



COMMONWEALTH of VIRGINIA

Richard D. Brown
Secretary of Finance

P.O. Box 1475
Richmond, VA 23218

December 18, 2015

The Honorable Terence R. McAuliffe
Governor of Virginia
Patrick Henry Building, 3rd Floor
Richmond, Virginia 23219

The Honorable G. Paul Nardo
Clerk of the House of Delegates
Virginia House of Delegates
State Capitol Building, 3rd Floor
Richmond, Virginia 23219

The Honorable Susan Clarke Schaar
Clerk of the Senate
Senate of Virginia
State Capitol Building, 3rd Floor
Richmond, Virginia 23219

Dear Governor McAuliffe, 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 2015.

Based on the debt capacity model, the Committee estimates that up to \$603 million in additional debt could be authorized and issued in fiscal years 2016 and 2017. This amount will cause projections of debt service as a percent of blended revenues over the ten-year model horizon to exceed five percent in five years and to be below in five years. 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.

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The report provides the Governor and the General Assembly with a basis to assess the impact of 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. Additionally included is information regarding potential fiscal challenges that could impact debt capacity.

Sincerely,



Richard D. Brown, 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 18, 2015

Debt Capacity Advisory Committee Members

The Honorable Richard D. Brown – Chairman
Secretary of Finance

Elizabeth B. Daley
Staff Director, Senate Finance Committee

Manju S. Ganeriwala
State Treasurer

Harold E. Greer
Director, Joint Legislative Audit & Review Commission

Martha S. Mavredes
Auditor of Public Accounts

Ronald L. Tillett
Citizen Member

Daniel S. Timberlake
Director of the Department of Planning & Budget

Robert P. Vaughn
Staff Director, House Appropriations Committee

David A. VonMoll
State Comptroller

Jody M. Wagner
Citizen Member



REPORT OF THE DEBT CAPACITY ADVISORY COMMITTEE

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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 (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 directors of the Senate Finance and House Appropriations Committees, 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: economic vitality and diversity, fiscal performance and flexibility, and administrative capabilities of government. The Commonwealth's triple-A bond rating, which it has held since 1938, facilitates access to the capital markets at the lowest borrowing cost. But the ability to take on additional debt while maintaining the triple-A 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 was five percent - that is, that 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.

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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.

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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 Healthcare 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.

Tax-supported debt obligations in the model include general obligation bonds (excluding those general obligation 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, bonded capital leases paid from a general fund appropriation, and other capital leases and installment purchases.

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. These debt service estimates are based in part on draw schedules compiled by the Department of Planning and Budget or are based on information obtained from agencies on their authorized projects.

Potential Challenges to Fiscal Stability

For six years the U.S. and Virginia economies have remained in a period of recovery. Often, positive economic news in one area of the national economy has been overshadowed by negative news from another economic indicator or downturns in the global economy. Cautious growth on a national level has challenged both federal fiscal policy decision makers in Congress and monetary policy decision makers on the Federal Open Markets Committee (FOMC). The challenges in Washington D.C. have made Virginia's recovery difficult. However, through new private sector investment, continued growth and enhancement of global export relationships, and increased tourism, Virginia has expanded its economy. Despite the recent trends, Virginia will continue to face several significant risks. Hopefully, Virginia's treatment of these risks and state policy makers' decisions on the upcoming biennium budget and debt prioritization and authorization will strengthen Virginia, consistent with a history of prudent and proactive financial management.

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Federal Fiscal Policy

For a third year in a row, the challenge of Federal Fiscal Policy remains Virginia's top concern. While Virginia is not the only state impacted by federal fiscal policy decisions, the Commonwealth's location makes it more vulnerable to certain spending decisions and Congress' inactions. In its June 24, 2015 report, *State Debt Medians 2015*, Moody's Investors Service attributed the overall decline in the level of U.S. States' net tax-supported debt to "uncertainty over federal fiscal policy and health care funding", which the rating agency's analysts believe will result in stable or even declining total U.S. States' debt levels over the current year.

Federal fiscal policy challenges fall into two major categories: the budget debate (i.e., sequestration, debt ceiling, and government shut-down) and tax reform. Sequestration has led to reduced federal aid, and certain states, including Virginia, are more vulnerable to the negative effects of sequestration. In an August 20, 2013 report, Moody's predicted, "States such as Maryland and Virginia, which rely heavily on federal jobs, may see lower sales tax collections as a result of lower federal employee disposable incomes. They are also likely to see accelerating declines in government-related employment as federal spending slows and government contracts decline." As noted in the 2014 DCAC Report, this prediction was correct and was evidenced by the underperformance of withholding taxes in fiscal year 2014. Virginia leaders have worked diligently to encourage business expansion in the Commonwealth and to increase export trade relationships, all of which has helped the economy expand. However, the shift from high wage federal government and government contracting jobs to lower wage employment opportunities has made the Commonwealth's recovery slow and difficult. While Virginia has much to show for its business expansion efforts and a diversified employment base should be viewed as a financial strength, deeper federal cuts or inactions in Washington D.C. on budget and debt items could cause the Commonwealth to unexpectedly experience difficulty. This vulnerability highlights the need for future budget flexibility and tools such as available balances in the Revenue Stabilization Fund.

Current federal policymakers, along with 2016 U.S. Presidential Candidates, continue to discuss a major overhaul of the U.S. tax code. As part of the overhaul, there have been proposals to reduce or even eliminate the tax exemption on municipal bonds. Tax reform discussions have included proposals to establish a 28% limit on the value of deductions and exemptions, and these limits could be applied to existing bonds. The likely outcome would be that the demand for tax-exempt municipal bonds would deteriorate as the benefit for holding those bonds diminishes. Borrowing costs for state and local governments would increase as investors demand higher yields for municipal debt. A higher rate of interest would utilize more debt capacity and create additional strains on the budget. If tax reform is not enacted by Congress and the President in the coming months, the 2016 Presidential Election will need to be closely watched for the potential of additional tax reform measures that may negatively impact Virginia.

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Federal Monetary Policy

Financial market professionals have long anticipated a rise in interest rates. Market anticipation followed by FOMC inaction to effectuate a rise in long-term rates has contributed to municipal bond interest rate volatility over the last couple of years. However, the bond markets have become slightly less volatile over the past year. It is believed that an increase to the federal funds rate has been priced into bond interest rates. The FOMC decided on December 16 to increase the target federal funds rate by 25 basis points. Interest rates initially remained unchanged in the bond markets since that announcement supporting the notion that investors have built in an interest rate risk premium in their recent investment decisions. However, it will be important to monitor the FOMC's rhetoric and plans for future rate increases. Of equal importance, the FOMC and the financial markets will need to monitor how the overall economy is able to absorb increased borrowing costs. With market sentiment and FOMC signaling that interest rates will continue to rise in the coming year, it is important to note that based on current DCAC model conditions, a 1% rise in the model interest rate will cause a decline in capacity of \$60.2 million annually.

Financing Significant Infrastructure Needs

In the American Society of Civil Engineer's *2013 Report Card for America's Infrastructure*, the engineering group estimated that \$3.6 trillion of infrastructure investments are needed through 2020 for America's infrastructure to maintain a state of good repair. Of that amount, the largest need category was identified as surface transportation with an investment price tag of \$1.7 trillion. While these quantified needs are based on a nationwide assessment, Virginia is not excluded from America's growing problem with aging infrastructure and the need for maintenance and investment.

As budgets remain tight, it is difficult for states and local governments to find additional funds necessary to maintain the increasingly deteriorating infrastructure. States are faced with a choice: to pay for costly repairs now, or face even higher replacement costs in the future. However, in a Standard & Poor's Capital IQ report dated October 19, 2015, *U.S. State Debt Levels May Be More Sustainable Than The Condition Of the Nation's Infrastructure*, it was mentioned that states don't have the ability to solve the infrastructure gap through debt financing alone. If states attempted to debt finance their entire portion of this need, it is estimated that aggregate tax-supported debt ratios would be high and that the related debt service "would likely result in negative credit pressures for numerous states". The S&P Capital IQ report also noted, "Given the discordant political environment in Washington D.C., we believe it's unlikely that states can count on receiving the same level of offsetting federal funding support for the debt they issue going forward."

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Given the increasing need for infrastructure repairs and escalating ongoing operation and maintenance expenses, the anticipated continued reduction and delays in federal infrastructure funding, and limited debt capacity, Virginia is faced with difficult decisions as it considers the next biennium budget and potential debt authorizations. Virginia, along with other states and localities, will have to determine its most critical infrastructure needs as it determines how best to use and manage its limited debt capacity.

2015 Debt Capacity Recommendations

The 2015 Base Model Solution – Average debt capacity calculation (Appendix A-6) shows that an additional \$603.46 million in debt could be authorized and issued in each 2016 and 2017. This amount will cause projections of debt service as a percent of Blended Revenues to exceed five percent in five years and to be at or below five percent in the other five years.

Other Recommendations

- a) The Committee expresses its support in seeking the approval of 9(b) general obligation bonds, which must be approved by a voter referendum. With a higher bond rating than 9(d) appropriation-backed debt, general obligation bonds have lesser interest costs. The growing proportion of 9(d) debt compared to general obligation bonds has caught the attention of the bond rating agencies and has resulted in comments in recent ratings of the Commonwealth. Please see the chart on page 11 for more information regarding the growing proportion of 9(d) debt.
- b) The Committee also 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 bonded capital lease and other conduit borrowings typically result in higher financing costs, and are ultimately still viewed as tax-supported debt.

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Review of Tax-Supported Debt

General Fund Supported Debt

The State issues two types of tax-supported debt: General Obligation 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 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.) (9(c) Bonds). The GO pledge 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 capital leases 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 amounts 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 is funded primarily from incremental revenues generated by increases in the retail sales and use tax, motor fuels tax and motor vehicle related taxes and fees enacted in the 1986 Special Session Acts, as well as other tax revenues subsequently dedicated to the TTF (e.g. one-third of the insurance license tax in 2007). As a result of legislation passed by the 2013 session of the General Assembly, the state's \$0.175 per gallon on motor vehicle fuels tax on gasoline and diesel was eliminated and replaced with a tax

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of 3.5% on the wholesale price of gasoline and a 6.0% tax on the wholesale price of diesel (the fuel taxes). The TTF will receive 15% of the revenues generated from the fuel taxes and 4% of the fuel tax revenue will be deposited to the Priority Transportation Fund (a subset of the TTF). 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 (HMO), federal transportation revenues, and debt related to Federal Revenue Anticipation Notes (FRANS) or 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 ratings 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 Commonwealth Transportation Board (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, the Capital Projects Revenue (CPR) Bonds approved by the General Assembly in 2007. Currently, debt service on debt paid by the TTF exceeds 5% of TTF revenues. Accordingly, to the extent the 5% measure is exceeded, capacity derived from the general fund is being utilized. 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.

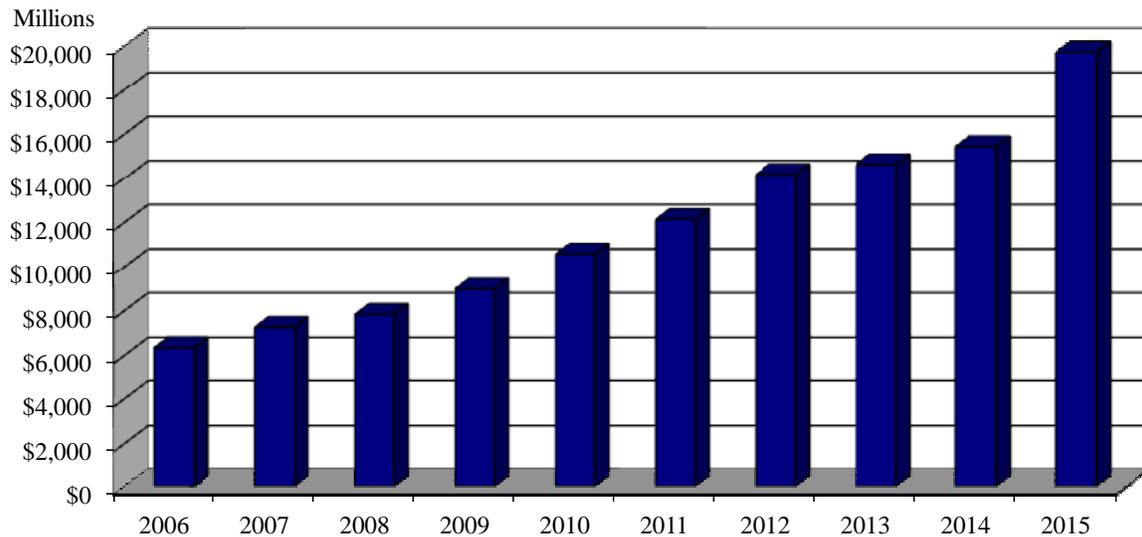
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Trends in Tax-Supported Debt

Outstanding tax-supported debt of the Commonwealth increased by 210%, or \$13.4 billion, from \$6.4 billion in fiscal year 2006 to \$19.8 billion in fiscal year 2015. Between fiscal year 2014 and fiscal year 2015, outstanding tax-supported debt increased \$4.3 billion, which is equivalent to 28% growth over the last fiscal year. The graph below follows includes long-term obligations such as pension liabilities, other post-employment benefits (OPEB) and compensated absences. These obligations are generally evaluated by rating agencies as part of an issuer's overall debt profile, but are not part of their calculations of debt ratios. Accordingly, they are not included in the Commonwealth's debt capacity calculation. The following graph provides a historical perspective on the Commonwealth's outstanding tax-supported debt, including these other long-term obligations.

Outstanding Tax-Supported Debt
Fiscal Years 2006-2015^{(1), (2)}



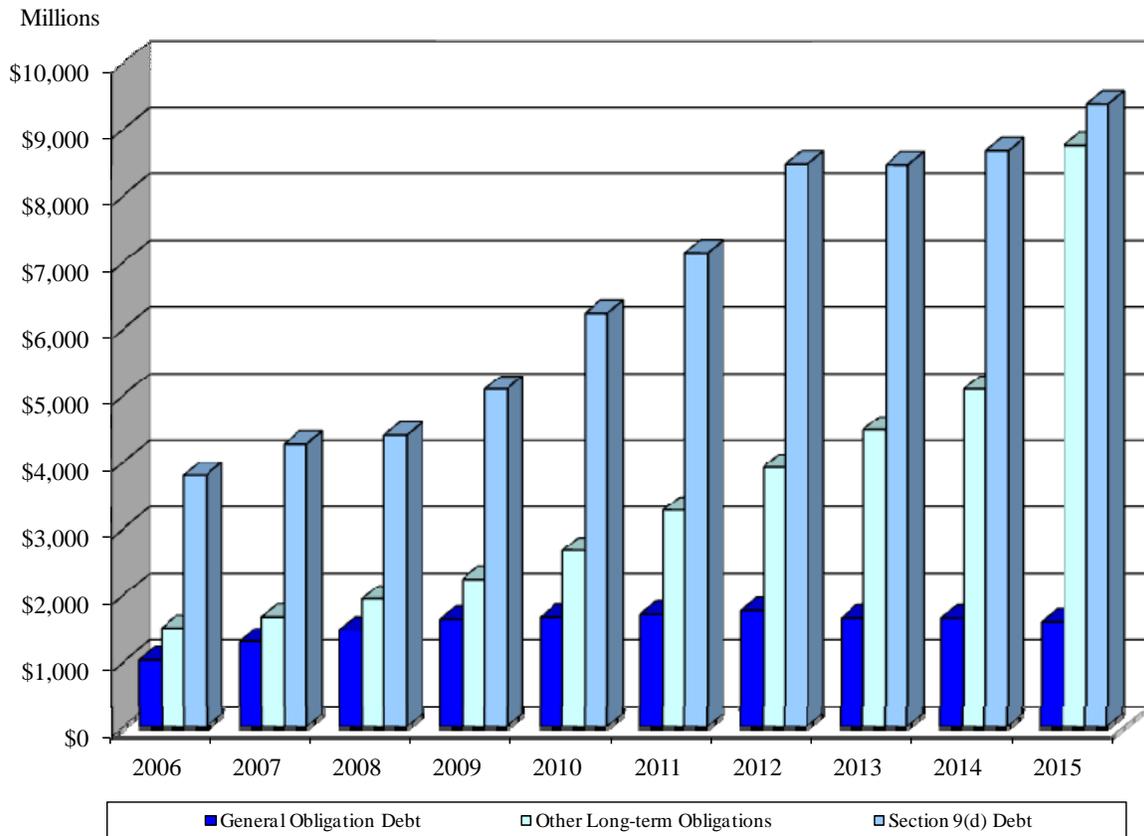
⁽¹⁾ Includes other long-term obligations such as pension liabilities, OPEBs and compensated absences.

⁽²⁾ Implementation of GASB 68 occurred in FY2015, which impacted the reporting of net pension liabilities.

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Outstanding Tax-Supported Debt by Category Fiscal Years 2006-2015^{(1), (2)}



⁽¹⁾ Includes other long-term obligations such as pension liabilities, OPEBs and compensated absences.

⁽²⁾ Implementation of GASB 68 occurred in FY2015, which impacted the reporting of net pension liabilities in the Other Long-term Obligations bar.

The chart above shows outstanding tax-supported debt separated into three major categories: GO bonds, debt obligations incurred pursuant to Article X, Section 9(d) of the Virginia Constitution (i.e. appropriation-supported debt), and other long-term obligations, which include pension liabilities and OPEB liabilities.

General obligation debt, which had a June 30, 2015 balance outstanding of \$1.61 billion, has increased 55%, or \$570 million, over the ten-year period. This is due in part to a \$1 billion 9(b) general obligation bond referendum approved by the voters in 2002. Bonds from the 2002 authorization were issued as needed, with the final issuance occurring during fiscal year 2010. Between fiscal years 2010 and 2012, increases in the general obligation debt outstanding came from the issuance of 9(c) general obligation bonds, which are regularly authorized by the General Assembly for qualifying revenue-producing capital projects, and are not included in the

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debt capacity calculation. However, with a lag between the timing of new 9(c) bond authorizations and the issuance of those bonds and the continued payment of previously issued 9(b) and 9(c) debt, the 2015 outstanding GO balance declined 3%, or \$56 million, from fiscal year 2014. Since fiscal year 2012, the outstanding GO balance has declined 9%, or \$168 million.

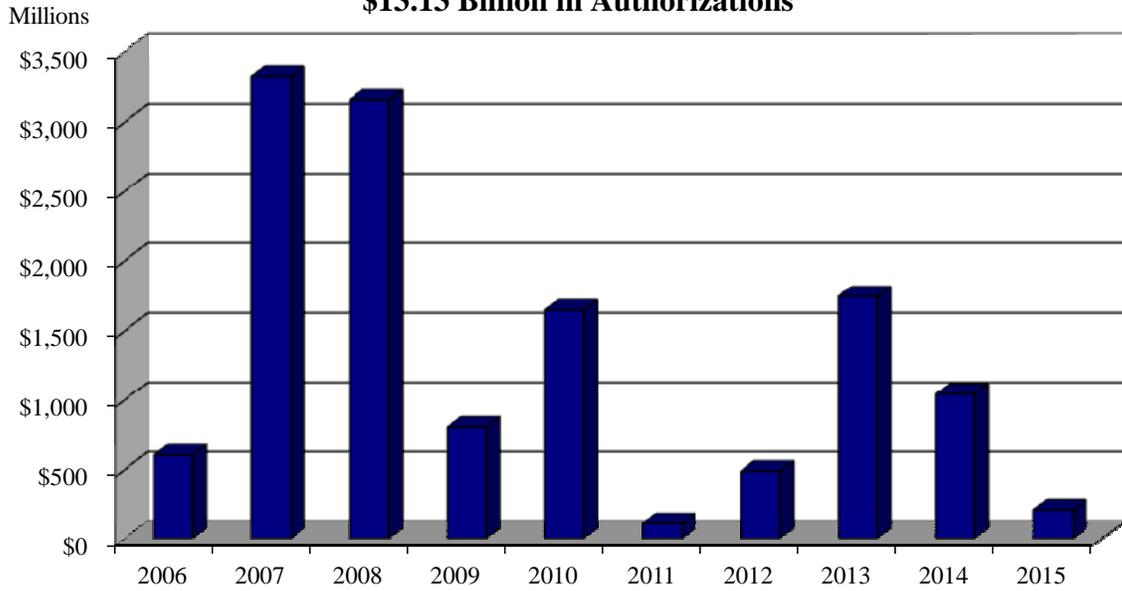
Section 9(d) debt includes tax-supported bonds issued by the VCBA, the VPBA, the CTB, and certain obligations of the Virginia Port Authority. It also includes bonded capital leases, other long-term capital leases, and installment purchases. This debt category has shown significant dollar growth over the last ten years, increasing \$5.57 billion during that period. Total outstanding Section 9(d) debt at June 30, 2015 was \$9.38 billion compared to \$3.81 billion at fiscal year-end 2006, which is equivalent to a 146% increase over the ten-year period. The increase is attributed to significant authorizations for transportation bonds in 2007, and VPBA and VCBA bonds in 2008, 2009, 2010, 2013 and 2014. An additional \$139 million of VPBA and VCBA debt was authorized in fiscal year 2015. The outstanding balance of section 9(d) debt increased 8%, or \$697 million, between fiscal year 2014 and fiscal year 2015.

Other long-term obligations have experienced the most growth, increasing \$7.24 billion, or 478%, from \$1.52 billion at fiscal year-end 2006 to \$8.76 billion at fiscal year-end 2015. The increase is partly due to the required inclusion of OPEB obligations beginning in 2008, but it is also related to increasing pension and OPEB obligations. The increase is also partly due to the implementation of GASB 68 in FY2015, which impacted the reporting of net pension liabilities. Between fiscal year 2014 and fiscal year 2015, other long-term obligations increased \$3.66 billion, which is equivalent to 72% growth over the last fiscal year. The increase over the last fiscal year was specifically related to growth in pension liabilities which increased \$3.45 billion, or 108%.

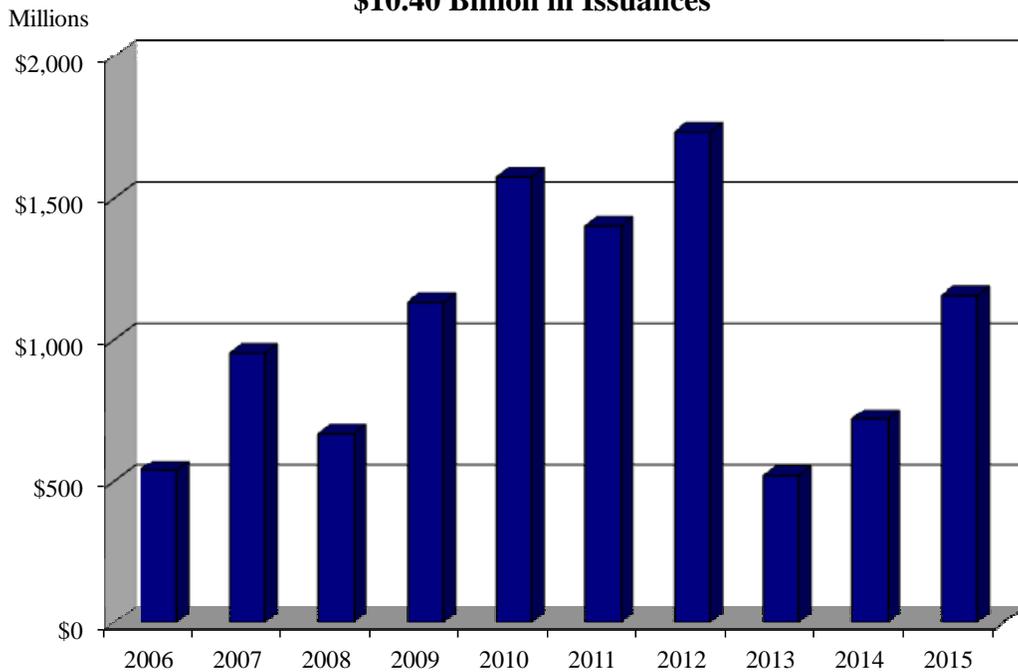
The following two charts illustrate the amounts of tax-supported debt authorized and issued from years 2006 to 2015. In 2007, \$3 billion was authorized for the transportation CPR program. In 2008, an additional \$3 billion was authorized for the VPBA and VCBA programs. Significant 9(d) authorization was provided again in 2010 with VPBA and VCBA receiving authorization of nearly \$1.5 billion. The amount of debt authorized in 2011 and 2012 declined compared to the significant amounts authorized in the prior years. However, in 2013, \$1.74 billion in additional tax-supported debt was authorized, of which \$1.13 billion was for VPBA and VCBA 9(d) projects, \$596 million was for U.S. Route 58 9(d) transportation projects and the remainder was for 9(c) projects. The large 2013 authorizations were followed by a lesser but still significant authorization of over \$1 billion in fiscal year 2014, with VPBA and VCBA collectively receiving an authorization of \$796 million and the \$245 million balance being for 9(c) projects. In fiscal year 2015, the amount of net tax-supported debt authorized was \$206 million, which was the result of \$149 million of collective VPBA and VCBA authorizations, \$68 million of 9(c) authorizations, and a \$10 million rescinded authorization of VPBA bonds. Between fiscal year 2006 and fiscal year 2015, the General Assembly collectively authorized \$13.13 billion of tax-supported debt.

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Tax-Supported Debt Authorizations
Fiscal Years 2006-2015
\$13.13 Billion in Authorizations



Tax Supported Debt Issued
Fiscal Years 2006-2015
\$10.40 Billion in Issuances



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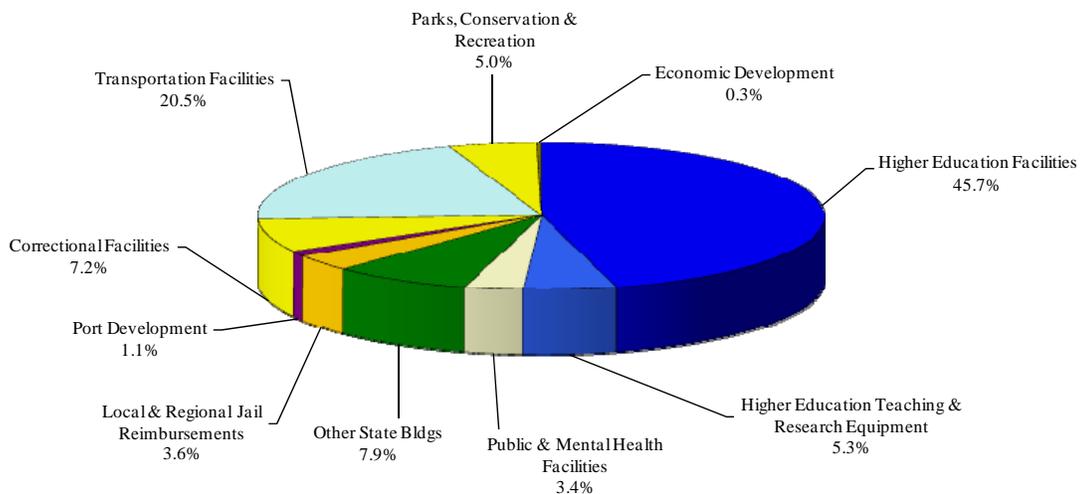
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The amount of tax-supported debt issued in fiscal year 2015 was \$1.16 billion. The total 2015 tax-supported debt issuance amount was up from the 2013 and 2014 levels of \$519 million and \$720 million, respectively. However, the 2015 level of issuance was below the three straight years of issuances between \$1.40 and \$1.73 billion between 2010 and 2012 and was similar in amount to the issuance of \$1.13 billion in 2009. The increase in 2014 issuances over 2013 was largely the result of VCBA utilizing a portion of the significant authorizations it has received in recent years. While a large amount of VCBA bonds were also issued in 2015, the issuance was accompanied by two large VPBA issuances stemming from recent significant authorizations and transportation and port related issuances resulting from authorizations from several years earlier. Between fiscal year 2006 and fiscal year 2015, \$10.40 billion in tax-supported debt was issued. With the June 30, 2015 authorized and unissued debt amounting to \$4.39 billion, of which \$3.72 billion is for 9(d) projects, it is likely that significant issuances will continue over the next several years.

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 \$10.4 billion, 51% 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 21%. (Note: transportation projects financed with federal revenues are not considered tax-supported debt and are not included.)

Uses of Tax-Supported Debt Issued FY 2006 - FY 2015



Ten-year Total = \$10.4 Billion

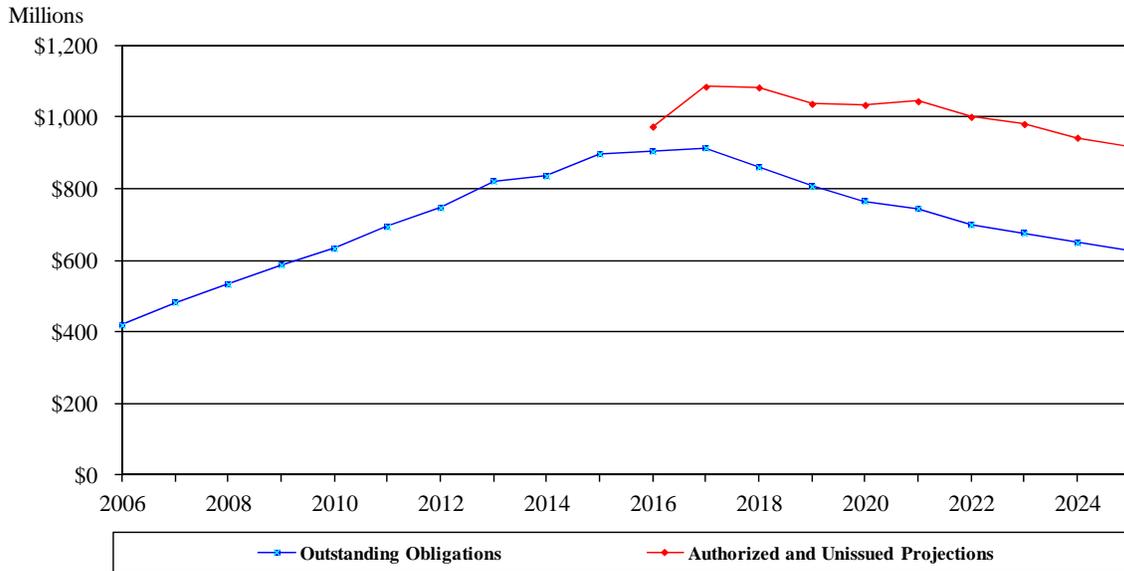
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Debt Service

Amounts paid annually for debt service have increased, both on an absolute basis and as a percentage of Blended Revenues. This trend is expected to continue as currently authorized debt is issued, and the amount of outstanding debt increases. Annual debt service, including the estimated debt service on all currently authorized but unissued amounts, is illustrated below.

Tax-Supported Debt Service: Actual and Projected Fiscal Years 2006 – 2025⁽¹⁾



⁽¹⁾ Assumes authorized debt is issued in future periods in accordance with the Model's current assumptions. Past data includes lease revenue bonds issued by the Virginia Biotech Research Park Authority and Newport News Industrial Development Authority.

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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 general obligation rating: Aa1 (Moody's), AA+ (S&P) and AA+ (Fitch). Like the GO ratings, the appropriation-supported bonds carry a stable outlook from the three rating agencies.

All three rating agencies continue to note Virginia's credit strengths: long-standing history of pro-active and conservative financial management, a manageable debt burden controlled through a debt affordability model, strong financial policies and practices, pension reform and a diverse economy that has fared better than the nation. They also cite as challenges: spending pressures from education and transportation needs, managing the effects of a sluggish economy, and the state economy's direct linkage to the U.S. government.

Following the Commonwealth's revenue shortfall in FY2014, the August 2014 revenue reforecast for the current biennium and the General Assembly's fall session that year to address the projected budget shortfall, the rating agencies have applauded the Commonwealth's prompt actions to address the shortfall and have attributed this to Virginia's positive factor of pro-active and conservative financial management. However, while the rating agencies have viewed the FY2015 revenue surplus and underlying factors as positive, S&P, in its November 2015 VCBA Pooled Program ratings report, still viewed "the Commonwealth's gap-closing measures as predominantly one-time in nature and therefore a weakness".

The FY2015 revenue surplus will result in a mandatory replenishment to the Rainy Day Fund in FY2017 and the rating agencies view the replenishment mechanism as a strong feature of the Commonwealth's credit. While the rating agencies have noted the constitutionally mandated deposit in FY2017 will significantly increase the Rainy Day Fund balance, they note the depletion in FY2015 and FY2016 has weakened the Commonwealth's reserve levels. S&P, again in its November 2015 VCBA Pooled Program ratings report, takes its views of the budget development and the depletion of the Rainy Day Fund a bit further. S&P notes:

"We will continue to monitor the revenue estimates, with a focus on determining if the recent revenue shortfalls are one-time in nature or indicative of long-term changes to the structural make-up of the state's economy. Should the federal reductions be so large or have a disproportionate effect on Virginia's economy as to undermine its revenue performance, and if the Commonwealth is unable to make sufficient adjustments to structurally balance its budget, however, the rating could be negatively pressured. To date, Virginia's revenues are ahead of the state's forecast growth targets. In light of improved revenue collections relative

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to forecast, the state's decision on whether to narrow the current revenue and expenditure misalignment over the next few years or to widen it through increased spending will be important from a credit standpoint. The state's failure to structurally balance its budget, while significantly depleting its available reserves, could weaken Virginia's ability to respond to economic and financial downturns and be an indication of weaker credit quality. Virginia's performance and response will be integral to our maintenance of the current rating."

Virginia cannot rely on a record of its past financial management decisions to sustain its AAA bond rating in the future. The rating agencies are closely watching the Commonwealth's actions and are analyzing its metamorphosis from an economy dependent upon federal spending to a diversifying economy that is growing through technology, health services, tourism, and agriculture exports. As the Commonwealth's new economy takes form, it will be important to ensure that prudent financial management practices remain at the forefront of spending decisions. It is these management practices that will continue to allow the Commonwealth to meet its needs in future downturns and are what will provide the Commonwealth with the flexibility to continue to diversify.

Review of Comparative Ratios

Over the past 28 years, Moody's Investors Service has compiled net tax-supported debt (NTSD) data for US states. Each year, Moody's releases a comparative NTSD ratios report, its *State Debt Medians Report* (Moody's Medians). In recent years, Moody's has noted that the annual growth in NTSD has declined. In its 2014 report, Moody's attributed the fourth consecutive decline in annual growth to a new conservative attitude towards debt, constraints by states' own formal and informal debt policies, and uncertainty over federal fiscal policy.

In its *State Debt Medians 2015* report, Moody's noted the first decline in total net tax-supported debt since it began compiling this data. The report stated:

"The decrease comes as states continue to be reluctant to take on new debt with tight operating budgets, a slow economic recovery, and uncertainty over federal fiscal policy and health care funding. With those factors, we expect debt levels to remain stable or even decline again in 2015."

In its most recent report, Moody's identified that in 2014 31 states experienced a decline in absolute debt levels, while 19 states experienced an increase. While Moody's anticipates 2015 may result in an additional decline, their long-term outlook "expects debt levels to rise again as states seek to address deferred infrastructure needs at a time of stagnant federal transportation aid."

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Nationwide, median NTSD per capita declined by 4.0% to \$1,012 compared to \$1,054 the prior year, which was the third decline in a row. In the 2015 report, Virginia remained ranked as having the 19th highest debt per capita with a level of \$1,356. Opposite of the median trend, Virginia's debt per capita increased 4.1% from \$1,302 the prior year.

Nationally, NTSD as a percentage of personal income decreased to 2.5% compared to 2.6% the prior year, which was the second decline in a row and attributable to a 4.5% growth in personal income. Oppositely, Virginia experienced an increase in its NTSD as a percentage of personal income. In the 2015 report, Virginia's ranking rose to the 21st highest NTSD as a percentage of personal income compared to a ranking of 24th in the prior year. In its 2015 report, Virginia was calculated by Moody's to have had a NTSD as a percentage of personal income of 2.8% compared to 2.7% in the prior year.

The following table and chart illustrate how Virginia compares to other triple-A states based on net tax-supported debt per capita.

AAA/Aaa/AAA STATE DEBT BURDENS FROM 2006-2015 PROVIDED BY MOODY'S INVESTORS SERVICE

Net Tax-Supported Debt per Capita (1)(2)

	<u>2015</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
	<u>Ranking</u>										
Delaware	8	\$2,438	\$2,485	\$2,536	\$2,674	\$2,676	\$2,489	\$2,128	\$2,002	\$1,998	\$1,845
Maryland	12	1,889	1,791	1,799	1,742	1,681	1,608	1,507	1,297	1,171	1,169
Alaska *	18	1,489	1,573	1,251 *	1,454 *	1,257 *	1,345 *	861 *	924 *	939 *	880 *
VIRGINIA	19	1,356	1,302	1,315	1,169	1,058	895	782	764	692	601
Utah	24	1,060	1,187	1,275	1,393	1,222	957	447	542	621	707
Georgia	25	1,043	1,064	1,061	1,099	1,103	1,120	984	954	916	784
North Carolina *	34	739	806	853	815	782	765	832 *	898	728	804 *
Missouri	38	606	668	699	741	775	780	670	675	613	496
Texas *	44	406	614	580 *	588 *	612 *	520 *	520 *	481 *	415 *	307 *
Iowa *	47	250	275	287	310	270	73 *	79 *	98 *	104 *	110 *
Median All States		1,012	1,054	1,074	1,117	1,066	936	865	889	787	754
AAA Median		1,052	1,126	1,156	1,134	1,081	926	807	831	710	746
AAA Average		1,128	1,177	1,166	1,199	1,144	1,055	881	864	820	770

* State was not triple triple A during entire 2006-2015 period.

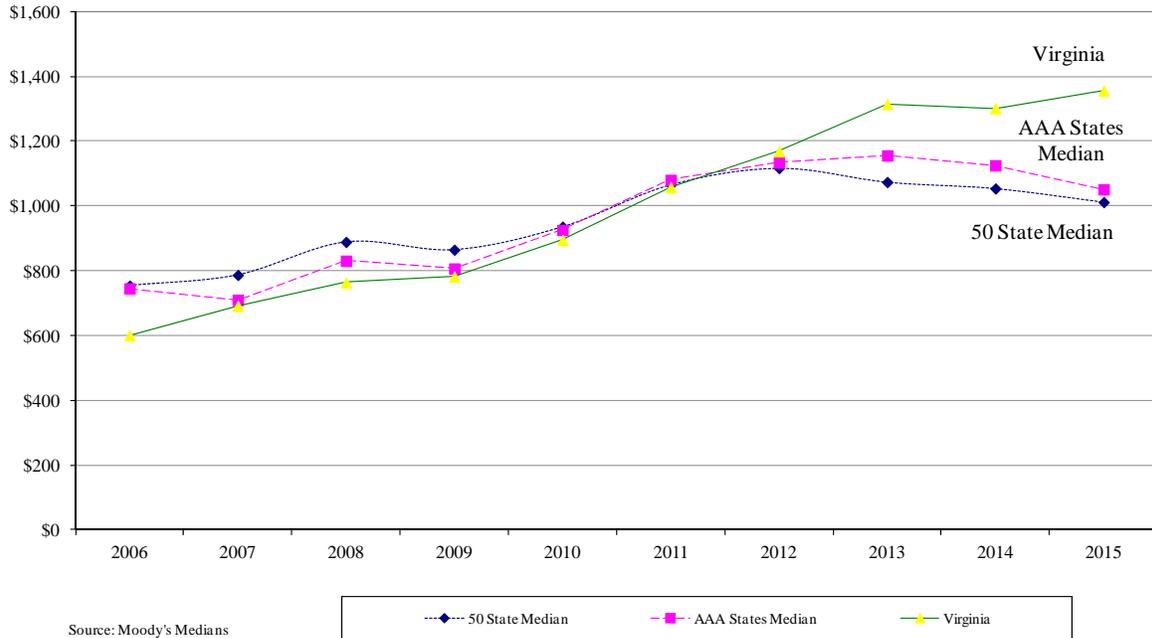
(1) Population is based on Census data from one year prior to each respective year's debt analyzed.

(2) Year refers to prior calendar year-end.

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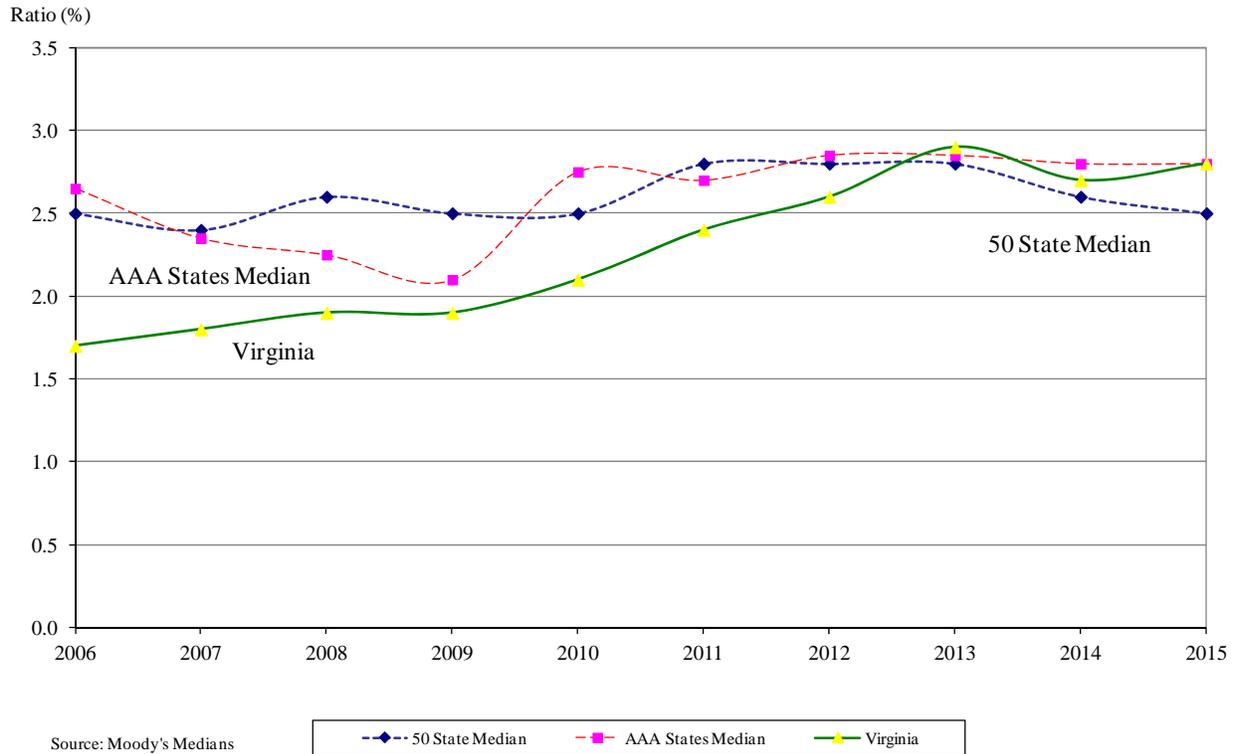
Net Tax-Supported Debt Per Capita Virginia Versus Moody's U.S. 50-State Median and other AAA States 2006 – 2015



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Net Tax-Supported Debt as Percentage of Personal Income Virginia Versus Moody's U.S. 50-State Median and other AAA States 2006 - 2015



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-A states, a statutory requirement for a short amortization of debt mitigates the effect of the higher debt levels.

In terms of total net tax-supported debt, California remains at the top of the list with \$93.4 billion outstanding followed by New York with \$61.0 billion; both states experienced declines in their NTSD due to continued pay down of debt. Nebraska remains at the bottom of the list with only \$18.2 million; they too experienced a decline from the prior year. Virginia remained twelfth this year with \$11.3 billion outstanding compared to \$10.8 billion outstanding in the prior year.

Appendix A

Debt Capacity Calculation, Sensitivity Analysis and Moral Obligation Update

December 18, 2015

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 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 (3.78%) plus 25 basis points for 9(d) debt (4.03%).

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 capital 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.
- Capital leases (80% of total of first year amounts in Commonwealth CAFR for both primary government and component units).

- Installment purchases (80% of total of first year amounts in Commonwealth CAFR for both primary government and component units).
- Obligations for which the debt service is derived from payments received from the Commonwealth on a capital 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 18, 2015 (Dollars in Millions)

	<u>9(b)</u>	<u>VPBA</u>	<u>VCBA 21st Century Equipment</u>	<u>VCBA 21st Century Projects</u>	<u>CPR Transportation</u>	<u>NVTD Transportation</u>	<u>Route 58 Transportation</u>	<u>VPA</u>	<u>Total</u>
Authorized & Unissued as of June 30, 2015	\$ -	\$ 773.1	\$ 138.4	\$ 1,005.7	\$ 1,187.3	\$ 24.7	\$ 595.7	\$ -	\$ 3,724.9
Issued Jul 1 - Dec 31, 2015	\$ -	\$ -	\$ 56.8	\$ 233.3	\$ -	\$ -	\$ -	\$ -	\$ 290.1
Assumed Issued:									
FY 2016	\$ -	\$ 272.6	\$ 74.1	\$ 328.0	\$ 300.0	\$ -	\$ -	\$ -	\$ 974.7
FY 2017	\$ -	\$ 181.8	\$ -	\$ 428.5	\$ 284.1	\$ -	\$ -	\$ -	\$ 894.4
FY 2018	\$ -	\$ 105.2	\$ -	\$ -	\$ 122.9	\$ -	\$ -	\$ -	\$ 228.1
FY 2019	\$ -	\$ 93.5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 93.5
FY 2020	\$ -	\$ 93.5	\$ -	\$ -	\$ 355.0	\$ -	\$ 150.9	\$ -	\$ 599.4
FY 2021	\$ -	\$ 26.7	\$ -	\$ -	\$ 125.3	\$ -	\$ 249.1	\$ -	\$ 401.1
FY 2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FY 2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 195.7	\$ -	\$ 195.7
FY 2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FY 2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Planned	\$ -	\$ 773.1	\$ 74.1	\$ 756.5	\$ 1,187.3	\$ -	\$ 595.7	\$ -	\$ 3,386.7
Subtotal Issued & Planned	\$ -	\$ 773.1	\$ 130.9	\$ 989.8	\$ 1,187.3	\$ -	\$ 595.7	\$ -	\$ 3,676.8
Authorized Debt Assumed Unissued ⁽¹⁾	\$ -	\$ -	\$ 7.5	\$ 15.9	\$ -	\$ 24.7	\$ -	\$ -	\$ 48.1

⁽¹⁾ Assumed funded from premium from bonds sold and for NVTD authorized debt is assumed not to be issued.

DEBT CAPACITY MODEL

(Dollars in Millions)

December 18, 2015

Debt Capacity Maximum Ratio

Debt Service as a % of Revenue =

5.0%

Base Model Solution

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Blended	Base	Annual	Actual	Annual	Actual &	Net	Amount of	Debt Service	Remaining	Total
Fiscal Year	Revenues	Capacity	Payments for	Outstanding	Payments for	Projected	Capacity	Additional	on Amount of	Capacity	Debt Service
		to Pay	Debt Service	Debt Service	on All Planned	Debt Service	to Pay	Debt that may	Debt that may	to Pay	as a % of
		Debt Service	on Debt Issued	as a % of	Debt Issuances	as a % of	Debt Service	Be Issued	Be Issued	Debt Service	Revenues
2006	16,520.10	826.01	419.01	2.54%	N/A	2.54%	407.00	N/A	N/A	407.00	2.54%
2007	17,282.60	864.13	482.33	2.79%	N/A	2.79%	381.80	N/A	N/A	381.80	2.79%
2008	17,528.90	876.45	532.95	3.04%	N/A	3.04%	343.50	N/A	N/A	343.50	3.04%
2009	15,680.90	784.05	587.33	3.75%	N/A	3.75%	196.72	N/A	N/A	196.72	3.75%
2010	16,085.70	804.29	633.45	3.94%	N/A	3.94%	170.83	N/A	N/A	170.83	3.94%
2011	16,751.10	837.56	693.64	4.14%	N/A	4.14%	143.92	N/A	N/A	143.92	4.14%
2012	17,787.10	889.36	747.02	4.20%	N/A	4.20%	142.34	N/A	N/A	142.34	4.20%
2013	18,626.30	931.32	820.77	4.41%	N/A	4.41%	110.55	N/A	N/A	110.55	4.41%
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	20,041.00	1,002.05	897.38	4.48%	N/A	4.48%	104.67	N/A	N/A	104.67	4.48%
2016	20,621.20	1,031.06	904.30	4.39%	69.65	4.72%	57.10	0.00	0.000	57.10	4.72%
2017	21,225.40	1,061.27	914.18	4.31%	171.17	5.11%	(24.08)	0.00	0.000	(24.08)	5.11%
2018	21,984.90	1,099.25	860.18	3.91%	223.04	4.93%	16.02	160.72	11.625	4.39	4.98%
2019	22,879.30	1,143.97	806.78	3.53%	230.65	4.53%	106.53	321.21	34.857	71.67	4.69%
2020	23,807.90	1,190.40	765.16	3.21%	269.25	4.34%	155.98	804.72	93.060	62.92	4.74%
2021	24,776.30	1,238.82	745.03	3.01%	299.58	4.22%	194.21	885.07	157.074	37.13	4.85%
2022	25,750.20	1,287.51	699.54	2.72%	301.51	3.89%	286.46	960.77	226.564	59.89	4.77%
2023	26,742.88	1,337.14	675.80	2.53%	305.16	3.67%	356.18	967.39	296.533	59.65	4.78%
2024	27,775.55	1,388.78	648.87	2.34%	293.86	3.39%	446.05	967.39	366.501	79.54	4.71%
2025	28,849.81	1,442.49	624.87	2.17%	293.86	3.18%	523.76	967.39	436.469	87.29	4.70%
							10 Year		2 Yrs Excess		
							Average:	\$603.46	Avg Capacity:	\$1,206.93	
										2,0000	

- [1] Blended Revenues include the actual fiscal year revenues as reported in the Official December General Fund, Commonwealth Transportation Fund and VA Health Care Fund forecasts presented in years 2006-2015, Standard General Fund December Forecasts dated December 2015 which are based on US & Virginia economic outlook incorporating GACRE recommendations, including 0.25% sales tax increment adopted in 2004 to FY 2013 and 0.375% sales tax increment beginning in FY 2014 as adopted in 2013, the Virginia Health Care Fund forecast revenues as permitted by Section 32.1-366 of the Code of Virginia, certain recurring Transportation Appropriation Act, transfers from Alcoholic Beverage Control Board and certain Transportation Trust Fund revenues from the Commonwealth Transportation Fund Official December revenue forecasts dated December 2015.
- [2] Base Capacity to Pay Debt Service equals 5% of the Blended Revenues listed in Column [1].
- [3] Equals the annual payments of principal and interest for outstanding tax-supported debt as of 6/30/15, excluding 9(c) debt, Build America Bonds (BABs) interest subsidy, and Non-General Fund portion of debt service on certain Virginia College Building Authority (VCBA) Bonds.
- [4] Equals Annual Payments for Debt Service on Debt Issued as a percentage of Blended Revenues. Column [3] / Column [1].
- [5] Equals the annual estimated payments of principal and interest for all currently authorized tax-supported debt planned for issuance within the next ten fiscal years. See Assumed Issuances of Currently Authorized but Unissued Tax-Supported Debt. Also includes debt service for long-term capital leases and installment purchase obligations.
- [6] Equals annual payments for debt service on debt issued and planned debt issuances, divided by Blended Revenues. (Column [3] + Column [5]) / Column [1].
- [7] Equals the amount of revenue available to pay additional debt service after principal and interest on all outstanding and all planned issuances of tax-supported debt has been paid. Column [2] - Column [3] - Column [4].
- [8] Equal to annual amount of additional principal that may be issued without violating the parameters of the model.
- [9] Equal to annual estimated payments of principal and interest related to the amounts of additional debt that may be issued as noted in Column [8].
- [10] Equals Column [7] minus Column [9].
- [11] Equals the sum of all debt service payments divided by Blended Revenues. (Column [3] + Column [5] + Column [9]) / Column [1].

DEBT CAPACITY MODEL

(Dollars in Millions)

December 18, 2015

Base Model Solution - Average

Debt Capacity Maximum Ratio

Debt Service as a % of Revenue =

5.0%

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Blended	Base	Annual	Actual	Annual	Actual &	Net	Amount of	Debt Service	Remaining	Total
Fiscal Year	Revenues	Capacity	Payments for	Outstanding	Payments for	Projected	Capacity	Additional	on Amount of	Capacity	Debt Service
		to Pay	Debt Service	Debt Service	on All Planned	Debt Service	to Pay	Debt that may	Additional	to Pay	as a % of
		Debt Service	on Debt Issued	as a % of	Debt Issuances	as a % of	Debt Service	Be Issued	Debt that may	Debt Service	Revenues
				Revenues		Revenues			Be Issued		
2006	16,520.10	826.01	419.01	2.54%	N/A	2.54%	407.00	N/A	N/A	407.00	2.54%
2007	17,282.60	864.13	482.33	2.79%	N/A	2.79%	381.80	N/A	N/A	381.80	2.79%
2008	17,528.90	876.45	532.95	3.04%	N/A	3.04%	343.50	N/A	N/A	343.50	3.04%
2009	15,680.90	784.05	587.33	3.75%	N/A	3.75%	196.72	N/A	N/A	196.72	3.75%
2010	16,085.70	804.29	633.45	3.94%	N/A	3.94%	170.83	N/A	N/A	170.83	3.94%
2011	16,751.10	837.56	693.64	4.14%	N/A	4.14%	143.92	N/A	N/A	143.92	4.14%
2012	17,787.10	889.36	747.02	4.20%	N/A	4.20%	142.34	N/A	N/A	142.34	4.20%
2013	18,626.30	931.32	820.77	4.41%	N/A	4.41%	110.55	N/A	N/A	110.55	4.41%
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	20,041.00	1,002.05	897.38	4.48%	N/A	4.48%	104.67	N/A	N/A	104.67	4.48%
2016	20,621.20	1,031.06	904.30	4.39%	69.65	4.72%	57.10	0.00	0.000	57.10	4.72%
2017	21,225.40	1,061.27	914.18	4.31%	171.17	5.11%	(24.08)	603.46	43.647	(67.73)	5.32%
2018	21,984.90	1,099.25	860.18	3.91%	223.04	4.93%	16.02	603.46	87.294	(71.28)	5.32%
2019	22,879.30	1,143.97	806.78	3.53%	230.65	4.53%	106.53	603.46	130.941	(24.41)	5.11%
2020	23,807.90	1,190.40	765.16	3.21%	269.25	4.34%	155.98	603.46	174.588	(18.61)	5.08%
2021	24,776.30	1,238.82	745.03	3.01%	299.58	4.22%	194.21	603.46	218.235	(24.03)	5.10%
2022	25,750.20	1,287.51	699.54	2.72%	301.51	3.89%	286.46	603.46	261.881	24.58	4.90%
2023	26,742.88	1,337.14	675.80	2.53%	305.16	3.67%	356.18	603.46	305.528	50.65	4.81%
2024	27,775.55	1,388.78	648.87	2.34%	293.86	3.39%	446.05	603.46	349.175	96.87	4.65%
2025	28,849.81	1,442.49	624.87	2.17%	293.86	3.18%	523.76	603.46	392.822	130.94	4.55%
								10 Year Average: \$603.46		2 Yrs Excess Avg Capacity: \$1,810.39	

Debt Capacity Model – An Explanation of Results Page

Column Descriptions:

(1) **Blended Revenues** include all general fund revenues, 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 (6/30/15), excluding (i) 9(c) debt, (ii) the subsidized portion of interest on Build America Bonds and (iii) 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)

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 \$603.46 million.
- Accordingly, the Committee finds the additional tax supported debt that may prudently be authorized in each 2016 and 2017 is \$603.46 million.

DEBT CAPACITY MODEL REVENUE DATA

December 2015

(Dollars In Millions)

Fiscal Year	General Fund	Transportation		General Fund Growth	Transportation Trust		Virginia Health Care Fund	Total Blended Revenue ⁽⁹⁾	Blended Revenue Growth Rate ⁽¹⁰⁾
		Trust Fund ⁽⁴⁾			Trust Fund	Growth			
Actual 2002	11,071.60 (1)	749.33 (1)		-5.24% (1)	-0.53% (1)	N/A (1)	11,820.93	-4.95%	
Actual 2003	11,256.40 (1)	745.00 (1)		1.67% (1)	-0.58% (1)	N/A (1)	12,001.40	1.53%	
Actual 2004	12,342.50 (1)	799.70 (1)		9.65% (1)	7.34% (1)	N/A (1)	13,142.20	9.51%	
Actual 2005	14,135.70 (1)	846.50 (1)		14.53% (1)	5.85% (1)	N/A (1)	14,982.20	14.00%	
Actual 2006	15,318.30 (1)	912.90 (1)		8.37% (1)	7.84% (1)	288.90 (1)	16,520.10	10.26%	
Actual 2007	16,028.30 (1)	969.00 (1)		4.63% (1)	6.15% (1)	285.30 (1)	17,282.60	4.62%	
Actual 2008	16,261.30 (1)	968.70 (1)		1.45% (1)	-0.03% (1)	298.90 (1)	17,528.90	1.43%	
Actual 2009	14,359.20 (1)	1,014.20 (1)		-11.70% (1)	4.70% (1)	307.50 (1)	15,680.90	-10.54%	
Actual 2010	14,786.70 (1)	1,006.20 (1)		2.98% (1)	-0.79% (1)	292.80 (1)	16,085.70	2.58%	
Actual 2011	15,452.30 (1)	1,015.40 (1)		4.50% (1)	0.91% (1)	283.40 (1)	16,751.10	4.14%	
Actual 2012	16,348.00 (1)	1,060.20 (1)		5.80% (1)	4.41% (1)	378.90 (1)	17,787.10	6.18%	
Actual 2013	17,109.20 (1)	1,083.60 (1)		4.66% (1)	2.21% (1)	433.50 (1)	18,626.30	4.72%	
Actual 2014	16,949.10 (1)	1,189.00 (1)		-0.94% (1)	9.73% (1)	364.70 (1)	18,502.80	-0.66%	
Actual 2015	18,369.50 (1)	1,324.50 (1)		8.38% (1)	11.40% (1)	347.00 (1)	20,041.00	8.31%	
Forecasted for 2016	18,877.80 (2)	1,388.00 (5)		2.77% (2)	4.79% (5)	355.40 (7)	20,621.20	2.90%	
Forecasted for 2017	19,430.40 (2)	1,447.70 (5)		2.93% (2)	4.30% (5)	347.30 (7)	21,225.40	2.93%	
Forecasted for 2018	20,135.60 (2)	1,501.20 (5)		3.63% (2)	3.70% (5)	348.10 (7)	21,984.90	3.58%	
Forecasted for 2019	20,991.00 (2)	1,541.30 (5)		4.25% (2)	2.67% (5)	347.00 (7)	22,879.30	4.07%	
Forecasted for 2020	21,869.50 (2)	1,592.50 (5)		4.19% (2)	3.32% (5)	345.90 (7)	23,807.90	4.06%	
Forecasted for 2021	22,795.00 (2)	1,636.40 (5)		4.23% (2)	2.76% (5)	344.90 (7)	24,776.30	4.07%	
Forecasted for 2022	23,726.20 (2)	1,680.10 (5)		4.09% (2)	2.67% (5)	343.90 (7)	25,750.20	3.93%	
Forecasted for 2023	24,689.61 (3)	1,710.34 (6)		4.06% (3)	1.80% (6)	342.94 (8)	26,742.88	3.86%	
Forecasted for 2024	25,692.44 (3)	1,741.13 (6)		4.06% (3)	1.80% (6)	341.98 (8)	27,775.55	3.86%	
Forecasted for 2025	26,736.32 (3)	1,772.47 (6)		4.06% (3)	1.80% (6)	341.02 (8)	28,849.81	3.87%	

(1) Department of Taxation.

(2) December General Fund Forecast for FY 2016-2022, 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 4.10% for General Fund Revenues and 3.7% for Sales Tax Transfers. A.B.C. Profits and recurring Transfers per Appropriation Act held flat at \$80 million and \$103 million, per Department of Taxation.

(4) Does not include Highway Maintenance and Operating Fund, Federal Grants and Contracts or Toll Revenues.

(5) December Commonwealth Transportation Fund Forecast for FY 2016-2022, includes only Transportation Trust Fund Revenues.

(6) Based on flat growth rate of 1.80% for years 2023-2025, per Department of Taxation.

(7) December Virginia Health Care Fund Forecast for FY 2016-2022.

(8) Based on flat growth rate of -0.28% for Virginia Health Care Fund Revenues, 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 Model - Sensitivity Analysis

2-Year Reserve Excess Capacity Sensitivity

- The Base Model solution provides for average debt capacity of \$603.46 million 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 \$658.33 million.
 - 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 \$724.16 million.

Revenue Sensitivity

- If the Model 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 \$5.76 million.
 - Assuming a 1% change of revenues in each and every year, the incremental change is \$16.62 million.

Interest Rate Sensitivity

- If the Model solution is altered to change interest rates, the following changes to average debt capacity occur:
 - Add 100 basis points to base rate, and average capacity decreases to \$543.27 million.
 - Subtract 100 basis points from base rate, and average capacity increases to \$671.98 million.

Debt of the Commonwealth
(Dollars in Thousands)

	<u>As of</u> <u>June 30, 2015</u>	<u>As of</u> <u>June 30, 2014</u>
Tax-Supported Debt		
9(b) General Obligation ⁽¹⁾	\$ 642,181	\$ 706,192
9(c) General Obligation - Higher Education ⁽²⁾	936,857	925,086
9(c) General Obligation - Transportation ⁽²⁾	17,154	19,632
9(c) General Obligation - Parking Facilities ⁽²⁾	16,036	17,045
Commonwealth Transportation Board	2,552,123	2,373,382
Virginia Public Building Authority	2,623,447	2,374,835
Virginia Port Authority	288,446	222,044
Virginia College Building Authority - 21st Century & Equip	3,520,214	3,286,119
Virginia Biotechnology Research Park Authority	30,619	34,355
Capital Leases	135,404	143,105
Installment Purchases	177,185	190,462
Virginia Aviation Board	307	529
Economic Development Authority Obligations ⁽³⁾	51,249	57,621
Subtotal Tax Supported Debt	<u>\$ 10,991,222</u>	<u>\$ 10,350,407</u>
Other Tax-Supported Debt		
Compensated Absences ⁽²⁾	\$ 599,726	\$ 601,757
Pension Liability ⁽²⁾	6,629,296	3,181,441
OPEB Liability ⁽²⁾	1,484,680	1,270,479
Pollution Remediation Liability ⁽²⁾	11,954	13,186
Other Liabilities ⁽²⁾	33,155	36,632
Subtotal Tax Supported Debt Not Included in Capacity Model	<u>\$ 8,758,811</u>	<u>\$ 5,103,495</u>
Total Tax-Supported Debt	<u>\$ 19,750,033</u>	<u>\$ 15,453,902</u>

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

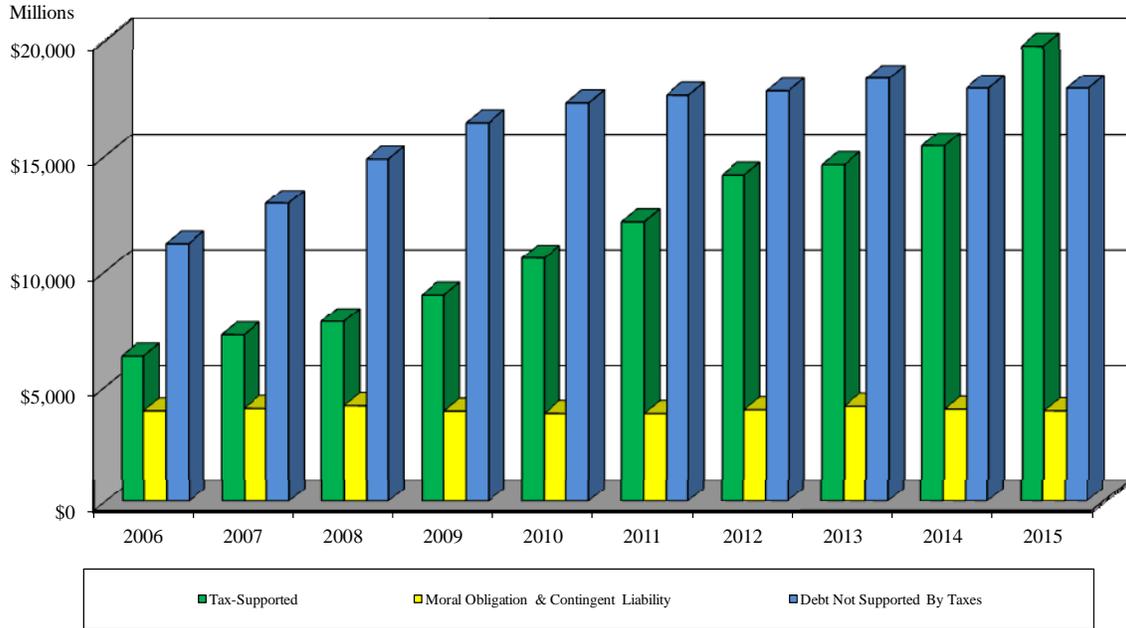
Debt of the Commonwealth
(Dollars in Thousands)

	<u>As of</u> <u>June 30, 2015</u>	<u>As of</u> <u>June 30, 2014</u>
Debt Not Supported by Taxes ⁽¹⁾		
<i>Moral Obligation / Contingent Liability Debt</i>		
Virginia Resources Authority	\$ 877,875	\$ 831,165
Virginia Housing Development Authority	-	-
Virginia Public School Authority - 1997 Resolution	2,577,310	2,706,460
Virginia Public School Authority - School Tax Credit Bond Program	353,400	353,400
Virginia Public School Authority - Equipment Technology Notes	185,850	174,975
Total Moral Obligation/Contingent Liability Debt	<u>\$ 3,994,435</u>	<u>\$ 4,066,000</u>
<i>Other Debt Not Supported By Taxes</i>		
9(d) Higher Education	\$ 2,038,579	\$ 1,826,602
Virginia College Building Authority - Pooled Bond Program	1,729,375	1,759,970
Virginia Public School Authority - Stand Alone Program	373,803	290,577
Virginia Housing Development Authority	4,498,847	4,931,982
Virginia Port Authority	256,656	272,831
Hampton Roads Sanitation District	748,397	766,353
Virginia Biotechnology Research Park Authority	-	-
Virginia Resources Authority	2,631,153	2,536,711
Federal Highway Reimbursement Anticipation Notes	30,624	60,905
Grant Anticipation Notes (GARVEES)	705,574	746,812
Route 460 Funding Corporation of Virginia	320,110	317,305
Notes Payable	168,394	132,093
Bond Anticipation Notes	-	-
Other Long-Term Debt	301,712	252,729
Foundations	1,685,948	1,669,241
Pension Liability	166,810	57,400
OPEB Liability	22,051	18,709
Capital Lease Obligations	5,708	6,072
Compensated Absences	10,123	10,102
Installment Purchase Obligations	-	-
Tuition Benefits Payable	2,116,769	2,140,430
Lottery Prizes Payable	136,222	152,693
Total Other Debt Not Supported By Taxes	<u>\$ 17,946,855</u>	<u>\$ 17,949,517</u>
Grand Total of Tax Supported Debt and Debt Not Supported By Taxes	\$ 41,691,323	\$ 37,469,419

Source: Department of the Treasury and Department of Accounts

⁽¹⁾ Not Included In Debt Capacity Model

Outstanding Commonwealth Debt Fiscal Years 2006-2015



Tax-Supported Debt Issued Fiscal Year 2016 Through December 31, 2015

<u>Issuer</u>	<u>Date Issued</u>	<u>Par Amount</u>
Virginia College Building Authority, Educational Facilities Revenue Bonds, Series 2015D (21st Century College and Equipment Program)	August 13, 2015	\$290,065,000

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 remaining 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, 2015	Available Authorization
Virginia Resources Authority	\$1,500,000	\$877,875	\$622,125
Virginia Housing Development Authority	\$1,500,000	\$0	\$1,500,000
Virginia Public School Authority	\$800,000	\$0	\$800,000
Total	\$3,800,000	\$877,875	\$2,922,125

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.

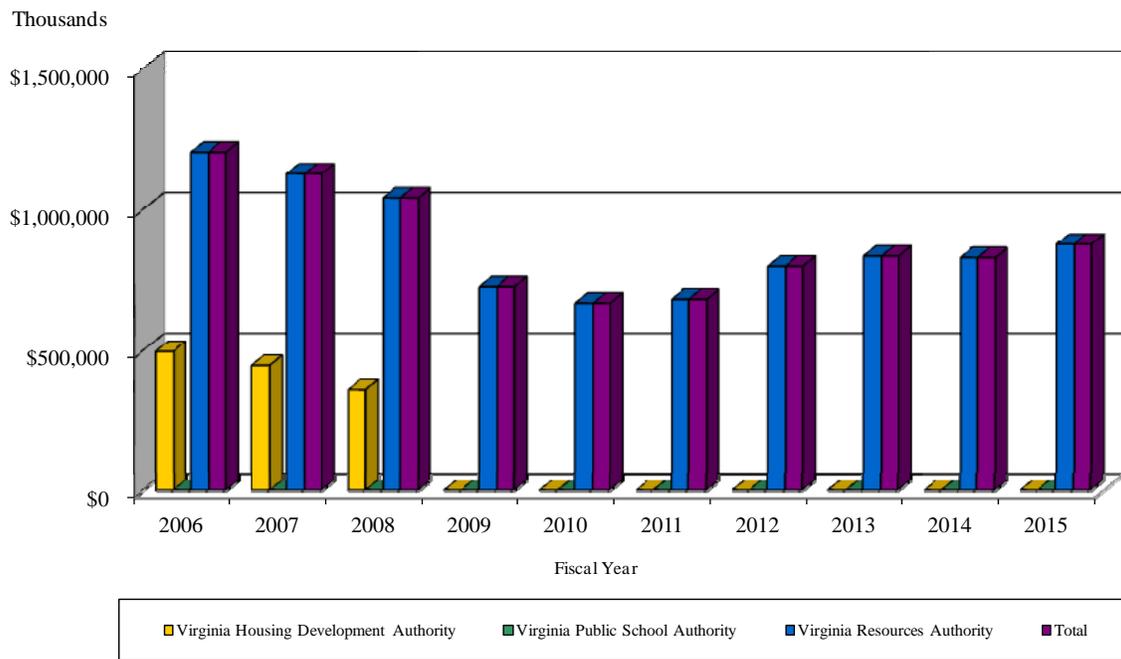
Moral Obligation Debt Sensitivity

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 Model solution is altered to assume the conversion of all outstanding moral obligation debt as of June 30, 2015 to tax-supported debt, the resulting average debt capacity is \$530.31 million.

Outstanding Moral Obligation Debt Fiscal Years 2006-2015



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 \$2.58 billion of 1997 Resolution bonds outstanding as of June 30, 2015 and an additional \$353 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, 2015, outstanding notes for school technology and security amounted to \$186 million.

VPSA's bonds issued through its Stand Alone Program are secured by the related local government's G.O. 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 SSA debt to tax-supported debt.

If the Model solution is altered to assume the conversion of the VPSA's total outstanding debt secured by a sum sufficient appropriation as of June 30, 2015 to tax-supported debt, the resulting average debt capacity is \$343.71 million.