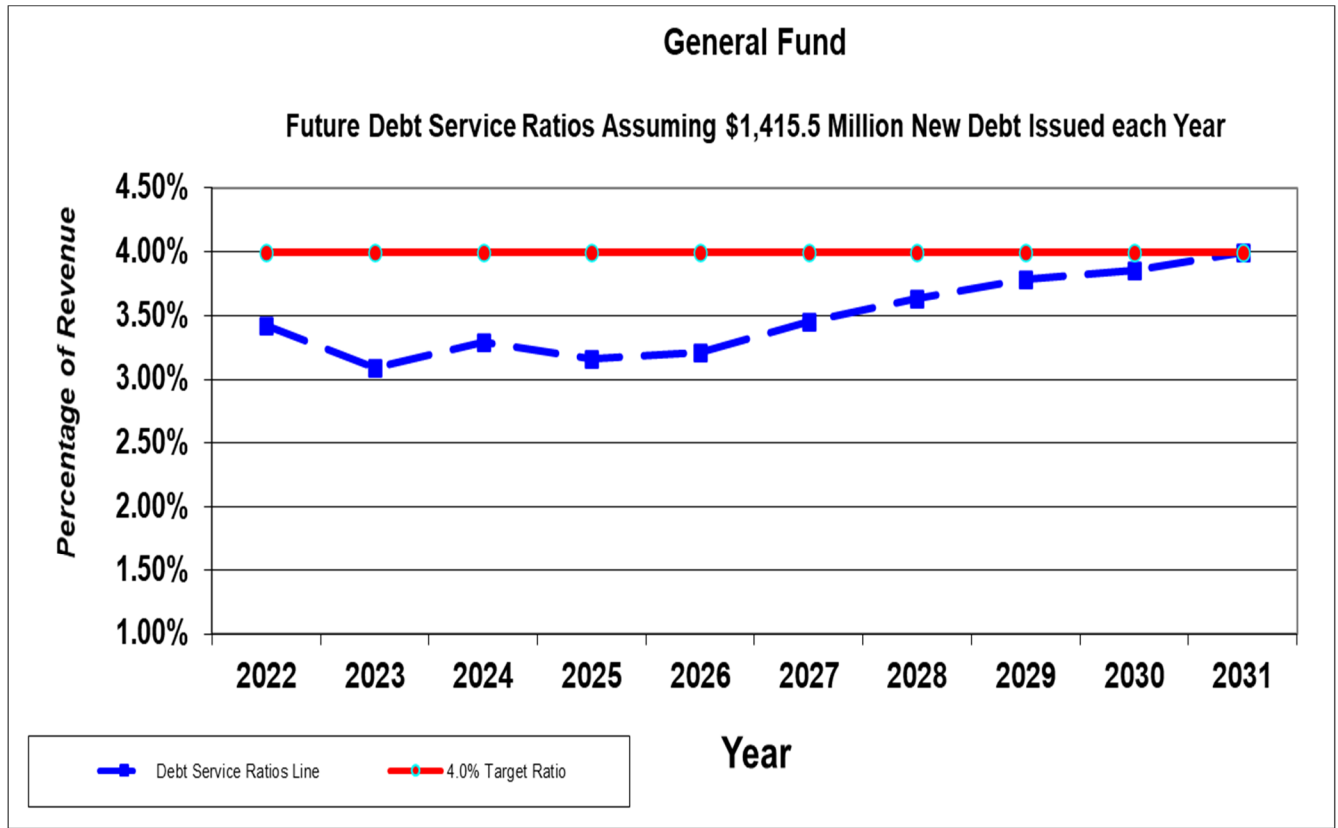
Illustrated below is the actual amount of new tax-supported debt that could be authorized and issued, by year, using the 4% debt service to revenue target and providing \$100 million to the Solvency Fund annually.

Table 4

General Fund Debt Capacity using 4.0% debt service/revenues target ratio \$100 million per year to be used to address unfunded liabilities (In millions of dollars)					
Fiscal Year	2022	2023	2024	2025	2026
\$ to Unfunded Liabilities	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0
Total Additional Debt Capacity per Year *	\$4,353.5	\$827.6	\$1,924.9	\$1,310.4	\$616.7
Debt Capacity Available each and every Year	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5

* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.

Chart 8



Sensitivity Analysis

The model results are highly sensitive to changes in revenue and interest rate assumptions. A one percent change, either up or down, in general tax revenues in each and every year of the model horizon will change the amount of annual debt capacity each and every year by approximately \$18 million. A variation in revenues of \$100 million per year will impact the amount of new debt that may be issued each and every year by approximately \$5 million. A one percent change, either up or down, in the interest rate assumption for all incremental model debt will change the amount of annual debt capacity each and every year by approximately \$123 million.

General Fund Analysis – Other

Pension and OPEB Unfunded Liabilities

It is very clear that all three rating agencies are placing pension and OPEB liabilities under greater scrutiny and yet these liabilities do not yet rise to the level of tax-supported debt. Historically Fitch has considered that “OPEB is a legally softer obligation than debt or pensions...”. Moody’s performs a comparative analysis in its ratings process and S&P adds positive and negative score factors within its ratings as a result of their analysis of pension and OPEB liabilities. The primary pension and OPEB plans covering North Carolina’s teachers and state employees have total unfunded liabilities of \$35.6 billion as reported in North Carolina’s 2021 Annual Comprehensive Financial Report (“ACFR”). On a funding basis the combined total of the State’s actuarially determined pension and OPEB contributions are in excess of 20% of the General Fund budget. It does not appear to be consistent with our leadership in this area to not begin to address these liabilities.

Teachers’ and State Employees’ Retirement System (“TSERS”)

Although the State has fully funded the Annual Required Contributions (“ARC”) for the TSERS in 79 of the last 80 years, the Net Pension Liability is \$4.7 billion as reported in the 2021 ACFR. During 2018, the plan’s discount rate (assumed rate of return) was reduced from 7.20% to 7.00%. For the fiscal year ending in 2022, the Actuarially Determined Employer Contribution (“ADEC”) is approximately \$2.7 billion.

In early 2021, the discount rate was further reduced from 7.00% to 6.50% as recommended by a regular experience review conducted by the plan’s independent consulting actuaries. The increase in the ADEC resulting from the discount rate reduction will be recognized gradually over the five years beginning July 1, 2022, and once fully recognized, it is estimated to be \$0.5 billion per year, compared to what the ADEC otherwise would have been. The Board of Trustees’ Employer Contribution Rate Stabilization Policy (“ECRSP”), which calls for additional contributions in some years with a goal of keeping future employer contributions more stable, may serve to mitigate the year-over-year volatility of employer contributions.

The rating agencies have begun to explicitly account for pensions in their methodologies (using varying techniques) and The Center for Retirement Research at Boston College has found that “several governments have experienced downgrades that have been attributed, in part, to their pension challenges.” These actions by the rating agencies highlight the fact that pension plan assumptions continue to evolve and that, for North Carolina to remain in the forefront of states in managing pension liability, continuing analysis and potential change may be necessary.

As part of the rating agencies’ analyses, they are making certain changes to the information that states provide to standardize the data and make comparisons possible. The Moody’s material for our “AAA” peer group is presented below. Of note, Moody’s performs certain adjustments to the Net Pension Liabilities reported by each state in order to improve comparability. Therefore, the information below does not correspond to the assumptions or reporting approaches used by each state, including North Carolina’s assumption of 6.50% annual investment return. When the adjusted net pension liability was combined with the net tax-supported debt burden as a percentage of Gross

Domestic Product, Moody's found that North Carolina ranked 5th best when compared with all states and 3rd best among our 13-state peer group.

Table 5

FY 2020 Debt and Moody's-Adjusted Pensions Information - "Triple-AAA" Peer Group					
<u>State</u>	<u>Moody's FY20 Adj. NPL (ANPL), \$000</u>	<u>ANPL Per Capita</u>	<u>ANPL as % of GDP</u>	<u>ANPL + Net Tax- Supported Debt as % of GDP</u>	
Iowa	3,695,207	1,168	1.9%	2.2%	
Tennessee	7,308,026	1,061	2.0%	2.5%	
North Carolina	11,338,044	1,070	1.9%	3.0%	
South Dakota	1,254,296	1,405	2.3%	3.1%	
Georgia	12,146,215	1,134	2.0%	3.7%	
Florida	25,635,594	1,180	2.3%	3.7%	
Utah	5,026,392	1,547	2.6%	4.0%	
Virginia	11,918,366	1,387	2.2%	4.9%	
Missouri	14,409,936	2,342	4.5%	5.3%	
Indiana	19,139,496	2,833	5.1%	5.6%	
Texas	155,795,706	5,306	8.9%	9.5%	
Delaware	6,794,336	6,885	9.0%	13.4%	
Maryland	55,659,687	9,191	13.2%	16.6%	
Peer Median	11,918,366	1,405	2.3%	4.0%	
Peer Average	25,393,946	2,808	4.5%	6.0%	

Source – Moody's – 2021 State Pension & OPEB Medians Report (Sept. 30, 2021).

OPEB

Other Post-Employment Benefits ("OPEB") that cover retiree healthcare costs administered by the State are funded through the Retiree Health Benefit Fund ("RHBF"). As reported in the 2021 ACFR, the State's Net OPEB Liability ("NOL") was \$30.9 billion, a 12% increase from the prior year. The increase is primarily attributable to updating plan election and trend assumptions as well as a decrease in discount rate. The Actuarially Determined Employer Contribution is estimated to be \$3.05 billion. The assets in the Retiree Health Benefit Fund were augmented by a one-time infusion of \$187 million from the Public Employee Health Benefit Fund in addition to employer contributions exceeding actual costs. The funding ratio for the RHBF (the ratio of assets to the liability) increased to 7.7%, compared to 6.9% last year. An Employee Benefit Trust Fund (the "Solvency Fund") has been established to augment the assets of the TSERS Pension Fund and the RHBF (see Appendix D.) Session Law 2021-180 has allocated \$40 million to the Solvency Fund for Fiscal Year 2022 and \$10 million for Fiscal Year 2023, however the Solvency Fund has not yet released that money to their respective funds.

The rating agencies are also making strides in incorporating OPEB liabilities as part of a fixed cost burden measurement (debt plus pensions plus OPEB), although their belief that governments have greater legal flexibility to change retiree health benefits than they do to change debt service or pension benefits, coupled with a lack of consistent OPEB data across the states, hampers such analysis. As new Governmental Accounting Standards Board (“GASB”) rules governing the disclosure of OPEB liabilities take effect, greater comparability and measurement is possible.

In a report issued in September 2021, S&P still warns against underfunding OPEB plans where they “expect most states will continue to direct limited resources to priorities other than OPEBs, [and] those with large unfunded retiree medical liabilities could face more pressure to act as budgetary impact increases.” A table showing how North Carolina compares with the “AAA” peer group for FY 2020 based on information compiled by S&P and sourced from state CAFR and GASB 74 reports is shown below.

Table 6

North Carolina Comparative OPEB Position (Source: 2020 CAFRs and GASB 74 Reports)

State	Total OPEB Liability (\$M)	Fiduciary Net Position (\$M)	Net OPEB Liability (\$M)	NOL Per Capita	State's Proportionate Share of Combined Plan NOL (\$M)	State's Proportionate Share of Combined Plan NOL Per Capita	Funded Ratio (%)	Contributions as % of Static Funding ¹	Contributions as a % of Minimum Funding ²
Utah	331	312	19	6	19	6	94.3	166.7	160.7
Indiana	279	233	46	7	54	8	83.5	115.8	109.7
Virginia	6,842	2,657	4,185	486	1,505	175	38.8	83.3	67.9
Tennessee	1,174	282	891	129	1,641	238	24.0	135.4	107.2
Georgia	19,064	3,535	15,529	1,450	6,175	577	18.5	40.1	28.2
North Carolina	30,118	2,427	27,692	2,613	5,368	506	8.1	38.6	29.6
Missouri	3,155	160	2,995	487	2,988	486	5.1	50.7	35.3
Delaware	10,876	464	10,412	10,625	9,360	9,486	4.3	42.1	27.6
Texas	91,458	2,101	89,357	3,042	68,208	2,323	2.3	28.5	20.7
Maryland	16,780	355	16,425	2,717	17,257	2,850	2.1	63.7	40.3
Florida	24,149	302	23,847	1104	14,418	663	1.3	21.8	11.9
Iowa	212	0	212	66	288	91	0.0	54.7	40.8
South Dakota ³	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Median	8,859	334	7,298	795	4,178	496	6.6	52.7	37.8
Average	17,037	1,069	15,967	1,894	10,607	1,451	23.5	70.1	56.6

1) Static Funding is calculated as service costs plus unfunded interest costs.

2) Minimum funding progress is calculated as static funding plus 1/30 of the unfunded liability. Minor OPEB plans not offering medical benefits were excluded.

3) South Dakota does not report liability for retiree health care benefits.

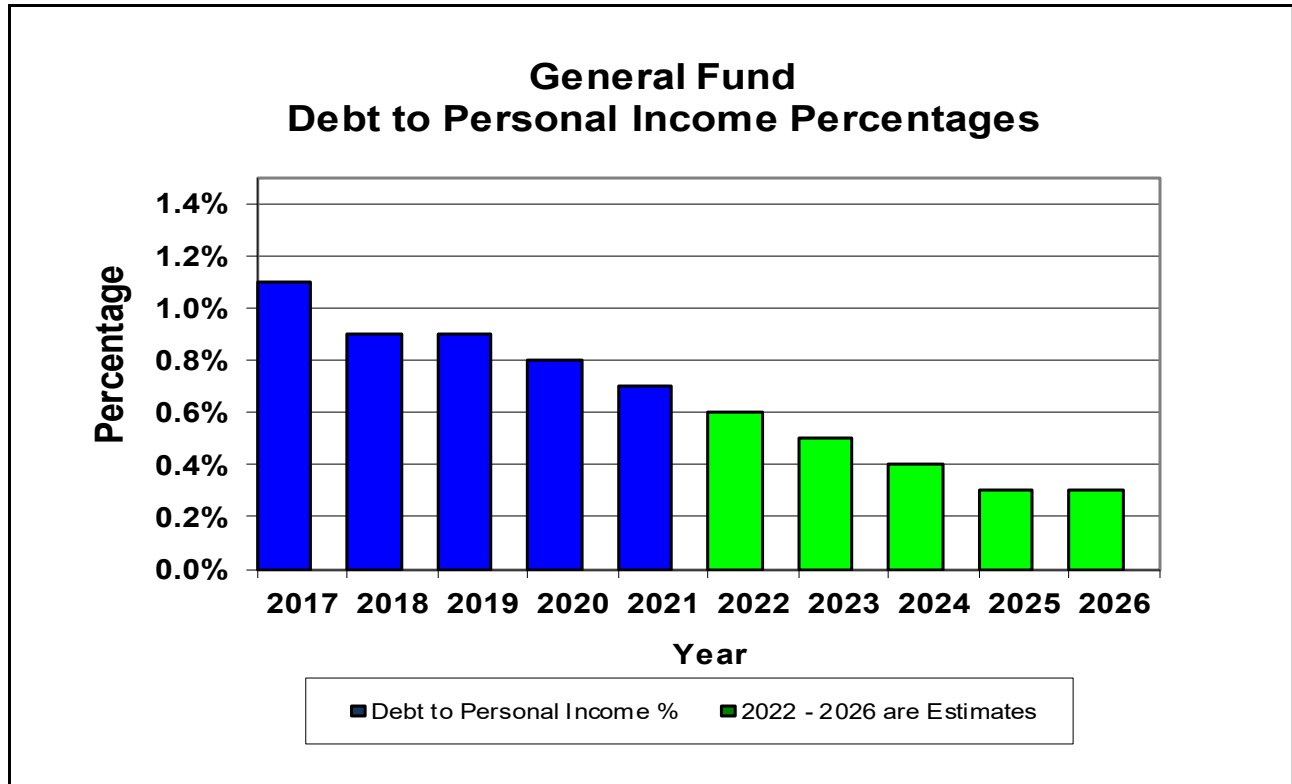
Net Tax-Supported Debt to Personal Income (2.5% Target, 3% Ceiling)

As required by statute, the Committee has also established guidelines for evaluating the State’s debt burden as a measure of personal income.

The ratio of General Fund tax-supported debt to personal income actually-peaked at 1.8% over 7

years ago and is anticipated to remain steady at just under 1.0% dropping to 0.30% in 2025. Chart 9 below shows the amount of tax-supported debt as a percentage of personal income.

Chart 9

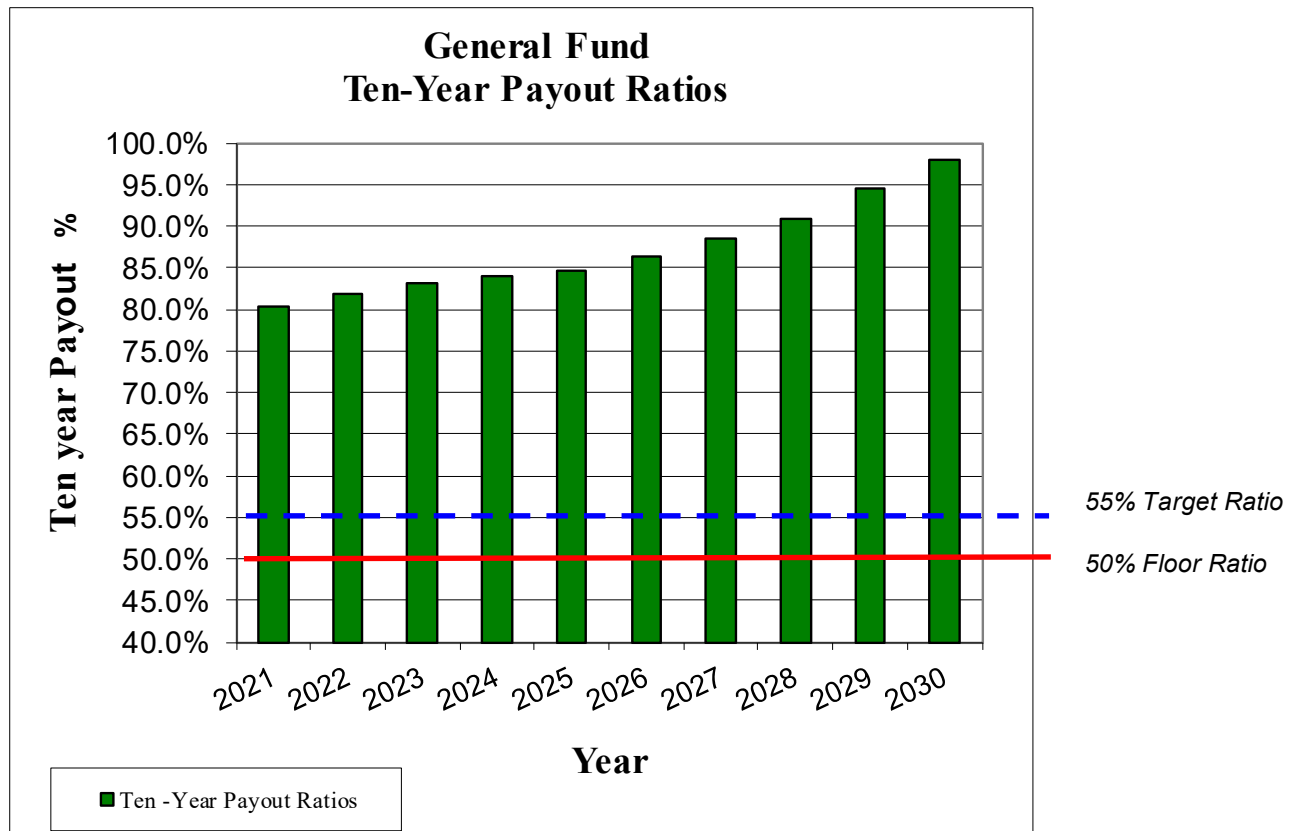


Source: Population and Personal Income statistics provided by Moody's Economy.com, courtesy of the North Carolina General Assembly Fiscal Research Division.

Ten-Year Payout Ratio (55% Target, 50% Minimum)

The rating agencies consider the payout ratio (a measure of the period of time over which a State pays off its debt) as a credit factor. A fast payout ratio is a positive credit attribute. As illustrated in Chart 10 below, the State's payout ratio exceeds its targeted level and is projected to improve further. The chart illustrates that approximately 82% of the State's General Fund debt will be retired over the next 10 years. In 2021, *Fitch in particular noted, "Given rapid amortization of outstanding debt, we expect the State's debt levels to remain low even with additional borrowings."*

Chart 10



Level of Reserves

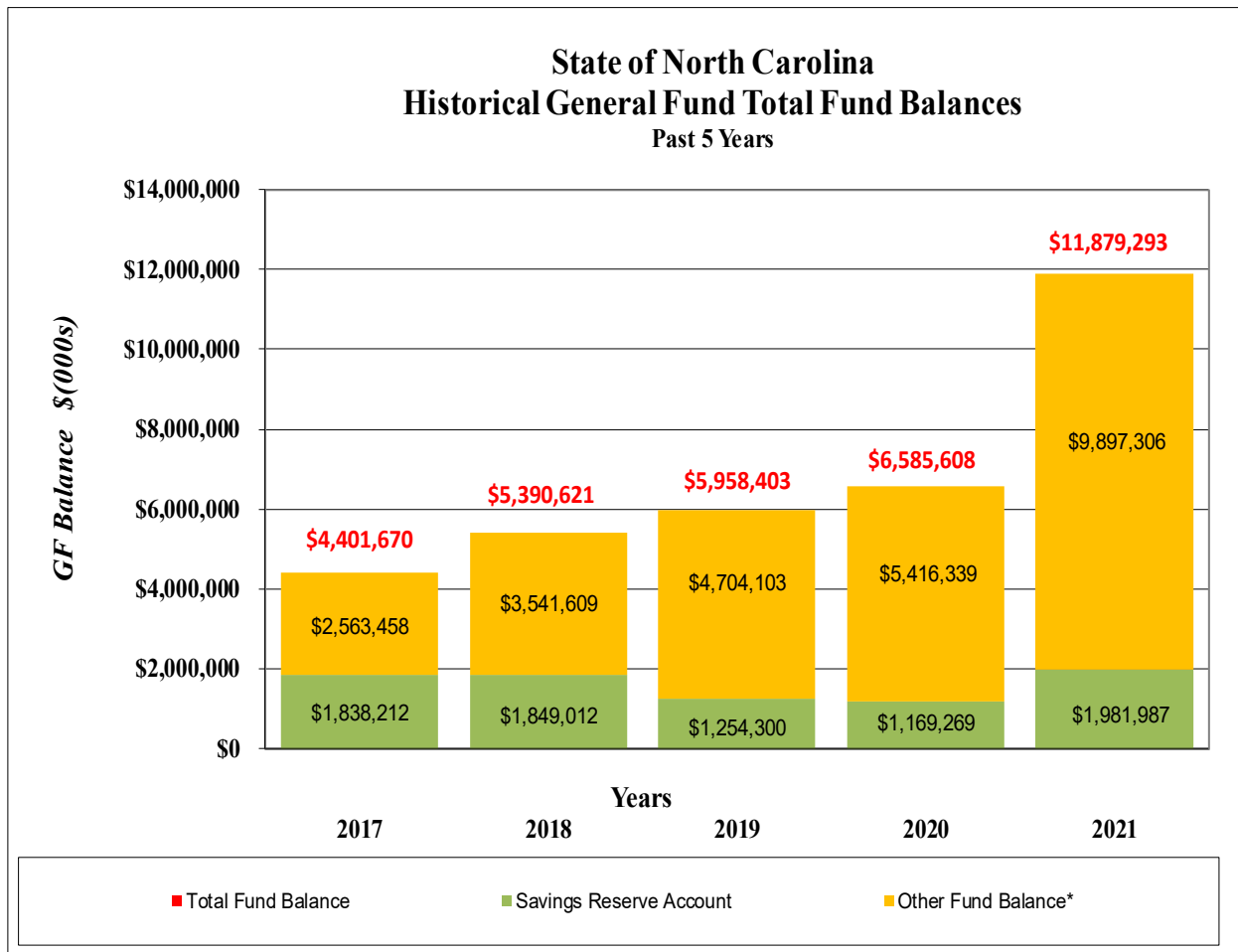
As discussed previously, the rating agencies place a great deal of emphasis on budgetary reserves. In a July 2021 report, Moody's stated that "North Carolina's commitment to maintaining strong reserve levels supports its high credit quality."

The State ended FY 2021 with a positive fund balance in the General Fund of approximately \$11.879 billion as calculated under generally accepted accounting principles ("GAAP"). This represents a significant turnaround from the negative ending balances experienced during the recession which reached -\$778 million at June 30, 2009. The Savings Reserve ("Rainy Day Fund") which is part of the fund balance of the General Fund, was reported at \$1.982 billion in the FY 2021 ACFR. On January 19, 2022 a large transfer, (\$1.134 billion) per Session Law 2021-180, Section 2.2.(c), from unreserved fund balance into the Saving Reserve account increasing the balance to \$3.116 billion.

G.S. 143C-4-2.(f) directs OSBM and the Fiscal Research Division ("FRD") to establish a new target balance for the Savings Reserve ("Rainy Day Fund") by February 1st of each year. The 2021 target was equal to 10.9% of the prior year's General Fund operating budget. The 2022 target for the current fiscal year is \$2.7 billion or 11.2% of the prior year operating budget. OSBM will publish a revised consensus Savings Reserve target for 2023 no later than February 1, 2023. The Committee continues to recommend that sustainable structural budgetary balance and continuing provision for an adequate level of reserves remain a priority. In July 2021, Fitch Ratings wrote, *"The State is well positioned to address economic downturns, with exceptionally strong gap-closing capacity due to its broad control over revenues and spending and maintenance of reserves."*

Chart 11 depicts the State’s historic General Fund Balance on a GAAP basis over the last five years. The Savings Reserve (“Rainy Day Fund”) is a budgetary reserve account and is not reported as an individual item in the GAAP basis financial statements, but is included as part of the fund balance.

Chart 11



* Major Components of "Other Fund Balance" are: Carry Forward Reserve, Emergency Response & Disaster Relief Fund, Medicaid Transformation Fund, Medicaid Contingency, Non-Reverting Departmental Funds, Hurricane Florence Disaster Recovery Reserve, State Fiscal Recovery Reserve, Coronavirus Relief Reserve, Earthquake Disaster Recovery Reserve & Unreserved.

SECTION II

TRANSPORTATION DEBT AFFORDABILITY

Review of Transportation Funds, Debt and Other Commitments

Highway Fund

The Highway Fund accounts for most of the activities of the Department of Transportation (“DOT”), including the construction and maintenance of the State’s primary and secondary road systems. In addition, it supports areas such as the North Carolina Ferry System and the Division of Motor Vehicles and provides revenue to municipalities for local street projects (termed “Powell Bill Transfers”) and to other State agencies. The principal revenues are motor fuels taxes, motor vehicle registration fees, drivers license fees and federal aid.

Highway Trust Fund

The Highway Trust Fund was established by Chapter 692 of the 1989 Session Laws to provide a dedicated funding mechanism to meet the State’s highway construction needs. The Highway Trust Fund also provides allocations for secondary road construction, to municipalities for local street projects and historically provided transfers to both the General Fund and the Highway Fund. The principal revenues are highway use taxes, motor fuels taxes and various fees.

The Highway Fund and the Highway Trust Fund are in many ways managed as a combined entity. Certain transportation revenues are deposited in each fund on a formulaic basis. For example, the Highway Fund receives three-fourths of the Motor Fuels Tax and the Highway Trust Fund receives the remaining one fourth. However, various combined expenditures are routinely paid from one fund or another. For example, salary expenses associated with the management of the Highway Trust Fund are actually paid out of the Highway Fund and debt service on the existing Highway GO Bonds is paid from the Highway Trust Fund. Powell Bill transfers are made from the Highway Fund. Due to the interdependent nature of these funds, the Committee has determined that it is most useful to calculate the available debt capacities of these funds (collectively “Transportation Funds”) on an aggregate, rather than individual, basis. The resulting debt capacity is termed the “Transportation” debt capacity and is reported separately from, but is then combined with, General Fund capacity. Pew found that providing a separate calculation “allows policymakers to both focus in on liabilities of particular interest and take a broader view of the state’s long-term obligations.”

On a combined basis, the Highway Fund and Highway Trust Fund are primarily involved with construction and maintenance of the State’s highways. From total budgeted sources in FY 2021, the Transportation Funds in total allocated approximately 78 percent (\$3.9 billion) to capital intensive infrastructure improvements (Transportation Improvement Plan (“TIP”) Construction, Highway Maintenance and Other Construction).

Highway Debt

The State has a long history dating back to 1921 of authorizing debt to fund transportation projects. The last such GO authorization (the “State Highway Bond Act of 1996”) authorized \$950 million to finance the capital costs of urban loops (\$500 million), Intrastate System projects (\$300 million) and secondary highway system paving projects (\$150 million). The GO Bonds authorized by the 1996 Act as of June 30, 2020, were fully retired.

The 1996 Act stated the General Assembly’s intention to pay the debt service on the Bonds from the Highway Trust Fund, but did not pledge the Highway Trust Fund revenues to make such payments. Although the Act contained amendments regarding the priorities of the payment of funds from the Highway Trust Fund to provide for the payment of debt service, such funds were not pledged to secure the Bonds. Instead, the bonds were secured by “the faith and credit and taxing power of the State.” As such, the bond rating agencies did not analyze the ability of the Highway Trust Fund on a stand-alone basis to service the debt when assigning their ratings.

Build NC Bonds

The Build NC Bond Act of 2018 (S.L. 2018-16) authorizes the issuance by the State Treasurer of up to \$3 billion bonds for regional and divisional transportation projects contained in the Statewide Transportation Improvement Plan subject to a number of constraints including Council of State approval; cash balances, measured at specific times, that dip below \$1 billion; a recommendation from the Treasurer that the bonds be issued; an issuance limitation of no more than \$300 million per year and compliance with the limitations contained in the Debt Affordability Advisory Committee (“DAAC”) study. The bonds, authorized as Special Indebtedness, are also subject to the provisions of Chapter 142, Article 9 (the State Capital Facilities Finance Act). The authorization expires December 31, 2028. The Bonds are to be paid by appropriations from the Highway Trust Fund and are limited to a 15-year final maturity. The issuance limitation was given a one-time increase to \$700 million in FY 2020-21 by S.L. 2020-91, with no modification to the total authorization of \$3 billion. The maximum cash balance limit was increased to \$2 billion for the 2021-2023 fiscal biennium, but the maximum cash balance limit requirement was removed for bonds sold on or before June 30, 2022 by S.L. 2021-180, s. 41.3., as rewritten by S.L. 2021-189, s. 7.1.

The first tranche of \$300 million (par) was issued on June 27, 2019 and were fully expended as of December 31, 2020. The Build NC Bonds, Series 2019A were rated Aa1 by Moody’s and AA+ by Fitch and S&P based upon their appropriation-supported status.

The second tranche of \$700 million (par) Build NC Bonds, Series 2020B was issued on November 12, 2020 of which \$219 million remained unspent on December 31, 2021. The Build NC Bonds, Series 2020B were rated Aa1 by Moody’s and AA+ by Fitch and S&P based upon their appropriation-supported status.

As stated above, the source of repayment for the Build NC bonds is the Highway Trust Fund (“HTF”). Therefore, actions which diminish the HTF’s resources have the potential to impair the ratings of the Build NC program.

Loans between the Highway Trust Fund and the Highway Fund

Between April 2018 and April 2019, the Highway Trust Fund made loans to the Highway Fund totaling approximately \$1.140 billion. Partial repayments have been made since State Fiscal Year (“SFY”) 2020 totaling \$720 million. The current amount outstanding as of January 19, 2022 is \$420.3 million. Repayments are anticipated to continue over the next 2.5 years. The provisions of S.L. 2019-251 dictate an additional \$100 million be transferred from the Highway Trust Fund to the Highway Fund as loans before May 1, 2020 (\$50 million on or before February 1, 2020 and \$50 million on or before May 1, 2020) with a repayment schedule to be approved by the Department of State Treasurer. These loans were made and repaid in SFY21. While these loans do not impact the amount of combined Debt Capacity for the Transportation Funds, they do have the potential to impact the creditworthiness of the Highway Trust Fund which is the sole source of repayment for the Build NC Bonds.

Office of State Auditor Performance Audit

In November 2019, the General Assembly passed Session Law 2019-251, which, among other things, directed the Office of State Auditor to conduct a performance audit of NCDOT. Key findings included in the performance audit released in May 2020 were that NCDOT had planned to spend approximately \$5.94 billion in the fiscal year ended June 30, 2019 but had exceeded that amount by \$742 million (12.5%) and that NCDOT was in danger of falling below the statutory floor which requires NCDOT to maintain an available cash balance in the HTF and Highway Fund at the end of each month equal to at least 7.5% of the total appropriation for the current fiscal year from the Highway Trust Fund and Highway Fund. The consequence of falling below the statutory floor is that no further transportation project commitments may be entered into until the statutory floor has been regained. The statutory floor for the fiscal year ended June 30, 2020, was \$293 million. The balance in the HTF and Highway Fund fell below the statutory floor at the end of April, May and June 2020. A copy of the State Auditor’s performance audit can be found at <https://www.auditor.nc.gov/EPSWeb/reports/performance/PER-2020-4200.pdf>.

The audit made certain specific recommendations, and identified certain matters for consideration. The specific recommendations include:

- (1) NCDOT should base its spending plan on specific projects and operations scheduled for the fiscal year.
- (2) The Chief Engineer’s Office should formally monitor each highway division’s spending on a regular basis throughout the fiscal year to ensure that highway divisions do not overspend, particularly for operations and maintenance, preliminary engineering, and disasters.
- (3) The Chief Engineer’s Office should delay contract approvals, implement mid-year budget reductions or take other corrective actions whenever highway divisions are overspending budgeted allocations. The Chief Engineer should consider requiring any necessary corrections on a quarterly basis.

The second performance audit was completed in September 2021. A copy of the State Auditor’s 2021 performance audit can be found at: https://files.nc.gov/nc-auditor/documents/2021-09/PER-2021-4200A_0.pdf

The audit contained the following Key Findings:

- (1) The Department of Transportation (Department) did not exceed its developed Spending Plan for the first half of state fiscal year (SFY) 2021 (July 2020 through December 2020).
- (2) However, the Department's Spending Plan was not developed based on specific projects and operations scheduled for the fiscal year.
- (3) Consequently, the fact that the Department had not yet exceeded its Spending Plan was largely due to chance. It was not the result of Department Management's planning and control based on realistic expectations for the fiscal year .
- (4) Furthermore, the Department is still at risk for exceeding its Spending Plan in future periods because it has not implemented the Office of the State Auditor's (OSA) recommendations to (1) develop the Spending Plan based on specific projects and operations...and to (2) monitor and enforce highway division compliance with the Spending Plan.

General Obligation Bonds versus Special Indebtedness-Transportation Rating/Cost Implications

As discussed above, the State's GO Highway Bonds (retired on June 1, 2020) were issued as GO Bonds and were not secured by any transportation revenues but enjoyed an implied General Fund back-up. As a result, the bonds were rated on a parity with the State's other GO Bonds ("AAA"), permitting them to be issued at the lowest possible interest rates. If the Bonds had not been on a parity basis but been rated on a stand-alone basis based solely on transportation backing, they may not have been rated at the same level as the State's GO Bonds. As described below, at least one rating agency explicitly rates bonds supported by transportation revenues at two notches below the State's "AAA" rating.

Special Indebtedness, backed solely by Transportation funds, may not always be rated as highly as the appropriation-supported bonds backed by the General Fund. For example, the "gap-funded" bonds issued for the Triangle Expressway project where transportation appropriations provide for the payment of debt service were only rated Aa2 by Moody's, AA- by Fitch and AA by S&P at the time of issue. (Note that Moody's, S&P and Fitch have since upgraded the bonds to Aa1/AA+/AA+).

Authorized as Special Indebtedness, the Build NC Bonds are likely to experience an interest rate penalty of 5-25 basis points, depending upon market conditions, compared to a more favorable interest rate had they been authorized as GO debt. This penalty ranges from approximately \$13.5 million to \$67.6 million over the life of the entire amount of \$3 billion.

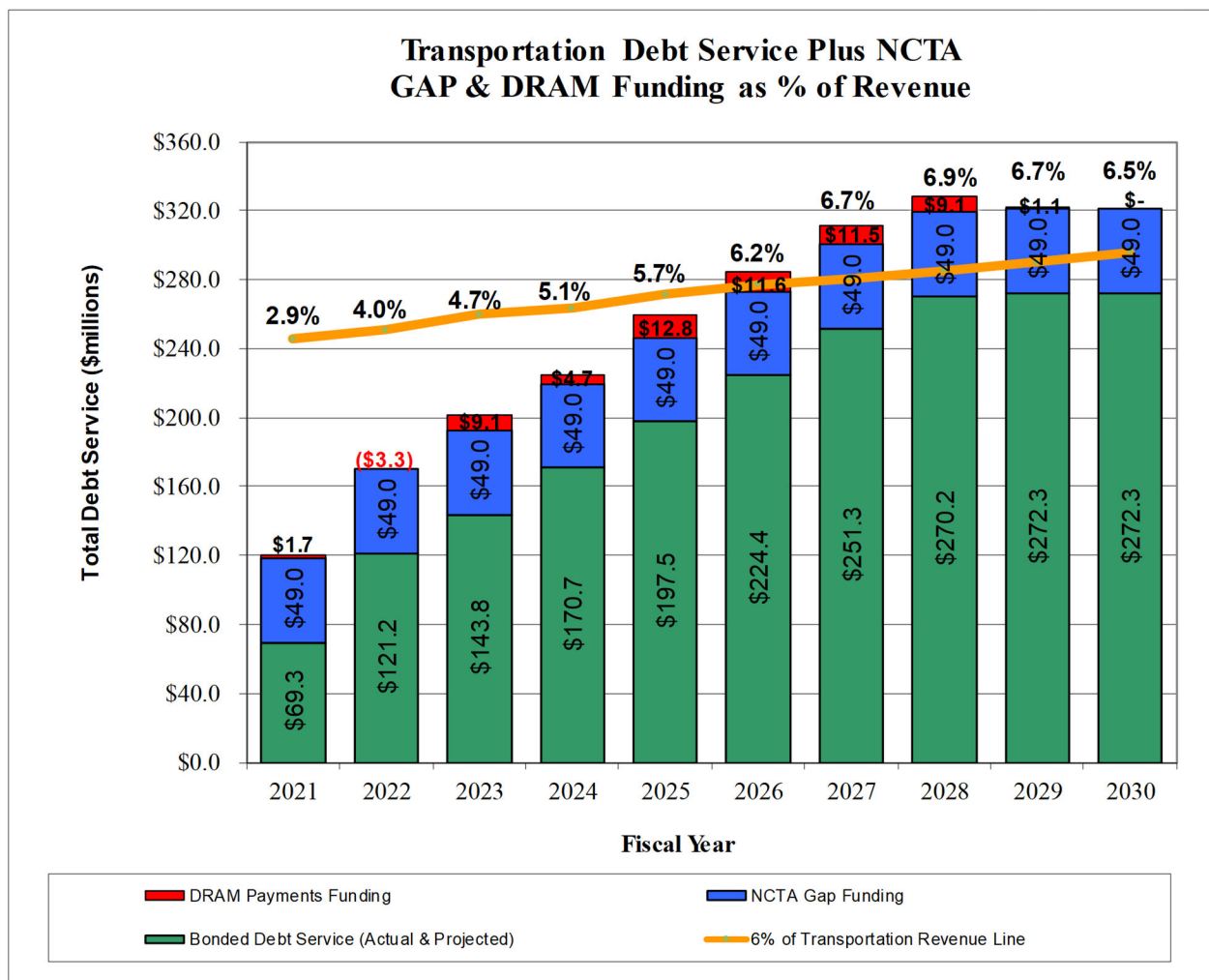
Of additional consideration is that bond counsel has determined that any bonding structure that involves a true pledge of transportation revenues, the source of which is state-wide taxes or user fees, would most likely require a voter referendum.

As a result of these factors, the Committee does not advocate the use of transportation-supported stand-alone Special Indebtedness and instead advocates the use of GO Bonds for Transportation debt.

Debt Service

Debt Service on the GO Highway Bonds ended in June of 2020 as the bonds reached final maturity. The amount of actual debt service supported by Transportation funds will increase as the Build NC Bonds are issued to nearly \$328 million in FY 2028. Debt service, both on an absolute basis and as a percentage of Transportation revenues, is illustrated below. As discussed in more detail in Appendix C, appropriation of funds to support debt obligations under the Build NC Bonds, bonds issued by the North Carolina Turnpike Authority and any “availability payments” or other long-term contractual arrangements that support Public Private Partnerships (“P3”) projects or similar arrangements are treated the same as any other debt service obligation. This is consistent with rating agency treatment. See Appendix C for further details and a discussion of the Build NC Bonds and the debt capacity limitations.

Chart 12



Grant Anticipation Revenue Vehicle Bonds (“GARVEEs”)

A review of Transportation-related debt would be incomplete without a discussion of the State’s GARVEE program. Although not supported by State Transportation or General Fund revenues and therefore not technically a part of the Transportation debt affordability model, GARVEEs do represent a financing vehicle that provides significant funds to the State to accelerate transportation projects.

North Carolina General Statute §136-18 (12b) as codified by Session Law 2005-403 (“the GARVEE Act”) authorized the State to issue GARVEEs to accelerate the funding of transportation improvement projects across the State. GARVEEs are a revenue bond-type debt instrument where the debt service is to be paid solely from future federal transportation revenues and has no other State support. The State has issued multiple series of GARVEEs and the outstanding amount at December 31, 2021, was \$1.1 billion. The ratings assigned by Fitch, S&P and Moody’s for NC’s GARVEEs are, respectively: A+/AA/A2. The low amount of GARVEE debt service relative to the federal reimbursements (approximately \$129.5 million for FY 2021 versus actual collections of approximately \$1.26 billion) means that federal sequestration should not impair bondholder payments. On September 16, 2021 an additional \$252.6 million (par) of GARVEE Bonds were issued, of which approximately \$249.1 million (total, including premium) remained unspent as of December 31, 2021.

North Carolina Turnpike Authority

The North Carolina Turnpike Authority (“NCTA”) as a part of the Department of Transportation is authorized to construct and operate toll roads within the State and to issue revenue bonds to finance the costs. The General Assembly has authorized funding to “pay debt service or related financing costs” for various series of revenue bonds issued by the NCTA (called “gap funding”). The NCTA at June 30, 2021 had \$749.9 million of such bonds outstanding that provided funding for two projects: the Triangle Expressway project and the Monroe Connector project. The NCTA also had approximately \$1.84 billion (includes \$166.5 million in Transportation Infrastructure Finance and Innovation Act “TIFIA” loans) in toll-supported debt outstanding for these projects.

NCTA Build America Bonds (“BABs”) and Federal Sequestration

As part of the plan of finance for both the Triangle Expressway project and the Monroe Connector project, the NCTA issued BABs of which approximately \$234 million are outstanding. These bonds depend upon a federal subsidy to make a portion of the interest payments due to bondholders. The federal subsidy was reduced by approximately \$250,655 for FY 2021 due to federal sequestration. Reductions of a similar or slightly lesser size are anticipated for a number of the years into the future. DOT reports that there were sufficient funds in the general reserve accounts associated with these financings to make up for the shortfall so that bondholders were not affected. In addition, the debt service reserve funds for these issues totaled approximately \$28.2 million at June 30, 2021 and the total (net) annual subsidy for the current federal fiscal year totals nearly \$4.1 million.

In October 2020, NCTA closed on \$499,460,000 of Triangle Expressway System Senior Lien Turnpike Revenue Bond Anticipation Notes (BANs) pursuant to Article 6H of Chapter 136 and Article 5 of Chapter 159 of the North Carolina General Statutes. The BANs were used to fund the construction of the Complete 540 Phase 1 project which is an extension of the existing Triangle

Expressway. The BANs will be paid off with a single draw on the outstanding TIFIA Loan. The issuance of the BANs resulted in net present value savings of nearly \$12.5 million.

In April 2021, NCTA closed on \$73,985,000 of Monroe Expressway System State Appropriation Revenue Refunding Bonds, Series 2021 (Forward Delivery) to refund Series 2011 Bonds maturing 2022 through 2041 for debt service savings. The issuance resulted in net present value savings of nearly \$29.3 million.

Other Transportation Expenditures

Consistent with its treatment for General Fund debt affordability, the Committee does not advocate including non-debt related Transportation obligations or commitments in the definition of liabilities when measuring debt capacity. It is useful, however, to review the level of ongoing administrative and other recurring expenses/transfers when analyzing the level of flexibility in the Transportation Funds. From FY 2017, the levels of these commitments are shown below both with and without debt service as a percentage of total Transportation Revenues, including federal revenues. Over the last five years, between approximately 8 percent and 9 percent (\$481 million and \$463 million respectively) of total Transportation Revenues are allocated to administrative costs and transfers.

Chart 13

Transportation Expenses by Year					
(\$ Dollars in Millions)					
	2017	2018	2019	2020	2021
Total Transportation Revenues ⁽¹⁾	\$ 5,054.3	\$ 5,112.1	\$5,553.2	\$5,448.8	\$5,783.3
Administration ⁽²⁾	\$278.2	\$284.8	\$291.5	\$282.3	\$298.2
Powell Bill Transfers	147.2	147.5	147.3	147.5	132.6
Transfers to Other State Agencies	38.0	42.0	41.8	43.5	44.2
General Fund Transfers	-	-	-	-	-
Expenditures excluding Debt Service	\$463.4	\$474.3	\$480.6	\$473.3	\$475.0
% Total Transportation Revenues	9%	9%	9%	9%	8%
Debt Service					
Bonds	\$60.9	\$52.2	\$52.6	\$91.3	\$72.6
GAP Funding	49.0	49.0	49.0	49.0	49.0
Total Debt Service ⁽³⁾	\$109.9	\$101.2	\$ 101.6	\$ 140.3	\$ 121.6
Total Expenditures	573.3	575.4	582.1	613.6	596.6
% Expenditures/Revenues	11%	11%	10%	11%	10%

(1) Includes Federal Revenues.
(2) Prior year administrative expenses have been restated to be net of receipts.
(3) State tax-supported debt service.

Comparative Transportation Ratios

Using SFY 2021 information where available, the State's transportation-related debt service as a percentage of State transportation revenues appears modest when compared with a peer group composed primarily of states in the Southeast region, but also certain other states selected after consultation with DOT. Within the peer group, both Missouri and South Carolina utilize an approach that limits transportation debt separately from other state-level debt. In contrast, Georgia measures available debt capacity on a combined basis, but has dedicated a great deal of that capacity toward transportation priorities as shown in Chart 14 below. Finally, Tennessee has not issued state-level debt for transportation purposes.

Chart 14

Transportation Historical Peer Group Comparisons

State	Ratings ⁽¹⁾	Maturity Limit (Yrs.)	Transportation DS over Transportation Revenues ⁽²⁾	
			Percentage	Year
Tennessee ⁽³⁾	AAA/AAA/Aaa	N/A	0.00%	2021
North Carolina	AAA/AAA/Aaa	25	2.98%	2021
South Carolina ⁽⁴⁾	AAA/AA+/Aaa	25*	5.13%	2020
Florida ⁽⁵⁾	AAA/AAA/Aaa	30	12.30%	2022 (Proj.)
Virginia ⁽⁶⁾	AAA/AAA/Aaa	25*	4.20%	2021
Kentucky ⁽⁷⁾	AA-/A/Aa3	30*	9.55%	2020
Missouri ⁽⁸⁾	AAA/AAA/Aaa	(9)	13.75%	2021
Texas ⁽¹⁰⁾	AAA/AAA/Aaa	20*	5.91%	2021
Georgia ⁽¹¹⁾	AAA/AAA/Aaa	25*	4.95%	2021
	Median		5.13%	
	Average		6.53%	

⁽¹⁾ Fitch / Standard & Poor's / Moody's (updated in 2022).

⁽²⁾ Excludes GARVEE debt service (if any) and Federal Revenues.

⁽³⁾ Tennessee finances transportation on a pay-as-you-go basis.

⁽⁴⁾ Ratio calculated by general obligation Highway Bonds 2020 debt service divided by previous year 2019 pledged revenues.

⁽⁵⁾ Department of Transportation total projected debt and contractual obligations as a percentage of net available revenues.

⁽⁶⁾ Ratio calculated by (Total Debt Service - GARVEE Debt Service) / (Total Revenue - Federal Revenue - GARVEE Bonds).

⁽⁷⁾ Ratio calculated road fund debt service divided by road fund revenues excluding other governmental agencies revenue.

⁽⁸⁾ Ratio calculated on Missouri state road bonds Senior Lien, First, Second, and Third Lien debt service divided by net pledged revenues.

⁽⁹⁾ The average life of the bonds shall on average exceed the useful life of the projects constructed by a minimum of two times.

⁽¹⁰⁾ Texas state revenue includes motor fuels taxes, vehicle registration fees and other, smaller state revenues. Ratio calculated on first tier State Highway Fund revenue bonds debt service divided by revenues.

⁽¹¹⁾ Calculated Georgia net tax-supported debt divided by pledged revenues (excluding GARVEE Bonds).

* State Statutory Maturity Limit. Each state may have a shorter limit to final maturity in their debt management policy.

Transportation Debt Guidelines, Affordability Model and Results

The rating agencies view all debt supported by state-wide, generally applied taxes and/or user fees to be “Tax-Supported Debt”. This combined treatment extends to all General Fund-supported, and to Highway Fund and Highway Trust Fund-supported (“Transportation Fund”) debt. Some analysts apply the same treatment to debt supported by non-State revenues such as GARVEE bonds. The Committee recognizes that the rating agencies compare the State to its peers utilizing a broad measure of Transportation and General Fund debt and has reviewed the State’s relative status on this basis (see Chart 7).

However, the State of North Carolina has a long history of viewing the debt supported by the General Fund as tax-supported debt and its Highway Bonds as being non-tax supported (in this case, Highway Trust Fund-supported) debt. The State’s existing debt affordability model excludes both transportation revenues and transportation debt service as components of the General Fund calculation. Continuing this practice, the Committee has determined that it should adopt a measure of Highway Fund and Highway Trust Fund debt capacity that is separate and distinct from that calculated for the General Fund. Although not common, this practice has been discussed with the rating agencies who understand North Carolina’s incremental and separate approach to debt affordability measurement.

The Committee also recognizes the inherent differences between the General Fund and the Transportation Funds, not only in terms of the revenue streams, but also in terms of the commitments on those revenues. In addition, the State’s transportation “enterprise” is, by its nature, a long-lived, capital intensive, rapidly growing program. As such, a customized individual debt capacity model is appropriate to measure the debt capacities of the Transportation Funds and the Committee believes that an individual Transportation debt capacity calculation is consistent with the legislative intent of S.L. 2007-551. As stated earlier, Pew found that providing a separate calculation for transportation “allows policymakers to both focus in on liabilities of particular interest and take a broader view of the state’s long-term obligations.”

Due to the interdependent nature of the Highway and Highway Trust Funds as discussed earlier, the Committee has determined that it is more useful to calculate the available debt capacities of these Funds on an aggregate, rather than individual, basis. The resulting debt capacity is termed the “Transportation” debt capacity.

The Committee has adopted the ratio of annual transportation-related debt service as a percentage of State transportation revenues as the measure to evaluate the level of Transportation debt capacity. By measuring what portion of the State’s transportation resources is committed to debt-related fixed costs, this ratio reflects the flexibility (or lack thereof) to allocate transportation resources to other priorities.

Revenues Used in the Transportation Model Calculation

The model uses a definition of State transportation revenues that includes an aggregate of all State-level revenues deposited into the Highway Fund and the Highway Trust Fund including the motor fuels tax, highway use tax, motor vehicle license tax and certain non-tax revenue such as investment income. Consistent with the model mechanics for the General Fund, there is no deduction for projected transfers to the General Fund, Powell Bill transfers or other non-debt commitments. Federal transportation revenues are specifically excluded from the definition of revenues used to calculate

Transportation debt capacity as federal revenues have been pledged to the State's GARVEE program and are not available to back other transportation-related debt.

Debt Used in the Transportation Model Calculation

The model uses a definition of State transportation debt service that includes Build NC Bonds, Highway GO Bonds, gap funding, availability payments and long-term contractual payments to support P3 or other structures (see Appendix C for further discussion of DRAM payments) but excludes the GARVEEs supported by federal revenues. There are currently no tax-supported capital lease obligations that need to be included. Highway Trust Fund support for debt issued by the North Carolina Turnpike Authority is included as a liability for model purposes.

Debt Structuring Assumptions

The standard calculation of the Transportation debt affordability model assumes that model debt is fixed-rate 25-year maturity debt with an average interest cost of 6.15% and a level debt service profile after the first year. This year, the Build NC Bonds were loaded into the model with the following assumptions:

- Fixed rate debt issued at 4%
- Level debt service after the first year
- 15-year final maturity
- \$300 million issued in FY 2021-22 forward

There is no incremental model debt because the Build NC Bonds exhaust available capacity.

Transportation Debt Capacity Guidelines

The Committee has adopted a guideline of 6% for transportation-related debt service as a percentage of state transportation revenues. In doing so, the Committee determined that the Transportation funds enjoy a greater degree of budgetary flexibility than does the General Fund, and the Committee determined that the State's Transportation funds could support a higher ongoing level of debt service as a percentage of revenues than was deemed appropriate for the General Fund. However, the Committee also determined not to adopt the same 20% guideline (SL 2020-91 increased from 15% to 20%) for Transportation debt capacity as was contained in the GARVEE legislation because GARVEEs have higher annual debt service requirements due to their shorter maturity. Note that when the GARVEEs were first issued, 12 years was the standard maturity in the marketplace. This has commonly been replaced with a 15-year maturity structure, with some advisors recommending a 20-year structure. The effect is that a longer maturity allows more GARVEE debt to be issued than originally contemplated under the limitations adopted.

Table 7

Transportation Net Tax-Supported Debt Capacity using 6.0% debt service/revenues target ratio (In millions of dollars)					
Fiscal Year	2022	2023	2024	2025	2026
Total Additional Debt Capacity per Year *	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Debt Capacity Available Each and Every Year	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year. GAP Funding for North Carolina Turnpike Authority projects assumed to total \$49 million annually.					

Model Assumptions regarding Revenue Growth

The model uses DOT estimates for the revenues over the model horizon (see Appendix C).

Build NC Bonds Capacity Constraints

Because the Build NC Bonds have a shorter maturity structure than the standard calculation methodology, the issuance of the Bonds will more than exhaust available transportation debt capacity. Specifically, only \$165 million of Build NC Bonds may be issued in FY 2025, 2026, 2027 to remain at the 6% limit. If the full \$300 million were to be issued in those years, Transportation debt service as a percentage of revenues would reach 6.91% in FY 2028.

The moderate decline in the amount that could be issued (total \$405 million) to stay within the 6% limitation could be largely made up by the amount of premium achievable on the remaining issuances of \$2.0 billion. Assuming the market's appetite for premium structures (higher coupons and initial prices above par) remains unchanged, it is estimated that an additional \$300 million of proceeds could be realized from premium.

Depending upon the reactions by the rating agencies and financial markets to the Build NC Bonds, the Committee may choose to revisit the 6% guideline for Transportation Debt in the future, but it is not recommended at the present time due to the factors discussed above and that the capacity limitations do not cause issuance limitations for a considerable time. See also Sensitivity Analysis below.

Sensitivity Analysis

Because there currently exists no transportation debt capacity, sensitivity analysis is only somewhat useful. Revenues would need to rise more than \$127 million in 2026 (2.7%), \$520 million in 2027 (11.1%), \$718 million in 2028 (15.0%) and \$536 million in 2029 (11.1%), to create additional capacity.

SECTION III

Transportation and General Fund Ratios Combined

The Committee adopted the 6% Transportation guideline after analyzing the State's position relative to its peer group on an aggregate basis (General Fund and Transportation Funds combined), consistent with rating agency practice. Illustrated below is how the State appears on a combined basis utilizing debt service as a percentage of revenue percentages for both the General Fund and the Transportation Funds. The Committee notes that the combined ratio (peaks at 2.61% in FY 2023) is below the 4.00% target and is substantially below the 4.75% ceiling.

Table 8

General Fund and Transportation Funds Combined Debt Service / Revenue Percentages					
Fiscal Year	2022	2023	2024	2025	2026
General Fund	2.39%	2.30%	2.09%	1.58%	1.27%
Transportation *	3.99%	4.66%	5.12%	5.74%	6.20%
Combined	2.60%	2.61%	2.49%	2.13%	1.91%

Note: Percentages are based on forecasted revenues and debt service.

* GAP Funding for North Carolina Turnpike Authority projects assumed to total \$49 million annually.

Appendix A

Other Recommendations

1. Policy Recommendation regarding continuing a 4% calculation target for General Fund Debt capacity and providing for ongoing appropriations to the Solvency Fund

The Committee is recommending that the 4% of revenues be continued as the targeted limitation for debt capacity. Within this single calculation, a level continuing appropriation of \$100 million to the Solvency Fund is recommended to begin to address the pension and OPEB liabilities which totaled \$35.6 billion at fiscal year end. Under this policy the amount of available debt capacity is significant, totaling approximately \$1.416 billion per year for the next 10 years.

Rating agencies have created new tests to compare units of government carrying these unfunded liabilities. Additionally, investors and citizens have taken increased interest in how governments are responding to challenges caused by the increasing levels of these liabilities. The rating agencies have applauded the steps the State has taken recognizing the pension and OPEB liabilities in the DAAC Study and establishing the Solvency Fund as a mechanism to accumulate assets to address these liabilities. The 2020 General Assembly through the existing mechanism, deposited an additional \$30 million directly into the Retiree Health Benefit Trust to help address OPEB liabilities. Session Law 2021-180 has allocated \$40 million to the Solvency Fund for Fiscal Year 2022 and \$10 million for Fiscal Year 2023, however the Solvency Fund has not yet released that money to their respective Funds. Without continued meaningful action to address these liabilities, the positive credit that the State has accrued will erode.

S&P in particular is quite blunt in commenting on state OPEB liabilities and the failure of most states to make significant progress in reducing them. In December 2019, S&P noted that *“Funded ratios remain low and are not projected to materially improve given persistent underfunding...”*. The rating agencies’ focus, specifically S&P, appears to have shifted away from states’ recognition of, and flexibility to address, their OPEB liabilities and is shifting towards actively recognizing that states are not taking significant action. We believe the rating agencies and other stakeholders will now expect concrete steps to devote money to these liabilities on a consistent basis.

The Committee believes that a continuing annual appropriation of \$100 million directed to the Solvency Fund will allow the State to begin accumulating assets to address its unfunded pension and OPEB liabilities without jeopardizing the funding of critical infrastructure projects. The state takes a very proactive approach to addressing its pension and OPEB liabilities, leading to the fourth-lowest ranking ANPL plus ANOL (adjusted net OPEB liability) to GDP ratio among states. A Moody’s Report from July 2021 stated, *“In 2018, the governor signed into law the Unfunded Liability Solvency Reserve Act to further address the state’s unfunded pension and OPEB liabilities. The act established a Solvency Reserve, which is funded by budgetary appropriations and overflows of the Savings Reserve once the reserve meets its statutory cap. The next opportunity for the state to appropriate funds to the Solvency Reserve will be in the next biennium budget. Any accumulated balance in the Solvency Reserve will be allocated to pre-fund the state’s retiree medical and TSERS liabilities in proportion to those plans’ unfunded liabilities (about a 75%/25% split). Additionally, employees starting after January 1, 2021 are not eligible for retiree healthcare benefits ESG considerations.”*

2. Control of Debt Authorization Authority

As an alternative to traditional debt structures, various agencies historically have proposed “off balance sheet” types of arrangements and/or specialized financing structures to provide funding for capital projects, including various lease structures and other agreements arranging for payments made over time subject to the availability of funds. Not only do such structures typically result in more expensive financing and issuing costs, they also circumvent the State’s historically conservative debt management practices. The Committee continues to strongly recommend that the State of North Carolina maintain its historically conservative debt management practices with regard to (1) centralized debt authorization, (2) centralized debt management and issuance and (3) classification of debt and debt-like obligations when determining the debt burden. These practices are among those considered by the rating agencies when assigning their “triple A” ratings to the State and ultimately allow the State to maintain a healthy financial position.

Centralized debt authorization, issuance and management are considered one of North Carolina’s credit strengths. As stated by Fitch the “Issuance and management of all North Carolina debt is centralized” and “Centralized management of debt in North Carolina is a credit strength.” Fitch has further noted that the “treasurer approves execution of each financing”. The Committee believes that centralized debt management is a key best financial management practice and should be embraced by the State as a matter of policy.

3. State Aid Intercept

In a number of legislative sessions, there has been legislation discussed and/or proposed that would provide for the timely payment of special obligation bonds issued for the constituent institutions of the University of North Carolina by requiring the State to “intercept” General Fund appropriations to those entities in order to make debt service payments on “self-liquidating” indebtedness issued pursuant to G.S. Chapter 116D. Similar proposals have been discussed and put forth by other State entities. In essence, this back-stop of debt service obligations by the State’s General Fund provides a form of bond insurance resulting in higher credit ratings and provides the issuer with debt service savings.

The Committee strongly opposes on policy grounds providing credit support for debt issues whose source of repayment was and is represented to be project revenues. The use of State appropriations is not currently permitted to be used to pay debt service on such debt issues. In addition, the proposals have not provided for appropriate levels of State oversight and control for debt issues that may potentially utilize the State’s debt capacity and increase its debt burden.

4. Consider General Obligation Bonds as the preferred financing method

The Committee notes that the State has recently relied extensively, although not exclusively, on the authorization of Special Indebtedness to finance capital projects. Due to the potential debt service savings and increased transparency, the Committee believes that General Obligation bonds should be considered the preferred, but not the exclusive, method to debt finance the State’s capital needs.

5. Structural Budget Balance and Reserve Replenishment

The Committee confirms its view that North Carolina’s priorities of achieving structural budgetary balance and rebuilding the State’s reserve funds are strong evidence of financial stability and flexibility. The Committee recognizes that long term budgetary stability and reserve fund replenishment are key factors in maintaining our “triple A” bond rating. *In a July 2021 report, S&P*

states, “We believe rating pressure could potentially arise over the long term as a result of increasing service, infrastructure, and capital demands as the result of a growing population and recurring severe weather events. However, we expect North Carolina's fiscal management practices in place and commitment to structural balance will allow the state to address these pressures appropriately. If the state were to soften affordability guidelines or indicate a lack of commitment to demonstrated prudent management of its strong fiscal condition or structural balance, we could lower the rating.”

6. Budget Adoption

Comments on the 2021-23 Biennium Budget

The State of North Carolina appropriates operating and capital funds on a biennial (i.e., two-year) budget cycle. In January 2021, the General Assembly began work planning for the current two-year budget cycle, which runs from July 1, 2021, to June 30, 2023. The General Assembly then passed the 2021 Appropriations Act (S.L. 2021-180) on November 18, 2021, which was promptly signed by the Governor. In addition to making appropriations for current operations and capital investment, the 2021 Appropriations Act makes significant tax changes over the next decade.

The General Assembly passed a budget of \$26.03 billion for fiscal year 2022 and \$26.98 billion for fiscal year 2023. Compared to fiscal year 2021, the budget for the current fiscal year is an increase of 6.38% year over year. This is due to the substantial unappropriated balance (i.e., expected revenues not budgeted for expenditure or transfer into a reserve) remaining in both years of the previous biennium. The expected unappropriated balance equaled \$1.47 billion at the end of fiscal year 2020 and \$6.31 billion at the end of fiscal year 2021. The expected year-end unappropriated balance is \$2.38 billion for fiscal year 2022 and \$0.02 billion for fiscal year 2023.

The major policy changes in the 2021 Appropriations Act are as follows:

- The 2021 Appropriations Act makes substantial tax changes to North Carolina tax policy over the next ten years. The Act reduces General Fund tax revenues by an estimated \$1.33 billion in fiscal year 2022 to \$28.45 billion and an additional \$1.99 billion in fiscal year 2023 to \$28.79 billion. The largest changes include: a phasedown of the individual income tax rate from 5.25% in 2021 to 3.99% by 2027; a repeal of the corporate income tax over six years starting in 2025; a repeal of two property-based methods of computing franchise tax, leaving only the net worth based calculation; an increase in the standard deduction from \$21,500 to \$25,500 for married, filing jointly returns (and proportionately for other filing statuses); and an increase in the child deduction by \$500 and expansion of eligibility. This legislation also allows a deduction for Pay Check Protection Plan (PPP), Economic Injury Disaster Loan (EIDL) Shuttered Venue Operators Grants (SVOG), and similar programs through 2022.
- The 2021 Appropriations Act transfers a total of \$3.65 billion to the State Capital and Infrastructure Fund (SCIF) for fiscal year 2022 and \$2.38 billion to the SCIF for fiscal year 2023 to fund capital improvement projects. The amounts include, but are not limited to, \$0.81 billion for public schools, \$1 billion for UNC projects, \$1.5 billion for UNC repair and renovations, \$0.4 billion for community colleges, \$0.88 billion for state agency projects, and \$1.2 billion for state agency repairs and renovations. Only \$4.19 billion is appropriated for fiscal years 2022 and 2023, with the remaining amount for longer-term projects.
- The 2021 Appropriations Act provides a 5% pay increase over the biennium for state employees, bonuses for state employees and retirees, and an enhanced pay plan for correctional and probation and parole officers.
- The budget includes a 1.3% increase in the salary schedule in each year for teachers and instructional support staff, 2.5% in each year for principals and other staff, and additional teacher and

principal bonuses. The budget also increases the pay for psychologists, audiologists, and speech pathologists and increases the minimum wage for non-certified personnel to \$13/hour in fiscal year 2022 and \$15/hour in fiscal year 2023.

- The 2021 Appropriations Act directs an additional \$1.13 billion to the Savings Reserve in each year of the biennium over the statutory requirement of \$0.88 billion in fiscal year 2022 only, increasing the total reserve to over \$3.12 billion in fiscal year 2022 (12.0% of appropriations) and \$4.25 billion in fiscal year 2023 (15.8% of appropriations).

- The budget approves some expenditure increases due to higher enrollments in the State's educational institutions, Medicaid enrollment changes, and State Health and Retirement required contributions totaling \$0.44 billion for fiscal year 2022 and \$1.18 billion for fiscal year 2023.

Appendix B

General Fund Revenues and Liabilities and Debt Affordability Model 10-Year Solutions

DAAC Revenues

The model uses general tax revenues adjusted for one-time or non-recurring items plus certain other revenue items deemed available to service debt from the most recently available *Annual Comprehensive Financial Report*. The following items are included:

General Fund Tax Revenues

- Individual Income Tax
- Corporate Income Tax
- Sales & Use Tax
- Franchise Tax
- Insurance Tax
- Beverage Tax
- Tobacco Products Tax
- Other Taxes

Other General Fund Revenue Items

- Investment Income
- Miscellaneous Revenues

Revenue Growth and Other Assumptions

The 10-year General Fund revenue projections start with the June 2021 consensus revenue forecast, with adjustments for revenue policy changes enacted as part of Session Law (S.L.) 2021-180. After growing nearly 25% in FY 2020-21, the adjusted consensus forecast anticipates General Fund revenues falling 4.3% in FY 2021-22, followed by a modest 1.2% increase in FY 2022-23. Revenue policy changes, including reducing the individual income tax rate from 5.25% to 4.99% in 2022 and 4.75% in 2023, will reduce total General Fund revenues by an estimated \$1.29 billion (4.3%) in FY 2021-22 and \$1.96 billion (6.4%) in FY 2022-23.

After the 2021-23 biennium, the long-run General Fund revenue projections assume baseline revenue growth of 4.75% per year. This anticipated growth rate is based on baseline revenue growth rates over the most recent 20- and 25-year periods as well as anticipated long-run average growth in earnings and capital income. S.L. 2021-180 included tax reductions taking effect after the end of the current biennium, including phased reductions in the individual income tax rate to 3.99% by 2027 and a six-

year phaseout of the corporate income tax starting in 2025. These policy changes will cause tax revenues to grow more slowly than the baseline growth rate until 2032.
In consultation with OSBM, DAAC revenue projections are assumed to be as follows:

Table 9

General Fund Revenue (\$ millions) ⁽¹⁾ Used in the Debt Affordability Model *						
	Revenues	Growth			Revenues	Growth
Fiscal Year	(\$ millions)	Rate		Fiscal Year	(\$ millions)	Rate
2021	\$28,215.3	20.9%		2027	\$30,998.5	1.5%
2022	27,810.2	-1.4%		2028	31,660.1	2.1%
2023	28,136.1	1.2%		2029	32,609.6	3.0%
2024	28,868.8	2.6%		2030	33,924.9	4.0%
2025	29,804.4	3.2%		2031	35,048.1	3.3%
2026	30,526.4	2.4%		2032	36,732.4	4.8%

* General Fund recurring tax revenues, miscellaneous revenues and Treasurer's investments per OSBM.
(1) Fiscal Years 2022 - 2032 revenue forecast as of December 2021. Fiscal Year 2021 is budgetary actual.

Liabilities

To calculate net tax-supported debt, credit analysts take into account all debt supported by general tax revenues. This debt position shows the amount of indebtedness serviced from an issuer's General Fund; that is, it reflects the debt service payments made directly from tax revenues and is known as net tax-supported debt. Although a consensus appears to exist among credit analysts as to the appropriateness of using net tax-supported debt as the standard for determining an issuer's debt position, there is less unanimity about the precise calculation. The Committee has determined to exclude self-supporting debt from its calculations.

The model uses a definition of net tax-supported debt that includes GO Bonds, Special Indebtedness, capital lease obligations, and any other obligations that are owed to a third party over a predetermined schedule and paid from General Fund Revenues. Should mandatory payments be due to contractors or others under P3s, "Design/Build/Finance" or other such arrangements, those payments would be counted as a liability for the model. Obligations of Component Units, Highway Fund debt that is paid from Highway Fund revenues and other self-supporting debt, including performing Energy Performance Contracts where the debt service is actually being paid from energy savings, are also excluded.

The model includes the actual debt service from all outstanding net tax-supported debt and for all authorized, but currently unissued, tax-supported debt if such issuance does not require further action on the part of the General Assembly.

The following is a list of those liabilities that are included in the General Fund model (outstanding amounts as of June 30, 2021):

- GO Bonds supported by General Fund Tax Revenue - \$2.6 billion
- General Fund appropriation-supported debt
 - Limited Obligation Bonds - \$1,332.5 million
 - Certificates of Participation- \$0.0 million
 - Capital Leases, Installment Purchase Contracts and Equipment lease obligations determined to be state-supported and/or pursuant to G.S. 147-33.72H - \$12.5 million

Liabilities not included in the General Fund model (outstanding amounts as of June 30, 2021):

- Highway Construction General Obligation Debt supported by Highway Trust Fund - \$ 0 million
- Highway Construction Special Indebtedness supported by the Highway Trust Fund - \$943.3 million
- Short Term Tax Anticipation Notes (not supported by General Tax Revenue) - \$0
- Obligations of the University of North Carolina System or other Component Units – \$22.0 billion
- Energy Performance Contract obligations where such obligations are guaranteed and approved pursuant to G.S. 142-64 and not supported by separate appropriations - \$271.3 million issued with \$147.4 million outstanding
- OPEB - \$30.9 billion
- Pension liabilities - \$4.7 billion
- Employment Security advances from the US Treasury not anticipated to be paid from General Fund revenues. - \$0

Note: Although these liabilities may not constitute tax-supported debt, some are obligations of the State or various component units and the State's General Fund, although not legally obligated to, could be called upon to service these obligations if necessary.

Debt Structuring Assumptions

The following assumptions were used in this year's debt affordability model calculations:

- The State does not have any outstanding Variable Rate Debt and is not expected to issue any over the model horizon.
- The State does not currently have any general fund authorized but unissued GO or non-GO debt.
- Incremental model debt will be structured with a fixed rate 20-year maturity, a 6% interest rate, and an overall level debt service profile after the initial year.

Note on Issuance of the Connect NC Bonds

Session Law 2021-180, ss. 40.9. (b) and (c) modified the “Connect NC Bond Act” (S.L. 2015-280) to limit the aggregate principal to be issued to \$1.6 billion (the amount previously issued). The remaining funds needed to complete the projects funded under the Connect NC Bond Act (\$400 million) will be provided by an appropriation and available premium funds from earlier issues. Therefore, no future debt service projections for Connect NC were incorporated into the debt capacity model.

Note on Interest Rate Assumptions

The DAAC model assumes consistency between the issuing assumptions used in the study and those used for budgetary planning. The issuance of future authorized bonds could be at lower rates than those stated above, especially in the early years. Such savings are not expected to significantly impact the results of the Study.

General Fund

10-Year Model Solutions

4.00% Debt Service/Revenue Target

Table 10

General Fund										
Debt Capacity using 4.0% debt service/revenues target ratio										
\$100 million per year used to address unfunded liabilities										
(In millions of dollars)										
Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
\$ to Unfunded Liabilities	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0
Total Additional Debt Capacity per Year *	\$4,353.5	\$827.6	\$1,924.9	\$1,310.4	\$616.7	\$791.3	\$886.6	\$1,171.5	\$857.9	\$1,230.3
Debt Capacity Available each and every Year	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5	\$1,415.5
* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.										

4.75% Debt Service/Revenue Target

Table 11

General Fund Net Tax-Supported Debt Capacity using 4.75% debt service/revenues target ratio \$100 million per year used to address unfunded liabilities (In millions of dollars)										
Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
\$ to Unfunded Liabilities	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0
Total Additional Debt Capacity per Year *	\$6,773.9	\$890.7	\$2,005.3	\$1,372.5	\$657.6	\$848.2	\$968.2	\$1,284.6	\$954.5	\$1,375.2
Debt Capacity Available each and every Year	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7	\$1,750.7
* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.										

Appendix C

Transportation Revenues and Liabilities and Debt Affordability Model 10-Year Solutions

The Transportation debt affordability model uses all state transportation revenues plus other revenue items deemed available to service debt for the most recent fiscal year. The following items are included:

State Transportation Revenues

- Motor Fuels Tax
- Highway Use Tax
- Motor Vehicle Revenues
 - Vehicle registration and title fees
 - Driver's license fees
 - International registration plan fees
 - Penalties
 - Equipment inspection fees
 - Other
- Investment Income
- Other misc.
- *Federal Transportation Revenues are excluded*

Revenue Growth

The latest Highway Fund and Highway Trust Fund revenue forecast, released by the Office of State Budget and Management (OSBM) and the Fiscal Research Division in conjunction with the North Carolina Department of Transportation, undertook an update of their consensus revenue forecast. This June 2021 consensus forecast revised upward these previous revenue estimates. Compared to the March 2021 Debt Affordability Study, this forecast increases projections in the amount of \$162.5M in SFY 2022, \$207.4M in SFY 2023, and \$157.6M in SFY 2024.

The updated June 2021 forecast assumed vehicle sales continue to rebound somewhat due to broader economic trends such as favorable financing, relatively low interest rates, and a shift in consumer spending away from services to goods. However, despite supply shortages that are constraining vehicle sales, higher purchase prices for both new and used cars are holding revenues steady. Vehicle sales are expected to increase somewhat heading into 2022 as vehicle production catches up with demand.

During the height of the pandemic, many transportation professionals were concerned it could take several years before returning to pre-pandemic fuel consumption. However, motor fuels consumption appears to show early signs of a rebound. Total gallons subject to taxes from January to November 2021 was 5.65B. For context, 2020 consumption from January to November was about 91 percent of 2019 consumption, whereas in 2021 it was 99 percent. As the vaccination effort continues and North

Carolínians become more comfortable conducting regular travel, a further rebound in gallons consumed is anticipated.

Finally, legislative changes in 2021 will provide DOT with additional revenues. The recently adopted 2021 Appropriations Act (Session Law 2021-180) shifts additional taxes from short-term car rental proceeds from the General Fund to the Highway Fund. This change is estimated to provide DOT with an additional \$69.8M in SFY 2022 and \$74.6M in SFY 2023.

Moving forward into 2022 and beyond, a major infusion of federal funds, rapidly changing economic conditions due in part to rising inflation, the adoption of non-gasoline powered vehicles, changes in consumer purchasing goods, and changes in travel behavior caused by increased adoption of new telework practices may continue to affect transportation funding.

Table 12

Transportation Revenues (\$ millions)						
	Revenues	Growth			Revenues	Growth
Fiscal Year	(\$ millions)	Rate		Fiscal Year	(\$ millions)	Rate
2021	\$4,091.4	10.8%		2027	\$4,677.4	1.2%
2022	4,178.4	2.1%		2028	4,754.6	1.7%
2023	4,331.7	3.7%		2029	4,839.0	1.8%
2024	4,386.1	1.3%		2030	4,929.8	1.9%
2025	4,521.7	3.1%		2031	5,021.6	1.9%
2026	4,623.8	2.3%		2032	5,107.8	1.7%

* Revenue amounts per NC Department of Transportation (excluding federal revenues).
Fiscal Year 2021 is actual.

Transportation Liabilities

The model uses the debt service from all outstanding and authorized but unissued Highway Bonds (GO and Build NC Bonds) and includes transportation-related capital lease obligations and installment purchase contracts if appropriate. Debt service arising from the State’s GARVEE program is not included as a State Transportation Liability because the GARVEEs are supported solely by federal transportation revenues.

The General Assembly has authorized funding to “pay debt service or related financing costs” for various series of revenue bonds issued by the North Carolina Turnpike Authority. The funds so appropriated are legally pledged to support the bonds and bondholders will depend upon the appropriations continuing. Therefore, the model treats the gap funding as the equivalent of debt service because it represents ongoing Highway Trust Fund support of debt. \$49 million of gap funding is treated as debt service for each year over the 10-year model horizon. NCDOT has also pledged certain operating and maintenance funds to secure debt if necessary, to provide adequate coverage levels. At the present, it appears that such funding will not be required. However, these

funds would be treated as additional gap funding for model purposes if NCDOT were to be required to make such payments.

Availability Payments

The model counts “availability payments” as debt-like obligations. These payments are contractually owed to the contractor or other service provider on a delayed schedule that stretches beyond the standard construction period. Sometimes entered into as part of Public Private Design/Build/Finance and/or other arrangements, the delayed payments represent debt service for contractor-provided financing. The debt-like characteristics of availability payments (even if “subject to appropriation”) mean that the payments are treated as a liability for the purposes of the model. The availability payment arrangements that DOT entered into in connection with the I-485 project have been satisfied.

Developer Ratio Adjustment Mechanism (DRAM) payments

In connection with the I-77 P3 project, DOT has agreed to make certain payments over time to support the project. The maximum amount of such payments may not exceed \$12 million annually or \$75 million in the aggregate. The actual amounts will be subject to the actual performance of the project. However, the amounts projected to be needed provided by DOT using relatively conservative assumptions are included in the model. As of December 31, 2021, the State has made no DRAM payments. This is consistent with rating agency treatment. In 2014 Moody’s stated, “States...have entered into P3 projects that incorporate a long-term contractual obligation of the state to make availability payments or other types of contractual payments to the private partner that supports the debt service of the project.” “[W]e view this contractual obligation as another form of general state debt...”

Debt Issuance Assumptions

The following assumptions were used in this year’s Transportation debt affordability model calculations because the Build NC Bonds have specific structuring limitations, and their issuance utilizes all of the available Transportation debt capacity:

- There is no remaining authorized but unissued highway GO debt and \$2.0 billion of authorized but unissued non-GO debt at December 31, 2021.
- The Build NC Bonds will be structured with a fixed rate 15-year maturity, a 4.00% interest rate and an overall level debt service profile after the first year.

There is no incremental model debt because the Build NC Bonds exhaust available capacity.

Transportation

10-Year Model Solution

Table 13

Transportation Net Tax-Supported Debt Capacity using 6.0% debt service/revenues target ratio (In millions of dollars)										
Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total Additional Debt Capacity per Year *	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Debt Capacity Available each and every Year	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
* In addition to that already authorized but unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.										

Appendix D

Public Private Partnerships Review of Recent Debt-Related Legislation

Public Private Partnerships-Debt

As the State enacts laws that permit the procurement and financing of assets through the use of Public Private Partnerships (“P3’s”), care should be taken to ensure that sound debt management and authorization practices are in place in the review and approval process. The term P3 can describe a wide variety of arrangements in which a private sector entity plays a key role in the acquisition of an asset and/or the provision of a service. While P3s may appear to provide a new source of funds in a time of diminished revenues and debt capacity, such agreements often contain financing arrangements with the private entity that results in that entity incurring debt or obligations secured, directly or indirectly by governmental payments or charges to the citizens of that government. *Governing Magazine* notes in an article from the November 2013 issue concerning P3s that “capital often comes at a cost that can exceed the expense of a typical municipal borrowing”. More states are coming to this realization. In the summer of 2014, the state of Nevada dropped plans for a highway widening project using a P3 after “discovering it would cost less for the state to manage the project itself and issue municipal bonds,” according to an August 25, 2014 article in the *Bond Buyer*. More recently, Kansas is reported to have delayed approving a P3 for a prison after the state auditor found, “Traditional state bond finance could provide the state a better deal.”

In times of diminished resources, governments should compare the costs of financing under a P3 arrangement with the issuance of more typical municipal debt when determining the preferable means of financing the acquisition of an asset. S&P noted in 2015, “the debt of P3s faces an inherent disadvantage compared with debt service on tax-exempt bonds, which states traditionally issue.” In addition, NC State’s Institute for Emerging Issues stated in 2010, “it must be clear, though, that a PPP is not 1.) a panacea that resolves all procurement issues, 2.) a way to get something for nothing, or 3.) a privatization of traditionally public infrastructure.”

P3s do not create additional debt capacity although it may appear so if you do not view the agreements as debt or debt-like obligations. However, these are often a commitment of funds in order to acquire an asset and that must be treated like debt when determining debt capacity. Failure to make the contractual payments could result in loss of the asset and create a default of a contractual liability to another party, and would typically impact the credit rating of the government. The rating agency treatment is clear: when a state’s payments are used to support or secure debt issued by a private party, other public entity, and conduit issuer or through a lease arrangement, such debt will be counted toward the state’s debt burden. Sponsoring agencies whose mission is to provide a particular service or asset are not in the best position to make decisions that prioritize the use of a state’s debt capacity or require a state to enter into debt-like arrangements. That decision should be made by the state’s legislative body which represents all the citizens of the state and is equally responsible for providing all services to all citizens.

Review of Recent Debt-Related and other Legislation

G.S. 136-18(12b) as codified by Session Law 2005-403 as amended by S.L. 2020-91 The GARVEE Act

The GARVEE Act authorized the State Treasurer to issue "GARVEE" Grant Anticipation Revenue Vehicle Bonds on behalf of The Department of Transportation. S.L. 2020-91 increased the maximum annual debt service limit and modified the use of GARVEE Reserve funds.

Prior to issuance of any "GARVEE" or other eligible debt instrument using federal funds to pay a portion of principal, interest, and related bond issuance costs, the State Treasurer shall determine (i) that the total outstanding principal of the debt does not exceed the total amount of federal transportation funds authorized to the State in the prior federal fiscal year; or (ii) that the maximum annual principal and interest of the debt does not exceed twenty percent 20% (S.L. 2020-91 raised this percentage from fifteen percent (15%)) of the expected average annual federal revenue shown for the period in the most recently adopted Transportation Improvement Program.

To the extent not prohibited by either the Memorandum of Agreement between the Department of Transportation and the Federal Highway Administration or the GARVEE Master Trust Indenture, the Department of Transportation shall use other legally available federal funds to fund and maintain a GARVEE/Federal Repayment Reserve Fund in an amount equal to the immediately ensuing payment of only interest, or both principal and interest, on all outstanding GARVEE Bonds. Any State funds currently held in GARVEE/Federal Repayment Reserve shall be used for currently existing projects, defined as projects in the process of design or construction, as of June 1, 2020.

S.L. 2018-16 as amended by S.L. 2019-251, S.L. 2020-91, S.L. 2021-180, and S.L. 2021-189 Build NC Bond Act of 2018

The Build NC Bond Act authorizes the issuance by the State Treasurer of up to \$3 billion bonds for regional and divisional transportation projects contained in the Statewide Transportation Improvement Plan subject to a number of constraints including Council of State approval; cash balances, measured at specific times, that dip below \$1 billion; a recommendation from the Treasurer that the Bonds be issued; an issuance limitation of no more than \$300 million per year (the amount authorized to be issued in FY 2021 was increased to \$700 million by S.L. 2020-91) and compliance with the limitations contained in the DAAC Study. The Bonds, authorized as Special Indebtedness, are also subject to the provisions of Chapter 142, Article 9 (the State Capital Facilities Finance Act). The authorization expires December 31, 2028. The Bonds are to be paid by appropriations from the Highway Trust Fund. The bonds are limited to a 15-year final maturity. The maximum cash balance limit was increased to \$2 billion for the 2021-2023 fiscal biennium but the maximum cash balance limit requirement was removed for bonds sold on or before June 30, 2022 by S.L. 2021-180, s. 41.3., as rewritten by S.L. 2021-189, s.7.1.

S.L. 2018-30 State Pension/Retiree Health Benefit Fund Solvency

The legislation established the "Unfunded Liability Solvency Reserve" (the "Solvency Fund") as a reserve within the General Fund that will be used to accumulate funds to be used to reduce the State's unfunded pension and OPEB liabilities. Funds in the reserve may only be used to reduce the long-

term unfunded liabilities associated with the Retiree Health Benefit Trust and the Teachers' and State Employees' Retirement System, proportionate to the unfunded liabilities of the respective programs. To the extent that the Savings Reserve balance has reached its statutory maximum, the Solvency Fund will receive amounts that otherwise would have gone to the Savings Reserve. The Solvency Fund may also receive additional appropriations. The General Assembly has allocated \$40 million to the Solvency Fund for Fiscal Year 2022 and \$10 million for Fiscal Year 2023 in S.L. 2021-180, s. 2.2.(a).

Session Law 2017-57

State Capital and Infrastructure Fund ("SCIF")

S.L. 2017-57 establishes a new fund to be used to address ongoing capital and infrastructure needs effective July 1, 2019. 4% of the State's General Fund net tax revenues are to be deposited into the fund to be used to pay debt service (first priority) and then fund new capital projects and repair and renovation projects. In addition, SL 2017-15 also directs a portion of the unreserved General Fund balance be deposited into the Fund. These provisions were subsequently incorporated into the State Budget Act. The Committee notes that the use of such funds for capital projects circumvents its recommendation that a continuing appropriation of \$100 million be directed to the Solvency Fund.

Session Law 2015-280

The Connect NC Bond Act of 2015 as amended by Session Law 2021-180, ss. 40.9.(b) and (c)

Session Law ("S.L.") 2015-280 (the "Connect NC Bond Act of 2015") became law on October 21, 2015. The act provides for the issuance by the State of up to \$2,000,000,000 in general obligation bonds if such bonds are approved by a majority of voters at a referendum to be held on March 15, 2016. The proceeds of the proposed bonds would be used to fund capital improvements and new facilities for the State, particularly for the University of North Carolina System, the North Carolina Community College System, local government water and sewer systems, the State's National Guard, the State's Department of Agriculture and Consumer Services, parks and tourism-related facilities and the State's Department of Public Safety. Session Law 2021-180, ss. 40.9.(b) and (c) modified the "Connect NC Bond Act" (S.L. 2015-280) to limit the aggregate principal to be issued to \$1.6 billion (the amount previously issued). The remaining funds needed to complete the projects funded under the Connect NC Bond Act (\$400 million) will be funded through an appropriation and from available premium funds from prior Connect NC bond issues. Therefore, no future debt service projections for Connect NC were incorporated into the debt capacity model.

Appendix E

State of North Carolina Rating Agency Reports

- 1) Fitch Ratings – July 12, 2021
- 2) Moody’s Investor Service – July 14, 2021
- 3) S&P Global Ratings – July 9, 2021