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

Department of Legislative Services
Office of Policy Analysis
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November 2008

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November 2008

The Honorable Ulysses Currie, Senate Chairman
Spending Affordability Committee

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

Dear Chairman Currie 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 September 10 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 of Flora Arabo, Andrew Gray, Richard Harris, Matt Klein, Jonathan Martin, and Jody Sprinkle. The manuscript was prepared by Lauren Bigelow.

Respectfully submitted,

Warren G. Deschenaux
Director

WGD/lab

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Chapter 1. Recommendations of the Department of Legislative Services

New Affordability Criteria

During the 2008 meetings, the Capital Debt Affordability Committee (CDAC) continued its focus on the State's debt affordability criteria, as requested by the General Assembly. After consulting with the rating agencies and the State's financial advisor, the committee voted to change the affordability limit of debt outstanding to personal income from 3.2 to 4.0 percent and retain the 8.0 percent debt service to revenue limit. The increase recognizes the new debt authorizations (Grant Anticipation Revenue Vehicles and Bay Restoration Bonds) that the State began issuing recently without increasing the State's limit on debt service costs. A discussion of the process is in Chapter 7. **The Department of Legislative Services (DLS) concurs with the recommendation to amend the affordability criteria.**

New General Obligation (GO) Bond Authorization

CDAC recommended a limit of $1.11 billion for new authorizations of GO bonds during the 2009 legislative session. The recommendation is $175 million more than was authorized in the 2008 legislative session. The CDAC recommendation reflects a one-time $150 million increase to support capital demand, of which $75 million supports public school construction and stimulate the economy and an annual $25 million increase to recognize inflation and program growth. The recommendation also includes $5 million previously authorized for tobacco buyout financing. The policy impacts of this one-time authorization are discussed in Chapter 7. **It is recommended that the State apply this one-time $150 million authorization to minimize the general fund shortfall and maximize the economic stimulus.**

Public School Construction Authorization Recommendation

Section 11 of the Public School Facilities Act of 2004 directs CDAC to review school construction funding needs and make specific recommendations regarding additional funding for school construction when recommending the State's annual debt limit and GO bond authorization level. DLS has the following concerns about this requirement:

- the distribution of GO bond authorizations was historically the responsibility of the Governor and General Assembly, not CDAC;
- the committee does not set spending limits for other capital programs or projects;
- the reason for increasing GO authorizations for public school construction and rising costs affects all capital program and not just public school construction;

- the State is facing a general fund structural deficit, and the additional GO authorizations are needed to support the general fund and provide a short-term stimulus for the economy; and

- State priorities have changed since the CDAC recommendation was made.

It is recommended that the Public School Facilities Act of 2004 be modified to delete the requirement that the committee recommend the level of public school construction authorizations.

Governor's Proposed Allocation

Since CDAC's recommendation, the Governor has offered a preliminary allocation of the GO bond authorizations. In accordance with Section 8-113 of the State Finance and Procurement Article, the Governor notified the General Assembly on the level of State debt that is advisable. The Governor accepted the recommendation of CDAC and provided the following preliminary allocation of the $1.11 billion debt authorization, as shown in **Exhibit 1.1**. **As previously noted, it is recommended that the State use the $150 million one-time authorization to minimize the general fund deficit and maximize the economic stimulus.**

Exhibit 1.1
Governor's Proposed General Obligation Bond Capital Program

	GO Debt
General Construction – State-owned Facilities	$497,000,000
Public School Construction	260,000,000
Other Special Projects – Grants and Loans	353,000,000
Total	**$1,110,000,000**

Source: Governor's Office, October 15, 2008

Authorization of Transportation Debt

The Maryland Department of Transportation 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. 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 percent of personal income debt affordability criterion and debt service within the 8 percent of revenues debt affordability criterion

Higher Education Academic Debt

CDAC recommends limiting new debt authorization for academic facilities to $27 million for fiscal 2010. 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.**

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, are competitively bid. **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.**

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, the Secretaries of the Department of Transportation and the Department of Budget and Management, and an individual appointed by the Governor. More recently, Chapter 445 of 2005 added the chair of the Capital Budget Subcommittee of the Senate Budget and Taxation Committee and the chair of the Capital Budget Subcommittee of the House Committee on Appropriations 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. The committee's recommendations were made to the Governor and General Assembly on September 10, 2008.

When reviewing State debt, CDAC considers general obligation (GO) bonds, 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 not considered to be State source debt and are not included in CDAC's debt affordability calculation.

Revised Affordability Criteria

During the 2008 meetings, CDAC continued its focus on the State's debt affordability criteria, as requested by the General Assembly. After consulting with the rating agencies and the State's financial advisor, the committee voted to change the affordability limit of debt outstanding to personal income from 3.2 to 4.0 percent and retain the 8.0 percent debt service to revenue limit. This issue is discussed in Chapter 7.

New General Obligation Debt Authorization

GO bonds, which are backed by the full faith and credit of the State, support the State's capital program. A discussion of GO bond authorizations, issuances, and costs is provided in Chapter 3. The committee recommended a $1.11 billion new GO debt authorization limit for the 2009 session. **Exhibit 2.1** shows that the long-range plan adopted by the committee provides for a one-time $150 million increase over the level of new GO bond authorizations recommended by the committee in its 2007 report for fiscal 2010. This amount will not remain in the base permanently, as the committee recommends the level of GO bond authorizations

Exhibit 2.1
Proposed General Obligation Bond Authorizations
2009-2014 Legislative Sessions
($ in Millions)

Session	2007 Report Recommended Authorizations	2008 Report Recommended Authorizations	Increased Authorization
2009	$960	$1,110	$150
2010	990	990	0
2011	1,020	1,020	0
2012	1,050	1,050	0
2013	1,080	1,080	0
Total	**$5,100**	**$5,250**	**$150**

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, November 2008

beginning with the 2010 session return to the level recommended in the committee's 2007 report. The committee's affordability analysis estimates and assumptions are predicated upon the debt authorization levels returning to levels proposed by CDAC in its 2007 report.

Public School Construction Recommendation

Uncodified Section 11 of the Public School Facilities Act of 2004 directs CDAC to review school construction funding needs and make specific recommendations regarding additional funding for school construction when recommending the state's annual debt limit and GO bond authorization level. The committee's report recognized that current *Capital Improvement Program* programmed levels school construction GO bond authorization levels of $250 million annually for fiscal 2010 through 2013 will achieve the State's nominal funding goal established by the Public School Facilities Act for public school construction projects. The committee expressed concerns that increases in building construction costs have increased actual school construction costs. The committee recommended at least $325 million for public school construction in fiscal 2010. The implications of this recommendation are discussed in Chapter 7.

Higher Education Academic Debt to Be Authorized

CDAC recommends limiting new debt authorization for academic facilities to $27 million for fiscal 2010. Academic bond issuances are discussed in Chapter 6.

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;
- Qualified Zone Academy Bonds (QZABs) backed by the full faith and credit of the State;
- 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 (GARVEEs) pledging projected future federal transportation grants to support debt service payments. GARVEEs may 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 (WQFA), 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 public and private colleges and universities, public schools and community colleges, prisons and detention centers, hospitals, and low-income housing projects. **Appendix 1** shows agency GO bond requests for fiscal 2010 through 2014.

New General Obligation Bond Authorizations

The Capital Debt Affordability Committee (CDAC) recommended a limit of $1.11 billion for new authorizations of GO bonds during the 2009 session. The recommendation includes a planned $5 million for tobacco buyout financing, as required by Chapter 103 of 2001.

The committee's recommendation is $175 million more than was authorized in the 2008 session and reflects the recommendation to increase GO bond authorizations by $150 million over what was planned for the 2009 session. Furthermore, CDAC specifically recommended that $75 million of the $150 million of additional GO bond authorizations for fiscal 2010 support increased authorization levels for school construction projects. Consistent with last year's policies, the limit includes a 3 percent increase (ranging from $25 million to $30 million annually through the five-year forecast) to account for inflation and program growth. In its report, the committee noted that although a $250 million funding level satisfies the nominal funding goal established for the State's share of public school construction, additional funding was necessary to keep pace with the escalating building costs that have severely impacted the construction market during the past several years.

Exhibit 3.1 shows that the 2008 report now recommends a total of over $5.25 billion in authorizations from the 2009 through 2013 sessions. This is an increase of $150 million over the five-year period from what was proposed by CDAC in 2007.

Exhibit 3.1
Effect of New Policy on GO Bond Authorizations
2009-2013 Legislative Sessions
($ in Millions)

Session	2007 Report Recommended Authorizations	2008 Report Recommended Authorizations	Increased Authorization
2009	$960	$1,100	$150
2010	990	990	0
2011	1,020	1,020	0
2012	1,050	1,050	0
2013	1,080	1,080	0
Total	**$5,100**	**$5,250**	**$150**

GO: general obligation

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, October 2007 and November 2008

General Obligation Bond Issuance Stream

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

The bond issuance stream influences debt outstanding and debt service calculations on which the affordability calculations are based. **Appendix 2** shows how the proposed authorizations for fiscal 2009 through 2017 would be issued. **Exhibit 3.2** compares fiscal 2009's issuance stream to fiscal 2008's to reveal $100 million in higher issuance levels through fiscal 2017. The increased issuance is largely attributable to the increased authorizations recommended by CDAC in the November 2008 report.

Exhibit 3.2
Proposed Issuance Stream
Fiscal 2009-2017
($ in Millions)

Fiscal Year	2007 Report	2008 Report	Increase
2009	$810	$810	$0
2010	885	910	25
2011	955	970	15
2012	970	1,000	30
2013	1,010	1,030	20
2014	1,040	1,050	10
2015	1,070	1,070	0
2016	1,100	1,100	0
2017	1,130	1,130	0
Total	**$8,980**	**$9,080**	**$100**

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations,* October 2007 and November 2008

The table in Appendix 2 also indicates the expected issuances of current authorizations. At the beginning of fiscal 2009, approximately $2.064 billion in debt was authorized by the General Assembly but not issued. The CDAC report assumes that $810 million of this debt will be issued in fiscal 2009, and $566 million in fiscal 2010.

General Obligation Bond Debt Service Costs

The committee's recommendation to increase authorizations is projected to result in a net increase in debt service costs in the out-years. **Exhibit 3.3** shows that debt service costs are now expected to be $34 million more than projected in the 2007 report. In the first two years, debt service costs decrease slightly due to changes in issuance and interest rate assumptions. Debt service costs are expected to exceed last year's costs beginning in fiscal 2011. By fiscal 2017, debt service costs are $71 million more than previously estimated.

Exhibit 3.3
Projected Debt Service Costs
Fiscal 2009-2017
($ in Millions)

Fiscal Year	2007 Report Estimated Debt Service Costs	2008 Report Estimated Debt Service Costs	Difference
2009	$746	$745	-$1
2010	786	783	-3
2011	841	842	1
2012	889	894	5
2013	945	952	7
2014	989	998	9
2015	1,050	1,061	11
2016	1,151	1,180	29
2017	1,224	1,236	12
Total	**$8,621**	**$8,692**	**$71**

Note: Totals may not sum due to rounding.

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations,* October 2007 and November 2008

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.

These five recent bond sale refunding issuances reduced GO bond debt service costs by a total of $69 million. The State Treasurer's Office, with advice from its financial advisor, determines whether refinancing GO debt is advantageous. Should interest rates fall to a point where it is determined that there would be sufficient savings to warrant a refunding, such action would be presented to the Board of Public Works (BPW) for its approval.

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.

To date, the State has not paid 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 State 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 will no longer be 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. Consistent with the new regulations, the 2008 and 2009 issuances assume no interest earnings.

To date, the State has issued $36.5 million in QZABs and plans to issue another $11.1 million. **Exhibit 3.4** shows that sinking fund payments total $39.5 million. The remaining principal is interest earnings, which total $8.1 million.

Exhibit 3.4
Maryland QZAB Issuances
($ in Thousands)

Authorizing Legislation	Date Issued	Amount Authorized	Amount Issued	Total Payments	Annual Sinking Fund Payment
Previously Issued					
Chapter 322 of 2000[1]	Nov. 2001[1]	$9,828	$9,828	$13,320	$888
Chapter 139 of 2001[1]	Nov. 2001[1]	8,270	8,270	n/a[1]	n/a[1]
Chapter 55 of 2003	Nov. 2004	9,043	9,043	7,356	490
Chapter 431 of 2005[2]	Nov. 2006[2]	9,364	4,378	3,609	241
Chapter 431 of 2005[2]	Nov. 2007[2]	n/a[2]	4,986	4,089	272
Subtotal		**$36,505**	**$36,505**	**$28,373**	**$1,892**
Projected Issuances					
Chapter 585 of 2007	Dec. 2008	$11,126	$5,563	$5,563	$371
Chapter 585 of 2007	Nov. 2009	n/a	5,563	5,563	371
Subtotal		**$11,126**	**$11,126**	**$11,126**	**$742**
Total		**$47,631**	**$47,631**	**$39,500**	**$2,633**

QZABs: Qualified Zone Academy Bonds

[1] November 2001 issuance includes authorizations made in 2000 and 2001.
[2] QZABs authorized in Chapter 431 of 2005 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 are usually earmarked for 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 2009 budget bill set the maximum ceiling for June 30, 2009, at $1,620,850,000. The Department of Legislative Services (DLS) estimates that as of June 30, 2009, debt outstanding will total $1,552,850,000, due to smaller bond sales than originally estimated.

The bond revenue coverage test, which is established in MDOT's bond resolutions, mandates that net revenues and pledged taxes must each equal at least twice (2.0) the maximum future debt service. 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, 2009, they will have a net income coverage of 2.5 and pledged taxes coverage of 5.9.

As shown in **Exhibit 3.5**, MDOT has issued new (*e.g.*, nonrefunding) consolidated transportation bonds in 15 of the past 20 years. MDOT issued $227 million in debt in January 2008 (fiscal 2009). The debt issuance was smaller than the $285 million anticipated; however, due to favorable interest rates, MDOT received a $23 million premium and capital expenditures were less than expected reducing the need for cash.

Exhibit 3.5
Consolidated Transportation Bond Issuance*
($ in Millions)

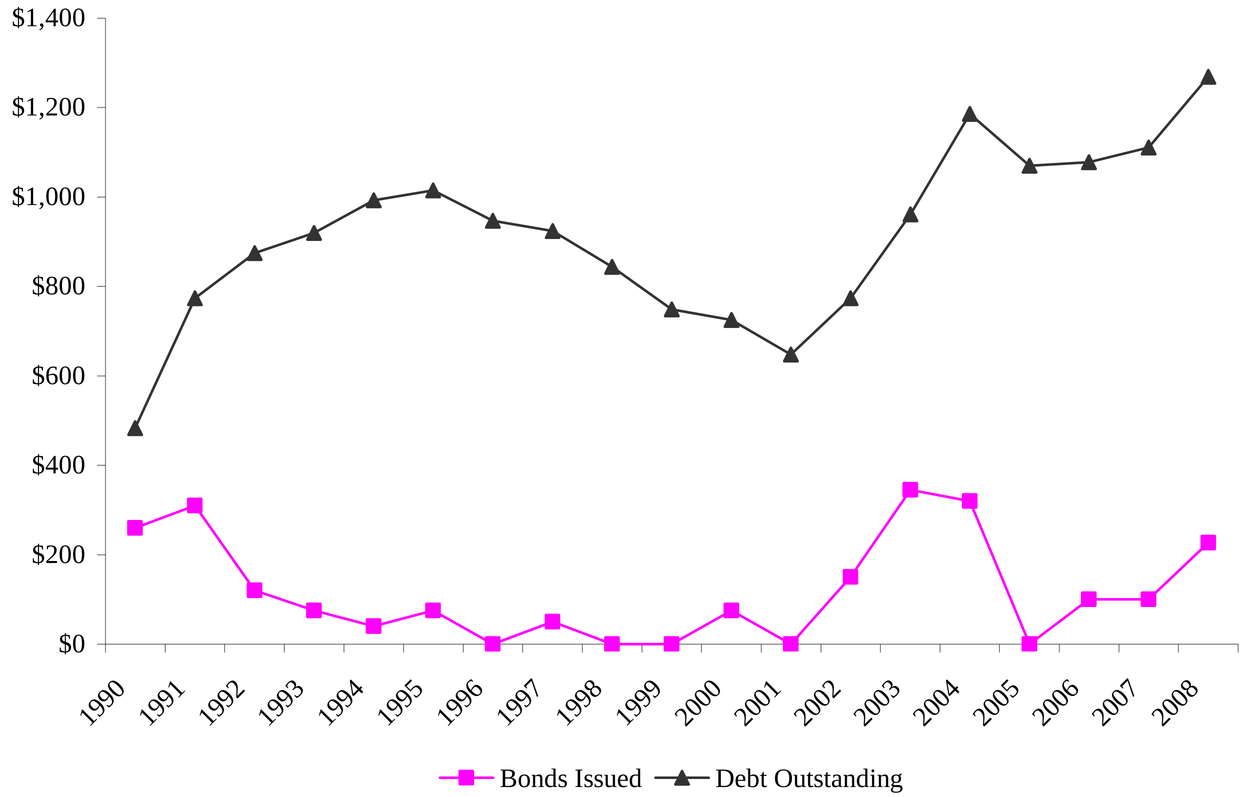
Fiscal Year	Bonds Issued
1989	$100
1990	260
1991	310
1992	120
1993	75
1994	40
1995	75
1996	0
1997	50
1998	0
1999	0
2000	75
2001	0
2002	150
2003	345
2004	320
2005	0
2006	100
2007	100
2008	227
Total	**$2,347**

*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 2008

Exhibit 3.6 illustrates annual bond sales and changes in debt outstanding from fiscal 1990 to 2008. In fiscal 2008, MDOT's net debt outstanding was $1.269 billion, well under the $2.600 billion debt outstanding debt limit.

Exhibit 3.6
Maryland Department of Transportation
Bonds Issued and Net Debt Outstanding
Fiscal 1990-2008
($ in Millions)



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 decline in fiscal 2009 and flatten in fiscal 2010 as the economy enters a phase of contraction. Given the decline in revenue and higher projections for operating expenditures, bond sales are constrained to maintain coverage ratios throughout the six-year planning period. As a result, the State's special fund transportation capital program is forecasted to decline from $843 million in fiscal 2009 to $421 million in fiscal 2014.

Exhibit 3.7 shows that DLS estimates MDOT will be able to issue approximately $480 million in fiscal 2009 and 2010 compared to $140 million from fiscal 2011 to 2014. The higher bond issuances in fiscal 2009 and 2010 are intended to maintain capital expenditures through the economic downturn which diminishes the ability to issue debt in later fiscal years.

Exhibit 3.7
Consolidated Transportation Bonds – MDOT Projected Issuances
Fiscal 2008-2013
($ in Millions)

Fiscal Year	Amount
2009	$360
2010	120
2011	50
2012	40
2013	30
2014	20
Total	**$620**

MDOT: Maryland Department of Transportation

Source: Department of Legislative Services

Debt Outstanding

Exhibit 3.8 shows the amount of estimated debt outstanding from fiscal 2009 to 2014. From fiscal 2009 to 2014, debt outstanding is estimated to decline by $221 million. This decline, unlike in prior years, is due to the amount of debt retired being greater than the amount of debt issued over this period.

Exhibit 3.8
Consolidated Transportation Bonds – MDOT Projected Debt Outstanding
Fiscal 2009-2014
($ in Millions)

Fiscal Year	Amount
2009	$1,533
2010	1,595
2011	1,562
2012	1,500
2013	1,422
2014	1,312

MDOT: Maryland Department of Transportation

Source: Department of Legislative Services

Debt Service

Exhibit 3.9 shows that debt service costs are projected to increase steadily from $142 million in fiscal 2009 to $198 million in fiscal 2013. The growth is attributable to increased principal payments from prior issuances.

Exhibit 3.9
Projected Transportation Debt Service
Fiscal 2008-2013
($ in Millions)

Fiscal Year	Projected Debt Service
2009	$142
2010	152
2011	161
2012	178
2013	181
2014	198
Total	**$1,012**

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. **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 percent of personal income debt affordability criterion and debt service within the 8 percent 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.

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 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 million in GARVEE bonds on May, 22, 2007, with a net premium of approximately $18 million. The issuance was rated AAA by Standard & Poor's, Aa2 by Moody's Investors Services, and AA from Fitch Ratings.

A second GARVEE debt issuance of $425 million was planned on September 10, 2008. Shortly before the sale, media reports noted concerns that federal transportation revenues were insufficient to support federal commitments and that the federal government had not appropriated sufficient federal general funds to fully fund the program. MDTA, which issues the bonds, was concerned that this could increase the cost of the bonds and delayed the bond sale. MDTA expects to issue the bonds before the end of 2008. GARVEE debt service payments are projected to be $84 million from fiscal 2010 to 2019.

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.

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.

For energy performance projects, agencies make lease payments using the savings that result from implementation of the conservation projects. Sections 8-401 to 8-407 of the State Finance and Procurement Article regulates 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 renews 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.

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.

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.

Exhibit 3.10 shows that tax-supported capital lease debt outstanding totals $247.9 million as of June 30, 2007, compared to $247.7 million as of June 30, 2008. Overall, CDAC considers the additional State liability and debt service resulting from capital leases to be small in relation to the State's GO debt outstanding and debt service at this time.

CDAC's forecast does not assume any new real property leases in the out-years. In fact, real property capital leases for both the Towson and Hyattsville District Courts are expected to be fully amortized with the final lease payment made with the fiscal 2010 budget, at which time the State will assume full ownership of the property. The nature of real property leases makes it difficult to project out-year costs since they tend to be one-time opportunities that have a short lead time. For example, there are a wide range of costs as some leases' total value is less than $10 million while others is greater than $40 million. The out-year forecast shows current leases and projected activities for equipment and energy performance leases.

The amount of outstanding energy performance contract leases increased by $16.9 million from June 30, 2007, to June 30, 2008. The most recent energy performance contract lease approved by BPW on October 17, 2007, provides financing for up to $60.0 million from October 2007 through September 2010. This is double the previous master-lease which provided $30.0 million of financing for a similar three-year period. The most recent master-lease further indicates greater planned use of this form of financing in the near term.

CDAC's 2008 forecast assumes approximately $30 million in new equipment leases annually. The master equipment lease approved by BPW in June 2006 provided $70 million in capital equipment lease-purchase financing. At the time, the State Treasurer's Office anticipated that this master-lease would run through June of 2009. However, in November 2007, the Treasurer's Office received BPW approval for an additional $100.0 million of equipment 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 curtailed the use of equipment leases. Through October 2008, the State Treasurer's Office has only issued $3.5 million under the most recent $100.0 million authorization which was used to finance a portion of the total cost to purchase and install new audio/video equipment at Oriole Park at Camden Yards. Another indication of the State's budget constraints is the decline in new capital equipment leases, as the amount of outstanding debt decreases from $109.7 million as of June 30, 2007, to $100.2 million as of June 30, 2008.

CDAC's 2008 forecast assumes $33 million in new annual energy leases compared to just $20 million in the committee's 2007 forecast. Future energy lease activity is expected to increase due to rising annual energy costs During the 2007 interim, the Department of General Services reorganized to create a new Office of Energy Performance and Conservation.

Exhibit 3.10
Tax-supported Capital Lease Debt Outstanding
As of June 30, 2007 and June 30, 2008
($ in Millions)

State Agency/Facility	Amount Outstanding June 2007	Amount Outstanding June 2008	Difference
State Treasurer's Office			
Capital Equipment Leases	$109.7	$100.2	$-9.5
Energy Performance Projects	34.1	50.9	16.9
Maryland Department of Transportation			
Headquarters Office Building	30.4	28.4	-2.0
Maryland Aviation Administration Shuttle Buses	12.9	11.6	-1.3
Department of General Services			
St. Mary's County Multi-service Center	3.7	3.2	-0.5
Calvert County Multi-service Center	1.9	1.3	-0.6
Towson District Court	2.1	1.4	-0.7
Hyattsville District Court	2.8	1.9	-0.9
Hilton Street Facility	2.2	2.0	-0.2
Prince George's County Justice Center	22.5	21.9	-0.6
Maryland Environmental Services			
Eastern Correctional Institution – Water and Wastewater Facility	2.4	1.9	-0.5
Maryland Transportation Authority			
Annapolis State Office Parking Garage	23.2	22.6	-0.6
Total	**$247.9**	**$247.7**	**$-0.2**

Source: State Treasurer's Office, October 2007 and October 2008

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 66 major wastewater treatment plants (WWTPs). The fund is administered by MDE's WQFA. 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. To expedite the ENR upgrades at the 66 major WWTPs, MDE issued $50 million in bonds in June 2008 backed by revenue generated under this program and intends to issue more bonds in the future.

CDAC considered whether bay bonds are State debt in 2004. At the time, the committee agreed that the bonds are State debt. MDE Water Quality 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 3.11** shows that the program projects issuing debt in fiscal 2009 and that by fiscal 2012, $496.4 million of debt will be outstanding. MDE provided the data on September 15, 2008, and noted that the bond issuance projections were reported to CDAC in June 2008. The Septic Fund will be operated on a pay-as-you-go (PAYGO) basis and does not involve revenue bond proceeds.

Exhibit 3.11
Bay Restoration Fund
Fiscal 2009-2013
($ in Millions)

	2009	2010	2011	2012	2013
Revenue Bonds Issued	$70	$80	$150	$180	$0
Debt Outstanding	117	191	332	495	469
Debt Service	5	12	20	35	52

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 66 major WWTPs has increased from $1.040 billion to $1.113 billion. This increase primarily reflects increased funding projected for the Patapsco upgrade project, which increases $74.8 million. The program plans to issue $530.0 million in revenue bonds through fiscal 2012. These revenue bonds, in addition to revenues expended from the fund as PAYGO special funds, would fund approximately $868.0 million of the $1.113 billion upgrade cost, a difference of $245.0 million. At this point it is unclear how this funding gap will be resolved. One approach would be to increase revenues and issue additional bonds.

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 3.12** lists MSA's authorized debt, debt outstanding, and annual debt service.

Exhibit 3.12
Maryland Stadium Authority
Revenue Debt Authorizations, Debt Outstanding, and Debt Service
($ in Millions)

Project	Authorized	Outstanding as of October 2008	Debt Service Fiscal 2009
Baseball and Football Stadiums	$235.0	$187.4	$21.3
Baltimore City Convention Center	55.0	28.4	4.8
Montgomery County Conference Center	23.2	19.8	1.8
Hippodrome Performing Arts Center	20.3	17.0	1.8
Ocean City Convention Center	17.3	9.7	1.5
Camden Station	8.7	8.4	0.6
Total	**$359.5**	**$270.7**	**$31.8**

Note: Numbers may not sum 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 $235.00 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. The last such reallocation took place after MSA sold $10.25 million of Sports Facilities Taxable Lease Revenue Refunding Bonds in July 2002. These bonds were sold to refund the principal of bond anticipation notes that were issued to satisfy an arbitration panel's ruling that MSA deposit $10.00 million in a special fund from which improvements to Oriole Park at Camden Yards are funded.

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 2009 debt service cost for the revenue bonds is $4.8 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 2009 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.

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 2009 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 $63.00 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 $839,000 in fiscal 2009.

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 2009 debt service costs for the authority's revenue bonds are about $600,000 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, the authority is authorized to provide assistance but is not authorized to issue revenue bonds to only one project, Coppin State University's Physical Education Complex.

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 2007, the authority completed a study for a multi purpose sports facility for the Montgomery County Department of Economic Development. In fiscal 2008, the authority completed a study on a professional soccer stadium in Prince George's County for the DC United. Also scheduled for completion is a study on the expansion of the OCCC.

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

Chapter 43 of 1978 created the Capital Debt Affordability Committee (CDAC). The committee's 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 following two criteria were adopted:

- State debt outstanding should be limited to 4 percent of Maryland personal income;[1] and

- State debt service should be limited to 8 percent 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. This analysis examines the capital spending and debt issuance reviewed by CDAC.

Personal Income

The Department of Legislative Services' (DLS) estimates of personal income differ from those of CDAC. **Exhibit 4.1** shows that DLS is estimating higher personal income than CDAC. Changes in personal income can have a large impact on the affordability of the State's debt level. Improvements in personal income levels have the effect of improving the affordability picture. In contrast, lower personal income results in higher ratios of debt outstanding for any given level of debt.

The DLS estimate was prepared in October 2008, and the CDAC estimate was prepared in the summer of 2008. The differences between the estimates reflect the data that was available at the time the estimates were prepared. DLS' 2008 estimate is higher than the CDAC estimate because there was an upward revision for 2007 subsequent to CDAC's deliberations, which results in an upward revision in 2008. The recent economic slowdown suggests that personal

[1] This debt affordability criterion was changed by the committee in 2008. Prior to 2008, State debt outstanding was limited to 3.2 percent of personal income. Chapter 7 discusses this change.

income will increase at a moderate rate in 2009 and 2010. The DLS estimates reflect this slowdown through lower growth rates from 2008 to 2010. However, since the 2008 estimate has been revised upward, DLS's estimates still exceed the CDAC estimates in 2009 and 2010.

Exhibit 4.1
Maryland Personnel Income – Historical Data and Projections
Comparison of DLS and CDAC Projections
($ in Millions)

Calendar Year	DLS Personal Income Estimate	Percent Change	CDAC Personal Income Estimate	Percent Change	Difference
2008	$273,379	n/a	$269,860	n/a	$3,519
2009	281,468	2.96%	279,059	3.41%	2,409
2010	293,876	4.41%	292,832	4.94%	1,044
2011	310,463	5.64%	308,902	5.49%	1,561
2012	327,705	5.55%	323,797	4.82%	3,908
2013	345,762	5.51%	339,242	4.77%	6,520
2014	364,207	5.33%	355,967	4.93%	8,240

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

Source: CDAC Personal Income: *Capital Debt Affordability Committee Report*, November 2008

Revenue Projections

Exhibit 4.2 shows that DLS' revenue projections are less than CDAC's through fiscal 2014. DLS' revenues reflect the economic slowdown that is now expected.

Affordability Analysis

DLS has prepared a revised estimate of State debt outstanding to personal income and State debt service to revenues. The analysis assumes State debt general obligation (GO) bond issuances that 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 and bond covenants, estimated MDOT bond issuances are reduced by $1.2 billion from fiscal 2009 to 2014, which reduces debt outstanding. Exhibit 4.3 shows that, for the forecast period, debt outstanding as a percent of personal income peaks at 3.12 percent in fiscal 2010. Exhibit 4.4 shows that the debt service as a percent of revenues increases throughout the forecast period and peaks at 6.89 percent in fiscal 2017

Exhibit 4.5 shows that debt outstanding ratios based on DLS personal income estimates are lower than those estimated by CDAC throughout the forecast period. However, both sets of data follow a similar trend. Debt to personnel income peaks in fiscal 2010 to 2012. After fiscal 2012, there is a steady decline.

Similarly, **Exhibit 4.6** shows that debt service ratios based on the DLS baseline forecast of general fund revenues are similar than those estimated by CDAC. In both data sets, the ratio tends to increase throughout the forecast period. 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 amount of bonds sold by MDOT.

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Exhibit 4.2
Revenue History and Projections
($ in Millions)

Fiscal Year	General Funds	State Property Tax	Use of Bond Sale Premium	Subtotal	MDOT	GARVEE	Stadium	Bay Restoration Fund	Total	CDAC Estimate	Diff.
2008	$13,563	$624	$39	$14,227	$2,009	$470	$21	$0	$16,727	$16,730	$-3
2009	14,086	691	44	14,821	2,269	446	21	5	17,562	17,687	-125
2010	14,702	742	2	15,446	2,305	446	21	12	18,230	18,374	-144
2011	15,356	767	2	16,126	2,387	446	21	20	19,000	19,187	-187
2012	16,063	800	2	16,865	2,451	446	21	35	19,817	20,014	-197
2013	16,709	823	2	17,534	2,522	446	21	52	20,576	20,792	-216
2014	17,461	843	2	18,307	2,623	446	21	52	21,449	21,708	-258

MDOT: Maryland Department of Transportation
GARVEE: Grant Anticipation Revenue Vehicle
CDAC: Capital Debt Affordability Committee

Source of Estimates: General Fund, Use of Premium, and Maryland Department of Transportation: Department of Legislative Services, November 2008; State Property Tax, Stadium, GARVEE, Bay Restoration Fund, and Capital Debt Affordability Committee Revenues: *Capital Debt Affordability Committee Report*, November 2008

Exhibit 4.3
State Tax-supported Debt Outstanding
Components and Relationship to Personal Income
($ in Millions)

Fiscal Year	General Obligation	MDOT Bonds	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt
2008	$5,493.8	$1,269.1	$300.7	$247.7	$268.1	$50.0	$7,629.3
2009	5,844.7	1,552.9	704.4	271.2	252.8	116.8	8,742.7
2010	6,277.9	1,595.3	655.4	268.2	236.5	191.1	9,224.4
2011	6,733.3	1,562.1	604.0	267.9	219.1	331.6	9,717.9
2012	7,194.3	1,499.8	550.0	273.2	200.7	494.9	10,212.9
2013	7,654.4	1,421.5	493.4	284.9	180.9	469.3	10,504.4
2014	8,115.1	1,312.1	433.9	295.4	159.9	442.4	10,758.7
2015	8,554.3	1,166.0	371.5	306.7	138.8	414.0	10,951.4
2016	8,916.6	1,010.9	306.0	315.6	121.4	384.1	11,054.5
2017	9,289.1	838.4	237.2	323.7	104.3	352.6	11,145.3
2018	9,640.1	673.1	165.0	331.5	85.9	319.5	11,215.1

State Tax Supported Debt Outstanding as a Percent of Personal Income
(Affordability criteria = 3.2%)

Fiscal Year	General Obligation	MDOT Bonds	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt
2008	2.01%	0.46%	0.11%	0.09%	0.10%	0.02%	2.79%
2009	2.08%	0.55%	0.25%	0.10%	0.09%	0.04%	3.11%
2010	2.14%	0.54%	0.22%	0.09%	0.08%	0.07%	3.14%
2011	2.17%	0.50%	0.19%	0.09%	0.07%	0.11%	3.13%
2012	2.20%	0.46%	0.17%	0.08%	0.06%	0.15%	3.12%
2013	2.21%	0.41%	0.14%	0.08%	0.05%	0.14%	3.04%
2014	2.23%	0.36%	0.12%	0.08%	0.04%	0.12%	2.95%
2015	2.23%	0.30%	0.10%	0.08%	0.04%	0.11%	2.85%
2016	2.20%	0.25%	0.08%	0.08%	0.03%	0.09%	2.73%
2017	2.18%	0.20%	0.06%	0.08%	0.02%	0.08%	2.61%
2018	2.14%	0.15%	0.04%	0.07%	0.02%	0.07%	2.49%

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

Source: General Fund, Use of Premium, and Maryland Department of Transportation: Department of Legislative Services, November 2008; and State Property Tax, Stadium, GARVEE, Bay Restoration Fund, and Capital Debt Affordability Committee Revenues: *Capital Debt Affordability Committee Report*, November 2008

Exhibit 4.4
State Tax-supported Debt Service Components and Relationship to Revenues
($ in Millions)

Fiscal Year	General Obligation	MDOT	GARVEE	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt Service
2008	$692.5	$121.4	$36.1	$41.6	$21.4	$0.0	$913.1
2009	744.5	142.4	36.1	53.8	20.8	4.7	1,002.1
2010	783.0	152.0	84.0	64.3	20.8	11.7	1,115.8
2011	842.3	160.8	84.0	71.3	20.9	19.6	1,198.9
2012	893.9	178.2	84.0	67.8	21.0	34.5	1,279.5
2013	952.2	181.3	84.0	61.7	21.0	52.4	1,352.7
2014	998.4	198.2	84.0	55.6	21.0	52.4	1,409.7
2015	1,061.4	209.2	84.0	56.0	19.8	52.4	1,482.9
2016	1,180.4	211.3	84.0	53.7	19.9	52.4	1,601.8
2017	1,236.1	220.8	84.0	54.9	20.0	52.4	1,668.3
2018	1,313.6	205.1	84.0	53.2	20.0	52.4	1,727.4
State Tax-supported Debt Service as a Percent of Revenues							
2008	4.14%	0.73%	0.22%	0.25%	0.13%	0.00%	5.46%
2009	4.24%	0.81%	0.21%	0.31%	0.12%	0.03%	5.71%
2010	4.30%	0.83%	0.46%	0.35%	0.11%	0.06%	6.12%
2011	4.43%	0.85%	0.44%	0.38%	0.11%	0.10%	6.31%
2012	4.51%	0.90%	0.42%	0.34%	0.11%	0.17%	6.46%
2013	4.63%	0.88%	0.41%	0.30%	0.10%	0.25%	6.57%
2014	4.65%	0.92%	0.39%	0.26%	0.10%	0.24%	6.57%
2015	4.74%	0.93%	0.38%	0.25%	0.09%	0.23%	6.63%
2016	5.07%	0.91%	0.36%	0.23%	0.09%	0.23%	6.88%
2017	5.10%	0.91%	0.35%	0.23%	0.08%	0.22%	6.88%
2018	5.20%	0.81%	0.33%	0.21%	0.08%	0.21%	6.85%

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

Source: General Fund, Use of Premium, and Maryland Department of Transportation: Department of Legislative Services, November 2008; and State Property Tax, Stadium, GARVEE, Bay Restoration Fund, and Capital Debt Affordability Committee Revenues: *Capital Debt Affordability Committee Report*, November 2008

Exhibit 4.5
State Debt to Personal Income
Comparison of DLS and CDAC Estimates

Fiscal Year	DLS	CDAC
2009	3.11%	3.13%
2010	3.16%	3.28%
2011	3.13%	3.37%
2012	3.12%	3.43%
2013	3.04%	3.41%
2014	2.95%	3.35%
2015	2.85%	3.31%
2016	2.73%	3.23%
2017	2.61%	3.16%
2018	2.49%	3.08%

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

Source: *Capital Debt Affordability Committee Report*, November 2008

Exhibit 4.6
State Debt Service to State Revenues
Comparison of DLS and CDAC Estimates

Fiscal Year	DLS	CDAC
2009	5.71%	5.97%
2010	6.12%	6.18%
2011	6.31%	6.37%
2012	6.46%	6.57%
2013	6.57%	6.76%
2014	6.57%	6.84%
2015	6.63%	7.03%
2016	6.88%	7.30%
2017	6.88%	7.44%
2018	6.85%	7.51%

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

Source: *Capital Debt Affordability Committee Report*, November 2008

Chapter 5. Analysis of Factors Influencing General Obligation Bonds' Interest Costs

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. A statistical methodology standard in financial analysis may be used to evaluate these financial factors. In this chapter, the Department of Legislative Services (DLS) uses the sum of least squares regression to evaluate what factors influence the TIC that 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 37 tax-exempt and 3 taxable GO bond sales since March 1991 (refunding sales are excluded):

- true interest cost;
- Delphis Scale[1] for 10-year, AAA bonds for tax-exempt bonds and 5-year, AAA for taxable bonds;
- date of the bond sale, fiscal year, and calendar years the bonds were sold;
- if the bond sale includes one of the four call provisions offered since 1991;
- average years to maturity;

[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, DLS 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, it exclude any outliers. Maryland has collected the estimated 10-year yield for AAA bonds for every bond sale since 1991. The 10-year yield is used because the State's GO bonds' average maturity is just under 10 years.

- amount of debt sold;

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

- use of a financial advisor;

- ratio of Maryland personal income to United States personal income; and

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

The Equation Identifies General Bond Market Interest Rates, State Economic Strength, Tax Status, and Inclusion of a Call Provision as Statistically Significant

The least squares regression analysis' dependent variable is the TIC. The question that the regression equation attempts to answer is which of the independent variables influence the dependent variable (TIC). The regression equation examines the variable previously listed and identifies four statistically significant variables at the 5 percent confidence level that affect the TIC. All the other previously identified statistics were not statistically significant at the 5 percent confidence level. **Exhibit 5.1** shows the data for the four 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 10-year yield for AAA bonds for every bond sale since 1991 (10 years is used because that is the average maturity). For taxable debt issuances, which mature within 7 years and have an average maturity of 5 years, the yield for 5-year maturities is used.

- ***Ratio of Maryland Total Personal Income to the United States Total Personal Income:*** One perspective on interest rates is to consider it as a return for risk. The higher the risk, the higher interest rate investors will expect. One risk factor is the fiscal health of the entity selling the debt. In this regression equation, State personal income is used as a proxy for fiscal health. The regression 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.

- ***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

Exhibit 5.1

TIC Regression Equation – Evaluating the Independent Variables

Ind. Variable	Coefficient	Std. Error	Beta	Sig.	Tolerance	Explanation
Delphis Scale	0.972	0.017	1.121	0.000	0.703	Coefficient less than 1.0 suggests Maryland TIC is less than other AAA-rated bonds. Equation is almost 100 percent sure that the variable is significant.
MD PI/US PI	-0.892	0.290	-0.055	0.004	0.859	Negative coefficient suggests that as the Maryland economy strengthens, compared to other states, the TIC declines. Significant at the 1.0 percent confidence interval.
Call	0.082	0.038	0.046	0.035	0.621	Cost of a call is 0.082 percent (8 basis points). Range is 0.044 to 0.120 percent. Significant at 5.0 percent confidence interval.
Taxable Debt	1.402	0.059	0.513	0.000	0.590	Taxable debt adds 1.402 percent (140 basis points) to TIC. Equation is almost 100 percent sure that the variable is significant.
Constant	2.107	0.653	n/a	0.003	n/a	Y-intercept is appropriate.

Ind.: Independent
Std.: Standard
Sig.: Significance or confidence interval
TIC: true interest cost
MD PI/US PI: Maryland Total Personal Income to the United States Personal Income

Source: Department of Legislative Services, October 2008

require a higher return and sell at a higher TIC. All the taxable bonds matured within seven years and they were not callable.

- ***Inclusion of a Call Provision:*** A call is an option that allows the seller to retire debt early. This may be advantageous if interest rates decline below the rate the seller is paying. Consequently, buyers often require higher interest rates if an issuance includes a call provision. Maryland usually issues callable bonds.

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. This includes an analysis of five aspects of the equation:

- 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;
- are we missing a relevant independent variable (serial or auto correlation); and
- do we have similar independent variables (multicollinearity)?

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. **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	914.3	We are almost 100 percent confident that the independent variables influence the dependent variable.
Margin of error	Standard error of the estimate	0.07488	We expect the actual TIC to be within 0.08 percent (8 basis points) of the estimate.
Estimate in relation to actual data	Adjusted R Square	0.989	The model's estimates are within 1 percent of the actual data.
Serial or Auto Correlation	Durbin-Watson	2.224	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 2008

This analysis updates an equation that was first developed in 2006. The initial analysis included data from 33 tax-exempt bond sales and was updated to include 4 tax-exempt bond sales from 2007 and 2008 and 3 taxable bond sales from fiscal 2005 and 2006. Adding these bond sales has slightly refined the estimate by reducing the margin of error. For example, the equation's margin of error has been reduced from 7.98 to 7.49 basis points. Similarly, the standard errors for the coefficients have also declined. For example, the Delphis Scale's standard error declined from 2.0 basis points to 1.7 basis points.

Examining the Effectiveness of the Regression Equation – An Intuitive Approach

As previously noted, the appendices provide all the statistical data. This allows statisticians to examine DLS' least squares regression equation. In addition to the statistical data, a more intuitive analysis of the regression equation may be made.

In the past, DLS has compared the TIC to the Delphis Scale to examine the State's GO bond yields. The purpose of the exercise is to improve upon this approach and to determine what factors are statistically significant and to what extent they influence the TIC. For the regression equation to be useful, it should be able to better estimate the TIC than the Delphis Scale alone. While the Delphis Scale is an excellent proxy for general market conditions, it does not reflect any independent variables specific to Maryland financial condition or a bond sale's attributes (such as issuing callable bonds).

Exhibit 5.3 compares the DLS regression equation and the Delphis Scale to the actual TIC and shows that the DLS regression equation is more often closer to the TIC than the Delphis Scale. Of the 37 tax-exempt bond sales analyzed, the DLS estimate is closer to the actual TIC than the Delphis Scale 23 times (62.2 percent). The Delphis Scale is closer 10 times (27.0 percent) and they produce the same estimate 4 times (10.8 percent). The total error of the DLS regression equation is 210 basis points, compared to 376 basis points for the Delphis Scale. The DLS regression equation has an average error of that is less than 6 basis points while the Delphis Scale has an average error that is more than 10 basis points.

Although this is not a scientific analysis, it does show that including variables for personal income and call provisions provides an estimate that is quite close to the actual TIC and provides an estimate that is usually closer than the Delphis Scale alone.

Exhibit 5.3

Comparison of the DLS Regression Equation and Delphis Scale to Actual TIC

Bond Sale Date	TIC	DLS Model	Delphis Scale	Difference Between TIC & DLS Equation	Difference Between TIC & Delphis Scale	Closer Estimate
03/13/91	6.31	6.15	6.15	0.16	0.16	Same
07/10/91	6.37	6.51	6.50	0.14	0.13	Delphis Scale
10/09/91	5.80	5.74	5.70	0.06	0.10	DLS
05/13/92	5.80	5.80	5.75	0.00	0.05	DLS
01/13/93	5.38	5.46	5.40	0.08	0.02	Delphis Scale
05/19/93	5.10	5.17	5.10	0.07	0.00	Delphis Scale
10/06/93	4.45	4.55	4.45	0.10	0.00	Delphis Scale
02/16/94	4.48	4.59	4.50	0.11	0.02	Delphis Scale
05/18/94	5.36	5.43	5.35	0.07	0.01	Delphis Scale
10/05/94	5.69	5.58	5.50	0.11	0.19	DLS
03/08/95	5.51	5.44	5.35	0.07	0.16	DLS
10/11/95	4.95	4.93	4.80	0.02	0.15	DLS
02/14/96	4.51	4.49	4.35	0.02	0.16	DLS
06/05/96	5.30	5.23	5.10	0.07	0.20	DLS
10/09/96	4.97	5.04	4.90	0.07	0.07	Same
02/26/97	4.90	4.85	4.70	0.05	0.20	DLS
07/30/97	4.64	4.66	4.50	0.02	0.14	DLS
02/18/98	4.43	4.43	4.25	0.00	0.18	DLS
07/08/98	4.57	4.57	4.40	0.00	0.17	DLS
02/24/99	4.26	4.27	4.10	0.01	0.16	DLS
07/14/99	4.83	4.94	4.80	0.11	0.03	Delphis Scale
07/19/00	5.05	4.98	4.85	0.07	0.20	DLS
02/21/01	4.37	4.32	4.28	0.05	0.09	DLS
07/11/01	4.41	4.41	4.39	0.00	0.02	DLS
03/06/02	4.23	4.17	4.17	0.06	0.06	Same
07/31/02	3.86	3.89	3.89	0.03	0.03	Same
02/19/03	3.69	3.78	3.77	0.09	0.08	Delphis Scale
07/16/03	3.71	3.64	3.56	0.07	0.15	DLS
07/21/04	3.89	3.96	3.89	0.07	0.00	Delphis Scale
03/02/05	3.81	3.79	3.72	0.02	0.09	DLS
07/20/05	3.79	3.69	3.63	0.10	0.16	DLS
03/01/06	3.87	3.97	3.89	0.10	0.02	Delphis Scale

Exhibit 5.3 (Continued)

Bond Sale Date	TIC	DLS Model	Delphis Scale	Difference Between TIC & DLS Equation	Difference Between TIC & Delphis Scale	Closer Estimate
07/26/06	4.18	4.17	4.09	0.01	0.09	DLS
02/28/07	3.86	3.87	3.77	0.01	0.09	DLS
08/01/07	4.15	4.12	4.02	0.03	0.13	DLS
02/27/08	4.14	4.10	3.99	0.04	0.15	DLS
07/16/08	3.86	3.87	3.76	0.01	0.10	DLS
Total Error				**2.10**	**3.76**	

DLS: Department of Legislative Services
TIC: true interest cost

Source: Department of Legislative Services, October 2008

Chapter 6. Non-tax-supported Debt

In addition to the seven types of 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 criteria, 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 (MHHEFA), and the Maryland Industrial Development Financing Authority.

Revenue and Private Activity Bonds

Debt service on revenue bonds is generally derived 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 State's 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. As shown in **Appendix 4**, Maryland's 2008 allocation totaled $477.6 million.

The 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 Section 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 percent to all counties (35.0 percent for housing bonds allocated to each county based on population and 15.0 percent for bonds other than housing allocated to each county based on average bond issuances); 2.5 percent to the Secretary for the purpose of reallocating the cap to municipalities; 25.0 percent to CDA for housing bonds; and 22.5 percent 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 DBED 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 Acts 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 2004 through 2008 figures for the amount of available tax-exempt bond authority and the level of issuances made under the volume cap limits. From calendar 2004 through 2005, total issuances under the volume cap remained at very low levels. This coincided with a downturn in the national and Maryland economies and changes in the federal allocation guidelines which made tax-exempt financing less desirable and practical in the highly regulated tax-exempt financing marketplace, and produced substantial increases in annual allocation and available volume cap levels. At the close of 2005, Maryland abandoned allocations carried forward from previous years for the first time. While the State was also forced to abandon a portion of its carry-forward allocation again in 2006, which is to be expected given the large amount of accumulated carry-forward from the three previous years, the amount of issuances in 2006 and 2007 increased substantially. The increase is attributable to large issuances by CDA in support of its single family mortgage programs. While CDA will not issue

Exhibit 6.1
Allocation of Private Activity Bonds
Calendar 2004-2008
($ in Millions)

	2004	2005	2006	2007	Est. 2008
Fund Sources					
Annual Cap	$440.7	$444.6	$448.0	$477.3	$477.6
Carry Forward from Prior Years	710.0	945.4	1,040.6	699.0	563.3
Total Capacity Available	**$1,150.7**	**$1,390.0**	**$1,488.6**	**$1,176.3**	**$1,040.9**
Issuances					
Mortgage Revenue Bonds	$84.9	$95.8	$564.9	$369.7	$0.0
Multifamily Housing	109.5	133.0	44.9	37.8	6.6
Housing Not Broken Out	0.0	34.6	0.0	90.0	0.0
Industrial Development Bonds	10.9	8.1	17.6	103.0	29.6
Exempt Facilities	0.0	3.8	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
Total Issuances	**$205.3**	**$275.3**	**$627.4**	**$600.5**	**$36.2**
Prior Year Carry Forward Abandoned	0.0	74.1	162.2	12.5	
Carry Forward	**$945.4**	**$1,040.6**	**$699.0**	**$563.3**	**$1,004.7**

Note: Numbers may not sum due to rounding.

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

any debt directly against the 2008 allocation this year, it will issue nearly $400 million in bonds in 2008 because prior year carry-forwards are sufficient to support this activity. A portion of this debt also represents refinances and 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 drop off in 2008.

In July, Congress passed the Housing and Economic Recovery Act 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 not included because it 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 years. Refinancing assistance under this authorization must adhere to CDA's established income and purchase price limits.

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 superceding the 1989 process.

Exhibit 6.2 summarizes the increase in debt outstanding for various categories between fiscal 1998 and 2008. A table containing debt outstanding by year for the individual agencies included in the summary, is included as **Appendix 5**.

Exhibit 6.2
Debt Outstanding as of June 30
Fiscal 1998 and 2008
($ in Millions)

	1998	2008	% Change
Agency Debt Subject to Issuance Cap	$564.2	$2,051.0	264%
Agency Debt Not Subject to Issuance Cap	3,821.7	4,970.8	30%
General Obligation and State Lease Debt	3,360.8	5,741.5	71%
Transportation Debt	844.0	1,269.1	50%
Authorities and Corporations without Caps	3,048.7	10,300.3	238%
Total	**$11,639.4**	**$24,332.7**	**109%**

Note: Numbers may not sum due to rounding.

Source: Department of Budget and Management

From fiscal 1998 through 2008, general obligation (GO) bond and State capital lease debt outstanding, increased by 71 percent. This reflects regular increased GO bond authorizations beginning in the 2001 session. Prior to the 2001 session, the State policy was to increase debt authorizations by $15 million annually. However, pressures to increase the State's capital program brought about, in part, by a declining State economy which limited the use of pay-as-you-go to support the State's capital program and pressures to increase funding for public school construction projects, have pushed GO authorizations, and consequently, the amount of outstanding GO debt, to new heights. Also, as discussed in Chapter 3 of this report, the State has made greater use of financing through the Treasurer's Master Equipment Lease-Purchase program and Energy Performance Contract Master Lease-Purchase Financing program.

Over the same period, agency debt, subject to the Governor's issuance cap, grew to $2.1 billion, more than 3.5 times the 1998 level. Agency debt that is not subject to the Governor's cap has grown by $1.12 billion, an increase of 30 percent. Debt for authorities/corporations without issuance caps (MEDCO and MHHEFA) increased by close to $7.3 billion, or 238 percent. MEDCO and MHHEFA issuances do not create or constitute any indebtedness or obligation of the State. MEDCO bonds are typically secured by a lien on property and are payable from revenues of the project financed or borrower, while MHHEFA repayments may include the mortgaging of a project, reserves and sinking funds, and rental and other fees.

Debt Service on 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 granted Baltimore City Community College (BCCC) the authority to issue bonds for auxiliary facilities only. Academic facilities are primarily used for instruction of students, and auxiliary facilities are those facilities that produce income from fees charged for the 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, or grants.

The statute specifies 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. This 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, the SMCM limit is $60 million, and the BCCC limit is $15 million.

University System of Maryland

USM recently revised its debt management policy, adopting the new policy early in 2008. It includes new policies to reassure investors and the rating agencies of USM's financial stability and of its control over debt. Previously, the goal was for debt service to be under 5.5 percent of operating revenues plus State appropriations. The new policy lowers this ratio to 4.5 percent. **Exhibit 6.3** shows USM will achieve its goal ratio for fiscal 2005 through 2014. Including debt issued in fiscal 2009, total debt service will be approximately $117.7 million, or 3.8 percent, of unrestricted funds and mandatory transfers. The forecast indicates a slight decrease in the ratio through the next five years, with fiscal 2014 projected to be 3.7 percent

Exhibit 6.3
University System of Maryland Debt Service as Related to Unrestricted Funds
Fiscal 2005-2014
($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2005	$1,000,727	$99,257	$2,382,826	4.2%
2006	934,826	110,290	2,479,090	4.4%
2007	954,846	106,295	2,757,284	3.9%
2008	969,923	104,920	2,980,332	3.5%
2009 Estimated	993,546	117,742	3,099,545	3.8%
2010 Estimated	1,038,362	116,535	3,223,527	3.6%
2011 Estimated	1,085,383	126,897	3,352,468	3.8%
2012 Estimated	1,135,261	128,221	3,486,567	3.7%
2013 Estimated	1,191,142	130,169	3,626,030	3.6%
2014 Estimated	1,237,742	139,323	3,771,071	3.7%

Notes: Total Debt Outstanding and Total Debt Service includes academic, auxiliary, and capital leases debt.

Source: University System of Maryland

In fiscal 2008, USM modified its ratio of expendable resources (defined as unrestricted assets of USM and its affiliated foundation with adjustments for certain long-term liabilities) to debt outstanding. Previously, the goal ratio was 76 percent. USM consulted with financial advisors and came to an agreement with the Board of Regents establishing a new target of 55 percent. **Exhibit 6.4** shows USM's expendable resources to debt outstanding ratios for fiscal 2005 through 2014. It has exceeded the target throughout the entire period, indicating some capacity to issue more debt under its criteria. USM expects to maintain its current credit rating of "AA" from Moody's and Fitch and was increased from AA to AA+ by S&P this past June.

Exhibit 6.4
Summary of Expendable Resources to Debt Outstanding for the University System of Maryland
Fiscal 2005-2014
($ in Thousands)

Fiscal Year	Expendable Resources	Debt Outstanding	Ratio of Expendable Resources to Debt Outstanding
2005	$743,327	$1,000,727	74.3%
2006	835,304	934,826	89.4%
2007	985,170	954,846	103.2%
2008	1,152,940	969,923	118.9%
2009 Estimated	1,011,590	993,546	101.8%
2010 Estimated	1,007,880	1,038,362	97.1%
2011 Estimated	1,016,330	1,085,383	93.6%
2012 Estimated	1,011,030	1,135,261	89.1%
2013 Estimated	1,028,780	1,191,142	86.4%
2014 Estimated	1,048,780	1,237,742	84.7%

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

Source: University System of Maryland

Morgan State University

As shown in **Exhibit 6.5**, MSU has $62.42 million of total debt in fiscal 2009. This figure includes academic, auxiliary, and capital lease debt. Auxiliary debt is the largest of the three, totaling $54.42 million in fiscal 2009. Academic debt is estimated to be $6.12 million in fiscal 2009 and capital lease debt is estimated to be $1.88 million. The ratio of debt service to unrestricted funds and mandatory transfers is estimated to be 3.7 percent in fiscal 2009 and remains below the 5.5 percent threshold throughout the entire period.

Exhibit 6.5
Morgan State University Debt Service as Related to Unrestricted Funds
Fiscal 2005-2014
($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2005	$67,088	$5,086	$120,941	4.2%
2006	67,742	5,363	122,239	4.4%
2007	66,017	5,622	136,527	4.1%
2008	64,235	5,770	145,459	4.0%
2009 Estimated	62,417	5,895	158,041	3.7%
2010 Estimated	60,582	5,941	163,279	3.6%
2011 Estimated	57,417	5,990	171,442	3.5%
2012 Estimated	54,081	6,022	180,015	3.3%
2013 Estimated	50,569	6,041	189,015	3.2%
2014 Estimated	46,865	6,067	198,466	3.1%

Note: Total debt outstanding and total debt service include academic, auxiliary, and capital leases debt.

Source: Morgan State University

St. Mary's College of Maryland

SMCM's outstanding debt consists of auxiliary and capital leases debt. SMCM does not have any outstanding academic debt. Considering auxiliary debt combined with capital leases debt, the total debt in fiscal 2009 is estimated to be $46.79 million and is expected to decrease to $39.08 million by fiscal 2014. Capital lease debt is estimated at $2.60 million in fiscal 2009 due to a contract improving the energy performance of equipment. When considering auxiliary debt alone, debt is estimated to be $44.19 million in fiscal 2009 and $37.21 million in fiscal 2014

From 2005 to 2009, SMCM exceeded the 5.5 percent debt ratio in order to build more residential buildings to house increasing enrollment. As shown in **Exhibit 6.6**, the debt ratio declines to 5.4 percent in fiscal 2010 and is expected to further decline to 4.3 percent by fiscal 2014.

Exhibit 6.6
St. Mary's College of Maryland Debt Service as Related to Unrestricted Funds
Fiscal 2005-2014
($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2005	$40,565	$2,743	$49,248	5.6%
2006	43,761	2,998	53,422	5.6%
2007	49,501	3,089	55,367	5.6%
2008	48,199	3,452	60,781	5.7%
2009 Estimated	46,790	3,517	63,212	5.6%
2010 Estimated	45,333	3,522	65,741	5.4%
2011 Estimated	43,853	3,504	68,371	5.1%
2012 Estimated	42,313	3,456	71,105	4.9%
2013 Estimated	40,722	3,346	73,950	4.5%
2014 Estimated	39,076	3,344	76,908	4.3%

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

Source: St. Mary's College of Maryland

Chapter 7. State Debt Evaluation and Outlook

Maryland has a large debt program. The State is projected to end fiscal 2009 with $5.8 billion of general obligation (GO) bond debt outstanding and $8.7 billion in State debt outstanding. GO bond debt service is $744 million in fiscal 2009, while total debt service is over $1.0 billion. Maryland GO bonds receive the highest rating (AAA) from all three major rating agencies – Fitch, Moody's, and Standard & Poor's. Chapter 5 of this report provides evidence that Maryland's GO bonds interest costs are lower than the index for AAA-rated bonds, meaning that Maryland's bonds costs are lower than the average AAA-rated State or municipal bonds.

It is the State's goal to manage this debt so that costs are minimized and debt service costs do not crowd out other programs. Effective debt management is an issue that has been examined in the financial literature. The Government Finance Officers Association (GFOA) has prepared *A Guide for Preparing a Debt Policy* (released in 1998) which provides the following guidelines:

- "A consistently applied debt policy";
- "Nevertheless, the policy should be sufficiently flexible to permit the government to take advantage of market conditions or respond to changing conditions";
- "Debt policies should be formally submitted to and adopted by a jurisdiction's elected officials";
- "Compliance with outstanding debt or debt service limitations and other measures of affordability should be documented in the budget document, annual report or other reports"; and
- "A policy of affordable levels of debt will be based on a government's financial condition, including trends in financial performance, service levels, the tax and revenue base, and the impact of debt on the financial outlook."

This chapter examines current financial conditions and Maryland's debt policies. It evaluates how Maryland's practices compare with the GFOA guidelines. Specific issues addressed include:

- revisions to Maryland's debt affordability criteria;
- long-term cost of GO debt; and
- $150 million in additional authorizations in the 2009 legislative session.

This chapter also examines the effect of the recent financial crisis on municipal bonds, and analyzes the June 2008 bay restoration bond sale.

Committee Revises Debt Affordability Criteria

To develop State debt policies and advise the Governor and General Assembly, the Capital Debt Affordability Committee (CDAC) was established by Chapter 43 of 1978. CDAC meets in public, has adopted affordability guidelines, and recommends GO bond levels each fall. Although the recommendation is neither binding for the Governor nor the General Assembly, they have adopted the level recommended by the committee in every capital budget. This year, the committee revised the affordability guidelines for the first time in 20 years and for the second time since they were first adopted.

In 1979, the committee adopted three criteria to evaluate affordability: State debt outstanding cannot exceed 3.2 percent of State personal income; State debt service cannot exceed 8.0 percent of State revenues; and new authorizations should be kept in the range of redemptions of existing debt. When the criteria were adopted, the State did not meet either the debt outstanding or debt service criterion. Debt outstanding was 5.4 percent of personal income and debt service was 11.3 percent of revenues in fiscal 1979. By adopting a policy to limit authorizations by redemptions, the committee limited new authorizations. This criterion was referred to as the "get out of debt" criterion. The debt affordability process achieved its goal to reduce debt outstanding and debt service costs. By fiscal 1987, debt outstanding was less than 3.2 percent of personal income and debt service was less than 8.0 percent of revenues.

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

In its November 2008 report, the committee again recommended to change the affordability criteria. As it reviewed the criteria, the committee consulted with rating agencies, investment bankers, and its financial advisor. CDAC met in public a half dozen times in 2007 and 2008 to discuss debt policy and the criteria. The committee determined that targets of the two criteria were no longer appropriate and recommended revising the criteria so that:

- State debt outstanding not exceed 4 percent of State personal income; and
- State debt service not exceed 8 percent of State revenues.

No change was made to the limit on debt service and the debt outstanding limit was increased. By maintaining debt service at 8 percent of revenues, the new affordability policy does not increase the amount of tax resources that could support debt service. The policy does increase the amount of total debt that the State may issue. This total debt has been increasing in recent years as the State expanded GO bond authorizations and issued new kinds of debt that was not supported by the State's general fund (such as bay restoration bonds and Grant Anticipation Revenue Vehicles (GARVEEs)). The new policy accommodates these new bonds without expanding the annual resources committed to pay debt service.

Evaluation of State Debt Management: The Affordability Process Meets Most Guidelines

GFOA has provided five guidelines for an effective debt policy. The process meets four of the five guidelines:

- ***State Policies Are Consistently Applied:*** Since CDAC first adopted its affordability criteria 29 years ago; there have been only two changes. Rating agencies have consistently identified Maryland's adherence to the debt affordability policies when justifying the AAA rating;

- ***Policies Are Flexible:*** As the State's debt levels have changed, the committee has modified affordability criteria. The committee also sets annual debt limits which are adjusted based on the State's needs;

- ***Policies Are Formally Submitted and Adopted by Elected Officials:*** The capital budget authorizations adopted by the General Assembly have been within the limits set by CDAC; and

- ***Policies Are Documented:*** The committee's meetings are in public, and the committee prepares a report each fall.

GFOA's final guideline relates to how well debt policies adapt to the State's financial condition. This is evaluated in the next section that addresses the long-term costs associated with State debt and the one-time $150 million expansion in GO bond authorizations.

Expanded Authorizations Result in Increasing Debt Service Costs

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 7.1** shows that the State has expanded debt authorizations in 14 separate actions: 9 actions increase GO bond authorizations; 3 actions increase transportation bond authorizations; GARVEEs are authorized; and Bay Restoration Bonds are authorized.

Exhibit 7.1
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
Chapter 46 of 2006	GO Bonds	Increase escalation from $15 million to 3 percent, $100 million annually, beginning in fiscal 2010	State property taxes and general fund	Increase the State capital program
Chapter 488 of 2007	GO Bonds	$100 million annually	State property taxes and general fund	Increase the State capital program

Exhibit 7.1 (Continued)

Initial Authorization	Type of Debt Authorized	Amount Authorized	Supporting Revenues	Effect on Capital Spending
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
*2008 CDAC Report**	*GO Bonds*	*$150 million in fiscal 2010*	*State property taxes and general fund*	*Increase the State capital program*

* In its 2008 report, CDAC recommends authorizing an additional $150 million in the 2009 session. In an October 15, 2008 letter, the Governor indicated support for authorizing additional debt. The General Assembly has not yet acted on this proposal.

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

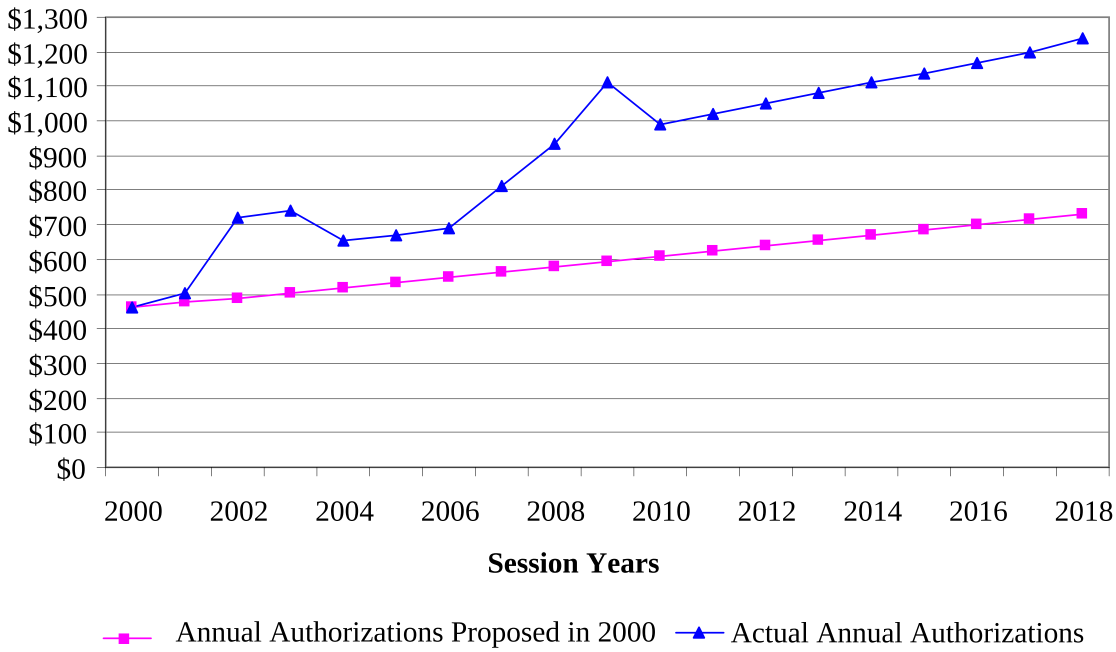
Source: Department of Legislative Services

These new and expanded authorizations increased the ratio of debt outstanding to personal income. Debt outstanding is projected to increase from 2.38 percent of personal income in fiscal 2002 to 3.11 percent of personal income in fiscal 2009.

Debt Service Costs Are Projected to Grow in Response to Increased Authorizations

GO bonds account for 9 of the 14 increases in bond authorization since 2000 and 67 percent of State debt at the end of fiscal 2009. **Exhibit 7.2** shows that increased authorizations now support $1.1 billion in new GO bond authorizations during the 2009 legislative session, as opposed to $595 million proposed in 2000.

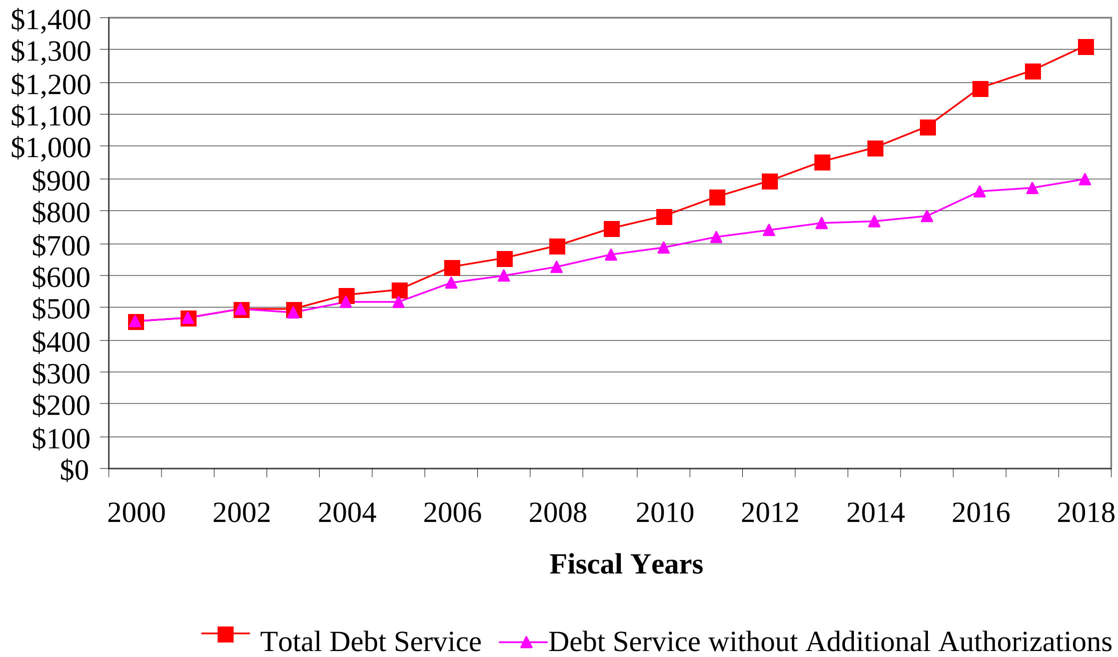
Exhibit 7.2
GO Bond Authorizations Proposed in 2000 and 2008
2000-2018 Legislative Sessions
($ in Millions)



Source: Department of Legislative Services, November 2008

These increased authorizations result in higher debt service costs. **Exhibit 7.3** estimates that fiscal 2010 debt service costs would have been $687 million without the additional authorizations. This is $96 million more than the current projection, which totals $783 million. From fiscal 2008 to 2018, debt service costs are projected to increase by 6.6 percent annually. Without the increased authorizations, the growth rate for GO bond debt service costs would have been 3.7 percent annually. By fiscal 2018, increased authorizations add $412 million to debt service costs with debt service costs exceeding $1,313 million.

Exhibit 7.3
Effect of Increased GO Bond Authorizations on Debt Service Costs
Fiscal 2000-2018
($ in Millions)



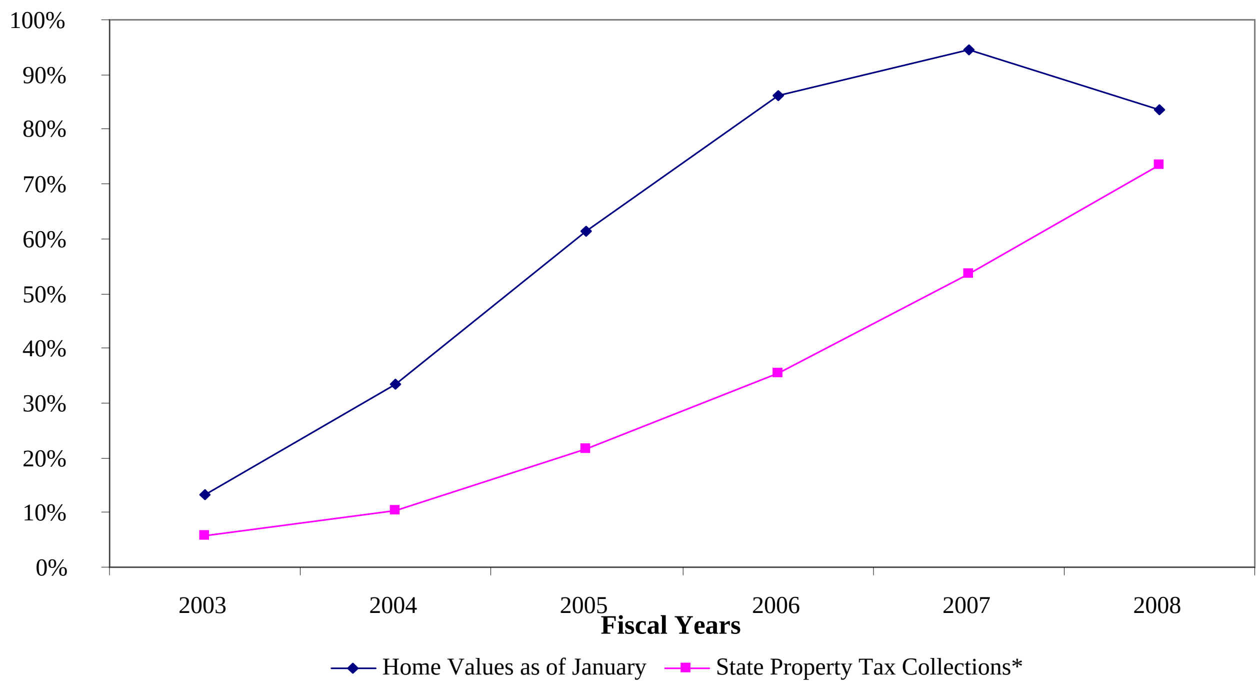
Source: Department of Legislative Services, November 2008

Projected State Property Tax Receipts Are Insufficient to Meet Projected Debt Service Costs

GO bond debt service costs are supported by the Annuity Bond Fund (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.

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. **Exhibit 7.4** compares the cumulative increase in home values to the increase in State property tax collections. In response to the increase in home values, State property tax collections also

Exhibit 7.4
Increase in Home Values and State Property Tax Collections
Cumulative Percent Growth Since Fiscal 2002



* To reduce the effect that changes in rates have on collections, the analysis shows collections assuming a constant rate.

Sources: Home Values: Maryland Association of Realtors; State Property Tax Collections: Department of Budget and Management

increased. However, additional collections lagged the increase in home values. This lag is attributable to the triennial assessment period and the Homestead Tax Credit. Because only one-third of homes are assessed each year, most assessments increase several years after the values in homes rise. The Homestead Tax Credit moderates the State's property tax bill, by limiting the growth in the assessable base applied for tax purposes for most homes in Maryland to 10 percent. When real estate is appreciating and the increase in assessments exceeds 10 percent, homeowners do not pay the full assessment that year and instead receive a credit.

The Department of Assessment and Taxation (SDAT) projects that the growth State property tax collections will slow. However, the department does not project that collections will decline. As with the lag in collections when home values rise, this is attributable to the triennial assessments and Homestead Tax Credit. Since the decline in home values began less than three years ago, the recent decline is expected to reduce the growth in assessments and not actually reduce assessments. However, if the real estate slump is prolonged, assessments could actually decline.

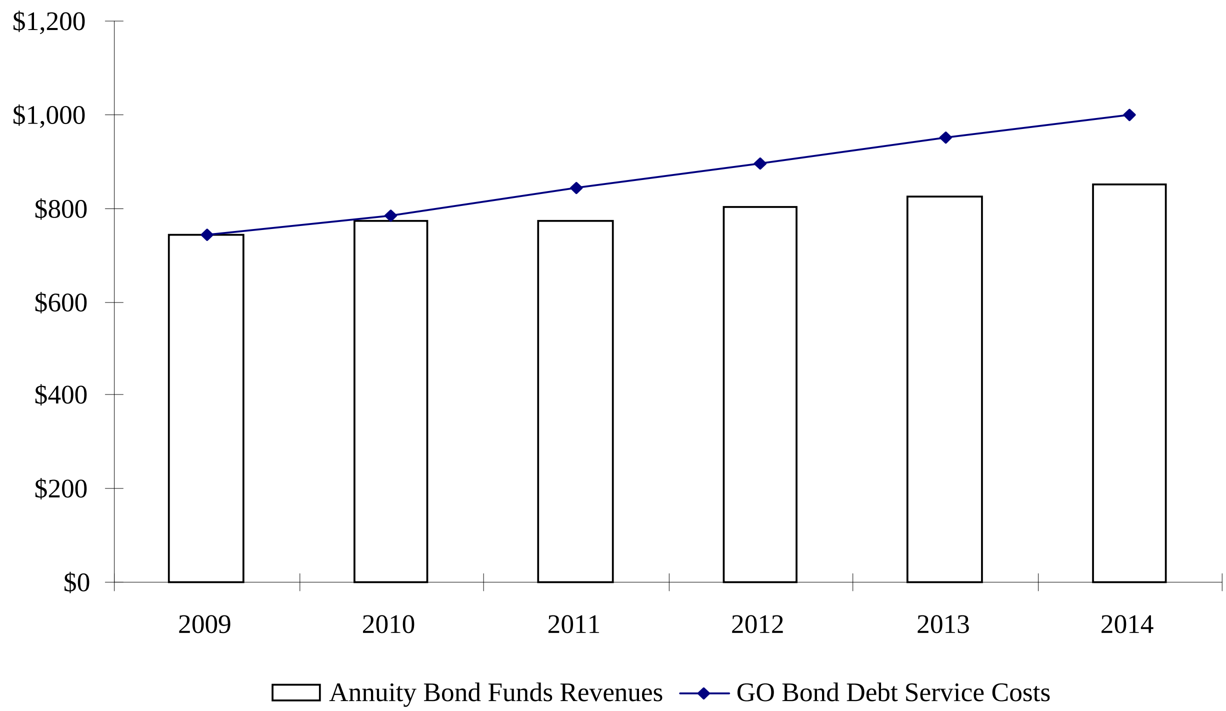
The practical effect of the Homeowners Tax Credit is that reduced assessments first reduce the tax credit. After the credit is eliminated, taxes due are reduced. By reducing the assessed value of homes, these credits act as a hedge. SDAT estimates that fiscal 2010 Homestead Tax Credits total $99.6 billion. This provides State property tax collections a significant hedge against declines in home values.

In December 2008, SDAT will update its State property tax revenue estimates. These revised assessments are expected to reflect declines in home values. While it is certainly possible that State property tax revenues realized will decline in the out-years, declining State property tax revenue receipts appear unlikely in the short term. The collection system lags both increases and declines in home values. In addition to examining the projected receipts when they are released in December 2008, The Department of Legislative Services (DLS) will examine the estimates for the Homestead Tax Credit to evaluate how much of a hedge against declining home values remains.

The State property tax provides most of the revenues for the ABF. **Exhibit 7.5** shows that moderate growth in ABF revenues continues through fiscal 2014. Because State property tax revenues are expected to increase at a slower rate than debt service, a gap between debt service costs and ABF revenues is projected between fiscal 2010 and 2014.

The State has managed shortfalls in the ABF by either appropriating general funds or increasing State property tax rates. **Exhibit 7.6** compares these two options. If State property tax rates remain constant (at $0.112 per $100 of assessable base), the general fund subsidy required to fund debt service increases from $12 million in fiscal 2010 to $149 million in fiscal 2014. If, on the other hand, there is not a general fund subsidy, State property tax rates would be projected to increase from $0.112 to $0.132 per $100 of assessable base.

Exhibit 7.5
Revenues Supporting GO Bond Debt Service
Fiscal 2009-2014
($ in Millions)



GO: general obligation

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

Exhibit 7.6
Closing the Gap Between Annuity Bond Fund Revenues and Costs
Additional General Funds Compared to Increased Property Taxes
Fiscal 2009-2014

	2009	2010	2011	2012	2013	2014
General Fund Appropriation ($ in Millions)	$0	$12	$70	$90	$126	$149
State Property Tax Rate per $100 of Assessable Base	0.112	0.114	0.123	0.124	0.130	0.132

Source: Department of Legislative Services, November 2008

Evaluation of State Debt Management: Concern Is that Current Revenue Estimates Are Insufficient to Support Growth in Debt Service Costs

The final debt management guideline identified by GFOA is that a government's debt policies should be based on the government's financial conditions. The concern is that debt service costs could become too burdensome. Debt service costs should be limited and revenues should be identified to support the debt service costs. In times of economic growth, this may not be a difficult task, but debt service costs may become a challenge when the economy is shrinking. The State's challenge is to identify the revenues to support debt service costs.

The latest ABF forecast projects that GO bond debt service costs will increase more than revenues. In October 2008, DLS presented a long-term general fund forecast to the Spending Affordability Committee. The forecast projected a structural budget deficit exceeding $1 billion in each fiscal year from fiscal 2009 to 2012. The bottom line is that the State has not identified general fund revenues to support increased debt service costs. **To keep GO bond debt service costs from adding to the general fund shortfall, it is recommended that no general funds be appropriated for debt service and that the ABF fully fund the debt service. State property tax rates should be calibrated to provide sufficient revenues for debt service.**

$150 Million in One-time General Obligation Bond Authorizations Is Recommended

CDAC also recommended that the 2009 legislative session's GO bond authorizations be increased by $150 million. Insofar as the recommendation is to reduce the 2010 legislative session's authorization to the amount recommended in last year's report, this is a one-time increase. The committee also recommended that GO bond authorization provide $325 million for public school construction.

Use Additional Authorizations to Minimize General Fund Shortfall and Maximize Economic Stimulus

CDAC's September 10, 2008 letter recommending the $150 million one-time authorization does not provide any justification for the additional authorization. However, justification was given at the public hearing when the authorization level was adopted. The committee members noted that the increased debt supports capital needs and provides a stimulus for the State economy. With respect to this justification, DLS advises that:

- ***Additional $150 Million in GO Bonds Support the Most Pressing Need:*** In October 2008, DLS presented a long-term general fund forecast to the Spending Affordability Committee. The forecast projected a structural budget deficit exceeding $1 billion in each fiscal year from fiscal 2009 to 2012. These large deficits present a substantial challenge to the Governor and General Assembly in the 2009 legislative session. Indications are that much of the session will be devoted to the fiscal situation and the actions that will need to be made to bring the budget into balance. The forecast recognized that general funds are required to provide support to capital projects, such as the InterCounty Connector. **To minimize the disruption in State spending, it is recommended that the additional $150 million in GO bonds support capital programs and reduce general fund expenditures for those programs.**

- ***Additional $150 Million in GO Bonds Support Programs That Spend Right Away, Not Over Five Years:*** As discussed earlier in the report, the full GO bond authorizations are not spent the year the bonds are authorized. For most programs, less than one-third of spending occurs within a year of authorizing the bonds. For the bonds to maximize the economic stimulus for the slowing economy, spending should be occurring within a year of authorization. This suggests that increasing additional GO authorizations to support the State capital program, is not an ideal stimulus. However, the State does have some projects that are currently under way that will be using the funds in fiscal 2010. These programs include the InterCounty Connector and the Maryland Department of Transportation's (MDOT) capital program (where revenues are underperforming and debt issuances may be reduced). **It is recommended that the additional $150 million in GO bond authorizations be used to maximize the economic stimulus. Consequently, the authorizations should not fund the State capital program, which**

traditionally spends authorizations over five years but instead fund projects that will be spending the funds if fiscal 2010.

Evaluation of State Debt Management: Policies Should Be Based on Financial Conditions

One of GFOA's guidelines is that debt policies be based on a government's financial condition. Policies should take into consideration projected tax receipts and spending. Using the one-time $150 million GO bond authorization to support the general fund and maximize the economic stimulus, is consistent with the goal to base debt policy on the State financial condition.

Amend State Law to End Requirement That Capital Debt Affordability Committee Recommend Public School Construction Limits

In addition to recommending the total level of GO bond debt, CDAC is required to recommend the level of debt authorized for public school construction. CDAC has recommended that public school construction receive at least $325 million of the $1,110 million GO bond authorization. Insofar as the Governor's *Capital Improvement Plan* provides $250 million for public school construction, this amounts to a $75 million increase in public school construction authorizations. DLS has the following concerns about requiring the committee to recommend a level of public school construction authorizations:

- ***The Distribution of Bond Authorizations within the Capital Program Has Historically Been Decided by the Governor and General Assembly:*** The allocation of GO bond authorizations has been made by the Governor in the capital budget. This budget is amended and passed by the General Assembly. CDAC has limited total spending, but has not set minimum spending limits for specific programs prior to the introduction of this requirement in 2004.

- ***The Committee Does Not Set Spending Limits for Other Programs or Projects:*** The capital program supports such diverse programs as public safety, higher education, housing, economic development, environment and natural resources, and health in addition to public school construction. The law does not require the committee to provide spending limits for those programs.

- ***Concerns About Rising Construction Costs Affect All Programs, Not Just the Public School Construction Program:*** The committee has cited increasing construction costs as justification for additional resources for public school construction. The indices most commonly used to show increasing costs, relate to costs that affect all projects and programs, not just the public school construction program.

- ***The State Is Facing a General Fund Revenue Shortfall:*** As previously noted, a $1 billion deficit is projected in the general fund. The economy is almost certainly in recession. It has been recommended that the additional authorizations support the general fund deficit and stimulate the economy. Increasing school construction does not reduce the deficit and does not provide a large economic stimulant.

- ***Changing Environment Can Change Priorities:*** The recommendation to increase public school construction spending was made in September 2008. Since the recommendation, the economy has deteriorated and revenue projections have been revised downward. This potentially impacts State priorities. In a letter from October 15, 2008, the Administration advised how it proposes to distribute the $1.11 billion capital program. The Administration did not provide the full $325 million for public school construction, suggesting that priorities have changed since September 2008.

Section 11 of the Public School Facilities Act of 2004 requires CDAC to review school construction funding needs and make specific recommendations regarding additional funding for school construction when recommending the State's annual debt limit and GO bond authorization level. **It is recommended that the General Assembly modify the Act and delete this requirement.**

Effect of September 2008 Financial Crisis on Municipal Debt

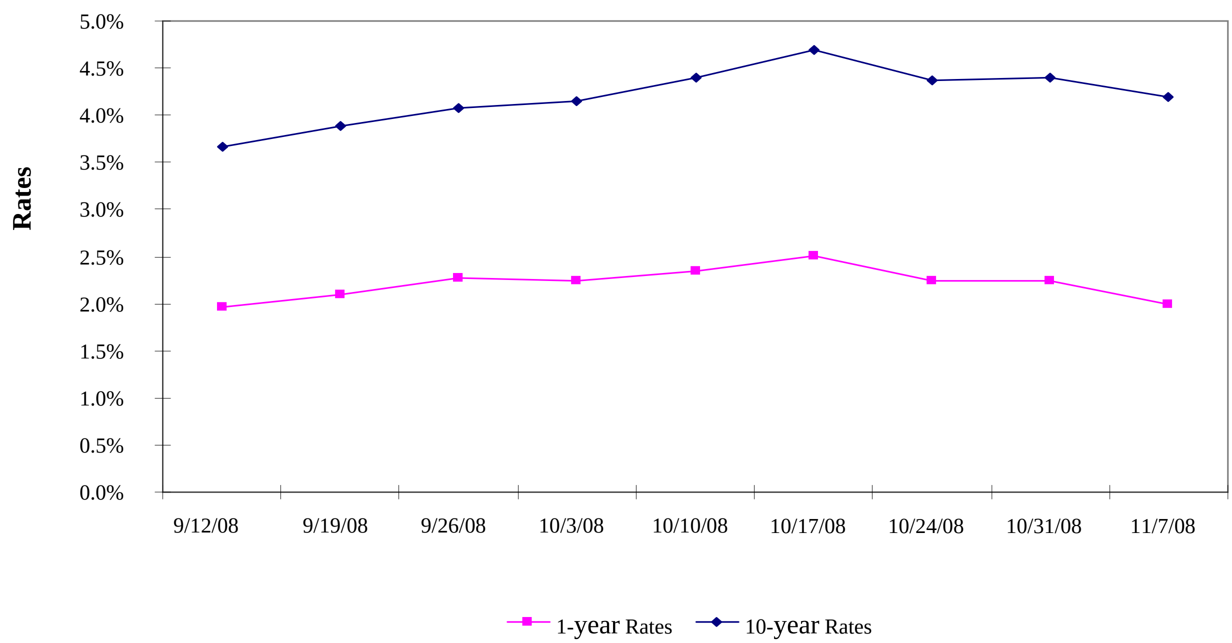
In the week of September 15, 2008, the United States' economy experienced the most severe liquidity crisis in decades. This crisis led to severely restricted credit, federal government sponsored bailouts (Troubled Asset Relief Program of the Emergency Economic Stabilization Act of 2008), consolidation in investment banking (Bank of America purchasing Merrill Lynch), bankruptcies in the banking industry (Lehmann Brothers), and a slowing economy. An overview of the financial crisis was provided by DLS in October 2008 in the report entitled *Understanding the Global Financial Crisis and Its Impact on Maryland*.

This crisis also affected the municipal bond market. Anecdotal data from media reports and market data both suggest declines in new bond issuances. Thomson Reuters reports that new issuances of bonds maturing in 13 months or more were 37 percent less in September 2008 than in September 2007 and 57 percent less in October 2008 than October 2007. The decline resulted from slowing sales early in the month. Sales reportedly picked up towards the end of the month. While this suggests that the worst of the credit crisis is behind us, there are concerns that sales may not be back to normal levels until early in 2009. **Exhibit 7.7** shows that the rates for 1-year and 10-year rates rose immediately after the liquidity crisis began and peaked around October 17, 2008, after which they declined.

The initial decline in bond sales was attributable to restricted credit, as well as some issuers voluntarily canceling bond sales. Anecdotal evidence suggests that the decline in sales and rise in interest rates were somewhat related. The rise in interest rates increases debt service costs. In response to the rise in costs, a number of states and municipalities reported delaying bond sales. They planned to issue the bonds after rate declined. Some of the states that delayed bond sales, such as Massachusetts, have since sold bonds

The crisis has not affected all bonds equally. The quality of the issuance, as well as its sector, affects a bond's demand. *The Bond Buyer* reports that bonds rated AA or AAA are still in demand while less highly-rated bonds have often been forced to pare down their bond sales. However, even the highly-rated issuers are affected. It is reported that hospital and housing agencies have had to reduce bond issuances, even if they were highly rated.

Exhibit 7.7
Municipal Bond Yields
September 12 to November 7, 2008



Note: Excludes remarketings and variable rate bonds.

Source: Delphis Hanover Corporation

Although it is unclear exactly what the long-term effects of the liquidity crisis are, the crisis is likely to affect upcoming Maryland's bond sales. The DLS forecast assumes the following trends:

- ***The Interest Rate Paid on Bonds Is Expected to Rise:*** The average maturity of Maryland's GO bond sales is 10 years. This rate for 10-year bonds is now more than half of a percentage point (0.52 percent) greater than it was in early September. The 1-year rate has declined since the liquidity crisis and is now about what it was in early September 2008. While short-term rates have come down since the liquidity crisis began, long-term rates have not. This suggests that long-term rates will settle at a higher level. There has also been consolidation among investment bankers leaving less underwriters and possibly less competition at bond sales. Consistent with interest rate forecasts from Moody's Economcy.com and Global Insights, higher interest rates are forecast. The ABF forecast assumes that the interest paid on bonds will rise from 5.00 to 5.50 percent.

- ***Bond Sale Premiums Are Expected to Decline:*** The July 2000 bond sale's True Interest Cost was 5.05 percent. Since that bond sale, the interest cost has declined, resulting in substantial bond sale premiums. These low rates generated $428 million in bond sale premiums from February 2001 to July 2008. Insofar as the premium reflects the difference between the market conditions (TIC) and the rates offered, higher interest rates are likely to reduce bond sale premiums. Consequently, the ABF forecast assumes modest premiums in the out-years.

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 $1000 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.[1] 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.

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[1] 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. For example, the standard error of the equation increased from 0.075 to 0.078. 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.

- ***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.

As previously discussed, financial markets were in crisis in September and October 2008. As of the writing of this report in November 2008, it is unclear when the crisis will end or what effect the crisis will have on markets. In response, the State may need to be flexible when issuing bonds. An advantage that negotiated sales have is that they can be more flexible. Nonetheless, some flexibility can be built into competitive sales. With respect to GO bonds, there is little change from issuance to issuance with respect to the structure of the sale or the provisions included in the sale. But the Treasurer's Office has built some flexibility into the timing of the next bond sale in March 2009, in response to the financial crisis. Though the office has set a date for the bond sale, it has built flexibility into the schedule so that it may delay the bond sale if market conditions are deemed to be problematic.

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 future issues of bay bonds be made on a competitive sale, instead of a negotiated sale basis.

Appendix 1

Capital Budget Requests for Fiscal 2010 to 2014

Agency requests for fiscal 2010 total $1.48 billion, over $365.5 million more than the amount available under the recommended general obligation (GO) bond debt limit of $1.11 billion. Capital requests for the next five years total over $8.46 billion, while the projected debt limit for the same period totals approximately $5.25 billion. These figures demonstrate that the number of capital projects proposed far exceeds the ability of the State to appropriate bond funds to provide for capital needs. The table below provides a listing of GO bond capital requests over the next five years. This listing reflects agency requests and will differ from the list that will appear in the Governor's fiscal 2010 *Five-year Capital Improvement Program*.

Appendix 1
General Obligation Bond Requets: Fiscal 2010-2014
($ in Millions)

	Fiscal Years						Category
	2010	**2011**	**2012**	**2013**	**2014**	**Total**	**Totals**
State Facilities							**$745.2**
Board of Public Works	$73.5	$124.3	$163.7	$76.9	$291.7	$730.0	
Military	4.2	0.0	0.0	0.0	0.0	4.2	
Dept. Disabilities	1.6	1.6	1.6	1.6	1.6	8.0	
Dept. Information Technology	1.0	0.5	0.5	0.5	0.5	3.0	
Health and Social Services							**$597.6**
Health and Mental Hygiene	$18.5	$24.7	$84.1	$84.1	$56.7	$268.1	
University of MD Medical System	13.5	13.5	10.0	10.0	5.0	52.0	
Senior Citizen Activity Center	1.9	2.0	2.0	2.0	2.0	9.9	
Juvenile Justice	62.4	53.7	56.6	60.5	9.3	242.5	
Private Hospital Grant Program	5.0	5.0	5.0	5.0	5.0	25.0	
Environment							**$424.9**
Natural Resources	$24.4	$16.0	$13.0	$13.0	$13.0	$79.4	
Agriculture[1]	13.0	8.0	8.0	9.0	9.0	47.0	
Environment	34.0	44.0	51.0	51.0	56.0	236.0	
MD Environmental Service	18.5	14.0	10.0	9.5	10.5	62.5	
Education							**$2,842.3**
Education	$10.2	$10.2	$5.0	$5.0	$5.2	$35.5	
MD School for the Deaf	6.3	1.5	0.0	0.0	0.0	7.8	
Public School Construction[2]	440.6	493.46	552.7	619.0	693.3	2,799.0	
Higher Education							**$2,443.1**
University System of MD[3]	$218.2	$273.2	$201.5	$253.5	$357.0	$1,303.4	
Baltimore City Comm. College	3.9	42.3	12.3	2.7	32.8	94.0	
St. Mary's College	2.4	3.5	6.4	27.1	2.8	42.3	
Morgan State University	78.4	109.5	49.0	90.4	27.5	354.7	
Community Colleges	145.3	95.2	95.3	100.2	139.0	575.0	
Southern MD Higher Educ. Center	1.2	13.6	0.8	0.0	0.0	15.6	
Private Facilities Grant Program	10.0	12.0	12.0	12.0	12.0	58.0	
Public Safety							**$642.2**
Public Safety	$68.4	$86.9	$104.9	$91.8	$105.9	$458.0	
State Police	13.3	1.3	13.2	1.4	9.5	38.7	
Local Jails	35.0	33.0	40.9	22.4	14.3	145.5	
Housing and Economic Development							**$106.0**
Housing and Comm. Development	$22.5	$11.0	$11.0	$11.0	$10.5	$66.0	
Canal Place	0.0	2.1	0.0	0.0	0.0	2.1	
Historic St. Mary's City	0.2	0.3	1.4	11.0	9.8	22.6	
Planning	2.6	5.6	1.0	4.6	1.4	15.3	
Legislative Initiatives[4]	$100.0	$100.0	$100.0	$100.0	$100.0	$500.0	
Miscellaneous	45.6	31.0	19.5	14.0	45.6	155.7	
Subtotal Request	**$1,475.5**	**$1,632.9**	**$1,632.3**	**$1,689.4**	**$2,026.8**	**$8,457.0**	**$8,457.0**
Debt Affordability Limits	**$1,110.0**	**$990.0**	**$1,020.0**	**$1,050.0**	**$1,080.0**	**$5,250.0**	
Variance	**$365.5**	**$642.9**	**$612.3**	**$639.4**	**$946.8**	**$3,207.0**	

[1] The Department of Agriculture request includes the Tobacco Transition Program.

[2] The Interagency Committee on School Construction received requests in excess of $470 million for fiscal 2010; however, the amount included in the request to the Department of Budget and Management reflects base funding of $250 million plus 12% annual in construction escalation.

[3] In addition to the GO bond request, the University System of Maryland has requested academic revenue bond funding of $27.0 million for fiscal 2010 and $27 million annually for fiscal 2011 – 2014.

[4] 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)

Legislative Session	Proposed Auth.	Estimated Issuances During Fiscal Year (a) ====> 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Post 2019	Total Issued
2009	1,110,000	0	344,000	278,000	222,000	167,000	99,000						1,110,000
2010	990,000		0	307,000	248,000	198,000	149,000	88,000					990,000
2011	1,020,000			0	316,000	255,000	204,000	153,000	92,000				1,020,000
2012	1,050,000				0	326,000	263,000	210,000	158,000	93,000			1,050,000
2013	1,080,000					0	335,000	270,000	216,000	162,000	97,000		1,080,000
2014	1,110,000						0	344,000	278,000	222,000	167,000	99,000	1,110,000
2015	1,140,000							0	353,000	285,000	228,000	274,000	1,140,000
2016	1,170,000								0	363,000	293,000	514,000	1,170,000
2017	1,200,000									0	372,000	828,000	1,200,000
2018	1,240,000										0	1,240,000	1,240,000
Total New Authorization		0	344,000	585,000	786,000	946,000	1,050,000	1,065,000	1,097,000	1,125,000	1,157,000	2,955,000	
Previously Authorized GO Bonds:	2,064,000	810,000	566,000	385,000	214,000	84,000	0	0	3,000	0	2,000	0	2,064,000
Total Issuances:		810,000	910,000	970,000	1,000,000	1,030,000	1,050,000	1,065,000	1,100,000	1,125,000	1,159,000	2,955,000	

Percentage issuance assumptions by fiscal year:

Fiscal year following year of authorization	1st	2nd	3rd	4th	5th

Appendix 3

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

Bond Sale Date	Delphis Rate	MD PI/US PI	Call	Taxable
March 13, 1991	6.15	2.261	Yes	No
July 10, 1991	6.50	2.240	Yes	No
October 9, 1991	5.70	2.230	Yes	No
May 13, 1992	5.75	2.220	Yes	No
January 13, 1993	5.40	2.221	Yes	No
May 19, 1993	5.10	2.212	Yes	No
October 6, 1993	4.45	2.206	Yes	No
February 16, 1994	4.50	2.208	Yes	No
May 18, 1994	5.35	2.199	Yes	No
October 5, 1994	5.50	2.191	Yes	No
March 8, 1995	5.35	2.184	Yes	No
October 11, 1995	4.80	2.163	Yes	No
February 14, 1996	4.35	2.159	Yes	No
June 5, 1996	5.10	2.144	Yes	No
October 9, 1996	4.90	2.144	Yes	No
February 26, 1997	4.70	2.136	Yes	No
July 30, 1997	4.50	2.135	Yes	No
February 18, 1998	4.25	2.119	Yes	No
July 8, 1998	4.40	2.128	Yes	No
February 24, 1999	4.10	2.134	Yes	No
July 14, 1999	4.80	2.146	Yes	No
July 19, 2000	4.85	2.157	Yes	No
February 21, 2001	4.28	2.178	No	No
July 11, 2001	4.39	2.201	No	No
March 6, 2002	4.17	2.233	No	No
July 31, 2002	3.89	2.241	No	No
February 19, 2003	3.77	2.235	No	No
July 16, 2003	3.56	2.250	Yes	No
July 21, 2004	3.89	2.254	Yes	No
March 2, 2005	3.72	2.259	Yes	No
July 20, 2005	3.63	2.268	Yes	No
March 1, 2006	3.89	2.242	Yes	No
July 26, 2006	4.09	2.238	Yes	No
February 28, 2007	3.77	2.228	Yes	No
August 1, 2007	4.02	2.218	Yes	No

Appendix 3 (Continued)

Bond Sale Date	Delphis Rate	MD PI/US PI	Call	Taxable
February 27, 2008	3.99	2.208	Yes	No
July 16, 2008	3.76	2.213	Yes	No
March 2, 2005	2.36	2.259	No	Yes
July 20, 2005	3.13	2.268	No	Yes
March 1, 2006	3.56	2.242	No	Yes

Source for Delphis Rate: Maryland State Treasurer's Office

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

Source for Call: GO Bonds Sales' Official Statements

Appendix 4

Initial Allocation Worksheet for 2008

Major Issuer	***U.S. Census***	***State Ceiling***
	5,618,344	**$ 477,559,240**
Counties		$238,779,620
Community Development Administration		119,389,810
Municipal		11,938,981
Secretary's Reserve		107,450,829
Total		**$477,559,240**

County Allocation

County	MD Population	% MD Population	Housing Allocation	Non Housing Allocation	Grand Total
Allegany	72,831	1.30%	$2,167,732	$743,222	$2,910,954
Anne Arundel	509,300	9.07%	15,158,736	5,197,281	20,356,017
Baltimore City	631,366	11.24%	18,791,892	6,442,934	25,234,826
Baltimore Co.	787,384	14.02%	23,435,590	8,035,059	31,470,650
Calvert	88,804	1.58%	2,643,150	906,223	3,549,373
Caroline	32,617	0.58%	970,808	332,848	1,303,656
Carroll	170,260	3.03%	5,067,595	1,737,461	6,805,057
Cecil	99,506	1.77%	2,961,683	1,015,434	3,977,117
Charles	140,416	2.50%	4,179,323	1,432,911	5,612,233
Dorchester	31,631	0.56%	941,461	322,787	1,264,247
Frederick	222,938	3.97%	6,635,496	2,275,027	8,910,524
Garrett	29,859	0.53%	888,719	304,704	1,193,423
Harford	241,402	4.30%	7,185,056	2,463,448	9,648,504
Howard	272,452	4.85%	8,109,224	6,051,259	14,160,483
Kent	19,983	0.36%	594,771	203,922	798,693
Montgomery	932,131	16.60%	27,743,820	9,512,167	37,255,987
Prince George's	841,315	14.98%	25,040,785	8,585,412	33,626,197
Queen Anne's	46,241	0.82%	1,376,311	471,878	1,848,189
St. Mary's	98,854	1.76%	2,942,277	1,008,781	3,951,058
Somerset	25,774	0.46%	767,134	263,017	1,030,151
Talbot	36,062	0.64%	1,073,344	368,004	1,441,348
Washington	143,748	2.56%	4,278,496	8,924,687	13,203,183
Wicomico	91,987	1.64%	2,737,889	4,536,754	7,274,642
Worcester	48,866	0.87%	1,454,441	498,665	1,953,106
Total	**5,615,727**	**100.00%**	**$167,145,734**	**$71,633,886**	**$238,779,620**

Note: Numbers may not sum due to rounding.

Source: Department of Business and Economic Development

Appendix 5

Debt Outstanding

Fiscal 1998-2008

($ in Millions)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	98-08
Agency Debt Subject to Ceiling and Allocation Caps												
Maryland Environmental Service	$31.0	$34.0	$29.4	$34.4	$36.5	$33.7	$30.5	$30.5	$24.5	$19.6	$18.7	-40%
Maryland Wholsesale Food Center Authority	7.0	6.9	6.8	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-100%
Maryland Transportation Authority	374.9	344.5	318.7	300.6	668.8	575.6	627.2	763.6	765.1	1,055.3	1,877.4	401%
Maryland Water Quality Financing Admin.	151.3	138.1	131.3	124.3	115.9	105.6	96.6	88.2	73.9	65.7	154.9	2%
Revenue Cap Total	**$564.2**	**$523.5**	**$486.2**	**$466.0**	**$821.2**	**$714.9**	**$754.3**	**$882.2**	**$863.5**	**$1,140.6**	**$2,051.0**	**264%**
% Change/Prior Year	**-4%**	**-7%**	**-7%**	**-4%**	**76%**	**-13%**	**6%**	**17%**	**-2%**	**32%**	**80%**	
Agency Debt Not Subject to Ceiling and Allocation Caps												
Baltimore City Community College	$0.0	$0.0	$0.0	$1.2	$1.1	$1.0	$0.9	$0.9	$0.8	$0.8	$0.7	n/a
DHCD[1]	2,387.1	2,473.5	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	37%
Local Government Infrastructure (CDA)	66.1	81.1	85.5	87.7	91.7	105.6	114.6	122.5	117.0	122.0	135.1	104%
Maryland Energy Financing Admin.	306.2	301.1	388.4	379.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-100%
Maryland Industrial Development Financing Authority	360.4	346.3	330.0	311.6	581.4	568.4	411.1	395.0	409.6	387.1	382.0	6%
MDOT – County Revenue Bonds	45.5	34.6	25.6	19.0	12.9	7.9	4.5	31.8	30.0	58.4	56.8	25%
MDOT – Non-tax-supported COPs	n/a	42.8	42.5	74.3	65.2	57.7	54.0	49.7	72.6	68.5	64.2	n/a
Morgan State University	27.9	27.5	27.1	26.8	33.4	72.2	70.0	68.6	67.7	66.0	64.2	130%
St. Mary's College of Maryland	17.5	17.3	16.9	27.8	27.5	40.6	39.7	40.6	43.8	46.6	45.4	159%
University System of Maryland	611.0	670.0	656.1	802.7	797.0	960.0	973.0	1,012.8	934.8	954.8	963.0	58%
Non-cap Total	**$3,821.7**	**$3,994.2**	**$4,199.2**	**$4,422.9**	**$4,316.1**	**$4,486.1**	**$4,082.8**	**$3,916.3**	**$3,924.4**	**$4,908.5**	**$4,970.8**	**30%**
% Change/Prior Year	**5%**	**5%**	**5%**	**5%**	**-2%**	**4%**	**-9%**	**-4%**	**0%**	**26%**	**1%**	
Tax-supported Debt												
Transportation Debt	$844.0	$749.1	$724.8	$648.1	$714.2	$961.2	$1,185.7	$1,069.9	$1,078.5	$1,111.0	$1,269.1	50%
Capital Leases – BPW	90.3	149.2	148.4	197.7	245.7	217.1	191.9	175.1	226.0	247.9	247.7	174%
General Obligation Debt	3,270.5	3,500.2	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	68%
Tax-supported Debt Total	**$4,204.8**	**$4,398.5**	**$4,222.1**	**$4,296.7**	**$4,504.1**	**$5,110.8**	**$5,479.8**	**$5,756.8**	**$6,173.0**	**$6,501.1**	**$7,010.6**	**67%**
% Change/Prior Year	**3%**	**5%**	**-4%**	**2%**	**5%**	**13%**	**7%**	**5%**	**7%**	**5%**	**8%**	
Authorities and Corporations Not Subject to Ceiling and Allocation Caps												
Health/Higher Education Facilities Authority	$2,821.0	$3,236.6	$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	191%
MEDCO	227.7	321.1	635.4	855.6	1,077.7	1,485.9	1,593.9	1,642.6	1,872.4	1,894.2	2,095.5	820%
Authorities and Corporations Total	**$3,048.7**	**$3,557.7**	**$4,190.4**	**$4,516.4**	**$5,343.1**	**$6,105.4**	**$6,910.8**	**$7,186.9**	**$8,053.5**	**$9,156.2**	**$10,300.3**	**238%**
% Change/Prior Year	**18%**	**17%**	**18%**	**8%**	**18%**	**14%**	**13%**	**4%**	**12%**	**14%**	**12%**	

BPW: Board of Public Works

CDA: Community Development Administration

COPs: Certificates of Participation

DHCD: Department of Housing and Community Development

MDOT: Maryland Department of Transportation

MEDCO: Maryland Economic Development Corporation

[1] Excludes local government infrastructure.

Source: Department of Budget and Management