Effect of Long Term Debt on the Financial Condition of the State

Department of Legislative Services
Office of Policy Analysis

Annapolis, Maryland

November 1999

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November 23, 1999

The Honorable Barbara A. Hoffman, Co-Chairman
Spending Affordability Committee

The Honorable Nancy K. Kopp, Co-Chairman
Spending Affordability Committee

Dear Senator Hoffman and Delegate Kopp:

The Department of Legislative Services's annual report on the "Effect on Long Term Debt on the Financial Condition of the State" is presented. This report essentially follows the format of previous reports and includes a review of the recommendations of the Capital Debt Affordability Committee, an independent affordability analysis, and a market analysis.

The creation of 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 Steve McCulloch with assistance by Mary Clapsaddle, Patrick Frank, Benjamin Birge, and Theresa Tuszynski. The manuscript was prepared by Jo Ann Bryan.

Respectfully submitted,

Warren G. Deschenaux
Director

WGD/jab

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Chapter 1. Recommendations of the Department of Legislative Services

New Debt Authorization

The Capital Debt Affordability Committee's (CDAC) recommended debt limit of $460 million in new general obligation debt authorization is an increase of $15 million over the recommended debt limit for fiscal 2000. This increase of 3.4 percent is generally consistent with the long range plan adopted by the committee in 1992 to increase the general obligation debt limit by 3 percent each year based on 1 percent growth and 2 percent inflation. The committee considered but ultimately rejected a proposal by the Treasurer to recommend a debt limit of $445 million. The Treasurer cited the State's large revenue surplus which is available for pay-as-you-go (Paygo) funding as the reason for the proposal.

In accordance with Section 8-113 of the State Finance and Procurement Article, the Governor notified the General Assembly by letter dated October 15, 1999, on the level of State debt that is advisable. The Governor accepted the recommendation of the Capital Debt Affordability Committee and provided the following preliminary allocation of the $460 million debt authorization:

	G.O. Debt
State Owned Facilities	$225,000,000
Grant & Loan Programs	150,000,000
Public School Construction*	85,000,000
Total	**$460,000,000**

*The Governor also proposed $165 million in Paygo capital for school construction for a total of $250 million in fiscal 2001.

Forecasts of personal income and levels of outstanding debt indicate that Maryland's five-year general obligation debt authorization plan will be affordable according to the debt affordability criteria.

Sizable cash balances available for capital spending provides the opportunity to reduce the State's reliance on debt without delaying projects scheduled to receive funding in fiscal 2001. **The Department of Legislative Services recommends that no more than $445 million be authorized for fiscal 2001. The General Assembly, in considering the fiscal 2001 budget, may wish to utilize more of the general fund cash balance in lieu of general obligation debt.**

Authorization of Transportation Debt

The Maryland Department of Transportation (MDOT) competes with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall State debt affordability limits. **It is recommended that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 3.2 percent of personal income debt affordability criterion, and debt service within the 8.0 percent of revenues debt affordability criterion.**

Higher Education Debt

In fiscal 2001 the University System of Maryland intends to issue $25 million in academic debt and $60 million in auxiliary debt. Based on these projections, debt service is expected to equal 4.33 percent of unrestricted current fund expenditures and mandatory transfers. The system's financial advisers have recommended an upper limit of 5.5 percent. **The Department of Legislative Services agrees the committee's recommended debt limit for the 2000 session of $25 million in academic revenue bonds is affordable under the university system's 5.5 percent guideline**.

Higher Education Debt Reporting

Changes in the agency revenue debt procedures resulted in no reporting of higher education debt. **The Capital Debt Affordability Committee should provide in its future reports historical information on higher education debt similar to the information it currently provides on general obligation and transportation debt.**

Chapter 2. Recommendations of the Capital Debt Affordability Committee

New General Obligation Debt Authorization

- Limit new general obligation debt authorization at the 2000 session to $460 million. This figure is $15 million more than the prior year's recommendation.

- The long range plan adopted by the Capital Debt Affordability Committee (CDAC) includes annual increases in recommended debt levels of $15 million per year representing increases ranging from 3.4 percent in fiscal 2001 down to 2.9 percent in fiscal 2006. The annual growth rate over the entire five-year period is 3.07 percent. The planned increases are based on providing approximately 2 percent to cover inflation and 1 percent real growth in the capital plan. The following table presents the new long range plan:

Session	Debt Limit ($ in Millions)
2000	$460
2001	475
2002	490
2003	505
2004	520
2005	535

Higher Education Academic Debt to Be Authorized

Limit new debt authorization for academic facilities to $25 million for the next fiscal year. The Capital Debt Affordability Committee notes the proposed capital financing programs for the four systems "...result in a debt burden level well below the 10% 'highly leveraged' threshold established by Standard & Poor's..." (CDAC 1999, pg. 37). The entire amount is planned for academic facilities at University System of Maryland campuses. The $25 million recommended academic revenue bond limit is the same level authorized for fiscal 2000.

Chapter 3. Review of the Analysis of the Capital Debt Affordability Committee

The Capital Debt Affordability Committee (CDAC) continues to employ two affordability criteria established in 1979 after analysis of available data including information from rating agencies. (These criteria were reassessed in 1984 and 1988 and found to be valid measures consistent with good management of debt over time.) The affordability criteria are:

- total State tax supported outstanding debt should not exceed 3.2 percent of Maryland personal income; and

- total State tax supported debt service payments should not exceed 8 percent of State tax revenues.

While the committee expanded its focus in 1987 to include all types of State tax supported debt (i.e., transportation, the Maryland Stadium Authority, Bond Anticipation Notes, and capital leases), the recommended fiscal 2001 debt limit of $460 million applies only to general obligation debt. In 1989 the committee further broadened its review to include higher education academic revenue bonds. Although by law the committee must review the size and condition of this revenue debt, the $25 million recommended debt limit for academic facilities is in addition to the limit on general obligation debt and is not considered as tax supported debt nor is it subject to the 3.2 percent affordability standard.

The projections of the Capital Debt Affordability Committee indicate that total State tax supported debt outstanding will remain within the 3.2 percent of Maryland personal income limit for the five-year forecast period. The committee's projections indicate that debt outstanding will decline from 2.77 percent of Maryland personal income in fiscal 2001 to 2.52 percent in fiscal 2005.

Risk Analysis

As in prior years, the committee performed a risk analysis to evaluate the potential for exceeding the affordability criteria under a proposed five-year general obligation bond authorization plan. The four basic risk factors that the committee considered were:

- changes in personal income;
- changes in the definition of tax supported debt;
- changes within the general obligation bond program; and
- changes in the bond issuance plans for other components, including new components of tax supported debt.

Changes in after-the-fact measurement of personal income, as compared to estimates in growth in personal income, are obviously beyond the committee's control. Using a conservative approach in projecting growth in personal income has resulted in subsequent revisions generally indicating additional debt capacity. The committee's projections for personal income are slightly higher than in last year's report due to an upward revision in the estimated rate of growth. The committee felt that there remains risk associated with reductions in the anticipated level of personal income but that even a growth rate of only 4.4 percent for fiscal 2000 through 2002 would raise the debt ratio only seven hundredths of one percent by fiscal 2001. The committee notes that only once during the last 25 years, during the period 1991 through 1993, was the growth in personal income less than 4.4 percent.

According to the committee, internal changes in the definition of what constitutes State tax supported debt resulting from reviews of individual transactions would tend to be minor. However, changes in definition by the bond rating agencies or the Governmental Accounting Standards Board could have a major impact on measured affordability. The committee is unaware of any potential external changes and believes that any external changes would provide ample lead time to allow adjustments to the five-year plan.

Changes within the general obligation bond program were thought most likely to consist of two types. First, changes might occur to the types or costs of certain capital projects. However, since the committee recommends a specific dollar amount and not the use of the funds, this type of change would not affect affordability so long as the total dollar amount is not exceeded. Second, changes might occur in the rate at which authorized bonds are issued. The committee assumes a six-year time period for total issuance of a bond authorization. Any systematic factors that change the rate with which bonds are sold, would affect the ratio of debt outstanding to personal income. To reflect actual issuance rates experienced in recent years, the committee in it's fiscal 1998 report revised upward from 25 percent to 31 percent the assumed percentage of general obligation bonds issued within the first year of authorization. The current report continues the assumption that 31 percent of bonds authorized in a given year will be issued in the following year.

Changes in issuance plans for the transportation program, capital leases, the Stadium Authority or any unknown component that would be considered State tax supported debt have the potential to affect affordability. The committee identified several factors that might result in changes in issuance plans such as external factors that accelerate or delay a project, the expansion of existing programs or the starting of new ones that have not been accounted for in the analysis, and unknown changes in bond programs that would be considered State tax supported debt. These types of changes could have a positive or negative impact on the affordability of the five-year capital program.

The committee's risk analysis considers changes in the growth of personal income to be the greatest risk factor with potential changes to the issuance plans of other components of State tax supported debt posing a lesser risk. The committee believes these risks to have a low probability of causing a breach of the affordability criteria limits.

Chapter 4. State Tax Supported Debt

Maryland issues five types of tax supported debt:

- General obligation bonds backed by the full faith and credit of the State.
- Revenue bonds and notes issued by the Department of Transportation backed by operating revenues and pledged taxes of the department.
- Capital leases, annual payments of which are subject to appropriation by the General Assembly.
- Revenue bonds issued by the Maryland Stadium Authority and secured by a lease with the State.
- Tax or bond anticipation notes (TANs/BANs) which may be issued by the Treasurer and which must be repaid within 180 days of issuance.

General Obligation Bonds

General obligation 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 a State need or interest has been identified. Projects funded with general obligation bonds include public and private colleges and universities, public schools and community colleges, prisons and detention centers, hospitals, and low-income housing projects.

Capital Budget Requests for Fiscal 2001 to 2005

Agency requests for fiscal 2001 total $725.9 million, nearly 58 percent more than the amount available under the debt affordability limit. Capital requests for the next five years total over $3.4 billion, while the projected debt limit for the same period totals $2.4 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. **Exhibit 4.1** provides a listing of general obligation bond capital requests over the next five years.

Exhibit 4.1
GO Bond Requests: FY 2001 - 2005

($ in Millions)

	Fiscal Year						
	2001	**2002**	**2003**	**2004**	**2005**	**Total**	**Category Totals**
State Facilities							$416.6
Board of Public Works	$74.2	$55.8	$121.5	$88.0	$71.3	$410.8	
Military	0.0	0.3	2.1	2.2	0.8	5.5	
Veterans	0.0	0.3	0.0	0.0	0.0	0.3	
Health & Social Services							207.1
Health & Mental Hygiene	4.3	15.7	5.8	76.5	5.0	107.3	
Comm. Mental Health Facil.	5.3	7.0	7.0	7.0	7.0	33.3	
Senior Citizen Activity Center	0.6	1.0	1.0	1.0	1.0	4.6	
Juvenile Justice	16.0	3.0	14.5	23.5	4.9	61.8	
Environment							283.3
Natural Resources	25.4	35.5	35.0	35.0	35.0	165.9	
Agriculture							
Environment	20.9	22.3	21.2	14.8	13.5	92.7	
Maryland Environmental Service	6.1	8.0	3.6	3.4	3.6	24.8	
Education							1,164.2
Education	1.6	0.0	13.3	12.0	0.0	26.9	
Public School. Construction[1]	261.0	231.1	248.1	198.7	198.5	1,137.3	
Higher Education							721.6
University System of Maryland[2]	86.2	59.0	13.0	17.5	84.7	260.4	
University of Maryland Medical System	11.0	25.0	0.0	10.0	10.0	56.0	
Baltimore City Comm. College	11.9	2.1	16.1	1.2	8.3	39.7	
St. Mary's College	4.4	0.0	12.7	2.0	2.9	22.0	
Morgan State University	15.6	17.5	28.7	57.3	19.4	138.5	
Community Colleges	36.2	50.2	59.4	40.1	14.3	200.1	
S. Maryland Higher Ed. Center	4.9	0.0	0.0	0.0	0.0	4.9	
Public Safety							240.6
Public Safety	30.4	58.1	52.1	23.6	37.3	201.6	
State Police	4.4	18.7	7.1	4.8	3.9	39.0	
Housing & Economic Development							77.0
Economic Development							
Housing & Comm. Devel.	8.2	4.0	4.5	3.6	3.6	23.9	
Partnership Rental Housing	13.2	10.0	10.0	10.0	10.0	53.2	
Legislative Initiatives	12.5	12.5	12.5	12.5	12.5	62.5	62.5
Miscellaneous	71.5	63.8	97.6	18.2	14.6	265.8	265.8
Total Request	**$725.9**	**$700.9**	**$786.8**	**$662.9**	**$562.1**	**$3,438.6**	**$3,438.6**
Debt Affordability Limits	**$460.0**	**$475.0**	**$490.0**	**$505.0**	**$520.0**	**$2,450.0**	

[1]Represents LEA requests to the IAC, May 1999.
[2]In addtion to the GO bond request, USM has requested academic revenue bond funding of $25 million per year and general fund Paygo of $141.5 million, $107.6 million, and $8.8 million in fiscal years 2001-2003 respectively.
Note: Numbers may not sum to total due to rounding.

Source: Department of Budget and Management

This listing reflects agency requests and will differ from the list that will appear in the Governor's fiscal 2001 *5-Year Capital Improvement Plan* (CIP).

Bond Issuance Stream

General obligation bonds authorized in a given year are not issued in total the following year. In fact, the Treasurer reports that just over half of the general obligation bonds authorized in a year are typically issued within the next two fiscal years. This delay in issuance results in a substantial lag between the time general obligation debt is authorized and when it has a significant impact in debt outstanding levels.

The bond issuance stream is the key table upon which much of the affordability calculations are based. This table, included as **Appendix 1**, shows how the proposed authorizations for fiscal 2000 through 2009 would be issued. For the six years prior to its 1996 report, the Capital Debt Affordability Committee (CDAC) assumed 100 percent issuance of authorized bonds over a six-year period (25 percent, 25 percent, 20 percent, 20 percent, 5 percent and 5 percent). In its 1996 report, however, the CDAC assumed bonds authorized in a given year would be fully issued in just five years (31 percent, 25 percent, 20 percent, 15 percent and 9 percent). This change was made in response to an increase in the rate of issuances experienced from 1994 to 1996. This increase in the rate of issuances means that new authorizations will impact Maryland's level of outstanding debt, and Maryland's debt affordability capacity, more quickly than in the past. The current report continues the new five year issuance assumption.

Over the past few years the bond proceed cash balance has been steadily increasing which suggests bonds are being issued before the funds are actually needed (a fuller discussion of cash balances is included in Chapter 7: Issues). **In light of the large cash balances experienced in recent years, it is recommended that the Capital Debt Affordability Committee re-evaluate the rate at which new authorizations are issued and make appropriate adjustments to the issuance assumptions in the future as necessary.**

The table in Appendix 1 also indicates the expected issuances of current authorizations. There is, and has been since 1989, over $1 billion in authorized but unissued debt. The CDAC report assumes that $257 million and $167 million of this debt will be issued in fiscal 2001 and 2002, respectively.

In the past the committee offset the amount of general obligation bonds authorized by $10 million, assuming that this amount would represent a potential lease conversion project for which general obligation bonds had been authorized. This practice had the effect of placing $10 million into the issuance stream immediately rather than spreading it over the six-year period. Beginning with the 1991 report, the committee assumed there would be no offset in the amount of general obligation bonds issued. Therefore, it placed the full authorization into the six-year issuance stream and showed the amount of capital leases anticipated in a separate column outside of the general obligation debt column. In addition, the committee now anticipates capital leases for equipment as well as energy conservation projects. These changes were made to recognize that these capital leases were not replacing general obligation authorizations but were being done in addition to the authorizations.

Bond Refunding

The bond sales of May and October 1993 and February 1994, included the refinancing of prior bonds. The May 1993 bond sale included $147.7 million in refunding principal that was placed into escrow to refund $130.5 million in prior bonds. Over the term of the bonds this will result in debt service savings of $5.55 million.

Similarly, the October 1993 bond sale included $143.1 million in refunding principal that was placed into escrow to refund $123.4 million in prior bonds. The gross saving on this refinancing will be $8.8 million. Finally, the February 1994 bond sale included $64.2 million in refunding principal to refund $56.7 million in prior bonds. The debt service savings will be $3.6 million. The annual savings from the three refundings each fiscal year will result in a reduction in the general fund appropriation required in the operating budget under the Annuity Bond Fund to pay debt services on general obligation bonds. Savings per fiscal year is included in **Exhibit 4.2**.

Exhibit 4.2
Fiscal Year Savings as a Result of Refinancing

Fiscal Year	May 1993	October 1993	February 1994	Total
1993	$40,024	$0	$0	$42,024
1994	917,879	2,669,723	783,295	4,370,987
1995	910,776	492,895	310,473	1,714,144
1996	333,201	472,095	312,665	1,117,961
1997	332,226	470,765	310,828	1,113,819
1998	334,401	470,635	310,215	1,115,251
1999	335,289	471,278	312,380	1,118,947
2000	334,551	468,230	310,145	1,112,926
2001	334,817	470,965	308,260	1,114,042
2002	333,826	467,865	311,667	1,113,358
2003	332,193	467,660	312,837	1,112,690
2004	333,840	470,640	0	804,480
2005	333,748	467,448	0	801,196
2006	333,460	468,463	0	801,923
2007	0	471,213	0	471,213
Total	**$ 5,540,231**	**$ 8,799,875**	**$ 3,582,765**	**$17,922,871**

Source: State Treasurer's Office

Interest rates have risen since 1993 making additional refundings unlikely in the near future. However, should interest rates fall again 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 for its approval.

New General Obligation Bond Authorizations

The CDAC recommends that new authorizations of general obligation bonds during the 2000 legislative session be limited to $460 million. This recommendation is consistent with the six-year plan included in CDAC's 1998 report and represents a $15 million increase over the amount authorized by the General Assembly in the 1999 session. CDAC's six-year forecast of general obligation bond authorization levels continues the $15 million annual increase that has been projected for the past few years. The projected increases remain slightly in excess of the 3 percent increase target comprised of a 2 percent increase each year to account for inflation and 1 percent increase representing real growth in the State's general obligation capital program. The authorizations and percent increases projected by the committee are as follows:

Session	General Obligation Bond Authorizations ($ in Millions)	Increase
2000	$460	3.4%
2001	475	3.3%
2002	490	3.2%
2003	505	3.1%
2004	520	3.0%
2005	535	2.9%

Source: *Report of the Capital Debt Affordability Committee*, September 1999

Transportation Debt

The Maryland Department of Transportation (MDOT) issues 15-year consolidated transportation bonds which are tax supported debt. Bond proceeds are usually earmarked for highway construction. Revenues from taxes and fees and other funding sources accrue to the transportation trust fund to pay debt service and operating budget requirements, and to support the capital program. Debt service on consolidated transportation bonds is payable solely from the trust fund.

The department previously issued county transportation bonds that were considered both State and county debt and counted toward State debt affordability limits. Chapter 539 of the Acts of 1993 altered this policy by authorizing the department to continue to issue bonds on behalf of the local jurisdictions, without having the local debt apply to State debt affordability limits. Currently this debt counts only toward the debt outstanding of the counties.

Consolidated Transportation Bonds

The issuance of transportation debt is limited by two criteria: an outstanding debt limit and a coverage test. The outstanding debt limit is set by statute. During the 1992 session the outstanding debt limit was increased from $950 million to $1,200 million with the proviso that an annual debt ceiling is to be set annually in the budget bill. The fiscal 2000 budget bill set the maximum ceiling for June 30, 2000, at $965 million, with an allowance to increase the debt outstanding by another $15 million provided such an increase is justified to the budget committees prior to the publication of a preliminary official statement. The fiscal 2000 budget bill also provided the limits could also be exceeded if a substantial new business opportunity for the State, specifically the relocation of Maersk/Sea-land's shipping operations to the Port of Baltimore, were realized. Since Maersk/Sea-land has announced that it would remain in the port of New York/New Jersey, this exception will not apply in fiscal 2000.

The bond revenue coverage test, established in the department's bond resolutions, mandates that net revenues and pledged taxes must each equal at least twice (2.0) the maximum future debt service. The department has adopted an administrative policy establishing a minimum coverage of 2.5. Based on MDOT's currently projected bond sales, the Department of Legislative Services (DLS) estimates that as of June 30, 2000, it will have a maximum outstanding debt of $810 million with coverage estimated at 4.2 times maximum debt service under the net revenue test, and 6.8 times using the pledged tax test.

Since fiscal 1989, the department has issued consolidated transportation bonds in nine of the eleven years. This includes two issuances to refinance previous bond sales. In 1993, $504 million in bonds was issued to refinance prior year debt, and $93.6 million was refinanced in 1998. **Exhibit 4.3** shows that the department issued significant levels of new debt in the early 1990s. Between fiscal 1989 and 1992 MDOT issued $790 million in new debt. In contrast $240 million in debt was issued between fiscal 1993 - 1998. The department last issued new debt in calendar 1996, when $50 million in bonds were sold.

Exhibit 4.3
Consolidated Transportation Bond Issuance *
($ in Millions)

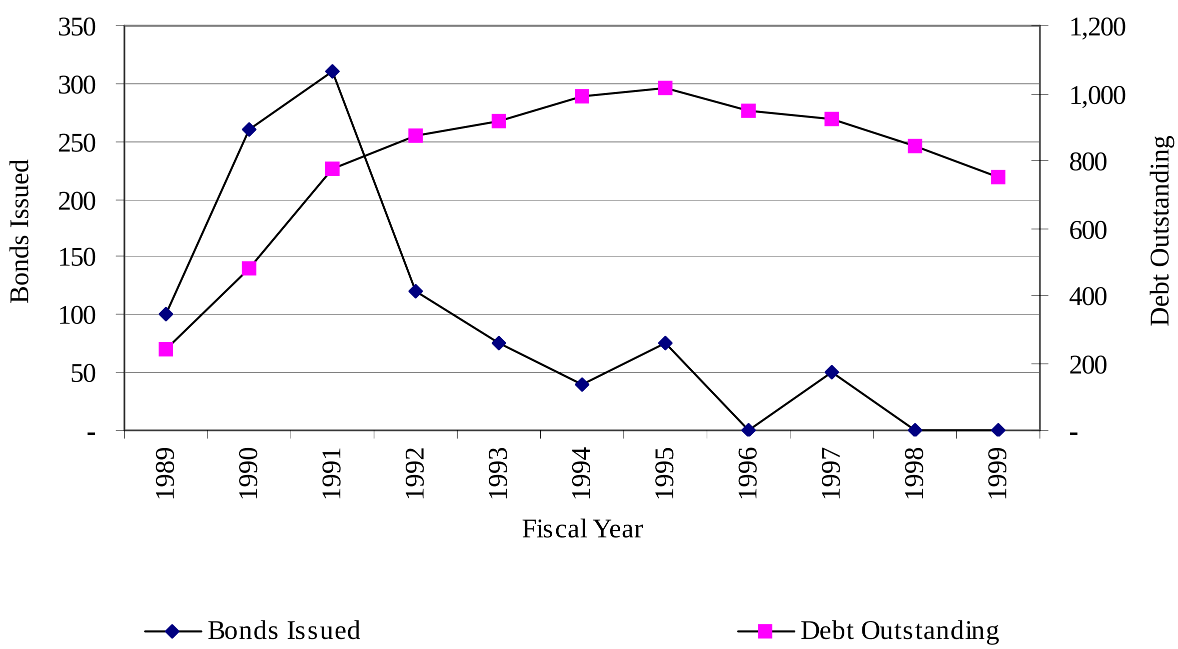
Fiscal Year	Amount
1989	$100
1990	260
1991	310
1992	120
1993	75
1994	40
1995	75
1997	50
Total	**$1,030**

* Exclusive of refinancing

Source: Department of Transportation
Prepared by: Department of Legislative Services, November 1999

As a result of the additional bonds issued, the department's net debt outstanding grew from $168 million in fiscal 1988 to $1,015 million in fiscal 1995. Recently, lower debt issuance coupled with the retirement of debt resulted in debt outstanding dropping to $749 million at the end of fiscal 1999. **Exhibit 4.4** illustrates annual bond sales and changes in debt outstanding.

Exhibit 4.4
MDOT Bonds Issued and Net Debt Outstanding
Ten-Year Summary -- FY 1989 - 1999
($ in Millions)



Source: Department of Transportation
Prepared by: Department of Legislative Services, November 1999

Capital Leases

In fiscal 1999 MDOT entered into a $42.75 million transaction involving a conditional purchase agreement through the issuance of Certificates of Participation (COPs). Proceeds support the renovation and expansion of Piers A and B at the Baltimore-Washington International Airport. The project involves renovating the piers, expanding Pier B by ten gates and Pier A by one gate, adding ramps for aircraft, and modifying taxiways. Fees collected from airlines will be used to pay off the COPs. Capital leases are considered tax supported debt and the Capital Debt Affordability Committee's analysis includes this proposed financing.

Future Debt Issuance

In September 1999, the Capital Debt Affordability Committee issued its report, that included a proposed bond issuance stream for transportation debt through fiscal 2005. The proposed level of debt to be issued for fiscal 2000 through 2005 totaled $945 million as outlined in **Exhibit 4.5**. Debt outstanding would peak at $1,200 million, the maximum allowed by law, in fiscal 2004.

Since the report was issued, DLS has reviewed the fiscal 1999 Transportation Trust Fund (TTF) closeout, and the Bureau of Revenue Estimates has revised its TTF revenue forecasts. The new revenue projections increase the amount available for the capital program. Consequently, MDOT will be able to maintain its planned debt issuance level and increase the capital program or maintain the size of its capital program and reduce debt issuance.

Exhibit 4.5
MDOT Projected New Debt Issuance
($ in Millions)

Fiscal Year	CDAC Projected Debt Issuance
2000	$160
2001	185
2002	210
2003	240
2004	125
2005	25
Total	**$945**

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, September 1999

Prepared by: Department of Legislative Services, November 1999

Debt Service

Prior to fiscal 1990, the department maintained a debt service reserve whereby two years of principal and interest payments were set aside in a reserve account upon the issuance of bonds. This debt service was then used for the repayment of those bonds. This requirement was eliminated by Chapter 255 of the Acts of 1989 for bonds sold after June 1, 1989. The department currently budgets annual debt service payments in the year that principal and interest are due. The refinancing of prior year debt retired all but two of the bond series issued prior to 1989 that had sinking fund reserve requirements. Final sinking fund deposits for the 1986 and 1988 Series bonds were made in fiscal 1996 and were reflected in the level of net outstanding debt in fiscal 1997.

As a result of the large issuances of debt during the early 1990's, annual debt service requirements have risen 292 percent since fiscal 1989, from $35 million to $137 million in fiscal 2000. Based on the CDAC report, annual debt service will continue to increase, with annual payments expected to exceed $180 million by fiscal 2005.

Future Direction of the State Transportation Capital Program

Declines in capital spending occur over time because the largest source of transportation revenues (motor fuel taxes) does not grow as quickly as expenditures. The department budgets for debt service, operating budget requirements, and capital system preservation needs first, followed by spending for new or ongoing capital projects. Thus as expenditure needs grow, progressively lower levels of funding remain for capital spending.

In the short term, Maryland has benefitted from strong revenue growth (especially titling tax receipts) and increased federal aid. MDOT estimates that the reauthorization of federal transportation funds for highways and mass transit through the federal Transportation Equity Act for the 21st Century (TEA-21) will provide the capital program with approximately an additional $130 million annually. This allowed the administration to add $840 million to the 1999 Consolidated Transportation Program (CTP) in new and expanded projects. In the draft 2000 CTP, the department added another $693 million, and advises it plans on adding another $400 million to the final CTP.

During the 1999 legislative session, the General Assembly enacted HJ 6, which created the Commission on Transportation Investment. The commission is charged with examining transportation revenues and needs, and report its finding by December 1, 1999. In September the Governor announced that he opposed any increases to motor fuel tax rates due to the TTF’s strong fiscal condition. The Department of Legislative

Services will examine the commission's report and present its analysis to the legislature during the 2000 legislative session.

County Transportation Bonds

Prior to 1993, MDOT issued debt on behalf of the counties and Baltimore City for local projects. These bonds received AA ratings, that were generally more favorable than the rates received on most county bond issues. County transportation bonds were considered debt of both the counties and the State.

Chapter 539 of the Acts of 1993 authorized MDOT to issue bonds for the local jurisdictions that no longer count against State debt affordability limits, but instead count only toward the debt outstanding of the counties. MDOT continues to be responsible for all aspects of administering and issuing debt for the counties. The department charges the counties an administrative fee for servicing the bond issues. Debt service on the bonds was, and will continue to be paid, from the local share of transportation revenues.

In November 1993, MDOT refunded nine series of previously issued county debt. There are two remaining series of county debt that were not refunded, and therefore will continue to count against State debt affordability limits until the issues are retired. As of June 30, 1999, the remaining net principal balance on the 1986 Refunding and 14th Series bonds totaled approximately $5 million. The issues will be retired in fiscal 2007.

Conclusions and Recommendations on Transportation Debt

The MDOT competes with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall State debt affordability limits. **It is recommended that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 3.2 percent of personal income debt affordability criterion, and debt service within the 8.0 percent of revenues debt affordability criterion.**

Capital Leases

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. 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 conservation projects, agencies make lease payments using the savings that result from implementation of the conservation projects.

All three types of leases, equipment, energy conservation, 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 can 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 in order to lower the cost by reducing the interest rate on the lease. The rate the Treasurer receives for the State's $25 million in equipment leases is less than the rates individual agencies would receive if they financed the equipment leases themselves.

Using the savings realized in utility cost reductions to pay off energy conservation 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 and as the leases are paid off the savings from these projects will accrue to the State.

The primary advantages of property leases when compared to general obligation 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 the Board of Public Works after they have been reviewed by the budget committees. Since the Board of Public Works and the budget committees meet throughout the year, leases can be approved much more quickly than general obligation 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.

Several large lease/leaseback projects undertaken in the past have been initiated at institutions of higher education. These projects, all part of the University System of Maryland, use student fees to secure the debt. These are projects financed through auxiliary funds rather then general obligation bonds and are not included as tax supported debt by the Capital Debt Affordability Committee.

The first tax supported capital leases were made by the Motor Vehicle Administration that began a program of construction of branch offices financed through lease/leaseback. Five offices were financed through this mechanism before the 1988 General Assembly recommended that the Motor Vehicle Administration resort to the Transportation Trust Fund as its means of financing future branch offices. Several of these projects were refinanced in 1993 at a lower interest rate.

Capital leases were also used to finance the construction of multi-service centers in St. Mary's and Calvert counties. Bonds totaling $9.3 million covered by the St. Mary's lease were authorized in the 1987 session and bonds covered by the capital lease in Calvert County were authorized in the 1987 and 1990 sessions for a total of $8.5 million. During 1992, the State Highway Administration financed a headquarters facility through certificates of participation secured by an installment purchase agreement between the State and the financing institution. It also financed a State Highway Administration traffic complex facility. These actions took place outside of the legislative process, but are included as tax-supported debt.

In October 1992, the Board of Public Works, after receiving support from the budget committees, signed an agreement with Baltimore County to lease/purchase a new district court in Towson. This project was built by the county on county-owned land with county financing. If the State does not exercise its option to buy the court facility prior to the completion of the lease agreement period, the State will pay the county annual rent for 15 years. At that time the State will assume ownership of the facility and land.

At the request of the Department of General Services, the Board of Public Works approved an agreement with Prince George's County to lease/purchase the Hyattsville District Court. This project was a fast track, design/build construction project under management by General Services and was built on State-owned land using county financing. The State will pay the county annual rent for 15 years unless the State purchases it outright prior to the end of the lease agreement.

In August 1994, General Services requested and received permission from the budget committees to enter into a lease with the Maryland Economic Development Corporation for a building to house the Department of Human Resources' Baltimore City Social Services office. At the end of the 15-year lease, the State will own the building and will have the option of collecting rent from an existing tenant or occupying the entire building.

The original method of accounting for lease purchases of real property within the debt affordability context has changed since the mid 1980’s. As originally envisioned, $10 million a year in lease purchases was included in the debt affordability calculations to recognize the possibility of a "good deal" arising when the legislature was not in session. The Capital Debt Affordability Committee assumed that the lease purchases would replace projects approved under the general obligation debt limit. Therefore, of the general obligation bonds authorized for issuance in any given year $10 million would remain unissued, (replaced by lease agreements,) and would be subject to cancellation. Beginning with its 1991 report, the committee’s assumption has been that there will be $10 million in real property capital leases **in addition** to the general obligation bonds authorized each year, and the committee’s estimates have projected the issuance of the full general obligation bond authorization each year.

In 1987 the Joint Budget and Audit Committee opposed a separate limit for capital leases that removed certain projects from the competition for funding under the general obligation bond limit. As previously noted, the original reason for establishing a separate $10 million for capital leases was to handle unanticipated lease/lease back projects. The present use of lease/leaseback creates a system diametrically opposed to the committees 1987 recommendations.

During the 1993 interim, in discussions on the Hyattsville District Court, the authority of the General Assembly to review capital leases was questioned. The Department of Fiscal Services requested the Attorney General's Office to review the procedure by which the budget committees have 45 days to review and comment on proposed capital leases. Advice of counsel indicated that there was no clear requirement for such review process. As a result, the Joint Budget and Audit Committee sponsored legislation during the 1994 session to codify procedures regarding capital leases. This legislation (HB 1282/SB 564) was enacted as Chapter 654 of the Acts of 1994.

It should be noted that while capital lease programs are considered part of State supported debt, they are not included under the general obligation debt limit and therefore, increase the State's capital program to the extent that projects are approved by the Board of Public Works. The Capital Debt Affordability Committee generally includes $10 million annually for real property leases, $15 million annually for equipment, and $10 million annually for energy projects.

Maryland Stadium Authority

Legislation passed by the 1988 General Assembly authorizes the Maryland Stadium Authority to issue debt to a maximum of $235 million outstanding, $200 million of which may be issued as tax-exempt debt. The law further allocates the funds as follows (Section 13-712 of the Financial Institutions Article):

- $85 million in site acquisition and preparation, relocation, demolition and removal, etc.;
- $70 million for a new baseball stadium; and
- $80 million for a new football stadium.

Cost estimates for the two stadiums increased over time, and in July 1997 amendments to the financing plan showed the football stadium cost at $220 million. The increasing project costs from 1987 to 1997 are shown in **Exhibit 4.6**.

Exhibit 4.6
Sport Stadium Cost Estimates
($ in Millions)

	Feb '87	Nov '88	Jun '89	Nov '94	Nov '95	July '97
Property acquisition and site preparation	$72.3	$99.7	$99.7	$99.9	$99.9	$99.9
Baseball Stadium	68.4	78.4	105.4	(a) 113.6	(a) 113.6	(a) 113.6
Football Stadium	87.0	87.0	114.0	(b) 186.0	(c) 200.0	(c) 220.0
Total	**$227.7**	**$265.1**	**$319.1**	**$399.5**	**$413.5**	**$433.5**

(a) Increased due to change orders and claims settlements.
(b) Included $16 million in football related expenses. Construction estimate was $170 million.
(c) Includes $10 million for additional parking. Final cost of the football stadium turned out to be $229 million.

Source: Maryland Stadium Authority

In May 1989, the Stadium Authority sold $60.8 million in Sports Facilities Lease Revenue Notes for the purpose of property acquisition. These were taxable bonds and were sold in three series:

1989 A - $24,280,000 due December 15, 1989

1989 B - $19,115,000 due December 15, 1990

1989 C - $17,450,000 due December 15, 1992, through 2019

The Stadium Authority sold $137 million of tax-exempt bonds in November 1989 (Series 1989 D). This sale was $32 million over the amount in the "First Amended Plan of Financing" and enabled the Stadium Authority to make the maximum use of tax-exempt financing. Under federal law, only 25 percent of tax-exempt financing may be used for land acquisition; therefore, the increased cost of the baseball stadium allowed a greater portion of the land acquisition costs to be financed by tax-exempt bonds. In order to accomplish this maximum use of tax-exempt financing, the Stadium Authority received approval from the Board of Public Works to issue bonds totaling $103.8 million for construction of the baseball stadium. The Stadium Authority then utilized $33.8 million of proceeds from the $137 million in Series D bonds together with $9.6 million in lottery proceeds to defease $43.4 of taxable bonds (Series A and B).

The $103.8 million in bonds for construction of the baseball stadium exceeded the $70 million limit in the statute. (See discussion of Financial Institutions Article Section 13-712 above.) The Board of Public Works, after notification to the Legislative Policy Committee, authorized the Stadium Authority to exceed the internal limits, but not the aggregate limit. Although the bonds outstanding for the baseball stadium ($103.8 million) exceeded the limit, the bonds outstanding for the site acquisition ($51.2 million) were less than the limit. In aggregate, the outstanding bonds totaled $155.0 million or the combined amount of the site acquisition and baseball stadium limits. The balance of the total project cost of $213.3 million (site acquisition - $99.7 million and baseball stadium - $113.6 million) was paid by lottery proceeds ($50.2 million) and the authority’s own-source revenues.

The income from which the authority expects to make debt service payments on all bonds will be derived in the most part from appropriations made pursuant to a lease between the State and the authority. The obligation of the State is subject to legislative appropriation and will be provided from monies derived from specially-designated lotteries. In addition, the authority's debt service may be payable from the annual $1 million grant by Baltimore City, rental and other income received from the baseball stadium pursuant to the lease between the authority and the Orioles, funds created by the bond resolution, an assignment of a lien on property and improvements financed with the bond proceeds, and an assignment of all rights granted under leases executed between the authority and/or the State and/or the Orioles.

The Stadium Authority covered the cost increases for the baseball stadium through the initiation of a third sports lottery which began in 1990. Although the authority's 1988 financing plan called for the use of a third lottery beginning in 1991, its purpose was to fund the football stadium and not to supplement the baseball stadium. In 1999 the General Assembly modified the law relating to the generation of lottery revenues for stadium purposes. Rather than being limited to sports-themed lottery games only, proceeds from any game may be directed to the Stadium Authority, provided that the ticket and related advertising clearly indicate the use of the proceeds.

Bond Refinancing

In 1993, the authority began to look at ways to take advantage of low interest rates to reduce its cost of capital. The Series 1989 C notes (taxable) carried a maximum coupon of 10 percent while the Series 1989 D bonds (tax-exempt) had a maximum rate of 7.60 percent. Comparable rates in 1993 were 7.45 percent and 5.60 percent for the taxable and tax-exempt debt, respectively.

The Stadium Authority entered into a forward refunding and interest rate swap agreement in 1993. The swap agreement is implemented in several steps. The authority issued taxable floating rate bonds in December 1998 (Series 1998 A bonds) to refinance the 1989 C notes of $16.3 million. In December 1999, the authority plans to issue tax-exempt floating rate bonds (Series 1999 bonds) to refinance the outstanding Series 1989 D bonds of $121.4 million. The stadium authority is expected to present this plan to the Board of Public Works on December 1, 1999, with the bonds to be sold before December 15, 1999.

The total authority payments (consisting of debt service on the Series 1998 A bonds and Series 1999 Bonds, along with financing costs and the net swap payment) are substantially equivalent to the existing debt service on the Series 1989 C notes and Series 1989 D bonds. The Stadium Authority benefitted through receipt of a cash payment of $15.5 million in April 1996, representing the present value of the debt service savings due to the lower interest rates (1993 rates compared to 1989 rates). These funds were applied to the football stadium construction project.

Debt service on the 1998 A series consists of 13 semi-annual interest only payments of approximately $450,000 beginning in June 1999. Principal payments begin in fiscal 2006; combined principal and interest payments range from $1.4 million to $1.8 million annually until the bonds are repaid in full in June 2020.

The authority also sold $765,000 in taxable lease revenue bonds (Series 1998 B) on December 15, 1998, to cover issuance costs and the redemption premium. Payments on this series consist of interest-only payments of approximately $42,000 annually for fiscal 2000 through 2003 and a principal payment of $765,000 in December 2003.

Payments under the swap agreement for the 1999 Series bonds will consist of an interest-only payment of $4.4 million in fiscal 2000, with annual payments thereafter ranging from $11.6 million to $11.9 million. The bonds will be fully repaid in fiscal 2020. The rate for the 1998 and 1999 Series bonds is set weekly by the remarketing agent and has varied between 4.95 and 5.35 percent. This does not affect the payments made by the Stadium Authority which remain substantially equivalent to the debt service on the bonds being refinanced.

Following the issuance of the Series 1999 refinancing bonds, the authority will have $229.9 million of tax supported debt outstanding for the Camden Yards Sports Facilities.

Football Financing

On November 15, 1995, the Board of Public Works approved the Memorandum of Agreement between the Maryland Stadium Authority and the Cleveland Browns, that had been signed by those parties on October 27, 1995. The agreement was approved by the National Football League in January 1996. It called for the team, now called the Baltimore Ravens, to lease a new football facility at Camden Yards for 30 years beginning with the 1998 season. The stadium opened in August 1998 and is an open air, natural grass, state of the art football facility seating 68,400 with 108 luxury suites and 7,500 club level seats.

Under the agreement with the team, the Ravens do not pay rent for the use of the facility, but will be responsible for the year-round maintenance, operation, and security of the facility. The Ravens used Memorial Stadium for the 1996 and 1997 seasons rent free with the Stadium Authority's share of the 10 percent admissions taxes covering the costs of operation. The Stadium Authority may participate in the construction of a training facility for the Ravens, although legislative approval would be required since the site would not be at Camden Yards. The Stadium Authority is required to deposit $200,000 annually into a capital improvement fund so that a balance of $600,000 is maintained.

Until July 1997, the total project was estimated to cost $200 million, but that figure was revised to $220 million in late July as the Stadium Authority presented an amendment to the agreement with the Ravens to the Board of Public Works. The cost of concrete and the general robustness of the State's economy were cited as reasons for the cost overrun. Late in the construction period, the team agreed to pay $3 million for additional construction work, namely a suite of offices for their use and a second kitchen for the concessionaire. During the budget hearings of the 1999 session, the Stadium Authority acknowledged that the project was completed at $6 million over budget. These additional funds were paid from Stadium Authority sources generated from the operations of the Camden Yards complex. The project is comprised as follows:

	($ in Millions)
Construction	$202
Design/construction management	17
Additional parking	10

Total	**$229**

The Board of Public Works approved the sale of $87.565 million in tax-exempt Sports Facilities Lease Revenue Bonds in April 1996, and the bonds were sold that same month. This amount was the maximum available for football stadium debt under the statutory limit of $235 million in bonds outstanding. The bonds sold at a true interest rate of 5.761 percent with a thirty-year term. The bonds were structured with principal payments beginning in fiscal 2000, after the stadium was completed. Neither capitalized interest nor a debt service reserve fund were included in the bond package in order to maximize the amount of bond proceeds available for construction. Interest only payments of $4.3 million in fiscal 1997 and $4.9 million in both fiscal 1998 and 1999 were paid from lottery proceeds appropriated in the Stadium Authority's budget for those years. Debt service of $6.42 million annually will be required to make principal and interest payments beginning in fiscal 2000 until fully paid in fiscal 2026.

In December 1997, the Stadium Authority sold $4.64 million in tax-exempt Sports Facility Revenue Bonds at an interest cost of 4.655 percent. In fiscal 1998, an interest only payment of $108,000 was made; beginning in fiscal 1999, annual principal and interest payments will average $580,747 over a ten-year term. Payments will be made from the lottery proceeds appropriated to the Stadium Authority's budget. To accomplish this financing, the Board of Public Works again revised the internal allocations of the authority's debt limit to allow for $92,205,000 in football debt.

The lease revenue bonds are only one component of the football financing plan. **Exhibit 4.7** below describes the complete plan:

Exhibit 4.7
Football Stadium Funding Sources
($ in Millions)

Lease Revenue Bonds		
Fiscal 1996, net of issuance costs		$ 86.5
Fiscal 1998, net of issuance costs		4.6
Lottery Proceeds		65.6
Balance 6/30/95	$ 2.8	
Fiscal 1996	20.0	
Fiscal 1997-99	42.8	
Savings from Refunding		
Baseball Bonds		15.5
1996 Football Bonds		2.7
Other Sources		54.1
Interest Earnings	6.3	
Sale of Naming Rights	10.0	
Payment by Balt. Ravens*	13.0	
Other Authority Sources	24.8	
Total		**$229.0**

*HB 1267, enacted during the 1996 session, requires the Ravens to pay the State $24 million over the life of its lease of the football stadium. The Ravens have agreed to pay up to $10 million of this amount during the construction of the stadium. The remaining $3 million is for additional construction work for offices and a kitchen.

Source: Maryland Stadium Aurthority
Department of Legislative Services

Under the financial plan, the Stadium Authority received $32 million in lottery revenues annually for fiscal 1997 through 1999. Of this $96 million appropriated during the construction period, $42.8 million was used for pay-as-you-go financing after the debt service was paid on both the baseball and football bonds. The State Lottery Agency instituted a multi-state lottery in September 1996, The Big Game, with the proceeds directed to the Stadium Authority to supplement the revenue generated by sports-related instant games.

Earlier versions of the financing plan had assumed that the authority would receive as much as $5 million from the sale of permanent seat licenses (PSLs). This was based on an estimated $80 million to be raised from the PSLs with the first $75 million being credited to the football team. The team's marketing plan for PSLs was scaled back to raise a total of $68 million, all of which will be retained by the team to cover relocation expenses, debts owed in Ohio, construction of the training facility, and NFL assessments. The Stadium Authority had discussed the possibility of deferring the approved renovations to the Camden Station as a source of funds to cover this shortfall. That project has taken longer than anticipated to get underway, as the Babe Ruth Museum was having trouble accumulating the matching funds needed for its share of the project. A recent gift from the Baltimore Orioles has helped the museum reach its goal, and the project is again progressing. Recent cash-flow projections from the Stadium Authority show the Camden Station project being funded in fiscal 2000 and 2001.

House Bill 1267 (Chapter 327 of the Laws of 1996) requires that the lease agreement with the Baltimore Ravens include a provision that the team reimburse the authority for $24 million in stadium construction costs, including the construction, fitting out, and furnishing of the private suites. The act also establishes the Public School Construction Fund that will receive a total of $24 million from the Stadium Authority, payable at $2.4 million annually from fiscal 2001 through 2010.

Budget bill language was adopted with the fiscal 1998 budget expressing the General Assembly's intent that no additional State funds (over the contributions outlined in the financing plan adopted in March 1996) would be appropriated to the stadium construction project. The reality of the cost overruns, therefore, required the Stadium Authority to find funds from other sources, with the team being a logical one.

In July 1997, the Board of Public Works approved amendments to the agreement with the Baltimore Ravens that address this issue of funding the stadium's construction costs. First, the amendment established the payment stream for the $24 million in construction costs to be reimbursed by the team. The team agreed to pay up to $10 million on or before June 30, 1999 if needed to pay for "unique design elements" of the construction, with the balance to be paid at $800,000 annually. Secondly, the team agreed to pay $10 million on or before December 31, 1997 for construction expenses. In exchange for this additional contribution of $10 million, and to provide a source of revenue for timely payments toward the $24 million obligation, the team received the rights to sell the name of the football stadium to a corporate sponsor. (In January 1999, the team announced an agreement with PSINet to be a presenting sponsor of the team. For a reported $105.5 million over 20 years, the facility will bear the name "PSINet Stadium.") The team has also agreed to pay $3 million for additional construction, both for a suite of offices for the team and for a second kitchen for the concessionaire.

The no-rent provision in the Ravens agreement has allowed the Stadium Authority to issue tax-exempt bonds. A provision in the 1986 Tax Reform Act allows for tax-exempt issues if no rent is charged or if the rent is less than 10 percent of the debt service payment. The Stadium Authority estimates that the tax-exempt debt saves $1.3 million annually in interest costs compared to taxable revenue bond debt.

Combined Camden Yards Debt and Debt Service

With the December 1999 sale of bonds (as discussed above), the outstanding debt on the Camden Yards Sports Facilities complex will total $229.9 million as follows:

	$ in Millions
Series 1996 Bonds (Football)	$87.565
Series 1997 Bonds (Football)	3.840
Series 1998 Bonds (Land)	17.065
Series 1999 Bonds (Baseball)	121.380
Total	**$229.850**

Beginning in fiscal 2001, annual debt service for these projects totals $20.5 as follows:

	$ in Millions
Series 1996 Bonds (Football)	$6.420
Series 1997 Bonds (Football)	.569
Series 1998 Bonds (Land)	1.869
Series 1999 Bonds (Baseball)	11.607
Total	**$20.465**

Convention Center Financing

Baltimore Convention Center

During the 1993 session, legislation was enacted (Chapter 400) which authorized the expenditure of $101 million in State funds to expand and renovate the Baltimore Convention Center. The Maryland Stadium Authority issued the financing plan for expansion of the Baltimore Convention Center that was approved by the Board of Public Works on September 1, 1993. The legislation also provides that operating deficits will be paid one-third by Baltimore City and two-thirds by the State.

The project costs totaled $178.4 million as set forth below:

Revenue	**($ in Millions)**
State general obligation bonds	$58.0
Authority lease/revenue bonds	55.0
Baltimore City contribution	50.0
Vendor and utility rebates	13.4
Interest on construction fund	2.0
Total	**$178.4**
Expenditures	
Construction	$172.2
Capitalized interest, revenue bonds	5.7
Issuance costs-revenue bonds	0.5
Total	**$178.4**

The State included $20 million for the expansion project in its October 1993 bond sale, and the Stadium Authority issued $55 million (including capitalized interest and cost of issuance) in revenue bonds in August 1994. The State provided an additional $20 million in general obligation bond funding in fiscal 1996 and the final $10 million of the State's $50 million general obligation bond funding commitment was provided in fiscal 1997. The remaining $50 million cost of the center expansion was borne by the City of Baltimore, which issued $57 million in city revenue bonds.

Cost overruns became apparent during the budget deliberations in the 1996 session. The Stadium Authority received an additional appropriation of $8 million in general obligation bonds to cover the escalating price of steel and gypsum. The project was also able to take advantage of $11 million from Baltimore Gas and Electric for utility rebates ($6 million) in their energy conservation program and for the construction of a chilled water plant ($5 million) to serve several downtown blocks. Smaller rebates were received from the concessionaire and the steam company.

Debt outstanding and debt service for the Baltimore Convention Center are included in the debt affordability exhibits. Principal and interest payments for the Stadium Authority bonds total approximately $4.9 million annually for fiscal 1998 through 2014. (Payments in fiscal 1995, 1996, and 1997 were interest only, at $3.1 million or less annually.)

Construction of the expansion was completed as scheduled in September 1996. Renovation of the existing center was then undertaken, and the entire facility was open for business in April 1997.

Ocean City Convention Center

The 1995 General Assembly passed HB 1370 (Chapter 603) authorizing the Maryland Stadium Authority to issue revenue bonds for the renovation and expansion of the Ocean City Convention Center. The construction was estimated to cost $30.75 million with funding split 50/50 between the State and Ocean City. The Maryland Stadium Authority's issuance of $17.34 million in October 1995 included capitalized interest. In addition, the General Assembly authorized $500,000 in general obligation bonds in the 1994 session for planning purposes. Although the total project was projected to cost $34.9 million, savings of $950,000 resulted during the construction process. The project revenues and uses of funds are set forth below:

Revenue	**($ in Millions)**
State general obligation bonds (1994)	$ .50
Maryland Stadium Authority revenue bonds, inc. capitalized interest (Oct 1995)	17.34
Ocean City contribution (1994)	.50
Ocean City contribution (Oct 1995)	14.70
Interest on construction fund	1.86
Total	**$34.90**
Expenditures	
Planning	$1.00
Construction	29.80
Contingencies	1.29
Capitalized interest on revenue bonds	1.62
Issuance cost on revenue bonds	0.24
Project savings applied to debt service	0.95
Total	**$34.90**

During fiscal 1998, savings in the construction budget became evident. As a result, the need for general funds for debt service was reduced by $950,000 over fiscal 1998 and 1999 through the negative deficiency process. Principal and interest payments total approximately $1.48 million annually for fiscal 1999 through 2016. (Payments in fiscal 1996, 1997, and 1998 were interest only and less than $900,000 each.)

Under the terms of HB 1370 the Maryland Stadium Authority entered into a written agreement with Ocean City requiring:

- the Maryland Stadium Authority to be in charge of the expansion and renovation project;

- Ocean City to promote, operate and maintain the completed center in a manner which maximizes the centers economic return and keeps the facility in first class operating condition;

- the authority to contribute one-half and the city to contribute one-half to the annual operating deficits of the completed center for the life of the State's bonds (20 years); and

- the authority and the city to each annually contribute $50,000 to a capital improvement reserve fund for the center.

The bonds issued by the Stadium Authority were not general obligation bonds and thus were not included within the annual general obligation bond limit. They are State tax supported, however, and are thus included within the 3.2 percent affordability standard for outstanding State tax supported debt. The project was completed by the end of 1997.

Montgomery County Conference Center

The fiscal 1995 operating budget contained a $300,000 grant to provide funds for preparing various studies concerning a Montgomery County Conference Center. In addition the capital budget authorized $150,000 to assist in the preliminary design of a new center. Chapter 407 of the Laws of 1996 authorizes the Stadium Authority to issue bonds sufficient to contribute $17,304,000 to the capital costs of this center and sets the maximum amount of outstanding debt at $17,604,000.

The conference center is planned to include nearly 100,000 square feet of ballroom, meeting, and exhibition space. A 225-room hotel is also planned for the complex that is to be located in Rockville, across from the White Flint Metro station. Marriott International and Quadrangle Development are partners with the Stadium

Authority and county in the project. In all, the complex represents a $60 million investment.

The total cost of construction of the conference facility has been estimated at $27.5 million. The State has agreed to participate at 50 percent of that total ($13.75 million). In addition, the Stadium Authority's bonds provide an amount equivalent to the first 36 months of debt service ($3.554 million) on the bonds to be issued by Montgomery County for its 50 percent share of construction costs. Bond issuance costs are estimated at $300,000 for the Stadium Authority bonds. Montgomery County has an agreement to purchase a 12-acre parcel on the west side of Rockville Pike for $7.5 million from the Washington Metro Area Transit Authority. In June 1998, the County Council gave final approval to the rezoning of the property to allow for the development of the center. Modifications to the original plans for traffic flow and parking were modified by the county in light of community opposition and issues raised by a zoning hearing examiner. Legal appeals to have the rezoning overturned have been unsuccessful.

With the conclusion of all legal actions, the Stadium Authority has resumed the design process. The Montgomery County Council has approved the business agreements with the private-sector partners. Ground-breaking is expected for late spring 2000, and construction would take 20 to 24 months.

Under the terms of Chapter 407, the Maryland Stadium Authority will enter into a written agreement with Montgomery County requiring:

- that Montgomery County contribute $10.2 million for the capital construction costs;

- that any cost overruns or savings on the construction of the center be shared equally between the State and the county;

- that both the Stadium Authority and the county each own a 50 percent leasehold interest as tenants in common for the duration of the Stadium Authority's bonds;

- Montgomery County to market, promote and operate the center in a manner that maximizes its economic return;

- Montgomery County to maintain the facility in a first class operating condition; and

- Montgomery County to be solely responsible for all expenditures relating to the operation of the center, including any net operating deficits (the county will keep any operating profits).

Due to the delay in the schedule caused by challenges to the zoning and other disagreements at the county level, costs have risen by approximately $6.0 million. The Stadium Authority plans to present legislation during the 2000 session of the General Assembly to increase their bonding authority by one-half of this amount. It is anticipated that Montgomery County will provide the remaining $3.0 million of increased costs.

The bonds to be issued by the Stadium Authority are not general obligation bonds and thus are not included within the annual general obligation bond limit. They are State tax supported, however, and are thus included within the 3.2 percent affordability standard, with the sale anticipated during calendar 2000.

Bond Anticipation Notes (BANS)

In response to the savings and loan crisis in May 1985, the General Assembly authorized $100 million in general obligation bonds. The State utilized the authorization as security for the issuance of Bond Anticipation Notes (BANS). The final BANS redemption occurred in fiscal 1990 and during the 1990 session the $100 million general obligation bond authorization was canceled.

Early in the land acquisition phase of the new baseball stadium, the Maryland Stadium Authority issued $18 million in Bond Anticipation Notes. These were retired with funds from the first bond sale.

There are no plans to issue additional BANS at this time nor is there debt outstanding on BANS.

Chapter 5. Economic Factors and Affordability Analysis

Economic factors have a strong influence on whether a particular level of debt is affordable under the criteria adopted by the State. Maryland personal income levels and revenues make up one half of the affordability calculations. Changes in these factors can have a profound effect.

Personal Income

The Department of Legislative Services' (DLS) estimates of personal income differ from those of the Capital Debt Affordability Committee (CDAC). DLS is predicting slightly higher growth than is CDAC for calendar 1999, 2000, and 2005. As a result, DLS' estimate of personal income is higher for calendar 1999 through 2001 and lower for calendar 2002 through 2005. **Exhibit 5.1** compares DLS personal income estimate with those of CDAC.

Exhibit 5.1
Maryland Personal Income - Historical Data and Projections
Comparison of DLS and CDAC Projections
($ in Millions)

Calendar Year	DLS Personal Income	% Change	CDAC Personal Income	% Change	DLS - CDAC
1997	146,090	5.8	146,090	5.8	0
1998	154,164	5.5	154,164	5.5	0
1999	163,194	5.9	162,923	5.7	271
2000	172,142	5.5	171,444	5.2	698
2001	181,397	5.4	181,236	5.7	161
2002	191,063	5.3	191,575	5.7	(512)
2003	200,890	5.1	201,790	5.3	(900)
2004	211,180	5.1	211,868	5.0	(688)
2005	222,095	5.2	222,123	4.8	(28)

Source: DLS 1997 Bureau of Economic Analysis
1998 Bureau of Revenue Estimates
1999 - 2005 Department of Legislative Services
CDAC CDAC report, September 1999

Changes in personal income can have a large impact on the affordability of the State's debt level. Lower personal income results in higher ratios of debt outstanding for any given level of debt. Levels of outstanding debt that were projected to be affordable in past years may suddenly be close to or over the limit if poor economic conditions result in sizable downward revisions. Improvements in personal income levels have the opposite effect and improve the affordability picture.

Revenue Projections

Exhibit 5.2 presents revenue projections to fiscal 2005. The Department of Legislative Services is projecting slightly higher revenues for fiscal 2000 though 2005 than is the CDAC. Most of the differences are in the general fund and transportation revenue estimates. Revenue levels are factored into the debt service criteria. Higher revenues result in lower ratios of debt service to revenues. Conversely, when revenue growth is slow, higher debt service to revenue ratios occur.

Exhibit 5.2
Maryland State Revenue Projections
($ in Millions)

Fiscal Year	General Fund	Property Taxes	Transp.	Stadium Related	Total DLS Revenues	CDAC Revenues	DLS - CDAC
1998	$8,051.3	$242.1	$1,334.0	$24.6	$9,652.0	$9,652.0	$0
1999	8,524.4	246.5	1,444.0	25.7	10,240.6	9,910.2	330.4
2000	9,016.6	251.2	1,439.0	27.1	10,733.9	10,117.2	616.7
2001	9,281.3	256.8	1,481.0	28.2	11,047.3	10,457.9	589.4
2002	9,551.1	263.2	1,525.0	28.6	11,367.9	10,769.2	598.7
2003	9,922.1	269.8	1,573.0	28.7	11,793.6	11,177.2	616.4
2004	10,374.3	276.5	1,622.0	28.8	12,301.6	11,565.9	735.7
2005	10,850.1	283.5	1,671.0	28.7	12,833.3	11,943.4	889.9

Source:

General Fund:	Per DLS October report to the Spending Affordability Committee
Property Tax:	1998: Commission on State Debt
	1999: State Treasurer's Office
	2000 - 2005: Department of Legislative Services
Transportation:	1998 - 1999: Department of Transportation
	2000 - 2005: Department of Legislative Services
Stadium:	Maryland Stadium Authority
CDAC:	CDAC Report, September 1999

Affordability Analysis

Exhibits 5.3 and 5.4 incorporate the debt limits recommended by the CDAC along with the personal income and revenues estimated by the Department of Legislative Services to determine compliance with the established guidelines for debt affordability. Exhibit 5.3 shows that, for the forecast period, debt outstanding as a percent of personal income steadily declines from 2.81 percent in fiscal 2000 to 2.31 percent in fiscal 2005. These ratios are well below the affordability limit of 3.2 percent and are a marked improvement over the 1996 estimates which, due to lower personal income projections, showed the outstanding debt ratio reaching the 3.2 percent limit in 1998.

Exhibit 5.4 shows that debt service as a percent of revenues fluctuates throughout the forecast period ranging from a low of 6.15 percent in fiscal 2001 to a high in fiscal 2003 of 6.45 percent. These ratios, as in past forecasts, are well below the 8 percent affordability criteria. However, acceleration of the current income tax reduction, or an increase above the current 10 percent planned reduction with the resultant decrease in general fund revenues, could push the debt service-to-revenue ratio much closer to the 8 percent level. This would make the debt service affordability criteria more of a limiting factor on the State's debt issuance whereas in the past the 3.2 percent debt outstanding as a percentage of personal income has been the limiting factor in the State's debt management.

Exhibit 5.3

State Tax Supported Debt Outstanding
Components and Relationship to Personal Income

Fiscal Year	General Obligation (a)(b)	Department of Transportation (c) Consolidated (d)	County	Total	Capital Leases	Stadium Authority	Total Tax Supported Debt
State Tax Supported Debt Outstanding ($ in Thousands)							
1996	2,859,935	946,685	10,200	956,885	115,778	307,340	4,239,938
1997	3,025,394	923,885	5,637	929,522	98,351	309,740	4,363,007
1998	3,270,525	844,015	5,261	849,276	90,301	305,460	4,515,562
1999	3,500,238	749,130	4,736	753,866	133,259	299,895	4,687,258
2000	3,552,247	790,000	4,177	794,177	184,013	310,385	4,840,822
2001	3,629,927	863,000	3,582	866,582	183,489	302,575	4,982,573
2002	3,711,827	884,000	2,944	886,944	180,973	293,785	5,073,529
2003	3,767,162	838,000	2,270	840,270	182,392	284,470	5,074,294
2004	3,928,832	732,000	1,549	733,549	179,918	274,480	5,116,779
2005	4,068,582	612,000	787	612,787	177,760	263,890	5,123,019
State Tax Supported Debt Outstanding as a Percent of Personal Income (Affordability criteria standard = 3.2%)							
1996	2.07%	0.69%	0.01%	0.69%	0.08%	0.22%	3.07%
1997	2.07%	0.63%	0.00%	0.64%	0.07%	0.21%	2.99%
1998	2.12%	0.55%	0.00%	0.55%	0.06%	0.20%	2.93%
1999	2.14%	0.46%	0.00%	0.46%	0.08%	0.18%	2.87%
2000	2.06%	0.46%	0.00%	0.46%	0.11%	0.18%	2.81%
2001	2.00%	0.48%	0.00%	0.48%	0.10%	0.17%	2.75%
2002	1.94%	0.46%	0.00%	0.46%	0.09%	0.15%	2.66%
2003	1.88%	0.42%	0.00%	0.42%	0.09%	0.14%	2.53%
2004	1.86%	0.35%	0.00%	0.35%	0.09%	0.13%	2.42%
2005	1.83%	0.28%	0.00%	0.28%	0.08%	0.12%	2.31%

(a) Reflects presumed new authorizations as follows:

General Assembly Session:	2000	2001	2002	2003	2004	2005
For Fiscal Year:	2001	2002	2003	2004	2005	2006
(millions)	$460	$475	$490	$505	$520	$535

(b) Assumes debt service on minibonds is paid at maturity and no minibond put options are exercised.

(c) Net of sinking funds or debt service reserve funds.

(d) Does not include the following:
(1)Transfers of $25, $40, and $10 million from the Transportation Authority to the Department of Transportation in fiscal 1991 - 1993. DOT re-transferred $25 million per year in fiscal 1995-1997; (2) The authority investment of $11.9 million for the development of Berth 4 at the Seagirt Marina Terminal. The department is repaying this amount in annual payments of $567,280 including interest over a 33-year period; (3) Financing the construction of the Masonville Terminal during fiscal 1999 - 2000 in the amount of $20 million to be repaid in annual payments of $1,674,000 including interest over a 20-year period.

(e)

Assumptions: (millions)	2000	2001	2002	2003	2004	2005
G.O. issues	$350	$400	$429	$410	$540	$535
DOT issues	140	150	105	50	0	0
Stadium Authority issues	18	0	0	0	0	0
Capital Leases - Equip. & EPC	25	25	25	25	25	25
Real Property	10	10	10	10	10	10
Personal Income (billions)	164	173	182	191	201	211

Exhibit 5.4
State Tax Supported Debt Service
Components and Relationship to Revenues

Fiscal Year	General Obligation (a)	Department of Transportation: Consolidated (b)	Department of Transportation: County (c)	Department of Transportation: Total	Capital Leases	Stadium Authority (d)	Total Tax Supported Debt Service
State Tax Supported Debt Service ($ in thousands)							
1996	382,147	121,406		121,406	32,015	17,399	552,967
1997	392,733	135,693		135,693	36,316	22,029	586,771
1998	417,543	142,796		142,796	25,220	24,573	610,132
1999	417,505	132,910		132,910	23,992	25,669	647,400
2000	464,829	136,000		136,000	39,241	27,142	690,410
2001	488,027	117,000		117,000	45,776	28,197	707,870
2002	516,897	128,000		128,000	47,897	28,649	754,240
2003	549,694	139,000		139,000	43,830	28,666	774,918
2004	563,422	145,000		145,000	43,134	28,758	812,904
2005	596,011	153,000		153,000	42,348	28,738	844,894
State Tax Supported Debt Service as a Percent of Revenues (Affordability criteria standard = 8%)							
1996	5.14%	9.62%		9.62%	0.43%	100.00%	6.34%
1997	5.00%	10.49%		10.49%	0.46%	100.00%	6.40%
1998	5.03%	10.70%		10.70%	0.30%	100.00%	6.32%
1999	5.30%	9.20%		9.20%	0.27%	100.00%	5.86%
2000	5.27%	9.45%		9.45%	0.41%	100.00%	6.22%
2001	5.42%	7.90%		7.90%	0.48%	100.00%	6.15%
2002	5.60%	8.39%		8.39%	0.49%	100.00%	6.35%
2003	5.53%	8.84%		8.84%	0.43%	100.00%	6.45%
2004	5.60%	8.94%		8.94%	0.40%	100.00%	6.34%
2005	5.58%	9.16%		9.16%	0.38%	100.00%	6.39%

(a) Forecast assumes debt service on minibonds is paid at maturity and no minibond put options are exercised.
(b) Does not include the following:
(1) Transfers of $25 million per year in fiscal 1995 - 1997 from the Department of Transportation (DOT) to the Maryland Transportation Authority (MdTA) to repay the MdTA for the transfer of $25, $40, and $10 million in fiscal 1991 - 1993; (2) Annual payments of $567,280 beginning in fiscal 1999 from the DOT to the MdTA to repay the Authority's $11.9 million investment for the development of Berth 4 Seagirt Marine Terminal; (3) Annual payments of $1,674,000 beginning in fiscal 2000 for the DOT to repay the MdTA's $20 million financing of the Masonville Auto Terminal; (4) $12 million transfer per year in fiscal 2002 - 2003 from the DOT to the MdTA to repay a $24 million transfer in fiscal 1999.
(c) Repayments from counties equal or exceed debt service requirements.
(d) Transfers from the Stadium Facilities Fund to the Stadium Authority are assumed to be just sufficient, when coupled with the Authority's own-source revenues, to meet debt service requirements.

The debt outstanding ratios based on Legislative Services' personal income estimates are slightly lower throughout the forecast period than the ratios estimated by the CDAC. The lower ratios result primarily from Legislative Services' lower transportation debt outstanding forecast. **Exhibit 5.5** compares the two sets of debt outstanding ratios.

Exhibit 5.5
Comparison of Debt to Personal Income Ratios

Fiscal Year	DLS	CDAC
2000	2.81%	2.82%
2001	2.75%	2.77%
2002	2.66%	2.72%
2003	2.53%	2.68%
2004	2.42%	2.63%
2005	2.31%	2.52%

Source: *Report of the Capital Debt Affordability Committee*, September 1999
Department of Legislative Services

Chapter 6. Non-Tax Supported Debt

In addition to the five 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, a default in payment of debt service on this debt could negatively impact other Maryland debt.

Revenue 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, the Maryland Transportation Authority constructs toll facilities with bond proceeds and the tolls collected pay off the bonds. Other State agencies issue bonds for various purposes.

Debt Issuance

Growth in the amount of non-tax supported agency debt has been a concern of both the General Assembly and the Capital Debt Affordability Committee. During the 1989 session the General Assembly passed SB 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 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 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 debt of that program 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 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 6.1** shows the allocations and issues for fiscal 1997 and 1998 and the issuance levels for 1999.

Exhibit 6.1
State Agency Debt Allocations and Issuances
($ in Thousands)

Agencies Subject to Allocation Cap	**FY 1998** ---Allocation--- Original	Final	Issued	**FY 1999** Issuance Levels (a) Approved	Issued	**FY 2000** Issuance Levels (a)
Balt. Comm. College	--	(a)	--			
CDA - Local Infra.	$10,000	(a)	--			
MD Envirn. Service	16,500	16,500	1,250	8,000	7,543	6,000
MD Food Ctr. Auth.	--	--	--	10,000	--	15,000
Morgan State Univ.	5,000	(a)	--			
St. Mary's College	--	(a)	--			
MD Trans. Auth.	--	--	(b)	30,000	--	--
Univ. System of MD	60,000	(a)	--			
Water Qual. Fin. Ad.	50,000	50,000	--	50,000	--	--
Total	**$141,500**	**$66,500**	**$1,250**	**$98,000**	**$7,543**	**$21,000**

(a Executive Order 01.01.1998.07, effective February 7, 1998, requires debt issuance levels only for Maryland Environmental Service, Maryland Food Center Authority, Maryland Transportation Authority, and the Water Quality Financing Authority.

(b) The Maryland Transportation Authority issued $16.380 million of refunding bonds during 1998; under the new Executive Order, debt issuance levels apply only to issuances net of refundings.

Source: Department of Budget and Management. *Debt Issued by Maryland Sate Agencies and Independent Authorities: Fiscal Year 1999*, November 1999.

Private Activity Bonds

Agency debt not subject to the Executive Order is funded through private activity bonds. The Community Development Administration, the Maryland Industrial Development Financing Authority and the Maryland Energy Finance Authority issue private activity bonds to fund projects. These bonds are subject to the unified volume cap set in federal tax law. Originally imposed by the Tax Reform Act of 1986, the unified volume cap set a ceiling on annual tax-exempt private activity bond volume for each state equal to the greater of $50 per capita or $150 million. The Omnibus Appropriation Act of 1998 increased the cap to the greater of $75 per capita or $225 million. The increase is to be phased in from federal fiscal 2003 to 2007. Congress enacted legislation in 1999 that would have started the phase-in of the cap increase in federal fiscal 2000, however the bill was vetoed by the President. The only tax-exempt private activity bonds not subject to the cap are those issued for nonprofit organizations, for government owned airports, docks, wharves, solid waste facilities, and for other public properties.

The unified volume cap legislation also imposed a 50/50 split of the volume cap between State issuing authorities and local issuing authorities that is subject to change should the Governor or legislature propose an alternative allocation. Unused capacity under the unified volume cap that is not used during the year in which it is received may be carried forward for a period of three years.

Debt Outstanding

Exhibit 6.2 summarizes the increase in debt outstanding for various categories between fiscal 1990 and 1999. A table containing debt outstanding by year for the individual agencies included in the summary is included as **Appendix 2**.

Between fiscal 1990 and 1999 general obligation bond and State capital lease debt outstanding has increased by 78.9 percent. Over the same period, agency debt subject to the Governor's issuance cap has increased by $222.4 million, an increase of 73.9 percent. 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 over $1.4 billion, an increase of 64.5 percent.

Although agency debt is not considered an obligation of the State, the Capital Debt Affordability Committee noted in its 1988 report that:

> ...the default of such debt can have a dramatic impact upon the general credit worthiness of a state even when no appearance of a moral obligation exists. In 1983, the Washington Public Power Supply System defaulted on $2.25 billion in tax-exempt bonds issued to build two nuclear power generating plants. This default had a negative impact upon bond market conditions for issuers throughout the Pacific Northwest. (p. 31)

Additionally, increased revenue debt is felt by the citizens of Maryland in the form of higher fees and tuition at State colleges and universities, and as higher utility and other service fees.

In November 1994, the Legislative Auditor issued a report on State created entities that issue revenue bonds. The report stated that there were no indications of problems regarding either debt service coverage ratios or bond ratings, but that periodic review of this debt was advisable.

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

	1990	**1999**	**% Change**
Agency debt subject to issuance cap	301.0	523.4	73.9%
Agency debt not subject to issuance cap*	2,170.0	3,570.5	64.5%
General obligation & State lease debt	2,030.5	3,633.5	78.9%
Transportation debt	550.0	749.1	36.2%
Public purpose/private debt	1,357.6	3,200.0	133.9%

*Excluding Maryland Industrial Financing Authority debt for which debt outstanding numbers prior to 1997 are unavailable.

Source: CDAC Report 1999 and Department of Budget and Management

In December 1996, Moody's Investor Services placed under review for possible downgrade Multiple-Family Housing Revenue Bonds issued by the Maryland Community Development Administration under its 1982 parity indenture. Moody's also indicated its intent to expedite its review of CDA's single-family housing bonds. Moody's concerns were prompted by its review of audited statements of the Maryland Housing Fund (MHF) which insures a portion of the loans financed with proceeds of CDA housing revenue bonds. Moody's questioned the adequacy of the MHF insurance reserves given increased expenses related to provision for possible insurance and loan losses. The Department of Housing and Community Development moved swiftly to address Moody's concerns. The department restructured the single-family housing program so that the bonds will no longer rely on the MHF. A new multi-family bond indenture that does not rely in the MHF had already been created in November 1996. These actions along with other changes in the management of the MHF and bond programs led Moody's to reaffirm the AA ratings for both the multi-family and single-family housing bonds. This experience highlights the importance of continual review of agency debt activities.

Debt Service on Academic Revenue Bonds

Chapter 93 of the Acts 1989 gave Morgan State University, St. Mary's College, and the University System of Maryland (USM) the authority to issue bonds for academic and auxiliary facilities. Chapter 208 of the Acts of 1992 granted the same authority to Baltimore City Community College. Academic facilities are those primarily used in the instruction of students. Classrooms, for example, are academic facilities. Auxiliary facilities are those that produce fees or revenues from 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, grants or gifts.

The statute specifies that academic facilities must be expressly approved by an act of the General Assembly that determines both the project and bond issue amount. Each year, the University System of Maryland Administration introduces legislation entitled Auxiliary and Academic Facilities Bonding Authority that lists the specific academic projects that require authorization. This legislation may also increase the USM total debt limit when warranted. In fiscal 1999, the debt limit was raised to $750 million, and that level was again authorized for fiscal 2000. According to the projections contained in the Report to the Capital Debt Affordability Committee, the debt limit for the University System of Maryland will not need to be raised until fiscal 2003. To date, only USM has issued academic debt.

Exhibit 6.3 provides a summary of academic revenue bond debt service payments for the University of Maryland System between fiscal 1994 and 2001. Since academic revenue bonds have a twenty-year maturity, each bond issuance means that debt service will be spread over many years. For example, bonds issued in fiscal 2000 will impact USM's operating budget through fiscal 2020.

In 1995, the Board of Regents adopted a policy recommended by consultants that limits the percentage of unrestricted funds and mandatory transfers used for debt service to 5.5 percent. In fiscal 2001, total debt service will be approximately 4.3 percent of that total. The percentage of unrestricted funds used for debt service is below the recommended limit, and the forecast does not indicate that the system will reach the recommended level in the next five years. The highest percentage forecast is 4.85 percent in fiscal 2004. The debt service recommendation was based on 10 criteria, of which the system rated favorably in seven. Three areas that warrant monitoring were endowment, debt to endowment, and unrestricted funds as a percentage of debt. Should the system resolve the concerns raised by the consultant's study, it could then consider increasing its debt service payment ceiling. Since 1993, the debt to endowment ratio and the unrestricted fund to debt service ratio have gotten worse which will prevent consideration of raising the debt service payment ratio in the near term.

During the 1999 legislative session, the General Assembly passed Chapter 426, the annual authorization for academic revenue debt to be issued for the upcoming fiscal year. The system requested $25 million in academic debt for fiscal 2000 and based on the information contained in the Capital Debt Affordability Committee's September 1999 report, USM intends to issue approximately $25 million in academic debt and $60 million in auxiliary debt in fiscal 2001. If these amounts are issued, the total USM debt outstanding will be approximately $766 million in fiscal 2001. This is $16 million above the $750 million authorized debt limit. The USM will need legislation to increase the debt ceiling to issue this amount.

The Department of Legislative Services agrees the committee's recommended debt limit for the 2000 session of $25 million in academic revenue bonds is affordable under the university system's 5.5 percent guideline.

Exhibit 6.3
University System of Maryland
Academic Facilities Bonds Debt Service

Institution	Projects		Amount Authorized	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
FY 1990											
College Park	Coll. of Business & Mgmt./Sch Pub Affairs		18,205,000								
College Park	A.V. Williams Modular Research, Phase II		16,755,000								
Salisbury	New Academic Building		16,055,000								
		Total	**51,015,000**	**4.6**	**4.6**	**4.6**	**4.6**	**4.6**	**4.6**	**4.6**	**4.6**
FY 1991											
College Park	Animal Science Bldg. Addn/Alt, Phase II		15,935,000								
Eastern Shore	Academic/Extension Center		7,900,000								
Baltimore County	Facilities Renewal (HVAC- Soc. Sc. Bldg.)		600,000								
Frostburg	Music/Theater Facility		17,180,000								
		Total	**41,615,000**	**3.8**	**3.8**	**3.8**	**3.8**	**3.8**	**3.8**	**3.8**	**3.8**
FY 1992											
Baltimore County	Kuhn Library Addition		19,240,000								
CEES	Geochemistry Facility		5,710,000								
College Park	Computer & Space Sciences Bldg., Ph 1		15,280,000								
College Park	Renov. of Skinner Hall		2,470,000								
		Total	**42,700,000**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**
FY 1993											
College Park	Plant Sciences Building	**Total**	**40,000,000**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
FY 1994											
Various	Facilities Renewal		6,482,000								
at Baltimore	Health Sciences Facility		1,201,000								
CEES	Geochemistry		535,000								
Bowie State	Bowie Utilities Upgrade		1,003,000								
UMES	Physical Education		400,000								
Bowie State	Marshall Library		193,000								
at Baltimore	Physical Plant Shops		4,127,000								
at Baltimore	University Center		300,000								
College Park	Health & Human Performance III		7,974,000								
College Park	Music Theater		2,240,000								
		Total	**24,455,000**		**0.6**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
FY 1995											
College Park	Music Theater		4,439,000								
at Baltimore	Health Sciences Library		25,485,384								
at Baltimore	Health Sciences Facility (Equipment)		3,250,000								
Salisbury	Holloway Hall		8,537,876								
		Total	**41,712,260**			**0.9**	**1.8**	**2.9**	**3.3**	**3.4**	**3.6**

Exhibit 6.3 (Continued)
University System of Maryland
Academic Facilities Bonds Debt Service

Institution	Projects		Amount Authorized	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
FY 1996											
College Park	Music Theater		40,000,000				2.0	3.0	3.3	3.3	3.3
FY 1997											
College Park	Music Theater		23,500,000								
Various	Facilities Renewal Projects*		16,500,000								
		Total	**40,000,000**				**0.1**	**2.0**	**3.0**	**3.3**	**3.5**
FY 1998											
College Park	Steam Plant Improvements		7,609,000								
College Park	Music Theater		1,242,000								
College Park	TAP Replacement Facility		745,000								
Towson	7800 York Road		7,000,000								
UMBI	Medical Biotechnology Ctr.		1,500,000								
Various	Facilities Renewal		11,904,000								
		Total	**30,000,000**					**1.0**	**1.5**	**2.4**	**2.4**
FY 1999											
at Baltimore	School of Law		1,654,000								
	School of Nursing		1,500,000								
College Park	Symons Hall		1,265,000								
	Performing Arts Center		3,048,000								
Baltimore County	Power Plant		10,298,000								
Various	Facilities Renewal		13,735,000								
		Total	**31,500,000**							**2.8**	**3.1**
FY 2000											
at Baltimore	Law School		10,000,000								
College Park	Hornbake/McKeldin Libraries		1,855,000								
College Park	Key and Taliaferro Halls		350,000								
Various	Facilities renewal		12,795,000								
		Total	**25,000,000**								**3.1**
Total Debt Service				**14.2**	**14.8**	**17.6**	**20.6**	**25.6**	**27.8**	**31.9**	**35.7**

Source: University System of Maryland

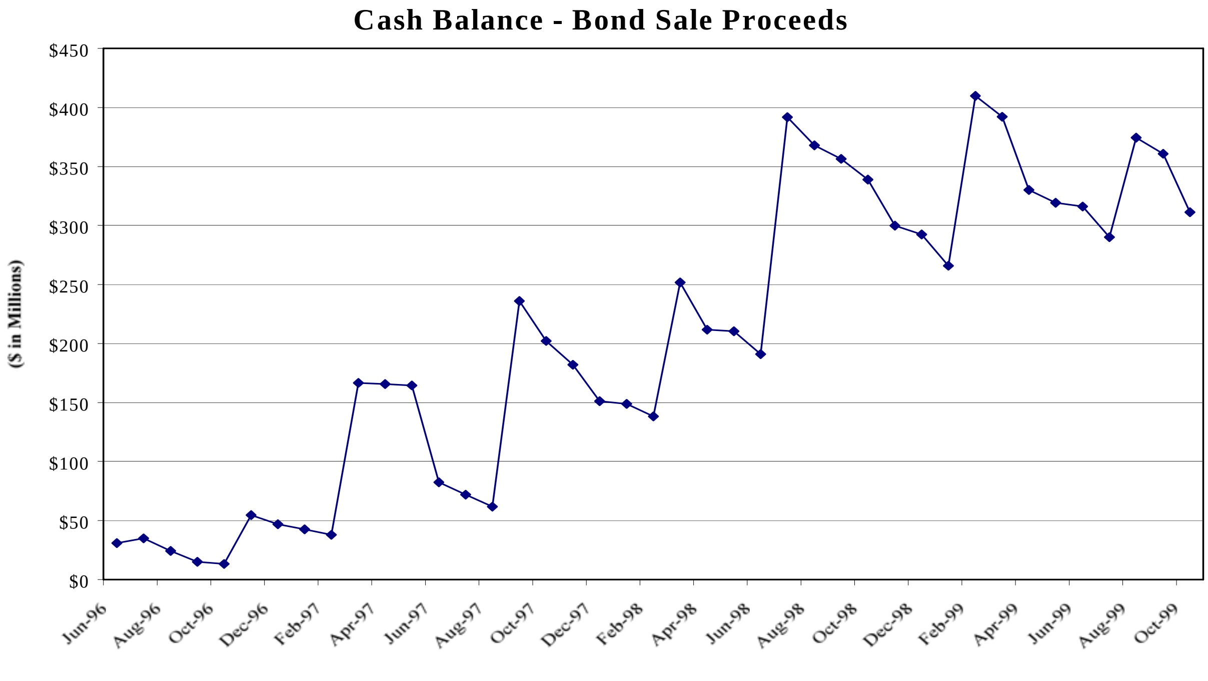
Chapter 7. Issues

This section discusses issues related to Maryland debt and debt management.

General Obligation Debt Being Issued Prematurely

Ideally, general obligation bonds are issued only for projects that are ready to expend the proceeds. The timely expenditure of bond proceeds reduces the chance of arbitrage earnings which can result in penalties or require rebates to the federal government. From fiscal 1997 to the beginning of fiscal 2000, the bond proceeds cash balance had been steadily increasing with each bond sale. In response to concerns about the large cash balances, the July 1999 bond sale was reduced by $100 million. **Exhibit 7.1** shows the cash balances since June 1996.

Exhibit 7.1



Source: Office of the Comptroller

The Treasurer administers the State's general obligation bond sales and is responsible for determining the size of each issue. In setting the amount of bonds that will be issued, the Treasurer's office polls State agencies on their estimated cash needs to fund authorized capital projects. Over the past few years these estimates have been higher than the actual need but no downward adjustment in bond sale size occurred until the July 1999 sale. The reduction of $100 million from the planned $225 million sale did halt the steady increase in cash balance but cash on hand still remains high compared to pre-fiscal 1997.

One method of maintaining low cash balances is the practice of running "red balances". A red balance occurs when funds for an authorized capital project are advanced by the State from cash on hand. Proceeds from the bond sales are then used to reimburse the accounts from which the funds were forwarded. In running red balances the State loses the interest it would have earned on the funds advanced to the capital projects. This loss is offset by avoiding debt service between the time the funds are advanced and the issuance of bonds to reimburse the State. Running red balances also ensures that bonds are only sold for projects which actually need the money.

The Office of the Comptroller indicates that expenditures of general obligation bond proceeds have ranged from a low of $1 million to a high of $80 million per month over the past three years with an average monthly expenditure of approximately $30 million. Given this spending rate, and the ability to run red balances, the $225 million bond sale planned for February 2000 could be canceled as a means of significantly reducing the current bond proceeds cash balance. Canceling the bond sale would result in debt service savings of $10.1 million per year for fiscal 2001 and 2002 and $23.3 million per year through fiscal 2015 when the bonds would have been fully retired.

It is recommended that the committee express support for cancellation of the February 2000 bond sale and a heavier reliance on the practice of running red balances as a means to ensure bonds are only sold to provide funds for projects that are ready to expend the proceeds.

Capital Budget May Be Getting Too Big To Handle

As the size of the capital budget increases, a growing burden is placed on the State agencies responsible for managing projects. While general obligation bond authorizations have been increasing each year for many years, this has not translated into a corresponding increase in funds being expended. As **Exhibit 7.2** compares the changes in the annual authorization of general obligation bonds with the levels of authorized but unissued bonds. While it would appear that there was some success in increasing the capital activity fiscal 1998 and 1999, as discussed in the previous issue, bonds were being issued before the proceeds were needed resulting in growing cash balances.

Exhibit 7.2
General Obligation Bonds
Authorizations and Authorized but Unissued
($ in Millions)

Fiscal Year	Authorization[1]	Change Over Prior Year	Authorized but Unissued	Change Over Prior Year
1996	$399.0		$1,119.9	
1997	413.9	14.9	1,124.7	4.7
1998	427.9	14.0	1,052.5	(72.1)
1999	443.4	15.5	1,020.9	(31.6)
2000	460.0	16.6	1,129.5	108.6
2001	475.0	15.0	1,203.5	74.0
2002	490.0	15.0	1,264.5	61.0
2003	505.0	15.0	1,359.5	95.0
2004	520.0	15.0	1,339.5	(20.0)
2005	535.0	15.0	1,339.5	0.0
Total		**$136.0**		**$219.6**

[1]Net of cancellations

Source: *Report of the Capital Debt Affordability Committee*, 1999.

It is likely that the robust economy has contributed to this problem. When construction firms are operating at or near capacity as they are currently, their bids tend to be higher than in leaner times. This has resulted in some projects being bid multiple times before a bid is received that is within the appropriated amount. The same phenomena has been experienced in the procurement of design services. The end result is that it can take much longer to get a project under construction during good economic times than it generally does when the economy is not doing as well.

Rethinking Debt Policy in Times of Budgetary Surplus

Spending affordability limits, combined with large cash balances experienced the past few years have lead to a significant increase in the amount of general funds being used for capital projects and programs (also referred to as general fund Paygo spending.) This trend is expected to continue into fiscal 2001. The availability of additional Paygo funds raises the issue of how best to apply these funds.

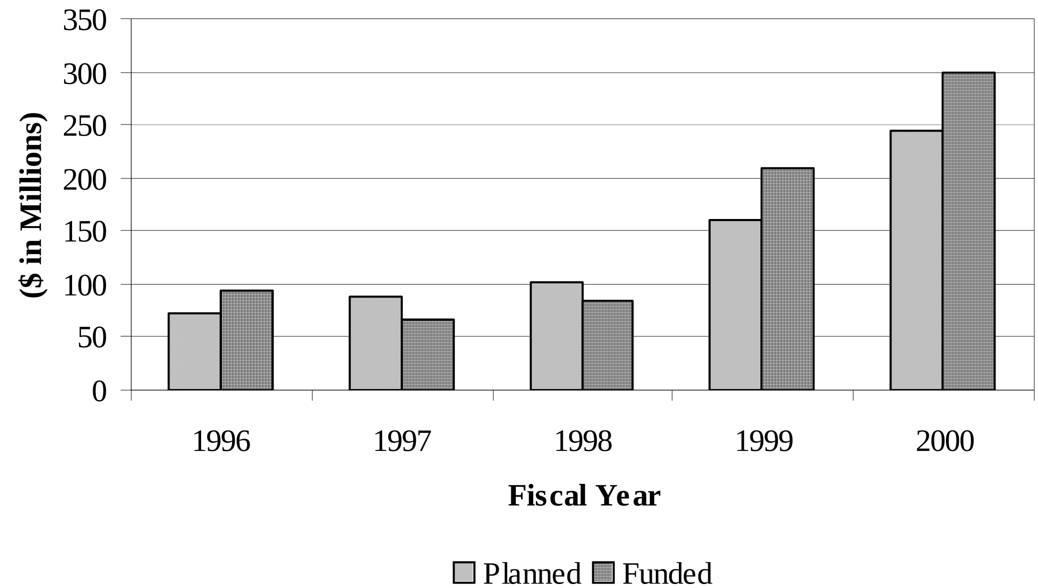
There are two main benefits that can be derived through increased Paygo spending. One is a reduction in operating budget expenditures for debt service. This is accomplished by decreasing the use of debt to finance capital projects and substituting Paygo. The decreased use of debt results in lower debt service payments over a number of years. The other benefit that may be gained is to help the capital program in one of two ways. First, the size of the capital program can simply be increased by funding projects not contained in the prior year's *Capital Improvement Plan* (CIP). The other method of benefitting the capital program is to accelerate important projects already in the CIP, allowing them to become operational sooner than they would have absent the Paygo infusion. These benefits are not mutually exclusive. Both policies can be pursued at the same time.

For fiscal 1999 and 2000, the additional Paygo spending has been used to benefit the capital program. No substitution of Paygo for debt took place. Perhaps one reason debt substitution has not been considered in recent times is the absence of a forum for debt reduction discussions. The State's formal debt management structure, embodied in the debt affordability processes, focuses on the question of whether a given level of debt is affordable, not whether there is a better alternative to using debt. The Capital Debt Affordability Committee (CDAC) is charged with the responsibility of reviewing the level of State tax supported debt on a continuing basis and making a recommendation each year on the level of general obligation debt that may be prudently authorized. In carrying out its responsibilities the CDAC evaluates projected tax supported debt levels using the debt outstanding to personal income and debt service to revenue ratios. As long as projected levels of debt remain within the limits adopted by the committee they are deemed to be affordable. The committee is not charged with the responsibility of limiting the use of debt should circumstances, such the availability of cash, allow. The CDAC has from time to time discussed limiting debt due to other funding being available, but such discussions only occur if initiated by a member since the consideration of limiting the use of debt is not an expressed responsibility of the committee. By contrast, the Maryland Department of Transportation limits its use of debt by using Paygo whenever possible and selling debt only when revenues are insufficient to fund its capital program.

Most of the additional Paygo funding authorized for fiscal 1999 and 2000 has not been planned. That is, the projects funded were not included in the prior year's CIP. **Exhibit 7.3** compares the level of general fund Paygo funding that was planned with what was finally funded for fiscal 1996 - 2000. As the chart shows, unplanned Paygo spending, even adjusting for school construction spending, was close to $50 million in each of fiscal 1999 and 2000.

Exhibit 7.3

General Fund Paygo: Planned v. Appropriated



Source: *Maryland Capital Budget*: Fiscal 1995 - 1999
The Sine Die Report: Fiscal 1996 - 1998
The 90 Day Report: Fiscal 1999 - 2000

Unplanned Paygo spending increases the size of the capital program but does not necessarily address the highest State needs. In the development of the CIP projects are scrutinized to ensure they are adequately justified. Because funding is limited, projects are also prioritized and less important projects are not included for funding.

The State revenue forecasts indicate that the high level of general fund Paygo funding will continue in fiscal 2001 and possibly beyond. The decision of how to spend these funds should be guided by the desired outcome(s) of a reduction in operating costs of debt service, the acceleration of important projects in the CIP, the expansion of the capital program, or any combination of the three. **In order to foster increased discussion of the limiting the use of debt as a debt management policy, the committees may wish to consider legislation charging the Capital Debt Affordability Committee with the responsibility of considering and making recommendations on reducing the use of debt when circumstances permit.**

Debt Service Reduction Scenarios

In recent years interest has been expressed in reducing the level of debt service on the State's general obligation debt. There are basically three ways in which this can be accomplished:

- Pay down existing debt. This would involve the early retirement of debt by exercising the call provisions on outstanding bonds. Not all bonds are callable. Maryland has typically included call provisions on bonds maturing ten or more years after the date on which the bonds were sold. Of the $3.6 billion in currently outstanding debt, only about $1.5 billion is callable with first call dates ranging from the present to the year 2009;

- Reduce the planned authorizations of new debt. The CDAC has recommended a $460 million debt limit for fiscal 2001 and projects $15 million increases each year. If less debt is issued, future debt service payments will be lower than currently projected. The full impact of reducing the amount of debt authorized is not immediately realized because it typically takes six years for bonds authorized in any given year to be fully issued; and

- Substitute general funds for currently authorized but unissued debt. There is currently over $1.1 billion in authorized but unissued debt. Section 8-126 of the State Finance and Procurement article provides for the deauthorization of unissued debt in the event other funding is appropriated to replace the authorizations. Substituting general funds for unissued debt would have an immediate impact on the payment of debt service because the planned issuances of debt could be reduced by the amount of substitute funding.

For illustrative purposes two debt reduction scenarios were considered.

- "Resetting" the level of general obligation debt authorizations by limiting the amount of debt to be authorized in the 2000 session to $400 million (a reduction of $60 million from the level recommended by the CDAC) and allowing subsequent increases of $15 million per year. This option would require substitution of $60 million per year in Paygo to maintain the capital program at the planned levels, but debt service would be reduced by $89 million over a fifteen year period for every year the $60 million substitution is made; and

- Substitution of $200 million in Paygo over four years for authorized but unissued debt. This option would require $50 million in Paygo for four years and would reduce future debt service payments by $296.8 million (over 19 years).

Higher Education Debt Reporting

The new executive order governing agency revenue debt (discussed in chapter 6) removed higher education debt from the issuance limits and reporting requirements. Higher education debt was exempted from this process because the level of debt is controlled through the Title 19 of the Education Article. However, as a result, historical information on higher education debt issues, debt service, and debt outstanding is no longer included in the agency debt report prepared by the Department of Budget and Management and presented to the General Assembly in November of each year. Since the Capital Debt Affordability Committee has the responsibility to take higher education debt into account as part of the affordability analysis when making its recommendations on authorization of new State debt, the report of the Capital Debt Affordability Committee is the logical place for information on higher education debt to be reported. The CDAC report already provides this historical information for general obligation debt and transportation debt. **It is recommended that the Capital Debt Affordability include in its future reports historical information on higher education debt issues, debt service, and debt outstanding in a form similar to information provided on general obligation and transportation debt.**

Chapter 8. Market Analysis

This section deals with the market for Maryland's securities, and in particular, how Maryland's general obligation bonds compared to various national scales.

Delphis Scale

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). The Department of Legislative Services has reviewed Maryland's bond yields on the day of sale or day prior to sale from 1990 to the latest sale in 1998 in relation to the Delphis Scale in order to help assess how well the State is performing compared to average yield. (The Treasurer's Office maintains a subscription to the Delphis Hanover Scale and uses this in reviewing Maryland's bond sales.) Maryland's bond yields were compared to the ten-year bond index[1] for AAA and AA+ bonds.

The Treasurer's Office believes the yield on Maryland bonds in the past may have been higher than the yield on AAA and AA+ bonds because of the different institutional setting surrounding the sale of Maryland's bonds and the bonds measured in the Delphis Scale. Maryland's bond sales are "wholesale" transactions to a syndicate of bond brokers, while the Delphis Scale measures transactions on the secondary market. Because Maryland deals with a syndicate at the "wholesale" level, the bonds are sold at a higher yield. The Delphis Scale, however, only measures the transactions in the secondary market, after the bond brokers have already placed the bonds on the market. Because these market transactions tend to have lower yields than the "wholesale" transactions, the Delphis Scale tends to have a lower yield. Although the Delphis Scale is not directly comparable with Maryland's bonds, the relationship is important. A significant change in relationship would raise a question and signal a need for closer review.

A review of **Exhibit 8.1** indicates some variation between the yield on Maryland bonds and the Delphis AAA and AA scale. During 1990 to mid 1992 the average yield for the sale of Maryland bonds was slightly above the ten-year bond on the Delphis AAA scale. During 1993 and early 1994, the yield on Maryland bond sales was at or slightly

[1] The ten-year index is used is because Maryland's bonds are serial bonds, that repay the principal over a number of years, whereas the Delphis Scale measures the yield on term bonds, that pay back all their principal in a single payment at the end of the bond life. In order to adjust the Maryland bonds to the Delphis Scale, it is necessary to determine the average maturity of the Maryland bonds, and then compare the average maturity of the Maryland bonds to the corresponding maturity of the Delphis Scale. The average maturity of Maryland bonds is ten years, thus the ten-year bond index is used.

below the Delphis AAA scale. Since the October 1994 sale, the yield on Maryland's bond sales returned to being slightly above the Delphis AAA scale.

Exhibit 8.1
Interest Rates on Maryland Bonds*
Compared with the Delphis Hanover Ten-Year Scale

Date of Sale	Rate on MD Bonds	Delphis Hanover AAA	MD Rate as % of AAA Rate	Delphis Hanover AA+	MD Rate as % of AA+ Rate
02/07/90	6.67	6.55	101.8%	6.65	100.3%
06/27/90	6.78	6.60	102.7%	6.70	101.2%
09/26/90	7.00	6.90	101.4%	7.00	100.0%
03/13/91	6.31	6.15	102.6%	6.25	101.0%
07/10/91	6.37	6.20	102.7%	6.30	101.1%
10/09/91	5.80	5.70	101.8%	5.80	100.0%
05/13/92	5.80	5.75	100.9%	5.85	99.1%
01/13/93	5.38	5.40	99.6%	5.50	97.8%
05/19/93	5.10	5.10	100.0%	5.20	98.1%
10/06/93	4.45	4.45	100.0%	4.55	97.8%
02/16/94	4.48	4.50	99.6%	4.60	97.4%
05/18/94	5.36	5.35	100.2%	5.45	98.3%
10/05/94	5.69	5.50	103.5%	5.60	101.6%
03/08/95	5.51	5.35	103.0%	5.45	101.1%
10/11/95	4.95	4.80	103.0%	4.90	100.9%
02/14/96	4.51	4.35	103.6%	4.45	101.3%
06/05/96	5.30	5.10	103.9%	5.20	101.9%
10/09/96	4.97	4.90	101.5%	5.00	99.4%
02/26/97	4.90	4.70	104.3%	4.80	102.1%
07/30/97	4.64	4.50	103.1%	4.55	102.0%
02/18/98	4.43	4.25	104.2%	4.30	103.0%
07/08/98	4.57	4.40	103.8%	4.45	102.6%
02/24/99	4.26	4.10	103.9%	4.20	101.4%
07/14/99	4.83	4.80	100.6%	4.85	99.6%
Average	**5.34**	**5.23**	**102.2%**	**5.32**	**100.4%**

*Maryland rate expressed as True Interest Cost (TIC).

Source: Department of Legislative Services and Delphis Hanover

Bond Buyer Index

The Bond Buyer prepares on a weekly basis four indices of the yields of general obligation bonds. Of these four indices, the Department of Legislative Services uses the Bond Buyer Index of 20 general obligation bonds, and the Bond Buyer Index of 11 general obligation bonds to determine how well Maryland's general obligation bonds are performing. The Bond Buyer Index 20 is an index of 20 bonds with 20-year maturities and an average quality of A1. The Bond Buyer Index 11 is a subset of the Bond Buyer Index 20, that measures 11 bonds, with 20-year maturities with an average quality of AA.

For the past 15 years, Maryland's bonds have consistently outperformed the Bond Buyer Index 20 and Index 11. The average yield of the Bond Buyer Index 20 and Index 11 since 1982 are 6.80 percent and 6.68 percent, respectively, while Maryland has an average yield of 5.99 percent. From 1983 to the beginning of 1988, Maryland's yield was especially low, when compared to the Bond Buyer Index 20. Since 1988, however, Maryland's yield has been much closer to the indices. (See **Exhibit 8.2**).

The spread between Maryland's general obligation bonds and the Bond Buyer Index 20 and Index 11 it is to be expected. Maryland's superior performance can be explained by the fact that the indices measure bonds with 20-year maturities, while Maryland's longest maturity is 15 years and the average maturity of a Maryland bond is about 10 years. The second reason that Maryland's general obligation bonds perform comparatively better is because the Bond Buyer Index 20 has an average rating of A1 and the Bond Buyer Index 11 has an average rating of AA, while Maryland's bonds are rated AAA. While confirming the superior quality of Maryland’s AAA bonds, this information only provides a measure of the spread between Maryland’s bonds and those of other states.

Although it isn't clear why the spread narrowed between 1988 and 1991, the narrowing of the spreads did coincide with two changes in Maryland’s bidding procedures that were instituted in December 1987. The first major change in bidding procedures was the introduction of a call feature that would clearly lead to an increase in the yield on Maryland’s general obligation bonds. While the call feature has particular value to the State at a time of high interest rates, and has resulted in the State's ability to refinance certain bonds, it would appear to have little value when the interest rates are at low levels.

The second major change in bidding procedures was the allowance of bond discounts in the bids which should serve to decrease the yield on Maryland bonds. If these changes in bond procedures are the reasons for the narrowing of the spread between Maryland's yields and the Bond Buyer Index, then it appears that the ability of syndicates to include discounts in bids is not sufficient to offset the additional yield that investors demand for the call provisions.

Exhibit 8.2
Interest Rates on Maryland Bonds*
Compared with The Bond Buyer Indexes for the Thursday Following Sale

Date	Rate on MD Bonds	Index of 20 G.O. Bonds	MD Rate as % of 20 Bond	Index of 11 G.O. Bonds	MD Rate as % of 11 Bond
02/08/84	8.18	9.56	85.6%	9.40	87.0%
08/15/84	8.78	10.02	87.6%	9.90	88.7%
02/19/86	6.50	7.44	87.4%	7.34	88.6%
06/25/86	6.68	7.59	88.0%	7.43	89.9%
06/17/87	6.44	7.63	84.4%	7.49	86.0%
12/09/87	6.91	8.10	85.3%	7.94	87.0%
04/27/88	6.60	7.77	84.9%	7.63	86.5%
10/05/88	6.72	7.53	89.2%	7.42	90.6%
02/08/89	6.83	7.38	92.5%	7.28	93.8%
06/28/89	6.59	7.02	93.9%	6.93	95.1%
02/07/90	6.67	7.20	92.6%	7.06	94.5%
06/27/90	6.78	7.27	93.3%	7.13	95.1%
09/26/90	7.00	7.53	93.0%	7.36	95.1%
03/13/91	6.31	7.13	88.5%	6.97	90.5%
07/10/91	6.37	7.07	90.1%	6.92	92.1%
10/09/91	5.80	6.66	87.1%	6.52	89.0%
05/13/92	5.80	6.54	88.7%	6.41	90.5%
01/13/93	5.38	6.17	87.2%	6.08	88.4%
05/19/93	5.10	5.77	88.4%	5.68	89.8%
10/06/93	4.45	5.30	83.9%	5.21	85.4%
02/16/94	4.48	5.42	82.7%	5.33	84.1%
05/18/94	5.36	6.14	87.3%	6.04	88.7%
10/05/94	5.69	6.50	87.5%	6.41	88.8%
03/08/95	5.51	6.18	89.2%	6.00	91.8%
10/11/95	4.95	5.82	85.0%	5.74	86.2%
02/14/96	4.51	5.33	84.6%	5.23	86.2%
06/05/96	5.30	5.94	89.2%	5.84	90.7%
10/09/96	4.97	5.73	86.8%	5.63	88.3%
02/26/97	4.90	5.65	86.8%	5.55	88.3%
07/30/97	4.64	5.23	88.7%	5.15	90.1%
02/18/98	4.43	5.07	87.4%	5.00	88.6%
07/08/98	4.57	5.12	89.2%	5.06	90.3%
02/24/99	4.26	5.08	83.8%	5.02	84.8%
07/14/99	4.83	5.36	90.1%	5.29	91.3%
Average	**5.83**	**6.63**	**88.0%**	**6.51**	**89.6%**

*Beginning Dec. 1987, interest rates are reported in True Interest Cost (TIC) rather than Net Interest Cost (NIC).

The Treasurer's Office believes that the narrowing of the spreads is primarily a function of a change in the yield curve. Since Maryland's bonds tend to be shorter term than the Bond Buyer Index bonds, changes in the relationship between interest rates of bonds with different maturities would impact the spread between the Maryland yield and the Bond Buyer Index.

Proposed General Obligation Authorizations and Estimated Issuances
($ in Millions)

General Assembly Session	Proposed Authorizations	----------Estimated Issuances During Fiscal Year (a)----------										Total Issued
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
2000	460	0	143	115	92	69	41	0	0	0	0	460
2001	475		0	147	119	95	71	43	0	0	0	475
2002	490			0	152	123	98	74	44	0	0	490
2003	505				0	157	126	101	76	45	0	505
2004	520					0	161	130	104	78	47	520
2005	535						0	166	134	107	80	487
2006	550							0	171	138	110	418
2007	565								0	175	141	316
2008	580									0	180	180
2009	595										0	0
Total		0	143	262	363	443	498	513	528	543	558	3,851
Current Authorizations (b)	1018	350	257	167	47	97	37	37	26	0	0	1,018
Total Issuances		**350**	**400**	**429**	**410**	**540**	**535**	**550**	**554**	**543**	**558**	**4,869**
Sales – First		125	200	210	210							
Second		225	200	219	200							
Total		**350**	**400**	**429**	**410**							

Notes:

(a) Percentage issuance assumptions by fiscal years:

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

(b) Net of $2 million - the remaining bonds authorized by the Outdoor Recreation Loan of 1969 that are unissued as of June 30, 1999. This amount will be canceled.

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

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations for Fiscal Year 2001*, September 1999.

Debt Outstanding as of June 30th
($ in Millions)

	FY 90	FY 91	FY92	FY93	FY94	FY95	FY 96	FY 97	FY 98	FY 99	FY 88-98
Agency Debt Subject to Ceiling and Allocation Caps											
MD Envir. Service	12.1	19.0	18.4	27.2	27.2	29.9	34.8	33.7	31.0	34.0	181.0%
MD Wholesale Food Ctr. Auth.	14.2	11.2	11.0	11.0	7.3	7.2	7.2	7.1	7.0	6.9	-51.4%
MD Trans Authority	249.1	272.8	272.8	302.5	302.5	465.2	408.4	391.9	374.9	344.5	38.3%
MD Water Qual. Finan. Adm.	25.6	68.8	107.9	134.0	133.2	163.2	163.4	157.8	151.3	138.1	439.5%
Revenue Cap Total	**301.0**	**371.8**	**410.1**	**474.7**	**470.2**	**665.5**	**613.8**	**590.6**	**537.3**	**523.5**	73.9%
% Change/Prior Year	--	23.5%	10.3%	15.7%	-0.9%	41.5%	-7.8%	-3.8%	-9.0%	-2.6%	
Agency Debt Not Subject to Ceiling and Allocation Caps											
Balt. City Comm. College	--	--	--	--	--	--	--	--	--	--	--
Comm. Devel. Admin. (a)	1,844.2	1,988.5	2,334.9	2,275.6	2,457.4	2,446.5	2,340.8	2,238.3	2,321.1	2473.5	34.1%
Local Govt. Infra. (CDA)	20.0	28.5	41.0	39.7	42.3	48.5	55.0	62.5	66.1	81.0	305.0%
MD Energy Finance Admin.	11.1	14.1	49.8	48.0	44.6	202.6	300.9	307.4	306.2	301.1	2612.6%
MIDFA				---Not Available---				352.3	330.4	312.3	--
Morgan State University	30.7	30.4	26.7	27.0	28.0	28.9	29.4	29.9	27.9	27.5	-10.4%
St. Mary's College	4.4	4.2	4.0	8.9	8.7	8.5	8.1	7.8	17.5	17.3	293.2%
Univ. of Maryland System (b)	259.6	355.0	412.1	461.5	473.8	518.3	505.9	534.5	611.0	670.0	158.1%
Non-Cap Total	**2,170.0**	**2,420.7**	**2,868.5**	**2,860.7**	**3,054.9**	**3,253.3**	**3,240.1**	**3,532.9**	**3,680.3**	**3,882.7**	78.9%
% Change/Prior Year	--	11.6%	18.5%	-0.3%	6.8%	6.5%	-0.4%	9.0%	4.2%	5.5%	
Capital Leases and General Obligation Debt											
Capital Leases - BPW	43.6	73.3	100.5	110.7	140.8	125.2	117.1	98.4	90.3	133.3	205.7%
General Obligation Debt	1,986.9	2,038.4	2,178.2	2,279.4	2,504.0	2,619.1	2,859.9	3,025.4	3,270.5	3,500.2	76.2%
Total Leases + GO	**2,030.5**	**2,111.7**	**2,278.7**	**2,390.1**	**2,644.8**	**2,744.3**	**2,977.0**	**3,123.8**	**3,360.8**	**3,633.5**	78.9%
% Change/Prior Year	--	4.0%	7.9%	4.9%	10.7%	3.8%	8.5%	4.9%	7.6%	8.1%	
Non-state Debt (Not Subject to Ceiling and Allocation Caps)											
Higher Ed. Suppl. Ln. Ath. (c)	5.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--
Hlth/Higher Ed. Fcl. Ath.	1,351.9	1,655.6	1,863.8	2,064.9	2,254.2	2,256.6	2,348.4	2,489.7	2,821.0	3,200.0	136.7%
Total Non-State	**1,357.6**	**1,660.9**	**1,863.8**	**2,064.9**	**2,254.2**	**2,256.6**	**2,348.4**	**2,489.7**	**2,821.0**	**3,200.0**	135.7%
% Change/Prior Year	--	22.3%	12.2%	10.8%	9.2%	0.1%	4.1%	6.0%	13.3%	13.4%	

(a) Does not include Local Govt Infrastructure.

(b) Combination of University System and State Universities and Colleges debt prior to creation of USM.

(c) Loans were sold to 1st National Bank of Maryland in FY 1992.

Source:
1990 - 1997: Department of Budget & Management
1998 - 1999: Dept. of Budget & Management, St. Mary's College, Morgan State University, University System of Maryland