Correction to Debt Capacity Advisory Committee Report

Following the release of the Debt Capacity Advisory Committee ("DCAC") report on December 22, 2023, the Virginia Department of Transportation ("VDOT") informed Treasury Staff that the Transportation Trust Fund ("TTF") revenue forecast it provided to Treasury for use in the DCAC model was incorrect. TTF revenues were overstated by an average of approximately $456 million annually. Had the correct figures been provided, the DCAC model's debt capacity calculation would have decreased by approximately $25 million annually, allowing for up to $1.06 billion in additional tax-supported debt to be authorized and issued in each of fiscal years 2024 and 2025 vs. the $1.08 billion included in the DCAC report. The DCAC members have been individually briefed on the impact of this error and have reaffirmed their original votes on any motions made during the December 21, 2023 DCAC meeting.

COMMONWEALTH of VIRGINIA

Stephen Cummings
Secretary of Finance

P.O. Box 1475
Richmond, Virginia 23218

December 22, 2023

The Honorable Glenn Youngkin
Governor of Virginia
Patrick Henry Building, 3rd Floor
Richmond, Virginia 23219

The Honorable Susan Clarke Schaar
Clerk of the Senate
Senate of Virginia
State Capitol, 1000 Bank St.
Richmond, Virginia 23219

The Honorable G. Paul Nardo
Clerk of the House of Delegates
Virginia House of Delegates
State Capitol, 1000 Bank St.
Richmond, Virginia 23219

Dear Governor Youngkin, Ms. Schaar, and Mr. Nardo:

The Debt Capacity Advisory Committee ("Committee" or "DCAC") is required pursuant to Section 2.2-2713 of the Code of Virginia to annually review the Commonwealth's tax-supported debt and submit to the Governor and General Assembly an estimate of the maximum amount of new tax-supported debt that prudently may be authorized and issued for the next two years. In addition, the Committee is required to annually review the Commonwealth's moral obligation debt and other debt for which the Commonwealth has a contingent or limited liability. I am pleased to present the report for 2023.

Based on the debt capacity model, the Committee estimates that up to $1.08 billion in additional debt could be authorized and issued in each of fiscal years 2024 and 2025. This is the average amount that will allow the projection of debt service as a percentage of blended revenues to remain at or below five-percent during the 10-year model horizon. This solution is based on a number of issuance assumptions contained in the model. Accordingly, if the assumptions change, the resulting capacity will also change.

The 2023 DCAC Model was calculated using the December 2023 Revenue Forecast produced by the Department of Taxation and a Transportation Trust Fund Revenue Forecast produced by the Department of Transportation based on Taxation's December 2023 Commonwealth Transportation Fund Revenue Forecast. As such, the proposed tax policy changes associated with the Governor's biennial budget are accounted for in the Model beginning in fiscal year 2024. Given that the majority of the proposed tax policy changes included in the Governor's biennial budget would result in reductions in revenues, should the proposed tax policy changes not be passed by the Virginia General Assembly, the Commonwealth's debt capacity would increase.

The DCAC Model has historically used an average of the most recent 12 quarters of Bond Buyer 11 Index yields for AA+ rated GO municipal bonds to estimate the model interest rate for the future issuances of GO bonds, with a 25 basis-point spread added to model future appropriation secured bond issuances. As a result, the standard model rate currently includes four quarters of historically low yields from 2021 and has not yet fully caught up with the dramatic rate increases that have occurred over the last two years. As of December 7, 2023, the standard model rate for GO bonds was 2.80% with a model rate for appropriation supported bonds of 3.05%. Both rates materially lag current market rates. To address this issue, Treasury staff consulted with financial advisors and the Office of the Secretary of Finance to determine a more appropriate rate to use in the model. Based on these discussions, current market considerations, and interest rate uncertainty, a model rate of 4.50% for GO bonds and 4.75% for appropriation supported bonds was used in lieu of the standard model rate. Given the Commonwealth does not currently have any authorization to issue 9(b) GO bonds, all of the long-term future debt service currently included in the model is projected at the 4.75% appropriation supported interest rate.

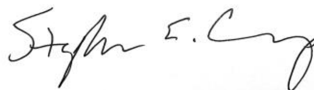
The Committee acknowledged that the Commonwealth entered into fiscal year 2024 in a position of financial strength, with another large surplus in fiscal year 2023 and reserve fund balances growing to all-time highs. However, the Committee also acknowledged that there are a number of potential economic headwinds, both nationally and globally, that could lead to future instability, and that it is more important than ever that any new authorizations of tax-supported debt be planned carefully with the risk of economic recession in mind. To the extent that there are material revenue or interest rate changes compared to the forecast and the assumed model rate of 4.75%, the Commonwealth's debt capacity could rise or fall in line with these changes. The 2023 DCAC Report includes additional sensitivity analyses in the Appendix that address these scenarios.

The Committee also discussed Virginia's increasing debt levels over the last 10 years. In addition to the Commonwealth's existing debt, there is currently $2.9 billion in previously authorized but yet to be issued tax-supported debt that is anticipated to be issued over the next four to five fiscal years. While this authorized but unissued debt is already factored into the debt capacity model, recent increases in construction costs and higher interest rates could result in the need for additional funding sources for previously authorized capital projects. These existing project authorizations should be taken into account when planning for any additional tax-supported debt authorizations during the budget process. However, the Committee did recognize the Commonwealth's prior supplemental cash funding for a number of existing capital projects.

Finally, the Committee discussed the Commonwealth's consideration to provide a pledge of its moral obligation to support the financing of a potential economic development project known as Project Potter. The Committee unanimously approved a motion, with the Auditor of Public Accounts and the Staff Director of the Senate Finance and Appropriations Committee abstaining and the minutes reflecting their abstention rationale, determining that the proposed debt, if authorized by the General Assembly with materially the same terms and structure as presented to the Committee, would not be considered tax-supported debt for purposes of calculating the Commonwealth's base debt capacity. The Committee also determined that the proposed debt, if authorized by the General Assembly with materially the same terms and structure as presented to the Committee, would be included in the moral obligation sensitivity analysis along with the Commonwealth's other moral obligation debt. However, given the project has not yet been authorized by the General Assembly, the Committee determined that the proposed debt would not be included in the moral obligation sensitivity for the 2023 DCAC Report.

The attached report provides the Governor and the General Assembly with a basis to assess the impact of future debt authorization and issuance on the Commonwealth's fiscal position and enables informed decision-making on capital spending priorities. The report also provides historical perspective on the Commonwealth's authorization and issuance of tax-supported debt over the last decade. In addition, it contains information on the rating agencies' assessment of the Commonwealth and how we compare to our other highly rated peer states. As such, the report encourages the continued use of fiscally prudent practices, as failure to follow these practices could result in a negative bond rating action.

Sincerely,



Stephen Cummings, Chairman
Debt Capacity Advisory Committee

Attachment
CC: Debt Capacity Advisory Committee Members

Commonwealth of Virginia

Debt Capacity Advisory Committee

Report to the Governor and the General Assembly

December 21, 2023

Debt Capacity Advisory Committee Members

The Honorable Stephen Cummings – Chairman
Secretary of Finance

Harold Greer
Director, Joint Legislative Audit & Review Commission

Staci Henshaw
Auditor of Public Accounts

Harold Hughey
Citizen Member

April Kees
Staff Director, Senate Finance & Appropriations Committee

Sharon Lawrence
Acting State Comptroller

Michael Maul
Director of the Department of Planning & Budget

Anne Oman
Staff Director, House Appropriations Committee

David Richardson
State Treasurer

Ronald Tillett
Citizen Member

REPORT OF THE DEBT CAPACITY ADVISORY COMMITTEE
December 21, 2023

Background

Following the Commonwealth's increased use of debt in the 1980's, Governor Wilder issued Executive Order 38 (1991) which established the Debt Capacity Advisory Committee (the "Committee" or "DCAC"). Subsequent to the Executive Order, the DCAC was codified in Section 2.2-2712 of the Code of Virginia. The Committee was initially comprised of the Secretary of Finance, the State Treasurer, the Auditor of Public Accounts, the Director of Planning and Budget, the Director of the Joint Legislative Audit and Review Commission, and two citizen members appointed by the Governor. Legislation enacted in 2010 added three additional members to the Committee: the staff director of the Senate Finance and Appropriations Committee, the director of the House Appropriations Committee, and the State Comptroller. The Secretary of Finance serves as Chairman.

The Committee is vested with the power and duty to annually review the size and condition of the Commonwealth's tax-supported debt and to submit to the Governor and the General Assembly, by January 1st of each year, an estimate of the maximum amount of new tax-supported debt that prudently may be authorized for the next biennium. The Committee's recommendations must consider the projected debt service requirements over the current fiscal year and the following nine fiscal years. The Committee must also review annually the amount and condition of obligations for which the Commonwealth has a contingent or limited liability, and for which the Commonwealth is permitted to replenish reserve funds if deficiencies occur (i.e., Moral Obligation debt).

Control of debt burden is one of several key factors evaluated by rating agencies in their assessment of a state's credit quality. Other factors include: economy, financial management, governance, budgetary and operating performance, and debt and pension liabilities. The Commonwealth's AAA bond rating, which it has held since 1938, facilitates access to the capital markets at the lowest borrowing cost. However, the ability to take on additional debt while maintaining the AAA ratings is not unlimited. Higher debt service payments (a fixed expense) mean less flexibility to respond to economic cycles and address other budgetary needs. Because capacity is viewed with many other variables, there is no precise point at which increased debt levels will result in a lower bond rating.

In 1991, after consideration of various alternatives to assess capacity, the Committee decided on a measure based on tax-supported debt service as a percent of revenues. This measure provides a direct comparison of the state's obligations to the resources available to pay them. Measuring the portion of the State's resources committed to debt-related fixed costs provides a measure of the State's budgetary flexibility and its ability to respond to economic downturns.

The target level selected by the Committee in 1991 was five percent - that is, debt service on tax-supported debt obligations should not exceed 5% of Blended Revenues. This measure is intended to ensure that annual debt service payments do not consume so much of the state's annual operating budget as to hinder the Commonwealth's ability to provide core government services. This basic measure has been endorsed by the DCAC in each subsequent year.

In the wake of the 2008 financial melt-down and the resulting economic downturn, coupled with the increased debt burden of several years of significant bonded debt authorizations, the December 18, 2009 DCAC Report to the Governor and the General Assembly conveyed there was no additional debt capacity. As a result of the findings in the 2009 DCAC Report, the Committee determined that a study should be completed to reevaluate the model and consider ways to smooth dramatic changes in capacity in times of extraordinary revenue fluctuations.

Following the 2010 study, the Committee considered various measures (e.g., debt per capita), as well as changes to the treatment of transportation debt in the model. Ultimately, the changes adopted by the Committee were the (i) inclusion in the model of the 0.25% sales tax enacted in 2004 and certain recurring transfers to the general fund from non-general funds, (ii) the reduction of debt service carried in the model for amounts expected to be paid from non-general fund sources, (iii) a change to the interest rate proxy used to estimate the debt service on future borrowings, and (iv) using a ten-year average capacity to arrive at the Committee's recommendation rather than basing it solely on the next two year period. This latter recommendation was an effort to smooth the effect of dramatic revenue fluctuations, and to facilitate long-term capital planning. The target measure of annual debt service payments to annual blended revenues remained unchanged at 5%.

It is important to note that maintaining debt service at less than 5% of revenues is merely a benchmark of affordability. Debt service requires annual appropriation, and to the extent debt is authorized and issued, debt service will limit the amounts available for other budgetary needs.

Debt Capacity Model

The DCAC report is a resource that assists Commonwealth leaders with planning the issuance of future obligations within future resource constraints. The Committee's report provides elected officials with information to enable them to balance capital funding needs while maintaining fiscal discipline and budgetary flexibility. The DCAC report can guide decision-makers in the development and implementation of the capital budget. Report recommendations are all based on the Committee's analysis of the Debt Capacity Model results.

The Committee's Debt Capacity Model compares annual Blended Revenues from the Official Revenue Forecast to the (i) scheduled debt service payments on all outstanding tax-supported debt obligations, and (ii) estimates of the debt service payments on all currently authorized but yet to be issued tax-supported debt. A calculation is then made to determine the amount of additional debt that could be authorized and issued without causing total debt service to exceed 5% of the forecasted Blended Revenues.

Blended Revenues are comprised of general fund revenues, certain recurring non-general fund transfers including ABC profits, state revenues in the Transportation Trust Fund ("TTF"), and Virginia Health Care Fund revenues. Beginning with the 2010 Report, Blended Revenues also

include the relevant portion of sales tax and certain recurring non-general fund Appropriation Act transfers.

Revenue projections and growth rate assumptions are based on the Official December Revenue Forecast as provided by the Department of Taxation, and as such, include the proposed tax policy changes from the Governor's introduced biennial budget. Therefore, any modifications by the General Assembly to the proposed tax policies would alter revenue projections and impact debt capacity.

Tax-supported debt obligations in the model include general obligation ("GO") bonds (excluding those GO bonds issued pursuant to Article X, Section 9(c) of the Constitution of Virginia for which debt service is paid from project revenues), debt secured by the TTF, obligations issued by the Virginia Public Building Authority ("VPBA") and the Virginia College Building Authority ("VCBA") that are repaid from general fund appropriations, obligations payable under regional jail reimbursement agreements, and certain portions of long-term leases, long-term subscription-based information technology arrangements ("SBITAs") and installment purchases that are paid from general fund appropriations.

The impact of debt service related to authorized but not yet issued bond programs on future operating budgets is an important element of debt management and assessing the state's debt capacity. Accordingly, debt service estimates for those programs are included in the debt capacity calculations.

The DCAC Model has historically used an average of the most recent 12 quarters of Bond Buyer 11 Index yields for AA+ rated GO municipal bonds to estimate the model interest rate for the future issuances of GO bonds, with a 25 basis-point spread added to model future appropriation secured bond issuances. As a result, the standard model rate currently includes four quarters of historically low yields from 2021 and has not yet fully caught up with the dramatic rate increases that have occurred over the last two years. As of December 7, 2023, the standard model rate for GO bonds was 2.80% with a model rate for appropriation supported bonds of 3.05%. Both rates materially lag current market rates. To address this issue, Treasury staff consulted with financial advisors and the Office of the Secretary of Finance to determine a conservative rate to use in the model. Based on these discussions, current market considerations, and interest rate uncertainty, a model rate of 4.50% for GO bonds and 4.75% for appropriation supported bonds was used in lieu of the standard model rate. Given the Commonwealth does not currently have any authorization to issue 9(b) GO bonds, all of the long-term future debt service currently included in the model is projected at the 4.75% appropriation supported interest rate, which will be referred to hereafter as the Recommended Modified Model Rate. Interest rates have been at or below 4.25% for recent comparable appropriation supported bond issuances and current market outlooks project the potential for two to three interest rate cuts by the Fed in 2024, so the Recommended Modified Model Rate is conservative.

Potential Influencing Factors for Virginia's Fiscal Position

Fiscal year 2023 was another strong year financially for the Commonwealth. While total general fund revenues (inclusive of transfers) fell 3.4% in fiscal year 2023, this decline was well ahead of both the budgeted revenue forecast from Chapter 769 of the 2023 Session and the December 2022 revenue forecast, which called for 14.0% and 8.8% declines in general fund revenues, respectively, as a result of the tax policy changes implemented during the fiscal year. Nearly all of the Commonwealth's major revenue sources exceeded both of the aforementioned forecasts, with a large portion of the excess revenues attributable to individual income tax collections as a result of a stronger than expected economy. Overall, fiscal year 2023 general fund revenues totaled $28.7 billion, exceeding the budgeted revenues from Chapter 769 of the 2023 Session by $3.1 billion and the December 2022 revenue forecast by $1.6 billion. Adjusting for the impacts of the tax policy changes, which included one-time tax rebates and a doubling of the standard income tax deduction, the Commonwealth's general fund revenues would have grown by 5.1% compared to fiscal year 2022. As a result of the recent revenue surpluses, the Commonwealth made additional deposits to the Revenue Stabilization Fund of approximately $900 million and the Revenue Reserve Fund of approximately $290 million, resulting in total reserves of approximately $3.8 billion as of fiscal year-end 2023, exceeding 15% of general fund revenues. The Commonwealth also set aside an additional $2.1 billion into a reserve fund to support additional taxpayer relief efforts and future budget priorities, providing increased cushion for potential economic downturns in the years ahead. The Commonwealth's financial success has continued in fiscal year 2024. Through October of fiscal year 2024, general fund revenues are up more than 12% compared to this time in fiscal year 2023, although the majority of this is due to timing impacts of tax policy changes. After adjusting for the impacts of tax policy changes, general fund revenues are up a modest 1.8% compared to the prior year.

The most pressing topics in U.S. economics over the last two years have been widespread inflation, the Federal Reserve Bank's (the "Fed") aggressive interest rate hikes to rein in this inflation, and discussion of if and/or when those rate increases would trigger an economic recession. Historically high levels of inflation were seen both nationally and globally in both fiscal years 2022 and 2023, with year-over-year U.S. consumer price index ("CPI") inflation peaking at 9.1% in June of 2022, the highest CPI inflation rate in the last 40 years. The Fed began increasing its overnight borrowing rates in March of 2022, with an initial 25 basis point increase from the historically low 0.00%-0.25% rates that had been in place for nearly 2 years during the Covid-19 pandemic. Since this initial rate hike, the Fed has increased the overnight borrowing rate a total of 10 additional times, resulting in a combined increase of 525 basis points and a peak federal funds rate range of 5.25%-5.50% as of July 2023, with rates remaining flat since this time. The aggressive rate hikes have had a notable impact on inflation over this period. While inflationary pressures remain, CPI inflation registered at 3.1% as of November 2023, inching closer to the Fed's stated goal of 2% annual CPI inflation. These increases in overnight borrowing rates effectively increased the cost of borrowing across the economy, and municipal bond yields saw similar increases over this period. As of December 2, 2021, the Bond Buyer 11 Index yield for AA+ rated GO municipal bonds was approximately 1.6%. Following the Fed's aggressive rate increases, yields peaked in late October and early November of 2023. As of November 2, 2023, the Bond Buyer 11 Index

yield was approximately 4.1%. However, yields have since declined by more than 75 basis points over the last five weeks. As of December 7, 2023, the Bond Buyer 11 Index yield had fallen to approximately 3.3%. The downward movement in municipal interest rates over the last month is a result of the market's reaction to recently improved inflation data and is not the result of a Fed rate cut. It remains to be seen whether inflation will continue to decline or potentially rebound upwards following the holiday shopping season, making it difficult to project how the Fed will handle rates going forward. Many economists now believe the Fed may be willing to tolerate inflation remaining at levels above its stated 2.0% target, and the possibility of a Fed rate cut as early as Spring of 2024 is being discussed.

Fortunately, the Fed's monetary tightening did not result in a U.S. recession in fiscal year 2023 as was feared by many, and the U.S. economy demonstrated remarkable resilience during this time, with real gross domestic product ("GDP") increasing 1.8% in fiscal year 2023, well ahead of the forecasted real GDP growth rate of 0.4%. However, monetary policy impacts are known to be lagged and variable, so it is likely that the impacts of the Fed's rate increases have not been fully recognized by the economy. U.S. Job growth was unexpectedly robust throughout fiscal year 2023 but has begun to cool in early fiscal year 2024. The national unemployment rate remained historically low at 3.5% at fiscal year-end 2023, mostly unchanged from the prior year, although unemployment rates have begun to tick back up slightly at 3.7% as of November 2023. Consumer spending remained strong even in the face of elevated inflation, increasing 2.1% in fiscal year 2023, well ahead of official forecasts of 1.1% for the year. However, credit card delinquency rates have begun to increase over this same time period while consumer savings rates, particularly amongst lower income households, have declined to their lowest levels since before the Covid-19 pandemic. Thus, despite the recent positive economic performance, the threat of a potential recession still looms. Fortunately, Virginia has worked diligently to cultivate a diverse employment base. There is a strong concentration of federal, defense, and related contracting employment in the Northern Virginia and Hampton Roads areas, and as a result, Virginia tends to experience mitigated employment losses during economic downturns, but lags in employment gains during recoveries.

Beyond the typical macro-economic indicators, there are also a number of potential risks, both within the U.S. and globally. These risks could ultimately lead to future economic instability within the Commonwealth and include: continued labor strikes; the resumption of student loan payments; housing shortages; bank failures; Federal government shutdowns; the collapse of the commercial real estate market; severe weather events; cyber-attacks; and geopolitical conflicts and wars. Virginia finds itself in a position of historical fiscal strength, with record reserves, a strong labor force, and continued revenue growth (adjusting for tax policy changes). However, as the Commonwealth ends calendar year 2023 and looks ahead to the next biennium, signs of an economic downturn are beginning to appear, and it remains more important than ever that the Commonwealth use fiscal prudence in planning for its capital needs going forward.

2023 Debt Capacity Recommendations

The 2023 Base Model Average Solution debt capacity calculation (Appendix A-8) shows that an additional $1.29 billion in tax-supported debt could be authorized and issued in each of fiscal years 2024 and 2025. However, it is important to note that the model uses the last 12 quarters of historic rates to estimate the model interest rate. This results in a model interest rate of 3.05% for appropriation supported bonds, which lags current market rates, as the historically low rates of 2021 are still being factored into the rate calculation. Given this disconnect between the model rates and current market rates, Treasury Debt Management staff consulted with financial advisors and the Office of the Secretary of Finance to arrive at a Recommended Modified Model Rate of 4.75%. Therefore, it is the recommendation of the Committee that the Recommended Modified Model Rate (4.75%) Average Solution debt capacity calculation (Appendix A-10) be used to determine the amount of additional tax-supported debt that can prudently be authorized in each of fiscal years 2024 and 2025. The Recommended Modified Model Rate (4.75%) Average Solution debt capacity calculations show that $1.08 billion in additional debt could be prudently authorized and issued in each of fiscal years 2024 and 2025. This amount of new authorization and issuance would cause projections of debt service as a percent of Blended Revenues to remain below the 5% debt capacity throughout the ten-year projection period. As always, the 2-year excess capacity requirement acts as a limiting factor to the average debt capacity solution.

Other Recommendations

a) The Committee recognizes that a significant amount of 9(d) projects have been authorized over the last decade and that many project needs have been met with earlier bond authorizations and/or cash funding. Once significant project needs return, the Committee expresses its support in seeking the approval of 9(b) general obligation bonds, which must be approved by a State-wide voter referendum. With a higher bond rating than 9(d) appropriation-backed debt, general obligation bonds have lower interest costs. The growing proportion of 9(d) debt compared to general obligation bonds has caught the attention of the bond rating agencies and in the past has resulted in comments in ratings of the Commonwealth. Please see the charts on pages 12 and 13 for more information regarding the growing proportion of 9(d) debt.

b) The Committee expresses its continued support of the use of traditional financing methods for state projects such as those offered through the issuance of general obligation bonds, or appropriation-supported programs through the VCBA or the VPBA, since leases and other forms of borrowing typically result in higher financing costs and are ultimately still viewed as tax-supported debt.

c) The Commonwealth has seen construction costs increase dramatically over the last two years due to inflationary pressures, and as a result, there are now questions surrounding the actual cost of certain projects for which debt was previously authorized but has yet to be issued. The Committee recognizes that the Governor's previous budgets included

substantial cash funding to supplement previously authorized capital projects for which costs had materially increased. However, the Committee also recognizes the possibility that additional funding sources may still be needed to fully fund projects that were previously authorized and consideration should be given as to whether any existing authorizations of projects not under construction should be rescinded or amended.

d) The Committee is cognizant of the Commonwealth's increasing outstanding debt over the last 10-years, which can be seen graphically compared to U.S. and triple-AAA state medians, as calculated by Moody's, on pages 26 and 27 of this report. These sections also detail debt ratios of each of Virginia's triple-AAA peers. Between the 2014 and 2023 Moody's Medians Reports, Virginia remained steady nationally as the 12th highest ranked state in terms of total net tax-supported debt ("NTSD"). However, its other comparative ratios increased, going from the 19th highest NTSD per capita to the 14th highest and the 24th highest NTSD as a percentage of personal income to the 18th highest, as Virginia's total NTSD burden continued to grow. These numbers only consider the debt outstanding as of the prior calendar year-end and do not contemplate the additional $3.5 billion of authorized and unissued tax-supported debt as of June 30, 2023, of which $2.9 billion is net of 9(c) debt and is included in the DCAC Model.

Review of Tax-Supported Debt

General Fund Supported Debt

The State issues two types of tax-supported debt: GO Bonds and various kinds of appropriation-supported obligations. The Commonwealth's GO Bonds are secured by the full faith and credit of the Commonwealth and are rated in the highest rating category by the bond rating agencies. Several factors contribute to the high bond ratings, 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 the most transparent of the various types of State debt obligations and typically carry the lowest interest cost. GO bonds issued under Article X, Section 9(b) of the Constitution require State-wide approval by the voters through referendum.

Article X, Section 9(c) of the Constitution provides for the issuance of GO debt that is self-supporting (e.g. through tolls, dormitory fees, etc.). The GO pledge for 9(c) Bonds provides a back-stop in the event net project revenues are insufficient to service the debt. These bonds do not require voter approval, but do require a two-thirds majority approval by each house of the General Assembly. They also require the Governor to opine that net project revenues will be sufficient to pay debt service on the bonds. Because of the GO pledge, 9(c) debt is considered tax-supported debt for financial reporting purposes; however, it is not included in the debt capacity model. Only if the net revenues are insufficient and the GO pledge is invoked, will that debt be incorporated in the model. This has not occurred since 9(c) debt was first issued in 1973.

Commonwealth appropriation-supported debt includes bonded debt as well as certain long-term leases, certain long-term SBITAs, and installment purchase obligations. Such debt is authorized by the General Assembly. Principal and interest payments on these obligations are made from annual appropriations from the general fund or the TTF. These bonds are rated slightly lower than Virginia's GO bonds, reflecting the marginally higher risk that debt service will not be annually appropriated. Depending upon market conditions, interest rates on appropriation-supported debt on any given day may range from 5 to 20 basis points higher than comparable GO bonds. The Commonwealth has increasingly relied on the use of appropriation-supported debt (e.g. VPBA and VCBA) to provide financing for capital projects.

Transportation Debt

The rating agencies view all debt supported by state-wide, generally applied taxes and fees to be "Tax-Supported Debt". The Transportation Trust Fund was established by the General Assembly in Chapters 11, 12, 13 and 15 of the Acts of the Assembly, 1986 Special Session (the "1986 Special Session Acts"), as a special non-reverting fund administered and allocated by the Commonwealth Transportation Board ("CTB") for the purpose of increased funding for construction and other capital needs of state highways, airports, mass transit and ports. Chapters 1230 and 1275 of the Acts of the General Assembly of the Commonwealth of Virginia 2020 Regular Session ("Chapters

1230 and 1275") enacted numerous structural changes to the transportation funding system in the Commonwealth. These changes generally became effective July 1, 2020.

Under Chapters 1230 and 1275, transportation-related revenues are directed to a new special non-reverting fund known as the Commonwealth Transportation Fund, and the distribution of revenues is streamlined, based on codified formulas, to sub-funds established to meet the varying transportation needs and different modes of transportation in the Commonwealth. The TTF continues to be funded primarily from the initial base of revenues specified by the 1986 Special Session Acts, as amended, including the retail sales and use tax, motor fuels tax and motor vehicle related taxes and fees. Chapters 1230 and 1275 made changes to and added to these revenue sources.

Those revenues, as well as the debt service supported by those revenues, are included in the model calculation. Not included in the Debt Capacity Model are highway maintenance and operating revenues, federal transportation revenues, and debt related to Grant Anticipation Revenue Vehicles ("GARVEEs") paid from federal transportation revenues.

Transportation debt has been authorized and issued with a pledge that other available amounts, including the general fund, may be appropriated for their repayment. Since repayment is not limited solely to the TTF (though in practice, payments are made from the TTF), these bonds are viewed by rating agencies the same as other appropriation-supported obligations of the Commonwealth. The strength of the Commonwealth appropriation pledge and the depth of resources available for repayment may result in a higher rating than if secured by the TTF alone.

The CTB has issued bonds to be repaid from the TTF for construction projects involving U.S. Route 28, the U.S. Route 58 Corridor Development Program, the Northern Virginia Transportation District Program, the Oak Grove Connector in Chesapeake, and most recently various projects through the Capital Projects Revenue Bonds authorized by the General Assembly in 2007. Historically, transportation specific debt service as a percentage of TTF revenues has greatly exceeded 5%. Accordingly, to the extent the 5% measure is exceeded, capacity derived from the general fund is being utilized by transportation debt service. This does not mean that general fund dollars are supplementing debt service payments on TTF debt; rather, it means that capacity derived from the general fund is being used to keep overall capacity for all tax-supported debt under the 5% target. From fiscal year 2014 through fiscal year 2023, TTF debt service as a percentage of TTF revenues ranged from 9.8% to 19.6%, although this ratio has steadily declined over the last ten years as existing debt from the 2007 authorization is paid off. Model projections at the Recommended Modified Model Rate of 4.75% indicate that TTF debt service as a percentage of TTF revenues will continue to exceed 5% going forward, with projected TTF debt service to TTF revenue ratios ranging from 8.0% to 10.3%. However, projected TTF debt service as a percentage of TTF revenues is estimated to continue to decline as existing tax-supported transportation debt is being paid off more quickly than new tax-supported transportation debt is being issued, although any new authorization of tax-supported transportation debt in the future could cause this trend to reverse.

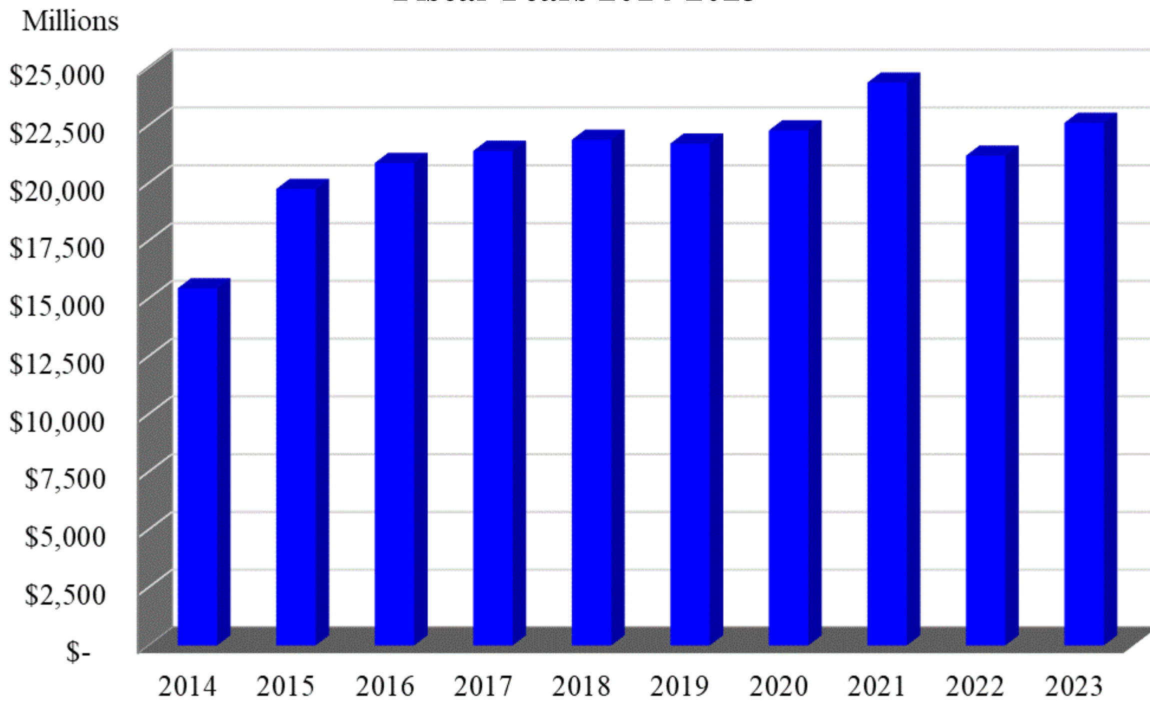
Trends in Tax-Supported Debt

The total outstanding tax-supported debt of the Commonwealth increased by 46.3% over the last ten fiscal years, or about $7.2 billion, increasing from $15.5 billion in fiscal year 2014 to $22.6 billion in fiscal year 2023. The Commonwealth's total tax-supported debt can be split into three primary categories: GO debt, Section 9(d) debt, and other long-term obligations, which consist primarily of pension liabilities, other post-employment benefits ("OPEB") liabilities, and compensated absences. While other long-term obligations are generally evaluated by rating agencies as part of an issuer's overall debt profile, they are not typically part of their calculations of debt ratios. Accordingly, they are not included in the Commonwealth's debt capacity calculation. Excluding the other long-term obligations, the remaining tax-supported debt has increased about $4.0 billion, or 38.7%, over this same period. In fiscal year 2023, total tax-supported debt increased by approximately $1.4 billion, or 6.7%, driven primarily by a $1.1 billion increase in pension liabilities and the addition of approximately $183.5 million of long-term SBITAs under the implementation of Governmental Accounting Standards Board ("GASB") statement 96. When other long-term obligations are excluded, the remaining tax-supported debt increased by a more modest $198.4 million, or 1.4%, in fiscal year 2023. 9(d) appropriation supported bonds related to transportation, public buildings, and higher education continued to make up the largest portion of the Commonwealth's tax-supported debt obligations as of fiscal-year 2023, totaling $12.3 billion, while outstanding G.O. debt remained relatively low at $1.1 billion. Despite the large overall increase in tax-supported debt over the last decade, outstanding tax-supported debt as of fiscal year-end 2023 was down by more than $1.7 billion from its peak at fiscal year-end 2021. The primary driver of the decline was the use of surplus cash to pay down pension liabilities in fiscal year 2022.

The significant increases in tax-supported debt over the last decade are primarily the result of growing Section 9(d) debt and large increases in pension and OPEB liabilities. While much of this growth is organic, some of the growth is related to changes in accounting standards over this period. For example, the implementation of GASB statement 96 went into effect in fiscal year 2023. GASB statement 96 required the capitalization of certain long-term information technology subscriptions and the recognition of a related long-term liability associated with the costs of those subscriptions. The implementation of GASB statement 96 resulted in the recognition of a new tax-supported SBITA liability of $183.5 million in fiscal year 2023.

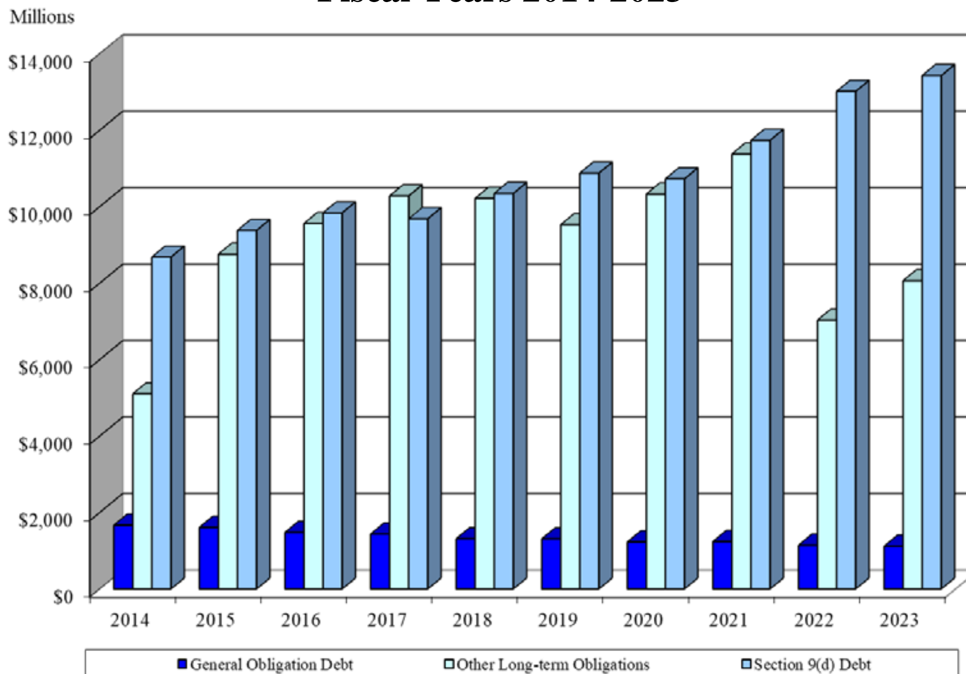
The graphs on the following pages provide historical perspective on the Commonwealth's outstanding tax-supported debt in total, outstanding tax-supported debt by category, and breakouts of the primary components that comprise Section 9(d) debt and other long-term obligations.

Outstanding Tax-Supported Debt
Fiscal Years 2014-2023 [1]



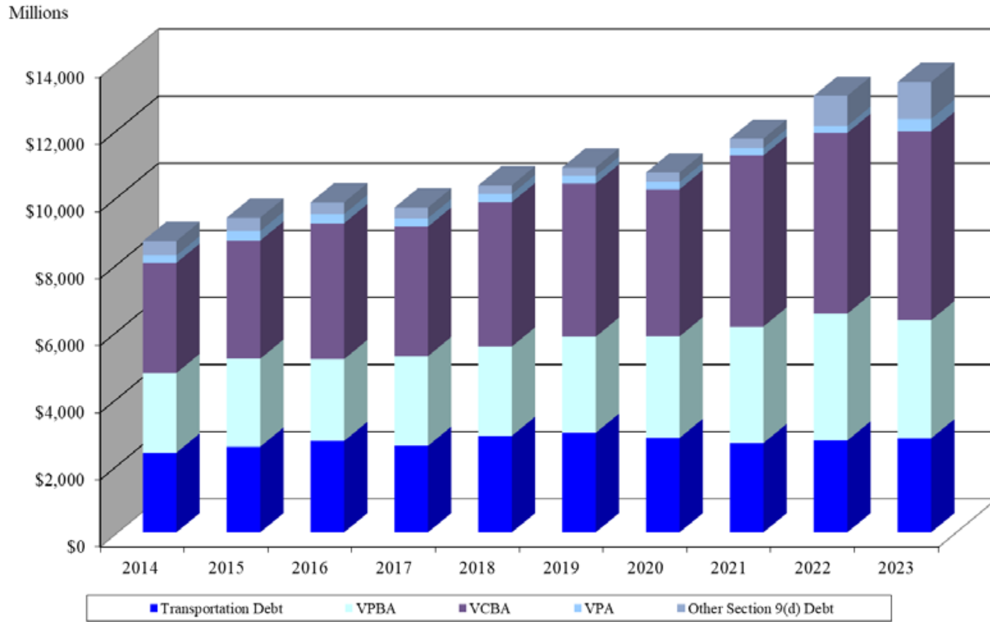
[1] Includes other long-term obligations such as pension liabilities, OPEB and compensated absences.

Outstanding Tax-Supported Debt by Category
Fiscal Years 2014-2023 [1]

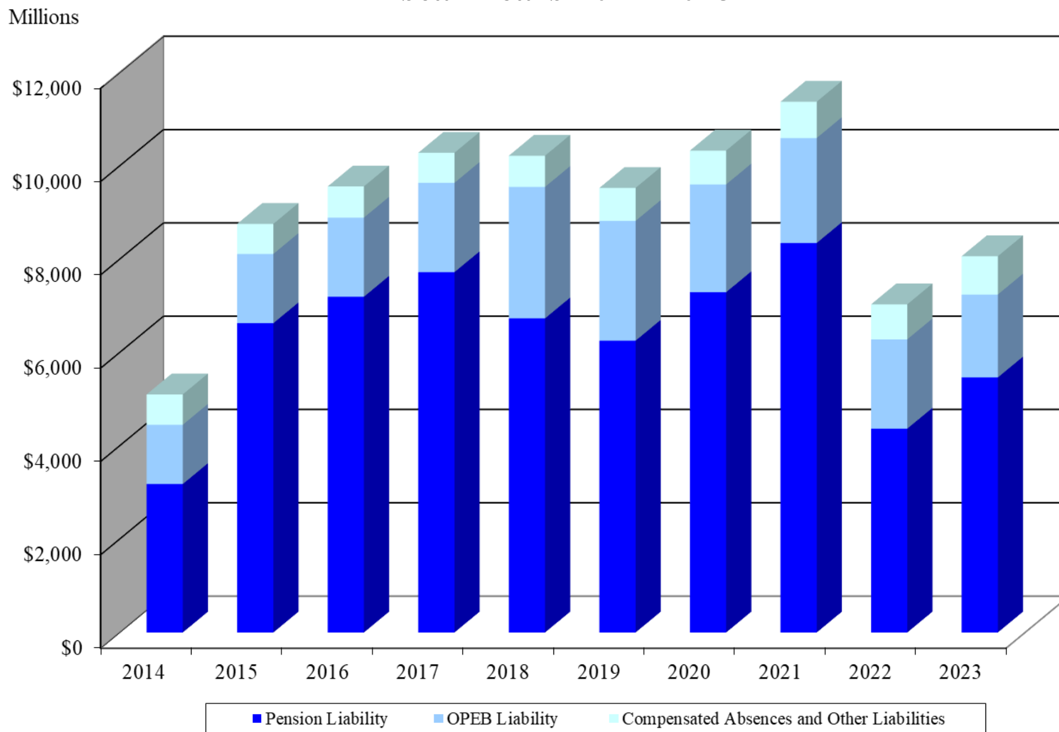


[1] Includes other long-term obligations such as pension liabilities, OPEB and compensated absences

Outstanding Section 9(d) Debt
Fiscal Years 2014-2023



Outstanding Other Long-Term Obligations
Fiscal Years 2014-2023



General Obligation Debt

GO debt, which had a June 30, 2023 balance outstanding of $1.1 billion, peaked in fiscal year 2014 and has declined 32.9%, or $549.3 million, over the last ten-year period. This is due to the fact that the last 9(b) GO bond referendum approved by the voters occurred more than 20 years ago in 2002. Bonds from the 2002 authorization, which totaled $1.0 billion, were issued as needed, with the final issuance occurring during fiscal year 2010. From fiscal year 2011 onward, any new issuances of GO debt came solely from the issuance of 9(c) GO bonds, which are regularly authorized by the General Assembly for qualifying revenue-producing capital projects and are not included in the debt capacity calculation as they are self-supporting. Despite the regular issuance of new 9(c) debt, total GO debt levels declined in all but one fiscal year from fiscal year 2014 through fiscal year 2023 as the payoff of existing 9(b) debt outpaced the issuance of new 9(c) debt. However, in fiscal year 2021, the outstanding GO balance increased by 1.0%, or $12.2 million, as 9(c) bond issuances outpaced the payoff of 9(b) bonds. In fiscal year 2023, total GO debt outstanding decreased by 2.2%, or $25.5 million, as 9(b) debt payoff once again outpaced the issuance of new 9(c) bonds.

Section 9(d) Appropriation Debt

Section 9(d) debt includes tax-supported bonds issued by the VCBA, the VPBA, the CTB, and certain obligations of the Virginia Port Authority ("VPA"). It also includes long-term lease and long-term SBITA liabilities that are paid for directly by general fund appropriations and certain general fund supported installment purchases. This debt category has shown significant dollar growth over the last ten fiscal years, increasing by $4.7 billion during the ten-year period. Total outstanding Section 9(d) debt as of June 30, 2023 was $13.4 billion, which is equivalent to a 54.7% increase over the ten-year period from the $8.7 billion that was outstanding at fiscal year-end 2014. The increase is attributed to significant authorizations for transportation bonds in 2007 that have been issued over the last 10 years, and significant authorizations of VCBA and VPBA bonds in 2008, 2009, 2010, 2013, 2014, 2016, 2018, 2019, and 2020. However, authorization of new 9(d) bonds has been limited in the last three fiscal years. Despite limited new 9(d) authorizations in recent years, much of the larger prior 9(d) authorizations are still being issued today, resulting in another year of significant 9(d) bond issuance totaling $1.1 billion in fiscal year 2023. The implementation of GASB 96 in fiscal year 2023 also lead to the recognition of an additional $183.5 million in reported long-term SBITA liabilities that further increased the outstanding amount of 9(d) debt. All told, the outstanding balance of Section 9(d) debt increased 3.1%, or $415.9 million, from fiscal year 2022 to fiscal year 2023. As of fiscal year-end 2023, the Commonwealth still had $2.9 billion in authorized but unissued 9(d) debt, so it is expected that future 9(d) issuances will remain elevated despite the lack of recent authorizations. The Commonwealth has also seen construction costs increase dramatically in recent years due to inflationary pressures, and as a result, there are now questions surrounding the actual cost to finance many of the previously authorized but not yet financed projects going forward, and it is possible that additional debt authorizations or cash funding may be needed to fully fund projects that were previously authorized.

Other Tax-Supported Long-Term Obligations

Other long-term obligations had previously experienced the greatest growth amongst the various tax-supported debt categories of the Commonwealth. However, the Commonwealth used surplus cash balances to fund a significant portion of its net pension liabilities in fiscal year 2022, which helped offset much of the prior growth in this debt category. Despite this pay down, other long-term obligations have still seen significant growth over the last ten fiscal years, increasing by $3.0 billion, or 58.0%, over this period. In fiscal year 2023, other long-term obligations increased by $1.0 billion, or 12.8%, driven by a $1.1 billion increase in pension liabilities. Despite this sharp increase in fiscal year 2023, total other long-term obligations remained well below their peak levels recognized in 2021 and were at their second lowest point since 2015.

Authorizations and Issuances of Tax-Supported Debt

Tax-supported debt of the Commonwealth must first be authorized through the State's legislative process, with approval from the Virginia General Assembly required. In the case of 9(b) GO bonds, additional State-wide approval from the Commonwealth's voters via referendum is also required. Once authorization for tax-supported debt is approved, the bonds may be issued by the Commonwealth's various issuing bodies, pending final approval of the terms and structure of the bonds by the governing boards of the relevant issuing bodies, and as necessary, the Office of the Governor and the Cabinet. However, bond issuances are based on the cash flow needs of authorized projects and are not market driven. As such, authorizations do not result in the immediate issuance of associated bonds, and it often takes years for an authorization to be fully issued. This has been particularly apparent over the last three fiscal years, as new authorizations of tax-supported debt have totaled less than $785 million, while issuances have totaled $3.9 billion over this same period. In fiscal-year 2023, the Commonwealth authorized $21.7 million in additional tax-supported debt while issuing $1.1 billion of new money tax-supported bonds. With the June 30, 2023 authorized and unissued tax-supported debt amounting to $3.5 billion, of which $2.9 billion is for 9(d) projects and is included in the debt capacity calculation, it is likely that significant issuances will continue over the next several years even if additional debt authorizations are limited in the budget for the next biennium. Details on the Commonwealth's fiscal-year 2023 authorizations and issuance of tax-supported debt are presented below.

Fiscal-Year 2023 Tax-Supported Debt Authorizations

Chapter 294 of the 2023 Session of the Virginia General Assembly authorized an additional $21.7 million of tax-supported debt to be issued by the VPBA to finance renovations at two local jail facilities.

Fiscal-Year 2023 Tax-Supported Debt Issuances (New Money Only)

On November 16, 2022, the Commonwealth of Virginia issued $94,880,000 of its General Obligation Bonds, Series 2022A, to finance revenue producing capital projects at public institutions of higher education within the Commonwealth. These bonds are Section 9(c) GO bonds and are not included in the DCAC model as they are self-supporting via project revenues.

On May 5, 2023, the VPA issued $148,520,000 of its Commonwealth Port Fund Revenue Bonds, Series 2023A, to finance various improvements at the Norfolk International Terminals.

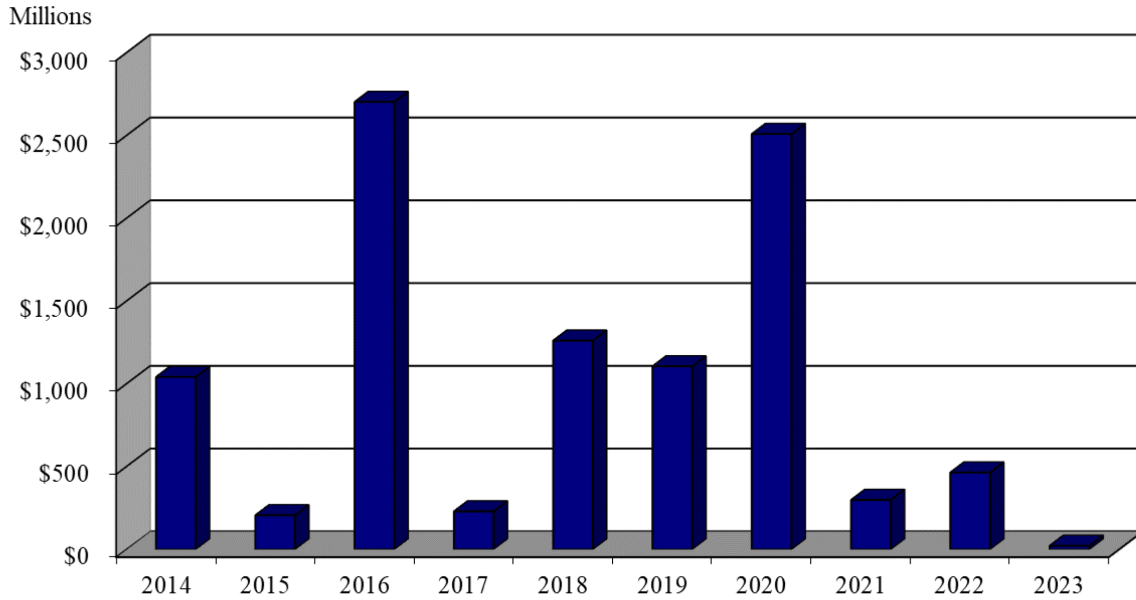
On June 6, 2023, the VCBA issued $618,815,000 of its Educational Facilities Revenue Bonds (21st Century College and Equipment Programs), Series 2023A, to finance certain capital projects and acquire equipment for public institutions of higher education in the Commonwealth.

On June 22, 2023, the CTB issued $217,510,000 of its Commonwealth of Virginia Transportation Revenue Bonds (U.S. Route 58 Corridor Development Program), Series 2023, to finance the costs of the U.S. Route 58 Corridor Development Program.

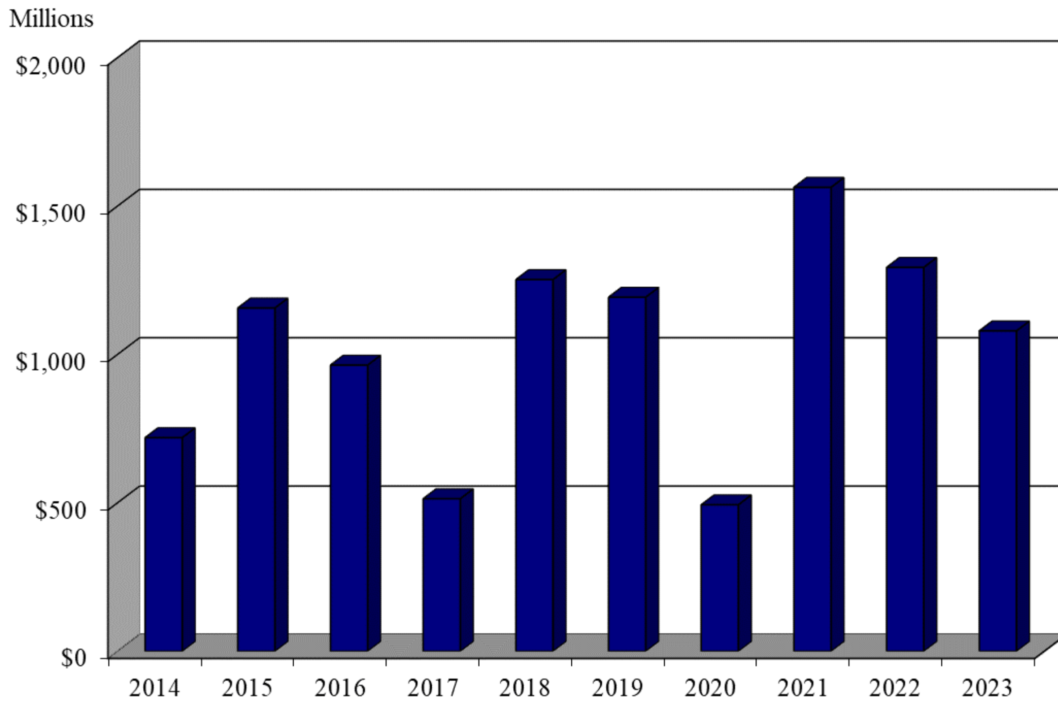
Historical Authorizations and Issuances of Tax-Supported Debt

Over the 10-year period, $9.8 billion of tax-supported debt was authorized across various programs, with the majority authorized for VCBA and VPBA projects, while $10.2 billion of new tax-supported debt, exclusive of refundings, was issued. Authorizations ranged from a low of $21.7 million in fiscal year 2023 to a high of more than $2.7 billion in fiscal year 2016. Annual new-money debt issuance ranged from a low of $493.7 million in fiscal year 2020 to a high of $1.6 billion in fiscal year 2021. In five of the ten years, authorizations were below $500 million, while in the other five years, authorizations were above $1 billion, with two years over $2.5 billion. Issuances of less than $1 billion in a fiscal year have occurred four times over the last ten years, with the remaining six years seeing more than $1 billion issued. As can be seen in the authorization graph, significant authorizations can occur in both even and odd years and are not always related to a new two-year budget being passed. However, it is more common for higher authorizations to occur with the passage of a new two-year budget. The two charts on the following page illustrate the amounts of total tax-supported debt authorized and issued from fiscal years 2014 through 2023.

Tax-Supported Debt Authorizations
Fiscal Years 2014-2023
$9.8 Billion in Authorizations

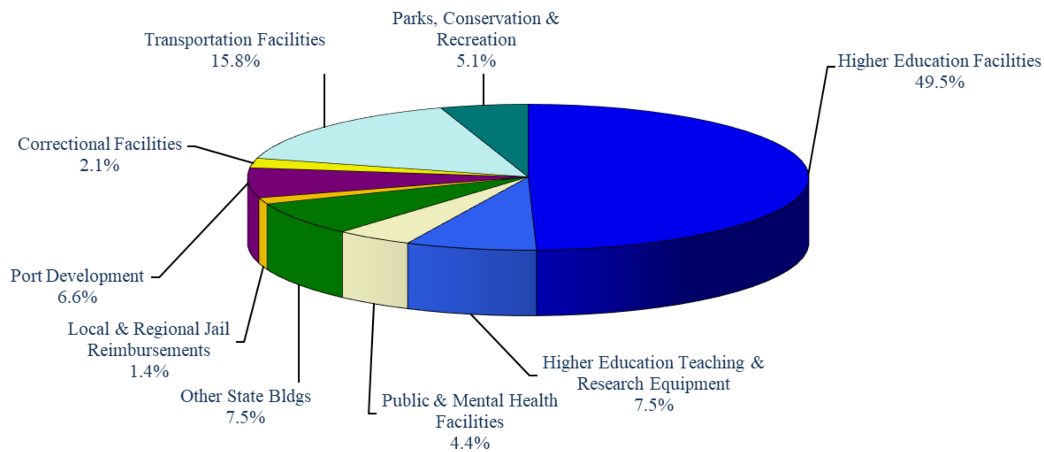


Tax-Supported Debt Issued
Fiscal Years 2014-2023
$10.2 Billion in Issuances



Uses of Outstanding Tax-Supported Debt

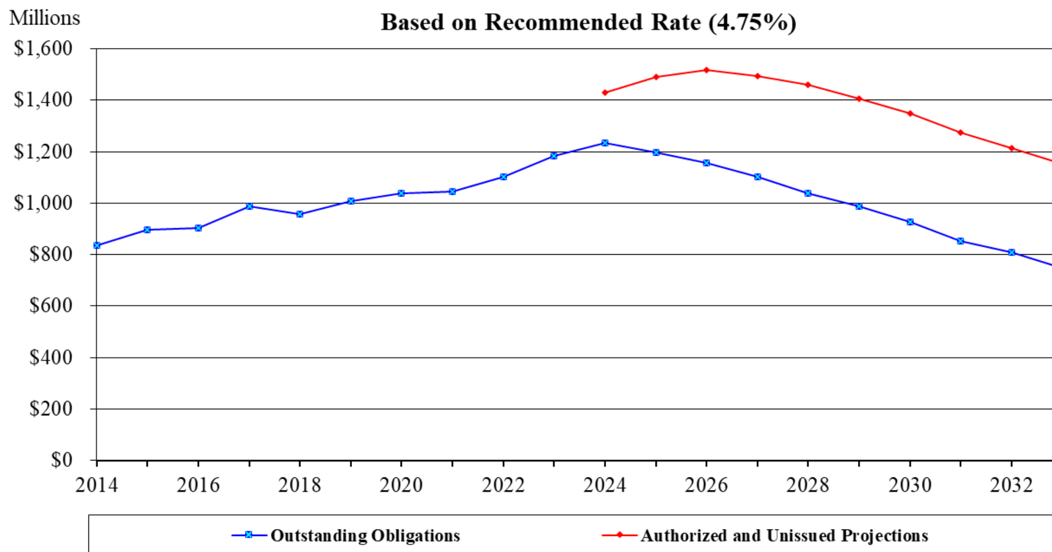
The following chart illustrates how the Commonwealth has utilized its tax-supported debt over the last ten years. Of the total $10.2 billion issued, 57.0% has been used for capital projects and teaching and research equipment at state institutions of higher education. Transportation projects paid from the TTF is the next highest category at 22.4%, which includes transportation facilities and port development. (Note: transportation projects financed with federal revenues are not considered tax-supported debt and are not included.)



Debt Service

Amounts paid annually for debt service have steadily increased over the last ten years, increasing in all but one of the last ten fiscal years. While debt service has increased on an absolute basis over the last decade, as revenues have increased sharply in recent years and Virginia has been able to take advantage of historically low interest rates, debt service as a percentage of Blended Revenues has been on a downward trend from its peak of nearly 4.7% in fiscal year 2017 to a ten-year low of 3.4% in fiscal year 2022. However, in fiscal year 2023, debt service as a percentage of Blended Revenues ticked back up to 3.7% as the impacts of recent tax cuts were recognized in lower Blended Revenues for the year. Future debt service payments, including payments on existing debt and estimated payments on authorized but unissued debt, are projected to increase through fiscal year 2026, and then decline annually through fiscal year 2033 as existing debt is retired. However, as revenue projections have increased, debt service as a percentage of Blended Revenues is only projected to increase in fiscal-year 2024 before declining annually through fiscal year 2033 to a projected low of 1.7% in 2033. It is worth noting that Virginia has no variable rate tax-supported debt outstanding as of June 30, 2023 and does not utilize short term financing, such as revenue anticipations notes, for operational needs. As a result, the Commonwealth's debt service has stability and has been mostly unaffected by the recent interest rate increases. Annual debt service, including the estimated debt service on all currently authorized but unissued amounts and long-term lease liabilities and installment purchases, is illustrated below. Please note, that the following chart uses the Recommended Modified Model Rate of 4.75% to model debt service on all authorized and unissued tax-supported debt.

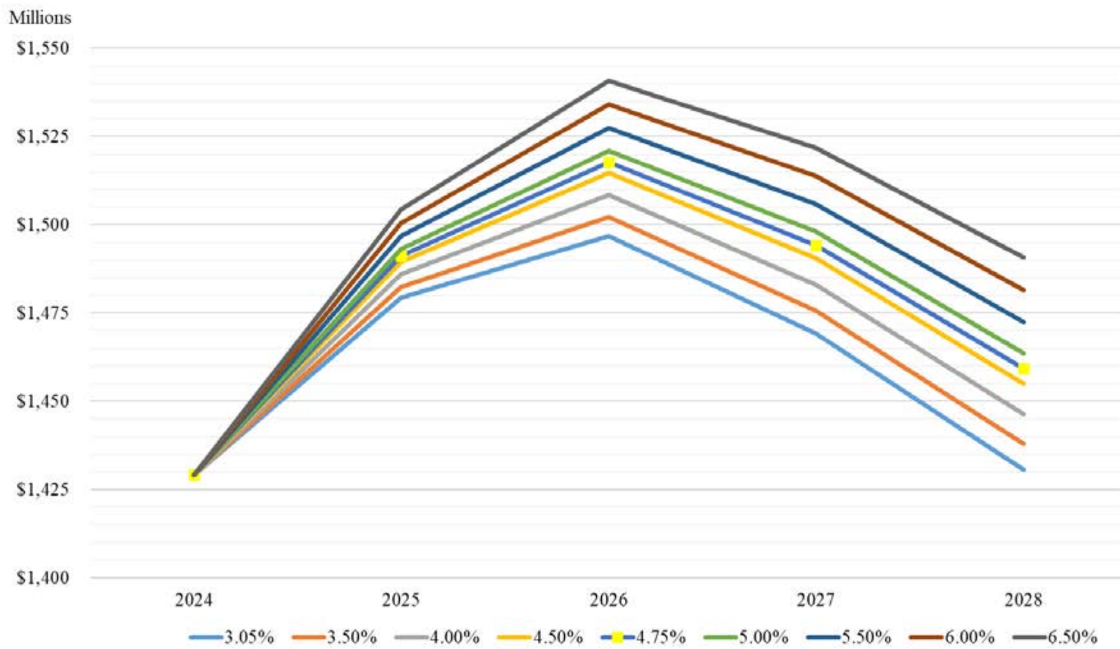
Tax-Supported Debt Service: Actual and Projected
Fiscal Years 2014 – 2023[1]



[1] Assumes authorized debt is issued in future periods at an interest rate of 4.75% in accordance with the Model's other standard assumptions. Past data includes lease revenue bonds issued by the Virginia Biotech Research Park Authority and Newport News Industrial Development Authority.

While the Recommended Modified Model Rate of 4.75% is considered a reasonable and appropriate rate given current market conditions and future expectations for market rates, there is always great uncertainty in trying to predict future interest rate movements. Recent market volatility and recessionary fears make it more important than ever that Virginia consider the impacts various interest rates could have on the future debt service costs of the Commonwealth. The chart below illustrates the Commonwealth's total projected tax-supported debt service payments over the next 5 fiscal years at various rates ranging from the base model rate of 3.05% to 6.50%. The Recommended Modified Model Rate of 4.75% is shown on the blue line highlighted with yellow markers.

Projected Tax-Supported Debt Service: Interest Rate Sensitivity
Fiscal Years 2024 – 2028



Review of Other Debt Not Supported by Taxes

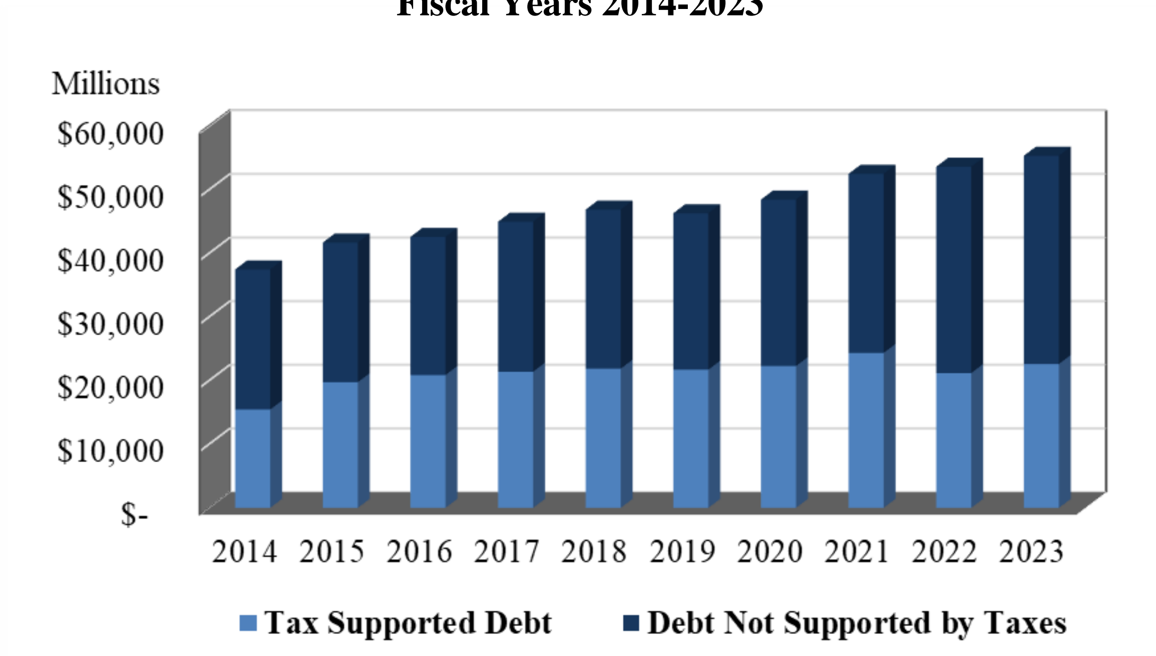
In addition to the various forms of tax-supported debt discussed in the previous sections of this report, Virginia also has a substantial amount of other long-term obligations that are not supported by taxes. These other debts not supported by taxes include the 9(d) obligations of Virginia's higher education institutions for which general revenues of the institutions are pledged, obligations of the Commonwealth's various debt issuing agencies and authorities for which general tax revenues are not pledged as security for the debt, GARVEE's for which the debt is secured by Federal grants, Interstate 81 Revenue Bonds which are secured by special regional fuels taxes, the obligations of various State Foundations, certain portions of notes payable, certain portions of pension and OPEB liabilities, long-term lease liabilities, long-term SBITA's and installment purchases for which payments are not secured by general tax revenues, tuition benefits payable, and lottery prizes payable. While these debt obligations do not impact the State's debt capacity, they are still long-term obligations reported in the Commonwealth's Annual Comprehensive Financial Report and should be noted, particularly given the growth in these obligations. In addition, the rating agencies each maintain their own unique formulas for calculating tax-supported state debt burdens, so while these obligations may not be considered tax-supported debt by the Commonwealth, it is possible that rating agencies could consider certain obligations from within this category as tax-supported when considering the Commonwealth debt profile for rating purposes.

The Commonwealth's other debt not supported by taxes has grown significantly over the last ten fiscal years, increasing from $22.0 billion in 2014 to $32.7 billion in 2023, an increase of $10.7 billion, or 48.7%. The Commonwealth's other debt not supported by taxes increased sharply in fiscal year 2022, increasing by 15.2%, or $4.3 billion over fiscal year 2021 levels, driven primarily by a $1.0 billion increase in the obligations of the Hampton Roads Transportation Accountability Commission ("HRTAC") and a $2.5 billion increase in long-term lease liabilities related to the changes from GASB 87. In fiscal year 2023, growth in other debt not supported by taxes was more muted, increasing by $304.9 million, or 0.9%. While most categories of debt not supported by taxes saw growth over the last ten fiscal years, the primary drivers were growing 9(d) higher education obligations, Virginia Public School Authority obligations, long-term lease liabilities, and obligations of HRTAC. Other debt not supported by taxes that carry either a moral obligation pledge or contingent liability pledge totaled $3.9 billion as of June 30, 2023, and these obligations decreased by $173.6 million over the last ten years, or (-4.3%). These moral obligation and contingent liability obligations could potentially be considered as tax-supported within the DCAC model in the event the underlying support of the Commonwealth were ever utilized to pay the debt service on these bonds. Further discussion on these liabilities, including sensitivity analysis regarding their potential impact on debt capacity, can be found on pages A-16 through A-18 of the attached Appendices.

Total Debt of The Commonwealth

As of June 30, 2023, Virginia's total debt outstanding was $55.3 billion, which represented an increase of $17.9 billion over the last ten years, or 47.7%. Virginia's total debt consisted of $22.6 billion in tax-supported debt and $32.7 billion of debt not supported by taxes. Virginia's total debt burden, broken out by tax-supported debt and debt not supported by taxes, is illustrated below.

Total Debt of the Commonwealth
Fiscal Years 2014-2023



Review of State Credit Ratings

Credit ratings are the rating agencies' assessment of a governmental entity's ability and willingness to repay debt on a timely basis going forward. Credit ratings are an important factor in the public debt markets and generally influence the interest rates a borrower must pay. The Commonwealth is rated Aaa/Stable (Moody's), AAA/Stable (S&P), and AAA/Stable (Fitch).

Ratings on the Commonwealth's appropriation-supported programs are "one notch" below the GO ratings: Aa1 (Moody's), AA+ (S&P) and AA+ (Fitch). The appropriation-supported bonds carry the same outlooks as the GO ratings.

As noted earlier in the report, Virginia ended fiscal year 2023 with another large surplus, increasing reserve fund balances to over $3.8 billion, with projected reserve fund balances of nearly $4.6 billion by fiscal year-end 2024. Rating reports note Virginia's ability to maintain a balanced budget despite increased spending and tax cuts in the fiscal year 2023-2024 biennial budget, evidencing Virginia's strong budgetary flexibility. While Virginia has seen substantial growth in revenues in recent years (adjusted for tax policy changes) and has bolstered reserve fund balances, rating agencies also note that Virginia is highly reliant on both individual income taxes and sales taxes, which together make up approximately 85% of the general fund revenues. Both of these tax sources are economically sensitive, and Virginia's high dependence on them can result in increased revenue volatility during times of economic downturn. Each of the rating agencies has continued to note Virginia's strong liquidity and the development of budget plans that not only use recent surpluses to finance additional spending in areas of critical need, but also provide flexibility to reduce or delay tax cuts in the event revenues do not meet certain targets. The rating agencies also note Virginia's minimal carrying costs for debt service and retirement liabilities, which allow the Commonwealth increased flexibility to adjust expenditures to meet changing fiscal circumstances. Overall, Virginia's long-term debt burden is considered low and manageable by the rating agencies. Virginia's focus on developing structurally balanced budgets and the efforts to bolster reserve funds in recent years are seen as solid steps that have prepared the Commonwealth for any economic downturns that may arise in the future. Virginia's Constitution provides limitations on the use of the Revenue Stabilization Fund and requires its replenishment, which are factors that the rating agencies note as positives for Virginia's credit. Rating agencies also note the General Assembly's ability to raise taxes and the Governor's ability to implement budget cuts as additional flexibilities that allow for revenue generation and expense cutting in times of need.

Virginia's economy is significantly influenced by the federal government through both direct employment and contract spending. This relationship can have a positive impact on Virginia's revenues, as was the case during the pandemic, as the impacts to Virginia were less severe than in most states. However, that relationship also places Virginia at risk whenever potential federal government shutdowns or downsizing loom and typically causes economic recovery in Virginia to lag that of that nation. Other credit challenges noted in ratings reports relate to the general issue of controlling growing spending needs in the education and transportation sectors, planning for an aging population and related population declines in rural areas, managing Medicaid costs, and combatting climate change and sea level rise. Except for the concentration of federal government

related employment, many of these challenges span the municipal sector and are not unique to Virginia. However, Federal Aid and Infrastructure Act funding received by the Commonwealth during the pandemic helped to address many of these areas of concern.

While Virginia finished fiscal year 2023 with another large surplus and record reserve funds, it will remain important for Virginia to continue to be conservative with its fiscal management going forward. Virginia must remain cautious with its future budgets and revenue projections, as the potential for a recession appears to be growing given recent economic trends. Rating agencies continue to note that should the Commonwealth resort to structurally unbalanced budgeting practices during a recessionary period, where one-time revenues are utilized to fund ongoing expenses or reserve fund balances are substantially depleted, an action to lower the Commonwealth's rating could be considered.

It is conservative financial management that resulted in the award of Virginia's triple-AAA bond ratings and it is those bond ratings that result in Virginia's low cost of borrowing that helps create budget flexibilities. A loss of even one AAA rating would prove costly not only to Virginia's reputation, but it would also result in higher debt service costs and reduced budget flexibility.

Review of Comparative Ratios

Moody's Investors Service has compiled NTSD data for US states for more than 30 years. Moody's defines NTSD as debt secured by statewide taxes and other governmental revenue, net of obligations that are paid with revenue other than taxes and other governmental revenue, and that is accounted for in non-governmental activities (such as utility or higher education funds). Each year, Moody's releases a comparative NTSD ratios report for the prior fiscal year, its ***State Debt Medians Report*** (Moody's Medians). The ***State Debt Medians 2023 Report*** was published on September 6, 2023 and includes data as of each state's 2022 fiscal year end. This was a change beginning with the 2022 Moody's Medians report. Prior versions of the report included data as of the most recent calendar year end. In addition, Moody's made revisions beginning with the 2022 Moody's Medians report as to how NTSD was calculated to include unamortized bond premiums/discounts and accreted interest. As a result of these changes, Moody's revised its fiscal year end 2020 NTSD numbers, resulting in a substantial 15% increase in NTSD compared to what was previously reported for fiscal year end 2020. The 2023 Moody's Medians report has been reviewed and certain data and analytical opinions from the 2023 Moody's Medians report are incorporated herein.

The 2022 Moody's Medians report projected state debt issuances to be muted in fiscal year 2022 due to rising interest rates and many states cash financing capital needs with federal stimulus money received during the Covid 19 pandemic. As projected, the 2023 Moody's Medians report notes that total NTSD amongst the states increased by only 0.6% in fiscal year 2022, while average own-source revenues increased by more than 11% over this same period. Nineteen states saw their NTSD decline in fiscal year 2022. Moody's also noted that many states are well positioned fiscally to weather potential economic downturns that may be looming, particularly the higher rated state

credits. However, Moody's also noted that capital asset depreciation ratios indicate that some states which have delayed infrastructure investment in recent years may face increased demand for investment in buildings, roads, and other infrastructure in coming years, which could result in higher state debt issuance in the near future.

The 2022 Moody's Medians report projected that adjusted net pension liabilities ("ANPLs") would decline sharply in fiscal year 2022 as a result of significant Federal stimulus inflows and rising interest rates and investment returns. Once again, these projections proved accurate, as the 2023 Moody's Medians report noted total ANPLs amongst the states declined 11.6% in fiscal year 2022. Overall, the combined decrease in ANPLs and low increase in NTSD resulted in total state sector long-term liabilities declining by 9.1% in fiscal year 2022. Moody's projects ANPLs to continue to decline in fiscal year 2023 due to elevated investment returns in the current rate environments. Moody's noted that many states have increased their capacity for future debt issuances through recent cash financing of projects, the build-up of reserves, and record investment revenues, but new debt issuances in the near-term are still expected to be muted relative to historical levels.

Moody's reported that the fiscal year 2022 median nationwide NTSD per capita was $1,178, a decrease of $1 compared to the prior fiscal year, essentially unchanged. For triple-AAA rated states, the median in fiscal year 2022 was $700, a decrease of 7.4% compared to the prior fiscal year. These declines were driven by many states' use of operating surpluses to cash finance capital needs. Moody's reported Virginia's NTSD per capita as $2,047 in the 2023 report, up from $1,823 in the 2022 report. Virginia increased two spots to the 14th highest debt per capita from 16th in the previous report. However, it should be noted that while Virginia issued nearly $1.3 billion and $1.1 billion of tax-supported debt in fiscal years 2022 and 2023, respectively, these issuances were primarily the result of prior debt authorizations that had not yet been issued. The Commonwealth's fiscal year 2022 and 2023 tax-supported debt authorizations were less than $500 million and $22 million, respectively.

Moody's reported that median nationwide NTSD as a percentage of personal income for fiscal year 2022 increased to 2.2% from 2.1% in fiscal year 2021. Over the last ten years, this metric has seen a steady decline nationwide, reflecting states' more restrained approaches to debt issuance over the last decade, with the sharp increases in fiscal years 2021 and 2022 due mostly to a change in calculation methods by Moody's. However, Virginia has seen this metric remain flat and/or increase over the same period. Virginia's NTSD as a percentage of personal income increased in fiscal year 2022 to 3.0% from 2.8% the prior year. In addition, Virginia's ranking for this metric increased one spot to 18th highest from 19th highest the previous year. For triple-AAA rated states both the median and average remained flat at 1.2% and 2.0%, respectively, in fiscal year 2022 relative to fiscal year 2021.

The table and charts on the following two pages illustrate how Virginia compares to the 14 other triple-AAA states based on NTSD per capita and NTSD as a percentage of personal income. It is worth noting that on December 1, 2023, Moody's upgraded Ohio from Aa1 to Aaa, and on December 8, 2023, S&P also upgraded Ohio to AAA from AA+. These upgrades made Ohio a triple-AAA rated state and brought the total number of triple-AAA rated states nationwide to 15.

REPORT OF THE DEBT CAPACITY ADVISORY COMMITTEE
December 21, 2023

AAA/Aaa/AAA STATE DEBT BURDENS FROM 2013-2022
PROVIDED BY MOODY'S INVESTORS SERVICE

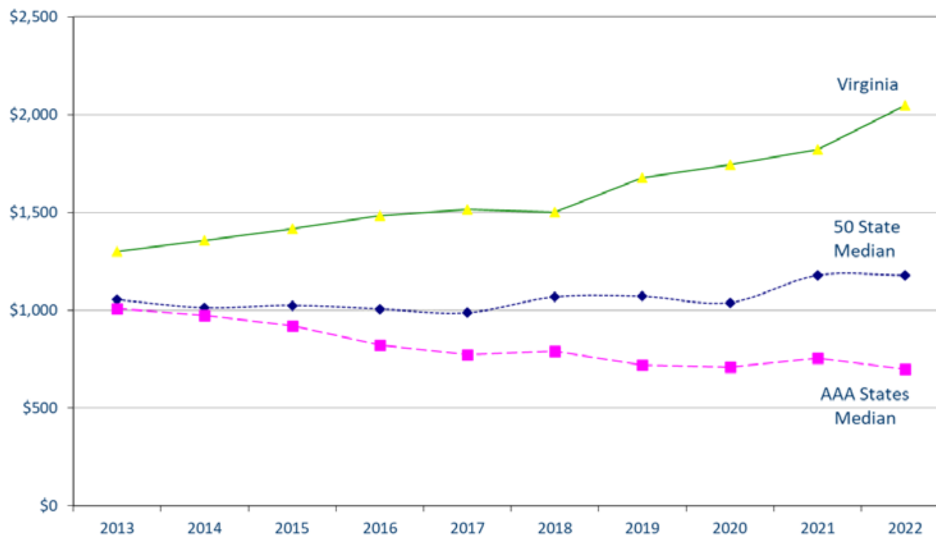
Net Tax-Supported Debt per Capita

	2022 Ranking	2022	2021 [1]	2020	2019	2018	2017	2016	2015	2014	2013
Delaware	5	$4,266	$4,143	$3,400	$3,289	$3,206	$2,587	$2,544	$2,385	$2,438	$2,485
Maryland	8	3,147	2,818	2,410	2,323	2,343	2,164	2,122	1,928	1,889	1,791
VIRGINIA	**14**	**2,047**	**1,823**	**1,746**	**1,677**	**1,502**	**1,515**	**1,486**	**1,418**	**1,356**	**1,302**
Ohio	19	1,642	1,718 *	1,146 *	1,158 *	1,156 *	1,118 *	1,087 *	1,091 *	1,109 *	1,087 *
Minnesota	20	1,638	1,462	1,400 *	1,406 *	1,415 *	1,430 *	1,480 *	1,527 *	1,538 *	1,402 *
Georgia	28	1,144	1,087	987	971	996	986	992	1,029	1,043	1,064
Utah	31	827	899	866	720	792	772	824	921	1,060	1,187
North Carolina	34	700	686	581	586	531	611	659	721	739	806
Texas *	35	680	682	365	379	389	410	383	383	406	614 *
Florida *	36	661	756	710	780	812 *	889 *	961 *	1,038 *	973 *	1,008 *
South Dakota *	39	444	561	482	493	618	694	641 *	652 *	547 *	391 *
Iowa	42	392	408	157	150	207	219	228	239	250	275
Missouri	43	378	398	413	464	487	532	579	574	606	668
Indiana *	44	366	217	233	251	270	295	310	463 *	474 *	533 *
Tennessee*	47	294	285	266	292	305	312	322	298 *	327 *	324 *
Median All States		1,178	1,179	1,039	1,071	1,068	987	1,006	1,025	1,012	1,054
AAA Median		700	756	710	720	792	772	824	921	973	1,008
AAA Average		1,242	1,196	1,011	996	1,002	969	975	978	984	996

** State was not triple triple A during entire 2013-2022 period.*

[1] Beginning in 2021 Moody's revised calculation to be based on fiscal year-end. Prior years were based on calendar year-end.

Net Tax-Supported Debt Per Capita
Virginia Versus Moody's U.S. 50-State Median and other AAA States
2013 – 2022



REPORT OF THE DEBT CAPACITY ADVISORY COMMITTEE
December 21, 2023

AAA/Aaa/AAA STATE DEBT BURDENS FROM 2013-2022
PROVIDED BY MOODY'S INVESTORS SERVICE

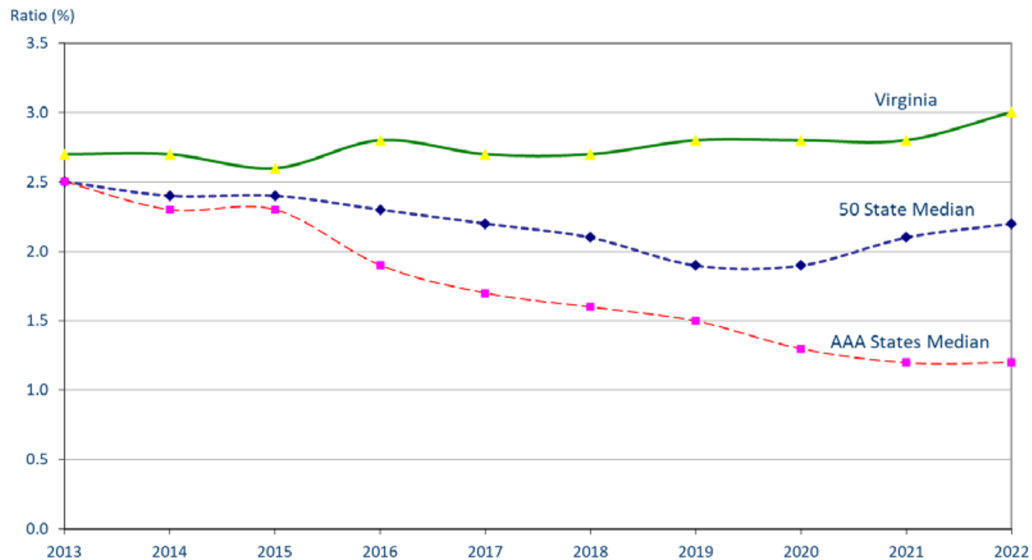
Net Tax-Supported Debt as Percent of Personal Income

	2022 Ranking	2022	2021 [1]	2020	2019	2018	2017	2016	2015	2014	2013
Delaware	4	6.9 %	7.0 %	6.0 %	6.0 %	6.1 %	6.1 %	6.3 %	6.2 %	6.6 %	5.6 %
Maryland	10	4.4	4.1	3.5	3.6	3.7	3.6	3.5	3.4	3.5	3.4
VIRGINIA	**18**	**3.0**	**2.8**	**2.8**	**2.8**	**2.7**	**2.7**	**2.8**	**2.6**	**2.7**	**2.7**
Ohio	19	2.8	3.0 *	2.1 *	2.3 *	2.5 *	2.5 *	2.5 *	2.6 *	2.7 *	2.7 *
Minnesota	24	2.4	2.2	2.3 *	2.4 *	2.5 *	2.6 *	2.8 *	2.9 *	3.1 *	2.9 *
Georgia	26	2.0	2.0	1.9	2.0	2.1	2.2	2.3	2.5	2.6	2.8
Utah	31	1.4	1.6	1.7	1.5	1.7	1.7	1.9	2.3	2.8	3.2
North Carolina	32	1.2	1.2	1.2	1.2	1.1	1.4	1.5	1.7	1.8	2.1
Texas *	34	1.1	1.1	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.4 *
Florida *	38	1.0	1.2	1.3	1.5	1.6 *	1.8 *	2.1 *	2.3 *	2.3 *	2.5 *
South Dakota *	41	0.8	0.9	0.8	0.9	0.9	1.1	1.0 *	1.1 *	0.9 *	0.9 *
Missouri	42	0.7	0.7	0.8	1.0	1.0	1.2	1.3	1.4	1.5	1.7
Iowa	43	0.7	0.7	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6
Indiana*	46	0.6	0.4	0.5	0.5	0.6	0.6	0.7	0.8 *	0.8 *	1.3 *
Tennessee*	47	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.7 *	0.8 *	0.8 *
Median All States		2.2 %	2.1 %	1.9 %	1.9 %	2.1 %	2.2 %	2.3 %	2.4 %	2.4 %	2.5 %
AAA Median		1.2	1.2	1.3	1.5	1.6	1.7	1.9	2.3	2.3	2.5
AAA Average		2.0	2.0	1.8	1.8	1.9	2.0	2.0	2.1	2.2	2.3

** State was not triple triple A during entire 2013-2022 period.*

[1] Beginning in 2021 Moody's revised calculation to be based on fiscal year-end. Prior years were based on calendar year-end.

Net Tax-Supported Debt as Percentage of Personal Income
Virginia Versus Moody's U.S. 50-State Median and other AAA States
2013 - 2022



While these rankings are useful for comparison purposes, it is important to note that many other factors contribute to a state's overall credit rating. For example, while ratios for Delaware appear high compared to other triple-AAA states, a statutory requirement for a short amortization of debt mitigates the effect of the higher debt levels.

In terms of total NTSD, California remains at the top of the list with $96.0 billion outstanding, followed by New York with $69.6 billion. Nebraska replaced Wyoming at the bottom of the list with total NTSD of only $78.0 million. Virginia's NTSD increased by approximately $2.0 billion from $15.8 billion to $17.8 billion outstanding. Virginia ranked as the 12th highest amongst all states in total NTSD, a rise from the 13th spot in the prior year. However, it is important to note that Virginia has the 5th lowest capital asset depreciation ratio in the nation at 40%, meaning Virginia's future capital asset needs are lower than those 45 other states, reflecting Virginia's substantial commitment to financing its capital and infrastructure needs during recent periods of historically low interest rates.

Summary

Virginia ended fiscal year 2023 in yet another historically strong fiscal position with reserve funds at all-time highs and revenue growth that continued to outpace budget expectations. However, as the Commonwealth moves into the next budget cycle, there are still a number of local, national, and global potential risk factors that could lead to an economic recession. While it remains to be seen whether or not a recession becomes reality, it is as important as ever that Virginia continue to exercise fiscal prudence in its capital planning. Current economic expectations are that interest rates will remain flat or potentially even decline through fiscal year 2024, but there is still much uncertainty within the markets. Just how long rates will remain at their current levels and whether or not these elevated rates will continue to temper inflationary pressures remains to be seen.

Despite the recent rate increases from the Fed, it is important to note that four quarters of historically low interest rates are still being incorporated into the model, resulting in a DCAC Model interest rate that lags current market rates. As a result, Treasury staff consulted with financial advisors and the Office of the Secretary of Finance to determine a more appropriate interest rate to be used to model the Commonwealth's debt capacity for the next biennium. As a result, the Committee has utilized a Recommended Modified Model Rate of 4.75% to model future tax-supported debt issuances that better represents the interest rates at which the Commonwealth anticipates issuing its future tax-supported debt.

Despite substantial tax policy changes in fiscal year 2023 that reduced recurring general fund revenues, the Commonwealth's debt capacity increased from $970.26 million in fiscal year 2022 to $1.08 billion in fiscal year 2023. The increase in capacity is a result of historically low authorizations of new tax-supported debt over the last three fiscal years combined with stronger growth projections for many of the Commonwealth's revenue categories in the longer range of the forecast. Rating agencies will continue to monitor the Commonwealth's budget process to confirm a structurally balanced budget is adopted and that a reliance on reserves is not needed to cover any potential unexpected future revenue shortfalls.

Appendix A

Debt Capacity Calculation, Sensitivity Analysis and Moral Obligation Update

December 21, 2023

Debt Capacity Model – An Explanation of Model and Assumptions

Virginia's Debt Capacity Measure:

- Calculation:
  - Tax-Supported Debt Service ≤ 5% of Blended Revenues.
- Recommendation:
  - Expressed in terms of a ten-year average.

Model Characteristics:

- Covers a 10-year issuance period.
- Incorporates currently authorized but unissued debt.
- Uses Blended Revenues from December Official Forecast.

Model Assumptions:

- Term and structure:
  - 20-year bonds with level debt service payments.
  - Interest rate based on the average of the last twelve quarters of the Bond Buyer 11 Bond Index for GO debt (2.80%) plus 25 basis points for 9(d) debt (3.05%).
  - Given the low rate noted above, the 2023 Model was modified to utilize a 4.75% rate for appropriation supported long-term debt.

Model Includes:

- Blended Revenues from Official Forecast:
  - General fund revenues, certain recurring non-general fund transfers including ABC profits, state revenues in the Transportation Trust Fund, and Virginia Healthcare Fund revenues.
- Actual and Projected Debt Service:
  - Actual debt service on all issued tax-supported debt, including long-term leases and installment purchases.
  - Debt service on authorized but unissued tax-supported debt.
    - Level debt service payments (except 9(b) General Obligation debt).
    - 9(b) General Obligation debt is amortized on a level principal basis.
    - VCBA Equipment Notes amortized over 7-year term.
    - CTB Bonds amortized over 25-year term.

Outstanding Tax-supported Debt as Determined by the DCAC includes:

- General obligation bonds (Section 9(a) and 9(b)). Self-supporting 9(c) projects are not included.
- Obligations issued by the Commonwealth Transportation Board or Virginia Port Authority that are secured by the Transportation Trust Fund.
- Obligations issued by the Virginia Public Building Authority and the Virginia College Building Authority secured, in whole or in part, by general fund appropriations.
- Long-Term lease and SBITA liabilities that are paid for directly by the general fund or from general fund appropriations.

- Installment purchases (80% of total of first year amounts in Commonwealth ACFR for both primary government and component units).
- Obligations for which the debt service is derived from payments received from the Commonwealth on a long-term lease.
- That portion of outstanding moral obligation debt for which the underlying debt service reserve fund has been utilized to pay all or a portion of debt service, and for which the General Assembly has appropriated funds to replenish all or a portion of such debt service reserve.

Authorized but Unissued Tax-supported Debt Included in the DCAC Model:

- Must be authorized by an Act of the General Assembly with no contingency for subsequent General Assembly approval.

Moral Obligation Debt:

- In the event a moral obligation issuer has experienced an event of default on an underlying revenue stream and been forced to draw on the debt service reserve fund to pay debt service, the Committee shall immediately meet and review the circumstances surrounding such event and report its findings to the Governor and the General Assembly.
- In the event this section is invoked, the Committee's Report to the Governor and General Assembly shall include a Model scenario showing annual debt capacity including that portion of the moral obligation debt.
- Inclusion of the moral obligation debt in the Model is in no way intended to bind the Governor or General Assembly to make future appropriations to replenish future draws on the debt service reserve fund(s).
- The subject debt will be removed from the Model once the General Assembly has not appropriated funds to replenish the debt service reserve fund(s).

Currently Authorized Tax-Supported Debt Issuance Assumptions
December 21, 2023
(Dollars in Millions)

	9(b)	VPBA	VCBA 21st Century Equipment	VCBA 21st Century Projects	CPR Transportation	NVTD Transportation	Route 58 Transportation	VPA	Total
Authorized & Unissued as of June 30, 2023	$ -	$1,403.7	$ 91.7	$ 1,010.0	$ 146.6	$ 24.7	$ 226.4	$ -	$ 2,903.1
Issued Jul 1 - Dec 31, 2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Assumed Issued:									
FY 2024	$ -	$ 250.0	$ 91.65	$ 600.0	$ -	$ -	$ -	$ -	$ 941.7
FY 2025	$ -	$ 400.0	$ -	$ 410.0	$ 146.6	$ -	$ 152.2	$ -	$ 1,108.8
FY 2026	$ -	$ 400.0	$ -	$ -	$ -	$ -	$ 74.2	$ -	$ 474.2
FY 2027	$ -	$ 353.7	$ -	$ -	$ -	$ -	$ -	$ -	$ 353.7
FY 2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FY 2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FY 2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FY 2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FY 2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FY 2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Planned	$ -	$1,403.7	$ 91.7	$ 1,010.0	$ 146.6	$ -	$ 226.4	$ -	$ 2,878.4
Subtotal Issued & Planned	$ -	$1,403.7	$ 91.7	$ 1,010.0	$ 146.6	$ -	$ 226.4	$ -	$ 2,878.4
Authorized Debt Assumed Unissued[1]	$ -	$ -	$ -	$ -	$ -	$ 24.7	$ -	$ -	$ 24.7

[(1)] NVTD authorized debt is assumed not to be issued.

* 9(c) Debt is not included in the table above since it is excluded from the Model.

Debt Capacity Model – An Explanation of Solution Pages

Column Descriptions:

(1) Blended Revenues include all general fund, certain recurring non-general fund transfers including ABC profits, state tax revenues in the Transportation Trust Fund, and Virginia Healthcare Fund revenues.

(2) Base Capacity to Pay Debt Service is calculated as 5% of Blended Revenues.
(Column 2 = Column 1 x .05)

(3) Annual Payments for Debt Service on Debt Issued is actual debt service on all tax-supported debt outstanding at the end of the most recent fiscal year (6/30/2023), excluding (i) 9(c) debt and (ii) the non-general fund portion of debt service paid on certain VCBA bonds.

(4) Actual Outstanding Debt Service as a % of Revenues is the percentage of Blended Revenues required for payments on currently issued tax-supported debt included in the model.
(Column 4 = Column 3 ÷ Column 1)

(5) Annual Payments for Debt Service on All Planned Debt Issuances is the estimated amount of debt service for currently authorized and unissued tax-supported debt to be issued within the ten-year period.

(6) Actual and Planned Debt Service as a % of Revenues is the sum of Annual Payments for Debt Service on Debt Issued and Annual Payments for Debt Service on All Planned Debt Issuances as a percentage of Blended Revenues.
(Column 6 = (Column 3 + Column 5) ÷ Column 1)

(7) Net Capacity to Pay Debt Service is the capacity that remains to pay any additional debt service related to subsequent authorized and issued debt and is the Base Capacity to Pay Debt Service less Annual Payments for Debt Service on Debt Issued and less Annual Payments for Debt Service on All Planned Debt Issuances.
(Column 7 = Column 2 – Column 3 – Column 5)

(8) Amount of Additional Debt that May Be Issued is the amount of additional tax-supported debt (above and beyond that which is currently authorized but unissued) that may be issued in any given year without exceeding the Base Capacity to pay debt service.

(9) Debt Service on the Amount of Additional Debt that May Be Issued is the estimated amount of debt service for the Amount of Additional Debt that May be Issued, given the amount is authorized and issued.

(10) Remaining Capacity to Pay Debt Service is the residual amount derived from the Net Capacity to Pay Debt Service less Debt Service on the Amount of Additional Debt that May be Issued.
(Column 10 = Column 7 – Column 9)

(11) Total Debt Service as a % of Revenues is the percentage of Blended Revenues used for the sum of Annual Payments for Debt Service on Debt Issued, Annual Payments for Debt Service on All Planned Debt Issuances and Debt Service on Amount of Additional Debt that May be Issued.
(Column 11 = (Column 3 + Column 5 + Column 9) ÷ Column 1)

Standard Base Model Solution:

- Model solves for the additional annual capacity above and beyond amounts already authorized and assumed issued over the next ten fiscal years at the base capacity to pay debt service (5%), while maintaining two additional years of capacity at the end of the ten-year period.
- This solution results in an average annual capacity of $1.29 billion.

Recommended Modified Model Rate Solution:

- Model solves for the additional annual capacity above and beyond amounts already authorized and assumed issued over the next ten fiscal years at the base capacity to pay debt service (5%), while maintaining two additional years of capacity at the end of the ten-year period.
- Replaces the base model interest rate of 3.05% with a rate of 4.75%. This Recommended Modified Model Rate is based on current market rates and economic expectation, as well as consultation with the Commonwealth's financial advisors and the Office of the Secretary of Finance, and is recommended to better model the rates at which future tax-supported debt issuances are anticipated to occur.
- This solution results in an average annual capacity of $1.08 billion.
- Accordingly, the Committee finds the additional tax supported debt that may prudently be authorized in each of fiscal years 2024 and 2025 is $1.08 billion.

DEBT CAPACITY MODEL

(Dollars in Millions)

December 21, 2023

Base Model Solution

Debt Capacity Maximum Ratio

Debt Service as a % of Revenue = 5.0%

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Fiscal Year	Blended Revenues	Base Capacity to Pay Debt Service	Annual Payments for Debt Service on Debt Issued	Actual Outstanding Debt Service as a % of Revenues	Annual Payments for Debt Service on All Planned Debt Issuances	Actual & Projected Debt Service as a % of Revenues	Net Capacity to Pay Debt Service	Amount of Additional Debt that may Be Issued	Debt Service on Amount of Additional Debt that may Be Issued	Remaining Capacity to Pay Debt Service	Total Debt Service as a % of Revenues
2014	18,502.80	925.14	835.53	4.52%	N/A	4.52%	89.61	**N/A**	N/A	89.61	4.52%
2015	20,040.70	1,002.04	897.38	4.48%	N/A	4.48%	104.65	**N/A**	N/A	104.65	4.48%
2016	20,382.70	1,019.14	904.30	4.44%	N/A	4.44%	114.83	**N/A**	N/A	114.83	4.44%
2017	21,162.90	1,058.15	988.33	4.67%	N/A	4.67%	69.82	**N/A**	N/A	69.82	4.67%
2018	22,351.70	1,117.59	957.97	4.29%	N/A	4.29%	159.62	**N/A**	N/A	159.62	4.29%
2019	23,858.40	1,192.92	1,008.23	4.23%	N/A	4.23%	184.69	**N/A**	N/A	184.69	4.23%
2020	24,308.76	1,215.44	1,037.16	4.27%	N/A	4.27%	178.28	**N/A**	N/A	178.28	4.27%
2021	28,136.78	1,406.84	1,043.55	3.71%	N/A	3.71%	363.29	**N/A**	N/A	363.29	3.71%
2022	32,588.24	1,629.41	1,101.44	3.38%	N/A	3.38%	527.98	**N/A**	N/A	527.98	3.38%
2023	32,091.45	1,604.57	1,184.01	3.69%	N/A	3.69%	420.56	**N/A**	N/A	420.56	3.69%
2024	30,793.50	1,539.67	1,233.69	4.01%	195.38	4.64%	110.61	**1,662.18**	110.606	0.00	5.00%
2025	33,083.24	1,654.16	1,196.11	3.62%	283.32	4.47%	174.73	**963.60**	174.727	0.00	5.00%
2026	33,994.11	1,699.71	1,155.43	3.40%	341.44	4.40%	202.84	**422.44**	202.837	0.00	5.00%
2027	35,445.02	1,772.25	1,101.21	3.11%	368.06	4.15%	302.98	**1,504.90**	302.977	0.00	5.00%
2028	36,692.18	1,834.61	1,039.02	2.83%	391.60	3.90%	404.00	**1,518.09**	403.995	0.00	5.00%
2029	37,568.01	1,878.40	986.79	2.63%	391.60	3.67%	500.02	**1,442.99**	500.015	0.00	5.00%
2030	38,881.32	1,944.07	926.78	2.38%	391.60	3.39%	625.69	**1,888.62**	625.689	0.00	5.00%
2031	40,214.90	2,010.74	853.17	2.12%	391.60	3.10%	765.98	**2,108.21**	765.976	0.00	5.00%
2032	41,595.57	2,079.78	808.38	1.94%	377.22	2.85%	894.18	**1,356.80**	856.261	37.92	4.91%
2033	43,025.01	2,151.25	746.52	1.74%	377.22	2.61%	1,027.51	**0.00**	856.261	171.25	4.60%

10 Year Average:	$1,286.78	2 Yrs Excess Avg Capacity:	$2,573.56

DEBT CAPACITY MODEL

(Dollars in Millions)

December 21, 2023

Debt Capacity Maximum Ratio

Debt Service as a % of Revenue = 5.0%

Base Model Average Solution

Fiscal Year	[1] Blended Revenues	[2] Base Capacity to Pay Debt Service	[3] Annual Payments for Debt Service on Debt Issued	[4] Actual Outstanding Debt Service as a % of Revenues	[5] Annual Payments for Debt Service on All Planned Debt Issuances	[6] Actual & Projected Debt Service as a % of Revenues	[7] Net Capacity to Pay Debt Service	[8] Amount of Additional Debt that may Be Issued	[9] Debt Service on Amount of Additional Debt that may Be Issued	[10] Remaining Capacity to Pay Debt Service	[11] Total Debt Service as a % of Revenues
2014	18,502.80	925.14	835.53	4.52%	N/A	4.52%	89.61	**N/A**	N/A	89.61	4.52%
2015	20,040.70	1,002.04	897.38	4.48%	N/A	4.48%	104.65	**N/A**	N/A	104.65	4.48%
2016	20,382.70	1,019.14	904.30	4.44%	N/A	4.44%	114.83	**N/A**	N/A	114.83	4.44%
2017	21,162.90	1,058.15	988.33	4.67%	N/A	4.67%	69.82	**N/A**	N/A	69.82	4.67%
2018	22,351.70	1,117.59	957.97	4.29%	N/A	4.29%	159.62	**N/A**	N/A	159.62	4.29%
2019	23,858.40	1,192.92	1,008.23	4.23%	N/A	4.23%	184.69	**N/A**	N/A	184.69	4.23%
2020	24,308.76	1,215.44	1,037.16	4.27%	N/A	4.27%	178.28	**N/A**	N/A	178.28	4.27%
2021	28,136.78	1,406.84	1,043.55	3.71%	N/A	3.71%	363.29	**N/A**	N/A	363.29	3.71%
2022	32,588.24	1,629.41	1,101.44	3.38%	N/A	3.38%	527.98	**N/A**	N/A	527.98	3.38%
2023	32,091.45	1,604.57	1,184.01	3.69%	N/A	3.69%	420.56	**N/A**	N/A	420.56	3.69%
2024	30,793.50	1,539.67	1,233.69	4.01%	195.38	4.64%	110.61	**0.00**	0.000	110.61	4.64%
2025	33,083.24	1,654.16	1,196.11	3.62%	283.32	4.47%	174.73	**1,286.78**	85.626	89.10	4.73%
2026	33,994.11	1,699.71	1,155.43	3.40%	341.44	4.40%	202.84	**1,286.78**	171.252	31.59	4.91%
2027	35,445.02	1,772.25	1,101.21	3.11%	368.06	4.15%	302.98	**1,286.78**	256.878	46.10	4.87%
2028	36,692.18	1,834.61	1,039.02	2.83%	391.60	3.90%	404.00	**1,286.78**	342.504	61.49	4.83%
2029	37,568.01	1,878.40	986.79	2.63%	391.60	3.67%	500.02	**1,286.78**	428.130	71.89	4.81%
2030	38,881.32	1,944.07	926.78	2.38%	391.60	3.39%	625.69	**1,286.78**	513.756	111.94	4.71%
2031	40,214.90	2,010.74	853.17	2.12%	391.60	3.10%	765.98	**1,286.78**	599.382	166.60	4.59%
2032	41,595.57	2,079.78	808.38	1.94%	377.22	2.85%	894.18	**1,286.78**	685.009	209.17	4.50%
2033	43,025.01	2,151.25	746.52	1.74%	377.22	2.61%	1,027.51	**1,286.78**	770.635	256.88	4.40%

10 Year Average: $1,286.78

DEBT CAPACITY MODEL

(Dollars in Millions)

December 21, 2023

Debt Capacity Maximum Ratio

Debt Service as a % of Revenue = 5.0%

Recommended Modified Model Rate (4.75%) Solution

Fiscal Year	[1] Blended Revenues	[2] Base Capacity to Pay Debt Service	[3] Annual Payments for Debt Service on Debt Issued	[4] Actual Outstanding Debt Service as a % of Revenues	[5] Annual Payments for Debt Service on All Planned Debt Issuances	[6] Actual & Projected Debt Service as a % of Revenues	[7] Net Capacity to Pay Debt Service	[8] Amount of Additional Debt that may Be Issued	[9] Debt Service on Amount of Additional Debt that may Be Issued	[10] Remaining Capacity to Pay Debt Service	[11] Total Debt Service as a % of Revenues
2014	18,502.80	925.14	835.53	4.52%	N/A	4.52%	89.61	**N/A**	N/A	89.61	4.52%
2015	20,040.70	1,002.04	897.38	4.48%	N/A	4.48%	104.65	**N/A**	N/A	104.65	4.48%
2016	20,382.70	1,019.14	904.30	4.44%	N/A	4.44%	114.83	**N/A**	N/A	114.83	4.44%
2017	21,162.90	1,058.15	988.33	4.67%	N/A	4.67%	69.82	**N/A**	N/A	69.82	4.67%
2018	22,351.70	1,117.59	957.97	4.29%	N/A	4.29%	159.62	**N/A**	N/A	159.62	4.29%
2019	23,858.40	1,192.92	1,008.23	4.23%	N/A	4.23%	184.69	**N/A**	N/A	184.69	4.23%
2020	24,308.76	1,215.44	1,037.16	4.27%	N/A	4.27%	178.28	**N/A**	N/A	178.28	4.27%
2021	28,136.78	1,406.84	1,043.55	3.71%	N/A	3.71%	363.29	**N/A**	N/A	363.29	3.71%
2022	32,588.24	1,629.41	1,101.44	3.38%	N/A	3.38%	527.98	**N/A**	N/A	527.98	3.38%
2023	32,091.45	1,604.57	1,184.01	3.69%	N/A	3.69%	420.56	**N/A**	N/A	420.56	3.69%
2024	30,793.50	1,539.67	1,233.69	4.01%	195.38	4.64%	110.61	**1,440.80**	110.609	0.00	5.00%
2025	33,083.24	1,654.16	1,196.11	3.62%	295.21	4.51%	162.84	**680.28**	162.834	0.00	5.00%
2026	33,994.11	1,699.71	1,155.43	3.40%	362.41	4.47%	181.87	**247.90**	181.865	0.00	5.00%
2027	35,445.02	1,772.25	1,101.21	3.11%	393.12	4.22%	277.92	**1,251.15**	277.916	0.00	5.00%
2028	36,692.18	1,834.61	1,039.02	2.83%	420.27	3.98%	375.32	**1,268.73**	375.315	0.00	5.00%
2029	37,568.01	1,878.40	986.79	2.63%	420.27	3.75%	471.34	**1,250.75**	471.335	0.00	5.00%
2030	38,881.32	1,944.07	926.78	2.38%	420.27	3.46%	597.02	**1,637.06**	597.011	0.00	5.00%
2031	40,214.90	2,010.74	853.17	2.12%	420.27	3.17%	737.30	**1,827.36**	737.296	0.00	5.00%
2032	41,595.57	2,079.78	808.38	1.94%	405.90	2.92%	865.50	**1,238.32**	832.362	33.14	4.92%
2033	43,025.01	2,151.25	746.52	1.74%	405.90	2.68%	998.83	**0.00**	832.362	166.47	4.61%

10 Year Average:	$1,084.24	2 Yrs Excess Avg Capacity:	$2,168.47

DEBT CAPACITY MODEL

(Dollars in Millions)

December 21, 2023

Debt Capacity Maximum Ratio

Debt Service as a % of Revenue = **5.0%** **Recommended Modified Model Rate (4.75%) Average Solution**

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Fiscal Year	**Blended Revenues**	**Base Capacity to Pay Debt Service**	**Annual Payments for Debt Service on Debt Issued**	**Actual Outstanding Debt Service as a % of Revenues**	**Annual Payments for Debt Service on All Planned Debt Issuances**	**Actual & Projected Debt Service as a % of Revenues**	**Net Capacity to Pay Debt Service**	**Amount of Additional Debt that may Be Issued**	**Debt Service on Amount of Additional Debt that may Be Issued**	**Remaining Capacity to Pay Debt Service**	**Total Debt Service as a % of Revenues**
2014	18,502.80	925.14	835.53	4.52%	N/A	4.52%	89.61	**N/A**	N/A	89.61	4.52%
2015	20,040.70	1,002.04	897.38	4.48%	N/A	4.48%	104.65	**N/A**	N/A	104.65	4.48%
2016	20,382.70	1,019.14	904.30	4.44%	N/A	4.44%	114.83	**N/A**	N/A	114.83	4.44%
2017	21,162.90	1,058.15	988.33	4.67%	N/A	4.67%	69.82	**N/A**	N/A	69.82	4.67%
2018	22,351.70	1,117.59	957.97	4.29%	N/A	4.29%	159.62	**N/A**	N/A	159.62	4.29%
2019	23,858.40	1,192.92	1,008.23	4.23%	N/A	4.23%	184.69	**N/A**	N/A	184.69	4.23%
2020	24,308.76	1,215.44	1,037.16	4.27%	N/A	4.27%	178.28	**N/A**	N/A	178.28	4.27%
2021	28,136.78	1,406.84	1,043.55	3.71%	N/A	3.71%	363.29	**N/A**	N/A	363.29	3.71%
2022	32,588.24	1,629.41	1,101.44	3.38%	N/A	3.38%	527.98	**N/A**	N/A	527.98	3.38%
2023	32,091.45	1,604.57	1,184.01	3.69%	N/A	3.69%	420.56	**N/A**	N/A	420.56	3.69%
2024	30,793.50	1,539.67	1,233.69	4.01%	195.38	4.64%	110.61	**0.00**	0.000	110.61	4.64%
2025	33,083.24	1,654.16	1,196.11	3.62%	295.21	4.51%	162.84	**1,084.24**	83.236	79.60	4.76%
2026	33,994.11	1,699.71	1,155.43	3.40%	362.41	4.47%	181.87	**1,084.24**	166.472	15.39	4.95%
2027	35,445.02	1,772.25	1,101.21	3.11%	393.12	4.22%	277.92	**1,084.24**	249.709	28.21	4.92%
2028	36,692.18	1,834.61	1,039.02	2.83%	420.27	3.98%	375.32	**1,084.24**	332.945	42.37	4.88%
2029	37,568.01	1,878.40	986.79	2.63%	420.27	3.75%	471.34	**1,084.24**	416.181	55.16	4.85%
2030	38,881.32	1,944.07	926.78	2.38%	420.27	3.46%	597.02	**1,084.24**	499.417	97.60	4.75%
2031	40,214.90	2,010.74	853.17	2.12%	420.27	3.17%	737.30	**1,084.24**	582.653	154.65	4.62%
2032	41,595.57	2,079.78	808.38	1.94%	405.90	2.92%	865.50	**1,084.24**	665.890	199.61	4.52%
2033	43,025.01	2,151.25	746.52	1.74%	405.90	2.68%	998.83	**1,084.24**	749.126	249.71	4.42%

10 Year Average: $1,084.24

DEBT CAPACITY MODEL REVENUE DATA

December 2023

(Dollars In Millions)

	Fiscal Year	General Fund	Transportation Trust Fund [4]		General Fund Growth		Transportation Trust Fund Growth		Virginia Health Care Fund		Total Blended Revenue [9]	Blended Revenue Growth Rate [10]
2014	Actual 2014	16,949.10 (1)	1,189.00	(1)	-0.94%	(1)	9.73%	(1)	364.70	(1)	18,502.80	-0.66%
2015	Actual 2015	18,369.50 (1)	1,324.50	(1)	8.38%	(1)	11.40%	(1)	346.70	(1)	20,040.70	8.31%
2016	Actual 2016	18,601.70 (1)	1,367.50	(1)	1.26%	(1)	3.25%	(1)	413.50	(1)	20,382.70	1.71%
2017	Actual 2017	19,348.40 (1)	1,431.40	(1)	4.01%	(1)	4.67%	(1)	383.10	(1)	21,162.90	3.83%
2018	Actual 2018	20,509.10 (1)	1,440.60	(1)	6.00%	(1)	0.64%	(1)	402.00	(1)	22,351.70	5.62%
2019	Actual 2019	21,965.50 (1)	1,497.00	(1)	7.10%	(1)	3.92%	(1)	395.90	(1)	23,858.40	6.74%
2020	Actual 2020	22,441.70 (1)	1,532.06	(1)	2.17%	(1)	2.34%	(1)	335.00	(1)	24,308.76	1.89%
2021	Actual 2021	25,637.10 (1)	1,885.78	(1)	14.24%	(1)	23.09%	(1)	613.90	(1)	28,136.78	15.75%
2022	Actual 2022	29,749.30 (1)	2,152.84	(1)	16.04%	(1)	14.16%	(1)	686.10	(1)	32,588.24	15.82%
2023	Actual 2023	28,725.50 (1)	2,658.05	(1)	-3.44%	(1)	23.47%	(1)	707.90	(1)	32,091.45	-1.52%
2024	Forecasted for 2024	27,682.20 (2)	2,673.50	(5)	-3.63%	(2)	0.58%	(5)	437.80	(7)	30,793.50	-4.04%
2025	Forecasted for 2025	29,865.40 (2)	2,777.14	(5)	7.89%	(2)	3.88%	(5)	440.70	(7)	33,083.24	7.44%
2026	Forecasted for 2026	30,719.50 (2)	2,831.81	(5)	2.86%	(2)	1.97%	(5)	442.80	(7)	33,994.11	2.75%
2027	Forecasted for 2027	32,116.60 (2)	2,888.02	(5)	4.55%	(2)	1.98%	(5)	440.40	(7)	35,445.02	4.27%
2028	Forecasted for 2028	33,311.50 (2)	2,942.38	(5)	3.72%	(2)	1.88%	(5)	438.30	(7)	36,692.18	3.52%
2029	Forecasted for 2029	34,133.00 (2)	2,998.51	(5)	2.47%	(2)	1.91%	(5)	436.50	(7)	37,568.01	2.39%
2030	Forecasted for 2030	35,390.10 (2)	3,056.32	(5)	3.68%	(2)	1.93%	(5)	434.90	(7)	38,881.32	3.50%
2031	Forecasted for 2031	36,664.14 (3)	3,117.45	(6)	3.60%	(3)	2.00%	(6)	433.31	(8)	40,214.90	3.43%
2032	Forecasted for 2032	37,984.05 (3)	3,179.80	(6)	3.60%	(3)	2.00%	(6)	431.72	(8)	41,595.57	3.43%
2033	Forecasted for 2033	39,351.48 (3)	3,243.39	(6)	3.60%	(3)	2.00%	(6)	430.13	(8)	43,025.01	3.44%

(1) Department of Taxation and Department of Transportation.
(2) December General Fund Forecast for FY 2024-2030, including A.B.C. Profits, 0.375% sales tax (enacted 2013), and certain recurring Transfers per the Appropriation Act.
(3) Based on flat growth rates of 3.6% for all General Fund Revenue sources, including Sales Tax Transfers, A.B.C. Profits and recurring Transfers per the Appropriation Act, per Department of Taxation.
(4) Does not include Highway Maintenance and Operating Fund, Federal Grants and Contracts or Toll Revenues.
(5) Provided by Department of Tranportation based on December Commonwealth Transportation Fund Forecast for FY 2024-2030.
(6) Based on flat growth rate of 2.0% for years 2031-2033, per Department of Taxation.
(7) December Virginia Health Care Fund Forecast for FY 2024-2030.
(8) Based on final year rate of decline of (-0.37%) for Virginia Health Care Fund Revenues in FY30, per Department of Taxation.
(9) Total Blended Revenue = GF + TTF + Virginia Health Care Fund.
(10) Blended Revenue Growth Rate = (Current FY Total Blended Revenue / Prior FY Total Blended Revenue) - 1.

Debt Capacity Sensitivity Analysis – Recommended Modified Model Rate

2-Year Reserve Excess Capacity Sensitivity

- The Recommended Modified Model Rate solution provides for average debt capacity of $1.08 billion over the model period, with two years of average capacity, beyond the 10-year model period.
    - If the Model solution is altered to reduce the two years of excess capacity to one year of excess capacity, the resulting debt capacity is $1.18 billion.
    - If the Model solution is altered to reduce the two years of excess capacity beyond the model period to no excess capacity, the resulting average debt capacity is $1.30 billion.

Revenue Sensitivity

- If the Recommended Modified Model Rate solution is altered to increase or decrease Blended Revenues, the following incremental average debt capacity changes occur:
    - Assuming a change of $100 million in each and every year, the incremental change is $5.43 million.
    - Assuming a 1% change of revenues in each and every year, the incremental change is $23.35 million.

Interest Rate Sensitivity

- If the Recommend Modified Model Rate solution is altered to change interest rates, the following changes to average debt capacity occur:
    - Add 100 basis points to the recommended model rate, and average capacity decreases by $100.44 million to $983.80 million
    - Subtract 100 basis points from the recommended model rate, and average capacity increases by $113.93 million to $1.20 billion.
- The exhibit on the following page highlights the impacts of various interest rates, ranging from the base model rate of 3.05% to 6.50%, on the Commonwealth's debt capacity. The recommended modified model rate of 4.75% is highlighted in light blue.

DCAC - 2023 Model - Interest Rate Sensitivity Stress Testing

Interest Rate	Annual Capacity Impact to Base Model	Annual Debt Capacity
3.05%	N/A	$ 1,286.78
3.50%	$ (57.77)	$ 1,229.01
4.00%	$ (118.48)	$ 1,168.30
4.50%	$ (175.41)	$ 1,111.37
4.75%	$ (202.54)	$ 1,084.24
5.00%	$ (228.84)	$ 1,057.94
5.50%	$ (279.03)	$ 1,007.75
6.00%	$ (326.21)	$ 960.57
6.50%	$ (370.61)	$ 916.17

Severe Economic Downturn Scenario Analysis

- If the Recommended Modified Model Rate solution is altered to project a severe economic downturn, the resulting debt capacity is $764.8 million, a decline of $319.4 million. This scenario not only assumes the Recommended Modified Model Rate of 4.75%, but also revenue declines in the next two fiscal years based on input from the Commonwealth's financial advisor. The revenues used to model this scenario are presented below along with footnotes containing the assumptions for revenue growth.

DEBT CAPACITY MODEL REVENUE DATA

December 2023

(Dollars In Millions)

Severe Economic Downturn Scenario

	Fiscal Year	General Fund	Transportation Trust Fund (4)	General Fund Growth	Transportation Trust Fund Growth	Virginia Health Care Fund	Total Blended Revenue (8)	Blended Revenue Growth Rate (9)
2024	Forecasted for 2024	27,682.20 (1)	2,673.50 (4)	-3.63% (1)	0.58% (4)	437.80 (6)	30,793.50	-4.04%
2025	Forecasted for 2025	26,190.13 (2)	2,529.39 (2)	-5.39% (2)	-5.39% (2)	414.20 (2)	29,133.73	-5.39%
2026	Forecasted for 2026	27,036.07 (3)	2,579.98 (5)	3.23% (2)	2.00% (5)	412.68 (7)	30,028.74	3.07%
2027	Forecasted for 2027	27,909.34 (3)	2,631.58 (5)	3.23% (2)	2.00% (5)	411.17 (7)	30,952.09	3.07%
2028	Forecasted for 2028	28,810.81 (3)	2,684.21 (5)	3.23% (2)	2.00% (5)	409.66 (7)	31,904.68	3.08%
2029	Forecasted for 2029	29,741.40 (3)	2,737.90 (5)	3.23% (2)	2.00% (5)	408.16 (7)	32,887.46	3.08%
2030	Forecasted for 2030	30,702.04 (3)	2,792.66 (5)	3.23% (2)	2.00% (5)	406.67 (7)	33,901.36	3.08%
2031	Forecasted for 2031	31,693.72 (3)	2,848.51 (5)	3.23% (3)	2.00% (5)	405.17 (7)	34,947.40	3.09%
2032	Forecasted for 2032	32,717.43 (3)	2,905.48 (5)	3.23% (3)	2.00% (5)	403.69 (7)	36,026.59	3.09%
2033	Forecasted for 2033	33,774.20 (3)	2,963.59 (5)	3.23% (3)	2.00% (5)	402.21 (7)	37,140.00	3.09%

(1) December General Fund Forecast for FY 2024, including A.B.C. Profits, 0.375% sales tax (enacted 2013), and certain recurring Transfers per the Appropriation Act.

(2) 5.39% decline is based on average revenue declines during last three recessions (2002, 2009, 2014) from last 20 years of historical blended revenue amounts.

(3) 3.23% is average growth rate from FY24 through FY33 from December General Fund Forecast

(4) Provided by Department of Transportation based on December Commonwealth Transportation Fund Forecast for FY 2024.

(5) 2.00% growth is based on long-term growth rate forecast for CTF/TTF per Department of Taxation

(6) December Virginia Health Care Fund Forecast for FY 2024

(7) Based on final rate of decline of (-0.37%) in FY30 from December forecast per Department of Taxation

(8) Total Blended Revenue = GF + TTF + Virginia Health Care Fund.

(9) Blended Revenue Growth Rate = (Current FY Total Blended Revenue / Prior FY Total Blended Revenue) - 1.

Debt of the Commonwealth
(Dollars in Thousands)

	As of June 30 2023	As of June 30 2022
Tax-Supported Debt		
9(b) General Obligation [1]	$ 173,122	$ 225,600
9(c) General Obligation - Higher Education [2]	940,849	912,817
9(c) General Obligation - Transportation [2]	-	-
9(c) General Obligation - Parking Facilities [2]	4,646	5,664
Commonwealth Transportation Board	2,802,412	2,737,497
Virginia Public Building Authority	3,519,630	3,780,877
Virginia Port Authority	368,903	210,246
Virginia College Building Authority - 21st Century & Equipment	5,636,772	5,389,998
Virginia Biotechnology Research Park Authority	-	-
Long-Term Lease Liabilities [4]	604,124	555,071
Long-Term Subscription-Based Information Technology Arrangements [5]	183,467	
Installment Purchases	313,824	339,548
Virginia Aviation Board	-	-
Economic Development Authority Obligations [3]	-	-
Subtotal Tax Supported Debt	$ 14,547,749	$ 14,157,318
Other Tax-Supported Debt		
Compensated Absences [2]	$ 790,099	$ 713,185
Pension Liability [2]	5,466,431	4,369,154
OPEB Liability[2]	1,777,127	1,913,633
Pollution Remediation Liability [2]	8,171	8,685
Other Liabilities [2]	23,103	28,411
Subtotal Tax Supported Debt Not Included in Capacity Model	$ 8,064,931	$ 7,033,068
Total Tax-Supported Debt	$ 22,612,680	$ 21,190,387

Source: Department of the Treasury and Department of Accounts

[1] Voter approved

[2] Not Included in Debt Capacity Model

[3] Fairfax County Economic Development Authority Joint Venture with VDOT for Camp 30 Project

[4] GASB 87 eliminated Capital Leases beginning FY22. All leases over 12 months now considered Long-Term Lease

[5] GASB 96 provided guidelines on the capitalization and recognition of related liaibilities for subscription based IT assets beginning FY23

Debt of the Commonwealth
(Dollars in Thousands)

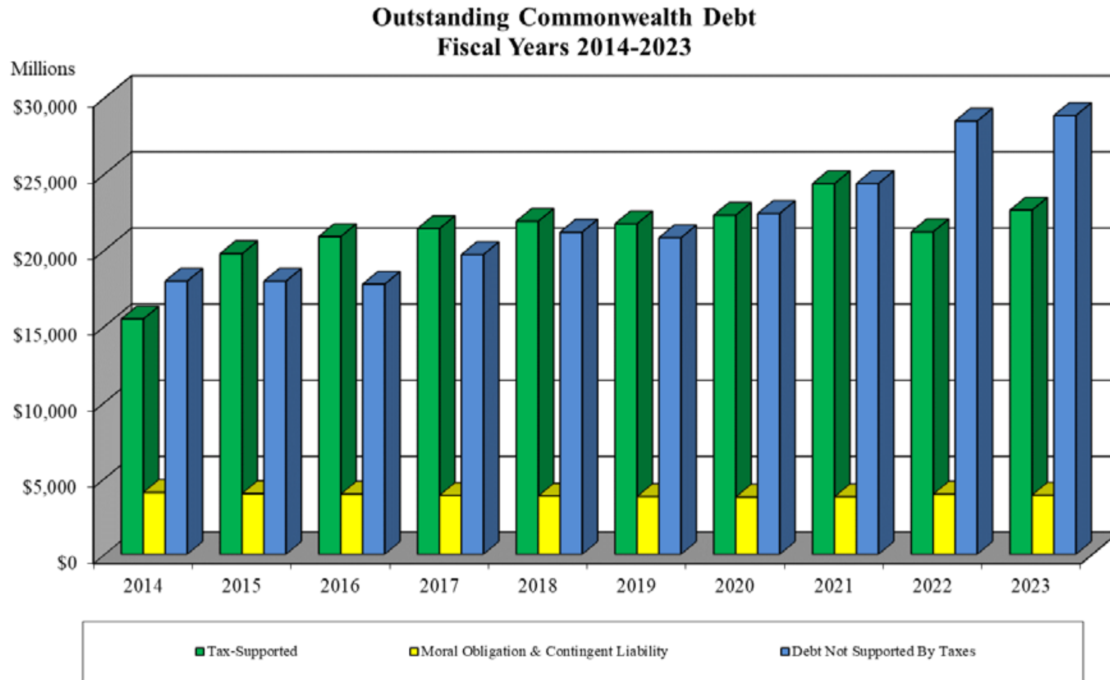
	As of June 30, 2023	As of June 30, 2022
Debt Not Supported by Taxes [1]		
Moral Obligation / Contingent Liability Debt		
Virginia Resources Authority	$ 906,848	$ 929,911
Virginia Housing Development Authority	-	-
Virginia Public School Authority - 1997 Resolution	2,434,235	2,475,290
Virginia Public School Authority - School Tax Credit Bond Program	359,566	359,566
Virginia Public School Authority - Equipment Technology Notes	191,765	188,420
Total Moral Obligation/Contingent Liability Debt	$ 3,892,414	$ 3,953,187
Other Debt Not Supported By Taxes		
9(d) Higher Education	$ 4,425,416	$ 4,449,563
Virginia College Building Authority - Pooled Bond Program	1,467,225	1,403,940
Virginia Public School Authority - Stand Alone Program	1,164,300	1,052,865
Virginia Housing Development Authority	4,763,715	4,679,799
Virginia Port Authority	259,020	266,025
Hampton Roads Sanitation District Commission	979,742	868,472
Hampton Roads Transportation Accountability Commission	2,562,835	2,785,352
Virginia Resources Authority	2,385,656	2,445,127
Grant Anticipation Notes (GARVEES)	873,808	979,791
I-81 Revenue Bonds	100,822	102,401
Notes Payable	322,835	290,091
Other Long-Term Debt	330,713	507,128
Foundations	2,056,375	1,814,098
Pension Liability	162,667	101,268
OPEB Liability	66,771	115,763
Long-Term Lease Liabilities [2]	4,937,423	4,867,967
Long-Term Subscription-Based Information Technology Arrangements [3]	378,728	
Compensated Absences	15,244	13,699
Installment Purchase Obligations	-	572
Tuition Benefits Payable	1,384,699	1,613,747
Lottery Prizes Payable	198,128	112,828
Total Other Debt Not Supported By Taxes	$ 28,836,122	$ 28,470,496
Grand Total of Tax Supported Debt and Debt Not Supported By Taxes	**$ 55,341,216**	**$ 53,614,070**

Source: Department of the Treasury and Department of Accounts

[1] Not Included In Debt Capacity Model

[2] GASB 87 eliminated Capital Leases beginning FY22. All leases over 12 months now considered Long-Term Lease

[3] GASB 96 provided guidelines on the capitalization and recognition of related liaibilities for subscription based IT assets beginning FY23



Moral Obligation and Contingent Liability Debt

Moral Obligation Debt

Moral obligation debt refers to a bond issue structure originally created in the 1960s and utilized primarily by state housing finance agencies or state-administered municipal bond banks as additional credit enhancement for revenue bond issues. A government's moral obligation pledge provides a deficiency make-up for bondholders should underlying project revenues prove insufficient. The mechanics involve funding a debt service reserve fund when the bonds are issued. If a revenue deficiency exists, reserve fund monies are used to pay bondholders. The issuer then informs the legislative body and requests that it replenish the reserve fund before subsequent debt service is due. The legislative body "may", but is not legally required to, replenish the reserve fund. Rating agencies do not include moral obligation debt in tax-supported debt ratios as long as these bonds are self-supporting.

The Virginia Resources Authority ("VRA") is the Commonwealth's only current moral obligation debt issuer. The VRA issues moral obligation bonds under its financing programs to provide low-cost financing to localities for water, wastewater, public safety, transportation, and other General Assembly authorized project categories. Due to increased demand for VRA's financing programs, the 2009 General Assembly approved an increase to VRA's moral obligation debt limit from $900 million to $1.5 billion.

Below are the statutory caps and outstanding amounts (in thousands):

Issuer	Statutory Cap	Outstanding at June 30, 2023	Available Authorization
Virginia Resources Authority	$1,500,000	$906,848	$593,152
Virginia Housing Development Authority	$1,500,000	$0	$1,500,000
Virginia Public School Authority	$800,000	$0	$800,000
Total	$3,800,000	$906,848	$2,893,152

Alternative financing programs were initiated by the Virginia Housing Development Authority and the Virginia Public School Authority. Neither of these entities expect to issue additional moral obligation debt.

Moral Obligation Debt Sensitivity

A sensitivity analysis was completed for moral obligation debt. The analysis demonstrates the impact on tax-supported debt capacity as a result of the conversion of moral obligation debt to tax-supported debt. The sensitivity analysis is prepared using a worst-case scenario and shows the impact of the conversion of all moral obligation debt. However, conversion would only occur if the General Assembly appropriated funds to replenish a debt service reserve fund shortfall upon the request by a moral obligation issuer. Further, if any such debt were ever converted, it would be only the amount necessary to cure the default of an underlying revenue stream (e.g., a locality participating in a pooled bond issue).

If the Recommended Modified Model Rate solution is altered to assume the conversion of all outstanding moral obligation debt as of June 30, 2023 to tax-supported debt, the resulting average debt capacity is $1.01 billion, a decrease of $75.58 million.

Contingent or Limited Liability Debt

The Virginia Public School Authority ("VPSA") is the only issuer of non-tax-supported debt that utilizes a sum-sufficient appropriation ("SSA") as an additional credit enhancement. SSA debt represents a contingent liability for the Commonwealth. The VPSA had $2.4 billion of 1997 Resolution bonds outstanding as of June 30, 2023 and an additional $359.6 million of School Tax Credit bonds outstanding. Both VPSA programs receive authorization to issue bonds with a SSA credit enhancement from the Code of Virginia, §22.1-167.2.

The use of SSA credit enhancement for VPSA's issuance of bonds or notes for the purpose of making grants to local school boards was codified during the 2001 General Assembly session (§22.1-167.3, Code of Virginia). As of June 30, 2023, outstanding notes for school technology and security amounted to $191.8 million.

VPSA's bonds issued through its Stand-Alone Program are secured by the related local government's GO pledge. While these bonds are afforded the security enhancement of VPSA's

ability to intercept state aid to the obligated locality for VPSA's use towards payment of debt service should the locality default on its payment to VPSA, the Stand-Alone Program bonds are not additionally secured by SSA.

Sum-Sufficient Appropriation Sensitivity

A sensitivity analysis was completed for the VPSA's SSA debt. The analysis demonstrates the impact on tax-supported debt capacity as a result of the conversion of all SSA debt to tax-supported debt.

If the Recommended Modified Model Rate solution is altered to assume the conversion of the VPSA's total outstanding debt secured by a sum sufficient appropriation as of June 30, 2023 to tax-supported debt, the resulting average debt capacity is $835.44 million, a decrease of $248.80 million.