

# EFFECT OF LONG-TERM DEBT *on the* FINANCIAL CONDITION OF THE STATE



DEPARTMENT OF LEGISLATIVE SERVICES 2007

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

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**Department of Legislative Services  
Office of Policy Analysis  
Annapolis, Maryland**

**December 2007**

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December 2007

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 report also includes an analysis of the effect of legislation adopted during the 2007 special session, which occurred after the committee completed its report.

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 Sara Baker, Andrew Gray, Matt Klein, Jonathan Martin, and Jamila Smith-Loud. The manuscript was prepared by Ria Hartlein.

Respectfully submitted,

Warren G. Deschenaux  
Director

WGD/msh



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# Chapter 1. Recommendations of the Department of Legislative Services

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## New General Obligation Bond Authorization

The Capital Debt Affordability Committee (CDAC) recommended a limit of \$935 million for new authorizations of general obligation (GO) bonds during the 2008 legislative session. The recommendation, which is \$125 million more than was authorized in the 2007 legislative session, reflects a change in application of the committee's authorization policy. To support a larger capital plan, the committee increased the authorization by \$100 million. This amount remains in the base permanently. The remaining \$25 million increase is consistent with the policy to increase authorizations 3 percent annually. The recommendation includes \$3 million previously authorized for tobacco buyout financing.

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 the CDAC and provided the following preliminary allocation of the \$935 million debt authorization as shown in **Exhibit 1.1**.

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### Exhibit 1.1 Governor's Proposed GO Bond Capital Program

	<u>GO Debt</u>
General Construction – State-owned Facilities	\$375,000,000
Public School Construction	300,000,000
Other Special Projects – Grants and Loans	260,000,000
<b>Total</b>	<b>\$935,000,000</b>

GO: general obligation

Source: Governor's Office, October 15, 2007

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The Department of Legislative Services' (DLS) forecast of personal income and levels of outstanding debt indicates that Maryland's five-year GO debt authorization plan will be affordable according to the debt affordability criteria and that additional capacity remains. **DLS agrees that the committee's debt limit for the 2008 session of \$935 million in new GO authorizations meets the affordability criteria and preserves capacity for the future.**



## **Authorization of Transportation Debt**

Maryland's debt policies have earned the State AAA bond ratings from all three major rating agencies. Rating agencies have commented that one of Maryland's strengths is setting and abiding by debt affordability limits. CDAC is charged with recommending debt limits and has recommended a level of debt in its October report. Since the CDAC report was released, the Administration has proposed increasing State transportation capital spending and the General Assembly has adopted legislation increasing State transportation revenues to support a larger transportation capital program. If transportation debt outstanding is expanded to the extent allowed by the legislation, State debt outstanding is projected to exceed 3.2 percent of State personal income. **It is recommended that the committee consider the effect of increasing the State's transportation program as it reviews the State's affordability criteria.**

## **Higher Education Debt**

For fiscal 2009, the University System of Maryland (USM) intends to issue up to \$67 million in auxiliary debt and \$33 million in academic debt. This level of issuance will result in a debt service ratio below the 5.5 percent of current unrestricted funds and mandatory transfers recommended by the system's financial advisers. This level of issuance also allows total available funds to exceed 50.0 percent of debt outstanding. Morgan State University, St. Mary's College, and Baltimore City Community College do not plan on issuing any debt in fiscal 2009. **DLS concurs with the committee's assessment that issuing \$33 million in new USM academic revenue bonds is affordable.**

## Chapter 2. Recommendations of the Capital Debt Affordability Committee

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Chapter 43 of 1978 created the Capital Debt Affordability Committee (CDAC). The committee is required to recommend an estimate of State debt to the General Assembly and the Governor. The committee is chaired by the State Treasurer, and other committee voting members are the Comptroller, Secretaries of the Department of Transportation and the Department of Budget and Management, and an individual appointed by the Governor. 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.

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 (USM) 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.

### New General Obligation Debt Authorization

GO bonds are backed by the full faith and credit of the State, and they support the State's capital program. GO bonds are discussed in Chapter 3. The committee recommended a \$935 million new GO debt authorization limit for the 2008 session. This figure is \$125 million more than last session's authorization and includes \$3 million for the Southern Maryland Regional Strategy-Action Plan for Agriculture, referred to as the Tobacco Transition Program.

**Exhibit 2.1** shows that the long-range plan adopted by the committee provides for 3 percent annual increases along with an additional \$100 million annually over the fiscal 2008 authorization level. Of the additional \$100 million in annual authorizations, \$50 million was tied specifically to increased authorization levels for school construction projects. The Governor, in a letter to the Presiding Officers required by Section 8-113 of the State Finance and Procurement Article, indicated that he intends to earmark \$300 million of GO debt for school construction in the fiscal 2009 budget which is \$150 million more than previously planned in the State's *Five-Year Capital Improvement Program* and \$50 million more than the \$250 million annual funding goal set in the 2004 Public School Facilities Act. A complete discussion of GO bond authorizations, issuances, and costs is provided in Chapter 3.

**Exhibit 2.1**  
**Capital Debt Affordability Committee's**  
**Recommended Levels of General Obligation (GO) Bond Authorizations**  
**(\$ in Millions)**

<u>Session</u>	<u>Proposed GO Bond Authorization</u>	<u>Change from Previous Year's Authorization</u>
2008	\$935	\$125
2009	960	25
2010	990	30
2011	1,020	30
2012	1,050	30

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

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### **Higher Education Academic Debt to Be Authorized**

CDAC recommends limiting new debt authorization for academic facilities to \$33 million for fiscal 2009, which is \$3 million more than the amount authorized in the 2007 legislative session. The entire \$33 million is intended for projects on USM campuses. The long-range plan adopted by the committee sets the annual authorization for academic facilities bonds at \$27 million for fiscal 2010-2013. CDAC notes that the proposed capital financing programs for the public higher education systems result in a debt burden level, measured as debt service as a percentage of the sum of unrestricted current fund expenditures plus mandatory transfers, is well below the 10 percent "highly leveraged" threshold established by Standard & Poor's. Furthermore, USM is within its 5.5 percent debt capacity limit, meaning that debt service does not exceed 5.5 percent of unrestricted current fund expenditures and mandatory transfers. Academic bond issuances are discussed in Chapter 6.

## Chapter 3. State Debt

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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 can be issued by MDOT and the Maryland Transportation Authority (MdTA);
- revenue bonds issued by the Maryland Stadium Authority (MSA), secured by a lease which is supported by State revenues;
- bay restoration bonds issued by the Maryland Department of the Environment's (MDE) Water Quality Financing Administration (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 the projects that are requested.

### New General Obligation Bond Authorizations

The Capital Debt Affordability Committee (CDAC) recommended a limit of \$935 million for new authorizations of GO bonds during the 2008 session. The recommendation includes a planned \$3 million for tobacco buyout financing, as required by Chapter 103 of 2001.

The recommendation, which is \$125 million more than was authorized in the 2007 session, reflects a change in application of the committee's authorization policy. Consistent with last year's policies, the limit is increased 3 percent (ranging from \$25 million to \$30 million annually through the five-year forecast) to account for inflation and program growth. The new limit also includes an additional \$100 million to permanently expand the capital program. In a departure from more recent permanent GO authorization expansions, which did not link additional authorizations to any particular capital priorities, the CDAC report does link the increase in funding to additional public school construction. 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 escalation in building costs that have severely impacted the construction market during the past several years.

**Exhibit 3.1** shows that the 2007 report now recommends a total of over \$4.9 billion in authorizations from 2008 to 2012. This is an increase of \$500 million over the five-year period.

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**Exhibit 3.1**  
**Effect of New Policy on GO Bond Authorizations**  
**2008-2012 Legislative Sessions**  
**(\$ in Millions)**

<u>Session</u>	<u>2006 Report Recommended Authorizations</u>	<u>2007 Report Recommended Authorizations</u>	<u>Increased Authorization</u>
2008	\$835	\$935	\$100
2009	860	960	100
2010	890	990	100
2011	922	1,020	100
2012	950	1,050	100
<b>Total</b>	<b>\$4,457</b>	<b>\$4,955</b>	<b>\$500</b>

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, September 2006 and October 2007

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### **General Obligation Bond Issuance Stream**

GO bonds authorized in a given year are not issued in total right away. 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 2008 through 2016 would be issued. **Exhibit 3.2** compares this year's issuance stream to last year's to reveal \$655 million in higher issuance levels through fiscal 2016. The increased issuance is largely attributable to the increased authorizations recommended by CDAC in this year's report.

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**Exhibit 3.2**  
**Proposed Issuance Stream**  
**Fiscal 2008-2016**  
**(\$ in Millions)**

<u>Fiscal Year</u>	<u>2006 Report</u>	<u>2007 Report</u>	<u>Increase</u>
2008	\$700	\$725	\$25
2009	760	810	50
2010	810	885	75
2011	860	955	95
2012	900	970	70
2013	940	1,010	70
2014	960	1,040	80
2015	980	1,070	90
2016	1,000	1,100	100
<b>Total</b>	<b>\$7,910</b>	<b>\$8,565</b>	<b>\$655</b>

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, September 2006 and October 2007

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The table in Appendix 2 also indicates the expected issuances of current authorizations. At the beginning of fiscal 2008, approximately \$1.9 billion in debt was authorized by the General Assembly but not issued. The CDAC report assumes that \$725 million of this debt will be issued in fiscal 2008 and \$520 million in fiscal 2009.

### **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 \$180 million more than projected in the 2006 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 2010. By fiscal 2016, debt service costs are \$51 million more than previously estimated.

**Exhibit 3.3**  
**Projected Debt Service Costs**  
**Fiscal 2008-2016**  
**(\$ in Millions)**

<b><u>Fiscal Year</u></b>	<b><u>2006 Report Estimated Debt Service Costs</u></b>	<b><u>2007 Report Estimated Debt Service Costs</u></b>	<b><u>Difference</u></b>
2008	\$695	\$693	-\$2
2009	748	746	-2
2010	783	786	3
2011	831	841	10
2012	872	889	17
2013	919	945	26
2014	955	989	34
2015	1,007	1,050	43
2016	1,100	1,151	51
<b>Total</b>	<b>\$7,910</b>	<b>\$8,090</b>	<b>\$180</b>

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, September 2006 and October 2007

### **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 refunding 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 refunding 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 general obligation 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.

The State does not pay interest on QZABs. 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 comes out to be less than the par value of QZABs. 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.

To date, the State has issued \$31.5 million in QZABs and plans to issue another \$16.1 million. **Exhibit 3.4** shows that sinking fund payments total \$39.9 million. The remaining principal is interest earnings, which total \$7.8 million.

The State Treasurer's Office advises that new rules regarding arbitrage that preclude the State from investing sinking funds are being considered. If the rules are adopted and the State will no longer be able to invest the sinking funds payments, interest earnings would no longer be generated, and the State would need to fully appropriate the principal borrowed. Consistent with a conservative forecasting approach, the 2008 and 2009 issuances assume no interest earnings.



**Exhibit 3.4**  
**Maryland QZAB Issuances**  
(\$ in Thousands)

<b><u>Authorizing Legislation</u></b>	<b><u>Date Issued</u></b>	<b><u>Amount Authorized</u></b>	<b><u>Amount Issued</u></b>	<b><u>Total Payments</u></b>	<b><u>Annual Sinking Fund Payment</u></b>
Chapter 322 of 2000	Nov. 2001 <sup>1</sup>	\$9,828	\$9,828	\$13,320	\$888
Chapter 139 of 2001 <sup>1</sup>		8,270	8,270	n/a	n/a
<b>Subtotal</b>		<b>\$18,098</b>	<b>\$18,098</b>	<b>\$13,320</b>	<b>\$888</b>
Chapter 55 of 2003	Nov. 2004	\$9,043	\$9,043	\$7,356	\$490
Chapter 431 of 2005	Nov. 2006	\$9,364	\$4,378	\$3,609	\$241
	Nov. 2007 <sup>2</sup>	n/a	4,986	4,440	296
<b>Subtotal</b>		<b>\$9,364</b>	<b>\$9,364</b>	<b>\$8,049</b>	<b>\$537</b>
Chapter 585 of 2007	Nov. 2008 <sup>2</sup>	11,126	5,563	5,563	371
	Nov. 2009 <sup>2</sup>	n/a	5,563	5,563	371
<b>Subtotal</b>		<b>\$11,126</b>	<b>\$11,126</b>	<b>\$11,126</b>	<b>\$742</b>
<b>Total</b>		<b>\$47,631</b>	<b>\$47,631</b>	<b>\$39,850</b>	<b>\$2,657</b>

<sup>1</sup> November 2001 issuance includes authorizations made in 2000 and 2001.

<sup>2</sup> Issuances in 2007, 2008, and 2009 are estimates.

Source: State Treasurer's Office

## 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. Section 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.

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 can 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 3.5** shows tax-supported capital lease debt outstanding totals \$247.9 million as of June 30, 2007. CDAC's forecast does not assume any new real property leases in the out-years. 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 \$10.0 million while others is greater than \$40.0 million. The out-year forecast shows current leases and projected activities for equipment and energy performance leases.

**Exhibit 3.5**  
**Tax-supported Capital Lease Debt Outstanding**  
**As of June 30, 2007**  
**(\$ in Millions)**

<u>State Agency</u>	<u>Facility</u>	<u>Amount Outstanding</u>
State Treasurer's Office	Capital Equipment Leases	\$109.7
	Energy Performance Projects	34.1
MD Department of Transportation	Headquarters Office Building	30.4
	Maryland Aviation Administration Shuttle Buses	12.9
Department of General Services	Multi-service Office Buildings:	
	St. Mary's County	3.7
	Calvert County	1.9
	District Courts:	
	Towson	2.1
	Hyattsville	2.8
	Hilton Street Facility	2.2
	Prince George's County Justice Center	22.5
Maryland Environmental Services	Easter Correctional Institution – Water and Wastewater Facility	2.4
Maryland Transportation Authority	Annapolis State Office Parking Garage	23.2
<b>Total</b>		<b>\$247.9</b>

Source: State Treasurer's Office, October 2007

The forecast assumes \$20.0 million in new energy leases. 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. Since 1996, the State has entered into four agreements to provide master-lease purchase financing for energy conservation projects at State facilities in the aggregate amount of \$81.3 million. The most recent master-lease clearly indicates greater planned use of this form of financing in the near term.

The forecast assumes approximately \$30 million in new equipment leases annually. The most recent master equipment lease approved by BPW on June 21, 2006, provided \$70 million in capital equipment lease-purchase financing. The State Treasurer's Office anticipated that this

master-lease would run through June 30, 2009. However, on October 10, 2007, the Treasurer notified LPC that it intends to seek BPW approval for an additional \$100 million of equipment financing on a consolidated basis under the lease-purchase financing program for a period that runs from December 1, 2007 through June 30, 2011. The Treasurer's most recent plans clearly indicate greater use of this form of financing in the near term.

## **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 2004 session, the maximum outstanding debt limit was increased to \$2.0 billion (from \$1.5 billion) due to the adoption of provisions that increased vehicle registration fees.

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 2008 budget bill set the maximum ceiling for June 30, 2008, at \$1,497,060,000. MDOT estimates that as of June 30, 2008, debt outstanding will total \$1,322,060,000 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, MDOT estimates that as of June 30, 2008, they will have a net income coverage of 3.9 and pledged taxes coverage of 7.2.

As shown in **Exhibit 3.6**, MDOT has issued new (*e.g.*, nonrefunding) consolidated transportation bonds in 14 of the past 20 years. MDOT issued debt in February 2007 (fiscal 2007) when bonds totaling \$100.0 million were sold. MDOT anticipated a bond sale of \$155.0 million in fiscal 2007; however, the bond sale was reduced due to favorable interest rates and cash flow needs.

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**Exhibit 3.6**  
**Consolidated Transportation Bond Issuance\***  
(\$ in Millions)

<u>Fiscal Year</u>	<u>Bonds Issued</u>
1988	\$0
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
<b>Total</b>	<b>\$2,120</b>

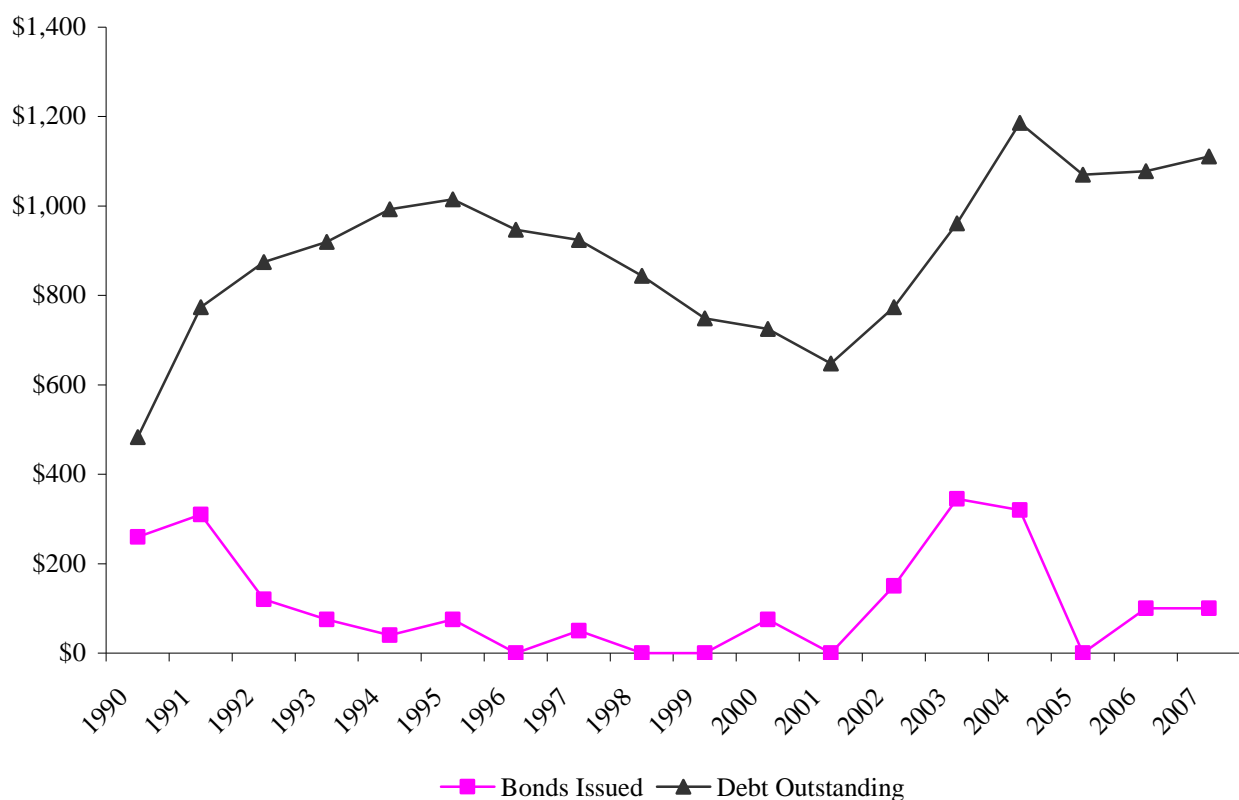
\*Exclusive of refinancing. Four refinancing issuances were made from fiscal 1989 through 2006, including most recently in fiscal 2004, when a total of \$75,900,000 was refinanced.

Source: Maryland Department of Transportation, September 2007

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**Exhibit 3.7** illustrates annual bond sales and changes in debt outstanding from fiscal 1990 to 2007. In fiscal 2007, MDOT's net debt outstanding was \$1.111 billion well under the \$2.000 billion debt outstanding debt limit.

**Exhibit 3.7**  
**Maryland Department of Transportation**  
**Bonds Issued and Net Debt Outstanding**  
**Seventeen-year Summary – Fiscal 1990-2007**  
 (\$ in Millions)



Source: Maryland Department of Transportation

## Future Debt Issuance

Every fall, MDOT prepares a TTF forecast as part of the development of draft *Consolidated Transportation Program* (CTP). The forecast projects revenues and expenditures and adjusts debt issuances accordingly. This analysis is based on the data provided by MDOT in the draft CTP. An analysis of the special session is provided in Chapter 7.

**Exhibit 3.8** shows that MDOT estimates bonds issuances of approximately \$1.4 billion from fiscal 2008 to 2013. Approximately half of total estimated bond issuances will occur in fiscal 2008 and 2009. Bond issuances in the later years are constrained by the statutory debt outstanding limit of \$2.0 billion as well as the department's own bond coverage ratios.

**Exhibit 3.8**  
**Consolidated Transportation Bonds – MDOT Projected Issuances**  
**Fiscal 2008-2013**  
**(\$ in Millions)**

<u>Fiscal Year</u>	<u>Amount</u>
2008	\$360
2009	370
2010	225
2011	190
2012	150
2013	125
<b>Total</b>	<b>\$1,420</b>

Source: Maryland Department of Transportation, September 2007

**Debt Outstanding**

**Exhibit 3.9** shows the amount of estimated debt outstanding from fiscal 2008 to 2013. Due to higher bond issuances, debt outstanding is expected to increase through fiscal 2011 and then remain fairly level as bond issuances decline and prior year debt issuances are paid off.

**Exhibit 3.9**  
**Consolidated Transportation Bonds – MDOT Projected Debt Outstanding**  
**Fiscal 2008-2013**  
**(\$ in Millions)**

<u>Fiscal Year</u>	<u>Amount</u>
2008	\$1,402
2009	1,696
2010	1,843
2011	1,947
2012	1,992
2013	1,999

Source: Maryland Department of Transportation, September 2007

## Debt Service

**Exhibit 3.10** shows that debt service costs are projected to increase steadily from \$123 million in fiscal 2008 to \$220 million in fiscal 2013. This growth is attributable to increased bond issuances.

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**Exhibit 3.10**  
**Projected Transportation Debt Service**  
**Fiscal 2008-2013**  
**(\$ in Millions)**

<u>Fiscal Year</u>	<u>Projected Debt Service</u>
2008	\$123
2009	153
2010	163
2011	178
2012	201
2013	220
<b>Total</b>	<b>\$1,038</b>

Source: Maryland Department of Transportation, September 2007

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## Legislation Increasing Transportation Debt Is Enacted

The previous analysis examines transportation capital spending reviewed by CDAC. Since the CDAC report was released, the Administration proposed increasing State transportation capital spending, and the General Assembly adopted legislation increasing State transportation revenues and debt issuances to support a larger transportation capital program.

The Transportation and State Investment Act (Chapter 6 of the First Special Session of 2007) provided additional State taxes to support an increased State transportation capital program. The act also increased the limit on Consolidated Transportation Bonds from \$2.0 billion to \$2.6 billion. If transportation bond debt outstanding is expanded to \$2.6 billion, State debt outstanding is projected to exceed 3.2 percent of State personal income. The policy implications associated with the legislation are discussed in Chapter 7.

## 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. Debt affordability is evaluated by CDAC. In its 2007 report, CDAC evaluated affordability based on criteria limiting total State debt outstanding to 3.2 percent of State personal income and debt service to 8.0 percent of State revenues. **It is recommended that the committee consider the effect of increasing the State's transportation program as it reviews the State's 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.

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 is planned for fall 2008. GARVEE debt service is projected at \$36 million in fiscal 2008, \$74 million in fiscal 2009, and \$84 million in fiscal 2010 through 2013.

## **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 (BRF) 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 intends to issue bonds starting in fiscal 2008 backed by revenue generated under this program.

CDAC has considered whether or not bay bonds are State debt in 2004. At the time, the committee agreed that the bonds are State debt. The basis for this is that the BRF is applied to everyone in the State and funds WWTP improvements, which benefit all State residents through the improvement of bay water quality. 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.

The timing and amount of bonds issued will depend on the actual fee revenue attained, annual funding needs, and the bond maturities and interest rates. Net special WWTP Fund revenues range from the \$57.7 million collected in fiscal 2006 (the first full year of revenue collections) to \$64.1 million in fiscal 2018 based on a projected 1 percent revenue growth rate. Current annual revenue projections appear to be approximately \$0.8 million short of last year's projections. 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 2008 and that by fiscal 2012, \$499.8 million of debt will be outstanding. MDE provided the data on August 16, 2007, and noted that the bond issuance projections were reported to CDAC in June 2007. The Septic Fund will be operated on a pay-as-you-go (PAYGO) basis and does not involve revenue bond proceeds.

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

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Revenue Bonds Issued	\$70	\$170	\$225	\$30	\$0
Debt Outstanding	118	282	494	500	473
Debt Service	5	12	29	51	54

Source: Maryland Department of the Environment

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MDE estimates that the cost to upgrade the 66 major WWTPs is \$1.04 billion. The BRF (WWTP Fund) program will issue a total of \$545 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 \$807 million of the \$1.04 billion upgrade cost. Therefore, the current estimate is that \$233 million of the cost to upgrade the 66 major WWTPs is currently unfunded.

## Maryland Stadium Authority

MSA was created in 1986 (Chapter 283 of 1986) 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.

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

<b><u>Project</u></b>	<b><u>Authorized</u></b>	<b><u>Outstanding as of October 2007</u></b>	<b><u>Debt Service Fiscal 2008</u></b>
Baseball and Football Stadiums	\$235.0	\$193.9	\$21.4
Baltimore City Convention Center	55.0	31.6	5.1
Ocean City Convention Center	17.3	10.6	1.5
Montgomery County Conference Center	23.2	20.7	1.8
Hippodrome Performing Arts Center	20.3	17.7	1.8
Camden Station	8.7	8.6	0.6
<b>Total</b>	<b>\$359.5</b>	<b>\$283.1</b>	<b>\$32.2</b>

Note: Numbers may not sum due to rounding.

Source: Maryland Stadium Authority

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## 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 Orioles Park at Camden Yards are funded.

### **Baltimore and Ocean City Convention Centers**

The authority 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 2008 debt service cost for the revenue bonds is \$5.1 million and subject to State appropriation. The State is also statutorily required to contribute two-thirds toward the convention center's annual operating deficit through fiscal 2008 and \$200,000 annually to a capital improvement fund.

The authority 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 2007 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, the authority 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 2008 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. 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 2008.

### **Camden Station**

Section 13-708.1 of the Financial Institutions Article provides that the authority may develop any portion of Camden Yards to generate incidental revenues for the benefit of the authority subject to approval of BPW and LPC. The authority 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, the authority 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 covers biannual debt service payments through June 15, 2006. The fiscal 2008 debt service costs for the authority's revenue bonds are \$645,813 and 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**

Uncodified language in the 1998 capital budget bill (as amended by Chapter 2004 of 2003 and Chapter 445 of 2005) authorizes the authority 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. The projects for which the authority is currently authorized to provide assistance but is not authorized to issue revenue bonds are:

- Charles County – Minor League Baseball Stadium;
- Baltimore City – Coppin State University Physical Education Complex; and
- Baltimore County – Towson Center renovation at Towson University.

The same uncodified language 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 the authority'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 is scheduled to complete a study for a National Sailing Hall of Fame in Annapolis for the Department of Natural Resources.

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, it would add to the State debt load and reduce the State's debt capacity.



## Chapter 4. Economic Factors and Affordability Analysis

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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 State debt, the committee surveyed municipal finance specialists and developed criteria for evaluating debt affordability. To evaluate debt affordability, these two criteria were adopted:

- debt outstanding should be limited to 3.2 percent of Maryland personal income; and
- debt service should be limited to 8.0 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. Since CDAC has issued its report, the General Assembly has adopted legislation that authorizes increasing State transportation capital spending and debt. The effect of this legislation, which was not addressed by the CDAC report, is discussed in Chapter 7.

### 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.



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

<u>Calendar Year</u>	<u>DLS Personal Income</u>	<u>Percent Change</u>	<u>CDAC Personal Income</u>	<u>Percent Change</u>	<u>Difference</u>
2007	\$259,900		\$261,575		-\$1,675
2008	273,948	5.41%	275,189	5.20%	-1,241
2009	289,479	5.67%	288,866	4.97%	613
2010	305,693	5.60%	303,677	5.13%	2,016
2011	322,122	5.37%	319,505	5.21%	2,617
2012	339,115	5.28%	334,331	4.64%	4,784
2013	356,737	5.20%	349,205	4.45%	7,352

DLS: Department of Legislative Services

CDAC: Capital Debt Affordability Committee

Source: CDAC Personal Income: *Capital Debt Affordability Committee Report*, October 2007

## Revenue Projections

**Exhibit 4.2** shows that DLS' revenue projections are quite similar to CDAC's through fiscal 2013. Revenue levels are factored into the debt service criterion. Higher revenues result in lower ratios of debt service to revenues and increase debt service capacity.

The revenue estimates compared are revenue estimates based on the capital program proposed to CDAC and analyzed in the CDAC report. The effect of legislation enacted during the 2007 special session, after the CDAC report was completed, is discussed in Chapter 7.

## 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 issuances are consistent with CDAC debt limits. The analysis assumes the revised revenue estimates presented by DLS to the Spending Affordability Committee in October 2007. (An analysis of the effect of legislation enacted during the 2007 special session, which was enacted after the CDAD report was completed, is in Chapter 7.) **Exhibit 4.3** shows that, for the forecast period, debt outstanding as a percent of personal income peaks at 3.12 percent in fiscal 2012. **Exhibit 4.4** shows that the debt service as a percent of revenues increases throughout the forecast period and peaks at 6.99 percent in fiscal 2016 and 2017. For both affordability criteria, the forecasts for personal income and general funds are affordable.

**Exhibit 4.2**  
**Revenue History and Projections**  
(\$ in Millions)

<u>Fiscal Year</u>	<u>General Funds</u>	<u>Property Tax</u>	<u>Use of Bond Sale Premium</u>	<u>Subtotal</u>	<u>MDOT</u>	<u>GARVEE</u>	<u>Stadium</u>	<u>Bay Rest. Fund</u>	<u>Total</u>	<u>CDAC Est.</u>	<u>Diff.</u>
2008	\$13,363	\$619	\$53	<b>\$14,036</b>	\$2,122	\$36	\$22	\$0	<b>\$16,216</b>	\$16,290	-\$74
2009	14,016	684	0	<b>14,699</b>	2,187	73	22	5	<b>16,986</b>	17,125	-139
2010	14,811	735	0	<b>15,547</b>	2,256	84	22	12	<b>17,921</b>	18,007	-86
2011	15,606	776	0	<b>16,382</b>	2,348	84	22	29	<b>18,865</b>	18,893	-28
2012	16,431	819	0	<b>17,250</b>	2,410	84	22	51	<b>19,817</b>	19,819	-2
2013	17,269	840	0	<b>18,109</b>	2,476	84	22	54	<b>20,345</b>	20,648	-97

MDOT: Maryland Department of Transportation

GARVEE: Grant Anticipation Revenue Vehicle

Rest.: Restoration

CDAC: Capital Debt Affordability Committee

Note: Analysis of legislation adopted during the 2007 special session is discussed in Chapter 7.

Source of Estimates: General Fund: Department of Legislative Services, October 2007; Maryland Department of Transportation, Property Tax, Use of Premium, Stadium, GARVEE, Bay Restoration Fund, and Capital Debt Affordability Committee Revenues: *Capital Debt Affordability Committee Report*, October 2007

**Exhibit 4.3**  
**State Tax-supported Debt Outstanding**  
**Components and Relationship to Personal Income**

<u>Fiscal Year</u>	<u>General Obligation</u>	<u>MDOT Bonds</u>	<u>GARVEE</u>	<u>Capital Leases</u>	<u>Stadium Authority</u>	<u>Bay Rest. Bonds</u>	<u>Total Tax-supported Debt</u>
2007	\$5,142.2	\$1,111.0	\$325.0	\$247.9	\$283.1	\$0.0	\$7,109.2
2008	5,443.8	1,477.0	300.7	246.8	278.1	50.0	7,796.4
2009	5,794.7	1,701.0	677.7	264.3	262.3	117.8	8,817.6
2010	6,202.9	1,823.0	627.4	250.2	245.5	282.3	9,431.3
2011	6,646.1	1,876.0	574.5	240.1	227.6	493.9	10,058.3
2012	7,082.4	1,991.0	519.1	234.4	208.5	499.8	10,535.3
2013	7,529.1	1,984.0	460.9	234.9	188.2	473.0	10,870.0
2014	7,986.9	1,997.0	399.8	237.1	166.5	444.7	11,232.0
2015	8,439.8	1,997.0	335.7	240.2	144.7	414.9	11,572.4
2016	8,847.9	1,998.0	268.4	242.0	126.6	383.4	11,866.3
2017	9,217.6	2,000.0	197.7	244.0	108.7	350.2	12,118.2

**State Tax-supported Debt Outstanding as a Percent of Personal Income**  
**(Affordability Criteria = 3.2%)**

2007	1.98%	0.43%	0.13%	0.10%	0.11%	0.00%	2.74%
2008	1.99%	0.54%	0.11%	0.09%	0.10%	0.02%	2.85%
2009	2.00%	0.59%	0.23%	0.09%	0.09%	0.04%	3.05%
2010	2.03%	0.60%	0.21%	0.08%	0.08%	0.09%	3.09%
2011	2.06%	0.58%	0.18%	0.07%	0.07%	0.15%	3.12%
2012	2.09%	0.59%	0.15%	0.07%	0.06%	0.15%	3.11%
2013	2.11%	0.56%	0.13%	0.07%	0.05%	0.13%	3.05%
2014	2.13%	0.53%	0.11%	0.06%	0.04%	0.12%	2.99%
2015	2.15%	0.51%	0.09%	0.06%	0.04%	0.11%	2.94%
2016	2.15%	0.48%	0.07%	0.06%	0.03%	0.09%	2.88%
2017	2.13%	0.46%	0.05%	0.06%	0.03%	0.08%	2.80%

MDOT: Maryland Department of Transportation

GARVEE: Grant Anticipation Revenue Vehicle

Rest.: Restoration

Note: Analysis of legislation adopted during the 2007 special session is discussed in Chapter 7.

Source: General Obligation: Department of Legislative Services, November 2007; MDOT, GARVEE, Leases, Stadium Authority, and Bay Bonds: *Capital Debt Affordability Committee Report*, October 2007

**Exhibit 4.4**  
**State Tax-supported Debt Service**  
**Components and Relationship to Revenues**

<b>Fiscal Year</b>	<b>General Obligation</b>	<b>MDOT Bonds</b>	<b>GARVEE</b>	<b>Capital Leases</b>	<b>Stadium Authority</b>	<b>Bay Rest. Bonds</b>	<b>Total Tax-supported Debt Service</b>
2007	\$654.1	\$115.0	\$0.0	\$41.6	\$31.7	\$0.0	\$842.4
2008	692.5	123.0	36.1	53.8	32.7	0.0	938.1
2009	745.8	153.0	73.4	64.3	32.6	5.0	1,074.1
2010	785.9	163.0	84.0	71.3	32.6	12.0	1,148.8
2011	841.1	178.0	84.0	67.8	32.7	28.9	1,232.6
2012	889.0	201.0	84.0	61.7	32.9	51.3	1,320.0
2013	944.7	220.0	84.0	55.6	32.9	54.3	1,391.5
2014	989.4	242.0	84.0	56.0	33.0	54.3	1,458.7
2015	1,050.4	266.0	84.0	53.7	31.7	54.3	1,540.2
2016	1,150.8	286.0	84.0	54.9	26.8	54.3	1,656.8
2017	1,223.4	294.0	84.0	53.2	25.4	54.3	1,734.4

**State Tax-supported Debt Service as a Percent of Total State Revenues**

2007	4.19%	0.74%	0.00%	0.27%	0.20%	0.00%	5.40%
2008	4.27%	0.76%	0.22%	0.33%	0.20%	0.00%	5.78%
2009	4.39%	0.90%	0.43%	0.38%	0.19%	0.03%	6.32%
2010	4.39%	0.91%	0.47%	0.40%	0.18%	0.07%	6.41%
2011	4.46%	0.94%	0.45%	0.36%	0.17%	0.15%	6.53%
2012	4.49%	1.01%	0.42%	0.31%	0.17%	0.26%	6.66%
2013	4.55%	1.06%	0.41%	0.27%	0.16%	0.26%	6.71%
2014	4.57%	1.12%	0.39%	0.26%	0.15%	0.25%	6.73%
2015	4.63%	1.17%	0.37%	0.24%	0.14%	0.24%	6.79%
2016	4.85%	1.21%	0.35%	0.23%	0.11%	0.23%	6.99%
2017	4.93%	1.19%	0.34%	0.21%	0.10%	0.22%	6.99%

MDOT: Maryland Department of Transportation  
 Rest.: Restoration

GARVEE: Grant Anticipation Revenue Vehicle

Note: Analysis of legislation adopted during the 2007 special session is discussed in Chapter 7.

Source: General Obligation: Department of Legislative Services, November 2007; MDOT, GARVEE, Leases, Stadium Authority, and Bay Bonds: *Capital Debt Affordability Committee Report*, October 2007

**Exhibit 4.5** shows that debt outstanding ratios based on DLS personal income estimates are slightly lower than those estimated by CDAC throughout the forecast period. However, both sets of data follow the same trend. Debt to personnel income rises and then peaks in fiscal 2011. After peaking, there is a steady decline.

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

<u>Fiscal Year</u>	<u>DLS</u>	<u>CDAC</u>
2008	2.85%	2.83%
2009	3.05%	3.06%
2010	3.09%	3.11%
2011	3.12%	3.15%
2012	3.11%	3.15%
2013	3.05%	3.11%
2014	2.99%	3.08%
2015	2.94%	3.04%
2016	2.88%	2.99%
3017	2.80%	2.94%

DLS: Department of Legislative Services

CDAC: Capital Debt Affordability Committee

Note: Analysis of legislation adopted during the 2007 special session is discussed in Chapter 7.

Source: *Capital Debt Affordability Committee Report*, October 2007

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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 increases throughout the forecast period.

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

<u>Fiscal Year</u>	<u>DLS</u>	<u>CDAC</u>
2008	5.78%	5.76%
2009	6.32%	6.27%
2010	6.41%	6.38%
2011	6.53%	6.52%
2012	6.66%	6.66%
2013	6.71%	6.74%
2014	6.73%	6.80%
2015	6.79%	6.89%
2016	6.99%	7.12%
2017	6.99%	7.17%

DLS: Department of Legislative Services

CDAC: Capital Debt Affordability Committee

Note: Analysis of legislation adopted during the 2007 special session is discussed in Chapter 7.

Source: *Capital Debt Affordability Committee Report*, October 2007

## **Legislation Increasing Transportation Debt Is Enacted**

As the previous data clearly demonstrates, State capital spending and debt issuances proposed by the Administration and analyzed by CDAC in its October 2007 report is affordable. Since the CDAC report was released, the Administration proposed increasing State transportation capital spending and the General Assembly adopted legislation increasing State transportation revenues and debt issuances to support a larger transportation capital program. If fully leveraged, this is projected to increase State debt beyond what CDAC limits deem affordable. The policy implications associated with the legislation are discussed in Chapter 7.



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

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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 can be used to evaluate these financial factors. In the chapter, the Department of Legislative Services (DLS) uses the sum of least squares regression to evaluate what factors influence the TIC Maryland receives on general obligation (GO) bond sales. **Appendix 3** shows the data used in the analysis and **Appendix 4** details the statistical analysis.

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

Financial theory suggests factors that could influence Maryland's GO bond 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 35 tax-exempt GO bond sales since March 1991 (refunding sales are excluded):

- true interest cost;
- Delphis Scale<sup>1</sup> for 10-year, AAA bonds;
- date of the bond sale, fiscal year, and calendar years the bonds were sold;
- if the bond sale includes one of the three call provisions offered since 1991;
- average years to maturity;

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<sup>1</sup> 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, they 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 United States' gross domestic product, both nominal and adjusted for inflation.

### **The Equation Identifies General Bond Market Interest Rates, State Economic Strength, and Inclusion of a Call Provision as Significant Factors Influencing the TIC**

The least squares regression analysis dependent variable is the TIC. All the other variables are independent variables that are included to control the factors that could influence the TIC. The question that the regression equation attempts to answer is which of the independent variables influence the dependent variable (TIC). The regression equation examines the variable previously listed and identifies three 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 three 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);
- ***Ratio of Maryland Total Personal Income to the United States Total Personal Income:*** One perspective on interest rates is to consider them as a return for risk. The higher the risk, the higher interest rate investors will expect. One factor of risk is the fiscal health of the entity selling the debt. In 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; and

### Exhibit 5.1 TIC Regression Equation – Evaluating the Independent Variables

<u>Independent Variable</u>	<u>Coefficient</u>	<u>Standard Error</u>	<u>Beta</u>	<u>Sig.</u>	<u>Explanation</u>
Delphis Scale	0.976	0.018	0.977	0.000	Coefficient less than 1.0 suggests Maryland TIC is less than other AAA-rated bonds. High beta means that the Delphis Scale is the dominant variable. Equation is almost 100 percent sure that the variable is significant.
MD PI/US PI	-0.877	0.294	-0.053	0.005	Negative coefficient suggests that as the Maryland economy strengthens, compared to other states, the TIC declines. Significant at the 1 percent confidence interval.
Call	0.079	0.039	0.037	0.050	Cost of a call is 0.079 percent (approximately eight basis points). Range is 0.040 to 0.118 percent. Significant at 5 percent confidence interval.
Constant	2.054	0.661	n/a	0.002	Y-intercept is appropriate.

TIC: True Interest Cost

Sig.: Significance or confidence interval

MD PI/US PI: Maryland Total Personal Income to the United States Personal Income

Source: Department of Legislative Services, November 2007

- ***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 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 (multi-collinearity)?

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.

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**Exhibit 5.2**  
**TIC Regression Equation – Evaluating the Entire Equation**

<u>What Is Measured</u>	<u>Statistic Used to Measure</u>	<u>Value of Statistic</u>	<u>Explanation</u>
Confidence in the equation	F Statistic	1,094.9	We are almost 100 percent confident that the independent variables influence the dependent variable.
Margin of error	Standard error of the estimate	0.076	We expect the actual TIC to be within 0.08 percent (eight basis points) of the estimate.
Estimate in relation to actual data	Adjusted R Square	0.991	The estimate is very close to the actual data and the model's estimates are within 1 percent of the actual data.
Serial or Auto Correlation	Durbin-Watson	2.195	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. Statistic suggests the equation has the key variables.
Multi-collinearity	Tolerance	0.969 to 0.899	The range is between 0 and 1. If the amount is below 0.20, it is likely that variables are related. This suggests that the independent variables are not related.

TIC: True Interest Cost

Source: Department of Legislative Services, November 2007

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This analysis updates an equation that was first developed in 2006. The initial analysis included data from 33 bond sales and was updated this fall by adding the February and August 2007 bond sales. Adding these bond sales has slightly refined the estimate but has not changed the analysis since the same independent variables remain statistically significant. A refinement is that the equations' margin of error has been reduced slightly, from 7.98 basis points to 7.56 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 1.8 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 35 bond sales analyzed, the DLS estimate is closer to the actual TIC than the Delphis Scale 21 times (60.0 percent). The Delphis Scale is closer 10 times (28.6 percent) and they produce the same estimate 4 times (11.4 percent). The total error of the DLS regression equation is 206 basis points, compared to 351 basis points for the Delphis Scale. The DLS regression equation has an average error of 6 basis points (0.06 percent) while the Delphis Scale has an average error of 10 basis points (0.10 percent).

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**

<b>Bond Sale Date</b>	<b>TIC</b>	<b>DLS Model</b>	<b>Delphis Scale</b>	<b>Difference Between TIC &amp; DLS Equation</b>	<b>Difference Between TIC &amp; Delphis Scale</b>	<b>Closer Estimate</b>
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	4.54	4.45	0.09	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	4.92	4.80	0.03	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	Delphis Scale
02/26/97	4.90	4.85	4.70	0.05	0.20	DLS
07/30/97	4.64	4.65	4.50	0.01	0.14	DLS
02/18/98	4.43	4.42	4.25	0.01	0.18	DLS
07/08/98	4.57	4.56	4.40	0.01	0.17	DLS
02/24/99	4.26	4.26	4.10	0.00	0.16	DLS
07/14/99	4.83	4.94	4.80	0.11	0.03	Delphis Scale
07/19/00	5.05	4.97	4.85	0.08	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	3.77	3.77	0.08	0.08	Same
07/16/03	3.71	3.63	3.56	0.08	0.15	DLS
07/21/04	3.89	3.95	3.89	0.06	0.00	Delphis Scale
03/02/05	3.81	3.78	3.72	0.03	0.09	DLS
07/20/05	3.79	3.69	3.63	0.10	0.16	DLS
03/01/06	3.87	3.96	3.89	0.09	0.02	Delphis Scale
07/26/06	4.18	4.16	4.09	0.02	0.09	DLS
02/28/07	3.86	3.86	3.77	0.00	0.09	DLS
08/01/07	4.15	4.11	4.02	0.04	0.13	DLS
<b>Total Error</b>				<b>2.06</b>	<b>3.51</b>	

DLS: Department of Legislative Services

TIC: True Interest Cost

Source: Department of Legislative Services, October 2007

## Chapter 6. Non-tax-supported Debt

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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 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 6**, Maryland's 2007 allocation totaled \$477 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 is the responsible allocating authority. Each year, bond issuing ability is initially allocated to each individual county, to incorporated municipalities, CDA, and to what is referred to as the "Secretary's Reserve." 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. 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, can 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, can be carried forward by eligible users and for specific purposes but expire at the end of three years if not issued. Historically, any remaining nonhousing allocations are reallocated to CDA at year end for carry-forward purposes.

**Exhibit 6.1** provides the calendar 2003 through 2007 figures for the amount of available tax-exempt bond authority and the level of issuances made under the volume cap limits. From calendar 2003 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 increased substantially. The increase is attributable to large issuances by CDA in support of its single family mortgage programs. Estimates for 2007 indicate continue strong CDA issuances.

**Exhibit 6.1**  
**Allocation of Private Activity Bonds**  
**Calendar 2003-2007**  
**(\$ in Millions)**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007 Est.</u>
<b>Fund Sources</b>					
Annual Cap	\$409.4	\$440.7	\$444.6	\$448.0	477.3
Carry Forward from Prior Years	455.6	710.0	945.4	1,040.6	698.8
<b>Total Capacity Available</b>	<b>\$865.0</b>	<b>\$1,150.7</b>	<b>\$1,390.0</b>	<b>\$1,488.6</b>	<b>\$1,176.1</b>
<b>Issuances</b>					
Mortgage Revenue Bonds	\$20.7	\$84.9	\$95.8	\$564.9	379.8
Multifamily Housing	130.3	109.5	133.0	44.9	116.4
Housing Not Broken Out	0.0	0.0	34.6	0.0	0.0
Industrial Development Bonds	4.0	10.9	8.1	17.6	44.0
Exempt Facilities	0.0	0.0	3.8	0.0	53.3
Other	0.0	0.0	0.0	0.0	0.0
<b>Total Issuances</b>	<b>\$155.0</b>	<b>\$205.3</b>	<b>\$275.3</b>	<b>\$627.4</b>	<b>\$593.5</b>
Prior Year Carry Forward Abandoned	0.0	0.0	74.1	162.2	23.0
Carry Forward	\$710.0	\$945.4	\$1,040.6	\$698.8	\$559.8

Note: Numbers may not sum due to rounding.

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

## 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 1997 and 2007. A table containing debt outstanding by year for the individual agencies included in the summary is included as **Appendix 6**.

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**Exhibit 6.2**  
**Debt Outstanding as of June 30**  
(\$ in Millions)

	<u>1997</u>	<u>2007</u>	<u>% Change</u>
Agency debt subject to issuance cap	\$590.5	\$1,140.6	93%
Agency debt not subject to issuance cap	3,632.9	4,935.5	36%
General obligation and State lease debt	3,123.8	5,390.1	73%
Transportation debt	939.4	1,111.0	18%
Authorities and corporations without caps	2,666.7	9,156.2	243%
<b>Total</b>	<b>\$10,953.3</b>	<b>\$21,733.4</b>	<b>98%</b>

Note: Numbers may not sum due to rounding.

Source: Department of Budget and Management report, *Debt Issued by Maryland State Agencies and Independent Authorities, fiscal 2007*

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From fiscal 1997 through 2007 general obligation (GO) bond and State capital lease debt outstanding increased by 73 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 (PAYGO) 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 has increased \$550 million which represents almost a two-fold increase. Agency debt that is not subject to the Governor's cap (excluding debt of the Maryland Industrial Financing Authority for which debt outstanding figures for years prior to 1997 is unavailable) has grown by \$1.27 billion, an increase of 36 percent. Debt for authorities/corporations without issuance caps (MEDCO and MHHEFA) increased by close to \$6.5 billion, or 243 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. Auxiliary facilities are those 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**

In 1995, the USM Board of Regents adopted a debt capacity policy recommended by consultants limiting the percentage of unrestricted funds and mandatory transfers used for debt service to 5.5 percent. In 2001, a new debt capacity study was conducted reaffirming the 5.5 percent as the maximum annual debt service percentage. **Exhibit 6.3** shows the USM debt service to unrestricted funds ratios for fiscal 2004 through 2013. Including debt issued in fiscal 2008, total debt service will be approximately \$109.7 million, or 3.4 percent, of unrestricted funds and mandatory transfers which is below the recommended limit. The forecast indicates a decrease in the ratio through the next five years with fiscal 2013 projected to produce the lowest percentage at 3.2 percent.

**Exhibit 6.3**  
**University System of Maryland Debt Service as Related to Unrestricted Funds**  
**Fiscal 2004-2013**  
**(\$ in Thousands)**

<u>Fiscal Year</u>	<u>Total Debt Outstanding</u>	<u>Total Debt Service</u>	<u>Unrestricted Expenditures and Mandatory Transfers</u>	<u>Ratio of Debt Service to Unrestricted Expenditures Plus Mandatory Transfers</u>
2004	\$998,073	\$96,146	\$2,301,908	4.2%
2005	1,000,727	99,257	2,482,083	4.0%
2006	934,826	110,290	2,679,645	4.1%
2007	954,846	106,295	2,863,579	3.7%
2008 Estimated	983,533	109,697	3,219,110	3.4%
2009 Estimated	1,011,073	119,073	3,352,863	3.6%
2010 Estimated	1,041,709	117,116	3,480,257	3.4%
2011 Estimated	1,070,345	124,666	3,622,333	3.4%
2012 Estimated	1,099,022	124,687	3,762,261	3.3%
2013 Estimated	1,130,493	125,329	3,908,405	3.2%

Note: Total Debt Outstanding and Total Debt Service includes academic, auxiliary, and capital leases debt. Total Debt Outstanding for fiscal 2004 through 2007 from Actual reported budgetary basis Unrestricted expenditures, fiscal 2008 through 2009 from budget and proposed budget, fiscal 2010 through 2013 increased at 4 percent growth. Unrestricted Expenditures projected amounts are based on issuance of \$95 million of debt in fiscal 2009, and \$100 million per year in fiscal 2010 through 2013.

Source: University System of Maryland

In the past, rating agencies have expressed concerns regarding USM's liquidity (liquidity is defined as the ratio between expendable resources and debt) as compared to other top-rated colleges and universities. USM consulted with financial advisors and, although there is no official policy stating specific targets for the ratio of expendable resources (defined as unrestricted assets of USM and its affiliated foundation with adjustments for certain long-term liabilities) to debt outstanding, USM came to an agreement with the Board of Regents establishing the target of 50 to 70 percent. **Exhibit 6.4** shows USM's expendable resources to debt outstanding ratios for fiscal 2004 through 2013. USM has exceeded the target since fiscal 2005 indicating it has some capacity to issue more debt under its criteria. USM expects to maintain its current credit rating of "AA."

**Exhibit 6.4**  
**Summary of Expendable Resources to Debt Outstanding for the**  
**University System of Maryland**  
**Fiscal 2004-2013**  
**(\$ in Thousands)**

<u>Fiscal Year</u>	<u>Expendable Resources</u>	<u>Debt Outstanding</u>	<u>Ratio of Expendable Resources to Debt Outstanding</u>
2004	\$641,410	\$998,073	64.3%
2005	743,327	1,000,727	74.3%
2006	835,304	934,826	89.4%
2007	985,170	954,846	103.2%
2008 Estimated	837,673	983,533	85.2%
2009 Estimated	828,313	1,011,073	81.9%
2010 Estimated	842,513	1,041,709	80.9%
2011 Estimated	862,013	1,070,345	80.5%
2012 Estimated	881,513	1,099,022	80.2%
2013 Estimated	906,513	1,130,493	80.2%

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 \$63.1 million of total debt in fiscal 2008. The ratio of debt service to unrestricted funds and mandatory transfers remains below the 5.5 percent threshold through the fiscal 2008 to 2013 planning period. MSU is continually looking for options for additional student housing as enrollment grows and their estimate assumes that \$20 million will be issued in fiscal 2010 for a capital project. MSU has not provided any details about this project.

**Exhibit 6.5**  
**Morgan State University Debt Service as Related to Unrestricted Funds**  
**Fiscal 2004-2013**  
**(\$ in Thousands)**

<u>Fiscal Year</u>	<u>Total Debt Outstanding</u>	<u>Total Debt Service</u>	<u>Unrestricted Expenditures and Mandatory Transfers</u>	<u>Ratio of Debt Service to Unrestricted Expenditures Plus Mandatory Transfers</u>
2005	\$67,088	\$5,414	\$126,356	4.3%
2006	67,742	5,682	127,921	4.4%
2007 Estimated	66,014	6,039	142,943	4.2%
2008 Estimated	63,141	6,160	145,458	4.2%
2009 Estimated	61,324	6,267	152,004	4.1%
2010 Estimated	79,213	7,672	158,844	4.8%
2011 Estimated	75,756	7,701	165,992	4.6%
2012 Estimated	72,113	7,712	173,462	4.4%
2013 Estimated	68,280	7,701	181,268	4.3%

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

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

### **St. Mary's College of Maryland**

SMCM's outstanding debt consists of auxiliary debt 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 2008 is estimated to be \$47.40 million and is expected to decrease to \$40.00 million by fiscal 2013. Capital lease debt is projected to increase from \$0.07 million in fiscal 2007 to \$2.00 million in fiscal 2009 due to a contract improving the energy performance of equipment. When considering auxiliary debt alone, the debt is estimated to be \$45.40 million in fiscal 2008 and \$38.70 million in fiscal 2013.

In fiscal 2004 and 2005, 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 declined to 5.2 percent in fiscal 2006. In fiscal 2008, SMCM is expected to have a 5.3 percent debt ratio and the ratio is expected to continue to decline to 4.5 percent by fiscal 2013.

**Exhibit 6.6**  
**St. Mary's College of Maryland Debt Service as**  
**Related to Unrestricted Funds**  
**Fiscal 2004-2013**  
**(\$ in Thousands)**

<u>Fiscal Year</u>	<u>Total Debt Outstanding</u>	<u>Total Debt Service</u>	<u>Unrestricted Expenditures and Mandatory Transfers</u>	<u>Ratio of Debt Service to Unrestricted Expenditures Plus Mandatory Transfers</u>
2004	\$40,165	\$2,480	\$44,079	5.6%
2005	40,565	2,743	49,248	5.6%
2006	43,757	2,801	53,422	5.2%
2007	46,657	3,000	55,367	5.4%
2008 Estimated	47,408	3,133	59,346	5.3%
2009 Estimated	46,026	3,264	61,725	5.3%
2010 Estimated	44,588	3,265	64,066	5.1%
2011 Estimated	43,105	3,256	66,488	4.9%
2012 Estimated	41,567	3,254	69,016	4.7%
2013 Estimated	39,963	3,259	71,651	4.5%

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 Outlook

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This section discusses Maryland's long-term debt outlook. Examined is the effect of legislation enacted since the Capital Debt Affordability Committee (CDAC) issued its recommendations, the long-term effect of increased authorizations on debt outstanding, debt service and affordability, and the demands increased General Obligation (GO) bond debt service costs place on revenues.

### **Legislation Enacted in Special Session Increases State Revenues and Authorizes Additional Debt**

To reduce the State's long-term structural deficit, the Governor called a special session in October 2007. The special session was completed in November 2007, after CDAC had completed its recommendations for the 2008 session. The special session dealt with a number of fiscal and policy issues, two of which affect debt policy:

- legislation increased State revenues; and
- legislation authorized higher levels of State transportation debt.

Various bills adopted during the special session increased State revenues. Changes to revenues include increasing the sales and motor vehicle excise tax rates from 5 to 6 percent, expanding the sales tax base, adjusting personal income tax brackets and personal exemptions, increasing the corporate income tax rate, increasing the tobacco tax, and authorizing a constitutional amendment to allow video lottery terminals. These actions affect the debt service to revenues ratio, which CDAC uses to evaluate if debt is affordable. **Exhibit 7.1** shows that the State revenue increases range from \$541 million in fiscal 2008 to \$1.9 billion in fiscal 2012. These revenues are added to revenues shown in Chapter 4 of this report for the purpose of evaluating debt affordability.

Chapter 6 of the First Special Session of 2007 increased the limit on transportation bonds outstanding from \$2.0 billion to \$2.6 billion. In response, the Maryland Department of Transportation (MDOT) is projected to expand its capital program by issuing more debt. This affects the State's debt outstanding to personal income and debt service to revenues ratios, which CDAC uses to evaluate if debt is affordable.



**Exhibit 7.1**  
**Effect of Special Session Legislation on Revenues**  
**(\$ in Millions)**

<b><u>Fiscal Year</u></b>	<b><u>Revenues Prior to Special Session</u></b>	<b><u>Additional Special Session Revenues</u></b>	<b><u>Total Revenues</u></b>
2008	\$16,290	\$541	\$16,831
2009	17,125	1,358	18,483
2010	18,007	1,506	19,512
2011	18,893	1,525	20,418
2012	19,819	1,935	21,754

Note: Assumes video lottery terminal constitutional amendment approved.

Source: Department of Legislative Services, November 30, 2007

Increased debt capacity does not immediately lead to an increase in debt issuance. Because capital projects have a planning period before construction begins, it usually takes a few years to increase capital spending. In the short-term, it is projected that MDOT will substitute additional revenues received for bond proceeds. The result is that bond sales decline initially. As the capital program grows, bond sales increase and debt outstanding increases. This dynamic is displayed in **Exhibit 7.2**, which shows an initial decline in debt outstanding before it rises to be \$600 million more than CDAC's October 2007 estimate. Debt service costs are also projected to rise after fiscal 2012.

The long-term effect of the special session legislation is increasing the ratio of debt outstanding to personal income while decreasing the debt service to revenues ratio. With respect to debt service to personal income, the ratio declines in fiscal 2008 because the State is able substitute transportation revenues for bond sales. After fiscal 2008, transportation capital program increases result in higher bond issuances and increased debt outstanding to personal income. **Exhibit 7.3** shows that debt outstanding to personal income is projected to exceed 3.2 percent in fiscal 2012 and 2013.

**Exhibit 7.2**  
**Effect of Special Session Legislation on MDOT Debt Estimates**  
(\$ in Millions)

<b>Fiscal Year</b>	<b>Debt Outstanding – Prior to Special Session</b>	<b>Debt Outstanding – Revised Estimates</b>	<b>Debt Outstanding Change</b>	<b>Debt Service – Prior to Special Session</b>	<b>Debt Service – Revised Estimates</b>	<b>Debt Service Change</b>
2008	\$1,477	\$1,332	-\$145	\$123	\$123	\$0
2009	1,701	1,461	-240	153	140	-13
2010	1,823	1,683	-140	163	153	-10
2011	1,876	1,949	73	178	172	-6
2012	1,991	2,268	277	201	203	2
2013	1,984	2,596	612	220	231	11

MDOT: Maryland Department of Transportation

Source: *Capital Debt Affordability Committee Report*, October 2007, Department of Legislative Services

**Exhibit 7.3**  
**State Debt to Personal Income**  
**Comparison of Pre- and Post-special Session Estimates**

<b>Fiscal Year</b>	<b>Estimate Prior to Special Session</b>	<b>Post-special Session Estimate</b>
2008	2.85%	2.78%
2009	3.05%	2.97%
2010	3.09%	3.06%
2011	3.12%	3.17%
2012	3.11%	3.23%
2013	3.05%	3.29%

Source: Department of Legislative Services

Insofar as the State is expected to continue issuing increasing levels of debt, the debt service to revenues ratio is expected to continue increasing. However, **Exhibit 7.4** shows that the increase in debt service costs is more than offset by increased revenues.

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**Exhibit 7.4**  
**State Debt Service to State Revenues**  
**Comparison of Pre- and Post-special Session Estimates**

<u>Fiscal Year</u>	<u>Estimate Prior to Special Session</u>	<u>Post-special Session Estimate</u>
2008	5.78%	5.57%
2009	6.32%	5.74%
2010	6.41%	5.84%
2011	6.53%	6.01%
2012	6.66%	6.07%
2013	6.71%	6.18%

Source: Department of Legislative Services

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Maryland's debt policies have earned the State AAA bond ratings from all three major rating agencies. Rating agencies have commented that one of Maryland's strengths is setting and abiding by debt affordability limits. CDAC is charged with recommending debt limits and has recommended a level of debt in its October report. Since the CDAC report was released, the administration proposed increasing State transportation capital spending and the General Assembly adopted legislation increasing State transportation revenues to support a larger transportation capital program. If transportation debt outstanding is expanded to the extent allowed by the legislation, State debt outstanding is projected to exceed 3.2 percent of State personal income. **It is recommended that the committee consider the effect of increasing the State's transportation program as it reviews the State's affordability criteria.**

### **Expanding Transportation Debt Continues State's Increasing Reliance on Debt**

Increasing the amount of debt authorized for transportation projects continues a period of expanded use of State debt that began in the 2001 legislative session. **Exhibit 7.5** shows that, since 2001, the State has increased debt authorizations in 12 separate actions: 7 actions increase GO bond authorizations; 3 actions increase transportation bond authorizations; Grant Anticipation Revenue Vehicles (GARVEEs) are authorized; and Bay Restoration Bonds are authorized.

### Exhibit 7.5 Actions Increasing Debt

<u>Initial Authorization</u>	<u>Debt Authorized</u>	<u>Amount Authorized</u>	<u>Supporting Revenues</u>	<u>Effect of Capital Spending</u>
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 the 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, Acts of 2007	GO Bonds	\$100 million annually	State property taxes and general fund	Increase the State capital program

<u>Initial Authorization</u>	<u>Debt Authorized</u>	<u>Amount Authorized</u>	<u>Supporting Revenues</u>	<u>Effect of Capital Spending</u>
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

GO: general obligation

GARVEEs: Grant Anticipation Revenue Vehicles

PAYGO: pay-as-you-go

Source: Department of Legislative Services

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The effect of this legislation was to increase how much State debt was authorized. **Exhibit 7.6** shows that the amount of State debt authorized in fiscal 2008 is 85 percent greater than the debt authorized in fiscal 2000. These authorizations reflect a dozen actions taken over the period noted in Exhibit 7.5. Insofar as this assumes no growth in transportation debt after fiscal 2008, this probably understates debt growth. MDOT's debt is increased periodically to allow its program to grow. Setting debt limits and periodically reviewing those limits prior to increasing them, requires MDOT to justify its spending and gives the legislature a direct role in setting debt limits.

Debt that is authorized is not immediately issued since capital projects require a planning period prior to the issuance of debt for construction. The Treasurer's Office assumes that GO bond debt is authorized over a five-year period, with 31 percent of the debt issued in the first year. Consequently, debt outstanding increased by 69 percent from fiscal 2000 to 2008, as opposed to debt authorized, which increased by 85 percent.

Even more pronounced is the slow, phase-in of debt service costs. Since the State does not begin retiring GO bonds and transportation bond debt until three years after the debt is issued, the first two years have lower, interest-only debt service payments. From fiscal 2000 to 2008, GO bond debt service costs increased by 42 percent, which is less than the 69 percent increase in debt outstanding.

Interestingly, debt service costs increased more from fiscal 1992 to 2000 than from fiscal 2000 to 2008. This is attributable to a number of factors, including:

- fiscal 1992 transportation debt service payments dip in response to scheduled and early redemptions of \$56 million in bonds, thus lowering the base from which the change is calculated;

**Exhibit 7.6**  
**Changes in Debt Authorized, Debt Issued, and Debt Service**  
**Fiscal 1992-2017**

<b><u>Type of Debt Authorized</u></b>	<b><u>1992 – Last Transportation Debt Increase<sup>1</sup></u></b>	<b><u>2000 – Prior to Increased Auth.</u></b>	<b><u>2008 – Current Fiscal Year</u></b>	<b><u>2013 – End of Traditional Planning Period</u></b>	<b><u>2017 – End of Extended Planning Period</u></b>
GO Bond Debt	\$3,201	\$4,712	\$7,355	\$10,106	\$12,090
Transportation Debt <sup>2</sup>	1,200	1,200	2,600	2,600	2,600
GARVEEs	0	0	750	750	750
Bay Restoration Bonds	0	0	530	530	530
Stadium Authority Bonds	155	293	278	188	109
Capital Leases	102	136	247	235	244
<b>Total Debt Authorized</b>	<b>\$4,658</b>	<b>\$6,341</b>	<b>\$11,760</b>	<b>\$14,409</b>	<b>\$16,323</b>
Total Increase	n/a	1,683	5,420	2,649	1,913
Total Percent Increase	n/a	36%	85%	23%	13%
<b>Type of Debt Outstanding</b>					
GO Bond Debt	\$2,178	\$3,349	\$5,444	\$7,529	\$9,218
Transportation Debt <sup>2</sup>	875	754	1,332	2,596	2,599
GARVEEs	0	0	301	461	198
Bay Restoration Bonds	0	0	50	473	350
Stadium Authority Bonds	155	293	278	188	109
Capital Leases	102	136	247	235	244
<b>Total Debt Outstanding</b>	<b>\$3,310</b>	<b>\$4,532</b>	<b>\$7,651</b>	<b>\$11,482</b>	<b>\$12,717</b>
Total Increase	n/a	1,222	3,120	3,831	1,235
Total Percent Increase	n/a	37%	69%	50%	11%
<b>Type of Debt Service</b>					
GO Bond Debt	\$350	\$459	\$693	\$845	\$1,223
Transportation Debt <sup>2</sup>	80	135	123	231	355
GARVEEs	0	0	36	84	84
Bay Restoration Bonds	0	0	0	54	54
Stadium Authority Bonds	12	27	33	33	25

<u>Type of Debt Authorized</u>	<u>1992 – Last Transportation Debt Increase<sup>1</sup></u>	<u>2000 – Prior to Increased Auth.</u>	<u>2008 – Current Fiscal Year</u>	<u>2013 – End of Traditional Planning Period</u>	<u>2017 – End of Extended Planning Period</u>
Capital Leases	14	39	54	56	53
<b>Total Debt Service</b>	<b>\$457</b>	<b>\$661</b>	<b>\$938</b>	<b>\$1,303</b>	<b>\$1,795</b>
Total Increase	n/a	204	277	365	492
Total Percent Increase	n/a	44.8%	41.9%	38.9%	37.8%
Annual Percent Increase	n/a	4.7%	4.5%	6.8%	8.3%

GO: general obligation

GARVEEs: Grant Anticipation Revenue Vehicles

<sup>1</sup>Chapter 3 of the First Special Session of 1992 increased the limit on Consolidated Transportation Bonds from \$950 million to \$1.2 billion.

<sup>2</sup>1992 Transportation Debt excludes County Transportation Bonds.

Sources: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations* (1992 and 2000 data – September 1992 and 2000); Department of Legislative Services (2008, 2013, and 2017 data)

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- the interest rate on debt service paid from fiscal 1992 to 2000 was higher than the interest paid on debt service between fiscal 2001 and 2008. For example, the yield on GO bonds issued in March and July of 1991 was over 6.3 percent, while debt issued after 2000 had a yield of near 5.0 percent. Since the debt is paid for 15 years, the 6.3 percent yield no longer affects fiscal 2008 debt service payments; and
  - from 2002 to 2005 there were five bond refundings that lowered interest rates on previously issued bonds.

Debt service payments are influenced by actions that occurred as much as 15 or more years before the debt service payments are made. Debt service payments are influenced not just by how much is authorized and when it is issued but also by market conditions at the time of the issuance. These factors then influence costs until the bonds are retired.

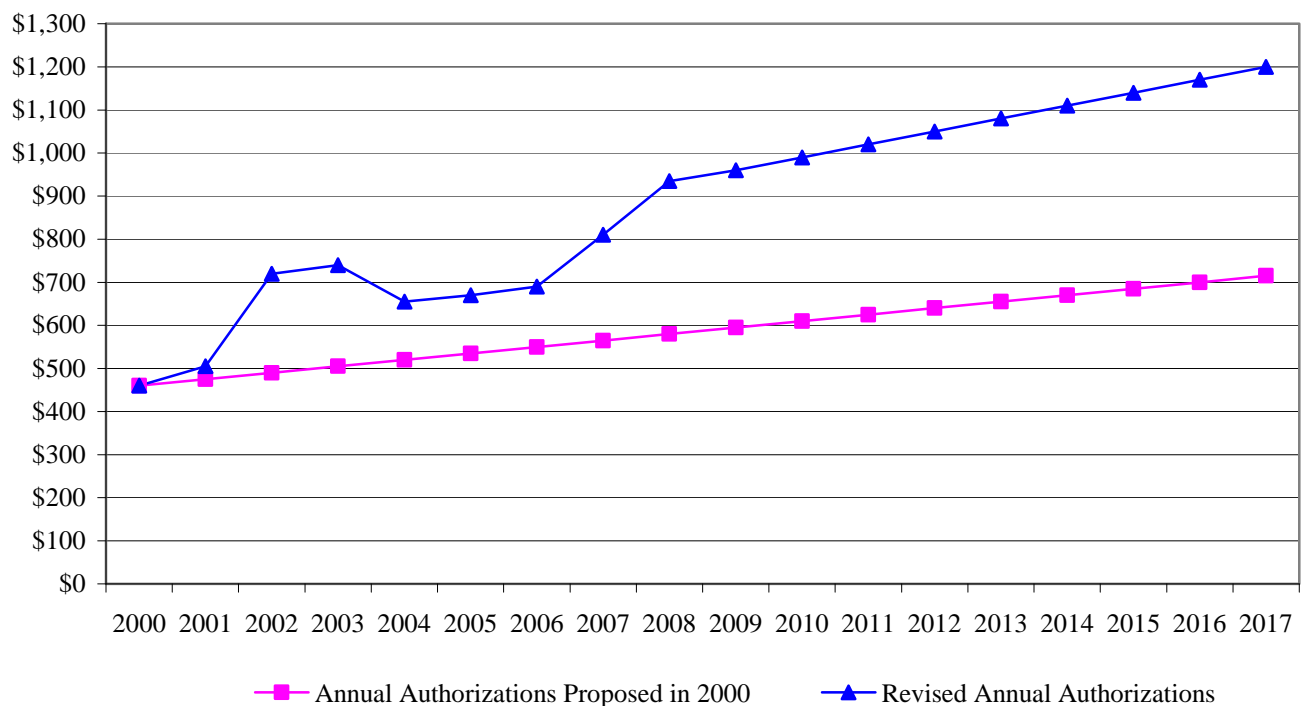
The implication for Maryland is that debt service costs will steadily grow in response to the increased authorizations in recent years. Declining interest rates have slowed the growth in debt service payments. Current projections assume limited growth (50 basis points) in Maryland bond yields. Should interest rates increase more than projected, debt service costs could be higher.

## GO Bond Debt Service Costs Growth Rates Projected to Exceed Revenue Growth Rates

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

GO bonds represent over 70 percent of State debt. GO bonds support the State's general construction projects, such as prisons, office buildings, higher education facilities, school construction, and mental health facilities. As previously discussed, the State has been expanding GO bond authorizations beyond what was recommended in 2000. **Exhibit 7.7** shows that increased authorizations now support \$935 million in new GO bond authorizations during the 2008 legislative session, as opposed to \$580 million proposed in 2000.

**Exhibit 7.7**  
**GO Bond Authorizations Proposed in 2000 and 2007**  
**2000-2017 Legislative Sessions**  
**(\$ in Millions)**



Source: Department of Legislative Services, November 2007

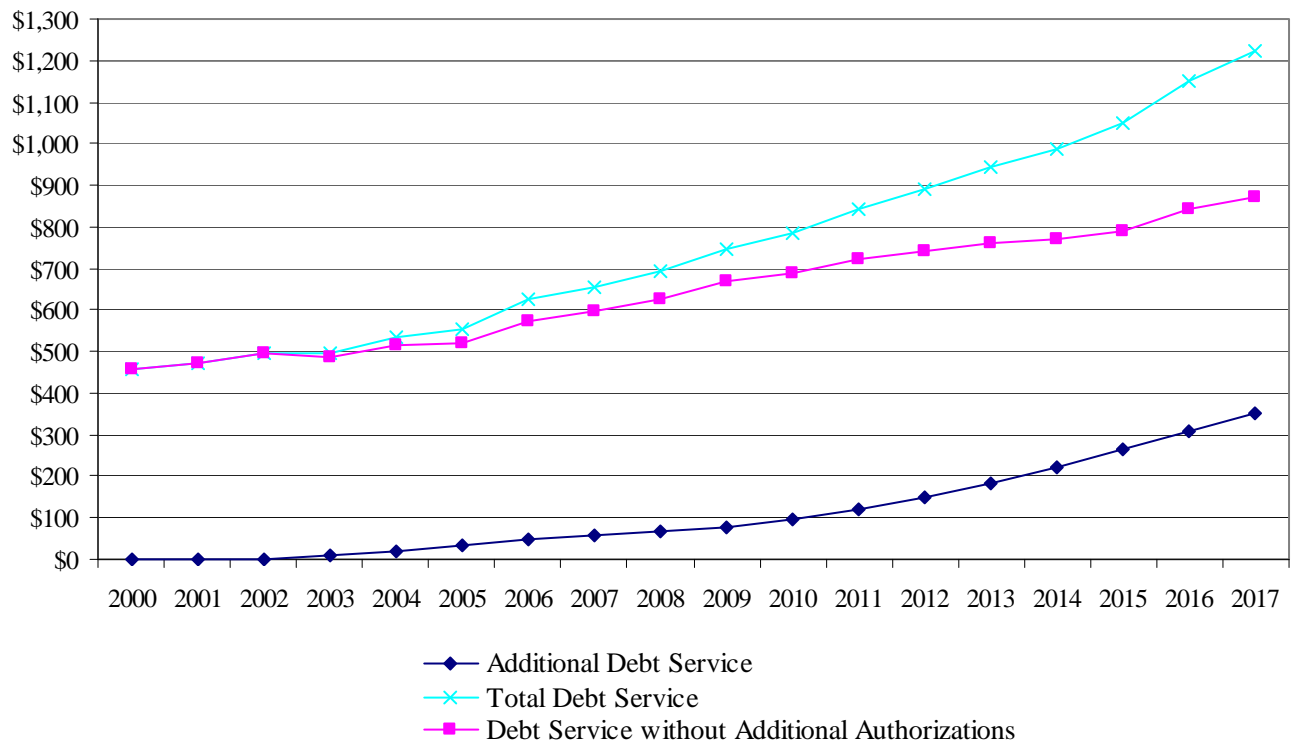


These increased authorizations result in higher debt service costs. As previously discussed, debt service costs initially increase slowly. This is attributable to:

- planning periods capital projects require before construction can begin; and
- amortization schedules that delay retiring debt until the third year after debt is issued.

**Exhibit 7.8** shows that in fiscal 2009, the increased authorizations that began in 2000 are expected to account for \$78 million in additional debt service costs. By fiscal 2017, increased authorizations add \$350 million to debt service costs.

**Exhibit 7.8**  
**Effect of Increased GO Bond Authorizations on Debt Service Costs**  
**2000-2017 Legislative Sessions**  
**(\$ in Millions)**



Source: Department of Legislative Services, November 2007

From fiscal 2008 to 2017, debt service costs are projected to increase by 6.5 percent annually. Without the increased authorizations, the growth rate for GO bond debt service costs would have been about 3.7 percent annually. Increased authorizations result in estimated debt service costs would have totaled \$1,223 million in fiscal 2017: estimated debt service costs total \$873 million in fiscal 2017 without the increased authorizations. **Appendix 7** lists the estimated debt service costs.

### **State Property Taxes Are the Primary Source of Revenues Supporting 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. At this rate, special funds support over 90 to 94 percent of GO bond debt service costs. The remaining costs are supported by general fund revenues.

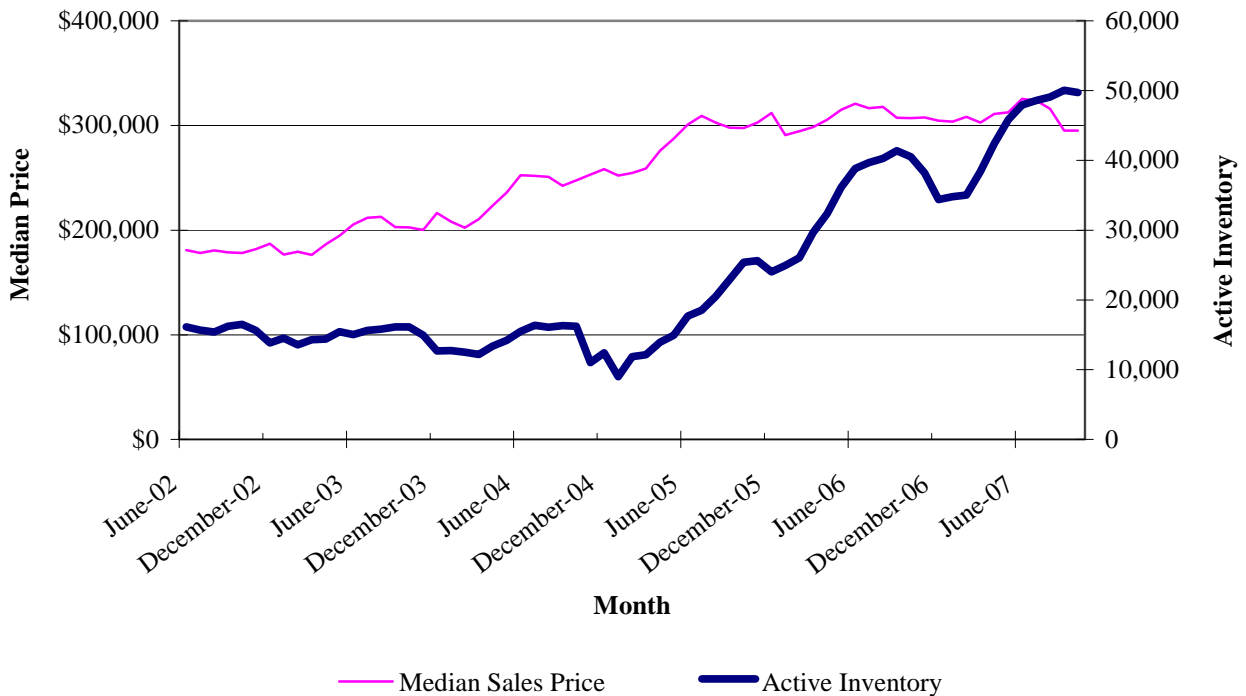
### **Period of Steep Real Estate Price Appreciation Has Ended**

**Exhibit 7.9** shows that the median sales price of a home in Maryland has hovered around \$300,000 since June 2005. Inventories have increased markedly, from 10,000 in January 2005 to 50,000 in October 2007. The Mortgage Bankers Associations reports that the percent of loans that are delinquent increased from 3.4 percent in the third quarter of 2005 to 4.9 percent in the third quarter of 2007. Similarly, the foreclosure rates have increased from 0.49 percent in the third quarter of 2005 to 0.91 percent in the third quarter of 2005. The data suggest that the housing prices are unlikely to appreciate in the near term.

The rise in real estate values realized early in the decade has ended. This is reflected in the Maryland Department of Assessment and Taxation's most recent assessable base estimates. Since property is assessed every three years, the assessment process lags behind actual appreciation. Growth rates are now about half what they were a few years ago.

However, no growth (or even declines) in property values does not necessarily mean that State property tax receipts will decline. 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. When growth slows, the credit is reduced. Over time, this process moderates the growth in receipts by slowing growth when values appreciate rapidly. It also results in receipts growing faster than property values after the market cools.

**Exhibit 7.9**  
**Changes Median Sales Price and Inventories of Maryland Properties**  
**June 2002 to October 2007**

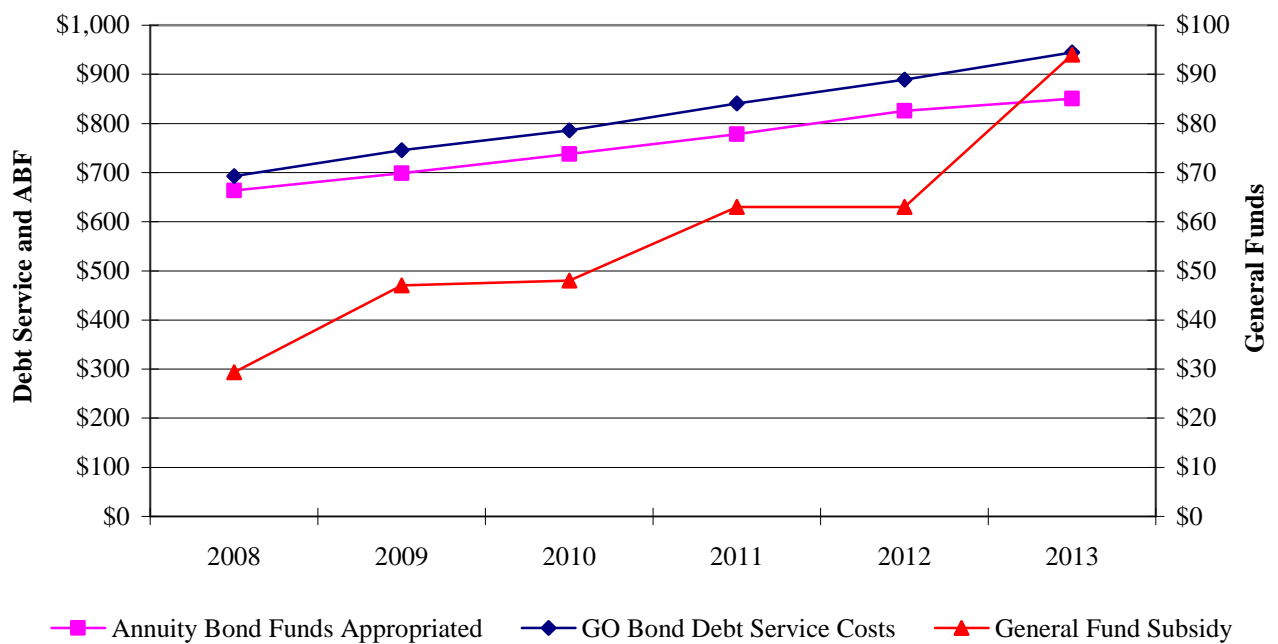


Source: Maryland Association of Realtors, November 2007

### **Annuity Bond Fund Revenues Cannot Keep Up Support Debt Service Costs**

State property tax revenues are expected to increase, although real estate values have not grown in recent years. **Exhibit 7.10** shows that moderate growth in ABF revenues continues through fiscal 2013. Because State property tax revenues are expected to increase at a slower rate than debt service, the general fund subsidy is projected to increase from \$47 million in fiscal 2009 to \$94 million in fiscal 2013.

**Exhibit 7.10**  
**Revenues Supporting GO Bond Debt Service**  
**Fiscal 2008-2013**  
**(\$ in Millions)**



ABF: Annuity Bond Funds  
 GO: general obligation

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



## Appendix 1

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### Capital Budget Requests for Fiscal 2009 to 2013

Agency requests for fiscal 2009 total \$1.23 billion, over \$296.1 million more than the amount available under the recommended general obligation (GO) bond debt limit of \$935.0 million. Capital requests for the next five years total over \$7.30 billion, while the projected debt limit for the same period totals approximately \$4.90 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 2009 *Five-year Capital Improvement Program*.

## Appendix 1 (Continued)

### General Obligation Bond Requests: Fiscal 2008-2012 (\$ in Millions)

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>Total</u>	<u>Category Totals</u>
State Facilities							<b>\$712.6</b>
Board of Public Works	\$142.3	\$194.4	\$91.5	\$133.1	\$126.7	\$688.0	
Military	9.5	3.6	0.9	2.6	0.0	16.6	
Department of Disabilities	1.6	1.6	1.6	1.6	1.6	8.0	
Health and Social Services							<b>\$527.7</b>
Health and Mental Hygiene	\$67.5	\$103.8	\$91.7	\$17.9	\$38.2	\$319.1	
University of MD Medical System	12.5	22.5	20.0	15.0	25.0	95.0	
Senior Citizen Activity Center	1.3	1.5	1.5	1.5	1.5	7.3	
Juvenile Services <sup>1</sup>	6.3	55.0	10.0	5.0	5.0	81.3	
Private Hospital Grant Program	5.0	5.0	5.0	5.0	5.0	25.0	
Environment							<b>\$258.7</b>
Natural Resources	\$13.0	\$13.0	\$13.0	\$13.0	\$13.5	\$65.5	
Agriculture <sup>2</sup>	5.1	7.5	7.5	8.0	8.0	36.1	
Environment	27.3	28.0	27.5	26.0	26.0	134.8	
MD Environmental Service	3.8	3.7	4.7	4.8	5.3	22.3	
Education							<b>\$1,453.3</b>
Education	\$0.0	\$0.7	\$50.5	\$0.0	\$0.0	\$51.2	
MD School for the Deaf	1.5	4.2	1.6	1.1	0.0	8.4	
Public School Construction <sup>3</sup>	277.9	277.6	277.9	280.0	280.3	1,393.7	
Higher Education							<b>\$2,562.9</b>
University System of MD	\$281.8	\$211.1	\$242.0	\$281.4	\$269.5	\$1,285.8	
Baltimore City Comm. College	1.4	23.9	35.9	23.9	1.0	86.1	
St. Mary's College	2.0	7.2	25.5	1.4	45.9	82.0	
Morgan State University	23.8	92.6	81.4	77.1	69.5	344.4	
Community Colleges	125.1	163.5	125.2	101.6	173.8	689.2	
Southern MD Higher Educ. Center	0.0	1.2	13.4	0.8	0.0	15.4	
Private Facilities Grant Program	12.0	12.0	12.0	12.0	12.0	60.0	
Public Safety							<b>\$581.1</b>
Public Safety	\$79.5	\$51.8	\$79.6	\$97.2	\$97.4	405.5	
State Police	21.2	21.4	24.6	11.0	0.0	78.2	
Local Jails	37.3	31.8	14.6	12.3	1.4	97.4	
Housing and Economic Development							<b>\$81.5</b>
Economic Development	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Housing and Comm. Development	10.5	8.0	8.0	9.0	9.0	44.5	
Canal Place	0.0	0.0	0.0	1.7	0.0	1.7	
Historic St. Mary's City	1.6	1.2	8.0	6.8	1.3	18.9	
Planning	1.4	4.4	1.3	1.4	7.9	16.4	
Legislative Initiatives	15.0	15.0	15.0	15.0	15.0	75.0	<b>\$75.0</b>
Miscellaneous	62.6	49.4	29.0	12.0	3.5	156.5	<b>\$156.5</b>
<b>Subtotal Request</b>	<b>\$1,249.8</b>	<b>\$1,416.6</b>	<b>\$1,320.4</b>	<b>\$1,179.2</b>	<b>\$1,243.3</b>	<b>\$6,409.3</b>	<b>\$6,409.3</b>
Tobacco Transition Program	3.0	3.0	5.0	0.0	0.0	11.0	<b>\$11.0</b>
<b>Total Request</b>	<b>\$1,252.8</b>	<b>\$1,419.6</b>	<b>\$1,325.4</b>	<b>\$1,179.2</b>	<b>\$1,243.3</b>	<b>\$6,420.3</b>	<b>\$6,420.3</b>
<b>Debt Affordability Limits</b>	<b>\$810.0</b>	<b>\$835.0</b>	<b>\$860.0</b>	<b>\$890.0</b>	<b>\$920.0</b>	<b>\$4,315.0</b>	

<sup>1</sup>Updated figures for the Department of Juvenile Services capital request are unavailable – the figures above are based on the 2006 *Capital Improvement Program*.

<sup>2</sup>The Department of Agriculture request does not include the Tobacco Transition Program.

<sup>3</sup>The Interagency Committee on School Construction received requests in excess of \$470 million for fiscal 2008; however, the amount included in the request to the Department of Budget and Management reflects base funding of \$250 million plus 12 percent attributable to construction escalation.

<sup>4</sup>In addition to the general obligation bond request, the University System of Maryland has requested academic revenue bond funding of \$30 million for fiscal 2008 and \$25 million annually for fiscal 2009 through 2012.

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

Source: Department of Budget and Management

## Estimated General Obligation Issuances (\$ in Thousands)

<b>Legislative Session</b>	<b>Proposed Auth. (a)</b>	<b>Estimated Issuances During Fiscal Year (b) =====&gt;</b>											<b>Total Issued</b>
		<b><u>2008</u></b>	<b><u>2009</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>Post 2017</u></b>	
2008	\$935,000	\$0	\$289,850	\$233,750	\$187,000	\$140,250	\$84,150						\$935,000
2009	960,000		0	297,600	240,000	192,000	144,000	\$86,400					960,000
2010	990,000			0	306,900	247,500	198,000	148,500	\$89,100				990,000
2011	1,020,000				0	316,200	255,000	204,000	153,000	\$91,800			1,020,000
2012	1,050,000					0	325,500	262,500	210,000	157,500	\$94,500		1,050,000
2013	1,080,000						0	334,800	270,000	216,000	162,000	\$97,200	1,080,000
2014	1,110,000							0	344,100	277,500	222,000	266,400	1,110,000
2015	1,140,000								0	353,400	285,000	501,600	1,140,000
2016	1,170,000									0	363,613	806,387	1,170,000
2017	1,200,000										0	1,200,000	1,200,000
<b>Total New Authorization</b>		<b>\$0</b>	<b>\$289,850</b>	<b>\$531,350</b>	<b>\$733,900</b>	<b>\$895,950</b>	<b>\$1,006,650</b>	<b>\$1,036,200</b>	<b>\$1,066,200</b>	<b>\$1,096,200</b>	<b>\$1,127,113</b>	<b>\$2,871,587</b>	
Previously Authorized GO Bonds (c):	\$1,911,587	\$725,000	\$520,150	\$353,650	\$221,100	\$74,050	\$3,350	\$3,800	\$3,800	\$3,800	\$2,887	\$0	\$1,911,587
<b>Total Issuances</b>		<b>\$725,000</b>	<b>\$810,000</b>	<b>\$885,000</b>	<b>\$955,000</b>	<b>\$970,000</b>	<b>\$1,010,000</b>	<b>\$1,040,000</b>	<b>\$1,070,000</b>	<b>\$1,100,000</b>	<b>\$1,130,000</b>	<b>\$2,871,587</b>	

GO: general obligation

Notes:

(a) It is assumed that authorizations increase 3% annually.

(b) Percentage issuance assumptions by fiscal year:

Fiscal year following year of authorization	1st	2nd	3rd	4th	5th
Percent of authorization issued	31.0%	25.0%	20.0%	15.0%	9.0%

(c) Includes Qualified Zone Academy Bonds.





### Appendix 3

#### Factors Influencing Maryland's General Obligation Bonds' True Interest Cost

<u>Bond Sale Date</u>	<u>Delphis Rate</u>	<u>MD PI/US PI</u>	<u>Call</u>
03/13/91	6.15	2.261	Yes
07/10/91	6.50	2.240	Yes
10/09/91	5.70	2.230	Yes
05/13/92	5.75	2.220	Yes
01/13/93	5.40	2.221	Yes
05/19/93	5.10	2.212	Yes
10/06/93	4.45	2.206	Yes
02/16/94	4.50	2.208	Yes
05/18/94	5.35	2.199	Yes
10/05/94	5.50	2.191	Yes
03/08/95	5.35	2.184	Yes
10/11/95	4.80	2.163	Yes
02/14/96	4.35	2.159	Yes
06/05/96	5.10	2.144	Yes
10/09/96	4.90	2.144	Yes
02/26/97	4.70	2.136	Yes
07/30/97	4.50	2.135	Yes
02/18/98	4.25	2.119	Yes
07/08/98	4.40	2.128	Yes
02/24/99	4.10	2.134	Yes
07/14/99	4.80	2.146	Yes
07/19/00	4.85	2.157	Yes
02/21/01	4.28	2.178	No
07/11/01	4.39	2.201	No
03/06/02	4.17	2.233	No
07/31/02	3.89	2.241	No
02/19/03	3.77	2.235	No
07/16/03	3.56	2.250	Yes
07/21/04	3.89	2.254	Yes
03/02/05	3.72	2.259	Yes
07/20/05	3.63	2.268	Yes
03/01/06	3.89	2.242	Yes
07/26/06	4.09	2.238	Yes
02/28/07	3.77	2.228	Yes
08/01/07	4.02	2.218	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

### True Interest Cost – Regression Equation Statistics

#### Independent Variables with True Interest Cost as Dependent Variable

<u>Model</u>	<u>Independent Variables Entered</u>
1	Delphis Scale, MD PI/US PI
2	Delphis Scale, MD PI/US PI, Call

#### Model Summary with True Interest Cost as Dependent Variable

<u>Model</u>	<u>R</u>	<u>R Square</u>	<u>Adjusted R Square</u>	<u>Std. Error of the Estimate</u>	<u>Change Statistics</u>					<u>Durbin-Watson</u>
<u>1</u>	<u>R</u>	<u>R Square</u>	<u>R Square</u>	<u>Estimate</u>	R Square Change	F Change	df1	df2	Sig. F Change	
1	.995	.989	.989	.07929	.989	1,492.567	2	32	.000	
2	.995	.991	.991	.07563	.001	4.167	1	31	.050	2.195

#### ANOVA

<u>Model</u>		<u>Sum of Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>
1	Regression	18.766	2	9.383	1,492.567	.000(a)
	Residual	.201	32	.006		
	<b>Total</b>	<b>18.967</b>	<b>34</b>			
2	Regression	18.790	3	6.263	1,094.914	.000(b)
	Residual	.177	31	.006		
	<b>Total</b>	<b>18.967</b>	<b>34</b>			

MD PI/US PI: Maryland Total Personal Income to the United States Personal Income

## Appendix 4 (Continued)

### Coefficients with True Interest Cost as Dependent Variable

<u>Model</u>	<u>Independent Variables</u>	<u>Unstandardized Coefficients</u>		<u>Standardized Coefficients</u>	<u>t</u>	<u>Sig.</u>
		B	Std. Error	Beta		
1	(Constant)	2.265	.684		3.311	.002
	MD PI/US PI	-.964	.305	-.058	-3.164	.003
	Delphis Scale	.987	.018	.987	53.931	.000
2	(Constant)	2.054	.661		3.109	.004
	MD PI/US PI	-.877	.294	-.053	-2.987	.005
	Delphis Scale	.976	.018	.977	53.808	.000
	Call	.079	.039	.037	2.041	.050

### Collinearity Statistics with True Interest Cost as Dependent Variable

<u>Model</u>	<u>Independent Variables</u>	<u>Tolerance</u>
1 (b)	(Constant)	
	MD_US_PI	.989
	Delphis_Rate	.989
2 (c)	(Constant)	
	MD_US_PI	.969
	Delphis_Rate	.915
	Call	.899

MD PI/US PI: Maryland Total Personal Income to the United States Personal Income

## Appendix 5

### Initial Allocation Worksheet for 2007

<u>Major Issuer</u>	<u>U.S. Census</u>	<u>State Ceiling</u>
	<b>5,615,727</b>	<b>\$477,336,795</b>
Counties		\$238,668,398
Community Development Administration		119,334,199
Municipal		11,933,420
Secretary's		107,400,779
<b>Total</b>		<b>\$477,336,795</b>

#### County Allocation

<u>County</u>	<u>MD Population</u>	<u>% MD Population</u>	<u>Housing Alloc.</u>	<u>Min. Non-House</u>	<u>Grand Total</u>
Allegany	73,900	1.32%	\$2,201,083	\$754,657	\$2,955,740
Anne Arundel	512,000	9.13	15,249,724	5,228,477	20,478,201
Baltimore City	636,000	11.34	18,943,017	6,494,749	25,437,766
Baltimore Co.	785,600	14.01	23,398,796	8,022,444	31,421,240
Calvert	88,750	1.58	2,643,385	906,303	3,549,688
Caroline	31,300	0.56	932,259	319,631	1,251,890
Carroll	169,000	3.01	5,033,600	16,530,164	14,161,586
Cecil	97,300	1.73	2,898,043	993,615	3,891,658
Charles	138,700	2.47	4,131,126	1,416,386	5,547,513
Dorchester	31,300	0.56	932,259	319,631	1,251,890
Frederick	221,850	3.96	6,607,717	2,265,503	8,873,221
Garrett	30,150	0.54	898,006	307,888	1,205,894
Harford	238,750	4.26	7,111,078	2,438,084	9,549,161
Howard	270,200	4.82	8,047,804	16,595,097	17,724,975
Kent	19,650	0.35	585,268	200,663	785,931
Montgomery	930,500	16.59	27,714,587	9,502,144	37,216,731
Prince George's	850,500	15.16	25,331,817	8,685,195	34,017,012
Queen Anne's	45,950	0.82	1,368,603	469,235	1,837,839
St. Mary's	96,550	1.72	2,875,705	985,956	3,861,661
Somerset	26,000	0.46	774,400	265,509	1,039,909
Talbot	35,250	0.63	1,049,908	359,968	1,409,876
Washington	141,050	2.51	4,201,120	1,440,384	5,641,504
Wicomico	89,550	1.60	2,667,213	914,473	3,581,685
Worcester	49,400	0.88	1,471,360	504,466	1,975,826
<b>Total</b>	<b>5,609,200</b>	<b>100.00%</b>	<b>\$167,067,878</b>	<b>\$85,920,623</b>	<b>\$238,668,398</b>

Note: Numbers may not sum due to rounding.



**Debt Outstanding**  
**Fiscal 1997-2007**  
**(\$ in Millions)**

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>97-07</u>
<b><u>Agency Debt Subject to Ceiling and Allocation Caps</u></b>												
Maryland Environmental Service	\$33.7	\$31.0	\$34.0	\$29.4	\$34.4	\$36.5	\$33.7	\$30.5	\$30.5	\$24.5	\$19.6	-42%
Maryland Wholesale Food Center Authority	7.1	7.0	6.9	6.8	6.7	0.0	0.0	0.0	0.0	0.0	0.0	-100%
Maryland Transportation Authority	391.9	374.9	344.5	318.7	300.6	668.8	575.6	627.2	763.6	765.1	1,055.3	169%
Maryland Water Quality Financing Admin.	157.8	151.3	138.1	131.3	124.3	115.9	105.6	96.6	88.2	73.9	65.7	-58%
<b>Revenue Cap Total</b>	<b>\$590.5</b>	<b>\$564.2</b>	<b>\$523.5</b>	<b>\$486.2</b>	<b>\$466.0</b>	<b>\$821.2</b>	<b>\$714.9</b>	<b>\$754.3</b>	<b>\$882.2</b>	<b>\$863.5</b>	<b>\$1,140.6</b>	<b>93%</b>
<b>% Change/Prior Year</b>	<b>-4%</b>	<b>-4%</b>	<b>-7%</b>	<b>-7%</b>	<b>-4%</b>	<b>76%</b>	<b>-13%</b>	<b>6%</b>	<b>17%</b>	<b>-2%</b>	<b>32%</b>	
<b><u>Agency Debt Not Subject to Ceiling and Allocation Caps</u></b>												
Baltimore City Community College	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	\$1.1	\$1.0	\$0.9	\$0.9	\$0.8	\$0.8	100%
DHCD <sup>(1)</sup>	2,304.5	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	3,231.3	40%
Local Government Infrastructure (CDA)	62.5	66.1	81.1	85.5	87.7	91.7	105.6	114.6	122.5	117.0	122.0	95%
Maryland energy Financing Admin.	307.4	306.2	301.1	388.4	379.8	0.0	0.0	0.0	0.0	0.0	0.0	-100%
Maryland Industrial Development Financing Authority	386.3	360.4	346.3	330.0	311.6	581.4	568.4	411.1	395.0	409.6	387.1	0%
MDOT – County Revenue Bonds	n/a	45.5	34.6	25.6	19.0	12.9	7.9	4.5	31.8	30.0	58.4	n/a
MDOT – Non-tax-supported COPs	n/a	n/a	42.8	42.5	74.3	65.2	57.7	54.0	49.7	72.6	68.5	n/a
Morgan State University	29.9	27.9	27.5	27.1	26.8	33.4	72.2	70.0	68.6	67.7	66.0	107%
St. Mary's College of Maryland	7.8	17.5	17.3	16.9	27.8	27.5	40.6	39.7	40.6	43.8	46.6	497%
University System of Maryland	534.5	611.0	670.0	656.1	802.7	797.0	960.0	973.0	1,012.8	934.8	954.8	79%
<b>Non-cap Total</b>	<b>\$3,632.9</b>	<b>\$3,821.7</b>	<b>\$3,994.2</b>	<b>\$4,199.2</b>	<b>\$4,422.9</b>	<b>\$4,316.1</b>	<b>\$4,486.1</b>	<b>\$4,082.8</b>	<b>\$3,916.3</b>	<b>\$3,924.4</b>	<b>\$4,935.5</b>	<b>36%</b>
<b>% Change/Prior Year</b>	<b>12%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>-2%</b>	<b>4%</b>	<b>-9%</b>	<b>-4%</b>	<b>0%</b>	<b>26%</b>	



	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>97-07</u>
<b><u>Tax-supported Debt</u></b>												
Transportation Debt	\$939.4	\$844.0	\$749.1	\$724.8	\$648.1	\$714.2	\$961.2	\$1,185.7	\$1,069.9	\$1,078.5	\$1,111.0	18%
Capital Leases – BPW	98.4	90.3	149.2	148.4	197.7	245.7	217.1	191.9	175.1	226.0	247.9	152%
General Obligation Debt	3,025.4	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	70%
<b>Tax-supported Debt Total</b>	<b>\$4,063.2</b>	<b>\$4,204.8</b>	<b>\$4,398.5</b>	<b>\$4,222.1</b>	<b>\$4,296.7</b>	<b>\$4,504.1</b>	<b>\$5,110.8</b>	<b>\$5,479.8</b>	<b>\$5,756.8</b>	<b>\$6,173.0</b>	<b>\$6,501.1</b>	<b>60%</b>
<b>% Change/Prior Year</b>	<b>3%</b>	<b>3%</b>	<b>5%</b>	<b>-4%</b>	<b>2%</b>	<b>5%</b>	<b>13%</b>	<b>7%</b>	<b>5%</b>	<b>7%</b>	<b>5%</b>	
<b><u>Authorities and Corporations Not Subject to Ceiling and Allocation Caps</u></b>												
Health/Higher Education Facilities												
Authority	\$2,489.7	\$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	192%
MEDCO	177.0	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	970%
<b>Authorities and Corporations Total</b>	<b>\$2,666.7</b>	<b>\$3,048.7</b>	<b>\$3,557.7</b>	<b>\$4,190.4</b>	<b>\$4,516.4</b>	<b>\$5,343.1</b>	<b>\$6,105.4</b>	<b>\$6,910.8</b>	<b>\$7,186.9</b>	<b>\$8,053.5</b>	<b>\$9,156.2</b>	<b>243%</b>
<b>% Change/Prior Year</b>	<b>7%</b>	<b>18%</b>	<b>17%</b>	<b>18%</b>	<b>8%</b>	<b>18%</b>	<b>14%</b>	<b>13%</b>	<b>4%</b>	<b>12%</b>	<b>14%</b>	

DHCD: Department of Housing and community Development  
CDA: Community Development Administration  
MDOT: Maryland Department of Transportation  
COPs: Certificates of Participation  
BPW: Board of Public Works  
MEDCO: Maryland Economic Development Corporation

<sup>(1)</sup> Excludes local government infrastructure.

Source: Department of Budget and Management

**Additional Debt Service Attributable to Increased General Obligation Bond Authorizations**  
(\$ in Millions)

<b>Fiscal Year</b>	<b>2001 – Low CDAC Ratios and Good Economy</b>	<b>2002 and 2003 – Replace PAYGO</b>	<b>2002 – Tobacco Exclusion</b>	<b>2004 – \$100 Million Annually for Five Years</b>	<b>2006 – Capital Demand</b>	<b>2007 – Capital Demand</b>	<b>2008 – Capital Demand</b>	<b>Total Increase</b>
2003	\$0.5	\$10.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10.5
2004	1.3	20.0	0.1	0.0	0.0	0.0	0.0	21.4
2005	3.0	31.3	0.2	0.0	0.0	0.0	0.0	34.5
2006	5.3	42.6	0.5	1.6	0.0	0.0	0.0	49.9
2007	8.1	42.6	0.9	4.4	0.0	0.0	0.0	55.9
2008	11.1	42.6	1.3	9.9	0.1	0.0	0.0	65.0
2009	14.3	42.6	1.8	17.6	0.3	1.6	0.0	78.2
2010	17.5	42.6	2.4	26.9	0.8	4.4	1.6	96.1
2011	20.7	42.6	2.9	35.5	3.1	10.3	4.4	119.4
2012	23.9	42.6	3.4	43.3	7.2	18.6	9.9	149.0
2013	27.1	42.6	4.0	48.4	14.6	29.1	17.6	183.3
2014	30.3	42.6	4.5	51.4	24.8	40.9	26.9	221.3
2015	33.5	42.6	5.0	53.2	37.4	53.9	37.0	262.6
2016	36.7	42.6	5.6	54.1	51.8	67.4	47.7	305.9
2017	39.8	42.6	6.1	55.1	67.3	81.5	58.3	350.8

CDAC: Capital Debt Affordability Committee

PAYGO: pay-as-you-go

Note: Assumes 5 percent True Interest Cost on bond sales.

Source: Department of Legislative Services, November 2007