Effect of Long-term Debt *on the* Financial Condition of the State

Department of Legislative Services 2010

Effect of Long-term Debt on the Financial Condition of the State

Department of Legislative Services
Office of Policy Analysis
Annapolis, Maryland

November 2010

Contributing Staff

Writers
Flora M. Arabo
Patrick S. Frank
Andrew D. Gray
Richard H. Harris
Matthew D. Klein
Jonathan D. Martin
Jody J. Sprinkle

Reviewer
Patrick S. Frank

For further information concerning this document contact:

Library and Information Services
Office of Policy Analysis
Department of Legislative Services
90 State Circle
Annapolis, Maryland 21401

Baltimore Area: 410-946-5400 ● Washington Area: 301-970-5400
Other Areas: 1-800-492-7122, Extension 5400
TTY: 410-946-5401 ● 301-970-5401
Maryland Relay Service: 1-800-735-2258
E-mail: libr@mlis.state.md.us
Home Page: http://mlis.state.md.us

November 2010

The Honorable Edward J. Kasemeyer
Acting Senate Chairman, Spending Affordability Committee

The Honorable John L. Bohanan, Jr.
House Chairman, Spending Affordability Committee

Dear Chairman Kasemeyer and Chairman Bohanan:

The Department of Legislative Services' annual report on the *Effect of Long-term Debt on the Financial Condition of the State* is presented. This report follows the format of previous reports and includes a review of the recommendations of the Capital Debt Affordability Committee, an independent affordability analysis, and independent policy recommendations to the Spending Affordability Committee.

The Capital Debt Affordability Committee complements the efforts of the Spending Affordability Committee in management of the State's bonded indebtedness. The Capital Debt Affordability Committee, created by an Act of the 1978 General Assembly, is required to submit a recommended level of debt authorization to the Governor and the General Assembly by October 1 of each year. The existence of the committee within the Executive Branch means that consideration of debt affordability will occur at the time of formulation of the State's capital program, as well as the time of approval of the program by the legislature.

The statistical analysis and data used in developing the recommendations were prepared by Patrick Frank with assistance from Flora Arabo, Andrew Gray, Richard Harris, Matthew Klein, Jonathan Martin, and Jody Sprinkle. The manuscript was prepared by Judy Callahan.

Respectfully submitted,

Warren G. Deschenaux
Director

WGD/jac

Contents

Chapter 1. Recommendations of the Department of Legislative Services

New General Obligation Bond Authorization

The Capital Debt Affordability Committee (CDAC) recommended a limit of $925 million for new authorizations of general obligation (GO) bonds during the 2011 legislative session. The recommendation is $215 million less than what was authorized in the 2010 legislative session. This reduction is necessary to keep debt service costs within the committee's affordability limit, which limits debt service costs to 8% of revenues. Another concern is that GO bond debt service costs are increasing at a higher rate than the State property tax revenues supporting them. Consequently, current projections require general fund subsidies to support debt service costs at a time when there is a substantial structural deficit. **The Department of Legislative Services (DLS) concurs with the recommendation to maintain the GO bond authorization level at $925 million.**

In its recommendation, CDAC advised that the committee intends to reconvene in December 2010 to reexamine the recommended authorization level to reflect up-to-date economic and fiscal information and the Board of Revenue Estimate's (BRE) December revenue estimates. DLS recognizes that GO bond authorizations may need to be reduced if revenues decline and the current level of GO debt is no longer affordable. **Insofar as debt service costs are increasing more than revenues and the State's general fund is facing a structural deficit, DLS recommends against increasing the GO bond authorization if BRE increases projected general fund revenues.**

State debt includes GO bonds, transportation bonds, Grant Anticipation Revenue Vehicles, bay restoration bonds, Stadium Authority bonds, and capital leases. CDAC estimates how much debt is affordable. The committee sets a limit on GO bonds. The committee does not set specific limits on other forms of State debt. After CDAC makes its recommendation, each form of State debt is authorized in separate legislation. For example, GO bonds are authorized in the capital budget bill. The Administration does not present the legislature with a comprehensive capital spending plan that sets limits on all debt, and the legislature does not pass legislation confirming how much debt is to be issued each fiscal year. **DLS recommends that the Administration prepare a comprehensive long-term debt plan and submit this plan with the capital budget. It is also recommended that annually the Administration propose and the General Assembly adopt legislation that sets limits on all the different types of State debt as part of the capital budget process.**

Authorization of Transportation Debt

The Maryland Department of Transportation issues bonds supported by Transportation Trust Fund revenues. As State tax-supported bonds, these bonds compete with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall, State debt affordability limits. Transportation debt is discussed in Chapter 3. **It is recommended that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues debt affordability criterion.**

Analysis of Bay Restoration Bond Sale Suggests That Cost of Debt Could Be Reduced through a Competitive Sale

In June 2008, Maryland issued the first $50 million in bay restoration bonds. The bonds received a AA bond rating. The bonds were issued through a negotiated sale. Competitive bond sales tend to reduce the cost of debt. An analysis of the bay bonds suggests that a competitive bond sale may be appropriate. Other State debt, such as GO and transportation bonds, is competitively bid. This issue is discussed in Chapter 7. **Given that bay restoration bonds have successfully been issued, are highly rated, are supported by stable revenues, and do not have any particularly unique or complicated provisions, it is recommended that the future issuance of bay bonds be made on a competitive sale, instead of a negotiated sale basis.**

Higher Education Academic Debt

CDAC recommends limiting new debt authorization for academic facilities to $27 million for fiscal 2012. Academic bond issuances are discussed in Chapter 6. **DLS concurs with the committee's assessment that issuing $27 million in new University System of Maryland academic revenue bonds is affordable.**

Chapter 2. Recommendations of the Capital Debt Affordability Committee

Chapter 43 of 1978 created the Capital Debt Affordability Committee (CDAC). The committee is required to recommend an estimate of State debt to the General Assembly and the Governor. The committee is chaired by the State Treasurer, and other committee voting members are the Comptroller, Secretaries of the Department of Transportation and the Department of Budget and Management, and an individual appointed by the Governor. The chairs of the Capital Budget Subcommittee of the Senate Budget and Taxation Committee and the Capital Budget Subcommittee of the House Appropriations Committee serve as nonvoting members. The committee meets each summer to evaluate State debt levels and recommend prudent debt limits to the Governor and the General Assembly. The Governor and the General Assembly are not bound by the committee's recommendations.

When reviewing State debt, CDAC considers general obligation (GO) bonds including various taxable, tax exempt, and tax credit bonds authorized under the federal American Recovery and Reinvestment Act of 2009, consolidated transportation bonds, stadium authority bonds, bay restoration bonds, Grant Anticipation Revenue Vehicle revenue bonds, and capital leases supported by State revenues. Bonds supported by non-State revenues, such as the University System of Maryland's auxiliary revenue bonds or the Maryland Transportation Authority's revenue bonds, are examined but are not considered to be State source debt and are not included in CDAC's debt affordability calculation.

New General Obligation Debt Authorization

GO bonds are backed by the full faith and credit of the State, and they support the State's capital program. A discussion of GO bond authorizations, issuances, and costs is provided in Chapter 3. CDAC recommended a $925 million limit on new GO debt authorization for the 2011 session. This figure is $215 million less than the 2010 session authorization level and reflects two major changes in the committee's GO bond authorization proposal. First, it eliminates a $150 million increase recommended for the 2010 session to provide operating budget relief and allow the shifting of planned operating budget expenditures to the capital budget. Second, it reflects a downward adjustment in the long-range plan adopted by the committee prior to the 2010 session intended to keep future GO bond authorizations and issuances within affordability ratios.

Exhibit 2.1 illustrates the effect that reduced recommended authorization levels will have for the 2011 session as well as during the long-range forecast period. Overall, the amount recommended for the 2011 session is $215 million less than 2010 session authorizations. Moreover, the long-range plan reflects constrained authorization levels that provide virtually no increases and effectively eliminates even modest inflationary increases which ranged from $25 to $30 million annually.

Exhibit 2.1
Effect of Proposed Capital Debt Affordability Committee General Obligation Bond Authorizations
2011-2015 Legislative Sessions
($ in Millions)

Session	Proposed GO Authorizations	Change from Previous Years Authorization
2011	$925	-$215
2012	925	0
2013	925	0
2014	935	10
2015	945	10
Total	**$4,655**	

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, October 2010

The committee's affordability analysis and long-range estimates and assumptions are predicated upon the debt authorization levels returning to levels proposed by CDAC in previous reports to the extent that the State's revenue and economic picture improves and constraints on tax-supported debt issuance lessen.

However, in the near term, because the State's affordability ratios are at or near the benchmarks, and any change in State revenue estimates could directly impact the amount of future GO bond authorizations, the committee has advised that it intends to meet following the Board of Revenue Estimates' December forecast to make any necessary modifications to the committee's recommendations.

Higher Education Academic Debt to Be Authorized

CDAC recommends limiting new debt authorization for academic facilities to $27 million in the 2011 legislative session, which is the same amount authorized in the 2009 legislative session. The long-range plan adopted by the committee sets the annual authorization for academic facilities bonds at $27 million for fiscal 2012-2016. CDAC notes that the proposed capital financing programs for the public higher education systems result in a debt burden level, measured as debt service as a percentage of operating revenues plus State appropriations that is within the 4.5% ratio. Academic bond issuances are discussed in Chapter 6.

Capital Debt Affordability Workgroup

During the 2010 interim, the committee requested the establishment of a workgroup to study and make recommendations on a variety of topics affecting State debt policy. The following is a summary of the topics examined and workgroup recommendations.

- **Debt Issuance Constraints for Tax-supported Debt:** The workgroup reviewed the debt issuance constraints for all components of tax-supported debt in recognition that all of the various forms of tax-supported debt are impacted by the current fiscal climate that constrains new issuances of all debt types. Currently, there is not a policy in place for CDAC to make major recommendations concerning the appropriate balance between the major components of tax-supported debt. The workgroup recommended that the Department of Budget and Management coordinate debt capacity issues among the various forms of tax-supported debt.

- **Financing Energy Performance Contracts; Bonds vs. Leases and Potential Exclusion from Affordability Analysis:** Currently, the State finances energy performance contract infrastructure upgrades through lease-purchase agreements. Although the use of GO bond financing offers a lower cost of capital, it also pledges the full faith and credit of the State as opposed to lease financing which is secured by the property and subject to appropriation. The workgroup recommended continued use of lease financing due to the challenge of issuing bonds in the current fiscal climate. The workgroup also evaluated leases authorized under Section 8-505 of the State Finance and Procurement Article to examine whether such leases should be counted for debt affordability calculation purposes. Since the leases are paid with guaranteed savings and no separate appropriation is made for debt service, the workgroup recognized that such leases not be counted for affordability purposes, pending legislation. If this legislation is enacted, the workgroup does recommend that future CDAC reports include a summary of the amount outstanding of these leases and the current year's debt service along with the justification for not including them in the affordability analysis.

- **Public-private Partnerships:** Chapter 641 of 2010 requires that the committee analyze and report on the aggregate debt implications of public-private partnerships (P3s). Particular emphasis was placed on the classification of leases as capital or operating. Under current accounting principles, capital leases are considered debt of the State. While the committee currently includes capital leases in its affordability analysis, the State recently entered into a P3 development of the State Center complex and is expected to enter into a lease for the construction of a new public health laboratory, both of which could have significant implications on State debt affordability if considered as capital and not operating leases. State auditors reviewed the State Center project and determined that presently it was an operating lease but cautioned that a final determination would have to be made at the time the actual lease terms are finalized and estimated fair market value could be more accurately determined. As for the public health lab, the committee will review in December the Maryland Economic Development Corporation financing to determine whether the lease should be counted as operating or capital.

- **Accounting Standards for Capital and Operating Leases:** The accounting standards established for the reporting of capital leases are under consideration for revision. The changes could require all leases be counted as debt and reported on State balance sheets. According to the State Comprehensive Annual Financial Report, approximately \$63.9 million of annual rent expenditures for operating leases could be required to be reported as debt. The State's financial advisor has reported that at least two of the rating agencies will not focus on the changes until formally adopted by the Government Accounting Standards Board. Since any changes have not been formally adopted, the workgroup recommended to CDAC that operating leases not be counted in the affordability calculation at this time.

- **Energy Performance Contracts for Higher Education Institutions:** The State has financed \$36.2 million of energy performance contract leases for the University System of Maryland and St. Mary's College with another \$50.7 million in the pipeline. Through 2009, the treatment of these leases was to not count them as tax-supported debt. However, the workgroup recommended that these leases be treated as tax-supported debt for debt affordability calculation purposes since State tax revenues are used to provide support for higher education institutions.

- **Qualified Zone Academy Bond Proceeds:** Federal regulations require strict drawdown of Qualified Zone Academy Bond (QZAB) proceeds. Analysis of prior State QZAB authorizations reveals that the State has not effectively utilized the QZAB program in a timely fashion. This problem becomes even more acute as the State plans to issue another \$35.7 million of QZABs during fiscal 2011 through 2013, all of which will be issued under the more strict federal regulations. The workgroup recommended quarterly review of QZAB proceeds expenditures and made further recommendations concerning options for ensuring adherence to federal expenditure requirements.

Chapter 3. State Debt

Maryland's statutes allow for the issuance of the following types of State debt:

- general obligation (GO) bonds backed by the full faith and credit of the State, which include Qualified Zone Academy Bonds (QZABs) backed by the full faith and credit of the State, Qualified School Construction Bonds (QSCBs) backed by the full faith and credit of the State, and Build America Bonds;

- capital leases, annual payments subject to appropriation by the General Assembly;

- revenue bonds and notes issued by the Maryland Department of Transportation (MDOT), backed by operating revenues and pledged taxes of the department;

- Grant Anticipation Revenue Vehicles (GARVEE) pledging projected future federal transportation grants to support debt service payments. GARVEEs can be issued by MDOT and the Maryland Transportation Authority (MDTA);

- revenue bonds issued by the Maryland Stadium Authority (MSA), secured by a lease which is supported by State revenues;

- bay restoration bonds issued by the Maryland Department of the Environment's (MDE) Water Quality Financing Administration, pledging revenues from the Bay Restoration Fund; and

- revenue or bond anticipation notes which may be issued by the Treasurer and which must be repaid within 180 days of issuance. Currently, there are no anticipation notes outstanding.

General Obligation Bonds

GO bonds are authorized and issued to pay for the construction, renovation, or equipping of facilities for State, local government, and private-sector entities. Grants and loans are made to local governments and private-sector entities when the State's needs or interests have been identified. Projects funded with GO bonds include but are not limited to public and private colleges and universities, public schools and community colleges, prisons and detention centers, and hospitals. **Appendix 1** shows agency GO bond requests for fiscal 2012 through 2016.

New General Obligation Bond Authorizations: Reduced Out-year Authorizations

The Capital Debt Affordability Committee (CDAC) recommended a limit of $925 million for new authorizations of GO bonds during the 2011 session. The committee's recommendation for the 2011 session represents a $215 million reduction below the 2010 session authorization level. The reduced level of new authorizations includes the removal of the additional $150 million in new authorizations recommended for the 2010 session which were used to shift planned operating budget expenditures to the capital budget. These additional authorizations were considered temporary in nature and, therefore, not built into the base. It also includes reduced out-year authorization levels recommended by the committee in its December 2009 recommendation programmed to begin in the 2011 session. The reduction to out-year authorizations was necessary to keep State debt within the limits set by CDAC because reductions to State revenues made originally proposed debt authorizations levels unaffordable.

Exhibit 3.1 shows that the committee's long-term forecast for new GO bond authorization levels, as reflected in its 2010 report, recommends a total of $4,655 billion in authorizations from the 2011 through 2015 sessions. While the committee's recommendation is consistent with its revised 2009 recommendation made in December 2009, it is also $745 million less over the five-year planning period than what was initially recommended in the September 2009 report. While the current recommendation provides no further write-down from what was recommended in December 2009, the committee has advised that it intends to review the State's fiscal outlook and revenue estimates again in December 2010 when the Board of Revenue Estimates provides its next revenues estimate to determine if further adjustments and modifications to its recommendations are prudent.

Exhibit 3.1
Effect of New Policy on General Obligation Bond Authorizations
2011-2015 Legislative Sessions
($ in Millions)

Session	2009 Report September Recommended Authorizations	2010 Report Recommended Authorizations	Difference 2009 September and 2010 Reports
2011	$1,020	$925	-$95
2012	1,050	925	-125
2013	1,080	925	-155
2014	1,110	935	-175
2015	1,140	945	-195
Total	**$5,250**	**$4,655**	**-$745**

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, 2009 and 2010

General Obligation Bond Issuance Stream

GO bonds authorized in a given year are not issued the year in which they are authorized. The State Treasurer's Office reports that just over half of the GO bonds authorized in a year are typically issued within the first two fiscal years. Specifically, CDAC assumes bonds authorized in a given year will be fully issued over five years (31% in the first year, 25% in the second year, 20% in the third year, 15% in the fourth year, and 9% in the fifth year). This delay in issuance results in a substantial lag between the time GO bonds are authorized and the time the bonds affect debt outstanding and debt service levels.

Appendix 2 shows how the proposed authorizations for fiscal 2011 through 2020 would be issued. **Exhibit 3.2** compares the issuance stream projected by CDAC in its 2009 report and the 2010 Department of Legislative Services (DLS) estimate. The 2010 DLS projections show the State issuing $850 million less through fiscal 2019. The significant difference between the two projected issuance streams reflects the impact of reduced GO authorizations programmed for the out-years which at the time of the 2009 CDAC September report had not been officially recommended by the committee or incorporated into the committee's issuance stream projections.

Exhibit 3.2
Proposed Issuance Stream
Fiscal 2011-2019
($ in Millions)

Fiscal Year	2009 Report	2010 Estimate	Difference
2011	$970	$970	$0
2012	975	960	-15
2013	980	945	-35
2014	1,040	940	-100
2015	1,065	935	-130
2016	1,100	935	-165
2017	1,130	940	-190
2018	1,155	1,020	-135
2019	1,180	1,100	-80
Total	**$9,595**	**$8,745**	**-$850**

Source: 2009 Report: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, 2009; 2010 Estimate: Department of Legislative Services, October 2010

The table in Appendix 2 also indicates the expected issuances of current authorizations. At the beginning of fiscal 2011, approximately $2.4 billion in debt was authorized by the General Assembly but not issued. The CDAC report assumes that $970 million of this debt will be issued in fiscal 2011, $673 million in fiscal 2012, and the remainder issued between fiscal 2013 and 2016.

General Obligation Bond Debt Service Costs

Exhibit 3.3 shows that debt service costs are now expected to be $228 million less than projected in the 2009 report. Debt service costs are attributable to issuance amounts and interest rate assumptions. The difference is partly attributable to the reduced issuance stream which is a function of the lower GO bond authorizations recommended for the out-years. Also factoring into the difference is the impact of the federal subsidy received on Build America Bonds. Finally, the forecast assumes that the interest rate on bonds issued in the out-years is 5.00%, compared to last year's report, which assumed rates would be 5.50%.

Exhibit 3.3
Projected Debt Service Costs
Fiscal 2011-2019
($ in Millions)

Fiscal Year	2009 Report Estimated Debt Service Costs	2010 Report Estimated Debt Service Costs	Difference
2011	835	832	-$3
2012	887	881	-7
2013	948	923	-25
2014	990	990	0
2015	1,051	1,041	-10
2016	1,150	1,145	-5
2017	1,223	1,182	-41
2018	1,300	1,239	-61
2019	1,347	1,270	-77
Total	**$9,731**	**9,503**	**-$228**

Note: Totals may not sum due to rounding.

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, 2009 and 2010

General Obligation Bond Refunding

In recent years, low interest rates provided the State with the opportunity to refund bonds. The bonds were financed by issuing new debt at lower interest rates. The new debt was placed in an escrow account from which debt service payments for the previously issued debt are made. This increases gross GO bond debt outstanding, but net debt remains constant. The following issuances refunded bonds:

- The March 2002 bond sale included $109.9 million in principal with $117.2 million placed into escrow (includes a $7.5 million premium) to refund the prior bonds. Over the term of the bonds, this results in debt service savings of $10.8 million.

- The July 2002 bond sale included $290.8 million in principal with $315.3 million placed into escrow (includes $24.7 million premium) to refund the prior bonds. The gross savings on this refund is $17.5 million.

- The February 2003 bond sale issued $86.1 million in principal and placed $95.8 million in escrow (includes $9.6 million premium) to refund previously issued bonds. The debt service savings on this refund are $6.4 million.

- The October 2004 bond sale issued $574.7 million in principal and placed $631.1 million into escrow to refund previously issued bonds. The debt service savings are $23.1 million.

- The March 2005 bond sale issued $281.2 million in bonds and placed $292.3 million into escrow to refund previously issued bonds. The debt service savings are $11.6 million.

- In the December 2009 bond sale, the State issued $602.8 million in GO bonds to refund $606.3 million in GO bonds. The refunding bonds yielded net present value savings totaling $24.9 million from fiscal 2010 to 2020.

- The February 2010 bonds sale issued $195.3 million in bonds and supporting the advanced refunding of $200.4 million in previously issued bonds. The issuance generated $8.6 million in present value debt service savings.

These seven recent bond sale refunding issuances reduced GO bond debt service costs by a total of $102.98 million. The State Treasurer's Office, with advice from its financial advisor, is continually monitoring financial markets to determine if refinancing GO debt is advantageous. Should it be determined that market interest rates are sufficient to warrant a refunding, such action would be presented to the Board of Public Works (BPW) for its approval.

Program Open Space Bonds

Program Open Space (POS) bonds totaling $70 million were authorized as the Program Open Space Acquisition and Opportunity Loan of 2009 by Transfer Tax – Program Open Space Bonds – Land and Easement Acquisition (Chapter 419 of 2009). The bonds are intended to backfill the transfer of up to $70 million in Program Open Space State share unencumbered fund balance per the Budget Reconciliation and Financing Act of 2009 (Chapter 487 of 2009). Chapter 419 of 2009 requires that debt service on Program Open Space special bonds be paid from the Program Open Space State land acquisition allocation of the State transfer tax and that the debt not be included as State tax-supported debt by CDAC until the bonds have been issued. The law also allows real property to be acquired if the offer by the State is less than the lowest approved appraisal for the property. Chapter 372 of 2010 allows for the debt to be issued through general obligation bonds. In the end, POS bonds were not issued; the State issued GO bonds in place of POS bonds.

The full $70 million in general obligation bonds were issued as part of two State issuances, February and July 2010, as shown in **Exhibit 3.4.** By statute, the bond issuance had to occur before the first expenditures of general fund advances for property purchases. Since the first purchases were in August 2010, the statute appears to have been met.

Exhibit 3.4
Program Open Space Bond Issuance
($ in Thousands)

Issue Date	GO Bond Issuance	Principal
February 2010	First Series A Build America Bonds (Taxable)	$33,510
July 2010	2010 Second Series A, Tax-Exempt (Retail Sale)	12,010
July 2010	2010 Second Series B, Tax-Exempt (Competitive Sale)	18,520
July 2010	2010 Second Series C, Taxable Build America Bonds (Taxable)	6,275
Total		**$70,000**

Source: Department of Budget and Management, October 2010

Exhibit 3.5 shows that debt service costs are $1.2 million from fiscal 2011 to 2013, when the debt service payment is limited to interest payments. Debt service costs increase to over $6.1 million when first principal is retired beginning in fiscal 2014.

Exhibit 3.5
Program Open Space Special Bonds Debt Service Payment Schedule
Fiscal 2011-2016
($ in Thousands)

	2011	2012	2013	2014	2015	2016
Debt Outstanding	$70,000	$70,000	$70,000	$65,438	$60,680	$55,718
Debt Service	1,209	1,561	1,561	6,109	6,270	6,422

Source: Department of Budget and Management, November 2010

Tax – Property Article Section 13-209(a)(1) requires the State transfer tax, before any distributions, to be used to pay the principal and interest on the POS bonds. Therefore, the full State transfer tax amount is the primary pledge for the POS bonds' debt service and because POS was allocated funding from a general obligation bond issuance, the full faith and credit of the State is the secondary pledge. Although there have been fluctuations in the State transfer tax receipts in recent years, the overall State transfer tax revenue has exceeded $100 million in all but one year since fiscal 2002 and is estimated to be well over that amount through fiscal 2017, which is sufficient to meet the estimated $6 million annual debt service costs. The revenue fluctuations in recent years have been due to fluctuations in the number and value of housing sales, and the budgeted fluctuations have been due to overestimates of revenue for particular fiscal years. Issuing the bonds reduces the amount available for projects.

Two POS bond issues remain unresolved:

- Chapter 419 of 2009 specifies that up to $70 million may be authorized for land conservation but does not specify whether the debt issuance costs should be included in this number or added to it. The Department of Budget and Management is deliberating about how this should be handled; although, it appears that most State debt is usually handled whereby the issuance costs are added to the base number. Since the issuance costs are $315,000, usually the total amount of debt to be repaid would be $70,315,000.

- The fiscal 2011 budget appropriated $6.8 million from POS into the Annuity Bond Fund (ABF). Insofar as the required debt service payment is $1.2 million, the appropriation exceeds the fiscal 2011 debt service payment by almost $5.6 million. The DLS analysis of GO bond debt service payments, in Chapter 7, keeps the $5.6 million in the ABF and does not appropriate additional funds into the ABF from POS in fiscal 2012 and 2013. Payments are resumed in fiscal 2014. DLS is examining other options.

Qualified School Construction Bonds

QSCBs were created under the federal American Recovery and Reinvestment Act of 2009 as a new type of debt instrument to finance the construction, rehabilitation, or repair of public school facilities. The bonds are issued with the full faith and credit of the State and are debt. For purposes of calculating State debt affordability, QSCBs are included in the State's GO bond debt outstanding and debt service. These bonds were issued in the place of tax-exempt bonds. The net effect of the bonds was to reduce the State debt service payments.

QSCBs are tax credit bonds entitling the holder of the bond to a tax credit for federal income purposes in lieu of receiving current interest on the bonds, similar to QZABs. The tax credit rate on QSCBs is set by the U.S. Treasury to allow for issuance of QSCBs at par and with no interest costs to the issuer. Unlike QZABs, tax credits may be stripped from bonds and sold separately, which could increase the marketability of the bonds.

Under ideal circumstances, the bonds sell at par without any interest payments (referred to as a supplemental coupon). Prior to December 2009, QSCB were sold with supplemental coupon payments (such as the Baltimore County sale which included a 1.25% coupon) or at a discount (such as the Virginia Public School sale which generated proceeds equal to 91% of the bonds' principal).

In December 2009, the State sold $50.3 million in QSCBs at par without a supplemental coupon. The bonds retire in 2024 (fiscal 2025). The bonds generate savings by replacing subsequent GO bond issuances that would have supported public school construction. Since there was no supplemental coupon, the State will not pay any interest on these bonds. This reduces debt service costs by an average of $2.6 million annually, compared to GO bonds' debt service costs. To pay back the bonds, the State will make annual payments into a sinking fund. The Treasurer's Office advises that the fund will be generating interest, reducing annual payments further. At this point, the sinking fund's investment rate of return has not yet been set.

The State's second QSCB bond sale was in July 2010, when the State sold $45.2 million in QSCBs. The bonds will be retired in 2025. The bonds generate savings by replacing subsequent GO bond issuances that would have supported public school construction. Issuing $45.2 million in QSCBs reduced debt service costs by an estimated $21.9 million over 15 years, when compared to issuing GO bonds. To pay back the bonds, the State will make annual payments into a sinking fund. The Treasurer's Office advises that the fund may be able to generate interest income, resulting in additional savings.

Qualified Zone Academy Bonds

QZABs were created under the federal Tax Reform Act of 1997 as a new type of debt instrument to finance specific education projects. In Maryland, the proceeds support the Aging Schools Program. QZABs are issued with the full faith and credit of the State. Consequently, QZABs are considered State debt. For purposes of calculating State debt affordability, QZABs are included in the State's GO bond debt outstanding and debt service.

Prior to 2008, the State did not pay interest on QZAB issuances. Instead, bondholders receive a federal income tax credit for each year the bond is held. The State is not required to make payments on the principal until the bonds are redeemed. For example, under its 2001 agreement with Bank of America, the State, through the State Treasurer's Office, makes annual payments into a sinking fund invested into a guaranteed rate of interest. Since the funds are invested in interest bearing accounts, the repayment of the principal by the State is less than the par value of QZABs, making QZABs less expensive than GO bonds. For example, the State issued $9.4 million in QZABs in November 2004. The issuance's sinking fund payments total $7.4 million, compared to $12.5 million in interest payments for a similar GO bond issuance.

The Treasurer's Office advises that the federal government has approved new rules regarding arbitrage that preclude the State from investing sinking funds. As a consequence, the State is no longer able to invest the sinking funds payments, interest earnings will no longer be generated, and the State will need to fully appropriate the principal borrowed. Costs also increased because the State cannot issue all QZABs at par but must instead offer a supplemental coupon. For example, the December 2008 sale offered a 1.60% supplemental coupon. Even with a supplemental coupon, QZABs are still less expensive than GO bonds, whose True Interest Cost has been around 4.00% in recent issuances.

To date, the State has issued $47.6 million in QZABs. **Exhibit 3.6** shows that debt service payments total $40.8 million. Another $35.8 million in QZABS have been authorized. DLS assumes that $4.5 million will be issued in December 2010, $15.9 million will be issued in December 2011, and $15.3 million will be issued in December 2012.

Exhibit 3.6

Maryland Qualified Zone Academy Bond Issuances

($ in Thousands)

Authorizing Legislation	Date Issued	Amount Authorized	Amount Issued	Total Payments
Chapter 322 of 2000[1]	Nov. 2001[1]	$9,828	$9,828	$13,320
Chapter 139 of 2001[1]	Nov. 2001[1]	8,270	8,270	n/a[1]
Chapter 55 of 2003	Nov. 2004	9,043	9,043	7,356
Chapter 431 of 2005[2]	Nov. 2006[2]	9,364	4,378	3,609
Chapter 431 of 2005[2]	Nov. 2007[2]	n/a[2]	4,986	4,089
Chapter 585 of 2007	Dec. 2008	11,126	5,563	6,142
Chapter 585 of 2007	Nov. 2009[2]	n/a[2]	5,563	6,275
Total		**$47,631**	**$47,631**	**$40,790**

[1] November 2001 issuance includes authorizations made in 2000 and 2001.
[2] Qualified Zone Academy Bonds authorized in Chapter 431 of 2005 and 585 of 2007 are issued in two bond sales.

Note: Subtotals and totals may not sum due to rounding.

Source: State Treasurer's Office

Transportation Debt

MDOT issues 15-year, tax-supported consolidated transportation bonds. Bond proceeds usually support highway construction. Revenues from taxes and fees and other funding sources accrue to the Transportation Trust Fund (TTF) to pay debt service, operating budget requirements, and to support the capital program. Debt service on consolidated transportation bonds is payable solely from the TTF.

In addition to issuing consolidated transportation bonds, MDOT also issues debt referred to as nontraditional debt. Nontraditional debt currently includes Certificates of Participation, Maryland Economic Development Corporation debt, and debt sold on MDOT's behalf by MDTA. Of the nine outstanding issuances of nontraditional debt, two are tax-supported and are included in the State debt affordability analysis in the Capital Lease section. The General Assembly annually adopts budget language that imposes a ceiling on MDOT's nontraditional debt.

Consolidated Transportation Bonds

The issuance of transportation bonds is limited by two criteria: an outstanding debt limit and a coverage test. Section 3-202(b) of the Transportation Article establishes the maximum aggregate and unpaid principal balance of consolidated transportation bonds that may be outstanding at any one time. During the 2007 special session, the maximum outstanding debt limit was increased to $2.6 billion (from $2.0 billion) in recognition of the enactment of several revenue enhancements including transferring a portion of sales tax receipts to the TTF.

Section 3-202(c) of the Transportation Article further requires the General Assembly to establish each year in the State budget the maximum unpaid principal balance in bonds that may be outstanding at the end of the forthcoming year. The fiscal 2011 budget bill set the maximum ceiling for June 30, 2011, at $1,791,840,000. DLS estimates that as of June 30, 2011, debt outstanding will total $1,692,085,000, due to smaller bond sales than originally estimated.

The bond revenue coverage test, which is established in MDOT's bond resolutions, establishes that the department will maintain net revenues and pledged taxes equal to at least twice (2.0) the maximum future debt service, or MDOT will not issue bonds until the 2.0 ratio is met. MDOT has adopted an administrative policy establishing a minimum coverage of 2.5. Based on projected bond sales, DLS estimates that as of June 30, 2011, MDOT will have net income coverage of 2.5 and pledged taxes coverage of 5.6.

As shown in **Exhibit 3.7**, MDOT has issued new (*e.g.*, nonrefunding) consolidated transportation bonds in 17 of the past 22 years. MDOT issued a total of $140 million in fiscal 2010, of which $126 million was in Build America Bonds, which was smaller than the $165 million anticipated in January 2010; however, capital expenditures were less than expected reducing the need for cash.

Exhibit 3.7
Consolidated Transportation Bond Issuance*
($ in Millions)

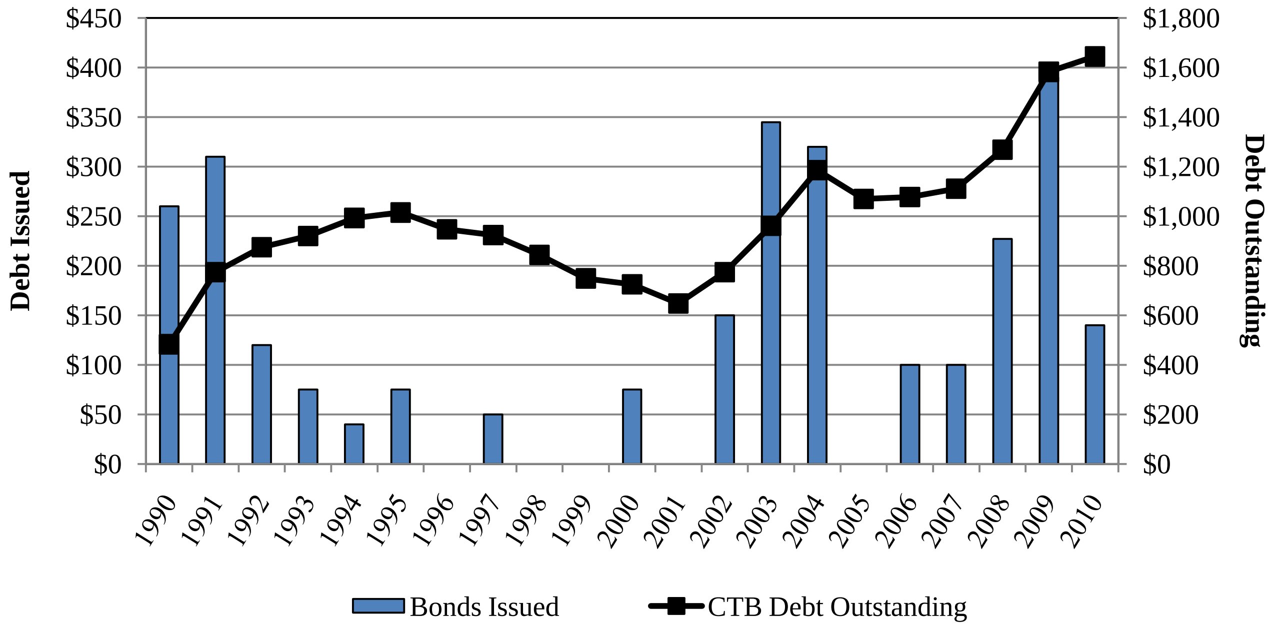
Fiscal Year	Bonds Issued
1989	$100
1990	260
1991	310
1992	120
1993	75
1994	40
1995	75
1996	0
1997	50
1998	0
1999	0
2000	75
2001	0
2002	150
2003	345
2004	320
2005	0
2006	100
2007	100
2008	227
2009	390
2010	140
Total	**$2,877**

*Exclusive of refinancing. Four refinancing issuances were made from fiscal 1989 through 2006, including most recently in fiscal 2004, when a total of $75,900,000 was refinanced.

Source: Maryland Department of Transportation, September 2010

Exhibit 3.8 illustrates annual bond sales and changes in debt outstanding from fiscal 1990 to 2010. In fiscal 2010, MDOT's net debt outstanding was $1.645 billion, well under the $2.600 billion debt outstanding debt limit.

Exhibit 3.8
Maryland Department of Transportation
Bonds Issued and Net Debt Outstanding
Fiscal 1990-2010
($ in Millions)



CTB: consolidated transportation bond

Source: Maryland Department of Transportation

Future Debt Issuance

Every fall, DLS prepares a TTF forecast. The forecast projects revenues and expenditures and adjusts debt issuances accordingly. DLS estimates that revenues will begin to grow slowly in fiscal 2011 and 2012 with more robust growth in fiscal 2013 and 2014 due to titling tax revenues increasing as the economy begins to recover. MDOT's revenue estimates assume more robust growth in titling tax receipts. The TTF forecast assumes that capital funds are available after operating needs have been met. DLS' TTF forecast assumes greater operating expenditures, attributable to transit and winter maintenance costs, which reduces what is available for capital. Finally, the DLS forecast assumes that the TTF will maintain its coverage ratio at 2.5 through 2020. The net result is that DLS estimates that bond sales will total $160 million over the six years compared to MDOT's estimate of $1,550 million. DLS acknowledges that MDOT has some ability to change policies to limit the decline in its capital program. For example, reducing the coverage ratios to 2.0 would allow for an increase of approximately $600 million in debt issuances from fiscal 2011 to 2016.

Exhibit 3.9 shows that DLS estimates MDOT will be able to issue approximately $130 million in fiscal 2011 and $30 million in fiscal 2012. Future bond sales are eliminated from maintaining the net income coverage at 2.5 times through fiscal 2020.

Exhibit 3.9
Consolidated Transportation Bonds – MDOT Projected Issuances
Fiscal 2011-2016
($ in Millions)

Fiscal Year	Amount
2011	$130
2012	30
2013	0
2014	0
2015	0
2016	0
Total	**$160**

Source: Department of Legislative Services

Debt Outstanding

Exhibit 3.10 shows the amount of estimated debt outstanding from fiscal 2011 to 2016. From fiscal 2011 to 2016, debt outstanding is estimated to decline by $626 million. This decline is due to the amount of debt retired being greater than the amount of debt issued over this period.

Exhibit 3.10
Consolidated Transportation Bonds – MDOT Projected Debt Outstanding
Fiscal 2011-2016
($ in Millions)

Fiscal Year	Amount
2011	$1,692
2012	1,619
2013	1,510
2014	1,377
2015	1,226
2016	1,064

Source: Department of Legislative Services

Debt Service

Exhibit 3.11 shows that debt service costs are projected to increase steadily from $158 million in fiscal 2011 to $217 million in fiscal 2016. The growth is attributable to increased principal payments from prior issuances even though there are minimal new issuances of debt.

Exhibit 3.11
Projected Transportation Debt Service
Fiscal 2011-2016
($ in Millions)

Fiscal Year	Projected Debt Service
2011	$158
2012	179
2013	184
2014	202
2015	212
2016	217
Total	**$1,152**

Source: Department of Legislative Services

Conclusions and Recommendations on Transportation Debt

MDOT competes with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall State debt affordability limits. The DLS forecast constrains future debt issuances due to lower revenue estimates and higher operating budget spending reducing the level of net income. By limiting future bond sales, MDOT's capital program is reduced. To avoid the downturn in capital spending, the department could issue more debt and fall below its administrative level for the net income test. DLS estimates that setting the coverage ratio to 2.0 times in fiscal 2020 and issuing more debt could add $600 million to the capital program over the six years. **It is recommended that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criteria.**

Grant Anticipation Revenue Vehicles

GARVEEs are transportation bonds that are issued by states and public authorities that are backed by future federal-aid highway and transit appropriations. While the source of funds used to repay GARVEE issuances originates with the federal government, the federal government's agreement to the use of its funds in this manner does not constitute any obligation on the part of the federal government to make these funds available. If for any reason federal appropriations are not made as anticipated, the obligation to repay GARVEEs falls entirely to the State agency or authority that issued them. To increase the GARVEE bond rating and reduce borrowing costs, the State pledges TTF revenues should federal appropriations be insufficient to pay GARVEE debt service. Since paying the debt is an obligation of the State, and TTF revenues have been pledged, GARVEE bonds are considered State debt.

Chapter 472 of 2005 authorizes the use of GARVEE bonds for the InterCounty Connector (ICC) project. The law stipulates that the State may issue no more than $750.0 million in GARVEE bonds and that bond maturity may not exceed 12 years after date of issue. MDTA issues GARVEE bonds to support construction of the ICC. MDTA issued $325.0 million in GARVEE bonds on May 22, 2007, with a net premium of $16.9 million. A second GARVEE debt issuance of $425.0 million was issued on December 11, 2008, with a net premium of $17.7 million. GARVEE debt service payments are $87.5 million from fiscal 2010 to 2019 and $51.4 million in fiscal 2020, the last year of debt service payments.

Capital Leases Supported by State Revenues

Beginning in 1987, the State's capital program began utilizing lease/leaseback financing for capital projects. These leases are used to acquire both real property and equipment. Beginning in fiscal 1994, the State instituted a program involving equipment leases for energy conservation projects at State facilities to improve energy performance. Sections 8-401 to 8-407 of the State Finance and Procurement Article regulate leases. The law requires that capital leases be approved by BPW and that the Legislative Policy Committee (LPC) has 45 days to review and comment on any capital lease prior to submission to BPW. Chapter 479 of 2008 further regulates capital leases by amending Section 12-204 of the State Finance and Procurement Article to require capital leases that execute or renew a lease of land, buildings, or office space must be certified by CDAC to be affordable within the State's debt affordability ratios, or must be approved by the General Assembly in the budget of the requesting unit prior to BPW approval.

All three types of leases (equipment, energy performance, and property) have advantages. Often, equipment leases involve high technology equipment, such as data processing equipment or telecommunications equipment. Equipment leases offer the State more flexibility than purchases since leases can be for less than the entire economic life of the equipment. Equipment leases are especially attractive in an environment where technology is changing very rapidly. Leases may also be written with a cancellation clause that would allow the State to cancel the lease if the equipment were no longer needed. Currently, the Treasurer's lease-purchase program consolidates the State's equipment leases to lower the cost by reducing the interest rate on the lease. The rate the Treasurer receives for the State's equipment leases financed on a consolidated basis is less than the rates individual agencies would receive if they financed the equipment leases themselves.

For real property, the transaction generally involves an agreement in which the State leases property to a developer who in turn builds or renovates a facility and leases it back to the State. At the end of the lease period, ownership of the facility is transferred to the State. Equipment leases are generally for shorter periods of time, from three to five years. The primary advantages of property leases, when compared to GO bonds, are that they allow the State to act more quickly if an unanticipated opportunity presents itself. Because of the extensive planning and legislative approval process involved in the State's construction program, it often takes years to finance a project. Lease agreements are approved by BPW after they have been reviewed by the budget committees. Since BPW and the budget committees meet throughout the year, leases may be approved much more quickly than GO bonds, which must be approved by the entire General Assembly during a legislative session. Therefore, property leases give the State the flexibility to take advantage of economical projects, which are unplanned and unexpected.

For energy performance projects, agencies make lease payments using the savings that result from implementation of the conservation projects. Using the savings realized in utility cost reductions to pay off energy performance project leases allows projects to proceed that otherwise might not be of high enough priority to be funded given all of the other competing capital needs statewide. Under the program, utility costs will decrease; as the leases are paid off, the savings from these projects will accrue to the State.

CDAC's 2010 forecast assumes approximately $15.0 million in new equipment leases annually. The master equipment lease approved by BPW in November 2007 provided $100.0 million in capital equipment lease-purchase financing on a consolidated basis under the lease-purchase financing program for a period that runs from December 2007 through June 2011. Although these actions would portend greater use of this form of financing in the near term, the State's current budget problems have significantly curtailed the use of equipment leases. Through October 2010, the State Treasurer's Office has $76.7 million remaining under this $100.0 million authorization.

Exhibit 3.12 shows that projected tax-supported capital lease debt outstanding totals $443 million as of June 30, 2011, compared to $243 million as of June 30, 2010. The $32 million decline in the amount outstanding on current leases is expected to be offset by the new leases. As previously discussed, $15 million in new equipment leases is assumed. This modest level of new leases is assumed every year. The Treasurer's Office is also assuming that the $32 million State Center Garage will be financed with State revenues and be State debt. The remaining new leases relate to video lottery terminals (VLTs) and energy performance contracts.

Exhibit 3.12
Tax-supported Capital Lease Debt Outstanding
As of June 30, 2010 and Projected June 30, 2011
($ in Millions)

State Agency/Facility	Amount Outstanding June 2010	Projected Amount Outstanding June 2011	Difference
State Treasurer's Office			
Capital Equipment Leases	$57.3	$36.6	-$20.7
Energy Performance Projects	104.0	97.9	-6.0
Maryland Department of Transportation			
Headquarters Office Building	26.1	24.4	-1.7
Maryland Aviation Administration Shuttle Buses	9.0	7.7	-1.3
Department of General Services			
St. Mary's County Multi-service Center	2.0	1.4	-0.6
Hilton Street Facility	1.6	1.5	-0.2
Prince George's County Justice Center	20.6	19.9	-0.7
Maryland Environmental Service			
Eastern Correctional Institution – Water and Wastewater Facility	0.7	0.0	-0.7
Maryland Transportation Authority			
Annapolis State Office Parking Garage	21.3	20.7	-0.7
Subtotal – Current Leases	**$242.6**	**$210.0**	**-$32.0**
Proposed Leases			
New Energy Performance Contract Leases	$0.0	$76.9	$76.9
New Capital Equipment Leases	0.0	15.0	15.0
Video Lottery Terminals	0.0	109.5	109.5
State Center Garage	0.0	31.6	31.6
Total	**$242.6**	**$442.9**	**$200.3**

Source: State Treasurer's Office, November 2010

Video Lottery Terminal Leases Included in Out-year Projections

The largest increase in outstanding leases relates to the State's procurement of VLTs. Chapter 4 of the 2007 special session authorized the use of VLTs in the State, subject to voter approval. The State Lottery Agency is tasked with the responsibility of administering the VLT program including the procurement of the VLT machines. The statute requires that the State, not any contractors or licensees, own or lease the machines. The Lottery received approval from the Board of Public Works to procure the machines for the facilities to be located in Cecil County and Worcester County. It is assumed that the lease payments will be spread over five years.

The Lottery has requested the State Treasurer's Office to finance the acquisition of VLTs for the Cecil and Worcester county facilities. Total financing for both facilities totals approximately $41.5 million. The means of financing is currently under consideration; however, likely options include the Treasurer's Master Equipment Lease Program or Certificates of Participation (COPs). COPs are often used for larger transactions and generally attract multiple investors, thereby resulting in reduced cost of borrowing. This means of financing does not represent full faith and credit of the State but does represent a shared right to receive lease payments made by the State.

Facilities are expected to open in Anne Arundel County and Baltimore City. These initial VLT leases are included in fiscal 2012 and 2013 State debt projections.

Changes to Energy Performance Contracts Proposed

Much of the increase in fiscal 2012 relates to changes in accounting for higher education projects. Many of the new energy performance contracts relate to projects at higher education institutions. These projects are funded by the higher education institutions, which are able to issue their own debt that is not debt of the State. Consequently, the State did not include these leases as State debt. Recently, the State has reconsidered this position and will begin counting this debt in State debt calculations. The Treasurer's Office has concluded that since the office enters into the debt, and the higher education institutions receive State tax revenues, it is prudent to include this as State debt. The office projects $50.7 million in projected new leases.

New Federal Tax Credits Expected to Reduce Costs

The Energy Improvement and Extension Act of 2008, passed by Congress in October 2008, authorized the issuance of Qualified Energy Conservation Bonds (QECB) that may be used by state and local governments to finance certain types of energy projects. QECBs have a 70% interest subsidy from the federal government.

The definition of "qualified energy conservation projects" is fairly broad and contains elements relating to energy efficiency capital expenditures in public buildings; renewable energy production; various research and development applications; mass commuting facilities that reduce energy consumption; several types of energy-related demonstration projects; and public energy efficiency education campaigns.

The enabling legislation set a limit of $800 million on the volume of energy conservation tax credit bonds that may be issued by state and local governments. However, the American Recovery and Reinvestment Act of 2009 expanded the allowable bond volume to $3.2 billion. Maryland's allocation is $58.4 million and may be sub-allocated to large local governments with populations of 100,000 or more. The Treasurer's Office estimates that the State's allocation is $6.5 million, and the remainder is for local governments. The State can use its $6.5 million QECBs federal allocation by financing energy projects in the schools or other State facilities.

Bay Restoration Bonds

The Bay Restoration Fund was created in 2004 primarily to provide grants for enhanced nutrient removal (ENR) pollution reduction upgrades at the State's 67 major wastewater treatment plants (WWTP), which are defined as wastewater treatment plants with a design capacity of 0.5 million gallons per day or greater. The fund is administered by MDE's Water Quality Financing Administration. The fund is financed by a bay restoration fee on users of wastewater facilities (WWTP Fund) and septic systems and sewage holding tanks (Septic Fund). The fees on WWTP users (and users receiving public drinking water) took effect January 1, 2005, and are being collected through water and sewer bills. The fees on septic system and sewage holding tank owners took effect October 1, 2005, and are being collected by the counties. The fund has several revenue sources and expends funds for both operating and capital purposes.

CDAC considered whether bay bonds are State debt in 2004. At the time, the committee agreed that the bonds are State debt. The Water Quality Financing Administration's bond counsel has reviewed this issue and concurs with this opinion. Bond counsel noted that there is a substantial likelihood that, if challenged in court, the Maryland courts would consider bay bonds to be State debt since the bonds are supported by an involuntary exaction that serves a general public purpose.

Based on the current priority list and estimated capital cost of ENR upgrades, **Exhibit 3.13** shows that the program projects issuing debt each year between fiscal 2012 and 2015 and that by fiscal 2014, debt outstanding will peak at $487.4 million. Debt service costs increase to $52.4 million in fiscal 2015.

The debt issuances have been delayed over time as cash flow needs have been met by existing cash revenues. Due to the magnitude of the projects and the number of years involved in design and construction, authorization of revenue bonds has been used to support the initiation of projects that have not yet come in for funding, which has had the effect of revenue bond authorizations preceding the actual issuance of the revenue bonds. The Septic Fund is operated on a pay-as-you-go (PAYGO) basis and does not involve revenue bond proceeds.

Exhibit 3.13
Bay Restoration Fund – Current Law
Fiscal 2011-2015
($ in Millions)

	2011	2012	2013	2014	2015
Revenue Bonds Issued	$0	$180	$205	$95	$0
Debt Outstanding	42	219	413	487	461
Debt Service	5	5	23	43	52

Note: In fiscal 2008, $50 million in revenue bond debt was issued.

Source: Maryland Department of the Environment

The bay fund legislation developed clear goals. Current estimates suggest that the funding provided will not be able to meet these goals. MDE estimates that the cost to upgrade the 67 major wastewater treatment plants has decreased from $1,539 million to $1,482 million since last year. This decrease reflects more refined estimates for the Blue Plains upgrade project and does not substantially alter the funding shortfall in the program. Overall, the program plans to issue $530 million in revenue bonds through fiscal 2014. These revenue bonds, in addition to revenues expended from the fund as PAYGO special funds, would fund approximately $945 million of the $1,482 million upgrade cost, a difference of $537 million.

At this point, it remains unclear how this funding gap will be resolved. However, five options have been outlined by the Bay Restoration Fund Advisory Committee as follows: (1) increase the fee; (2) reduce the 100% ENR grant; (3) reprioritize projects by either delaying them or deleting them for upgrade; (4) use local debt capacity to issue bonds with 30-year maturities; and (5) eliminate annual operation and maintenance grants to local governments. **Exhibit 3.14** shows the various fee options that have been identified by the Bay Restoration Fund Advisory Committee. The options include no fee increase, which means no additional debt issued and no resolution of the $537 million shortfall, all the way up to a 100% fee increase, which would leverage $510 million in additional debt and provide an approximately $146 million surplus in case of additional cost increases.

Exhibit 3.14
Bay Restoration Fund – Fee Options

Option	**A**	**B**	**C**	**D**	**E**	**F**
Fee Increase	0%	50%	60%	70%	80%	100%
Fee Increase/Year	$0	$15	$18	$21	$24	$30
New Fee/Year	$30	$45	$48	$51	$54	$60
Sources of Funding						
Water Quality Financing Administration Bonds ($M)	$530	$775	$840	$895	$945	$1,040
Cash ($M)	415	481	496	511	533	588
Total Enhanced Nutrient Removal Funding ($M)	**$945**	**$1,256**	**$1,336**	**$1,406**	**$1,478**	**$1,628**
Shortfall/Surplus ($M)	-537	-226	-146	-76	-4	146

M: Millions

Note: Assumptions included in the exhibit are that the total enhanced nutrient removal cost is $1.482 billion, the current fee is $2.50 per month per equivalent dwelling unit or $30 per year, and that the maximum bond term is 15 years with a weighted average bond interest rate of 5.50%.

Source: Maryland Department of the Environment; Department of Legislative Services

If the 100% fee increase option is chosen, then the Maryland Department of the Environment plans on issuing debt as shown in **Exhibit 3.15.**

Exhibit 3.15
Bay Restoration Fund – 100% Fee Increase
Fiscal 2012-2016
($ in Millions)

	2012	**2013**	**2014**	**2015**	**2016**
Revenue Bonds Issued	$200	$370	$280	$110	$30
Debt Outstanding	239	597	848	915	895
Debt Service	5	25	61	89	100

Note: The revised plan is to issue $1.04 billion in revenue bonds of which $50 million already has been issued in fiscal 2008.

Source: Maryland Department of the Environment

Current State debt projections do not assume any additional Bay Restoration Fund fees or any debt supported by additional fees. If legislation is enacted, the State will need to reconcile its Chesapeake Bay nutrient removal goals with limits on State debt.

Maryland Stadium Authority

MSA was created in 1986 (Chapter 283) to construct and operate stadium sites for professional baseball and football in the Baltimore area. MSA is authorized to issue tax-exempt revenue bonds for property acquisition and construction costs related to two stadiums at Baltimore's Camden Yards. The authority may also participate in the development of practice fields, team offices, parking lots, garages, and related properties.

In subsequent years, MSA's role was expanded to include managing and issuing revenue bonds to renovate and expand convention centers in Baltimore and Ocean City, construct a conference center in Montgomery County, renovate the Hippodrome Performing Arts Center, and renovate Camden Station. **Exhibit 3.16** lists MSA's authorized debt, debt outstanding, and annual debt service. The exhibit includes an expected increase in debt service for the baseball and football stadiums due to planned capital improvements.

Exhibit 3.16
Maryland Stadium Authority
Revenue Debt Authorizations, Debt Outstanding, and Debt Service
($ in Millions)

Project	Authorized	Outstanding as of July 2010	Debt Service Fiscal 2011
Baseball and Football Stadiums	$235.0	$173.2	$21.6
Baltimore City Convention Center	55.0	21.4	5.1
Montgomery County Conference Center	23.2	18.0	1.8
Hippodrome Performing Arts Center	20.3	15.4	1.8
Ocean City Convention Center	17.3	7.6	1.5
Camden Station	8.7	7.9	0.7
Energy Leases	n/a	8.5	0.5
Total	**$359.5**	**$251.9**	**$33.0**

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

Source: Maryland Stadium Authority

Camden Yards Sports Complex

Provisions of the Financial Institutions Article limit the amount of bonds the authority may issue at the Camden Yards Sports Complex and the allocation of outstanding tax-supported debt. The authority may only exceed the limit with approval of BPW and notification to LPC.

During the construction of the baseball and football stadiums, MSA remained within the statutory limit of $235.0 million in outstanding debt; however, BPW has, on several occasions, reallocated the specific statutory project limits to meet the cash-flow needs of the construction efforts. Debt service is supported by lottery revenues.

In 2010, MSA issued $10 million in Sports Facilities Taxable Lease Revenue Bonds in order to fund capital improvement projects at the Camden Yards Complex. The bonds will be secured by lottery revenues and, in the opinion of bond counsel, will not constitute tax-supported debt. An agreement with the Comptroller ensures that lottery proceeds are deposited with a trustee for the benefit of the holders of the bonds. The bonds were sold as a private placement at a 2.9% interest rate and a 3.5-year term. Funds will be used primarily for the first phase of capital improvements to Oriole Park, including concrete restoration, seat renovation, waterproofing, roof replacement, electrical repairs, and some structural steel painting. This offering was done in conjunction with $4 million financed through the State Treasurer's Master Equipment Lease Program to replace video boards at the football stadium and $10 million financed through the State Treasurer's Energy Performance Contract Master Lease Program for various energy projects at the facilities.

Baltimore and Ocean City Convention Centers

MSA issued $55.0 million in revenue bonds for the Baltimore City Convention Center as authorized by 1993 legislation. Baltimore City issued $50.0 million in city bonds, and the State contributed another $58.0 million in GO bond funding toward the construction cost of the project, which was completed in 1997. The fiscal 2011 debt service cost for the revenue bonds is $5.1 million and subject to State appropriation. Chapter 320 of 2008 extended the date by which MSA is obligated to contribute two-thirds of the operating deficits of the Baltimore Convention Center to December 31, 2014. The State is also statutorily required to contribute $200,000 annually to a capital improvement fund.

MSA issued $17.3 million in revenue bonds for the Ocean City Convention Center (OCCC), which was authorized in 1995 and matched by a contribution from the Town of Ocean City. The fiscal 2011 debt service cost for these revenue bonds is $1.5 million and subject to State appropriation. The State is also statutorily required to contribute one-half toward OCCC's annual operating deficit through fiscal 2015 and $50,000 annually to a capital improvement fund.

In December 2008, MSA and the Town of Ocean City released a feasibility study on the proposed expansion of the OCCC. The study recommended a moderate expansion and remodeling to the convention center to modernize audio-visual and technical amenities, provide more function space, and increase prime exhibit space. In December 2009, MSA submitted an Amended Comprehensive Plan of Financing for the OCCC expansion. The plan called for MSA to issue tax-exempt lease-revenue bonds to pay for the project. However, in order to realize a lower cost of capital, the expansion was ultimately funded with general obligation bonds through the fiscal 2011 capital budget bill. Construction should be completed in spring 2012.

Montgomery County Conference Center

In July 2003, MSA issued $23.2 million in tax-supported bonds to support construction of the Montgomery County Conference Center. Of this amount, $20.3 million represents the State's contribution to construction costs, which totaled $66.0 million. The remaining bond proceeds fund a capitalized interest account established as part of the financing plan to fund interest-only debt service payments beginning on June 15, 2003, and continuing through June 15, 2004. Debt service payments thereafter and continuing through June 15, 2024, are paid from funds subject to appropriation by the State. The fiscal 2011 debt service costs for these revenue bonds are $1.8 million. Montgomery County contributed $13.7 million for construction and another $2.5 million for project-related enhancements. The project opened in 2004.

Hippodrome Performing Arts Center

On July 10, 2002, the authority issued $20.25 million in taxable revenue bonds for the renovation of the Hippodrome Performing Arts Center in Baltimore City. The total cost of the Hippodrome project was $63.0 million excluding capitalized interest expense. Funding for the project was provided by the State, MSA revenue bonds, Baltimore City, Baltimore County, private contributions, the performing arts center's operator, historic tax credits, and interest earnings. The project was completed in February 2004.

Debt service payments averaging $1.8 million annually for the 20-year term of the bond are derived from the State's general fund subject to appropriation. More specifically, the Hippodrome is leased to the State and, subsequently, leased back to MSA. The rent paid under the lease by the State is equivalent to the debt service on the revenue bonds and is derived from the State's general fund. The debt service is partially offset by a $2 per ticket surcharge for events at the Hippodrome, which is required by legislation authorizing the project. Ticket surcharge revenues are estimated at $801,000 in fiscal 2011.

Camden Station

Section 13-708.1 of the Financial Institutions Article provides that MSA may develop any portion of Camden Yards to generate incidental revenues for the benefit of the authority subject to approval of BPW and LPC. MSA received LPC approval in January 2003 and BPW approval in December 2003 to renovate Camden Station, a historic four-story building next to the baseball stadium.

In February 2004, MSA issued $8.7 million in 20-year taxable revenue bonds to renovate Camden Station. Of that amount, $8.0 million is to pay for capital construction associated with the development of the project. The remaining bond proceeds are used to pay capitalized interest, costs of issuance, and bond insurance. The capital interest period covered biannual debt service payments though June 15, 2006. The fiscal 2011 debt service costs for the authority's revenue bonds are about $716,000 subject to State appropriation.

Phase I of the project, involving the basement and first floor, was completed in March 2005. Phase II, involving the second and third floors, was completed in August 2006. The Babe Ruth Museum rents approximately 22,551 square feet in the basement and on the first floor, and Geppi's Entertainment Museum rents approximately 17,254 square feet on the second and third floor.

Local Project Assistance and Feasibility Studies

The 1998 capital budget bill (as amended by Chapter 2004 of 2003 and Chapter 445 of 2005) authorizes MSA to assist State agencies and local governments in managing construction projects. The budget committees must be notified, and funding must be provided entirely by the agency or local government requesting assistance unless funding is specifically provided in the budget for the project. Currently, MSA is providing technical assistance in support of the State's interests in the redevelopment of State Center.

The 1998 bill also authorizes the authority to conduct feasibility studies. The budget committees must give approval for the studies, and costs must add to no more than $500,000 annually of MSA's nonbudgeted funds.

In fiscal 2010, the authority completed a study on the market and economic conditions related to two possible soccer stadiums in Baltimore City. Also, MSA is close to releasing a feasibility study on behalf of Baltimore City on the possible modernization of the Baltimore City circuit court complex and the possible construction of a new courthouse. Baltimore City covered the costs of both studies. Also in 2010, MSA released a market and economic study for a potential auditorium to be located at the Ocean City Convention Center. The Town of Ocean City funded this study with no MSA funds.

Feasibility studies represent projects still in the planning stages. Since the projects are in a planning stage and are quite speculative, they are excluded from the affordability analysis and long-term debt projections. However, if any of these projects was to be developed and funded, it would add to the State debt load and reduce the State's debt capacity.

Chapter 4. Economic Factors and Affordability Analysis

The Capital Debt Affordability Committee's (CDAC) mission is to advise the Governor and the General Assembly regarding the maximum amount of debt that can prudently be authorized. To evaluate debt affordability, the committee has adopted these two criteria:

- State debt outstanding should be limited to 4% of Maryland personal income.
- State debt service should be limited to 8% of revenues supporting the debt service.

These criteria compare debt to economic factors that relate to the wealth of Maryland citizens (personal income) and the resources of the State (revenues). Maintaining debt levels within the guidelines set by the committee allows the State to maintain its AAA bond rating and support a growing capital program that is sustainable.

The criteria are flexible enough to allow the State to adjust the program as the State's fiscal condition changes. For example, the flexibility allowed the State to prudently increase the capital program when operating funds became scarce during the recession earlier this decade. The criteria also offer the State a predictable, stable, and transparent process.

This section examines the economic factors that measure debt affordability and evaluates CDAC's recommendation to determine affordability.

Personal Income

The Department of Legislative Services' (DLS) estimates of personal income differ from those of CDAC. DLS is using the Board of Revenue Estimates' (BRE) September 2010 personal income estimates, which **Exhibit 4.1** shows are higher than personal income estimates used by CDAC. Increased Maryland personal income adds to the amount of State debt outstanding that is affordable. In contrast, lower personal income results in higher ratios of debt outstanding for any given level of debt.

Exhibit 4.1
Maryland Personnel Income
Comparison of Department of Legislative Services and
Capital Debt Affordability Committee Projections
Calendar 2010 to 2016
($ in Millions)

Calendar Year	DLS Personal Income Estimate	% Change	CDAC Personal Income Estimate	% Change	Difference
2010	$284,057		$283,227		$830
2011	296,158	4.26%	295,296	4.26%	862
2012	311,173	5.07%	310,266	5.07%	907
2013	328,444	5.55%	327,488	5.55%	956
2014	346,180	5.40%	345,176	5.40%	1,004
2015	364,549	5.31%	361,917	4.85%	2,632
2016	383,417	5.18%	377,660	4.35%	5,757

Source: Capital Debt Affordability Committee Personal Income: *Capital Debt Affordability Committee Report*, September 2010

Revenue Projections

Exhibit 4.2 shows that DLS' fiscal 2011 to 2020 revenue projections are less than CDAC's. The largest differences relate to the DLS estimate of transportation revenues (which is discussed in the Transportation section in Chapter 3) and transfer tax revenues (the change is attributable to DLS using a more recent projection prepared by the Department of Budget and Management in October 2010). Lower revenues reduce debt service capacity.

Over the past two years, revenue write-downs have been substantial. CDAC's 2007 report (prepared before the special session) assumed just over $18 billion in fiscal 2010 revenues, which is $2 billion more than actual receipts. However, the decline in revenues has, if not ended, at least been interrupted. For example, in September 2010, BRE increased its current year (fiscal 2011 in this case) general fund revenue estimate by $89 million. While the increase is moderate, it is welcome when compared to the actions taken in September 2009, reducing the current year estimate by $683 million, and in September 2008, reducing the current year estimate by $432 million.

Exhibit 4.2

Comparison of DLS and CDAC Revenue Projections

($ in Millions)

Fiscal Year	General Funds	State Property Tax	Other ABF	U.S. Treasury	ETF	Transfer Taxes	MDOT	GARVEE	Stadium Authority	Bay Rest. Fund	Total	CDAC Est.	Diff.
2010	$12,587	$762	$65	$1	$11	$0	$2,161	$441	$20	$54	$16,103	$16,055	$48
2011	13,128	790	49	9	118	121	2,160	433	19	54	16,761	16,946	-185
2012	13,606	775	2	11	105	125	2,261	433	19	55	17,267	17,558	-291
2013	14,316	796	2	11	228	138	2,361	433	19	56	18,221	18,723	-502
2014	14,983	801	2	11	448	158	2,494	433	19	56	19,248	19,697	-450
2015	15,722	802	2	11	491	175	2,555	433	19	57	20,091	20,521	-430
2016	16,433	822	2	11	531	179	2,605	433	19	57	20,912	21,320	-408
2017	17,173	843	2	11	573	183	2,676	433	19	58	21,787	22,141	-354
2018	17,945	864	2	11	619	188	2,749	433	19	58	22,700	23,017	-317
2019	18,753	885	2	11	669	193	2,826	433	19	59	23,656	23,932	-275
2020	19,597	907	2	10	723	197	2,906	433	19	60	24,657	24,883	-226

ABF: Annuity Bond Fund
CDAC: Capital Debt Affordability Committee
DLS: Department of Legislative Services
ETF: Education Trust Fund (supported by video lottery terminals)
GARVEE: Grant Anticipation Revenue Vehicle
MDOT: Maryland Department of Transportation

Source of Estimates: (1) General Fund, Education Trust Fund, and Maryland Department of Transportation: Department of Legislative Services, November 2010; (2) State Property Tax, Other Annuity Bond Fund, US Treasury, Stadium Authority, GARVEE, Bay Restoration Fund, and Capital Debt Affordability Committee Revenues: *Capital Debt Affordability Committee Report*, September 2010; and (3) Transfer Taxes: Department of Budget and Management, October 2010

Affordability Analysis

DLS has prepared a revised estimate of State debt outstanding to personal income and State debt service to revenues. The State debt general obligation bond issuances, shown in **Exhibit 4.3**, are consistent with CDAC debt limits. The only substantial change in assumptions relates to the Maryland Department of Transportation (MDOT) consolidated transportation bond issuances. DLS projects that the revenues supporting these bonds will be substantially less than is currently projected by MDOT. In keeping with current debt policies, MDOT bond issuances in the DLS forecast are reduced to $160 million in fiscal 2011 to 2016. MDOT estimates that it will issue $1,550 million over the same forecast period. **Exhibit 4.4** shows that, for the forecast period, debt outstanding as a percent of personal income peaks at 3.37% in fiscal 2011 and 2012. **Exhibit 4.5** shows that the debt service as a percent of revenues increases until fiscal 2016 as it reaches 7.68% and then declines to 6.67% in fiscal 2010.

Exhibit 4.3
Projected New Debt Issuances
($ in Millions)

Fiscal Year	GO Bond Auth.	GO Bond Issuances	QZABs	Trans. Bonds	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds
2011	$925	$970	$5	$130	$0	$200	$0	$0
2012	925	960	16	30	0	81	0	180
2013	925	945	15	0	0	15	0	205
2014	935	940	0	0	0	15	0	95
2015	945	935	0	0	0	15	0	0
2016	955	935	0	0	0	15	0	0
2017	1,200	940	0	0	0	15	0	0
2018	1,240	1,020	0	0	0	15	0	0
2019	1,280	1,101	0	460	0	15	0	0
2020	1,320	1,175	0	360	0	15	0	0

GARVEE: Grant Anticipation Revenue Vehicle
GO: general obligation
MDOT: Maryland Department of Transportation
QZABs: Qualified Zone Academy Bonds

Source: (1) General Obligation and MDOT Bonds: Department of Legislative Services, November 2010; and (2) Stadium Authority, GARVEE, Bay Restoration Bonds, and Capital Leases: *Capital Debt Affordability Committee Report*, September 2010

Exhibit 4.4
State Tax-supported Debt Outstanding
Components and Relationship to Personal Income
($ in Millions)

Fiscal Year	General Obligation[1]	MDOT Bonds	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt	Fiscal Year
2010	$6,523	$1,645	$652	$243	$252	$44	$9,359	2010
2011	6,983	1,692	597	443	234	42	9,990	2011
2012	7,416	1,619	539	484	214	219	10,492	2012
2013	7,811	1,510	479	444	193	413	10,850	2013
2014	8,137	1,377	416	386	171	487	10,973	2014
2015	8,423	1,226	349	327	148	461	10,936	2015
2016	8,619	1,064	280	264	129	434	10,791	2016
2017	8,793	885	207	229	111	405	10,629	2017
2018	9,001	714	130	194	91	375	10,504	2018
2019	9,271	1,038	49	175	70	343	10,947	2019
2020	9,569	1,298	0	157	47	391	11,461	2020

State Tax-supported Debt Outstanding as a Percent of Personal Income
(Affordability Criteria = 4.0%)

Fiscal Year	General Obligation[1]	MDOT Bonds	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt	Fiscal Year
2010	2.30	0.58	0.23	0.09	0.09	0.02	3.29	2010
2011	2.36	0.57	0.20	0.15	0.08	0.01	3.37	2011
2012	2.38	0.52	0.17	0.16	0.07	0.07	3.37	2012
2013	2.38	0.46	0.15	0.14	0.06	0.13	3.30	2013
2014	2.35	0.40	0.12	0.11	0.05	0.14	3.17	2014
2015	2.31	0.34	0.10	0.09	0.04	0.13	3.00	2015
2016	2.25	0.28	0.07	0.07	0.03	0.11	2.81	2016
2017	2.24	0.23	0.05	0.06	0.03	0.10	2.70	2017
2018	2.20	0.17	0.03	0.05	0.02	0.09	2.57	2018
2019	2.18	0.24	0.01	0.04	0.02	0.08	2.58	2019
2020	2.17	0.29	0.00	0.04	0.01	0.09	2.60	2020

GARVEE: Grant Anticipation Revenue Vehicle

[1] Includes Qualified Zone Academy Bonds

Source: (1) General Obligation and Maryland Department of Transportation Bonds: Department of Legislative Services, November 2010; and (2) Stadium Authority, GARVEE, Bay Restoration Bonds, and Capital Leases: *Capital Debt Affordability Committee Report*, September 2010

Exhibit 4.5
State Tax-supported Debt Service Components and Relationship to Revenues
($ in Millions)

Fiscal Year	General Obligation[1]	MDOT Bonds	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt Service	Fiscal Year
2010	$778	$151	$87	$47	$32	$5	$1,100	2010
2011	832	158	87	46	33	5	1,160	2011
2012	881	179	87	59	34	5	1,245	2012
2013	923	184	87	76	34	23	1,327	2013
2014	990	202	87	84	34	43	1,440	2014
2015	1,041	212	87	82	33	52	1,508	2015
2016	1,145	217	87	90	28	52	1,620	2016
2017	1,181	227	87	69	27	52	1,644	2017
2018	1,239	211	87	49	26	52	1,665	2018
2019	1,269	179	87	40	26	52	1,654	2019
2020	1,331	157	51	40	26	52	1,657	2020

State Tax-supported Debt Service as a Percent of Revenues
(Affordability Criteria = 8.0%)

2010	4.83	0.94	0.54	0.29	0.20	0.03	6.83	2010
2011	4.93	0.94	0.52	0.27	0.20	0.03	6.87	2011
2012	5.06	1.03	0.50	0.34	0.19	0.03	7.16	2012
2013	5.03	1.00	0.48	0.42	0.18	0.12	7.23	2013
2014	5.10	1.04	0.45	0.43	0.17	0.22	7.42	2014
2015	5.14	1.05	0.43	0.40	0.16	0.26	7.44	2015
2016	5.43	1.03	0.41	0.43	0.13	0.25	7.68	2016
2017	5.38	1.04	0.40	0.31	0.12	0.24	7.48	2017
2018	5.41	0.92	0.38	0.22	0.12	0.23	7.28	2018
2019	5.32	0.75	0.37	0.17	0.11	0.22	6.94	2019
2020	5.36	0.63	0.21	0.16	0.11	0.21	6.67	2020

GARVEE: Grant Anticipation Revenue Vehicle
MDOT: Maryland Department of Transportation

[1] Includes Qualified Zone Academy Bonds

Source: (1) General Obligation and Maryland Department of Transportation Bonds: Department of Legislative Services, November 2010; and (2) Stadium Authority, GARVEE, Bay Restoration Bonds, and Capital Leases: *Capital Debt Affordability Committee Report*, September 2010

Exhibit 4.6 shows that debt outstanding ratios based on DLS personal income estimates are lower than those estimated by CDAC from fiscal 2011 to 2020. The difference between the two ratios is largely related to MDOT's debt outstanding, which is substantially less in the DLS estimate. This is attributable to reducing the estimated amount of bonds sold by MDOT.

Exhibit 4.6
State Debt to Personal Income
Comparison of DLS and CDAC Estimates

Fiscal Year	DLS	CDAC
2011	3.37%	3.40%
2012	3.37%	3.48%
2013	3.30%	3.50%
2014	3.17%	3.43%
2015	3.00%	3.33%
2016	2.81%	3.22%
2017	2.70%	3.12%
2018	2.57%	3.03%
2019	2.58%	2.94%
2020	2.60%	2.87%

CDAC: Capital Debt Affordability Committee
DLS: Department of Legislative Services

Source: *Capital Debt Affordability Committee Report*, September 2010

Similarly, **Exhibit 4.7** shows that debt service ratios based on the DLS baseline forecast of general fund revenues are less than those estimated by CDAC from fiscal 2011 to 2020. The difference between the two ratios is largely related to MDOT's debt service costs, which are substantially less in the DLS estimate. This is attributable to reducing the estimated amount of bonds sold by MDOT.

Exhibit 4.7

State Debt Service to State Revenues

Comparison of DLS and CDAC Estimates

Fiscal Year	DLS	CDAC
2011	6.87%	6.87%
2012	7.16%	7.18%
2013	7.23%	7.24%
2014	7.42%	7.52%
2015	7.44%	7.64%
2016	7.68%	7.89%
2017	7.48%	7.92%
2018	7.28%	7.84%
2019	6.94%	7.56%
2020	6.67%	7.29%

CDAC: Capital Debt Affordability Committee
DLS: Department of Legislative Services

Source: *Capital Debt Affordability Committee Report*, September 2010

Chapter 5. Analysis of Factors Influencing General Obligation Bonds' 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. In this chapter, the sum of least squares regression is used to evaluate what factors influence the TIC Maryland receives on general obligation (GO) bond sales. **Appendix 3** shows the data used in the analysis.

Financial Theory and Research Identifies Factors That Influence the True Interest Cost

Financial theory suggests factors that could influence Maryland's GO bond's TIC. Research has confirmed a number of significant influences in other states and in national studies that include Maryland. To build the least squares regression equation, the following data were collected and analyzed for the 51 bond sales since March 1991 (refunding sales are excluded): 41 competitively bid, tax-exempt; 3 competitively bid, taxable GO bond sales; 4 competitively bid, Build America Bonds (BABs); and 3 negotiated, retail bond sales:

- true interest cost;
- Delphis Scale[1] for 10-year, tax-exempt bonds;
- date of the bond sale, fiscal year, and calendar years the bonds were sold;
- if the bond sale includes one of the various call provisions offered since 1991;
- average years to maturity;
- amount of debt sold;

[1] Because of the tremendous size of the State and municipal bond market, there are independent companies that gather information about the yield on State and municipal bonds. One such independent company, the Delphis Hanover Corporation, prepares an index that measures the average yield on State and municipal bonds based on daily market activity (Delphis Scale). When collecting data, the Department of Legislative Services called the Delphis Hanover Corporation to discuss how they estimate bond yields. Corporate representatives advised that they have been estimating yields since 1963 and collect the yield for every bond issue over $10 million for competitive and negotiated sales, as well as secondary market data. With respect to the secondary market, they exclude any outliers. Maryland has collected the estimated 10-year yield for AAA bonds for every bond sale since 1991.

- Consumer Price Index to examine if inflation affected the market's perception of the amount of debt sold;

- use of a financial advisor;

- ratio of Maryland personal income to U.S. personal income; and

- ratio of Maryland gross state product to U.S. gross domestic product, both nominal and adjusted for inflation.

The Equation Identifies Statistically Significant Factors Influencing Interest Costs

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 variable previously listed and identifies six statistically significant variables at the 95% confidence level that affect the TIC. All the other previously identified statistics were not statistically significant at the 95% confidence level. **Exhibit 5.1** shows the data for the statistically significant variables.

- ***Delphis Scale:*** The key variable is the Delphis Scale. This is an estimate of the market rate for AAA-rated State and municipal bonds. The Delphis Hanover Corporation prepares an index that measures the average yield on State and municipal bonds based on daily market activity (Delphis Scale). DLS has collected the estimated yield for AAA bonds for every bond sale since 1991. The Delphis Scale reflects the rate of non-callable bonds, while Maryland bonds generally are callable. Consequently, Maryland's bonds are higher value bonds than the market ratio, since they give the issuer the opportunity to redeem the bonds early.

- ***Ratio of Maryland Total Personal Income to the United States 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 United States 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 0.35% (35 basis points) to the TIC.

Exhibit 5.1
TIC Regression Equation – Evaluating the Independent Variables

Ind. Variable	Coefficient	Std. Error	Beta	t-test	Sig.	Tol.	Comment
Delphis Scale	0.999	0.039	0.816	25.457	0.00	0.457	High t-test suggests confidence that the Delphis Scale is significant.
MD PI/US PI	-1.223	0.517	-0.060	-2.363	0.02	0.734	Negative coefficient suggests that as the Maryland economy strengthens, compared to the United States, the TIC declines.
Years to Maturity	0.348	.026	0.684	13.349	0.00	0.179	Positive coefficient suggests that longer maturities tend to have higher TICs.
Amount Sold	$5.96\text{x}10^{-10}$	0.000	0.071	2.435	0.02	0.553	Every $100 million sold adds 0.06% (6 basis points) to the TIC.
Taxable Debt	2.733	0.164	0.636	16.678	0.00	0.323	Suggests taxable bonds are more expensive than traditional bonds.
BABs	-1.672	0.165	-0.445	-10.123	0.00	0.243	Negative coefficient suggests BABS bonds are less expensive.
Constant	4.206						

BABs: Build America Bonds
Ind.: Independent
MD PI/US PI: Maryland Total Personal Income to the 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 2010

- ***Amount of Debt Sold:*** The various bond sales issuances range from $20 million in taxable bonds issued in July 2005 to $500 million in competitively sold tax-exempt bonds issued in July 2003. Issues that are particularly small or large can be more expensive. Smaller issues may be more difficult for underwriters to market and larger issues may be more difficult for issuers to absorb. Since the coefficient is positive, Maryland's TIC increases as the amount of bonds sold increases. This is to be expected, since Maryland is a highly rated State that issues bonds in fairly large quantities; in other words, Maryland bonds are easy to market (because the debt is high quality and well-known) but difficult to absorb (because the issuances are large). The analysis estimates that every additional $100 million issued increases the TIC by 0.06% (6 basis points).

- ***Taxable Debt:*** The State has also issued three taxable debt series. Since investors are required to pay federal income taxes on the interest earnings of taxable bonds, these bonds require a higher return and sell at a higher TIC. All the taxable bonds mature within seven years and are not callable. The analysis estimates that the TIC of taxable bonds is 2.73% (273 basis points) greater than the TIC for tax-exempt, 10-year bonds. The actual TIC of the bonds is in fact less because the Treasurer's Office issued taxable bonds in shorter maturities and small denominations, this taking advantage of the yield curve and the lower cost of smaller issuances.

- ***Build America Bonds:*** In February 2009, the American Recovery and Reinvestment Act authorized the issuance of BABs. The bonds are taxable bonds that support the same types of projects that traditional tax-exempt bond 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% 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. The analysis estimates that the TIC of BABs is 1.67% (167 basis points) less than the TIC for tax-exempt, 10-year bonds. Actual savings are less, since the State issued bonds with longer maturities.

Statistical Analysis Suggests That the Equation Explains the TIC Extremely Well

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. For example, all six of the variables confidence level exceeds 99%, which is well above the standard 95% used in assessing if a variable is statistically significant. **Exhibit 5.2** shows the equation's statistics.

Exhibit 5.2

TIC Regression Equation – Evaluating the Entire Equation

What Is Measured	Statistic Used to Measure	Value of Statistic	Explanation
Confidence in the equation	F Statistic	347.1	We are almost 100% confident that the independent variables influence the dependent variable.
Margin of error	Standard error of the estimate	0.156	We expect the actual TIC to be within 0.16% (16 basis points) of the estimate.
Estimate in relation to actual data	Adjusted R Square	0.976	The model's estimates explain 97.6% of the actual data.
Serial or Autocorrelation	Durbin-Watson	1.869	The ideal value is 2.0. If the number deviates too far from 2, 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 2010

Policy Implications

Build America Bonds Are Less Expensive Than Tax-exempt GO Bonds

The DLS analysis suggests that savings were realized by issuing BABs; the equation estimates that the yield on BABs (after adjusting for the federal subsidy) is 1.67% (167 basis points) less than the yield for 10-year tax-exempt bonds. The Treasurer's Office surmised that BABs with longer maturities would be less expensive than tax-exempt bonds with longer maturities. Consequently, BABs were issued with longer maturities, which must be factored when analyzing the cost of BABs. DLS estimates that each year adds approximately 0.35% onto the TIC and that the BABs maturities were an average of 14 years (4 years more than the 10-year rate). Since this adds approximately 1.40% to the cost of BABs, which is less than the 1.67% savings, the statistical analysis suggests that BABs did reduce State debt service costs.

However, the future of the BABs program is unclear. Under current federal law, BABs expire on January 1, 2011. Most proposals have reduced the federal interest subsidy below the 35%. It is possible that a lower subsidy rate no longer makes BABs attractive for Maryland.

Smaller Issuances Are Less Expensive Than Larger Issuances

Since 1991, Maryland has issued new bonds 51 times. Bond sales vary from $20 million to $500 million with an average size of $211 million, a median size of $200 million, and a standard deviation of approximately $122 million. The DLS analysis estimates that increasing the size of a bond sale $100 million increases the sale's TIC by 0.0596% (6 basis points). This increases annual debt service costs by just under $6,000 for every $100 million sold. The implication is that the State can reduce borrowing costs by reducing the amount of bonds sold on occasion and increasing the number of bond sales. Because the additional costs attributable to increased bond sales are quite modest, increasing the number of bond sales result in additional costs that offset savings. However, if GO bond authorizations and issuances continue to increase, the Treasurer's Office may want to consider the costs and benefits associated with increasing the number of bond sales.

Chapter 6. Non-tax-supported Debt

In addition to the tax-supported debt that Maryland issues, there are various forms of non-tax-supported debt that are issued by State agencies and non-State public purpose entities. While this debt is not backed by the full faith and credit of the State and is not included within the tax-supported debt limits, concerns have been raised that a default in payment of debt service on this debt could negatively impact other Maryland debt.

Non-tax-supported debt generally takes the form of either a project/program revenue debt or conduit debt, as discussed below:

- ***Revenue Bonds:*** Revenue bonds are bonds issued to raise funds for a specific project or program. The debt service on these bonds is generally repaid using revenues generated through the operation of the project or program for which the bonds were sold. For example, the Maryland Transportation Authority (MDTA) issues project revenue bonds to finance the cost of constructing revenue-generating transportation facilities, and MDTA then repays the bonds using the revenues generated through the tolls charged to drivers for the use of the facilities.

- ***Conduit Debt:*** Conduit debt is debt that agencies or authorities issue on behalf of clients. Clients could include local governments, nonprofit organizations, or private companies. When an agency or authority serves as a conduit issuer, the bonds it issues may not be obligations of the issuing entity. Should the client for whom the bonds are issued be unable to meet debt service obligations on their bonds, the issuing entity is not necessarily obligated to make the debt payments. In such circumstances, the issuing agency may take the client's property into receivership or exercise other contractual provisions to meet the debt service. Agencies and authorities in the State that serve primarily as conduit issuers include the Maryland Economic Development Corporation (MEDCO), the Maryland Health and Higher Educational Facilities Authority, and the Maryland Industrial Development Financing Authority.

Revenue and Private Activity Bonds

Debt service on revenue bonds is generally paid from the revenue generated from facilities built with the bond proceeds. The Department of Housing and Community Development's (DHCD) Community Development Administration (CDA) makes housing loans with revenue bond proceeds, and the mortgage payments help pay debt service. Likewise, MDTA constructs toll facilities with bond proceeds, and the tolls collected pay off the bonds. Other State agencies issue bonds for various purposes. This agency debt is funded through what are referred to as private activity bonds.

The United States' Tax Reform Act of 2006 established an annual limit on the amount of tax-exempt private activity bonds that may be issued by any state in any calendar year. This limit is based on a per-capita limit, presently $85 per capita, adjusted annually for inflation. Maryland's 2010 allocation totaled $513 million.

The federal Tax Reform Act of 1986 specifically allows states to set up their own allocation procedures for use of their individual bond limit. Bond allocation authority in Maryland is determined by Sections 13-801 through 13-807 of the Financial Institutions Article. The Secretary of the Department of Business and Economic Development (DBED) is the responsible allocating authority. Each year's bond issuing ability is initially allocated in the following manner: 50.0% to all counties (35.0% for housing bonds allocated to each county based on population and 15.0% for bonds other than housing allocated to each county based on average bond issuances); 2.5% to the Secretary for the purpose of reallocating the cap to municipalities; 25.0% to CDA for housing bonds; and 22.5% to what is referred to as the "Secretary's Reserve." This reserve may be allocated to any State or local issuer as determined at the sole discretion of the Secretary of Business and Economic Development and pursuant to the goals listed under Section 13-802(4)(iii).

In practice, most localities transfer much of their allocation authority to CDA because CDA can more efficiently and cost effectively issue mortgage revenue and multifamily housing bonds than can be accomplished by any individual jurisdiction. The debt belongs to the county that received the initial allocation and is not backed by CDA. State issuers, such as the Maryland Industrial Development Financing Authority and MEDCO, as well as counties who need bond allocations in excess of their initial allocation, may request allocations from the Secretary's Reserve.

Private activity bonds are subject to the unified volume cap set by Congress in the Tax Reform Act of 1986. Allocations, however, may be carried forward by eligible users and for specific purposes but expire at the end of three years if not issued. Unused cap, other than that which has been allocated to CDA or transferred to CDA by local governments, reverts back to DBED on September 30 of each year. DBED then determines what amount to carry forward in support of existing projects or endeavors. Historically, any remaining nonhousing allocations have been reallocated to CDA at year end for carry-forward purposes.

Exhibit 6.1 provides the calendar 2006 through 2010 figures for the amount of available tax-exempt bond authority and the level of issuances made under the volume cap limits. In 2006, total issuances under the volume cap were high, yet Maryland still abandoned $165.2 million due to the large amount of accumulated carry forward from previous years. After the large issuances and abandoned allocations in 2006, the State abandoned only $12.5 and $55.8 million in 2007 and 2008, respectively. The steady decline in total issuances each year is primarily driven by a reduction in issuances by CDA in support of its single-family mortgage program, although single-family issuances did increase briefly in 2009. In some years, such as 2008, CDA does not issue any debt directly against that year's allocation if prior year carry forwards are sufficient to support the activity for its single- and multifamily programs.

Exhibit 6.1
Allocation of Private Activity Bonds
Calendar 2006-2010
($ in Millions)

	2006	2007	2008	2009	2010 Est.
Fund Sources					
Annual Cap	$448.0	$477.3	$477.6	$507.0	$513.0
2008 Special Housing Allocation	0.0	0.0	175.9	0.0	0.0
Carry Forward from Prior Years	1,040.3	698.7	617.7	950.9	1,043.4
Total Capacity Available	**$1,488.3**	**$1,176.0**	**$1,271.2**	**$1,457.9**	**$1,556.4**
Issuances					
Single-family Housing	$564.9	$369.7	$98.7	$235.2	$0.0
Multifamily Housing	44.9	37.8	106.0	35.2	90.5
Housing – Other	0.0	90.0	21.2	0.0	63.8
Industrial Development Bonds	17.6	48.3	0.0	0.0	0.0
Exempt Facilities	0.0	0.0	38.6	9.1	40.0
Total Issuances	**$627.4**	**$545.8**	**$264.5**	**$279.5**	**$194.3**
Prior Year Carry Forward Abandoned	162.2	12.5	55.8	135.0	0.0
Carry Forward	**$698.7**	**$617.7**	**$950.9**	**$1,043.4**	**$1,362.1**

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

Source: Bond Market Association; Department of Business and Economic Development; Department of Housing and Community Development

A portion of the CDA's debt also represents refinancing prior issuances and issuing taxable bonds. Debt issued for these purposes are not subject to the federal volume cap. These issuances nonetheless mark a sizable decrease in CDA bond activity as demand for mortgage products dropped off in 2008. While CDA does not intend to issue any single-family program bonds in 2010, it will also not abandon any cap which may be available for use in 2011.

In July, Congress passed the Housing and Economic Recovery Act (HERA) of 2008 which included several funding provisions to help states address rising foreclosures. As part of this package, Maryland received an additional $175.9 million in Mortgage Revenue Bond funds, allowing DHCD to refinance existing mortgages for the first time. This separate, one-time allocation is above and beyond the annual cap and has special restrictions. The bonds may be issued under either the single-family or multifamily bond programs and, unlike the annual federally mandated volume cap, any unused portion of this authorization must be abandoned after two years, not three. Refinancing assistance under this authorization must adhere to CDA's established income and purchase price limits. In addition to HERA, the American Recovery and Reinvestment Act of 2009 provides CDA with the ability to issue bonds to refund taxable variable rate debt as tax-exempt variable rate debt under the federal New Issue Bond Program. As of June 30, 2010, CDA taxable debt outstanding totaled $404.9 million.

Debt Outstanding

Containing the amount of non-tax-supported agency debt has been a consistent concern of both the General Assembly and the Capital Debt Affordability Committee. During the 1989 session, the General Assembly passed Senate Bill 337 in an attempt to establish a measure of control over agency debt. This legislation was vetoed by the Governor who addressed the issue through the issue of Executive Order 01.01.1989.13 that established a procedure whereby the Governor set a revenue bond debt ceiling each year and allocated the debt allowance among the State agencies.

The Department of Budget and Management (DBM) was tasked with administering the process and was required to submit a report annually on the amount of agency debt outstanding. During the 1997 interim, a workgroup comprised of DBM staff and staff from agencies that issue revenues bonds, met to review the provisions of the 1989 executive order and make recommendations for improvement. The workgroup recommended removing higher education institutions from the process because their levels of debt are already limited by statute. Additionally, the CDA Infrastructure Program was recommended for removal from the process because the program's debt is issued on behalf of local governments and is not a debt of the State. Finally, the workgroup recommended changes in reporting dates and notification requirements. It was decided that prior notification of issuances need to be made only for issuances of $25 million or more. On February 10, 1998, the Governor instituted the recommendations of the workgroup by signing Executive Order 01.01.1998.07, superseding the 1989 process.

Exhibit 6.2 summarizes the increase in debt outstanding for various categories between fiscal 2000 and 2010. A table containing debt outstanding by year for the individual agencies is included as **Appendix 4**.

Exhibit 6.2
Debt Outstanding as of June 30
Fiscal 2000 and 2010
($ in Millions)

	2000	2010	% Change
Agency debt subject to State regulatory cap	$486.2	$2,818.7	480%
Agency debt not subject to State regulatory cap	4,199.2	5,213.3	24%
Tax-supported debt	4,520.0	9,358.7	107%
Authorities and corporations without caps	4,190.4	10,990.6	162%
Total	**$13,395.8**	**$28,381.4**	**112%**

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

Source: Department of Budget and Management

Debt Service on University Academic and Auxiliary Revenue Bonds

Chapter 93 of 1989 gave Morgan State University (MSU), St. Mary's College of Maryland (SMCM), and the University System of Maryland (USM) the authority to issue bonds for academic and auxiliary facilities. Chapter 208 of 1992 gave Baltimore City Community College (BCCC) the authority to issue bonds for auxiliary facilities only, although Chapter 213 of 2009 allowed BCCC to issue academic revenue bonds as well. Academic facilities are primarily used for instruction of students, and auxiliary facilities are those that produce income from fees charged for use of the facility. A residential dormitory is an example of an auxiliary facility. Debt service on auxiliary and academic debt may be paid from auxiliary and academic fees; a State appropriation expressly authorized for that purpose; or revenues from contracts, gifts, and grants.

Statute specifies that academic facilities must be expressly approved by an Act of the General Assembly that determines both the project and bond issue amount. Each year, USM introduces legislation entitled Academic Facilities Bonding Authority, listing the specific academic projects requiring authorization. The legislation may also increase the USM total debt limit when warranted. The USM debt limit is $1.05 billion, the MSU limit is $88 million, and the SMCM limit is $60 million Chapter 213 of 2009 increased BCCC's debt limit from $15 million to $65 million.

University System of Maryland

In early 2008, USM revised the system's self-imposed debt management policy. It included new policies to reassure investors and the rating agencies of USM's financial stability and control over debt. Previously, the goal was for debt service to be under 5.5% of operating revenues plus mandatory transfers. The new policy adjusts the ratio to 4.5% of operating revenues plus State appropriations including grants and contracts. The new base is larger, thus a lower ratio was required.

The new policies were based on discussions with their financial advisor (Public Financial Management's Higher Education Office), rating agencies, and investors. Since the economic downturn, the ratings of many higher education institutions have been downgraded by the ratings agencies due to their weaker financial position. For USM, reassuring investors and ratings agencies is of particular importance. With a stable debt management policy, USM expects to maintain the current credit rating of AA from Moody's and Fitch as well as AA+ from S&P.

Exhibit 6.3 shows USM will be under the 4.5% debt service ratio goal for fiscal 2011 through 2016. Including debt issued in fiscal 2011, total debt service will be approximately $123.5 million, or 3.8% of operating revenues plus State appropriations including grants and contracts. The forecast indicates the ratio will stay between 3.6% and 3.9% over the next five years, with fiscal 2016 projected to be 3.9%.

Exhibit 6.3
University System of Maryland Debt Service as Related to Unrestricted Funds
Fiscal 2007-2016
($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2007	$954,846	$106,295	$2,757,284	3.9%
2008	969,923	104,920	2,980,332	3.5%
2009	1,028,522	112,213	3,122,857	3.6%
2010	1,082,886	111,218	3,156,939	3.5%
2011 Est.	1,119,486	123,467	3,251,647	3.8%
2012 Est.	1,158,301	124,675	3,349,197	3.7%
2013 Est.	1,197,088	127,663	3,449,673	3.7%
2014 Est.	1,238,568	128,626	3,553,163	3.6%
2015 Est.	1,275,766	136,469	3,659,758	3.7%
2016 Est.	1,306,405	146,048	3,769,551	3.9%

Note: Total Debt Outstanding and Total Debt Service include academic, auxiliary, and capital leases debt.

Source: University System of Maryland

USM also modified the ratio of expendable resources (defined as unrestricted assets of USM and the affiliated foundation with adjustments for certain long term liabilities) to debt outstanding. Previously, the goal ratio was to have expendable resources be no less than 76% of total debt outstanding. USM consulted with its financial advisor and came to an agreement with the Board of Regents establishing a new minimum of 55%. **Exhibit 6.4** shows USM's expendable resources to debt outstanding ratios for fiscal 2007 to 2016. It has exceeded the target minimum throughout the entire period, indicating some capacity to issue more debt under the new criteria.

Exhibit 6.4
Summary of Expendable Resources to Debt Outstanding for the University System of Maryland
Fiscal 2007-2016
($ in Thousands)

Fiscal Year	Available Resources	Debt Outstanding	Ratio of Expendable Resources to Debt Outstanding
2007	$992,148	$954,846	103.9%
2008	1,043,592	969,923	107.6%
2009	1,130,138	1,028,522	109.9%
2010	1,186,579	1,082,886	109.6%
2011 Est.	991,502	1,119,486	88.6%
2012 Est.	993,202	1,158,301	85.7%
2013 Est.	1,017,952	1,197,088	85.0%
2014 Est.	1,049,952	1,238,568	84.8%
2015 Est.	1,081,952	1,275,766	84.8%
2016 Est.	1,113,952	1,306,405	85.3%

Note: Debt outstanding includes auxiliary, academic, and capital lease debt.

Source: University System of Maryland

Morgan State University

As shown in **Exhibit 6.5**, MSU has $59.4 million of total debt in fiscal 2011. This figure includes academic, auxiliary, and capital lease debt. Auxiliary debt is the largest of the three, totaling $50.5 million. The ratio of debt service to unrestricted funds is estimated to be 5.2% in fiscal 2011. This remains below the 5.5% goal ratio throughout the entire period, although fiscal 2010 was close, at 5.4%. It is anticipated to fall to 3.8% in fiscal 2016.

Exhibit 6.5
Morgan State University Debt Service as Related to Unrestricted Funds
Fiscal 2007-2016
($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2007	$69,631	$6,887	$136,527	5.0%
2008	68,430	7,322	145,459	5.0%
2009	67,825	7,700	148,538	5.2%
2010	64,354	8,015	148,741	5.4%
2011 Est.	59,438	8,034	155,741	5.2%
2012 Est.	56,096	7,429	163,742	4.5%
2013 Est.	54,916	7,224	172,742	4.2%
2014 Est.	50,328	7,739	182,743	4.2%
2015 Est.	47,745	7,640	193,743	3.9%
2016 Est.	44,348	7,884	205,743	3.8%

Note: Total debt outstanding and total debt service includes academic, auxiliary, and capital lease debt.

Source: Morgan State University

St. Mary's College of Maryland

SMCM's outstanding debt consists of auxiliary and capital lease debt. SMCM does not have any outstanding academic debt. The total debt in fiscal 2011 is estimated to be $41.9 million and is expected to decrease to $33.6 million by fiscal 2016. From fiscal 2007 to 2010, SMCM exceeded the 5.5% debt ratio goal in order to build more residential buildings to house increasing enrollment. As shown in **Exhibit 6.6**, the debt ratio declines to 5.2% in fiscal 2011 and is expected to further decline to 4.6% by fiscal 2015.

Exhibit 6.6
St. Mary's College of Maryland Debt Service Related to Unrestricted Funds
Fiscal 2007-2016
($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2007	$49,501	$3,089	$55,367	5.6%
2008	48,199	3,452	60,781	5.7%
2009	46,790	3,517	62,787	5.6%
2010	45,112	3,522	63,883	5.5%
2011 Est.	41,853	3,464	66,204	5.2%
2012 Est.	40,313	3,422	67,859	5.0%
2013 Est.	38,722	3,421	69,556	4.9%
2014 Est.	37,076	3,416	71,294	4.8%
2015 Est.	35,376	3,421	73,077	4.7%
2016 Est.	33,610	3,419	74,904	4.6%

Note: Total debt outstanding and total debt service includes auxiliary and capital lease debt only. St. Mary's College of Maryland does not have any academic debt.

Source: St. Mary's College of Maryland

Moody's Changes Consideration of Indirect Debt

The financial ratings agency Moody's announced in March 2010 that it will no longer separately account for indirect debt used to finance residential housing projects at higher education institutions. Prior to this change, indirect debt was not accounted for on an institution's balance sheet and did not impact credit ratings because there was no legal requirement that the institution or the State support debt service on the bonds. With this change from Moody's, the credit ratings of higher education institutions, chiefly USM, could be impacted. As of June 30, 2010, USM carried $396.9 million in indirect debt. This money was used to fund 13 projects at seven campuses over the past decade.

Indirect debt typically finances residential housing as part of a public-private partnership (P3), usually with MEDCO. After a college and MEDCO enter into a ground lease, MEDCO issues bonds and solicits a developer to construct a building. MEDCO then contracts a management company to operate the facility and uses rent and fees charged to students to pay the associated debt service. These projects are usually successful and generate auxiliary revenue for the university.

Without housing for students to live in, there are no students to pay tuition. Moody's believes colleges will go to lengths to ensure projects are successful and will support a failing project if it would otherwise close. Student housing is essential to a college's strategic position, and Moody's judges that not counting indirect debt for student housing distorts a college's financial position since the college is likely to support that debt regardless to whether there is a legal obligation to do so.

Going forward, USM's indirect debt will be considered on a case-by-case basis. If Moody's believes a university will step in to support a particular project, it will include that project with the system's direct debt. It is unknown which of USM's 13 projects will count as direct debt, but it is expected to be announced in December 2010 when Moody's updates the system's credit rating.

Universities Support Projects, If Necessary

The majority of projects funded with indirect debt have operated as planned. Most are profitable for the university, and some have been able to retire debt early. For example, in fiscal 2008, the Walker Avenue Student Housing project at the University of Maryland Baltimore County was able to pay off $1.9 million of bonds ahead of scheduled maturity.

Not all are as successful, however. The Fayette Square Student Housing project at the University of Maryland, Baltimore (UMB) and the Christa McAuliffe Student Housing project at Bowie State University (BSU) both require support from their affiliated universities. When projects are not successful, universities have demonstrated that they will support the projects. This suggests that Moody's assertions are correct.

The problems with Fayette Square are due to a saturation of housing in Baltimore City, depressing rents and occupancy rates. To ensure success of the project, UMB is providing housekeeping services, electricity, and security. The project is expected to reimburse the college in full, currently at $400,000, but is also not expected to be profitable until 2017.

At BSU, the Christa McAuliffe Student Housing Project encountered problems early when the developer refused to replace a faulty roof prior to initial occupancy. Cash flow problems followed, and BSU has covered electricity, water, and Internet services while not charging for residential life programs. The project is currently profitable, however, and expects to pay BSU back in full in fiscal 2011 at a cost of $279,000.

USM's Response

For its part, USM reports it will not pursue these kinds of student housing projects in the future. The system reports that market conditions are no longer favorable toward projects funded with indirect debt and that the rents that would be charged would be too high for students to pay. In the event market conditions change, USM reports that it will not consider projects unless Moody's determines they will not impact the system's credit.

Despite Moody's change, it does not appear USM's financial position is threatened. For example, Exhibit 6.4 shows that the ratio of expendable resources to debt outstanding in fiscal 2010 was 109.6%, well above the goal of a 55.0% minimum. Although USM believes it is unlikely Moody's will count every project as direct debt, the ratio falls to 80.2% when USM's $396.9 million of indirect debt is included. This amount is still above 55.0% and indicates Moody's change could have only a minimal impact on USM's debt ratings.

In terms of projects, USM will be able to self-finance; however, Moody's may deem the system is more leveraged than it had previously believed. This may limit the amount of other debt that the system can issue. USM will know in December 2010 how close to its goal ratios Moody's believes it to be and how much flexibility the system will have to issue bonds without threatening its credit rating.

Chapter 7. State Debt Evaluation and Outlook

Maryland has a large debt program. The State ended fiscal 2010 with $6.5 billion of general obligation (GO) bond debt outstanding and $9.4 billion in State debt outstanding. GO bond debt service was $778 million in fiscal 2010, while total debt service is over $1.1 billion. Maryland GO bonds receive the highest rating (AAA) from all three major rating agencies: Fitch, Moody's, and Standard & Poor's.

This chapter examines the ability of the Annuity Bond Fund (ABF) to support GO bond debt service costs, issues affecting debt affordability, and the advantages of issuing bay restoration bonds through a competitive sale.

Revenues Are Sufficient to Support General Obligation Bond Debt Service in Fiscal 2012

GO bond debt service costs are supported by the ABF. The fund's largest revenue sources include State property tax revenues and proceeds from bond sale premiums. Other revenue sources include interest generated by fund balances 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. In April 2006, the State property tax rate was set at $0.112 per $100 of assessable base.

The major revenue source supporting debt service payments is the State property tax. State property tax collections are influenced by trends in the housing market. This decade has seen a substantial increase in real estate values followed by a decline in values. Because State assessments lag increases in property values, the recent declines in property values are expected to lead to slowing growth, instead of declining, State property tax receipts. As of March 2010, the State Department of Assessments and Taxation (SDAT) projects that the State's assessable base will decline in fiscal 2012 and then grow moderately from fiscal 2013 to 2016. Short-term declines in assessable base are offset by reductions in the Homestead Tax Credit, so the reduction in fiscal 2012 is a modest $15 million (from $790 million in fiscal 2011 to $775 million in fiscal 2012). State property tax revenues increase slightly after fiscal 2012 if the tax rate is maintained at $0.112 per $100 of assessable base.

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 bond's true interest cost, which resulted in higher bond sale premiums. Proceeds from premiums are projected to increase the ABF balance to $125 million by the end of fiscal 2011. In the next four years, debt service costs are expected to increase at a higher rate than revenues, leading to a growing gap between revenues and costs. **Exhibit 7.1** shows that the ABF fund balance and anticipated bonds sale premiums are expected to be sufficient to support fiscal 2012 debt service costs.

Exhibit 7.1
Estimated Annuity Bond Fund Activity
Fiscal 2011-2016

	2011	2012	2013	2014	2015	2016
Special Fund Revenues						
Property Tax Receipts	$790	$775	$796	$802	$802	$819
Transfer Tax Revenues[1]	7	0	0	4	6	6
Bond Sale Premiums[2]	77	17	17	17	17	17
Other Revenues	2	2	2	2	2	2
ABF Fund Balance Transferred from Prior Year	71	125	49	1	0	0
Subtotal Special Fund Revenues Available	**$948**	**$919**	**$864**	**$825**	**$828**	**$845**
General Fund Appropriations	0	0	49	154	203	290
Federal Fund Appropriations[3]	9	11	11	11	11	11
Total Revenues	**$957**	**$930**	**$924**	**$990**	**$1,041**	**$1,146**
Projected Debt Service Expenditures	**$832**	**$881**	**$923**	**$990**	**$1,041**	**$1,145**
ABF End-of-year Fund Balance	**$125**	**$49**	**$1**	**$0**	**$0**	**$1**

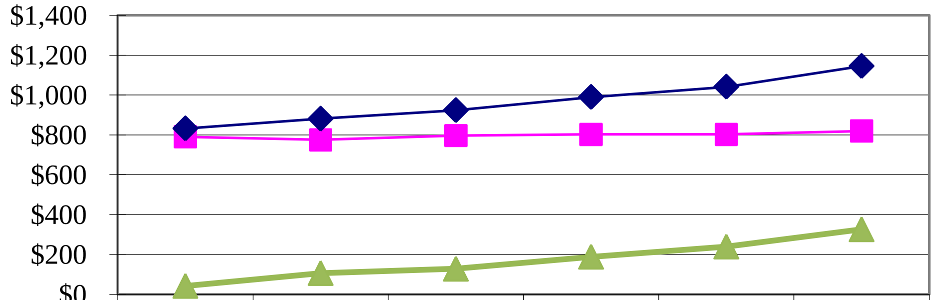
ABF: Annuity Bond Fund

[1] Supports $70 million of GO bonds issued in 2010 to support Program Open Space.
[2] Projects $30 million bond sale premium in March 2010 bond sale and $17 million in July 2010 bond sale.
[3] Build America Bonds interest subsidy.

Source: Department of Legislative Services, November 2010

However, revenues will not be able to support GO bond debt service indefinitely. Annual debt service costs are expected to increase by over 5%, while annual State property tax receipts are expected to increase by less than 1%. **Exhibit 7.2** shows how State property taxes, which are only $41 million less than debt service costs in fiscal 2011, are expected to be $326 million less than debt service costs in fiscal 2015. At the end of November 2010, SDAT will update its State property tax revenue estimates. If assessable base estimates are reduced, this gap between debt service and State property tax receipts would increase. The reason for the increase in debt service costs is discussed in the next section.

Exhibit 7.2
GO Bond Debt Service Costs and State Property Tax Revenue Collections
Fiscal 2011-2016
($ in Millions)



	2011	2012	2013	2014	2015	2016
State Property Tax Receipts	$790	$775	$796	$802	$802	$819
GO Bond Debt Service Costs	$832	$881	$923	$990	$1,041	$1,145
Revenue Shortfall at Current Rates	$41	$106	$127	$188	$239	$326

GO: general obligation

Source: Department of Legislative Services, November 2010

After Expanding 10 Years of Expanding Debt, State Debt Is Now Constrained by Affordability Limits

In 2000, the State began expanding debt. By December 2009, the State had reached the limit, and the Capital Debt Affordability Committee (CDAC) reduced GO bond authorizations. This issue examines the expansion of State debt and issues the State will be addressing now that the State is at the affordability limit.

Expansion of Debt Begun in 2000 Brings State to Affordability Limit

This section examines what capital programs were expanded and how the expansion affects debt service costs in the out-years.

State Has Expanded Authorizations Since 2000

Since the 2000 legislative session, State debt has been increased by authorizing additional GO and transportation debt and authorizing new kinds of State debt. **Exhibit 7.3** shows that the State has expanded debt authorizations in 17 separate actions: 11 actions increase GO bond authorizations; 3 actions increase transportation bond authorizations; Grant Anticipation Revenue Vehicles are authorized; Program Open Space bonds are authorized (which are issued as GO bonds in 2010, as discussed in Chapter 3); and bay restoration bonds are authorized.

Exhibit 7.3
New and Increased Debt Authorizations Since 2000

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 2002	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 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

Initial Authorization	Type of Debt Authorized	Amount Authorized	Supporting Revenues	Effect on Capital Spending
Chapter 46 of 2006	GO Bonds	Increase escalation to 3%, $100 million annually 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
Chapter 485 of 2009	GO Bonds	$150 million in fiscal 2010	State property taxes and general fund	Move PAYGO capital projects into GO bond 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	State property taxes and general fund	Move PAYGO capital projects into GO bond program

CDAC: Capital Debt Affordability Committee
GO: general obligation
GARVEEs: Grant Anticipation Revenue Vehicles
PAYGO: pay-as-you-go
POS: Program Open Space

Source: Department of Legislative Services, November 2010

These new and expanded authorizations increased the ratio of debt outstanding to personal income. At the end of fiscal 1999, State debt outstanding totaled $4.7 billion. By the end of fiscal 2010, total debt outstanding increased to $9.4 billion (an increase of 6.5% annually). In 1999, GO bond authorizations totaled $4.5 billion of which $3.5 billion was issued and $1.0 billion was authorized but unissued. By the end of fiscal 2010, GO bond authorizations increased to $8.9 billion of which $6.5 billion was issued and $2.4 billion was authorized but unissued.

The issue now examines the consequences of the additional authorizations, which include:

- distribution of spending among capital projects;
- ability to provide operating budget relief by moving capital programs out of the operating budget and into the capital budget;
- additional debt service costs, even after program growth is slowed; and
- reaching the debt affordability limit.

Distribution of Bonds Among Capital Projects

Increasing GO bond authorizations has more than doubled capital budget spending. **Exhibit 7.4** provides a snapshot showing authorizations by program for the 2000 and 2010 legislative sessions. Much of the new spending now supports public school and higher education projects. Authorizations in 2010 also support such areas as the environment, housing, and transportation. Much of this is attributable to moving operating spending into the capital budget, which is discussed in the following section.

Exhibit 7.4
General Obligation Bond Capital Program Comparison
2000 and 2010 Legislative Session Authorizations
($ in Millions)

Function	2000 Session	2010 Session
State Facilities		
Facilities Renewal	$12.6	$10.4
State Facilities Other	35.4	15.8
Health/Social		
Health Other	16.5	20.9
Health State Facilities	3.3	5.8
Private Hospitals	15.7	17.0

Function	**2000 Session**	**2010 Session**
Environment		
Agriculture	0.0	29.8
Energy	0.0	0.0
Environment	20.8	172.3
Maryland Environmental Service	3.6	0.0
Natural Resources	16.4	118.2
Public Safety		
Local Jails	11.7	5.5
State Corrections	23.3	17.8
State Police	4.1	2.5
Education		
Education Other	3.5	9.1
School Construction[1]	96.7	259.7
Higher Education		
Community Colleges	38.7	78.7
Morgan State University	14.1	30.5
Private Colleges/Universities	11.0	8.0
University System	85.4	207.8
Other	5.7	0.0
Housing/Community Development		
Housing	13.5	37.4
Housing Other	6.1	0.2
Economic Development		
Economic Development	0.0	4.3
Local Projects		
Local Administration Projects	10.9	25.8
Local Legislative Projects	22.9	17.6
Transportation		
Highways	0.0	89.3
De-authorizations		
De-authorizations	-2.0	-39.7
Total	**$469.9**	**$1,144.6**

[1] Includes Qualified Zone Academy Bond authorizations, which total $9.9 million in 2000 and $4.6 million in 2010.

Source: Department of Legislative Service, November 2010

Debt Expansion Supported Capital Projects Funded in the Operating Budget

Adding debt does not just expand capital spending. A smaller, but also important, share of the additional debt supports capital projects previously funded in the operating budget. GO bond authorizations provided operating budget relief for the State as general fund revenues declined during the 2001 and 2007 through 2009 recessions. New authorizations supporting the operating budget include:

- Chapter 290 of 2003 authorizing an additional $200 million in GO bonds. These funds supported pay-as-you-go (PAYGO) capital commitments for which operating budget funds were not longer available.

- Chapter 204 of 2004 authorized an additional $200 million in GO bonds. These funds supported PAYGO capital commitments for which operating budget funds were no longer available.

- Chapter 203 of 2003 authorized the transfer of $315 million from the Transportation Trust Fund to the general fund. In response, the Maryland Department of Transportation issued additional debt to maintain its capital program. The transfer corresponds with a sharp increase in transportation bonds outstanding.

- Chapter 485 of 2010 authorized an additional $150 million to support PAYGO capital projects. The projects and programs funded include Program Open Space, the InterCounty Connector, Medevac helicopter replacement, and public safety communications systems.

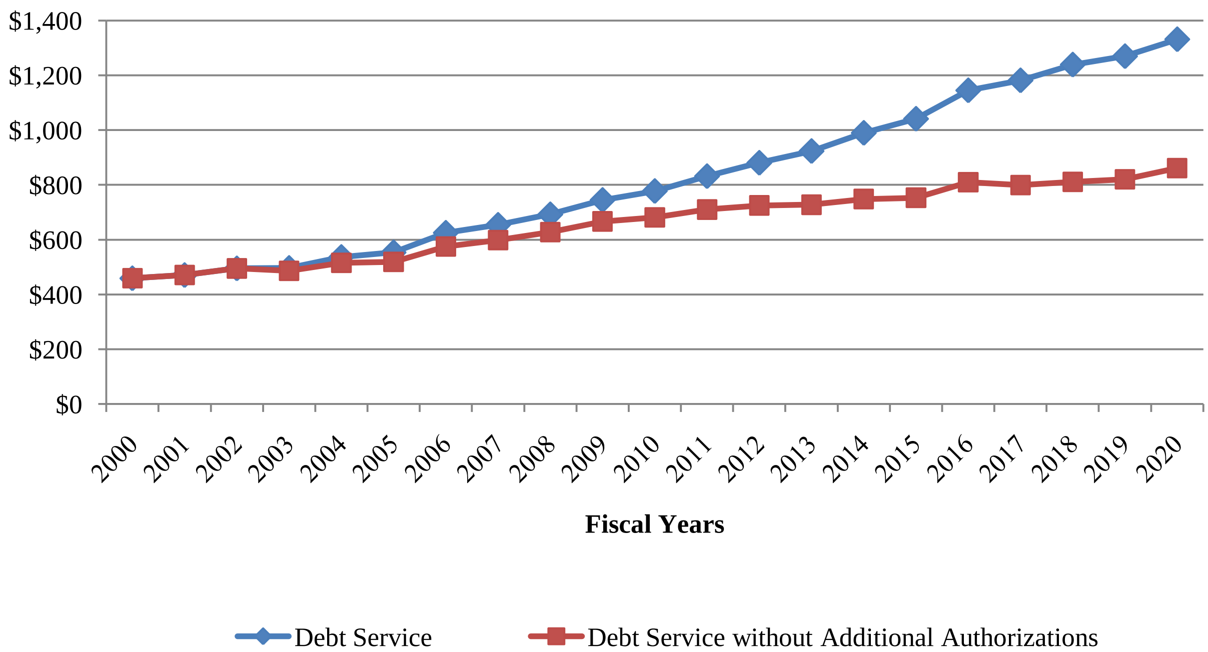
- Chapter 483 of 2010 authorized an additional $150 million to support PAYGO capital projects. The projects and programs funded include the Rural Legacy Program, Program Open Space, InterCounty Connector, Department of Housing and Community Development revolving loan programs, and Department of the Environment water quality and drinking water loan program.

PAYGO capital projects are often funded in the operating budget to keep the costs of the programs down. Capital projects supported by GO bonds are generally supported by tax-exempt bonds. This is because the federal tax-exemption reduces the cost of borrowing. (See Chapter 5 for the Department of Legislative Services' (DLS) analysis of the cost differences between taxable and tax-exempt bonds.) Federal laws and regulation requirements limit private activities and private use of the bond proceeds to 5% of the bond sale's proceeds or $10 million per bond sale. Examples of private-purpose projects include housing and public safety communications projects. Some of the projects whose funding has moved from the operating budget to the GO bond program are private activities or private-use projects. The issuance of taxable bonds in 2005 and 2006 was a consequence of moving private activity or private-use projects from the operating to the capital budget. The State was no longer able to manage this debt under the federal tax-exempt caps and issued taxable debt instead. As happened the last time PAYGO projects were moved to the GO bond program, there is a possibility that additional taxable bonds will be issued again.

Debt Service Costs Increase in Response to New Authorizations

These increased authorizations result in higher debt service costs. DLS estimates that fiscal 2011 debt service costs would have been $725 million without the additional authorizations, as shown in **Exhibit 7.5**. This is $156 million less than the current projection, which totals $881 million. From fiscal 2010 to 2020, debt service costs are projected to increase by 5.5% annually. Without the increased authorizations, the growth rate for GO bond debt service costs would have been 2.4% annually. By fiscal 2020, increased authorizations add over $400 million to debt service costs with debt service costs exceeding $1.3 billion.

Exhibit 7.5
Effect of Increased GO Bond Authorizations on Debt Service Costs
Fiscal 2000-2020
($ in Millions)



GO: general obligation

Source: Department of Legislative Services, November 2010

The out-year debt service estimates are consistent with the CDAC's new policy to reduce debt service costs. These new policies appear to have had some effect on debt service. For example, a year ago, the 10-year growth in debt service was projected to be 6.1%, which is 0.6% more than the current growth rate. Because of the nature of capital spending (primarily due to project funding that is authorized prior to planning and amortization schedules that do not retire principal in the first two years after bonds are issued), debt service will continue to increase at a high rate even after the State stops expanding capital spending.

State Debt Authorizations Are Reduced as the State Reaches the Affordability Limit

Since the State began expanding its capital program in 2000, the State has been through two recessions. The 2007 through 2009 recession was especially deep and resulted in lower out-year income and revenue estimates, which have reduced the State's debt capacity.

In December 2009, CDAC met to revise its recommended GO bond authorization. Since the committee had made its recommendation in September 2009, the Board of Revenue Estimates (BRE) had substantially reduced the State's general fund revenue projections. The revised revenue projections were low enough to reduce the State debt service to revenues ratio to the point that it exceeded the CDAC's 8% limit. In response to these lower revenues, the committee reduced the out-year GO bond authorizations so that the debt service to revenues ratio is below the limit. The September 2010 recommendation maintains GO bond authorizations at the level that was proposed in December 2009.[1] These changes in authorizations confirm that, after 11 years of capital spending growth, the State is now facing a period of little or no capital spending growth.

Being at the Limit Poses New Challenges

This next section examines the implications of being at the affordability limit. The State still needs to confront challenges, such as the amount requested for capital projects exceeding available funding. The State also is likely to confront new concerns, such as how to distribute reductions to total debt across different issuers, how to manage affordability factors outside State control, and how to manage the pressure to move project outside affordability limits.

Proposed Projects Exceed Available Funding

Just because the State is at the debt affordability limit does not mean that all perceived needs have been met. As was the case before the State was at the limit, the State has a backlog of unfinished capital projects and unanticipated projects will be proposed. Examples from the major types of debt include:

[1] Chapter 3 provides a discussion of GO bond authorizations, and Chapter 4 includes an analysis of the affordability limits.

- GO bond project requests total \$8.4 billion from fiscal 2012 to 2016, while debt authorizations are limited to \$4.7 billion (see Chapter 3 and Appendix 1 for more details).

- the Maryland Department of Transportation (MDOT) projects that annual State transportation capital spending is projected to decrease from \$890 million in fiscal 2013 to \$813 million in fiscal 2016. This estimate assumes substantial growth in transportation revenues. DLS projects that revenues will be somewhat less, reducing capital spending even more (see Chapter 3 for more details). In the past, shrinking capital programs led to legislation increasing transportation revenues and increasing debt issuances.

- Bay restoration bonds are projected to provide \$530 million to support improvements to wastewater treatment plants. Total project costs are \$537 million more than available from currently projected bonds and revenues. Fees may be raised to fill this gap. (See Chapter 3 for more details.) These fees could support bond issuances in excess of what is currently projected by CDAC.

- New leases, such as video lottery terminals, are procured periodically. Leases are more flexible than GO bonds and are often not anticipated in debt affordability projections. Also, the affordability projections do not include replacing the current leases when they expire after five years. Should new leases be necessary, current estimates understate debt.

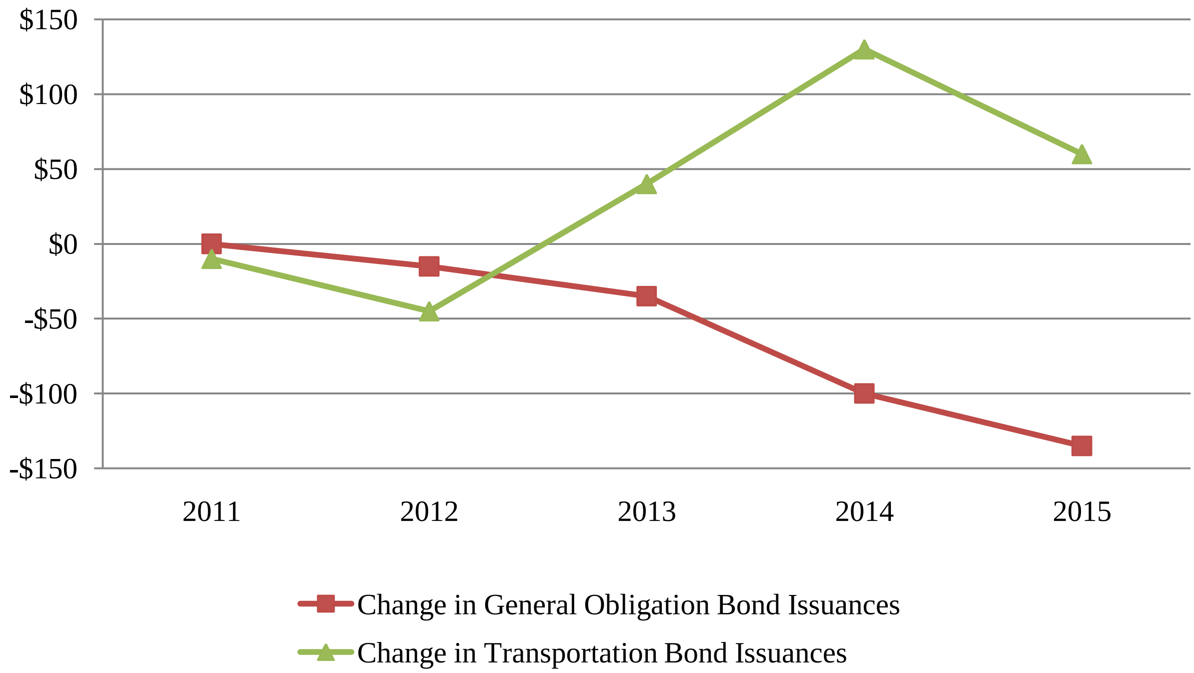
Reaching the affordability limit means that the State's debt capacity is maxed out. It does not mean that the State has maxed out perceived needs. The State will need to respond to the demand for funding new capital projects.

State Should Examine Policies for Distributing Debt Reductions

In December 2009, CDAC estimates projected that State debt service would exceed 8% of revenues by fiscal 2017. To keep debt within the affordability limits, the committee recommended reducing GO bond authorizations. The December 2009 recommendation did not address other types of State debt, such as transportation bonds.

As a consequence of reducing GO bond authorizations, GO bond issuances projected in September 2010 are projected to be less than issuances projected in October 2009. **Exhibit 7.6** shows that the decline in issuances begins in fiscal 2012, at about \$15 million, and increases through fiscal 2015, when \$135 million less is issued in GO bonds. Total issuances are \$285 million less than projected a year ago. Transportation bonds appear to be unaffected by this general decline in issuances. Over the same period, the issuance of transportation bonds is projected to increase by \$175 million.

Exhibit 7.6
Change in Projected General Obligation and Transportation Bond Issuances
September 2009 Compared to September 2010 CDAC Projections
Fiscal 2011-2015
($ in Millions)



CDAC: Capital Debt Affordability Committee

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, September 2009 and September 2010

Since the State is now at the affordability limit, it is quite possible that the State will be required to reduce planned bond issuances again. In the first round of reductions, the GO program was the only program affected by required reduction.

Risk Concerns

When CDAC reduced GO bond authorizations in December 2009, the committee was responding to a change in revenue forecasts. The State was forced to change capital spending plans in response to a change over which the State had no control. This is an example of the new risks the State will need to manage now that the State is at the debt affordability limit. In its 2010 report, CDAC identifies changes in personal income, revenues, interest rates, definitions of tax-supported debt, and issuance plans as components of risk. Since the State is now at the limit, CDAC will need to monitor these risks more closely and may, occasionally, need to reduce authorizations to keep within the affordability limits.

There are policies that the State could adopt to minimize the risk that factors outside the State's control result in breaching the affordability limit. One approach is to adopt a target that is less than the limit. This is an approach that Florida has taken. Florida's target has a debt cap that limits debt service to 7% of revenues. The state has also adopted a 6% target. Maryland could adopt a similar target that is below the affordability limit. If adopted, the State would begin reducing debt when the estimates exceed the target, instead of waiting until the debt exceeds the limit to begin reducing planned debt authorizations and issuances. The advantage to this approach is that the State would begin addressing the growth in debt sooner. On the other hand, it would probably lead to a smaller capital program. While this approach does not guarantee that a cap is not exceeded, it does provide for an additional cushion that reduces risk.

Pressure to Move Projects Out of State Debt Funding

One approach to maintaining capital spending within affordability limits is to redefine capital projects so that they no longer are classified as State debt. Recent examples of this include:

- ***State Center:*** On July 28, 2010, the Board of Public Works approved the ground and occupancy lease for the phase I redevelopment of the State Center complex in Baltimore City. This was the first step following the board's approval of the Master Development Agreement between the State of Maryland and State Center LLC, which established the legal framework for a multiyear, multiphase redevelopment of State Center leading ultimately to construction and rehabilitation of the site as a Transit-oriented Development to include commercial office space, market rate and low-income housing, retail space, and parking. While the housing and commercial office and retail space serve largely private-purpose activities that do not qualify for tax-exempt financing, a key component of the total redevelopment includes up to one million square feet of State office space which serves a public use that is supported by State taxes and, therefore, is traditionally financed within State debt affordability limits. To avoid classifying the project as State debt, the Administration has structured the phase I occupancy lease as an operating lease and intends to structure subsequent project phase leases similarly. In so doing, the Administration believes that such a lease structure removes the financing from the affordability limits. One advantage to this approach is that it avoids making further reductions to State debt programs at a time that the State is at capacity. However, DLS is concerned that this capacity was purchased at a premium. The project's average rent costs (which begin at $37 per square foot) are substantially higher than current market rates ($22 per square foot). Furthermore, this shifts the burden of paying for the infrastructure to the operating budget through the appropriation of annual rents at a time when the State faces a structural deficit.

- ***Health Department Laboratory:*** The Department of Health and Mental Hygiene (DHMH) has been authorized by the budget committees to allow the Maryland Economic Development Corporation (MEDCO) to finance the design and construction of a new public health lab at the Life Sciences and Technology Park in East Baltimore. The new facility will replace the existing 35-year-old central laboratory facility located at 201 West Preston Street in Baltimore. While a project such as this is usually included in the State's GO bond program due to the cost of the project, estimated at $180 million, the Administration favored a financing mechanism that would allow the project to be completed outside of the State's debt limits. In 2009, DHMH presented a number of alternative financing proposals for this project, which included funding the project with GO bonds, capital leases, operating leases, and public-private partnership arrangements. Though DLS' and DHMH's analysis did not completely agree, there was a consensus that arrangements that include the project in the debt affordability limits (GO bonds and capital leases) were more cost effective for the State than arrangements that did not (operating leases and public-private partnerships). Despite analysis that the lowest cost of capital would entail GO bond financing, the project is currently being developed using MEDCO revenue bonds backed by an operating lease with the State to avoid including the cost within the State's debt capacity at an arguably higher cost to the State.

Now that the State debt is at the debt affordability limit, it is likely that there will be pressure to structure project financing so that the project is not included within State debt affordability limits. This can result in increased costs to the State.

Conclusions and Recommendations

Capital programs supported by debt have evolved. Over the last decade, the State has increased debt authorizations to expand capital spending and to shift funding of capital projects from PAYGO to debt. The State has now reached the affordability limit. Because GO bond debt service costs are projected to increase at a higher rate than the State property taxes supporting them, funding these higher debt service costs in future years will require either a property tax increase or general fund support. To the extent general funds are utilized, closing the gap between general fund revenues and expenditures becomes more difficult. Debt service is adding to the State's structural general fund deficit. CDAC is recommending that the State reduce bond authorizations in fiscal 2012. This reduction is necessary to keep debt service costs within the committee's affordability limit, which limits debt service costs to 8% of revenues. DLS concurs with the recommendation to limit GO bond authorizations to $925 million.

In its recommendation, CDAC advised that the committee intends to reconvene in December 2010 to reexamine the recommended authorization level to reflect up-to-date economic and fiscal information and the BRE December revenue estimates. DLS recognizes that GO bond authorizations may need to be reduced if revenues decline and the current level of GO debt is no longer affordable. **Insofar as debt service costs are increasing more than revenues, and the State's general fund is facing a structural deficit, DLS recommends against increasing the GO bond authorization if BRE increases projected general fund revenues.**

State debt includes GO bonds, transportation bonds, Grant Anticipation Revenue Vehicles, bay restoration bonds, Stadium Authority bonds, and capital leases. CDAC estimates how much debt is affordable. The committee sets a limit on GO bonds. The committee does not set specific limits on other forms of State debt. After CDAC makes its recommendation, each form of State debt is authorized in separate legislation. For example, GO bonds are authorized in the capital budget bill. The Administration does not present the legislature with a comprehensive capital spending plan that sets limits on all debt, and the legislature does not pass legislation confirming how much debt is to be issued each fiscal year. **DLS recommends that the Administration prepare a comprehensive long-term debt plan and submit this plan with the capital budget. It is also recommended that annually the Administration propose and the General Assembly adopt legislation that sets limits on all the different types of State debt as part of the capital budget process.**

Analysis of Bay Restoration Bond Sale Suggests That Cost Could Be Reduced Through a Competitive Sale

On June 12, 2008, the Maryland Water Quality Financing Administration (MWQFA) issued $50 million in bay restoration bonds. This was the first issuance of bay bonds. MWQFA estimates that another $480 million in bay bonds will be issued through fiscal 2012. The bonds were rated AA and were issued through a negotiated sale.

Most bonds are sold through either a negotiated or competitive sale. In a negotiated sale, the underwriter is selected well in advance of the bond sale. After the underwriter has been chosen, the issuer and underwriter determine the cost of the sale. In a competitive sale, the issuer solicits bids from underwriters at a specified date and time and awards the bond sale when the bids are opened.

Competitive sales have the following advantages:

- ***Costs of Competitive Bond Sales Tend to Be Lower:*** The nature of the bid process provides an incentive for underwriters to provide the lowest bids. Securities Data Company estimates that the cost of competitive sales was $0.81 per $1,000 bond less than negotiated sales. Because costs tend to be lower, Maryland's GO and MDOT's transportation bonds are sold in competitive bond sales.

- ***Competitive Sales Promote the Appearance of an Open, Fair Process:*** The very nature of Maryland's competitive sales is to have all bids opened in public at the same time.

Negotiated sales have the following advantages:

- ***Greater Incentive for the Underwriter to Pre-market the Bond Sale:*** Bonds that have complicated structures, are not sold frequently, or are sold by issuers experiencing financial difficulties may be difficult for underwriters to sell. Negotiated sales provide opportunities for underwriters to begin marketing the bonds well in advance of the bond sale.

- ***Flexibility:*** It is less complicated to change the timing or structure of an issue in a negotiated sale.

The State's initial bay bond sale was a negotiated sale. For the next bond sale, a competitive sale may be warranted. The consensus is that competitive sales reduce costs, which is why Maryland GO and transportation bonds are bid competitively. Arguments supporting a competitive sale are that:

- ***Bay Bonds Benefit from State's Financial Strength and High Credit Rating:*** Bay bonds benefit from Maryland's financial strength and good credit.[2] Negotiated sales are often advantageous if an issuer has been downgraded. This is not a concern with bay bonds.

- ***Bay Bonds Are No Longer New and the First Issuance Was Received Favorably:*** Because it is often difficult to gauge how well a new issuance will be received, the first bond sale of a new issuance is often a negotiated sale, which gives the underwriter more time to market the bonds. Insofar as the first bond sale was favorably received, a negotiated sale may not be necessary.

- ***Bay Bond Provisions Are Not Particularly Unique or Complex:*** Bonds that have complicated or unique provisions often require additional effort for underwriters to sell, so they are offered in a negotiated sale. This is not the case with bay bonds.

- ***Bay Bonds Are Highly Rated:*** Bonds that are rated less than A can be more difficult to market. As a consequence, the bonds are often issued through a negotiated sale. Since bay bonds are rated AA, this is not a concern.

- ***Revenues Supporting Bay Bond Debt Service Are Stable:*** Bay bonds are supported by the Bay Restoration Fee, which charges users of wastewater treatment plants and septic systems. The fee is largely based on the number of users and is quite stable, which reduces the bonds' risk and makes them easier to market.

Since bay restoration bonds have successfully been issued, are highly rated, are supported by stable revenues, and do not have any particularly unique or complicated provisions, it is recommended that future issues of bay bonds be made on a competitive sale, instead of a negotiated sale basis.

---

[2] DLS compared the true interest cost of the bay bonds to GO bonds sold since 1991. As in Chapter 5, the sum of least squares regression is used to determine what variables are statistically significant. The only change to the GO bond analysis was to add data for the bay bond sale to the data series and to include an independent variable for bay bonds in the equation. (The independent variable for the Delphis Scale assumes the rate for AA-rated bonds.) This resulted in only minor changes to the GO bond equation's statistics. The statistical data suggest that the markets perceive bay bonds to be AA-rated and that the bay bonds factors are very much influenced by the same factors that affect Maryland GO bonds. This implies that bay bonds benefit from Maryland's financial strength and good credit.

Appendix 1
General Obligation Bond Requests: Fiscal 2012-2016
($ in Millions)

	Fiscal Years						Category
	2012	2013	2014	2015	2016	Total	Totals
State Facilities							**$693.5**
Board of Public Works	$53.6	$270.5	$71.6	$52.4	$78.6	$526.8	
Military	18.1	0.0	0.0	0.0	8.7	26.8	
Dept. of Disabilities	1.6	1.6	1.6	1.6	1.6	8.0	
Dept. of Information Technology*	47.1	30.3	37.2	16.7	0.5	131.8	
Health and Social Services							**$515.3**
Health and Mental Hygiene	$15.9	$27.5	$32.0	$9.5	$10.9	$95.7	
University of MD Medical System	13.7	10.5	9.8	5.0	7.1	46.0	
Senior Citizen Activity Center	1.5	2.0	2.0	2.0	2.0	9.5	
Juvenile Services	10.5	92.9	100.3	60.0	75.4	339.1	
Private Hospital Grant Program	5.0	5.0	5.0	5.0	5.0	25.0	
Environment							**$613.0**
Natural Resources	$68.3	$48.7	$17.0	$17.0	$20.0	$171.0	
Agriculture	6.0	7.0	8.0	8.5	8.5	38.0	
Environment	125.2	56.5	59.2	56.4	60.3	357.6	
MD Environmental Service	10.9	14.0	6.8	5.4	9.4	46.4	
Education							**$3,297.2**
Education	$23.3	$32.3	$28.6	$5.0	$5.0	$94.2	
MD School for the Deaf	0.1	1.1	0.0	0.0	0.0	1.2	
Public School Construction	687.6	725.6	642.0	595.9	550.8	3,201.8	
Higher Education							**$2,024.6**
University System of MD**	$143.0	$179.3	$243.5	$196.7	$182.8	$945.4	
Baltimore City Comm. College	14.3	31.5	22.7	15.3	26.1	109.8	
St. Mary's College	0.0	4.9	17.7	13.2	2.9	38.8	
Morgan State University	17.6	57.5	92.3	96.1	93.7	357.2	
Community Colleges	80.2	96.4	89.2	114.4	136.5	516.7	
Southern MD Higher Educ. Center	0.9	10.0	0.8	0.0	0.0	11.8	
Private Facilities Grant Program	13.0	8.0	8.0	8.0	8.0	45.0	
Public Safety							**$548.0**
Public Safety	$52.2	$53.2	$68.6	$106.7	$75.4	$356.1	
State Police	22.3	47.4	9.8	25.5	12.1	117.0	
Local Jails	15.0	15.0	15.0	15.0	15.0	75.0	
Housing and Comm. Development							**$178.7**
Housing and Comm. Development	$28.7	$27.4	$26.1	$25.5	$25.3	$132.9	
Canal Place	0.0	2.1	0.0	0.0	0.0	2.1	
Historic St. Mary's City	0.0	0.3	0.9	0.0	21.9	23.0	
Planning	2.4	5.8	2.1	5.3	5.0	20.7	
							$556.9
Legislative Initiatives*	$75.0	$75.0	$75.0	$75.0	$75.0	$375.0	
Miscellaneous	103.5	29.2	29.2	10.0	10.0	181.9	
Subtotal Request	**$1,656.3**	**$1,968.5**	**$1,722.0**	**$1,547.1**	**$1,533.3**	**$8,427.1**	**$8,427.1**
Debt Affordability Limits	**$925.0**	**$925.0**	**$935.0**	**$935.0**	**$945.0**	**$4,665.0**	
Variance	**$731.3**	**$1,043.5**	**$787.0**	**$612.1**	**$588.3**	**$3,762.1**	

*Funding request reflects estimated cost to build out Phase I at the "public safety" level only. The estimated cost of completing subsequent phases is not included.

**In addition to the general obligation bond request, the University System of Maryland has requested academic revenue bond funding of $27 million for fiscal 2012 and $27 million annually for fiscal 2013-2016.

*** These figures represent an estimated average of the total funding requests received through legislative local bond bills.

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

Source: Department of Budget and Management

Appendix 2
Estimated General Obligation Issuances
($ in Thousands)

Estimated Issuances During Fiscal Year (a) ====>

Legislative Session	**Proposed Auth.**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**Post 2020**	**Total Issued**
2011	$925,000	$0	$287,000	$231,000	$185,000	$139,000	$83,000						$925,000
2012	925,000		0	287,000	231,000	185,000	139,000	$83,000					925,000
2013	925,000			0	287,000	231,000	185,000	139,000	$83,000				925,000
2014	935,000				0	290,000	234,000	187,000	140,000	$84,000			935,000
2015	945,000					0	293,000	236,000	189,000	142,000	$85,000		945,000
2016	955,000						0	296,000	239,000	191,000	143,000	$86,000	955,000
2017	1,200,000							0	372,000	300,000	240,000	288,000	1,200,000
2018	1,240,000								0	384,000	310,000	546,000	1,240,000
2019	1,280,000									0	397,000	883,000	1,280,000
2020	1,320,000										0	1,320,000	1,320,000
Total New Authorization		**$0**	**$287,000**	**$518,000**	**$703,000**	**$845,000**	**$934,000**	**$941,000**	**$1,023,000**	**$1,101,000**	**$1,175,000**	**$3,123,000**	
Previously Authorized GO Bonds:	2,394,984	970,175	673,000	427,000	237,000	90,000	1,000	-1,000	-3,000	0	0	0	2,394,175
Total Issuances		**$970,175**	**$960,000**	**$945,000**	**$940,000**	**$935,000**	**$935,000**	**$940,000**	**$1,020,000**	**$1,101,000**	**$1,175,000**	**$3,123,000**	

Percentage issuance assumptions by fiscal year:

Fiscal year following year of authorization	1st	2nd	3rd	4th	5th
Percent of authorization issued	31%	25%	20%	15%	9%

Appendix 3
Maryland's General Obligation Bonds' True Interest Cost Analysis
Statistically Significant Independent Variables

Sale Date	TIC	Delphis Rate	MD/US PI	Years to Maturity	Amount Sold	Taxable	BABs
March 13, 1991	6.31	6.15	2.261	10	$95,000,000	No	No
July 10, 1991	6.37	6.50	2.240	10	100,000,000	No	No
October 9, 1991	5.80	5.70	2.230	10	120,000,000	No	No
May 13, 1992	5.80	5.75	2.220	10	120,000,000	No	No
January 13, 1993	5.38	5.40	2.221	10	130,000,000	No	No
May 19, 1993	5.10	5.10	2.212	10	130,000,000	No	No
October 6, 1993	4.45	4.45	2.206	10	140,000,000	No	No
February 16, 1994	4.48	4.50	2.208	10	120,000,000	No	No
May 18, 1994	5.36	5.35	2.199	10	120,000,000	No	No
October 5, 1994	5.69	5.50	2.191	10	160,000,000	No	No
March 8, 1995	5.51	5.35	2.184	10	175,000,000	No	No
October 11, 1995	4.95	4.80	2.163	10	150,000,000	No	No
February 14, 1996	4.51	4.35	2.159	10	170,000,000	No	No
June 5, 1996	5.30	5.10	2.144	10	150,000,000	No	No
October 9, 1996	4.97	4.90	2.144	10	170,000,000	No	No
February 26, 1997	4.90	4.70	2.136	10	240,000,000	No	No
July 30, 1997	4.64	4.50	2.135	10	250,000,000	No	No
February 18, 1998	4.43	4.25	2.119	10	250,000,000	No	No
July 8, 1998	4.57	4.40	2.128	10	250,000,000	No	No
February 24, 1999	4.26	4.10	2.134	10	225,000,000	No	No
July 14, 1999	4.83	4.80	2.146	10	125,000,000	No	No
July 19, 2000	5.05	4.85	2.157	10	200,000,000	No	No
February 21, 2001	4.37	4.28	2.178	10	200,000,000	No	No
July 11, 2001	4.41	4.39	2.201	10	200,000,000	No	No
March 6, 2002	4.23	4.17	2.233	10	200,000,000	No	No
July 31, 2002	3.86	3.89	2.241	10	225,000,000	No	No
February 19, 2003	3.69	3.77	2.235	10	500,000,000	No	No
July 16, 2003	3.71	3.56	2.250	10	500,000,000	No	No
July 21, 2004	3.89	3.89	2.254	10	400,000,000	No	No
March 2, 2005	3.81	3.72	2.259	10	350,000,000	No	No
July 20, 2005	3.79	3.63	2.268	10	430,000,000	No	No
March 1, 2006	3.87	3.89	2.242	10	280,000,000	No	No
July 26, 2006	4.18	4.09	2.238	10	350,000,000	No	No
February 28, 2007	3.86	3.77	2.228	10	325,000,000	No	No
August 1, 2007	4.15	4.02	2.218	10	375,000,000	No	No
March 2, 2005	3.87	3.68	2.259	2	25,000,000	Yes	No
July 20, 2005	4.43	3.65	2.268	5	20,000,000	Yes	No
March 1, 2006	4.98	3.92	2.242	5	20,000,000	Yes	No
February 27, 2008	4.14	3.90	2.208	10	400,000,000	No	No
July 16, 2008	3.86	3.76	2.213	10	415,000,000	No	No
March 4, 2009	3.39	3.51	2.287	9	199,220,000	No	No
March 2, 2009	3.63	3.47	2.287	10	225,780,000	No	No
August 5, 2009	2.93	3.17	2.303	9	200,000,000	No	No

Sale Date	TIC	Delphis Rate	MD/US PI	Years to Maturity	Amount Sold	Taxable	BABs
August 3, 2009	3.20	3.16	2.303	9	235,000,000	No	No
August 5, 2009	3.02	3.17	2.303	15	50,000,000	No	Yes
October 21, 2009	2.93	3.19	2.242	8	141,800,000	No	No
October 21, 2009	3.06	3.19	2.242	14	51,800,000	No	Yes
February 24, 2010	2.85	3.18	2.262	12	400,000,000	No	Yes
July 28, 2010	1.64	3.46	2.259	5	143,335,000	No	No
July 28, 2010	1.91	3.46	2.259	6	221,665,000	No	No
July 28, 2010	2.74	3.46	2.259	14	75,000,000	No	Yes

BABs: Build America Bonds
TIC: True Interest Cost

Source for Delphis Rate: Maryland State Treasurer's Office, The Bond Buyer

Source for Personal Income (PI): Federal Bureau of Economic Analysis

Remaining Sources: Bond Sale Official Statements

Appendix 4

Debt Outstanding

Fiscal 2000-2010

($ in Millions)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	00-10
Agency Debt Subject to Ceiling and Allocation Caps												
Maryland Environmental Service	$29.4	$34.4	$36.5	$33.7	$30.5	$30.5	$24.5	$19.6	$18.7	$19.8	$28.5	-3%
Maryland Wholesale Food Center Authority	6.8	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-100%
Maryland Transportation Authority	318.7	300.6	668.8	575.6	627.2	763.6	765.1	1,055.3	1,877.4	2,247.1	2,708.2	750%
Maryland Water Quality Financing Administration[1]	131.3	124.3	115.9	105.6	96.6	88.2	73.9	65.7	104.9	123.1	82.1	-37%
Revenue Cap Total	**$486.2**	**$466.0**	**$821.2**	**$714.9**	**$754.3**	**$882.2**	**$863.5**	**$1,140.6**	**$2,001.0**	**$2,390.0**	**$2,818.7**	**480%**
% Change/Prior Year	**-7%**	**-4%**	**76%**	**-13%**	**6%**	**17%**	**-2%**	**32%**	**75%**	**19%**	**18%**	
Agency Debt Not Subject to Ceiling and Allocation Caps												
Baltimore City Community College	$0.0	$1.2	$1.1	$1.0	$0.9	$0.9	$0.8	$0.8	$0.7	$0.7	$0.7	n/a
Dept. of Housing and Community Development[2]	2,627.0	2,692.1	2,705.8	2,672.8	2,415.1	2,194.6	2,248.1	3,204.3	3,259.4	3,177.5	3,345.9	27%
Local Government Infrastructure (CDA)	85.5	87.7	91.7	105.6	114.6	122.5	117.0	122.0	135.1	121.6	109.7	28%
Maryland Energy Financing Administration	388.4	379.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-100%
Maryland Industrial Development Financing Auth.	330.0	311.6	581.4	568.4	411.1	395.0	409.6	387.1	382.0	344.9	375.7	14%
MDOT – County Revenue Bonds	25.6	19.0	12.9	7.9	4.5	31.8	30.0	58.4	56.8	98.5	95.1	271%
MDOT – Non-tax-supported Issuances	42.5	74.3	65.2	57.7	54.0	49.7	72.6	68.5	64.2	59.9	57.3	35%
Morgan State University	27.1	26.8	33.4	72.2	70.0	68.6	67.7	69.6	68.4	67.8	64.4	137%
St. Mary's College of Maryland	16.9	27.8	27.5	40.6	39.7	40.6	43.8	49.5	48.2	46.8	45.1	167%
University System of Maryland	656.1	802.7	797.0	960.0	973.0	1,012.8	934.8	954.8	969.9	1,082.9	1,119.5	71%
Non-cap Total	**$4,199.2**	**$4,422.9**	**$4,316.1**	**$4,486.1**	**$4,082.8**	**$3,916.3**	**$3,924.4**	**$4,915.0**	**$4,984.8**	**$5,000.6**	**$5,213.3**	**24%**
% Change/Prior Year	**5%**	**5%**	**-2%**	**4%**	**-9%**	**-4%**	**0%**	**26%**	**1%**	**0%**	**4%**	
Tax-supported Debt												
Transportation Debt[3]	$729.2	$651.9	$717.3	$963.7	$1,187.3	$1,070.8	$1,078.5	$1,111.1	$1,268.8	$1,582.6	$1,645.0	126%
Grant Anticipation Revenue Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	325.0	300.7	704.4	651.8	n/a
Capital Leases – Board of Public Works	148.4	197.7	186.2	193.1	198.6	175.1	226.9	247.9	247.4	266.8	242.6	64%
Maryland Stadium Authority	293.5	286.0	278.0	323.2	321.0	309.2	296.8	283.1	271.6	256.0	251.9	-14%
Bay Restoration Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	46.8	44.2	n/a
General Obligation Debt	3,348.9	3,450.9	3,544.2	3,932.5	4,102.3	4,511.8	4,868.5	5,142.2	5,493.8	5,873.6	6,523.2	95%
Tax-supported Debt Total	**$4,520.0**	**$4,586.5**	**$4,725.7**	**$5,412.6**	**$5,809.2**	**$6,066.9**	**$6,470.7**	**$7,109.2**	**$7,632.3**	**$8,730.2**	**$9,358.7**	**107%**
% Change/Prior Year	**-4%**	**2%**	**5%**	**13%**	**7%**	**5%**	**7%**	**5%**	**7%**	**14%**	**7%**	
Authorities and Corporations Not Subject to Ceiling and Allocation Caps												
Health/Higher Education Facilities Authority	$3,555.0	$3,660.8	$4,265.4	$4,619.5	$5,316.9	$5,544.3	$6,181.1	$7,262.0	$8,204.8	$8,466.8	$8,660.7	144%
Maryland Econcomic Development Corp.	635.4	855.6	1,077.7	1,485.9	1,593.9	1,642.6	1,872.4	1,894.2	2,094.0	2,115.1	2,329.9	267%
Authorities and Corporations Total	**$4,190.4**	**$4,516.4**	**$5,343.1**	**$6,105.4**	**$6,910.8**	**$7,186.9**	**$8,053.5**	**$9,156.2**	**$10,298.8**	**$10,581.9**	**$10,990.6**	**162%**
% Change/Prior Year	**18%**	**8%**	**18%**	**14%**	**13%**	**4%**	**12%**	**14%**	**12%**	**3%**	**4%**	

CDA: Community Development Administration
MDOT: Maryland Department of Transportation

[1] Excludes bay restoration bonds.

[2] Excludes local government infrastructure.

[3] Includes county transportation bonds.

Source: Department of Budget and Management; State Treasurer's Office; University System of Maryland; St. Mary's College; Morgan State University