# X00A00
# Public Debt

## *Operating Budget Data*

**($ in Thousands)**

| | FY 14 Actual | FY 15 Working | FY 16 Allowance | FY 15-16 Change | % Change Prior Year |
|---|---|---|---|---|---|
| General Fund | $83,000 | $140,000 | $274,000 | $134,000 | 95.7% |
| **Adjusted General Fund** | **$83,000** | **$140,000** | **$274,000** | **$134,000** | **95.7%** |
| Special Fund | 886,332 | 887,932 | 845,378 | -42,554 | -4.8% |
| **Adjusted Special Fund** | **$886,332** | **$887,932** | **$845,378** | **-$42,554** | **-4.8%** |
| Federal Fund | 11,406 | 11,490 | 11,477 | -12 | -0.1% |
| **Adjusted Federal Fund** | **$11,406** | **$11,490** | **$11,477** | **-$12** | **-0.1%** |
| **Adjusted Grand Total** | **$980,738** | **$1,039,422** | **$1,130,855** | **$91,433** | **8.8%** |

- Debt service costs continue to climb, reflecting increased authorizations, issuances, and debt outstanding.

Note: Numbers may not sum to total due to rounding.

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# X00A00
# Public Debt

## *Analysis in Brief*

### Issues

***State Budget Should Recognize Projected Premiums and Provide a Fund Balance as a Hedge Against Volatile Interest Rates:*** The State has been realizing substantial bond sale premiums since fiscal 2002. Market conditions suggest that premiums will be realized in fiscal 2016 and should be included in the Annuity Bond Fund (ABF) forecast. However, conditions are volatile and adequate reserves are required. **Because interest rates are volatile under current market conditions, the Department of Legislative Services (DLS) recommends that the ABF maintain a balance that is equivalent to at least one-half of the bond sale premiums anticipated in that year.**

***Debt Service Costs Exceed State Property Tax Revenues:*** State general obligation (GO) bond debt service costs are expected to increase 6% annually while State property tax revenues are expected to increase 1% annually. **The State Treasurer should be prepared to respond to questions the committees have about the status of the ABF.**

***State is at Debt Capacity: Reduced Revenue Will Strain the Capital Program:*** The Capital Debt Affordability Committee (CDAC) has set debt limits. Debt outstanding as a share of revenues cannot exceed 8%, and the current estimate is that debt service is at the limit in fiscal 2018. If out-year revenue estimates are reduced, debt issuances will need to be reduced if the State wishes to stay within CDAC debt limits. If reductions were made solely to GO bonds, DLS calculates that every $100 million in lost revenues will need to be offset by approximately $290 million in reduced GO bond authorizations. **The State Treasurer should be prepared to respond to questions that the budget committees have about the State debt affordability process and the State's ability to avoid breaching the affordability limits.**

***Assessing Affordability: Criteria Have Constrained Debt Issuances, but Debt Service Costs Strain State Resources Nonetheless:*** In recent years, the State has reduced planned GO bond authorizations to avoid breaching debt limits. The State has also increased planned authorizations. Now revenues supporting debt service costs are insufficient, and the general fund is needed to support debt service. Debt service costs are also increasing at a greater rate than revenues. In spite of this, recently proposed increases to GO bond authorizations have been deemed affordable. Two specific concerns about the affordability process are that the cost of authorizing additional debt is undervalued and that the State's current fiscal condition is not considered. **DLS recommends committee narrative requiring CDAC to review its affordability process.**

***Taxable Bonds Are More Expensive; Reliance on Taxable Bonds Should Be Reduced as State Approaches Structural Balance:*** The federal government limits the amount of private activity projects in tax-exempt bonds. The State has been increasing its authorizations of private activity projects in the GO program. In fiscal 2013 and 2014, the State issued $113 million in taxable bonds, and more issuances are anticipated. Data from the bond sale shows that taxable bonds are more expensive than tax-exempt bonds. **The Administration should brief the committees on any plans it has to return**

**to the practice of supporting private activity capital projects with general funds. DLS further recommends restricting $21 million of general fund pay-as-you-go to be used for housing programs instead of school construction and substituting $21 million in GO bonds for housing to be used for school construction. This maintains funding for housing and school construction at levels proposed by the Governor but has the benefit of reducing the need to sell taxable bonds. This will save future debt service costs for the State.**

## Recommended Actions

| | | **Funds** |
|---|---|---|
| 1. | Reduce the general fund appropriation to recognize anticipated bond sale premium. | $ 21,000,000 |
| 2. | Adopt narrative requiring a review of debt affordability process. | |
| | **Total Reductions** | **$ 21,000,000** |

# X00A00
# Public Debt

## *Operating Budget Analysis*

### Program Description

The Public Debt program appropriates funds for general obligation (GO) bonds' debt service payments. This includes principal and interest payments. GO bonds support the State's general construction program, such as prisons, office buildings, higher education facilities, school construction, and mental health facilities. GO bonds do not pledge specific revenues but rather pledge the State's full faith and credit. Issuances include:

- tax-exempt bonds sold to institutional investors;
- tax-exempt bonds sold to retail investors;
- taxable bonds sold to institutional investors;
- Build America Bonds (BAB), which were taxable bonds for which the State receives a direct subsidy from the federal government;
- Qualified Zone Academy Bonds (QZAB) that support specific education projects. Depending on the date of issuance, these bonds have received federal tax credits or direct federal subsidies;
- Qualified School Construction Bonds (QSCB), which supported specific education projects. Depending on the date of issuance, these bonds have received federal tax credits or direct federal subsidies; and
- Qualified Energy Conservation Bonds (QECB), which are direct federal subsidy bonds that support energy efficiency capital expenditures in public buildings, renewable energy production, and other related projects.

GO bond debt service payments are supported by the Annuity Bond Fund (ABF). The ABF revenues include State property tax revenues, federal subsidies, bond sale premiums, and repayments from certain State agencies, subdivisions, and private organizations. General funds may subsidize debt service if these funds are insufficient.

The State usually issues tax-exempt GO bonds to institutional investors twice a year. Other bonds are issued as they become authorized (BABs, QZABs, QSCBs, and QECBs), as needed (taxable), or as they are in demand (retail bonds). The goal is to minimize the bonds' debt service costs.

## Fiscal 2015 Actions

### Effect of July 2014 Bond Sale on Fiscal 2015 Debt Service Costs

**Exhibit 1** shows that debt service costs are $9.8 million less than projected after the July 2014 bond sale. The budget anticipated issuing $475.0 million, but the State issued $500.0 million. In spite of this higher issuance, fiscal 2015 debt service costs were $1.1 million less than anticipated. At the sale, the State also issued $656.5 million to refund $695.2 million in previously issued bonds. The sale reduced debt service costs by $8.7 million. As a result, fiscal 2015 debt service expenditures have been revised to be $1,027.0 million.

**Exhibit 1**
**July 2014 Bond Sale – Actual Costs Less than Projected**
**Fiscal 2015**
**($ in Thousands)**

| | |
|---|---|
| **New Bonds Debt Service** | |
| Budgeted 2015 Interest | $11,875 |
| Actual 2015 Interest | 10,784 |
| **Difference (Savings)** | **-$1,091** |
| | |
| **Refunding Bonds** | |
| Prior 2015 Debt Service | $24,667 |
| Refunding 2015 Debt Service | 15,963 |
| **Difference (Savings)** | **-$8,704** |
| | |
| **Total Difference Between Estimate and Sale (Savings)** | **-$9,795** |

Source: Public Financial Management, Inc.; State Treasurer's Office; Department of Budget and Management; Department of Legislative Services

## Proposed Budget

The fiscal 2015 allowance totals $1,130.9 million. This continues the steady increase in GO bond debt service costs experienced in recent years. These increases are attributable to higher GO bond authorizations and issuances. For example, the amount of new GO bonds issued increased from just over $400.0 million annually in fiscal 2001 and 2002, to approximately $700.0 million from fiscal 2005 to 2008, and $1 billion from fiscal 2010 to 2014.

Most of the revenues supporting GO bond debt service are derived from State property taxes. **Exhibit 2** shows that for fiscal 2016, State property taxes provide $740.8 million, which represents 66.6% of the appropriation. The Administration's fiscal 2016 forecast assumes that the March 2015 bond sale will be sold at a premium, which totals $39.2 million, which increase fiscal 2015 premiums to $109.4 million. The State also anticipates $11.5 million in federal revenues from BAB, QZAB, QSCB, and QECB issuances. Even with bond premiums and federal funds, the current State property tax rate (at $0.112 per $100 of assessable base) and ABF balance is insufficient to fully fund debt service costs. To support debt service without raising State property taxes, the allowance includes $274.0 million in general fund appropriations.

**Exhibit 2**
## Annuity Bond Fund Revenues and General Obligation Bond Fund Debt Service Expenditures
**Fiscal 2014-2016**
**($ in Thousands)**

| | 2014 Actual Expenditures | 2015 Working Appropriation | 2016 Allowance |
|---|---|---|---|
| **Annuity Bond Fund (ABF) Activity** | | | |
| Beginning Balance | $175,193 | $127,729 | $96,935 |
| Property Tax Receipts | 724,811 | 725,754 | 740,840 |
| Interest and Penalties on Property Taxes | 2,425 | 2,425 | 2,425 |
| Other Repayments and Receipts | 745 | 836 | 586 |
| Bond Premium | 104,777 | 109,447 | 0 |
| Transfer to Reserve | -127,729 | -96,935 | -1,830 |
| **ABF Special Fund Appropriations** | **$880,223** | **$869,256** | **$838,955** |
| General Fund Appropriations | $83,000 | $140,000 | $274,000 |
| Transfer Tax Special Fund Appropriations | 6,109 | 6,270 | 6,422 |
| Federal Fund Appropriations | 11,406 | 11,477 | 11,477 |
| **Projected Total Debt Service Expenditures** | **$980,738** | **$1,027,003** | **$1,130,855** |
| **Fiscal 2015 Changes to the Legislative Appropriation** | | | |
| Excess Appropriations, attributable to March and July 2014 Bond Sale Savings | $0 | $12,419 | $0 |
| **Budgeted Debt Service Appropriations** | **$980,738** | **$1,039,422** | **$1,130,855** |

Source: Public Financial Management, Inc; State Treasurer's Office; Department of Budget and Management; Department of Legislative Services

When preparing the budget, the Department of Budget and Management (DBM) did not include any projected premiums in the fiscal 2016 allowance. However, current market conditions suggest that it is reasonable to expect that bonds sold in fiscal 2016 will generate a premium. The Department of Legislative Services (DLS) estimates that the summer 2015 bond sale will generate a $23.1 million net premium, and the winter 2016 bond sale will generate a $17.4 million net premium. DLS' federal fund estimates also vary from DBM's estimates. DLS recognizes federal funds from recent QZAB issuances and adjusts revenues to reflect sequestration reductions to those issuances. The net effect is to slightly increase federal funds. Throughout this analysis, the DLS forecast includes these premiums. **Exhibit 3** compares the differences between the two forecasts.

**Exhibit 3**
**Differences Between Department of Budget and Management and Department of Legislative Services Estimates**
**Fiscal 2015 and 2016**
**($ in Thousands)**

| | |
|---|---|
| **Additional Department of Legislative Services' Revenues** | |
| 2016 Bond Sale Premiums | $40,454 |
| **Disposition of Additional Revenues** | |
| Reduced General Fund Appropriation | $21,000 |
| Additional End-of-year Transfer to Reserves | 19,454 |
| ***Subtotal*** | ***$40,454*** |

Source: Department of Budget and Management; Department of Legislative Services

**Exhibit 4** provides a breakdown of debt service costs projected in the fiscal 2016 allowance. The allowance includes $1,092.5 million in debt service from bonds that have already been issued and $25.9 million in debt service from issuances projected in March 2015. Bonds sold in summer 2015 are estimated to require $12.5 million in debt service payments in fiscal 2016.

**Exhibit 4**
## Fiscal 2016 Debt Service Costs
**($ in Millions)**

| Type of Debt | Principal | Interest | Sinking Fund | Total |
|---|---|---|---|---|
| GO Bonds Sold to Institutional Investors | $618.4 | $307.0 | $0.0 | $925.4 |
| Retail Bonds | 91.3 | 12.9 | 0.0 | 104.2 |
| Taxable Bonds | 23.0 | 0.9 | 0.0 | 23.9 |
| Build America Bonds | 0.0 | 25.3 | 0.0 | 25.3 |
| Qualified Zone Academy Bonds | 1.4 | 1.4 | 2.2 | 5.1 |
| Qualified School Construction Bonds | 0.0 | 2.0 | 6.4 | 8.3 |
| Qualified Energy Conservation Bonds | 0.0 | 0.3 | 0.0 | 0.3 |
| ***Subtotal*** | ***$734.1*** | ***$349.7*** | ***$8.6*** | ***$1,092.5*** |
| **Debt Issued after Allowance Submitted** | | | | |
| March 2015 Bond Sale | $0.0 | $25.9 | $0.0 | $25.9 |
| Summer 2015 Bond Sale | 0.0 | 12.5 | 0.0 | 12.5 |
| ***Subtotal*** | ***$0.0*** | ***$38.4*** | ***$0.0*** | ***$38.4*** |
| **Total** | **$734.1** | **$388.1** | **$8.6** | **$1,130.9** |

GO: general obligation

Note: Numbers may not sum to total due to rounding.

Source: Comptroller's Office, September 2014; Department of Budget and Management, January 2015; Bank of America Merrill Lynch, December 2014

Prior to fiscal 2001, State debt service was comprised of traditional GO bonds (tax-exempt debt issued to institutional investors). The exhibit identifies debt service payments attributable to the new kinds of debt and methods of issuance that have been added since 2001.

## Effect of Federal Sequestration

The Budget Control Act (BCA) of 2011 included automatic across-the-board spending reductions if Congress and the President failed to enact a Joint Select Committee bill by January 15, 2012. The bill was required to reduce the federal budget deficit by at least $1.2 trillion over 10 years. Congress was unable to enact the bill, and the BCA required that automatic spending reductions, referred to as sequestration, take effect. A number of federal programs, such as Social

Security, Medicaid, the Children's Health Insurance Program, Temporary Assistance for Needy Families, Supplemental Nutrition Assistance Program, and Federal-Aid Highways Obligation Limitations were exempt from these reductions. The Murray-Ryan Bipartisan Budget Act raised sequestration budget caps in federal fiscal 2014 and 2015 but also extended sequestration for two more years from federal fiscal 2012 to 2013.

Federal subsidies on State and local bonds are not deemed to be exempt from sequestration. Consequently, the federal fiscal 2013 grants were reduced by 8.7%, and federal fiscal 2014 grants were reduced by 7.2%. Reductions to federal grants are also influenced by the timing of the transfer of the subsidy. Because much of the debt service for these bonds was paid before sequestration went into effect in State fiscal 2013, the fiscal 2013 reduction is a modest $51,000. **Exhibit 5** shows that the full force of sequestration is apparent in fiscal 2014, as the subsidy reduction increases to approximately $976,000. Sequestration is in effect through fiscal 2023. The federal fiscal 2014 omnibus budget does provide relief from sequestration for some programs, but sequestration reductions to federal debt subsidies remain.

**Exhibit 5**
## Issuances Receiving Federal Fund Appropriations and Reductions Attributable to Federal Sequestration
**Fiscal 2013-2016**
**($ in Thousands)**

| | 2013 | 2014 | 2015 | 2016 | Total |
|---|---|---|---|---|---|
| July 2009 Build America Bonds | $796 | $796 | $796 | $796 | $3,185 |
| Oct. 2009 Build America Bonds | 942 | 942 | 942 | 942 | 3,767 |
| Feb. 2010 Build America Bonds | 6,036 | 6,036 | 6,036 | 6,036 | 24,143 |
| July 2010 Build America Bonds | 1,094 | 1,094 | 1,094 | 1,094 | 4,374 |
| July 2010 Qualified School Construction Bonds | 1,965 | 1,965 | 1,965 | 1,965 | 7,860 |
| Dec. 2010 Qualified School Construction Bonds | 228 | 228 | 228 | 228 | 912 |
| Aug. 2011 Qualified School Construction Bonds | 660 | 660 | 660 | 660 | 2,639 |
| Aug. 2011 Qualified Energy Conservation Bonds | 234 | 234 | 234 | 234 | 937 |
| Aug. 2012 Qualified Zone Academy Bonds | 198 | 426 | 426 | 426 | 1,477 |
| Less Sequestration | -51 | -976 | -926 | -949 | -2,901 |
| **Total** | **$12,102** | **$11,406** | **$11,477** | **$11,477** | **$46,462** |

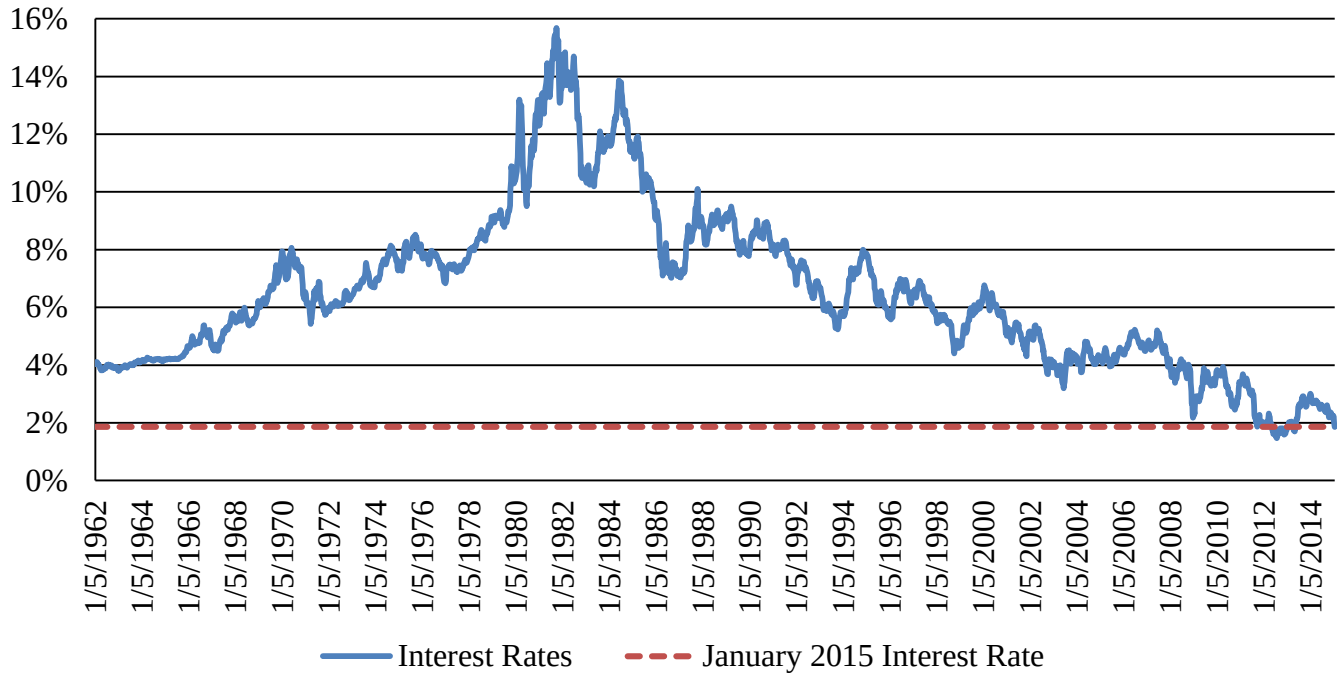
Source: Comptroller's Office; State Treasurer's Office; Department of Budget and Management, Department of Legislative Services

# *Issues*

## 1. State Budget Should Recognize Projected Premiums and Provide a Fund Balance as a Hedge Against Volatile Interest Rates

Since 2001, the State has been regularly generating bond sale premiums that exceed $10 million per bond sale. This is attributable to low interest rates. The rate for a 10-year[1] U.S. Government bond on Friday, January 16, 2015, (the most recent date for which the data is available) was 1.86%. Since 1962, only 39 of 2,768 weeks have had lower interest rates. **Exhibit 6** shows that all of these 39 lower rates were measured since May 2012. Clearly, interest rates are low and are more likely to increase than decrease over the next decade.

**Exhibit 6**
**Interest Rates of Federal 10-year Notes**
**January 1962-2015**




Source: Board of Governors of the Federal Reserve System, January 2015

[1] Ten-year bonds are used because the average maturity of Maryland general obligation bonds issued is approximately 10 years.

Bond sell at a premium when interest rates are expected to increase. This is because an increase in interest rates reduces the value of bonds, but bonds sold at a premium lose less value. Buying bonds at a premium protects investors against rising interest rates. Insofar as interest rates are expected to increase, bonds are expected to sell at a premium. **Appendix 2** provides a detailed economic justification for investors purchasing bonds at a premium.

As of January 2015, Moody's Analytics had prepared the most recent interest rate estimates. These estimates project that interest rates will increase steadily from calendar 2015 to 2018 and then plateau. DLS' has applied Moody's projections when estimating the true interest cost (TIC) of expected bond sales. Increasing the TIC reduces the difference between market interest rates, which the TIC represents, and the coupon rate, which is the rate that the State pays bondholders. This results in lower bond sale premiums. DBM projects a $39.3 million premium at the March 2015 bond sale. These premiums are based on current interest rates, which are historically low. Based on the steady increase anticipated by Moody's, DLS projects the following premiums:

- $23.1 million in summer 2015;
- $17.4 million in winter 2016;
- $9.2 million in summer 2016;
- $2.7 million in winter 2017; and
- no premiums beginning in 2018.

## Market Volatility Affects Bond Premiums

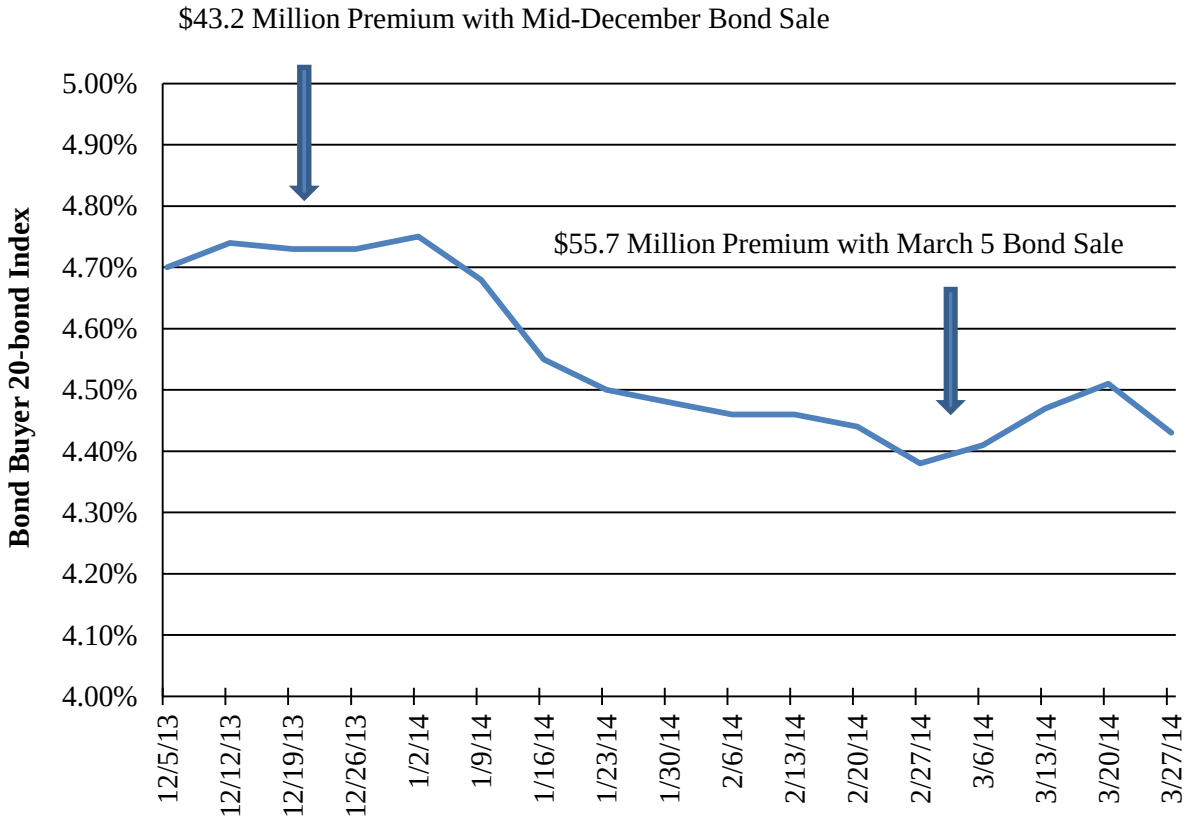
The concern about budgeting premiums is that small changes in interest rates can generate substantial changes in the amount of premiums realized. Currently, interest rates are highly volatile; rates can soar or plummet in a matter of weeks. For example, from the beginning of January 2014 to the end of February 2014, The Bond Buyer 20-bond Index decreased 0.37%, from 4.75% to 4.38%. Such a drop substantially increases a bond sale premium.

Much of this volatility cannot be foreseen. This means that a key variable used to estimate premiums is impossible to predict with any precision. An example of this is the March 6, 2014 bond sale. The State projected a $40.8 million premium. This forecast was prepared in December 2013 and was used in the Governor's fiscal 2015 budget. Using interest rates from December 2013, DLS forecasted a $43.2 million premium. DLS' conclusion is that the premium in the budget, though lower, was reasonable based on the data that was available when the budget was prepared.

The actual bond sale premium for the March 2014 sale was $55.7 million. This is $14.9 million more than budgeted. The difference was attributable to a sudden and unexpected decline in interest rates. Lower rates are favorable to the State because they reduce interest payments. If the coupon rate

that the State pays bondholders remains constant, the State realizes a larger premium. **Exhibit 7** shows that The Bond Buyer 20-bond Index declined from over 4.70% in December 2013 to approximately 4.40% in early March 2014. The State benefited from the change by receiving a larger premium.

**Exhibit 7**
**Timing of Bond Sale Influences Interest Rates and Premiums**
**December 2013-March 2014**




Note: The mid-December bond sale premium is estimated based on the interest rate generated using the statistical equation in **Appendix 3** of this analysis. The amount of bonds sold and the coupon rate are assumed to be the same as the March sale.

Source: Department of Legislative Services, November 2014

This volatility goes both ways. For example, the State issued bonds on July 24, 2013. There was a sharp increase in interest rates during July 2013. From July 3 to July 25, the index's interest rates increased from 4.39% to 4.77%. This increase of 38 basis points could have substantially decreased a forecasted premium. At the time, premiums were not forecast beyond the spring sale, so it cannot be determined to what extent the higher rates resulted in a smaller premium or higher debt service costs.

But the lessons are that large changes in interest rates can happen suddenly and that they can be adverse. To provide a hedge against this volatility, DLS' forecast includes out-year fund balances that are at least half the estimated fund balances. **Because interest rates are volatile under current market conditions, DLS recommends that the ABF maintain a balance that is equivalent to at least one-half of the bond sale premiums anticipated in that year.**

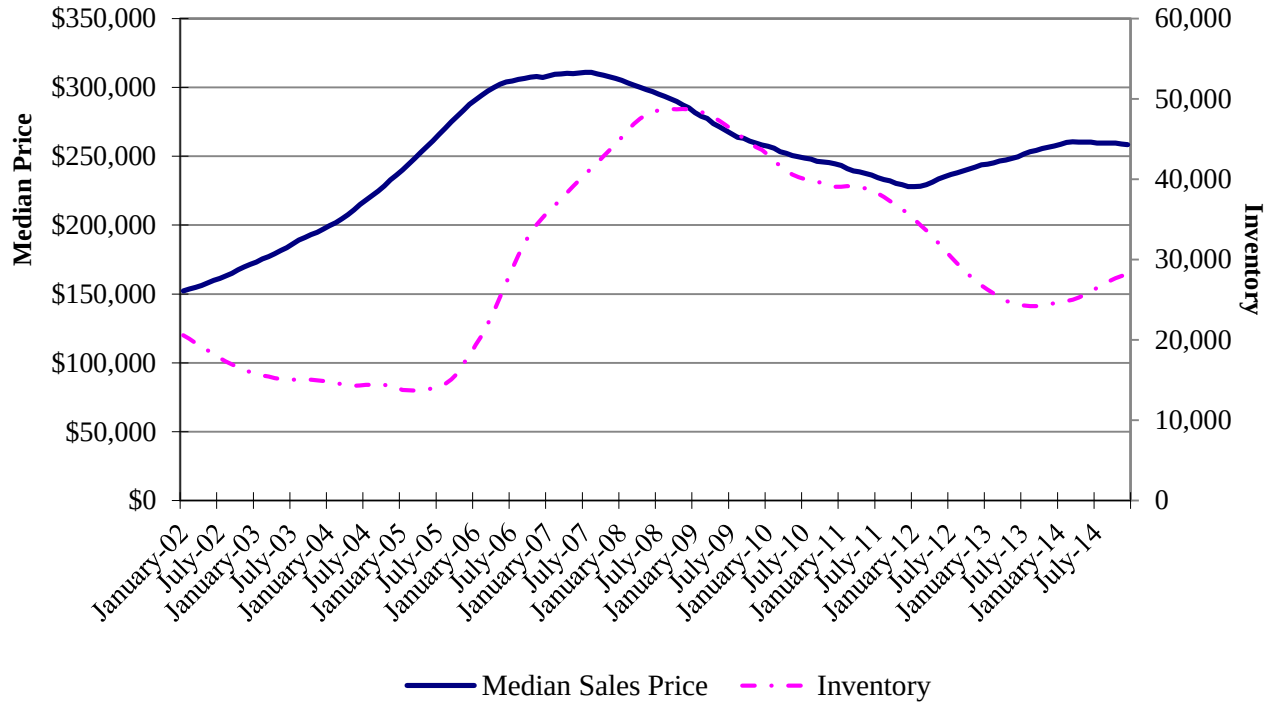
## 2. Debt Service Costs Exceed State Property Tax Revenues

GO bond debt service costs are supported by the ABF. The fund's largest revenue source is the State property tax. In April 2006, the State property tax rate was set at $0.112 per $100 of assessable base and has remained at that level. Other revenue sources include proceeds from bond sale premiums, interest and penalties on property taxes, and repayments for local bonds. When the ABF has not generated sufficient revenues to fully support debt service, general funds have subsidized debt service payments.

State property tax collections are influenced by trends in the housing market. **Exhibit 8** shows that the last decade saw a substantial increase in real estate values, which peaked in summer 2007, followed by a decline in values. The year-over-year decline began in July 2007 and continued until February 2012. That is 55 straight months of year-over-year declines in median home values. From February 2012 to March 2014, each month has seen a year-over-year increase in prices. Since April 2014, results have been mixed with some months seeing increases in values while others realizing decreases. Home value peaked in June 2014 and have declined since. To some extent, this is cyclical, since prices tend to be highest in the summer months. At this point it is unclear if the housing market is also slowing.

As expected, the rising property values from 2002 to 2007 increased State property tax receipts. **Exhibit 9** shows how much revenue one cent on the State property tax has generated since fiscal 2003. In fiscal 2003, there was a modest increase, and from fiscal 2004 to 2011, the increases were quite steep. Revenues declined from fiscal 2011 to 2014 and are expected to increase slightly after fiscal 2014.

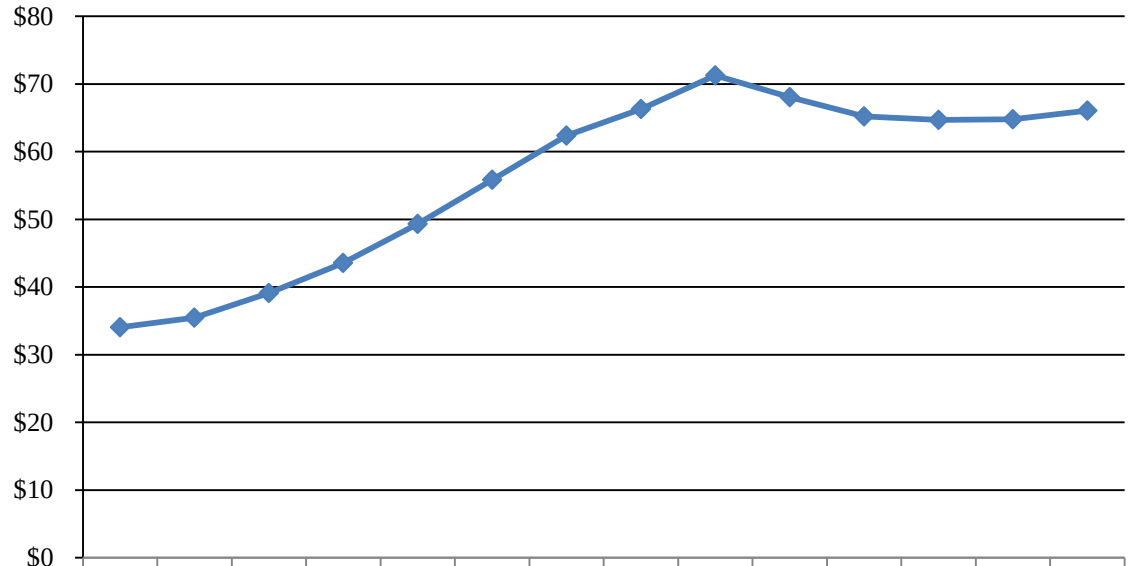
**Exhibit 8**
**Maryland Housing – Median Prices and Inventory**
**12-month Moving Average**
**January 2002 to December 2014**




Note: Inventory represents housing units for sale according to Metropolitan Regional Information Systems, Inc. and Coastal Association of Realtors.

Source: Maryland Association of Realtors; Department of Legislative Services

**Exhibit 9**
**Revenues Generated by One Cent of State Property Taxes**
**Fiscal 2003-2016**
**($ in Millions)**




| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenues | $34 | $35 | $39 | $44 | $49 | $56 | $62 | $66 | $71 | $68 | $65 | $65 | $65 | $66 |

Source: State Department of Assessments and Taxation; Department of Budget and Management; Department of Legislative Services

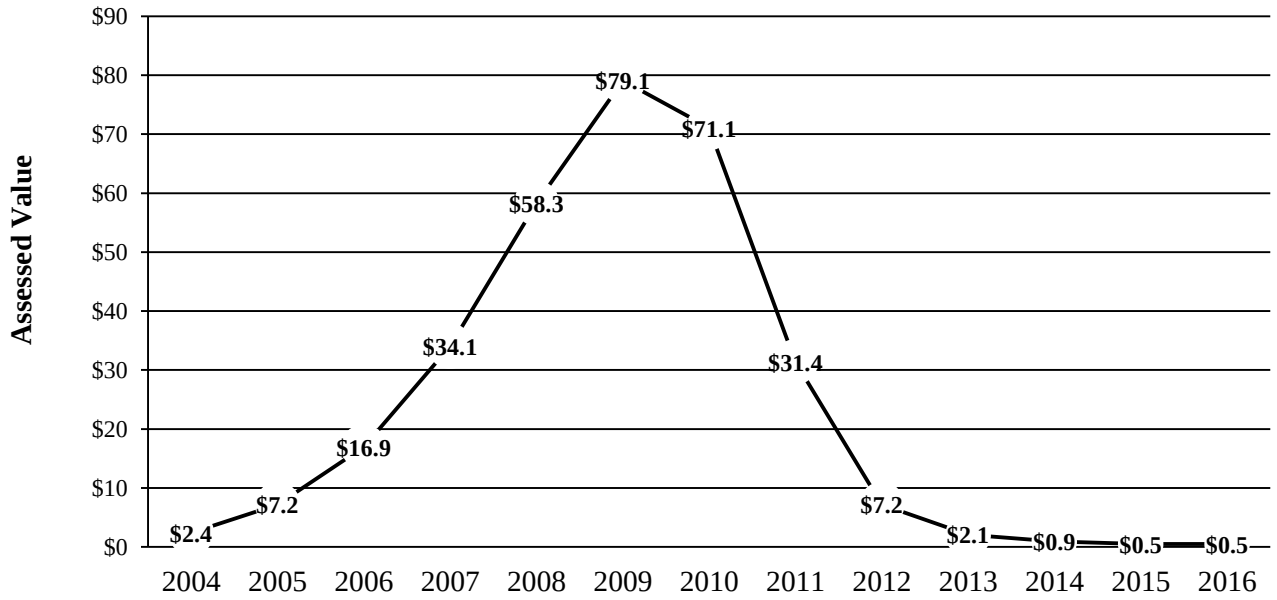
Assessment policies and the Homestead Tax Credit account for the lag between changes in the real estate market and tax receipts. Property values are assessed every three years, and increases are phased in over three years. For example, if a value increases by 9%, the State increase would be 3% in the first year, 6% in the second year, and 9% in the third year.

The Homestead Tax Credit limits the annual increase in State property assessments subject to the property tax to 10%. If reassessing a resident's property results in an increase that exceeds 10%, the homeowner receives a credit for any amount above 10%. For example, if property value increases 25%, the homeowner's assessment increases 10%, and the homeowner receives a 15% credit. This limits revenue growth when property values rise quickly. Taken together, the three-year assessment process and Homestead Tax Credit slowed the revenue increases and delayed the peak until after the decline in property values.

The homestead credit also provides the State a hedge against declining property values. As home values declined, the homestead credit declined, and revenues continued to slowly increase. The result was to smooth State revenues; State property tax revenue growth was slower as home values

increased, and there was no decline in revenues when home values decreased. **Exhibit 10** shows that State credits increased to $79 billion in fiscal 2009 in response to increases in assessments. By fiscal 2014, the aggregate homestead credits are projected to be under $1 billion.

**Exhibit 10**
**State Property Tax Homestead Tax Credits**
**Fiscal 2004-2016**
**($ in Billions)**

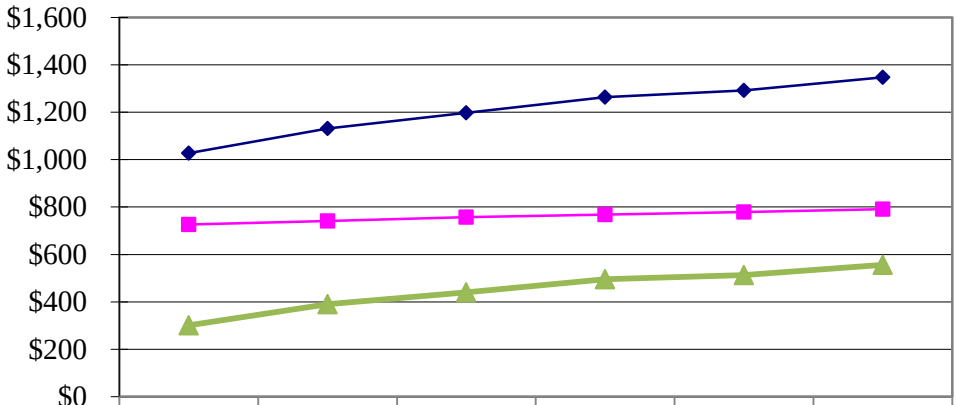



Source: State Department of Assessments and Taxation

Over the next few years, State property tax revenues are estimated to remain fairly flat. This contrasts with debt service costs, which are expected to increase steadily in the out-years. **Exhibit 11** shows how State property taxes, which are $301 million less than debt service costs in fiscal 2015, are expected to be $557 million less than debt service costs in fiscal 2020.

Before fiscal 2014, the shortfall in State property tax receipts was not a problem because the ABF had a large fund balance. In recent years, the State has benefited from the low interest rates offered for AAA-rated State and municipal bonds. These low rates have reduced GO bonds' TIC, which resulted in higher bond sale premiums. These premiums have been deposited into the ABF to support debt service costs. **Exhibit 12** shows that fiscal 2015 begins with $128 million in prior year fund balances, most of which are derived from bond sale premiums.

**Exhibit 11**
**GO Bond Debt Service Costs and State Property Tax Revenue Collections**
**Fiscal 2015-2020**
**($ in Millions)**




| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| State Property Tax Receipts | $726 | $741 | $757 | $768 | $779 | $791 |
| GO Bond Debt Service Costs | $1,027 | $1,131 | $1,198 | $1,263 | $1,292 | $1,348 |
| Difference | $301 | $390 | $440 | $496 | $513 | $557 |

GO: general obligation

Source: Department of Legislative Services, January 2015

**Exhibit 12**
**Revenues Supporting Debt Service**
**Fiscal 2015-2020**
**($ in Millions)**

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Change 2015-2020 | Average Annual % Change |
|---|---|---|---|---|---|---|---|---|
| **Special Fund Revenues** | | | | | | | | |
| State Property Tax Receipts | $726 | $741 | $757 | $768 | $779 | $791 | $65 | 1.7% |
| Bond Sale Premiums | 109 | 40 | 12 | 0 | 0 | 0 | -109 | -100.0% |
| Other Revenues | 3 | 3 | 3 | 3 | 3 | 3 | 0 | -1.3% |
| ABF Fund Balance Prior Year Reserves | 128 | 97 | 23 | 10 | 9 | 1 | -127 | -61.5% |
| ***Subtotal Special Fund Revenues*** | ***$966*** | ***$882*** | ***$794*** | ***$781*** | ***$791*** | ***$795*** | ***-171*** | ***-3.8%*** |
| **General Funds** | **140** | **253** | **395** | **472** | **483** | **536** | **396** | **30.8%** |
| Transfer Tax Special Funds[1] | 6 | 6 | 7 | 7 | 7 | 7 | 1 | 1.8% |
| **Federal Funds [2]** | **12** | **12** | **12** | **12** | **12** | **11** | **0** | **-0.6%** |
| **Total Revenues** | **$1,124** | **$1,153** | **$1,208** | **$1,272** | **$1,293** | **$1,349** | **$225** | **3.7%** |
| **Debt Service Expenditures** | **$1,027** | **$1,131** | **$1,198** | **$1,263** | **$1,292** | **$1,348** | **$321** | **5.6%** |
| **ABF End-of-year Fund Balance** | **$97** | **$22** | **$10** | **$9** | **$1** | **$1** | **-$96** | **-56.7%** |

ABF: Annuity Bond Fund

[1]This supports $70.0 million of general obligation bonds issued in 2010 for Program Open Space.
[2]This includes federal interest subsidies for Build America Bonds, Qualified Zone Academy Bonds, Qualified School Construction Bonds, and Qualified Energy Conservation Bonds.

Source: Department of Legislative Services, January 2015

In fiscal 2015, the fund balance is insufficient to support debt service costs. Even if bond sale premiums are assumed in fiscal 2016, DLS estimates that $253 million in general fund appropriations are needed.[2] The general fund appropriations are projected to increase to $536 million in fiscal 2020.

[2] General fund appropriations can be reduced by increasing the State property tax rate. The Department of Legislative Services estimates that rates would need to increase from $0.112 to $0.147 per $100 of assessable base to eliminate the $274 million appropriation proposed by the Department of Budget and Management in fiscal 2016.

**The State Treasurer should be prepared to respond to questions the committees have about the status of the ABF.**

## 3. State is at Debt Capacity: Reduced Revenue Will Strain the Capital Program

The Capital Debt Affordability Committee (CDAC) has two criteria to determine if debt is affordable. Total debt outstanding cannot exceed 4% of State personal income and total debt service cannot exceed 8% of the revenues that support debt service. **Exhibit 13** shows that the State is within the affordability limits. In fiscal 2018, debt service is 8% of State revenues, which is at the limit.

**Exhibit 13**
**State Affordability Ratios**
**Fiscal 2015-2020**

| Year | Debt Outstanding as a Percentage of Personal Income | Debt Service as a Percentage of State Revenues |
|---|---|---|
| 2015 | 3.45% | 7.00% |
| 2016 | 3.60% | 7.48% |
| 2017 | 3.71% | 7.78% |
| 2018 | 3.68% | **8.00%** |
| 2019 | 3.62% | 7.87% |
| 2020 | 3.54% | 7.76% |

Source: State Treasurer's Office, Department of Budget and Management, Department of Legislative Services

In October 2013, it was estimated that State debt was affordable and the State had excess debt capacity. In its report, CDAC estimated fiscal 2018 debt service costs would be 7.70% of State revenues.[3] Official revenues estimates for revenues supporting the State budget and GO bond program are approved by the Board of Revenue Estimates (BRE). BRE updates revenue estimates three times a year: September, December, and March. The reduced capacity since October 2013 is attributable to reduced revenue estimates. The most substantial of which was the December 2014 estimates, which reduced projected general fund revenues by $215 million to $384 million annually from fiscal 2017 to 2020. Most significantly for CDAC, the fiscal 2018 general fund revenue estimate was reduced by $262 million.

[3] This estimate assumed that the State would increase authorizations by $75 million annually from fiscal 2015 to 2019.

Since the State is at the limit, any subsequent reduction in projected revenues will require the State to reduce capital spending supported by debt. State debt includes GO bonds, transportation bonds, Grant Anticipation Revenue Vehicles (GARVEE), Bay Restoration bonds, some Stadium Authority bonds and some capital leases. In March 2015, while the budget committees are reviewing the budget, BRE will once again review revenues. Any reduction in revenues will be difficult for the State's GO bond program to absorb. **If out-year revenue estimates are reduced, DLS calculates that every $100 million in lost revenues will need to be offset by approximately $290 million in reduced GO bond authorizations. The State Treasurer should be prepared to respond to questions the budget committees have about the State debt affordability process and the State's ability to avoid breaching the affordability limits.**

## 4. Assessing Affordability: Criteria Have Constrained Debt Issuances, but Debt Service Costs Strain State Resources Nonetheless

To develop State debt policies and advise the Governor and General Assembly, CDAC was established by Chapter 43 of 1978. CDAC meets in public, has adopted affordability guidelines, and recommends GO bond levels each fall. Although the recommendation is neither binding for the Governor nor the General Assembly, each typically observes the level recommended by the committee in every capital budget.

In 1979, the committee adopted three criteria to evaluate affordability: State debt outstanding cannot exceed 3.2% of State personal income; State debt service cannot exceed 8.0% of State revenues; and new authorizations should be kept in the range of redemptions of existing debt. When the criteria were adopted, the State did not meet either the debt outstanding or debt service criterion.

In 1987, CDAC determined that the criterion limiting new authorizations to redemptions was no longer an applicable guideline. The goal of reducing debt had been met, and the committee's objective was no longer to reduce debt, but rather to maintain a stable capital program. At the time, the high ratings of the State's debt indicated that the existing level of debt and the planned increases were acceptable to the rating agencies. The criterion also tied annual authorizations to the amount of debt issued as much as 15 years before, thereby, producing highly variable bond authorizations which is inconsistent with a stable capital program. For these reasons, the committee dropped the criterion.

In the November 2008 report, the committee again recommended changing the affordability criteria. As it reviewed the criteria, the committee consulted with rating agencies, investment bankers, and its financial advisor. CDAC met in public a half dozen times in 2007 and 2008 to discuss debt policy and the criteria. The committee determined that targets of the two criteria were no longer appropriate and recommended increasing the debt outstanding to State personal income criterion from 3.2% to 4.0% of personal income. No change was made to the limit on debt service and the debt outstanding limit was increased. The policy increased the amount of total debt that the State was able to issue. This total debt had been increasing in recent years as the State expanded GO bond authorizations and issued new kinds of debt that were not supported by the State's general fund, such as bay restoration bonds and GARVEEs.

## Criteria Have Constrained Debt Authorizations and Issuances

CDAC has been successful at constraining State debt. Examples of constraint include:

- **Reducing Affordability Ratios from Fiscal 1979 to 1987:** When CDAC first introduced the criteria in fiscal 1979, State debt outstanding was 5.4% of personal income, and debt service was 11.3% of revenues. These ratios were steadily reduced by fiscal 1987, when debt outstanding was 3.2% of income and debt service was less than 8.0% of revenues;

- **CDAC Reduced Planned Five-year GO Bond Authorizations by $400 Million in December 2009:** During the Great Recession State general fund revenue declined as much as 5% in fiscal 2009. Realizing that revenues were insufficient to meet the debt service to revenue criterion, CDAC reduced the fiscal 2011 to 2015 capital program by $400 million; and

- **Spending Affordability Committee Recommended $75 Million Less in GO Bonds Than CDAC Recommended in December 2014:** In October 2014, CDAC recommended a debt limit totaling $1,170 million for fiscal 2016. Based on September 2014 State revenues estimates, this authorization was deemed affordable. In December 2014, BRE reduced out-year general fund revenue estimates. The new estimates were insufficient to support projected debt service. Later that month, the Spending Affordability Committee[4] (SAC) recommended reducing the proposed authorization by $75 million. In its explanation, the committee cited the CDAC criteria and the State's longstanding policy not to breach them.

## But Criteria Did Not Keep the State from Continuously Expanding State Debt Authorizations

Although debt affordability has constrained the growth of debt, debt has still been growing steadily since fiscal 2000. **Exhibit 14** shows that GO bond debt outstanding and debt service costs more than doubled between fiscal 2000 and 2014. Even relative statistics increased; debt service has increased from 5.79% of revenues in fiscal 2000 to 6.95% of revenues in fiscal 2014.

[4] The Spending Affordability Committee is a legislative committee that recommends spending limits for the Governor and General Assembly. Like the Capital Debt Affordability Committee, the recommendations are nonbinding, but adhered to nonetheless.

**Exhibit 14**
**Change in Debt Service and Debt Outstanding**
**Fiscal 2000 and 2014**
**($ in Millions)**

| Year | GO Bond Debt Service | Total Debt Service | Debt Service as Percent of Revenue | GO Bond Debt Outstanding | Total Debt Outstanding | Debt Outstanding as a Percent of Personal Income |
|---|---|---|---|---|---|---|
| 2000 | $459 | $640 | 5.79% | $3,348 | $4,468 | 2.51% |
| 2014 | 981 | 1,348 | 6.95% | 8,362 | 11,152 | 3.36% |

GO: general obligation

Source: *Report of the Capital Debt Affordability on Recommended Debt Authorizations*

Increased debt is not the result of one particular decision, rather it is the culmination of many actions taken to increase authorizations. In the 14 legislative sessions since 2000, net GO bond authorizations were increased in all but 3 legislative sessions.[5] **Appendix 4** provides a list of debt legislation since 2000. The most substantial increases are:

- in the 2004 legislative session, the GO program was increased by $100 million a year from fiscal 2005 to 2009;

- in the 2006 legislative session, the State modified the annual increase from a fixed $15 million to 3%. Another $100 million was permanently added annually to the program beginning in fiscal 2010 to avert a reduction in the program created by the proposed level of authorizations made in calendar 2004;

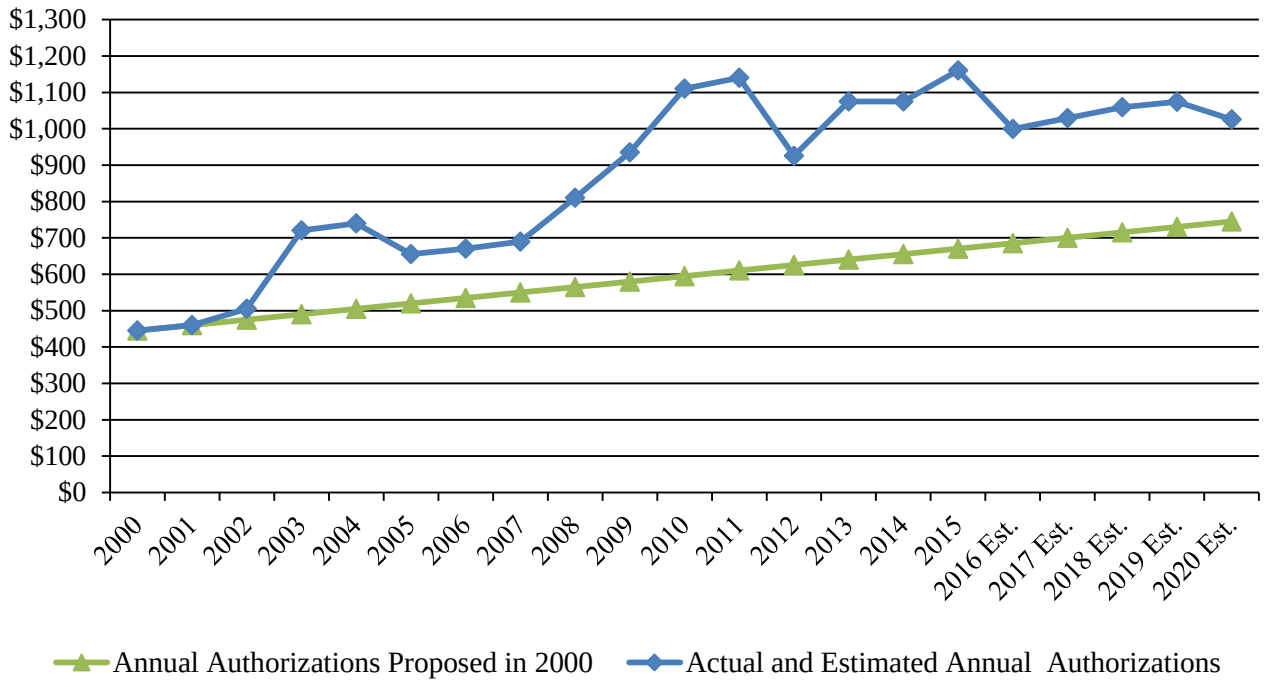
- in the 2008 legislative session, authorizations were permanently increased by $100 million annually; and

- in the 2013 legislative session, authorizations were increased by $150 million annually from fiscal 2014 to 2018.

The cumulative impact of continuously increasing authorizations is shown in **Exhibit 15**.

[5] There were no increases to general obligation bond authorizations adopted during the 2005 (fiscal 2006) and 2011 (fiscal 2012) legislatives sessions. In the 2010 session, the Capital Debt Affordability ratios were unaffordable in the out-years but affordable in the short term. The plan was modified to reduce five-year spending by $400 million. Fiscal 2011 authorizations were increased by $150 million while fiscal 2012 to 2015 authorizations were reduced by $550 million.

**Exhibit 15**
**Increase in General Obligation Bonds Authorizations**
**Fiscal 2000-2020 Est.**
**($ in Millions)**

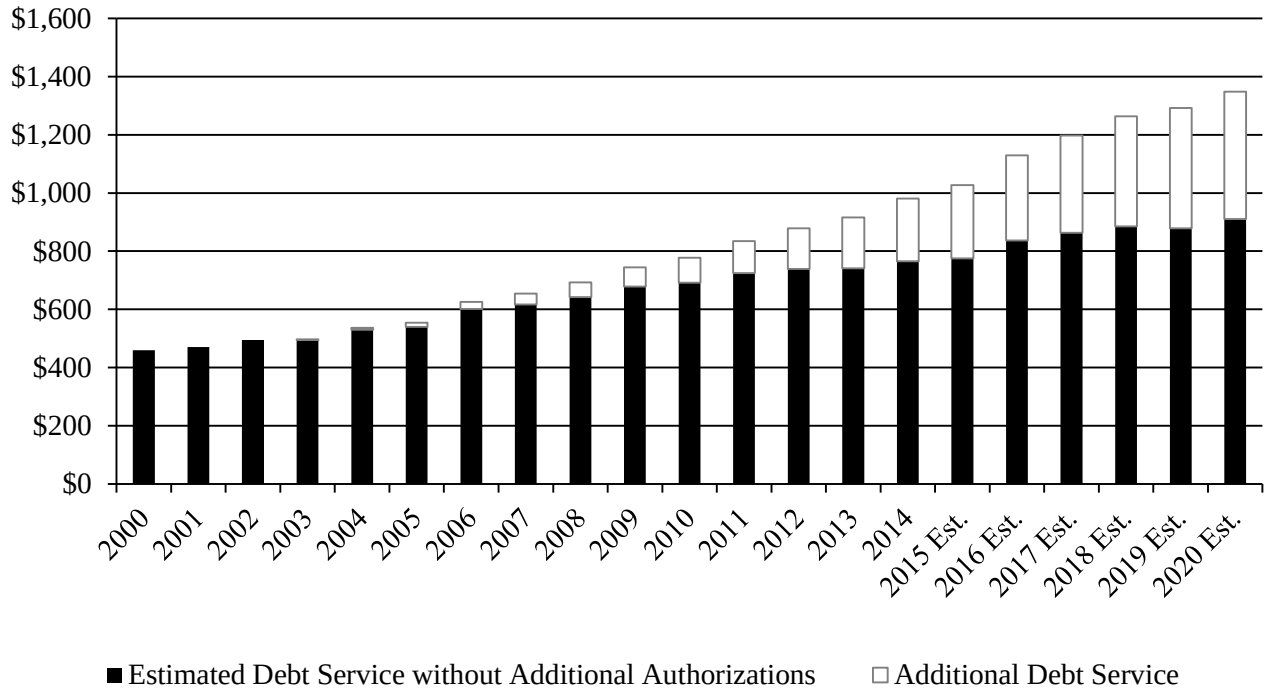



Source: *Report of the Capital Debt Affordability on Recommended Debt Authorizations*; *Maryland Capital Highlights*, January 2015; Department of Legislative Services

## Increased Authorization Resulted in Increased Debt Service Costs

Additional authorizations have increased issuances and debt service costs. DLS has estimated debt service costs related to the increases and decreases in authorizations and subtracted those cost changes from actual debt service to estimate what debt service costs would have been if the level of authorizations had not changed. **Exhibit 16** shows that debt service in the fiscal 2016 allowance, which totals $1,130 million, exceeds the pre-change estimates, which total $794 million, by $336 million.

**Exhibit 16**
**Effect of Additional Authorizations on Debt Service Costs**
**Fiscal 2000-2020 Est.**
**($ in Millions)**




Source: State Treasurer's Office; Department of Legislative Services

DLS estimates that without increasing authorizations, debt service costs would have increased at an annual rate of 3.5%. Instead, debt service costs have increased by 5.5% annually. As discussed in the previous issue, State property tax revenues are insufficient to support debt service costs and increasing general fund appropriations are required.

## Changes in Debt Service Costs Lag Changes in Authorizations

An interesting attribute of the previous exhibit is how little debt service increased from fiscal 2000 to 2004. This is attributable to the lag between the bond authorizations and debt service payments. Two factors are responsible for this lag:

- **Bonds Do Not Pay Principal Until the Third Year:** The State issues 15-year bonds that pay interest only for the first 2 years and pays interest and principal for the final 13 years. For example, selling $100 million in bonds with a 5% interest rate would result in $5 million

annually in interest in the first 2 years and $11 million in total debt service annually in the following 13 years; and

- **Capital Projects and Programs Do Not Need the Complete Authorization in the First Year:** State bonds support various programs and projects, many of which have payments that stretch over a number of years. To manage the cash flow efficiently, bonds are sold when payments are due. On average only 31% of authorized bonds are issued in the first year. The remaining 69% are spread over 5 years.

Taken together, a typical authorization's first payment is an interest only payment of less than one-third of the bonds authorized. In other words, a minute amount of the debt service for an authorized bond is paid in the first year.

This lag also affects debt service when reducing costs. By reducing authorizations, the initial benefit is minimal. As discussed in the previous issue, the State may need to reduce debt service costs if revenues underattain. The administration's fiscal 2016 to 2020 *Capital Improvement Program* (CIP) is a good example of how difficult this challenge is. The new Administration is proposing $999 million in GO bonds for fiscal 2016. This is $96 million less than the $1,095 million limit set by SAC and $171 million less than CDAC's authorization limit. Total fiscal 2016 to 2020 CIP spending is $913 million less than CDAC proposed in October 2014. **Exhibit 17** shows that reducing out-year authorizations does not even reduce fiscal 2016 debt service costs by $1 million.

**Exhibit 17**
**Budgeted Debt Service Costs and Savings Compared**
**Fiscal 2016-2020**
**($ in Millions)**

| Fiscal Year | Debt Service | Compared to Capital Debt Affordability Committee | Compared to Spending Affordability Committee |
|---|---|---|---|
| 2016 | $1,131 | $0 | $0 |
| 2017 | 1,198 | -2 | -2 |
| 2018 | 1,263 | -7 | -4 |
| 2019 | 1,292 | -18 | -11 |
| 2020 | 1,348 | -32 | -20 |

Source: *Report of the Capital Debt Affordability on Recommended Debt Authorizations*; Spending Affordability Committee *2014 Interim Report*, Department of Legislative Services

## Debt Affordability Process Recommendations

The State's debt affordability process has been effective at limiting GO bond authorizations. The State has limited debt outstanding and debt service so that they remain within the affordability guidelines. But the process is a blunt tool that has been less effective at evaluating incremental increases in GO bond authorizations, specifically:

- **The Affordability Process Undervalues the Cost of Issuing Debt:** The affordability process does not recognize debt service costs until the bonds are issued, and even then, the process recognizes only a fraction of the costs that are imminent. Once a bond is authorized, the bonds will be issued and that, typically, the State will be paying the authorization's debt service cost for 20[6] years. It usually take 8 years until the full annual debt service cost is appropriated, which is over $10 million for a $100 million authorization. Over the life of the debt, the authorization's debt service costs will total $148 million but less than $1 million is booked in the first year; and

- **The Affordability Process Does Not Consider the State's Current or Projected Fiscal Condition:** From a budgetary perspective, evaluating new initiatives is considered in the context of expected revenues and expenditures. It is not prudent to expand programs if projected revenues do not provide sufficient funding for those programs. During the 2014 session, the budget proposed by the Administration included $195 million in general fund support for debt service because the ABF did not have sufficient revenues to support debt service without this subsidy. The general fund appropriation was expected to increase to $524 million by the end of the forecast period (fiscal 2019). During this same session, the capital budget included $75 million in additional GO bond authorizations. Based on CDAC criteria, the additional authorization was affordable. Though the criteria limit debt service to 8% of revenues the criteria do not evaluate current conditions, which are that general fund subsidies are needed to support GO bond debt service. The criteria also do not relate to the specific revenues supporting debt service, which is the State property tax. Current estimates expect State property tax receipts to increase by 1% annually while GO bond debt service costs increase by 6% annually. This will continue to strain the general fund and crowd out other programs while debt service becomes an ever-increasing share of general fund expenditures.

These concerns can be addressed by changes in the CDAC processes. Specifically, the process could be revised to:

- **Evaluate Maximum Annual Debt Service Costs When Expanded GO Bond Authorizations Are Proposed:** The current process undervalues the cost of expanding debt because the debt service costs are initially quite small and are not fully realized until about a decade after bonds are authorized. Based on current market conditions, authorizing $100.0 million in additional bonds increases debt service payments in the first fiscal year by

[6] It takes each authorization an average of 5 years to issue bonds. Each bond sold is 15 years, so it takes about 20 years to retire debt that is authorized.

approximately $0.5 million. Debt service costs increase to over $10.5 million by the eighth year. When evaluating the cost of increasing authorizations, CDAC could consider the maximum debt service costs, instead of the projected cash flow. In the example above, the full $10.5 million in debt service costs would be evaluated. This provides a hedge against revenue underattainment;

- **Consider Linking Annual Increases in Debt Authorizations to State Property Tax Revenues Instead of Project Inflation:** In its 2005 report, CDAC recommended annually increasing GO bond authorizations by 3%, instead of just $15.0 million annually. The committee attempted to link the increases with capital project inflation. Current estimates are that State property tax receipts, which support GO bond debt service costs, will be increasing 1% annually. The inflationary 3% increase is an aspirational target that focuses spending increases on maintaining the program, not on maintaining a program that is supported by dedicated revenues. Reducing the annual increase to 1% would align the capital program with the revenues supporting debt service instead of demands on the program; and

- **Adopt a Target Debt Service to Revenue Ratio to Provide a Hedge Against Reduced Revenues:** State policy is to limit State debt service to 8% of revenues. As we have seen in the last year, revenue underattainment can increase debt ratios even if the State has not increased any debt authorizations. To protect against underattainment, the State could adopt a target ratio. For example, a target ratio of 7.7% would provide some additional capacity in case of revised revenue estimates. This is done in some states. Florida, for example, has a limit of 7% and a 6.0% target.

- **Modify Amortization Policies so that Principal is Retired in the First Year:** The Constitution of Maryland requires that State debt is retired within 15 years of issuance. Under current policies, the State makes interest only payments in the first two years and principal and interest payments are made in the last 13 years. Making principal payments in all 15 years reduces total debt service costs. For example, issuing $100.0 million in bonds under the current market conditions (a 5.0% interest rate) generates $148.4 million in debt service costs. Paying interest in the first and second year reduces total interest payments to $144.9 million, a savings of $3.5 million. This also reduces the maximum payment from $10.6 million to $9.6 million. In the short term, this does result in higher debt service costs of $4.6 million annually, as costs increase from $5.0 million to $9.6 million.

Taken together, these changes align the CDAC process more closely with the State's fiscal condition. Since increasing authorizations has almost no impact on short-term expenditures, the cost of increasing authorizations is understated. Accounting for the maximum amount of debt service would immediately recognize the fiscal impact of increasing authorizations. Also, the current process provides for annual increases that relate to maintaining program purchasing power instead of relating to the revenues available to support the program. Reducing the annual increase aligns growth with revenues instead of demand, thus making future GO bond authorizations more affordable.

If adopted, these changes have little short-term impact. In the short term, the State will need to monitor revenues closely and adjust the capital program if revenues underattain. However, slowing the growth to 1% "bends the curve" and puts less pressure on revenues. The proposed changes also allow for periodic increases but do this so that out-year debt service costs are considered when the affordability of increasing authorizations is evaluated. **DLS recommends that the budget committees adopt the following narrative:**

> **Review Capital Debt Affordability Process:** To manage State debt, the State created the Capital Debt Affordability Committee (CDAC). The committee has adopted two criteria to determine if State debt is affordable: State debt outstanding cannot exceed 4% of State personal income and State debt service cannot exceed 8% of State revenues. These criteria have succeeded in reducing State debt, which was unacceptably high in the late 1970s. However, the committees are concerned that the State has been increasing authorizations while State revenues have not been able to keep up with increasing debt service costs. Debt service costs are expected to increase at a rate of 6% per year while State property tax revenues, which support debt service, are expected to increase at a rate of 1% per year. The State is also at the debt limit and any reductions in revenue estimates will be difficult for the capital budget program to absorb. Two specific concerns about the affordability process are that the cost of authorizing additional debt is undervalued and that the State's current fiscal condition is not considered. CDAC should review the affordability process to examine how the process can better evaluate the cost of increasing authorizations and better link the affordability criteria with the State's current fiscal condition. Procedures to address these concerns should be adopted. CDAC should report on its evaluation and new procedures in its October 2015 report.

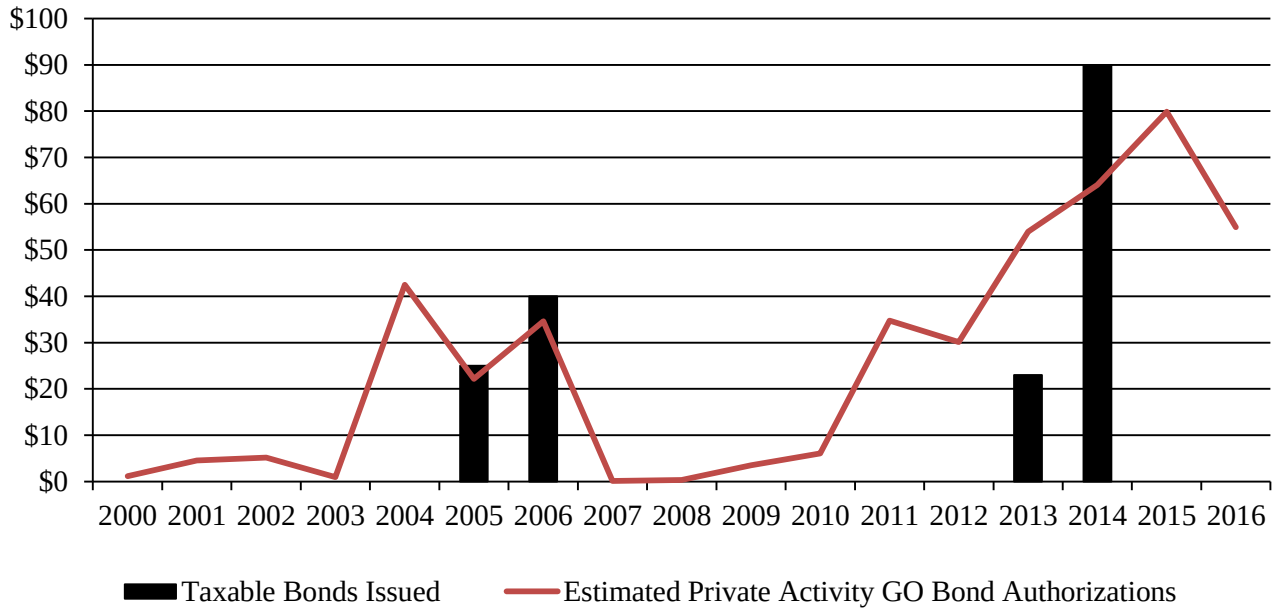
## 5. Taxable Bonds Are More Expensive; Reliance on Taxable Bonds Should Be Reduced as State Approaches Structural Balance

The State's capital program supports a number of different public policy areas, such as health, environmental, public safety, education, housing, and economic development. Federal government regulations allow the State to issue debt that does not require the buyer to pay federal taxes on interest earnings. In cases where investors do not pay federal income taxes, they are willing to settle for lower returns on their investment. Investors in taxable debt require higher returns to offset their tax liabilities. Consequently, the State can offer lower interest rates on tax-exempt bonds.

Federal laws and regulations limit the kinds of activities the proceeds from tax-exempt bonds can support. One such requirement limits private activities or private purposes of the bond proceeds to 5% of the bond sales proceeds. Another requirement limits the bonds to $15 million for business use projects and $5 million for business loans. Examples of programs that support private activities or uses include the Partnership Rental Housing, Homeownership and Neighborhood Business Development programs of the Department of Housing and Community Development (DHCD), the Hazardous Substance Cleanup Program of the Maryland Department of the Environment (MDE), the Public Safety Communications program of the Department of Information Technology, and the New Academic Commons at Salisbury University.

To avoid exceeding the private activity limits imposed in the federal regulations, the State has previously appropriated funds in the operating budget instead of issuing debt for private purpose programs and projects. Recent years' fiscal constraints have limited the amount of operating funds available for capital projects. To continue these programs, the State authorized GO bonds. In fiscal 2011, the State began migrating private purpose programs from the operating budget into the capital budget. **Exhibit 18** shows that the State has authorized over $300 million in private activity bonds since fiscal 2011 and issued $113 million in taxable debt in fiscal 2013 and 2014. The State Treasurer's Office advises that it is reviewing private activity authorizations and will issue taxable bonds when the cash is needed to support the projects.

**Exhibit 18**
**Private Activity Authorizations and Taxable Bond Issuances**
**Fiscal 2000-2016**
**($ in Millions)**




GO: general obligation

Source: Department of Budget and Management's *Capital Improvement Program*; Financial Advisor's *Report on Bond Sales*

## Taxable Bonds Cost More and Taxable Bonds' Costs Are Expected to Increase

In August 2012, the State sold $23 million in taxable GO bonds to institutional investors. The issuance's TIC was 0.45%, and the State did not realize a premium. At the same bond sale, the State also issued $4 million in tax-exempt bonds to institutional investors. The tax-exempt bond sale had a TIC of 0.33%. In other words, the difference between the two bonds, which were both issued on the same day, was 0.12% (12 basis points). DLS estimates that if the taxable issuance had sold at a TIC of 0.33%, instead of 0.45%, the bonds would have generated a premium totaling approximately $500,000.

In the out-years, the additional costs for issuing taxable debt are likely to increase. The current low interest rate environment could be suppressing the additional costs paid by issuers of taxable debt. For example, the State issued taxable debt in fiscal 2005 and 2006. At the time, interest rates were

higher, and DLS estimates that taxable bonds added $2.8 million in debt service costs for the $65.0 million issued. This is roughly twice the cost differential of the August 2012 bond sale.

The bottom line is that there is a measurable difference between the cost of taxable and tax-exempt debt. The additional price paid by issuers of taxable debt is more likely to increase than decrease when compared to tax-exempt debt.

## Reliance on GO Bonds for Private Use and Activities Continues After Budget Improves

It is not unusual for the State to move pay-as-you-go (PAYGO) capital projects and programs into the GO bond program when State finances deteriorate. Usually, the projects and programs are moved back out of the GO bond program after finances have improved. The previous exhibit shows this pattern after the rise in private use authorizations from fiscal 2004 to 2006. In fiscal 2007, there is a decline in private activity authorizations.

This is not the case in the current *Capital Improvement Program*. The fiscal 2016 capital budget includes $55 million in private activity authorizations. **Exhibit 19** shows that out-year private activity authorizations range from $35 million in fiscal 2017 to $33 million in fiscal 2020. Though there is a decline in authorizations, there is still a substantial reliance on GO bond funds to support projects and programs that are traditionally supported in the PAYGO capital funding. It also appears as though there is no attempt to reduce the reliance of GO bonds and appropriate general funds instead for DHCD or MDE programs.

As previously mentioned, federal regulations allow for some private activity in tax-exempt bonds. This allows some flexibility if there are minor changes in the use of infrastructure built or if there are some projects or programs that have a limited private activity component. Most of the agencies that have some private activity in their projects have exposure that can be managed within the federal guidelines.

The concern is that there are large projections of private activity authorizations in MDE and DHCD. These large authorizations are likely to result in the issuance of taxable bonds in the out-years. In the fiscal 2014 budget bill, the General Assembly added language expressing concerns about the amount of private activity bonds in the capital program. The language expressed the intent that the Administration reduces its reliance on private activity bonds. **The Administration should brief the committees on any plans it has to return to the practice of supporting private activity capital projects with general funds.**

**Exhibit 19**
**Private Activity Authorizations by Department**
**Fiscal 2016-2020**
**($ in Thousands)**

| | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|---|---|---|---|---|---|---|
| **Private Business Use** | | | | | | |
| **Department** | | | | | | |
| Department of Information Technology | $300 | $285 | $347 | $0 | $0 | $932 |
| University System of Maryland | 457 | 0 | 0 | 0 | 0 | 457 |
| ***Subtotal*** | ***$757*** | ***$285*** | ***$347*** | ***$0*** | ***$0*** | ***$1,389*** |
| **Private Loans** | | | | | | |
| **Department** | | | | | | |
| Department of Housing and Community Development | $44,430 | $26,700 | $25,800 | $24,900 | $25,100 | $146,930 |
| Maryland Department of the Environment | 9,785 | 7,810 | 7,810 | 7,810 | 7,810 | 41,025 |
| Department of Planning | 0 | 150 | 150 | 150 | 150 | 600 |
| ***Subtotal*** | ***$54,215*** | ***$34,660*** | ***$33,760*** | ***$32,860*** | ***$33,060*** | ***$188,555*** |
| **Total** | **$54,972** | **$34,945** | **$34,107** | **$32,860** | **$33,060** | **$189,944** |

Note: Numbers may not sum to total due to rounding.

Source: Department of Budget and Management, *Capital Improvement Program*, January 2015

This year's budget includes $30 million in the Board of Public Works to support public school construction projects, $21 million of which qualifies for tax-exempt bonds. Instead of supporting public school construction projects, it would reduce out-year debt service costs if these funds were instead used to support programs funded with taxable bonds and a corresponding increase of GO bonds for public school construction were authorized. **Since the General Assembly has expressed concerns about authorizing private activity bonds, DLS recommends that the $21 million of PAYGO general funds for public school construction instead support capital programs in DHCD. The State should reduce the authorization for DHCD's GO bonds and use this PAYGO appropriation to support DHCD programs. The $21 million in GO bonds originally intended for DHCD should be applied to public school construction projects, so that the State can maintain the level of funding proposed by the Governor.**

# *Recommended Actions*

| | | Amount Reduction | |
|---|---|---|---|
| 1. | Reduce the general fund appropriation to recognize anticipated bond sale premiums. The budget plan does not recognize any premiums that are expected in fiscal 2016. Since July 2002, the State has been realizing substantial premiums when issuing tax-exempt bonds to institutional investors. The Department of Legislative Services (DLS) estimates that $40.5 million in premiums will be realized in fiscal 2016. DLS recommends that the State recognize $40.5 million in premiums. These bond sale premiums should be used to offset the $21.0 million reduction and provide the Annuity Bond Fund with $21.3 million end-of-year balance. The Governor is authorized to process a special fund budget amendment of $21.0 million to recognize additional bond premiums to be used to pay debt service. | $ 21,000,000 | GF |

2. Adopt the following narrative:

**Review Capital Debt Affordability Process:** To manage State debt, the State created the Capital Debt Affordability Committee (CDAC). The committee has adopted two criteria to determine if State debt is affordable: State debt outstanding cannot exceed 4% of State personal income and State debt service cannot exceed 8% of State revenues. These criteria have succeeded in reducing State debt, which was unacceptably high in the late 1970s. However, the committees are concerned that the State has been increasing authorizations while State revenues have not been able to keep up with increasing debt service costs. Debt service costs are expected to increase at a rate of 6% per year while State property tax revenues, which support debt service, are expected to increase at a rate of 1% per year. The State is also at the debt limit and any reductions in revenue estimates will be difficult for the capital budget program to absorb. Two specific concerns about the affordability process are that the cost of authorizing additional debt is undervalued and that the State's current fiscal condition is not considered. CDAC should review the affordability process to examine how the process can better evaluate the cost of increasing authorizations and better link the affordability criteria with the State's current fiscal condition. Procedures to address these concerns should be adopted. CDAC should report on its evaluation and new procedures in its October 2015 report.

| Information Request | Author | Due Date |
|---|---|---|
| Review of debt affordability process | CDAC | With the October 2015 annual report |

**Total General Fund Reductions** **$ 21,000,000**

Appendix 1

# *Current and Prior Year Budgets*

## Current and Prior Year Budgets
**Public Debt**
**($ in Thousands)**

| | General Fund | Special Fund | Federal Fund | Reimb. Fund | Total |
|---|---|---|---|---|---|
| **Fiscal 2014** | | | | | |
| Legislative Appropriation | $83,000 | $887,744 | $12,381 | $0 | $983,125 |
| Deficiency Appropriation | 0 | 0 | 0 | 0 | 0 |
| Budget Amendments | 0 | 0 | 0 | 0 | 0 |
| Reversions and Cancellations | 0 | -1,412 | -976 | 0 | -2,388 |
| **Actual Expenditures** | **$83,000** | **$886,332** | **$11,406** | **$0** | **$980,738** |
| **Fiscal 2015** | | | | | |
| Legislative Appropriation | $140,000 | $887,932 | $11,490 | $0 | $1,039,422 |
| Cost Containment | 0 | 0 | 0 | 0 | 0 |
| Budget Amendments | 0 | 0 | 0 | 0 | 0 |
| **Working Appropriation** | **$140,000** | **$887,932** | **$11,490** | **$0** | **$1,039,422** |

Note: Numbers may not sum to total due to rounding. The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies.

## Fiscal 2014

Fiscal 2014 actual Public Debt spending was $2.4 million less than the appropriations. Special fund spending was $1.4 million less than anticipated, and federal fund spending was approximately $976,000 less than anticipated. Major changes include:

- the July 2013 special fund debt service costs were $1.9 million less than anticipated;
- savings from the March 2013 bond sale totaled $0.4 million;
- additional special funds to replace lost federal funds totaled just under $1.0 million; and
- federal sequestration resulted in a loss of federal appropriations for direct payment bonds totaling $1.0 million.

## Fiscal 2015

To date, no budget amendments have been approved in fiscal 2015.

# Investors Are Purchasing Maryland Bonds at a Premium to Protect Against a Loss in the Value of Their Bonds If Interest Rates Increase

When bonds are sold, they have a par value (cost of the bond as shown in the Official Statement) and a coupon rate (interest rate paid to the bondholder). When the bonds are bid, the Treasurer's Office determines the value of the bonds sold and when the bonds mature. The market determines the coupon rate and the sale price of the bonds.

In the current low-interest rate climate, the coupon rate has been substantially higher than the market interest rate, as measured by the true interest cost (TIC). If the TIC is less than a bond's coupon rate, the markets bid up the price of the bonds to a level that is higher than par value. The difference between the par value and the sale price of the bonds is a premium. Conversely, when the TIC is above the coupon rate, the bonds cannot sell at par value and sell for less. This difference is referred to as a discount.

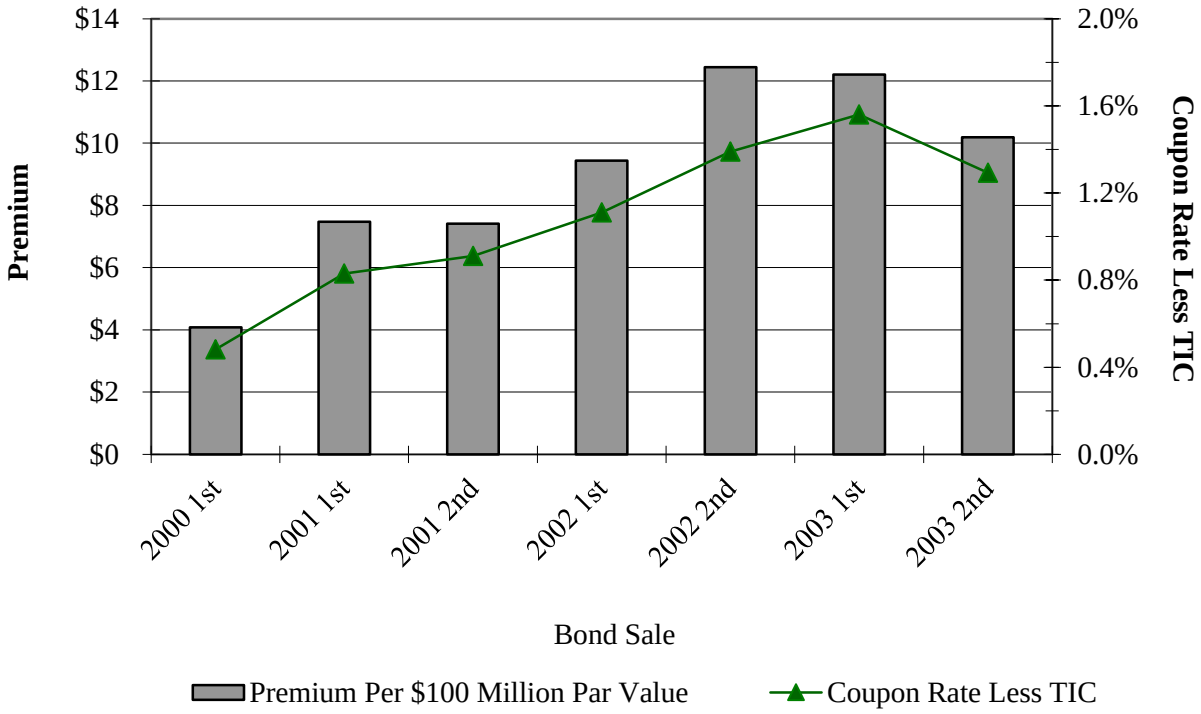
For most bond sales before 2001, the TIC was slightly below the coupon rate. This generated a small premium and provided sufficient funds for the capital program. Since 2001, interest rates have declined, while coupon rates have remained constant. The result has been substantial premiums. This relationship was examined by the Department of Legislative Services in calendar 2003 in the *Effect of Long-term Debt on the Financial Condition of the State*.

The increases in premiums are attributable to the difference between the bonds' coupon rates and the TIC. The coupon rates have declined less than market interest rates (as measured by the TIC) in recent years. **Table 1** shows how the spread between the coupon rate and the TIC affects bond sale premiums in bond sales from 2000 to 2003, when the State began realizing large premiums. Over the same period, bond sale premiums increased from $4 million per sale to $12 million per $100 million of bonds sold. The actual premium realized is even more stunning, as the total amount of bonds sold increased. The first 2000 bond sale generated an $8 million premium, while the first 2003 bond sale generated a $61 million premium.

## Bond Sale Premiums Protect Investors Against Rising Interest Rates

The return an investor receives for purchasing a bond is referred to as the yield. When bonds are sold, the yield is the TIC. At the July 2011 bond sale, the State competitively sold $29 million of general obligation bonds with 15-year maturities. The coupon rate of the bonds was 5.0%, and the yield was 3.3%. The value of each $5,000 bond with a 5.0% coupon rate was $5,999. The additional $999 was the premium investors paid to increase the coupon rate from 3.3% to 5.0%. At the time of the bond sale, the value of a $5,000 bond with a 3.3% coupon rate is the same as a $5,999 bond with a 5.0% coupon rate.

**Table 1**
**Differences between Coupon Rates and True Interest Cost Affect Premiums**
**2000-2003 Bond Sales**
**($ in Millions)**




TIC: true interest cost

Source: Department of Legislative Services, November 2003

Even though the two bonds in the previous example are worth the same on the day of the sale, investors prefer to purchase bonds at a premium under current market conditions. The reason for this is that bonds sold at a premium hold their value better than bonds sold at par if interest rates rise. If interest rates increase from 3.3% to 4.3%, the value of bonds sold for $5,999 decline 10.3%, while the value of bonds sold at par ($5,000) decline 11.0%.

Current interest rates are historically low. According to data from the Federal Reserve Board, the yield on 10-year treasury bills on the Friday, January 16, 2015 (the most recent data available), are among the lowest since 1962. In fact, only 39 out of 2,768 weeks had lower yields and all of these low rates were measured since May 2012. In this environment, it certainly makes sense for investors to protect themselves against rising interest rates, and this is done by purchasing bonds at a premium.

# Analysis of General Obligation Bonds' True Interest Cost

The interest rate that Maryland pays for the bonds it sells is referred to as the true interest cost (TIC). This rate is derived by calculating a bond sale's internal rate of return. The TIC is calculated at each bond sale, and the bidder with the lowest TIC is awarded the bid.

The financial literature provides information about factors that influence the TIC of State and municipal bond sales. Since 2006, the Department of Legislative Services (DLS) has prepared a statistical analysis to evaluate these financial factors. The sum of least squares regression is used to evaluate what factors influence the TIC Maryland receives on general obligation (GO) bond sales.

The least squares regression analysis dependent variable is the TIC. All the other variables are independent variables that are included to control the factors that could influence the TIC. The question that the regression equation addresses is which of the independent variables influence the dependent variable (TIC). The regression equation examines the variables previously listed and identifies five statistically significant variables at the 95% confidence level that affect the TIC. The following table shows the data for the statistically significant variables.

- **Bond Buyer 20-bond Index:** The key variable is the 20-bond index. This is an estimate of the market rate for 20-year, AA-rated State and municipal bonds. DLS has collected the estimated yields since 1991.

- **Ratio of Maryland Total Personal Income to the U.S. Total Personal Income:** One perspective on interest rates is to consider them as a return for risk. The higher the risk, the higher interest rate investors will expect. One factor of risk is the fiscal health of the entity selling the debt. In the DLS regression equation, State personal income is used as a proxy for fiscal health. The equation uses a ratio that compares State personal income to U.S. personal income. If the ratio increases, Maryland is doing relatively better than the rest of the United States, and a GO bond issuance's TIC tends to decline.

- **Years to Maturity:** Under normal economic conditions, bonds with shorter maturities have lower interest costs than bonds with longer maturities. This is referred to as a positive yield curve. The analysis estimates that every year adds 0.25% (25 basis points) to the TIC.

- **Post-financial Crisis:** This is a variable that indicates if a bond was sold before or after Lehman Brothers collapsed in September 2008. The equation estimates that Maryland bond yields are 0.62% (62 basis points) less since September 2008. This is consistent with the "flight to quality" that some believe has resulted since the financial crisis of 2008. The average bond in the index is a lower quality bond than Maryland bonds. The negative coefficient projects that the yield on higher rated bonds has been reduced when compared to AA-rated bonds. This variable was not necessary in previous years. The analysis used an index of AAA-rated bonds which would not identify an increasing spread between higher and lower rated bonds. Now that an AA-rated index

is used, a variable measuring the increasing spread between AAA and AA bonds results in an improved equation.

- ***Build America Bonds:*** In February 2009, the American Recovery and Reinvestment Act authorized the issuance of Build America Bonds (BAB). The bonds are taxable bonds that support the same types of projects that traditional tax-exempt bonds support. The difference is that the buyers do not receive any federal tax credits or deductions so that the interest earnings are subject to federal taxes. Instead, Maryland receives a subsidy equal to 35.0% of the interest costs from the federal government. In concept, the bonds expand the number of buyers of State and municipal debt since the bonds are also attractive to individuals and institutions that do not pay federal taxes. Because the tax-exempt bonds' benefit is greater for shorter maturities, the State issued tax-exempt bonds with shorter maturities and BABs with longer maturities.

## TIC Regression Equation – Evaluating the Independent Variables

| Ind. Variable | Coefficient | Std. Error | Beta | t-test | Sig. | Tol. | Comment |
|---|---|---|---|---|---|---|---|
| Bond Buyer 20-bond Index | 0.881 | 0.046 | 0.62 | 19.351 | 0.000 | 0.60 | Highest t-test suggests with confidence that the index is significant. |
| MD PI/US PI | -1.670 | 0.795 | -0.07 | -2.101 | 0.040 | 0.49 | Negative coefficient suggests that as the Maryland economy strengthens, compared to the United States, the TIC declines. |
| Years to Maturity | 0.252 | 0.028 | 0.34 | 9.091 | 0.000 | 0.44 | Positive coefficient means that longer maturities tend to have higher TICs. |
| Post-financial Crisis | -0.665 | 0.103 | -0.28 | -6.452 | 0.000 | 0.33 | Maryland bonds yields are reduced since the crisis. |
| BABs | -1.061 | 0.188 | -0.22 | -5.641 | 0.000 | 0.39 | Negative coefficient suggests BABs are less expensive. |
| Constant | 1.126 | | | | | | |

BAB: Build America Bond
Ind.: independent
MD PI/US PI: Maryland Total Personal Income to United States Personal Income
Sig.: significance or confidence interval
Std.: standard
TIC: true interest cost
Tol.: tolerance, a test of multicollinearity

Source: Department of Legislative Services, October 2014

In addition to estimating and evaluating the specific variables, a proper statistical analysis must also incorporate an analysis of the equation as a whole, such as:

- how confident are we in the equation (confidence interval);
- what is the equation's margin of error;
- how close are the equation's estimates to the actual data; and
- is there a dependence between successive dependent variables (serial or autocorrelation)?

The regression equation has a high level of explanatory power and suggests that the determinants of Maryland's TIC are well understood and account for almost all of the variations that are seen in the TIC. The following exhibit shows the equation's statistics.

## TIC Regression Equation – Evaluating the Entire Equation

| What Is Measured | Statistic Used to Measure | Value of Statistic | Explanation |
|---|---|---|---|
| Confidence in the equation | F Statistic | 317.8 | We are over 99.9% confident that the independent variables influence the dependent variable. |
| Margin of error | Standard error of the estimate | 0.228 | We expect the actual TIC to be within 0.23% (23 basis points) of the estimate. |
| Estimate in relation to actual data | Adjusted R Square | 0.964 | The model's estimates explain 96.4% of the actual data. |
| Serial or autocorrelation | Durbin-Watson | 1.449 | The ideal value is 2.0. If the number deviates too far from 2.0, it suggests that there are patterns in the errors, and a key independent variable is missing. |

TIC: true interest cost

Source: Department of Legislative Services, October 2014

The following table shows all the statistically significant variables:

## Maryland General Obligation Bond Debt True Interest Cost Analysis
### Statistically Significant Variables

| Bond Sale Date | TIC | 20-bond Index | MD/US PI | YTM | BABs | Post-crisis |
|---|---|---|---|---|---|---|
| 03/13/91 | 6.31% | 7.32% | 2.261 | 9.84 | No | No |
| 07/10/91 | 6.37% | 7.21% | 2.240 | 9.85 | No | No |
| 10/09/91 | 5.80% | 6.66% | 2.230 | 9.80 | No | No |
| 05/13/92 | 5.80% | 6.54% | 2.220 | 9.80 | No | No |
| 01/13/93 | 5.38% | 6.19% | 2.221 | 9.73 | No | No |
| 05/19/93 | 5.10% | 5.77% | 2.212 | 9.73 | No | No |
| 10/06/93 | 4.45% | 5.30% | 2.206 | 9.73 | No | No |
| 02/16/94 | 4.48% | 5.42% | 2.208 | 9.74 | No | No |
| 05/18/94 | 5.36% | 6.14% | 2.199 | 9.74 | No | No |
| 10/05/94 | 5.69% | 6.50% | 2.191 | 9.72 | No | No |
| 03/08/95 | 5.51% | 6.18% | 2.184 | 9.78 | No | No |
| 10/11/95 | 4.95% | 5.82% | 2.163 | 9.65 | No | No |
| 02/14/96 | 4.51% | 5.33% | 2.159 | 9.65 | No | No |
| 06/05/96 | 5.30% | 5.94% | 2.144 | 9.69 | No | No |
| 10/09/96 | 4.97% | 5.73% | 2.144 | 9.70 | No | No |
| 02/26/97 | 4.90% | 5.65% | 2.136 | 9.68 | No | No |
| 07/30/97 | 4.64% | 5.23% | 2.135 | 9.68 | No | No |
| 02/18/98 | 4.43% | 5.07% | 2.119 | 9.68 | No | No |
| 07/08/98 | 4.57% | 5.12% | 2.128 | 9.68 | No | No |
| 02/24/99 | 4.26% | 5.08% | 2.134 | 9.60 | No | No |
| 07/14/99 | 4.83% | 5.36% | 2.146 | 9.60 | No | No |
| 07/19/00 | 5.05% | 5.60% | 2.157 | 9.72 | No | No |
| 02/21/01 | 4.37% | 5.21% | 2.178 | 9.71 | No | No |
| 07/11/01 | 4.41% | 5.22% | 2.201 | 9.68 | No | No |
| 03/06/02 | 4.23% | 5.19% | 2.233 | 9.61 | No | No |
| 07/31/02 | 3.86% | 5.00% | 2.241 | 9.66 | No | No |
| 02/19/03 | 3.69% | 4.79% | 2.235 | 9.60 | No | No |
| 07/16/03 | 3.71% | 4.71% | 2.250 | 9.67 | No | No |
| 07/21/04 | 3.89% | 4.84% | 2.254 | 9.70 | No | No |
| 03/02/05 | 3.81% | 4.50% | 2.259 | 9.70 | No | No |
| 07/20/05 | 3.79% | 4.36% | 2.268 | 9.69 | No | No |
| 03/01/06 | 3.87% | 4.39% | 2.242 | 9.68 | No | No |
| 07/26/06 | 4.18% | 4.55% | 2.238 | 9.64 | No | No |

| Bond Sale Date | TIC | 20-bond Index | MD/US PI | YTM | BABs | Post-crisis |
|---|---|---|---|---|---|---|
| 02/28/07 | 3.86% | 4.10% | 2.228 | 9.64 | No | No |
| 08/01/07 | 4.15% | 4.51% | 2.218 | 9.65 | No | No |
| 02/27/08 | 4.14% | 5.11% | 2.208 | 9.64 | No | No |
| 07/16/08 | 3.86% | 4.65% | 2.213 | 9.60 | No | Yes |
| 03/04/09 | 3.39% | 4.96% | 2.287 | 9.01 | No | Yes |
| 03/02/09 | 3.63% | 4.87% | 2.287 | 10.04 | No | Yes |
| 08/05/09 | 2.93% | 4.65% | 2.303 | 8.96 | No | Yes |
| 08/03/09 | 3.20% | 4.69% | 2.303 | 9.01 | No | Yes |
| 08/05/09 | 3.02% | 4.65% | 2.303 | 14.99 | Yes | Yes |
| 10/21/09 | 2.93% | 4.31% | 2.242 | 7.91 | No | Yes |
| 10/21/09 | 3.06% | 4.31% | 2.242 | 14.03 | Yes | Yes |
| 02/24/10 | 2.85% | 4.36% | 2.262 | 12.09 | Yes | Yes |
| 07/28/10 | 1.64% | 4.21% | 2.259 | 5.34 | No | Yes |
| 07/28/10 | 1.91% | 4.21% | 2.259 | 6.20 | No | Yes |
| 07/28/10 | 2.74% | 4.21% | 2.259 | 13.51 | Yes | Yes |
| 03/07/11 | 2.69% | 4.90% | 2.286 | 6.86 | No | Yes |
| 03/09/11 | 3.49% | 4.91% | 2.286 | 10.51 | No | Yes |
| 07/25/11 | 1.99% | 4.46% | 2.299 | 5.65 | No | Yes |
| 07/27/11 | 3.08% | 4.47% | 2.299 | 10.05 | No | Yes |
| 03/02/12 | 2.18% | 3.72% | 2.306 | 8.33 | No | Yes |
| 03/07/12 | 2.42% | 3.84% | 2.306 | 9.71 | No | Yes |
| 07/27/12 | 2.52% | 3.61% | 2.277 | 9.10 | No | Yes |
| 08/01/12 | 2.17% | 3.66% | 2.277 | 9.71 | No | Yes |
| 03/06/13 | 2.35% | 3.86% | 2.288 | 9.61 | No | Yes |
| 07/24/13 | 3.15% | 4.77% | 2.284 | 10.20 | No | Yes |
| 03/05/14 | 2.84% | 4.41% | 2.265 | 10.14 | No | Yes |
| 07/18/14 | 1.27% | 4.36% | 2.240 | 4.69 | No | Yes |
| 07/23/14 | 2.65% | 4.29% | 2.240 | 10.16 | No | Yes |

BAB: Build America Bond
MD/US PI: ratio of Maryland personal income to U.S. personal income
TIC: true interest cost
YTM: years to maturity

Source: The Bond Buyer; Federal Bureau of Economic Analysis; Bond Sale Official Statements

# Debt Authorizations Since 2001 Legislative Session

| Initial Authorization | Type of Debt Authorized | Amount Authorized | Supporting Revenues | Effect on Capital Spending |
|---|---|---|---|---|
| Chapter 111 of 2001 | GO Bonds | $30 million annually | State property taxes and general fund | Increase the State capital program |
| Chapter 440 of 2002 | Consolidated Transportation Bonds | Increased debt limit from $1.2 billion to $1.5 billion | Transportation Trust Fund revenues | Increase State transportation capital program |
| Chapter 103 of 2001 | GO Bonds | $5 million annually | State property taxes and general fund | Fund Tobacco Transition Program |
| Chapter 290 of 2002 | GO Bonds | $200 million in fiscal 2003 | State property taxes and general fund | Move PAYGO capital projects into GO bond program |
| Chapter 204 of 2003 | GO Bonds | $200 million in fiscal 2004 | State property taxes and general fund | Move PAYGO capital projects into GO bond program |
| Chapter 432 of 2004 | GO Bonds | $100 million annually for five years | State property taxes and general fund | Increase the State capital program |
| Chapter 430 of 2004 | Consolidated Transportation Bonds | Increased debt limit from $1.5 billion to $2.0 billion | Transportation Trust Fund revenues | Increase revenues to increase State transportation capital program |
| Chapter 428 of 2004 | Bay Restoration Bonds | Estimated $530 million in total issuances | Bay restoration fee | Fund wastewater treatment plant improvements |
| Chapter 472 of 2005 | GARVEEs | Not to exceed $750 million | Federal transportation funds | Fund InterCounty Connector |
| Chapter 46 of 2006 | GO Bonds | Increase escalation from $15 million to 3%, $100 million annually beginning in fiscal 2010 | State property taxes and general fund | Increase the State capital program |
| Chapter 488 of 2007 | GO Bonds | $100 million annually | State property taxes and general fund | Increase the State capital program |
| Chapter 6, First Special Session of 2007 | Consolidated Transportation Bonds | Increased debt limit from $2.0 billion to $2.6 billion | Transportation Trust Fund revenues | Increase State transportation capital program |
| Chapter 336 of 2008 | GO Bonds | $100 million annually | State property taxes and general fund | Increase the State capital program |

| Initial Authorization | Type of Debt Authorized | Amount Authorized | Supporting Revenues | Effect on Capital Spending |
|---|---|---|---|---|
| Chapter 485 of 2009 | GO Bonds | $150 million in fiscal 2010 | State property taxes and general fund | Increase the State capital program |
| Chapter 419 of 2009 | POS Bonds | $70 million in fiscal 2010 | State share of transfer tax revenues | Maintain POS spending in fiscal 2010 |
| Chapter 719 of 2009 | GO Bonds | $2 million | State property taxes and general fund reimbursed by Community Development Administration | Contingent authorization for local government infrastructure bonds |
| Chapter 483 of 2010 | GO Bonds | $150 million in fiscal 2011 and reduces fiscal 2012 to 2017 authorizations by $960 million | State property taxes and general fund | Move PAYGO capital projects into GO bond program |
| Chapter 444 of the 2012 Regular Session | GO Bonds | Increase fiscal 2013 by $150 million and decrease fiscal 2018 by $150 million | State property taxes and general fund | Move forward capital projects |
| Chapter 429 of 2013 | Consolidated Transportation Bonds | Increased debt limit from $2.6 billion to $4.5 billion | Transportation Trust Fund revenues | Increase revenues to increase State transportation capital program |
| Chapter 424 of 2013 | GO Bonds | Increase fiscal 2014 to 2018 spending by $150 million annually | State property taxes and general fund | Increase total spending by $750 million |
| Chapter 463 of 2014 | GO Bonds | Increase fiscal 2015 to 2019 spending by $75 million annually | State property taxes and general fund | Increase total spending by $75 million |

GARVEE: Grant Anticipation Revenue Vehicle
GO: general obligation
PAYGO: pay-as-you-go
POS: Program Open Space