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



Department of Legislative Services 2024

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Office of Policy Analysis
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Contributing Staff

Writers
Patrick S. Frank
Elizabeth J. Allison
Andrew D. Gray
Emily R. Haskel
Steven D. McCulloch
Samuel M. Quist
Kelly K. Norton

Reviewers
Patrick S. Frank
David C. Romans

For further information concerning this document contact:

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

Baltimore Area: 410-946-5400 ● Washington Area: 301-970-5400
Other Areas: 1-800-492-7122, Extension 5400
TTY: 410-946-5401 ● 301-970-5401
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DEPARTMENT OF LEGISLATIVE SERVICES
OFFICE OF POLICY ANALYSIS
MARYLAND GENERAL ASSEMBLY

Victoria L. Gruber
Executive Director

Ryan Bishop
Director

December 2024

The Honorable Jim Rosapepe
Senate Chair, Spending Affordability Committee

The Honorable Mark S. Chang
House Chair, Spending Affordability Committee

Dear Chair Rosapepe and Chair Chang:

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

CDAC complements the efforts of SAC in management of the State's bonded indebtedness. CDAC is required to submit a recommended level of debt authorization to the Governor and the General Assembly in October 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 General Assembly.

The statistical analysis and data used in developing the recommendations were prepared by Patrick Frank with assistance from Elizabeth Allison, Andrew Gray, Emily Haskel, Steven McCulloch, Samuel Quist, and Kelly Norton. The manuscript was prepared by Brett Ogden.

Respectfully submitted,

Victoria L. Gruber
Executive Director

Ryan Bishop
Director

VLG:RB/bao

Legislative Services Building •90 State Circle • Annapolis, Maryland 21401-1991
410-946-5500 • FAX 410-946-5508 • TDD 410-946-5501
301-970-5500 • FAX 301-970-5508 • TDD 301-970-5401
Other areas in Maryland 1-800-492-7122

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Chapter 1. Recommendations of the Department of Legislative Services

New General Obligation Bond Authorization

The Capital Debt Affordability Committee (CDAC) recommended a limit of $1.75 billion for new authorizations of general obligation (GO) bonds for fiscal 2026, which is the same level authorized in fiscal 2025. In 2023, the Spending Affordability Committee (SAC) recommended that authorizations increase 2% annually and that the fiscal 2026 authorization be $1.785 billion. Since the 2023 SAC recommendation, Moody's has rated Maryland bonds AAA with a negative outlook. Moody's expressed concerns about the projected general fund structural deficit and declining general fund reserves. The Department of Legislative Services (DLS) notes that Maryland is a high-debt state. As such, Maryland should refrain from large GO bond spending commitments. **DLS recommends that any increases in GO bond authorizations be short term or small and that they be done as part of a plan to substantially reduce the general fund structural deficit.**

Moody's Investors Service Assigns Negative Outlook to Maryland General Obligation Bonds

Prior to the June 2024 GO bond sale, Maryland received AAA bond ratings from all three major rating agencies, Moody's Investors Service, S&P Global Ratings, and Fitch Ratings. However, Moody's changed Maryland's outlook from stable to negative. Reasons cited were projected structural budget deficits and anticipated reductions in general fund reserves. DLS observes that (1) rating agencies are revising their methodologies to move toward a more quantitative approach; (2) Maryland is a high-debt, pension liability, and Other Post Employment Benefits (OPEB) liability state; (3) Maryland classifies debt differently than the rating agencies; and (4) Moody's is adding premiums and discounts to Maryland's debt estimates.

To address concerns raised by Moody's in the most recent credit evaluation, DLS recommends the following.

- **The State make substantial progress in addressing the structural deficit in the upcoming legislative session.**

- **The State avoid adding new large capital budget commitments.**

- **CDAC should consider reviewing State debt to determine if some non-State debt is more appropriately classified as State debt. Since rating agencies themselves do not agree on how to classify all bonds, there is clearly ambiguity.**

- **The State Treasurer's Office (STO) reconsider its policy to require that coupon rates for GO bonds not be less than 5.00% to maximize bond sale premiums that are used to support debt service. As discussed later in this report, DLS estimates that this adds 0.53% (53 basis points) to GO bonds' true interest cost (TIC). Although a case can be made that the TIC approach may undervalue the call provisions that come with GO bonds, the current rate may be too high when interest rates are substantially below 5.00%. STO should consider if a more moderate approach is appropriate.**

Reevaluating Cash Flow Assumptions in Response to Slower Project Spending

The budget bill authorizes GO bonds. There are no costs to these authorizations until bonds are issued. To estimate out-year costs, the State uses a formula that estimates how quickly bonds will be issued. The formula attempts to accurately estimate when bonds will be issued. To avoid federal arbitrage rebates, bonds should not be issued too early, but funds must be available to pay contractors, so bonds should not be issued too late. The formula used to estimate GO bond issuances was developed more than three decades ago. Changes in the capital program since the current issuance formula was developed as well as increasing levels of authorized but unissued debt suggest that it may be time to reevaluate the issuance formula. **DLS recommends that STO evaluate whether the State should revise the current GO bond issuance formula. This review should include other agencies that brief CDAC regarding GO bonds.**

Benefits of Readopting Policy to Have Two Annual General Obligation Bond Sales

To keep debt service costs low, Maryland has historically divided bond sales into multiple sales in each year. The State has deviated from this policy since calendar 2022 and is expected to continue this policy through calendar 2030. Potential benefits to issuing bonds twice annually include (1) more competitive sales and lower interest rates and (2) less risk regarding the timing of bond sales. **DLS recommends that STO review its policy of having one bond sale at the end of each fiscal year and consider having two sales if total annual issuances approach $1 billion.**

Interest Rate Update

Since March 2022, interest rates have increased. U.S. one-year Treasury Notes' constant yield rates increased from 1.72% to over 4.00%. The impact of increasing interest rates has been to reduce bond sale premiums, but this has not affected debt service costs. STO and DLS interest rate estimates assume a 5.00% coupon rate. Should bond sales' TIC be expected to exceed 5.00%, the assumed rate used for forecasting debt service should also be increased. **DLS recommends that interest rates should be closely monitored and that interest rate assumptions increase if an anticipated TIC is more than 5.00%.**

Issuance of Transportation Debt

The Maryland Department of Transportation competes with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall State debt affordability limits. Transportation debt will need to be managed within the context of overall State tax-supported debt limits. **DLS recommends that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criterion.**

Issuance of Bay Restoration Bond Debt

The Bay Restoration Fund (BRF) was created in 2004 primarily to provide grants for enhanced nutrient removal pollution reduction upgrades at the State's 67 major wastewater treatment plants. DLS projects that a program consistent with current laws and policies can be supported without issuing an additional $100 million in fiscal 2027. A fee increase enacted in 2012 to support the BRF is scheduled to sunset by fiscal 2031, which will limit the ability to support long-term debt service costs. BRF bonds are discussed in more detail in Chapter 3. **DLS recommends that the General Assembly continue to limit BRF revenue bond issuances at a level that maintains debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criterion.**

Issuance of Higher Education Academic Debt

CDAC recommends limiting new debt authorization of the University System of Maryland (USM) academic revenue bonds (ARB) to $30 million for the 2025 session. This amount is the same amount authorized in the 2024 session and is consistent with the amount programmed for the 2025 session in the 2024 *Capital Improvement Program*. Academic bond issuances are discussed in Chapter 7. **DLS concurs with the committee's recommendation that issuing $30 million in new USM ARBs is affordable.**

Chapter 2. Recommendations of the Capital Debt Affordability Committee

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

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

New General Obligation Debt Authorization

GO bonds support the State's capital program and are backed by the full faith and credit of the State. CDAC recommended a GO bond authorization level of $1.750 billion in fiscal 2026, which is consistent with the amount planned by CDAC last year and with the amount programmed in the 2024 *Capital Improvement Program* (CIP). For planning purposes, CDAC assumed the same level of GO bond authorizations for the remainder of the five-year planning period. The $1.750 billion authorization level is below the $1.785 billion recommended for fiscal 2026 in December 2023 by the Spending Affordability Committee, which recommended that the authorization level increase by 2% annually as a hedge against construction inflation.

Higher Education Academic Debt

CDAC recommends a new debt authorization of academic revenue bonds in the amount of $30 million for the 2025 session. This amount is the same amount authorized in the 2024 session and is consistent with the amount programmed for the 2025 session in the 2024 CIP.

Chapter 3. State Debt

Maryland has authorized the issuance of the following types of State debt:

- tax-exempt general obligation (GO) bonds backed by the full faith and credit of the State, which include Qualified Zone Academy Bonds (QZAB), Qualified School Construction Bonds (QSCB), Qualified Energy Conservation Bonds (QECB), and Build America Bonds (BAB);

- taxable GO bonds, which are issued in the place of tax-exempt debt and include private activity bonds;

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

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

- Grant Anticipation Revenue Vehicles (GARVEE), pledging projected future federal transportation grants to support debt service payments;

- revenue bonds issued by the Maryland Stadium Authority (MSA) that are supported by State revenues;

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

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

General Obligation Bonds

GO bonds are authorized and issued to pay for the design, construction, renovation, or equipping of facilities for State, local government, and private-sector entities. Grants and loans are made to local governments and private-sector entities when the State's needs or interests have been identified. Projects funded with GO bonds include, but are not limited to, public and private colleges and universities, public schools and community colleges, prisons and detention centers, and hospitals. In December 2023, the Spending Affordability Committee (SAC) recommended a GO bond authorization level of $1.785 billion in fiscal 2026, with recommended funding increasing by 2% annually thereafter. **Exhibit 3.1** shows that the 2023 SAC recommendation would provide $10.0 billion of new GO bond authorizations from fiscal 2026 through 2030.

Combined capital GO bond and general fund requests for this same period total $12.1 billion, or 21% more than the recommended authorization level.

Exhibit 3.1
Capital Funding Requests
Fiscal 2026-2030
($ in Millions)

	2026	2027	2028	2029	2030	Total
Higher Education	$572	$662	$656	$600	$889	$3,379
Education	459	498	494	494	498	2,443
Housing	423	472	422	399	403	2,118
Public Safety	272	392	470	249	33	1,417
Transportation	199	167	167	167	167	867
State Facilities	99	193	144	109	208	753
Environment	100	135	136	147	99	617
Health	86	91	129	60	53	418
Local Projects[1]	12	11	9	9	9	49
Total Requests (GO Bonds and GF)	**$2,221**	**$2,621**	**$2,627**	**$2,234**	**$2,358**	**$12,061**
Planned General Funds[2]	$12	$168	$168	$168	$168	$684
2023 SAC Recommended GO Bond Authorization	1,785	1,820	1,855	1,890	1,930	9,280
Total Funding Planned/Authorized	**$1,797**	**$1,988**	**$2,023**	**$2,058**	**$2,098**	**$9,964**
Requests Over Planned Funding	**$424**	**$633**	**$604**	**$176**	**$260**	**$2,096**

GF: general funds
GO: general obligation
SAC: Spending Affordability Committee

[1] Requests do not include miscellaneous project requests to the Governor or the legislature.
[2] Planned general funds are estimated in the Department of Legislative Services' baseline budget. This includes projects in the *Capital Improvement Program*, new mandates, and funding in fiscal 2026 to replace $5.0 million in the Dedicated Purpose Account from fiscal 2025 related to the demolition of State Center that was cut by the Board of Public Works in July 2024.

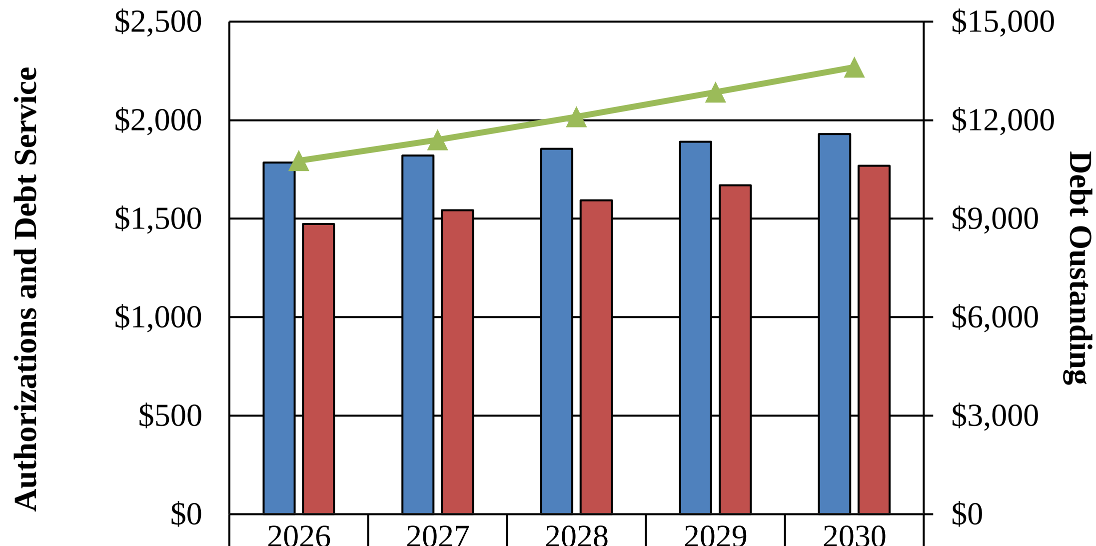
Note: Numbers may not sum to total due to rounding.

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

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

Exhibit 3.2 shows the 2023 SAC recommended GO bond authorization level as well as debt service costs and debt outstanding over the five-year planning period from fiscal 2026 to 2030. A comparison of the 2023 SAC recommended authorization levels with alternative authorization levels can be found in Chapter 4.

Exhibit 3.2
GO Bond Authorizations, Debt Service Costs, and Debt Outstanding
Fiscal 2026-2030
($ in Millions)



	2026	2027	2028	2029	2030
Authorizations	$1,785	$1,820	$1,855	$1,890	$1,930
Debt Service	1,473	1,543	1,594	1,669	1,769
Debt Outstanding	10,765	11,400	12,101	12,854	13,614

GO: general obligation

Source: Department of Legislative Services

General Obligation Bond Refunding

GO bonds recently issued by Maryland are callable after 10 years. Low interest rates can provide the State with the opportunity to refund bonds. The refunding process is financed by issuing new debt at lower interest rates. The new debt is placed in an escrow account from which debt service payments for the previously issued debt are made until the bonds are callable. This increases gross GO bond debt outstanding, but net debt remains constant. Bond refunding has reduced debt service costs by $402 million since fiscal 2010. Refunding opportunities have diminished in recent years. Two factors are responsible for reduced refunding opportunities.

- ***Federal Tax Cuts and Jobs Act (TCJA) of 2017 Amended Federal Tax Law to Eliminate Advanced Refunding:*** Until January 1, 2018, federal tax law allowed the State one advanced refunding for every tax-exempt bond sale. Advanced refunding allowed the State to issue tax-exempt refunding bonds before the call date. The advantages of advanced refunding bonds are that savings can be realized early, advanced refunding provides a hedge against increasing interest rates, and issuances can be bundled to increase efficiencies. The immediate result of the new law was the suspension of advanced refunding issuances, which had become common. Since the law change, there has been just one refunding issuance, which occurred in August 2021.

- ***Higher Interest Rates:*** Higher interest rates increase the cost of refunding bonds, thus reducing savings and refunding opportunities. The Department of Legislative Services (DLS) notes that recent bond sales have issued bonds with 5% coupon rates and interest rates for AAA-rated State debt are below 5%, so there still may be some opportunities at subsequent bond sales. Changes in interest rates and the effect of higher interest rates on long-term debt service costs is discussed in Chapter 8.

Program Open Space Debt Service Payments

Program Open Space (POS) bonds totaling $70 million were authorized as the POS Acquisition and Opportunity Loan of 2009 (Chapter 419). The bonds were intended to replace funds lost due to the transfer of up to $70 million in POS State-share unencumbered fund balance to the General Fund. The Prior Authorizations of State Debt to Fund Capital Projects – Alterations Act of 2010 (Chapter 372) allows for the debt to be issued through GO bonds. In the end, the State issued GO bonds in place of POS bonds to reduce costs due to GO bonds' low interest rates.

The full $70 million in GO bonds was issued as part of two State issuances, February and July 2010, as shown in **Exhibit 3.3**. The first purchases were in August 2010. The Department of Natural Resources (DNR) received $65 million, and the Maryland Department of Agriculture (MDA) received the remaining $5 million. Some of the debt was issued as BABs. The bonds include federal direct payment subsidies that were reduced by sequestration. The reduction is less than $100,000.

Exhibit 3.3
Program Open Space GO Bond Issuances
($ in Thousands)

Issue Date	GO Bond Issuance	Principal
February 2010	First Series A, Build America Bonds	$33,333
July 2010	2010 Second Series A, Tax-exempt (Retail Sale)	11,945
July 2010	2010 Second Series B, Tax-exempt (Competitive Sale)	18,472
July 2010	2010 Second Series C, Taxable Build America Bonds	6,250
Total		**$70,000**

GO: general obligation

Source: Department of Budget and Management

Exhibit 3.4 shows that the final debt service payment is in fiscal 2026. The debt service is deducted from transfer tax revenues allocated to DNR and MDA, proportionately, based on the share of the issuance each received.

Exhibit 3.4
Program Open Space GO Bonds Debt Service Payment Schedule
Fiscal 2025-2030
($ in Millions)

	2025	2026	2027	2028	2029	2030
Debt Outstanding	$1.6	$0.0	$0.0	$0.0	$0.0	$0.0
Debt Service	7.0	1.7	0.0	0.0	0.0	0.0

GO: general obligation

Source: Department of Budget and Management

Federal Tax Credit and Direct Payment Bonds

In addition to tax-exempt GO bonds, the State has also taken advantage of federal programs that allow it to issue bonds whereby the buyers can receive federal tax credits, or the State will receive a direct payment to offset interest costs. These bonds are issued in the place of traditional tax-exempt GO bonds. To date, the State has issued QZABs, QSCBs, QECBs, and BABs. QZABs, QSCBs, and QECBs have been issued to support education capital projects. BABs support the same projects that tax-exempt bonds support.

To date, the State has issued $209 million in QZABs, QSCBs, and QECBs. **Exhibit 3.5** shows that DLS estimates that the lower costs associated with these bonds reduced total debt service payments by $66 million. However, some of these bonds are affected by federal sequestration reductions, which reduces the savings by almost $3 million.

Exhibit 3.5

Summary of Special Purpose Issuances

Type	Date Issued	Amount Issued	Debt Service Payments	Total Payments	Similar GO Payments[1]	Savings	Sequestration Reduction	Net Savings
QZAB	Nov-01	$18,098	$0	$12,432[2]	$27,182	$14,750	$0	$14,750
QZAB	Nov-04	9,043	0	7,356[2]	12,393	5,038	0	5,038
QZAB	Dec-06	4,378	0	3,609[2]	6,132	2,523	0	2,523
QZAB	Dec-07	4,986	0	4,089[2]	6,967	2,877	0	2,877
QZAB	Dec-08	5,563	6,142	6,142	7,606	1,464	0	1,464
QZAB	Dec-09	5,563	6,275	6,275	7,052	778	0	778
QSCB	Dec-09	50,320	0	49,570[2]	63,791	14,221	0	14,221
QSCB	Aug-10	45,175	0	44,497	52,731	8,234	-1,544	6,690
QZAB	Dec-10	4,543	0	4,474	5,302	828	-179	649
QZAB	Aug-11	15,900	15,900	15,900	20,267	4,367	-518	3,849
QECB	Aug-11	6,500	7,080	7,080	8,285	1,206	-184	1,021
QZAB	Aug-12	15,230	15,230	15,230	18,303	3,073	-334	2,739
QZAB	Dec-13	4,549	4,549	4,549	5,875	1,326	0	1,326
QZAB	Dec-14	4,625	4,625	4,625	5,971	1,346	0	1,346
QZAB	Dec-15	4,625	4,625	4,625	5,971	1,346	0	1,346
QZAB	Dec-16	4,680	4,680	4,680	5,926	1,246	0	1,246
QZAB	Dec-17	4,823	4,823	4,823	5,922	1,099	0	1,099
Total		**$208,601**	**$73,928**	**$199,954**	**$265,677**	**$65,723**	**-$2,760**	**$62,963**

GO: general obligation
QECB: Qualified Energy Conservation Bond
QSCB: Qualified School Construction Bond
QZAB: Qualified Zone Academy Bond

[1] Similar GO payments vary over time because interest rates vary. The analysis uses the GO true interest cost at the time that the debt is issued.
[2] Sinking fund payment.

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

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

Effect of Sequestration on Direct Payment Bonds

The federal Budget Control Act (BCA) of 2011 imposed caps on federal discretionary spending from federal fiscal 2012 to 2021. The Act also created the Joint Select Committee on Deficit Reduction to further reduce the federal deficit by at least $1.2 trillion over 10 years. The BCA established a backup process to achieve the reduction with automatic spending cuts, or "sequestration."

Direct pay bonds are affected by mandatory reductions required through sequestration. STO advises that this reduces federal fund reimbursements for these bonds. As federal reimbursements decline, this mandatory reduction also declines. The Internal Revenue Service advises that the federal sequestration rate is expected to be 5.7% from federal fiscal 2021 to 2030. **Exhibit 3.6** shows that federal grants are expected to decline. These grants are winding down with the final payment in fiscal 2028.

Exhibit 3.6
Effect of Sequestration on Federal Fund Revenues
Fiscal 2025-2028
($ in Thousands)

Issuance	2025	2026	2027	2028	Total
February 2010 Build America Bonds	$1,001	$0	$0	$0	$1,001
July 2010 Build America Bonds	434	147	0	0	582
July 2010 Qualified School Construction Bonds	1,965	983	0	0	2,948
December 2010 Qualified Zone Academy Bonds	228	114	0	0	342
August 2011 Qualified Zone Academy Bonds	660	660	330	0	1,650
August 2011 Qualified Energy Conservation Bonds	234	234	117	0	586
August 2012 Qualified Zone Academy Bonds	426	426	426	213	1,493
Sequestration and Other Adjustments	*-282*	*-146*	*-50*	*-12*	-490
Total	**$4,667**	**$2,418**	**$824**	**$201**	**$8,110**

Source: State Treasurer's Office; Internal Revenue Service; Congressional Budget Office; Department of Legislative Services

Qualified Zone Academy Bonds

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

The federal TCJA eliminated the QZAB program, so no additional issuances are planned. The last QZAB issuance will mature in fiscal 2028.

Qualified School Construction Bonds

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

In December 2009, the State sold $50.3 million in QSCBs at par without a supplemental coupon. The bonds generate savings by replacing subsequent GO bond issuances that would have supported public school construction. Since there was no supplemental coupon, the State will not pay any interest on these bonds.

The State's second QSCB bond sale was in July 2010 when the State sold $45.2 million in QSCBs. At the time of the sale, federal direct payments fully subsidized the $29.4 million in debt service payments. Sequestration has reduced the federal subsidy by approximately $1.7 million. The State is not authorized to issue any additional QSCBs. This final QSCB matures in fiscal 2026.

Qualified Energy Conservation Bonds

QECBs were created by the federal Tax Extenders and Alternative Minimum Tax Relief Act of 2008. The ARRA increased the allocation. The bonds are taxable bonds. The State will receive a direct federal subsidy for 70% of the federal tax credit rate. All the bonds mature in 15 years. The definition of qualified energy conservation projects is fairly broad and contains elements relating to energy efficiency capital expenditures in public buildings, renewable energy production, various research and development applications, mass commuting facilities that reduce energy consumption, several types of energy-related demonstration projects, and public energy efficiency education campaigns.

The State issued the full $6.5 million allocated to the State in July 2011. The proceeds support the construction of energy conservation projects at a school in St. Mary's County. This issuance is retired in fiscal 2027.

Build America Bonds

The ARRA authorized the State to sell BABs. The bonds support the types of projects that traditional tax-exempt bonds support and are issued in place of tax-exempt bonds. The buyers of the bonds do not receive any federal tax credit and are subject to federal taxes. Instead, Maryland receives a 35% subsidy from the federal government. Unlike QZABs, QSCBs, and QECBs, these bonds can support any project that is eligible to be funded with tax-exempt bonds.

The federal program expired on December 31, 2010. In calendar 2009 and 2010, the State issued BABs four times for issuances totaling $583 million. The final BAB issuance matures in fiscal 2025.

Transportation Debt

MDOT issues 15-year, tax-supported consolidated transportation bonds. Bond proceeds support highway construction and other transportation capital projects. Revenues from taxes and fees and other funding sources accrue to the Transportation Trust Fund (TTF) 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 TTF.

In addition to issuing consolidated transportation bonds, MDOT also has debt referred to as nontraditional debt. Nontraditional debt currently includes Certificates of Participation, Special Transportation Project Revenue Bonds, and debt sold on MDOT's behalf by the Maryland Economic Development Corporation and the Maryland Transportation Authority. A portion of the financing for the Purple Line transit project will be provided through a federal Transportation Infrastructure Finance and Innovation Act loan that will be considered MDOT nontraditional debt. The General Assembly annually adopts budget language that imposes a ceiling on MDOT's nontraditional debt.

Consolidated Transportation Bonds

The issuance of transportation bonds is limited by two criteria: (1) an outstanding debt limit; and (2) a coverage test. Section 3-202(b) of the Transportation Article establishes the maximum aggregate and unpaid principal balance of consolidated transportation bonds that may be outstanding at any one time. The maximum outstanding debt limit is currently $4.5 billion.

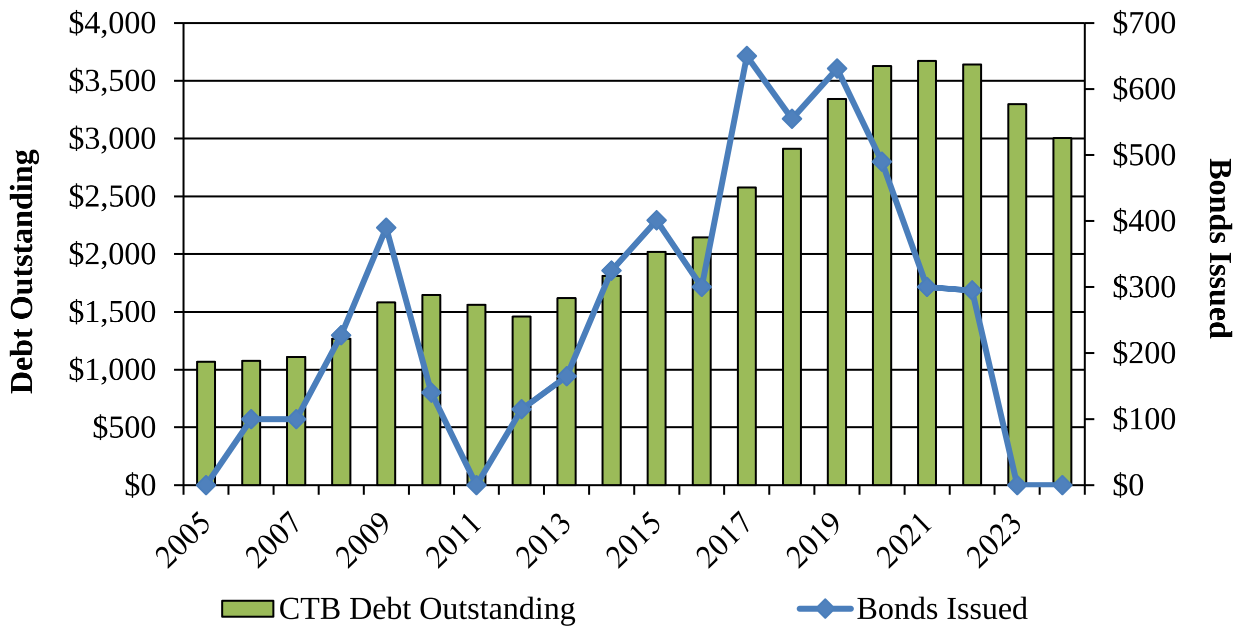
Section 3-202(c) of the Transportation Article further requires the General Assembly to establish each year in the State budget the maximum unpaid principal balance in bonds that may be outstanding at the end of the forthcoming year. The fiscal 2025 Budget Bill set the maximum ceiling for June 30, 2025, at $2.85 billion. DLS estimates that as of June 30, 2025, debt outstanding will total $3.1 billion, as MDOT now projects that more bonds will be sold than previously estimated. The budget bill language allows MDOT to increase the amount of debt that will be outstanding at the end of fiscal 2025 if it notifies the budget committees of its intent to increase debt outstanding and allows time for the budget committees to review and comment on the planned increase.

The bond revenue coverage test, which is established in MDOT's bond resolutions, establishes that the department will maintain net revenues and pledged taxes equal to at least twice (2.0) the maximum future debt service, or MDOT will not issue bonds until the 2.0 ratio is met. MDOT has adopted an administrative policy establishing a minimum coverage of 2.5. Based on projected bond sales, DLS estimates that as of June 30, 2025, MDOT will have a net income coverage of 3.6 and a pledged taxes coverage of 6.6.

MDOT has issued new (*e.g.*, nonrefunding) consolidated transportation bonds in 17 of the last 20 years, with the only exceptions being in calendar 2005, 2011, and 2023.

Exhibit 3.7 illustrates annual bond sales and changes in debt outstanding from fiscal 2005 to 2024. In fiscal 2024, MDOT's net debt outstanding was \$3.0 billion, well under the \$4.5 billion debt outstanding debt limit.

Exhibit 3.7
Bonds Issued and Net Debt Outstanding
Maryland Department of Transportation
Fiscal 2005-2024
(\$ in Millions)



CTB: consolidated transportation bond
MDOT: Maryland Department of Transportation

Source: Maryland Department of Transportation; Department of Legislative Services

Special Transportation Project Revenue Bonds

In 2014, the General Assembly passed legislation allowing MDOT to issue transportation project revenue bonds backed by the revenues attributable to the facilities being financed for the payment of debt service on the bonds. Bonds issued under this authority may not include a pledge of the tax revenues accruing to the TTF and are not supported by tax revenues, like the motor fuel tax, so are not considered to be tax-supported debt. Special Transportation Project Revenue Bonds will be a component of the department’s nontraditional debt.

In February 2021, MDOT issued the first bonds under this authority, refunding bonds totaling $220 million to refund debt previously issued for certain projects at Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall Airport). In July 2021, MDOT issued $190 million in new money bonds to fund construction of the Concourse A and B Connector and Baggage Handling System Replacement project at BWI Marshall Airport and a second issuance of approximately $231 million to complete the project is planned for fall 2024. The refunding bonds have a 10-year maturity, and the new money bonds have a 30-year maturity.

Future Debt Issuance

Each fall, DLS develops a TTF forecast that includes revenue and spending assumptions, which can vary, sometimes significantly, from those included in MDOT’s September TTF forecast. These differences can lead to different conclusions on the amount of debt that can be issued to support MDOT’s capital program. This year, although the DLS forecast includes $475 million more in combined revenues and available balance than the MDOT September forecast, the net income to debt service coverage ratio still falls below the target minimum of 2.5 in the final two years of the forecast, so no increase in debt issuance beyond the issuances included in the MDOT forecast is assumed in the DLS forecast. Debt issuances totaling $3.01 billion are included in both the MDOT and DLS forecasts.

The DLS forecast of revenues is a net $333 million higher over the six-year period compared to MDOT’s forecast. DLS is projecting that motor fuel tax revenues will be $20 million lower than MDOT’s estimate, but this will be more than offset by higher titling tax revenues of $353 million over the six-year period. For titling tax revenues, DLS anticipates higher demand in vehicle purchases in fiscal 2025 and 2026 than projected in the MDOT forecast, with growth falling below the level in the MDOT forecast for the remaining years of the forecast.

The DLS and MDOT forecasts both project that the MDOT administrative policy of maintaining a minimum debt service coverage ratio of 2.5 (net income to maximum debt service) will not be met in fiscal 2029 and 2030 but that the ratios will remain above the 2.0 level required by MDOT’s bond covenants. Due to the higher revenues projected in the DLS forecast, the net income debt service ratios are slightly better than projected in MDOT’s forecast in each year. **Exhibit 3.8** shows the planned level of debt issuances by fiscal year and compares the net income debt service coverage ratios in each forecast.

Exhibit 3.8
Consolidated Transportation Bonds
Fiscal 2025-2030
($ in Millions)

	2025	2026	2027	2028	2029	2030	2025-2030
Bond Issuances	$270	$455	$550	$580	$525	$630	$3,010
Net Income Debt Service Coverage Ratio							
DLS	3.6	3.2	3.3	2.8	2.4	2.1	n/a
MDOT	3.4	3.1	3.1	2.6	2.3	2.1	n/a

DLS: Department of Legislative Services
MDOT: Maryland Department of Transportation

Source: Maryland Department of Transportation; Department of Legislative Services

Grant Anticipation Revenue Vehicle Bonds

Chapter 455 of 2023 expands the authority of MDOT to issue GARVEE bonds backed by future federal aid. MDOT may issue such bonds, but the aggregate outstanding and unpaid principal amount of debt issued cannot exceed $1.0 billion as of June 30 of any year. Proceeds may only support:

- designing and constructing the Baltimore Red Line;
- procuring zero-emission buses and constructing related infrastructure, including bus maintenance facilities;
- developing and constructing the Southern Maryland Rapid Transit Corridor;
- designing and constructing improvements to the Maryland Route 2 and Route 4 corridor, including the Thomas Johnson Bridge;
- designing and constructing improvements to the Maryland Route 90 corridor; or
- designing and constructing improvements to the Interstate 81 corridor.

Chapter 455 limits the maturity of GARVEE bonds to 15 years or less. MDOT does not currently have plans to issue GARVEE bonds.

Chapter 455 also amends § 8-104 of the State Finance and Procurement Article, which required that GARVEE bonds count as State debt. The Act also removed the requirement that MDOT make secondary pledges to secure GARVEE bonds with TTF revenues. This was done so that GARVEE bonds get the same high bond rating and pay the same low interest costs that MDOT's bonds backed by the TTF pay. MDOT advises that this requirement is no longer necessary to get competitive interest rates with GARVEE bond issuances. DLS observes that since TTF revenues are State revenues, should MDOT decide to issue GARVEE bonds with a secondary pledge to reduce interest costs, those bonds should be classified as State debt even if the statute does not require this. For example, bay restoration bonds are not specifically identified as State debt in the statute but are classified as State debt since BRF revenues are State revenues.

Conclusions and Recommendations on Transportation Debt

MDOT competes with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall State debt affordability limits. Transportation debt will need to be managed within the context of overall State tax-supported debt limits. **DLS recommends that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criterion.**

Capital Leases Supported by State Revenues

Section 8-104 of the State Finance and Procurement Article requires that capital leases supported by State tax revenues be included in State debt affordability calculations. The law does allow an exception for energy performance contract (EPC) leases if the savings generated exceed the costs and they are properly monitored.

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. Real property leases allow facilities to be purchased through a lease with terms ranging from 15 to 25 years. The terms of equipment leases are 3, 5, and 10 years. Since fiscal 1994, the State has operated a program involving equipment leases for energy conservation projects at State facilities to improve energy performance.

Sections 8-401 to 8-407 of the State Finance and Procurement Article regulate leases. The law requires that capital leases be approved by the Board of Public Works (BPW) and that the Legislative Policy Committee (LPC) have 45 days to review and comment on any capital lease prior to submission to BPW. Chapter 479 of 2008 further regulates capital leases by amending § 12-204 of the State Finance and Procurement Article to require that capital leases that execute or renew a lease of land, buildings, or office space must be certified by CDAC to be affordable within the State's debt affordability ratios or must be approved by the General Assembly in the budget of the requesting unit prior to BPW approval.

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

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

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

Exhibit 3.9 shows that projected tax-supported capital lease debt outstanding totals $124.4 million as of June 30, 2025. Debt service costs are $33.5 million in fiscal 2025. This excludes EPCs for the Ravens and Orioles stadiums that are included in the MSA totals.

Exhibit 3.9
Tax-supported Capital Lease Debt Outstanding and Debt Service
($ in Millions)

State Agency/Facility	Debt Outstanding June 2025	Debt Service Fiscal 2025
State Treasurer's Office		
Capital Equipment Leases	$7.9	$5.4
Energy Performance Projects	4.0	4.0
Maryland Department of Transportation		
Airport Shuttle Buses	15.9	2.1
Department of General Services		
Prince George's County Justice Center	6.7	1.5
Maryland Transportation Authority		
Annapolis State Office Parking Garage	10.0	1.5
Maryland Department of Health		
Public Health Laboratory	72.7	14.0
Total	**$117.2**	**$28.5**
New Equipment Leases	$7.2	$5.0
Total	**$124.4**	**$33.5**

Source: State Treasurer's Office

Energy Performance Contracts

Chapter 163 of 2011 allows CDAC to exclude capital leases if the savings they generate equal or exceed the lease payments. It also requires that EPCs be monitored in accordance with the reporting requirements adopted by CDAC. The Department of General Services (DGS) reviews these EPCs to determine if they do in fact generate savings. STO advises that five projects are excluded from CDAC calculations.

Exhibit 3.10 shows that five EPC projects are included as capital leases. These other projects are included in the leasing affordability calculation in Chapter 4.

Exhibit 3.10
Tax-supported Energy Leases Lacking Surety Guarantee
Fiscal 2025
($ in Thousands)

Agency	Status	Debt Outstanding as of June 30, 2025	Debt Service
Department of Veterans Affairs	State Debt	$0	$28
Maryland Aviation Administration	State Debt	789	1,600
Maryland Highway Administration	State Debt	1,788	1,829
Maryland Port Administration	State Debt	491	336
Motor Vehicle Administration	State Debt	960	173
Total		**$4,028**	**$3,966**

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

Source: State Treasurer's Office

In 2022, §12-301 of the State Finance and Procurement Article was amended to increase EPC's maximum maturity from 15 to 30 years. DGS advises that there are projects with a useful life and payback of more than 15 years. This change is expected to increase the number of viable EPCs. Although there may not be many 30-year agreements, there appear to be sufficient agreements that require more than 15 years.

Changes to Lease Accounting Rules

The Governmental Accounting Standards Board (GASB) is an independent, nonpolitical organization dedicated to establishing rules that require state and local governments to report clear, consistent, and transparent financial information. For years under GASB guidelines, leases that met at least one of the following criteria were considered capital leases:

- the lease transfers ownership of the property to the lessee by the end of the lease term;
- the lease allows the lessee to purchase the property at a bargain price at a fixed point in the term of the lease for a fixed amount;
- the term of the lease is 75% or more of the estimated economic useful life of the property; or
- the present value of the lease payments is 90% or more of the fair value of the property.

Many leases that the State enters are not considered to be capital leases. Even if the leases represent multi-year commitments to make payments, no liabilities are reported. Similarly, no assets are reported on many leases even if the State has long-term rights to receive operating lease payments.

New GASB Rules Require Governments to Recognize Leases Exceeding 12 Months

The new rules require government lessees to recognize a lease liability and an intangible asset representing their right to use the leased asset with limited exception. Lessees amortize the leased asset over the term of the lease and recognize interest expenses related to the lease liability. Exceptions are provided for short-term leases lasting 12 months or less along with financed purchases.

The new rules increase the amount of capital leases, but it is unclear to what extent. In response to the narrative in the fiscal 2019 *Joint Chairmen's Report*, the Department of Budget and Management (DBM), DGS, and MDOT prepared a preliminary estimate of debt service costs and debt outstanding under the new GASB guidelines. The agencies estimated that fiscal 2018 lease debt would total $91 million and debt outstanding $516 million. The fiscal 2019 *Comprehensive Annual Financial Report* estimates that the fiscal 2019 leasing costs totaled just under $100 million. This amount may well overstate leasing costs that would be State debt if the affordability process were to adopt GASB 87. For example, State debt measures only include debt supported by State revenues, by which not all these leases are supported. For example, university revenues and debt are not State revenues or debt.

2023 Workgroup and CDAC Capital Leasing Policy

In 2023, CDAC formed a workgroup that included STO, DBM, DGS, and DLS. The workgroup considered expanding the capital lease definition to include multi-year leases. The workgroup had gathered data and reviewed leases that are more than one year. It noted that amortizing the leases over the CDAC forecast period substantially increases administrative costs and that the costs of the leases under the current approach include a substantial share of multi-year leases. The additional effort required to track and to amortize the out-year impacts of hundreds of leases provide only a marginal benefit with little effect on CDAC ratios. CDAC reaffirmed that the State will keep the previous GASB definition of State debt. The amortization costs of these leases are equal to most of the costs associated with leases in excess of one year, and the current definition avoids a substantial increase in administrative costs and effort.

Prior to the most recent Maryland GO bond sale, Maryland bonds were rated with a negative outlook by Moody's Investor's Service. One concern was that Maryland did not recognize all long-term liabilities. This issue is discussed in more detail in Chapter 8.

Bay Restoration Bonds

Background

The BRF was created in 2004 to provide grants for enhanced nutrient removal (ENR) pollution reduction upgrades at the State's 67 major wastewater treatment plants (WWTP). The BRF is funded by a $60 per year bay restoration fee on users of wastewater facilities (WWTP Fund) and septic systems and sewage holding tanks (Septic Fund). Fees were increased from $30 per year to $60 per year in 2012. The fund has several revenue sources and expends funds for both operating (MDE's operating expenses, operation and maintenance grants, bond expenses, and cost-effective nutrient load reductions) and capital (wastewater facility upgrades, sewer rehabilitation, and stormwater projects) purposes.

One of the largest alternative uses of the BRF was established by Chapters 694 and 695 of 2021. Chapters 694 and 695 implemented a mandatory transfer of $20.0 million annually from the BRF to the Clean Water Commerce Account to purchase cost-effective nutrient load reductions in support of the State's efforts to achieve the Chesapeake Bay Total Maximum Daily Load. Most recently, Chapters 558 and 559 of 2024 authorized the use of BRF – Wastewater Account funding for the use of the Whole Watershed Fund created by the legislation to accelerate restoration of the Chesapeake and Atlantic Coastal Bays. In terms of prioritization, this authorization comes after the payment of BRF revenue bond debt service and funding eligible costs for wastewater treatment plants.

CDAC considered whether bay bonds are State debt in 2004. At the time, the committee agreed that the bonds are State debt. The Water Quality Financing Administration's bond counsel reviewed this issue and concurred with this opinion.

Fund Balance Status

The most recent data provided by MDE shows that the BRF closing balance, on a cash basis, decreased from $167.0 million in fiscal 2022 to $154.4 million in fiscal 2023 but then increased in fiscal 2024 to $160.1 million and is projected to increase even further to $180.0 million in fiscal 2025. Overall, MDE notes that, after fiscal 2025, the projected BRF closing balance is anticipated to decline through fiscal 2030 to $69.6 million. The reason for the increase in the closing balance in fiscal 2025 is the lower than projected actual encumbrances and grant disbursements, which has been a trend in recent years. Looking forward, the factors in the decline of the BRF closing balance are the anticipated increase in the encumbrance and expenditure of funds and the allocation of funding to the Clean Water Commerce Account.

Revenue Bond Schedule

To date, $330 million in par value has been issued. Debt outstanding peaked at $301.6 million in fiscal 2016 and then has decreased steadily. Overall, issuances are limited by the revenues generated by the WWTP share of the funds, overall State debt considerations, and limitations on uses. The current plan is to retire all debt by the end of fiscal 2030, when the fee is scheduled to drop to $30 per year. This limits the final issuance to a two-year maturity if bonds are issued in fiscal 2028. Therefore, based on current law and project schedules reported in the 2024 *Capital Improvement Program* (CIP) and past revenue uncertainties, MDE does not plan to issue any more revenue bonds, and DLS does not forecast that any revenue bonds will be issued under current laws and policies. **Exhibit 3.11** shows the outlook for fiscal 2025 through fiscal 2030.

Exhibit 3.11
Bay Restoration Wastewater Treatment Fund
Fiscal 2025-2030
($ in Millions)

	2025	**2026**	**2027**	**2028**	**2029**	**2030**
Debt Outstanding	$118.1	$94.7	$70.4	$44.9	$18.3	$0.0
Debt Service	27.2	27.1	27.3	27.7	28.0	18.8

Source: Maryland Department of the Environment

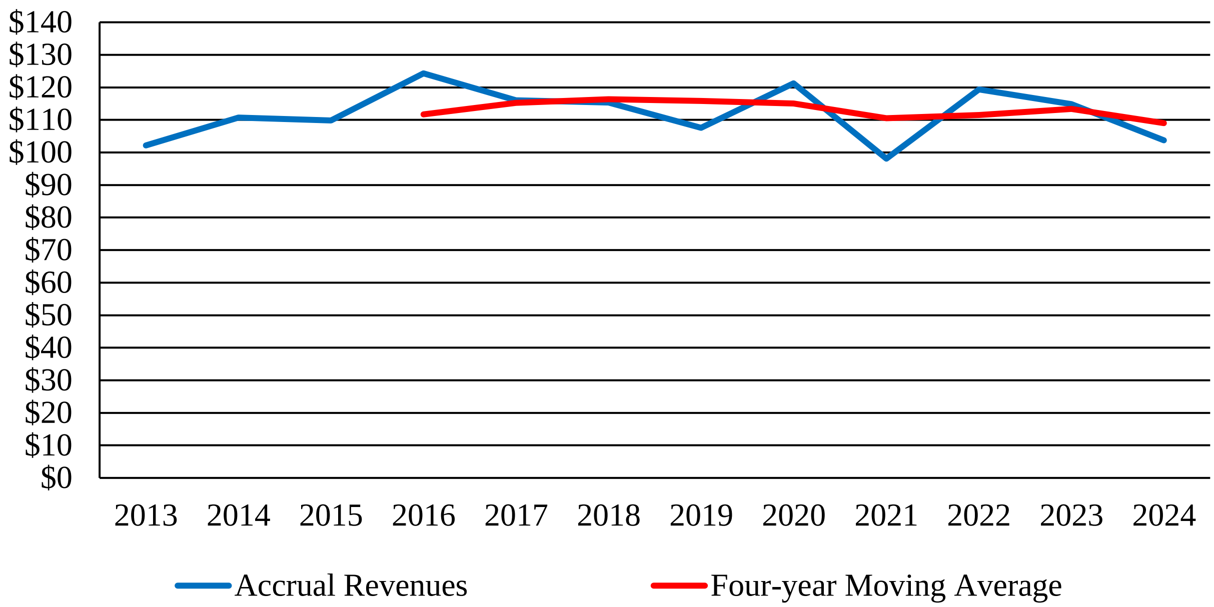
No Need to Issue Additional Debt

The overall BRF bond authorization is $590 million. Of this amount, MDE has issued $330 million and, as noted previously, no longer is planning to issue additional revenue bonds. DLS concurs with the assessment that there is no need to issue additional revenue bonds for the following reasons: ENR upgrades have largely been completed; there is an influx of federal funding; the 2024 CIP reflects the programming of GO bond funding in fiscal 2027 through 2029; and any additional debt is limited to a two-year maturity due to the fee dropping to $30 per year in fiscal 2031.

Revenues Have Stabilized, but Timing Concerns Remain

BRF fee revenues have fluctuated over the last couple of years but stabilized at approximately $111 million per year since fiscal 2021, as shown in **Exhibit 3.12**. MDE notes that the year-to-year revenue fluctuations are likely due to the timing of when payments are received by the Comptroller and remitted to MDE. Local government payment remitting delays that lead to accruals can lower the revenues that MDE receives for one fiscal year and raise it for the next fiscal year.

Exhibit 3.12
Bay Restoration Fund Revenues
Fiscal 2013-2024
($ in Millions)



Source: Comptroller of Maryland

DLS recommends that the General Assembly continue to limit BRF revenue bond issuances at a level that maintains debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criterion.

Maryland Stadium Authority

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

In the 1990s, MSA's role expanded to include managing and issuing revenue bonds to renovate and expand convention centers in Baltimore and Ocean City, construct a conference center in Montgomery County, and renovate the Hippodrome Performing Arts Center. More recently, MSA's role has been expanded to issue (1) up to $1.1 billion in debt for the purpose of constructing and improving public school facilities in Baltimore City; (2) up to $2.2 billion for public school facilities statewide; (3) up to $375 million for horse racing and community development; (4) additional bonds for Orioles and Ravens stadiums; (5) bonds for statewide sports and entertainment facilities; and (6) bonds for Blue Line Corridor (BLC) projects in Prince George's County. The Baltimore City school debt, statewide school debt, and racing debt are not considered debts of the State. **Exhibit 3.13** lists MSA's current tax-supported authorized debt, debt outstanding, and annual debt service. MSA also issues non-State debt for stadiums. This is discussed in the non-State debt section at the end of this chapter.

Exhibit 3.13
MSA Revenue Debt Authorizations, Debt Outstanding, and Debt Service
Fiscal 2025
($ in Thousands)

Project	Revenues Supporting Debt	Authorized Par Value	Debt Outstanding	2025 Debt Service
State Debt				
Hagerstown Multi-Use Sports and Events Facility	General Fund	$59,500	$55,295	$3,749
Baltimore City Convention Center	General Fund	55,000	0	0
Ocean City Convention Center	General Fund	24,500	18,530	1,655
Baseball and Football Stadiums[1]	Lottery and MSA	n/a	43,970	12,289
Subtotal		***$139,000***	***$117,795***	***$17,693***
Non-State Debt				
Built to Learn	Education Trust Fund	$2,200,000	$600,455	$36,523
Baseball and Football Stadiums and Camden Station[1]	Lottery and MSA	1,200,000	400,930	30,732
Baltimore City Public Schools	Lottery, Baltimore City, State Grants to Baltimore City	1,100,000	968,075	60,000
Blue Line Corridor Projects	Lottery	400,000	0	0
Horse Racing and Community Development	Lottery	375,000	0	0
Sports Entertainment Facilities Financing Fund	Lottery	20,200	91,045	12,401
Supplemental Facilities Fund	MSA	25,000	0	0
Subtotal		***$5,520,000***	***$2,060,505***	***$139,656***
Total		**$5,659,000**	**$2,178,300**	**$157,350**

MSA: Maryland Stadium Authority

[1] Authorization limit for Camden Complex includes the stadiums and Camden Station. The authorization does not specify between State and non-State debt. Chapter 60 of 2022 increased the limit from $235 million to $1,200 million.

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

Source: Maryland Stadium Authority

Revenues Supporting Maryland Stadium Authority Debt

The revenue sources supporting the projects are lottery revenues, Education Trust Fund (ETF) revenues, stadium authority revenues, general funds, and revenues pledged by Baltimore City. This section provides a short summary of these revenues. The bonds are discussed in more detail later in the chapter.

Lottery Revenues

These are the commitments supported by lottery revenues:

- Camden Yards and the baseball and football stadiums with a $90 million annual cap. There are two small bank loans that get first priority, the Series 2013 and Series 2014, about $2.0 million in total debt service. The remaining bonds are lease-back revenue bonds with the master lease as the pledge to the bondholders. These are parity bonds, so all bondholders have equal claims without any preference for any particular issuance.

- Baltimore City Public Schools (BCPS) with a $20 million annual cap. The financing fund is the pledge to the bondholders. These are parity bonds.

- Racing and Community Development Fund with a $17.5 million annual cap. This will be structured the same as BCPS bonds with the financing fund being pledged to the bondholders. These will be parity bonds.

- Sports Entertainment Facilities Financing Fund with a $25 million annual cap. This will be structured the same as BCPS bonds with the financing fund being pledged to the bondholders. These will be parity bonds.

- Prince George's County BLC Facility Fund with a $27 million annual cap. This will be structured the same as BCPS bonds with the financing fund being pledged to the bondholders. These will be parity bonds.

Exhibit 3.14 shows that $75 million in lottery revenues were appropriated in fiscal 2025 to support debt service costs. For Camden Yards, BCPS, Prince George's BLC, and the Sports and Entertainment Financing Fund, annual debt service costs have a fixed limit. Chapter 410 of 2024 eliminated the annual $17 million cap on lottery revenues for debt service. Debt service costs will be determined by the interest rate at the bond sales' closing. DLS estimates that total lottery revenues could be as much $182 million annually.

Exhibit 3.14
Lottery Revenues Supporting Bonds
Fiscal 2025
($ in Millions)

Project	**Appropriated Debt Service**	**Maximum Annual Lottery Support**
Bonds with a Fixed Annual Lottery Revenues Limit		
Camden Yards Complex	$43.0	$90.0
Baltimore City Public Schools	20.0	20.0
Prince George's County Blue Line Corridor Projects[1]	0.0	27.0
Sports Entertainment Facilities Financing Fund	12.4	20.0
Subtotal	***$75.4***	***$157.0***
Bonds without a Fixed Annual Lottery Revenues Limit		
Horse Racing and Community Development[1, 2]	$0.0	$25.0
Total	**$75.4**	**$182.0**

[1] Bonds have yet to be issued.
[2] Estimated maximum annual debt service in the fiscal note for Chapter 410 of 2024.

Source: Maryland Stadium Authority; Fiscal Digest; Department of Legislative Services

MSA has noted that there are limits to how much lottery revenue can support debt service, and that the State may be close to those limits. New issuances increase debt service which reduces coverage. Coverage is lottery fund deposits (gross sales less prize expenses, commissions, and operating expenses) divided by debt service costs.[1] Rating agencies consider coverage that is three times debt service costs to be strong. Current revenue and debt service out-year estimates imply that coverage will be just over three times debt service by fiscal 2028. This suggests little or no additional capacity, if the current ratings are to be maintained. MSA continues to monitor revenues and debt service.

MSA Revenues

Prior to the enactment of Chapter 60 of 2022, MSA's revenues have been used to support debt service for Camden Yards and the baseball and football stadiums when debt service exceeded $20 million. MSA revenues can also be used to support the Supplemental Facilities Fund.

[1] Net revenues available after debt service costs are deposited into the General Fund.

Baltimore City

In addition to the lottery revenues previously mentioned, Baltimore City school construction bonds are also supported by Baltimore City funds. These include diverting State school aid and revenues from container taxes. Funding for Baltimore City school revitalization is discussed in more detail later in this chapter.

Education Trust Fund

A share of proceeds from video lottery terminals and table games at licensed gaming facilities is deposited into the ETF. The Built to Learn Act (Chapter 20 of 2020) required the Comptroller to make semiannual deposits from the ETF to the Supplemental Public School Construction Financing Fund. The initial payment into the supplemental financing fund was in fiscal 2023. Annual MSA deposits are $100 million beginning in fiscal 2024 since Prince George's County has entered into a public-private partnership (P3) to construct schools.

State Debt Issuances

Camden Yards Sports Complex

Statute limits the amount of bonds that the authority may issue at the Camden Yards Sports Complex and the allocation of outstanding tax-supported debt. The authority may only exceed the limit with approval of BPW and notification to LPC. There are three issuances, 2007, 2019A, and 2019B, that are State debt. The remaining debt is non-State, which is discussed in the next section.

Hagerstown Multi-Use Sports and Events Facility

Chapter 353 of 2021 created the Hagerstown Multi-Use Sports and Events Facility Fund as a continuing, nonlapsing fund to support financing and construction of the facility. The fund can support payment of debt service on MSA bonds, reasonable charges and expenses related to MSA's borrowing, and the management of MSA obligations. Beginning in fiscal 2023, the Governor is required to include a $3.75 million appropriation to the fund in the State operating budget. The fund can support up to $59.5 million in bonds.

MSA issued $57.6 million in 30-year bonds for the facility in March 2022. The sale realized an $11.6 million net premium, after deducting the cost of issuance and the underwriter's discount. The project also uses $10.5 million in additional appropriations from the State. The project budget is $12.5 million for site acquisition, $3.0 million for design and engineering, and $66.6 million for construction. In December 2022, MSA advised that based on current estimates, the scope of the facility will need to be reduced, or funding will need to be increased. Primary reasons for the additional need are inflation and higher than anticipated interest rates and acquisition costs. For example, $69.4 million received in bond proceeds is $5.2 million less than the October 2021 estimate. To address this shortfall, Chapter 468 of 2023 increased the Sports Entertainment Facilities Financing Fund debt outstanding cap from $200 million to $220 million. The legislation was also amended to allow nonprofit organizations to receive bond proceeds for projects. In October 2023, another $20.1 million in par value bonds supported by the Sports Entertainment Facilities Financing Fund were issued to support the Hagerstown facility. This fund is considered non-State debt. The fund is discussed in more detail in the Sports Entertainment Facilities Financing Fund section later in this chapter.

Baltimore City Convention Center

Chapter 695 of 2019 required that MSA enter into an agreement to begin planning and design of the expansion and renovation of the Baltimore City Convention Center (BCCC). Prior issuances have been retired, so the full $55 million in capacity is available for the bonds. When the legislation was enacted, MSA expected to issue $50 million in bonds, of which two-thirds ($33.3 million) would be supported by the State and one-third ($16.7 million) would be supported by Baltimore City. The State annual share of debt service would be about $2.6 million Complications at the site delayed this project such that no bonds have been issued. BCCC received $25.7 million in the fiscal 2024 operating budget to begin renovation projects. The timing of any bond issuances is unclear.

Ocean City Conference Center

Chapters 217 and 218 of 2019 authorized additional bonds to expand the Ocean City Conference Center. In October 2019, MSA issued $20.9 million in tax-supported bonds to support construction of the expansion. The sale generated $3.8 million in net premiums, and proceeds totaled $24.7 million. To support the first two years of debt service interest payments, $1.9 million was deposited into a capitalized interest fund. Principal payments begin in the third year, with the final debt service payment in fiscal 2040. The renovation project also receives $15.0 million from the Town of Ocean City and $500,000 from the Maryland capital budget. Debt service payments will be $1.7 million beginning in fiscal 2023, and the bonds will be retired in fiscal 2040.

Camden Station

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

In February 2004, MSA issued $8.7 million in 20-year taxable revenue bonds to renovate Camden Station. Of that amount, $8.0 million is to fund capital construction associated with the development of the project. The remaining bond proceeds were used to pay capitalized interest, costs of issuance, and bond insurance. The capital interest period covered biannual debt service payments through June 15, 2006. The bonds will be retired in fiscal 2025.

Non-State Debt

MSA also is authorized to issue bonds supporting baseball and football stadiums, Baltimore City school construction, the statewide public school construction program, horse racing facilities, sports entertainment facilities, and BLC projects that are not considered to be State debt.

Non-State Debt Issued for the Camden Yards Sports Complex on Advice of Bond Counsel

Since fiscal 2010, MSA has issued Sports Facilities Taxable Lease Revenue Bonds to fund capital improvement projects at the Camden Yards Sports Complex. The bonds have been secured by lottery revenues and, in the opinion of bond counsel, did not constitute tax-supported debt. An agreement with the Comptroller ensures that lottery proceeds are deposited with a trustee for the benefit of the holders of the bonds.

In fiscal 2012, MSA issued approximately $105 million in fixed-rate lease revenue bonds that were used to refund the fiscal 1998 and 1999 variable-rate bonds. This transaction eliminated exposure risks and some annual fees associated with the current variable-rate debt.

While the State does not consider this to be State debt, this interpretation of State debt is not universal. For example, Moody’s Investors Service considers all debt from lottery revenues to be debt of the State that issued the debt. Moody’s estimates of Maryland’s debt service to revenues affordability ratio tends to be higher than the CDAC ratio, which is one factor that results in a lower calculation by CDAC than Moody’s.

2022 Authorizations for Orioles Park and Ravens Stadium

Chapter 60 increased the statutory limit for bonds for the stadiums and Camden Yards complex from $235 million to $1.2 billion in outstanding debt. This provides $600 million for each team. The law prohibits MSA from issuing debt with maturities that exceed the length of teams’ leases. Debt service is supported by lottery revenues.

In January 2023, BPW approved a new lease between the State and the Ravens. The new lease terminated and replaced the existing lease. The lease is 15 years, with two 5-year renewal options that can only be exercised by the Ravens. This lease extends the lease period through the 2037 National Football League season. In August 2023, $413 million in par value bonds were issued for improvements to the Baltimore Ravens’ M&T Bank Stadium. This included taxable, tax-exempt, and conversion bonds. The bonds mature in September 2037.

In September 2023, MSA and the Orioles entered into a memorandum of understanding (MOU) for a new facility use agreement and ground lease for development rights. As a condition of financing, Chapter 60 requires that there be a lease, lease renewal, or extension of a lease that will not terminate prior to the maturity date or payoff of any bonds issued. In December 2023, BPW approved a new lease between the State and the Baltimore Orioles that extended the existing lease from January 1, 2024, to December 31, 2053. The lease is subject to (1) the Orioles having the authority to reduce the end of the lease to December 31, 2038, if the Orioles and MSA do not have a ground lease by December 31, 2027; (2) MSA's bond repayment not exceeding the minimum lease period of December 31, 2037; and (3) replacing the lease extension with a Facility Use Agreement if the Orioles and MSA do not have a master development agreement by December 31, 2027. Facility Use Agreement provisions include (1) the Orioles not paying rent; (2) the Orioles maintaining the stadium; (3) establishing capital, emergency reserve, and safety and repair funds, mostly funded by MSA or the State; and (4) authorization for the Orioles to sell naming rights.

In October 2023, MSA requested that BPW approve an issuance to improve Camden Yards. MSA anticipated that the bond sale would provide $129.3 million. The bonds would mature in fiscal 2039, before the minimum expiration date of the current lease. MSA assumed that the bonds would be sold at a par, so issuance and capitalized interest costs would be funded from the par value of the bonds. Fiscal 2025 debt service is expected to be an interest-only payment totaling $3.3 million, supported by capitalized interest. After accounting for capitalized interest and other issuance costs, the sale is anticipated to provide $125 million to support project expenditures. Annual debt service costs are $13.3 million from fiscal 2026 through 2039. A date for the bond sale has not been set.

Supplemental Facilities Fund

The Supplemental Facilities Fund was established in Chapter 221 of 2019. This continuing, nonlapsing fund can be used to support facilities that directly or indirectly benefit the sports facilities at Camden Yards. MSA can issue up to $25 million for supplemental facilities in Baltimore City. This could include developing, establishing, acquiring, owning, leasing, improving, operating as landlord, regulating, maintaining, selling, transferring, or otherwise disposing of property acquired under the Act. The Act also authorizes MSA to enter into partnerships with Baltimore City, units of the State or local government, or private developers.

Revenues to the fund consist of funds appropriated for deposit, proceeds from the sale of bonds concerning supplemental facilities, revenues collected or received from any source under the bill related to supplemental facilities, and any additional money made available from any public or private source for the purposes established for the fund. To the extent that is considered appropriate by MSA, the receipts of a supplemental facility must be pledged to and charged with the following relating to the supplemental facility: the payment of debt service on MSA bonds; all reasonable charges and expenses related to MSA borrowing; and the management of MSA obligations.

The fund is to support the Camden Yards complex so it cannot support the Baltimore Convention facility or the Hippodrome Performing Arts facility in Baltimore City. Debt issued is not a debt of the State, MSA, or any other governmental unit. MSA has not issued any Supplemental Facilities Fund bonds.

Baltimore City School Revitalization Program

Chapter 647 of 2013 authorized MSA to issue up to $1.1 billion in debt for the purpose of constructing and improving public school facilities in Baltimore City. Any debt issued by MSA to finance construction or improvement of Baltimore City public school facilities is not a debt, liability, or pledge of the faith and credit or taxing power of the State. Sources of revenue to pay the debt service and other project costs are:

- all revenues generated by the Baltimore City beverage container tax;
- Baltimore City's proceeds from table games at its video lottery facility that are dedicated to school construction and 10% of the participation rent paid by the video lottery facility operator to Baltimore City;
- $10.0 million in State education aid due to the Baltimore City Board of School Commissioners (BCBSC) from forgone Baltimore City expenses attributable to recurring retiree health care costs shifted from Baltimore City to BCBSC beginning in fiscal 2017;
- $20.0 million in annual proceeds from the State lottery beginning in fiscal 2016;
- $10.0 million diverted from State education aid to BCBSC in fiscal 2016 and $20.0 million in each fiscal year thereafter beginning in fiscal 2017;
- proceeds from the sale of bonds to finance improvements to BCPS facilities; and
- any other funds or revenues received from or dedicated by any public source to support the initiative.

MSA is responsible for managing all public school construction and improvement projects in Baltimore City that are financed under the Act. However, MSA may not use any of its own funds, whether appropriated or nonbudgeted, to pay for any costs or expenses related to its role as project manager. Annual debt service payments are capped at $60 million.

In April 2016, MSA issued the first round of debt dedicated to the first phase (Year 1 schools) of the school construction program. The 30-year, tax-exempt revenue bonds totaled $320.0 million and garnered a premium of $66.1 million to be used for construction costs for 11 schools. The second bond issuance supporting Year 2 schools was issued in February 2018. A total of $426.4 million was issued. The sale generated a $70.0 million premium that supports construction.

MSA issued $525 million in bonds in three series in July 2020. Series A was $194 million in tax-exempt bonds. Series B was $34 million in tax-exempt green revenue bonds. Series C was $296 million in taxable refunding bonds. Refunding Series C did not generate any proceeds for the project fund. Rather, the series reduced debt service costs of prior bond sales, which increased how much could be issued in Series A. The par value and premiums for Series A and B are deposited into the project fund. In addition to the par value, the premium for Series A was $98 million, and the premium for Series B was $16 million, bringing the total proceeds deposited into the project fund from this sale to $342 million.

The final issuance was in July 2022. MSA issued capital appreciation bonds, which extended the Baltimore City School revitalization bond debt service payments for five years. The final debt service payment will be in fiscal 2055, instead of 2050. The bonds pay no debt service until fiscal 2051, at which point there are five annual debt service payments totaling $60 million from fiscal 2051 to 2055. The bonds' par value is $66.05 million, and the true interest cost (TIC) is 5.002%. This sale increases the net par value issued, after adjusting for refunding issuances, to $1,040 million with total proceeds, including bond sale premiums and capital appreciation bonds, totaling $1,269 million. MSA advises that this is the final issuance.

Built to Learn Act

The Built to Learn Act (Chapter 20) and Built to Learn Act – Revisions (Chapter 698 of 2021) established a program to fund public school construction statewide. MSA is authorized to issue up to $2.2 billion in revenue bonds, backed by annual payments from the ETF, for public school construction projects in the State, including to support a possible P3 agreement for Prince George's County. Projects are approved by the Interagency Commission on School Construction.

Since revenues for debt service are fixed, how much is available for projects will be determined by interest rates when bonds are sold. To date, three series of bonds have been issued. **Exhibit 3.15** shows that $1.14 billion of bond proceeds have been deposited into the project fund.

Exhibit 3.15
Results from First Three Built to Learn Bond Sales
Fiscal 2021-2024
($ in Millions)

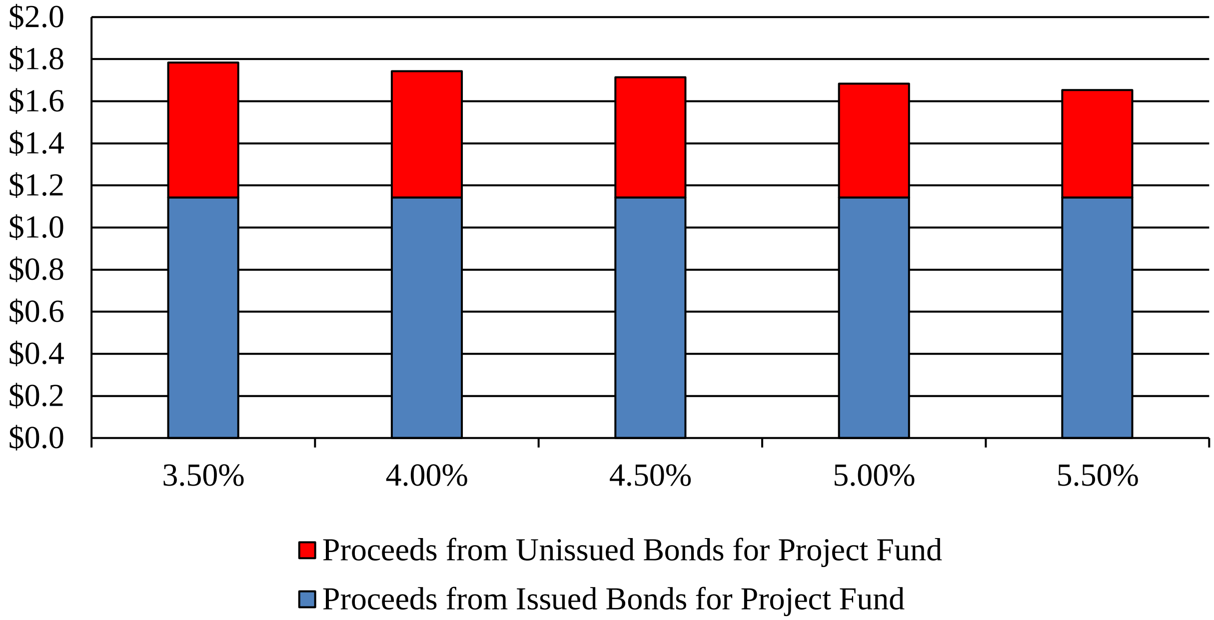
	Series 2021	Series 2022	Series 2024	Total
Fiscal Year That Issuance Matures	2051	2052	2054	
Par Value	$257.0	$373.1	$410.7	$1,040.8
Premium Net of Issuance and Capitalized Interest Costs	28.9	40.4	33.4	102.7
Total Available for Project Fund	**$285.9**	**$413.5**	**$444.2**	**$1,143.5**
Average Annual Debt Service[1]	$14.8	$21.7	$27.9	$64.4
Final Debt Service Payment[2]	14.8	36.5		
True Interest Cost	2.83%	3.21%	4.26%	
Average Coupon	3.80%	4.06%	4.90%	
Bond Buyer 20-Bond Index in Week of Sale	2.28%	3.19%		
Average Life (Years)	18.4	19.4	20.7	
Delivery Date	11/02/21	03/10/22	10/30/24	
Bid Dates	10/19/21	02/23/22	10/08/24	

[1] Since the fund earns interest, actual debt service could exceed the $100 million appropriation in some fiscal years.
[2] Bonds mature in 30 years. When an issuance matures and no longer pays debt service, the subsequent issuance has a balloon payment in its final year.

Source: BofA Securities; Department of Legislative Services

Exhibit 3.16 shows that DLS estimates that if the TIC of the remaining sales is 3.50%, another $640 million is available to be deposited into the project fund for a total of $1.78 billion. Should the TIC increase to 5.50%, additional project funds total $510 million, which provides $1.65 billion in total project funds.

Exhibit 3.16
Effect of Increasing Interest Rates on Proceeds for BTL Bonds
Average Interest Rate of Remaining Bond Sales
($ in Billions)



BTL: Built to Learn

Source: BofA Securities; Department of Legislative Services

Racing and Community Development Act of 2020

MSA's support of horse racing began with the Racing and Community Development Act (Chapter 590 of 2020), which authorized MSA to issue up to $375 million in bonds for financing planning, design, construction, and related expenses for racing facilities at Pimlico and Laurel Park. Chapter 590 required that a minimum of $180 million support Pimlico and $155 million support Laurel Park. Delays in reaching agreements, increasing costs, higher interest rates, and increased scope resulted in total project cost estimates that were significantly over budget.

Chapter 410 of 2024 amended State law to consolidate racing at Pimlico. Bonds can also support a training facility outside of Pimlico. BPW approval is required prior to any bond issuance, and MSA must provide to the fiscal committees financing plans 45 days prior to BPW approval.

Sports Entertainment Facilities Financing Fund

Chapter 61 of 2022 created the Sports Entertainment Facilities Financing Fund. A sports entertainment facility is a structure or other improvement at which minor league games are played or other non-major league sporting events are held. It includes parking lots, garages, and other property adjacent and directly related to the facility. It does not include a (1) facility located at Camden Yards; (2) sports facility; or (3) high school, collegiate, or recreational venue that does not generate positive incremental tax benefits to the State.

To fund a project, MSA must secure a written agreement with the nonprofit, State, county, or local government in which the sports entertainment facility is located, as approved by BPW, under which the source of funding and the order in which funds will be spent is described, and the State, county, or local government agrees to (1) own, market, promote, and operate or contract for the marketing, promotion, and operation of the sports entertainment facility in a manner that maximizes the facility's economic return; (2) maintain and repair or contract for the maintenance and repair of the facility; and (3) any other terms or conditions deemed necessary or appropriate by MSA. The county or local government in which a sports entertainment facility financed by the bill is located must annually report to the fiscal committees of the General Assembly on the sports entertainment facility's assessment of the maintenance and repair needed to keep the facility in operating order.

The fund is supported by two biennial deposits of lottery funds. Annual appropriations cannot exceed $25 million, and total debt outstanding cannot exceed $220 million. Total debt outstanding is low compared to other financing funds. MSA anticipates issuing bonds with shorter maturities that will be amortized more quickly, so the fund will not need as high a level of debt outstanding. The shorter amortization allows MSA to fund more projects.

MSA issued $98.5 million in bonds in two series in October 2023. The sale realized $5.1 million in premiums. The first year of debt service, which is an interest only payment, is $3.1 million supported by capitalized interest funded with bond proceeds. Series A was $20.1 million in tax-exempt bonds that mature in 30 years. Average annual debt service is $1.4 million. Series B was $78.4 million in tax-exempt bonds that mature in 10 years. Average annual debt service is $10.6 million. In sum, the project fund received $100 million, which is $20 million for each of the following projects:

- Prince George's Stadium in Prince George's County, home of the Bowie Baysox, the Class AA affiliate of the Baltimore Orioles;
- Arthur W. Perdue Stadium in Wicomico County, home of the Delmarva Shorebirds, the Class A affiliate of the Baltimore Orioles;
- Nymeo Field at Harry Grove Stadium in Frederick County, home of the Frederick Keys, an unaffiliated MLB Draft League team;
- Regency Furniture Stadium in Charles County, home of the Southern Maryland Blue Crabs, an unaffiliated Atlantic League team; and

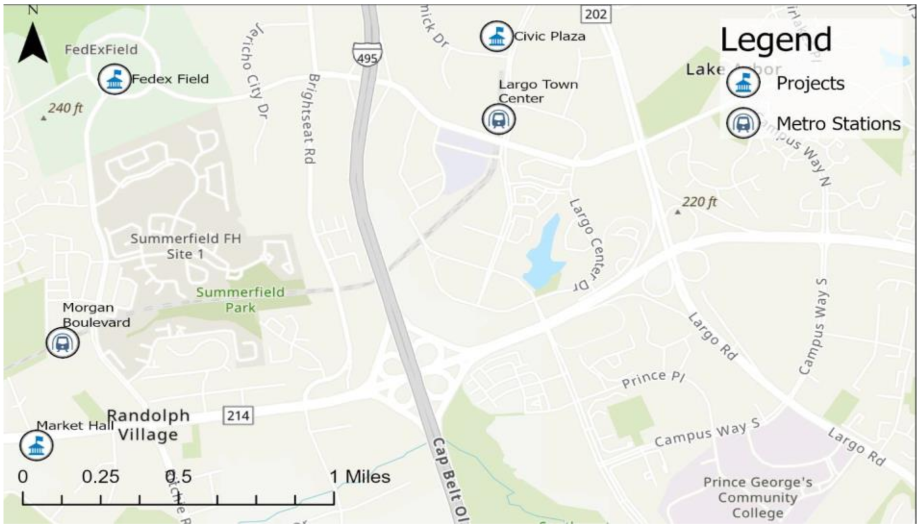
- Hagerstown Multi-Use Stadium and Event Facility in Washington County, home of the Hagerstown Flying Boxcars, an unaffiliated Atlantic League team.

In March 2023, BPW approved an MOU between MSA and the Aberdeen Iron Birds. MSA advises that additional bond sales are anticipated in calendar 2025.

Prince George's County Blue Line Corridor Facilities' Projects

Chapter 61 created the Prince George's County BLC Facility Fund. A BLC facility is a structure located within BLC that is (1) a convention center; (2) an arts and entertainment amphitheater; or (3) any other functionally related structure, improvement, infrastructure, furnishing, or equipment of a facility, including parking garages. **Exhibit 3.17** shows potential projects identified by Prince George's County in April 2022.

Exhibit 3.17
Potential Blue Line Corridor Projects



Source: Prince George's County; Esri; U.S. Geological Survey; SafeGraph; GeoTechnologies, Inc., April 2022

To finance site acquisition, planning, design, and construction of a BLC facility, MSA must notify the fiscal committees of the General Assembly and provide them with a comprehensive financing plan, as specified, and obtain the approval of BPW of the proposed bond issue, the financing plan, and the required agreement with Prince George's County. MSA must also secure a written agreement with Prince George's County identifying the roles and responsibilities of each party with respect to the BLC facility.

The fund is supported by two biennial deposits of lottery funds. Annual appropriations cannot exceed $27 million, and total debt outstanding cannot exceed $400 million. Issuances are most commonly expected to be amortized over 30 years. MSA advises that it does not anticipate requiring any debt service appropriation before fiscal 2025.

Local Project Assistance and Feasibility Studies

The 1998 capital budget bill (as amended by Chapter 204 of 2003 and 445 of 2005) authorizes MSA to assist State agencies and local governments in managing construction projects. The budget committees must be notified, and funding must be provided entirely by the agency or local government requesting assistance unless funding is specifically provided in the budget for the project. MSA is also authorized to conduct feasibility studies. The budget committees must give approval for the studies, and costs must add to no more than $500,000 annually of MSA's nonbudgeted funds.

Recent studies include an Anne Arundel Arts and Conference Center, St. Mary's County Sports Complex, Ocean City Indoor and Outdoor Sports Complex, Hagerstown Community College Athletic Facilities, and Frostburg State University Regional Sports Complex. Chapter 615 of 2024 required that MSA study a northwest Baltimore County sports and tourism complex. MSA also funds this, for which the fiscal note estimates $300,000 in fiscal 2025 and $100,000 in fiscal 2026. Feasibility studies represent projects still in the planning stages. These studies do not require any debt and are excluded from the affordability analysis and long-term debt projections.

Chapter 4. Affordability Analysis

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

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

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

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

As noted in prior chapters, the Department of Legislative Services' (DLS) analysis assumes general obligation (GO) bond authorizations consistent with the Spending Affordability Committee (SAC) recommendations made in December 2023, which is the increase of the fiscal 2025 authorization by 2%. In October 2024, CDAC recommended maintaining authorizations at the fiscal 2025 level throughout the forecast period. The effect of this decrease is examined in Chapter 8.

Personal Income

Exhibit 4.1 shows the official Board of Revenue Estimates (BRE) September 2024 personal income estimates.

Exhibit 4.1
Maryland Personal Income
Calendar 2025-2030
($ in Billions)

Year	Personal Income Estimate	% Change
2025	$506	4.02%
2026	525	3.87%
2027	546	3.93%
2028	568	4.09%
2029	592	4.09%
2030	614	3.84%

Source: Board of Revenue Estimates

Revenue Projections

Exhibit 4.2 shows the out-year revenue projections through fiscal 2030. General fund, transfer tax, and Blueprint for Maryland's Future Fund estimates are consistent with BRE estimates. Bay Restoration Fund estimates were prepared by the Maryland Department of the Environment, and stadium revenue estimates were prepared by the Maryland Stadium Authority (MSA).

Exhibit 4.2
Revenue Projections
Fiscal 2025-2030
($ in Millions)

Fiscal Year	General Funds	Property Tax	Other ABF	Blueprint	Transfer Taxes	TTF	Stadium	BRF	Total
2025	$25,057	$1,049	$7	$927	$214	$4,460	$18	$115	$31,847
2026	25,586	1,086	5	1,040	231	4,668	17	115	32,748
2027	26,134	1,122	3	1,088	249	4,817	9	115	33,537
2028	27,124	1,146	2	1,035	263	4,875	9	115	34,569
2029	28,007	1,174	2	1,058	276	4,948	9	115	35,590
2030	28,987	1,199	2	1,077	290	5,039	9	115	36,718

ABF: Annuity Bond Fund
BRF: Bay Restoration Fund
TTF: Transportation Trust Fund

Note: BRF revenues only include revenues for wastewater treatment and exclude septic revenues.

Source: Board of Revenue Estimates; Maryland Department of Transportation; State Treasurer's Office; Maryland Stadium Authority; Maryland Department of the Environment; State Department of Assessments and Taxation; Department of Legislative Services

DLS has prepared separate estimates of Transportation Trust Fund (TTF) revenues, State property taxes, and other Annuity Bond Fund (ABF) revenues. The key difference between DLS and CDAC is attributable to TTF revenues and spending. The DLS forecast has an actual ending balance for fiscal 2024 of $143 million higher than assumed in the Maryland Department of Transportation's (MDOT) September 2024 forecast, which was submitted before closeout was finalized. DLS has revenues $333 million higher than MDOT, excluding the increased ending balance, which is attributable to higher estimated titling tax revenues that more than offset a slightly lower estimate of motor fuel tax revenues. Like CDAC, DLS uses the State Department of Assessments and Taxation's fiscal 2025 to 2027 assessable base estimates for the baseline State property tax estimates but prepares its own estimates for fiscal 2028 to 2030. Other ABF revenues are primarily federal funds, which are discussed in Chapter 3.

Affordability Analysis

DLS has prepared an estimate of State debt outstanding to personal income and State debt service to revenues. This analysis is consistent with the debt levels recommended by SAC in its December 2023 report for fiscal 2026 to 2030.

Exhibit 4.3 shows affordability calculation assumptions for GO bond authorizations, transportation bonds, and capital leases. No new State debt issuances are expected in MSA bonds or bay restoration bonds.

Exhibit 4.3
Projected New Debt Issuances
Fiscal 2025-2030
($ in Millions)

Fiscal Year	GO Bond Authorizations	GO Bond Issuances	Transportation Bonds	Capital Leases
2025	$1,750	$1,390	$270	$11
2026	1,785	1,535	455	8
2027	1,820	1,680	550	7
2028	1,855	1,755	580	8
2029	1,890	1,840	525	8
2030	1,930	1,905	630	8

GO: general obligation

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

CDAC policy is that tax-supported State debt outstanding not exceed 4% of personal income. The proposed levels of State debt are affordable. **Exhibit 4.4** shows that for the forecast period, debt outstanding as a percentage of personal income increases steadily from 2.69% in fiscal 2025 to 2.88% in fiscal 2030.

Exhibit 4.4
State Tax-supported Debt Outstanding
Components and Relationship to Personal Income
Fiscal 2025-2030
($ in Millions)

Fiscal Year	GO Bonds	MDOT Bonds	Capital Leases	Stadium Authority Bonds	Bay Restoration Bonds	Total Tax Supported Debt
2025	$10,279	$2,965	$121	$118	$118	$13,601
2026	10,765	3,114	103	106	95	14,182
2027	11,400	3,342	90	102	70	15,005
2028	12,101	3,581	73	98	45	15,898
2029	12,854	3,736	56	93	18	16,758
2030	13,614	3,980	39	89	0	17,721
State Tax Supported Debt Outstanding as a Percentage of Personal Income (Affordability criteria = 4.0%)						
2025	2.03%	0.59%	0.02%	0.02%	0.02%	2.69%
2026	2.05%	0.59%	0.02%	0.02%	0.02%	2.70%
2027	2.09%	0.61%	0.02%	0.02%	0.01%	2.75%
2028	2.13%	0.63%	0.01%	0.02%	0.01%	2.80%
2029	2.17%	0.63%	0.01%	0.02%	0.00%	2.83%
2030	2.22%	0.65%	0.01%	0.01%	0.00%	2.88%

GO: general obligation
MDOT: Maryland Department of Transportation

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

Source: Capital Debt Affordability Committee; Maryland Department of Transportation; State Treasurer's Office; Maryland Stadium Authority; Maryland Department of the Environment; Department of Legislative Services

With respect to debt service, the policy is that State tax-supported debt service may not exceed 8% of tax revenues supporting debt service. The proposed levels of State debt are affordable. **Exhibit 4.5** shows that the debt service as a percentage of revenues declines to 6.1% in fiscal 2026 and increases consistently to 6.48% in fiscal 2030.

Exhibit 4.5
State Tax-supported Debt Service
Components and Relationship to Revenues
Fiscal 2025-2030
($ in Millions)

Fiscal Year	GO Bonds	MDOT Bonds	Capital Leases	Stadium Authority	Bay Restoration Bonds	Total Tax-supported Debt Service
2025	$1,504	$436	$30	18	27	$2,015
2026	1,473	435	31	17	27	1,983
2027	1,543	459	31	9	27	2,069
2028	1,594	491	29	9	28	2,149
2029	1,669	528	28	9	28	2,261
2030	1,769	555	27	9	19	2,379
State Tax Supported Debt Service as a Percentage of Revenues (Affordability criteria = 8.0%)						
2025	4.72	1.37	0.09	0.06	0.09	6.33
2026	4.50	1.33	0.10	0.05	0.08	6.05
2027	4.60	1.37	0.09	0.03	0.08	6.17
2028	4.61	1.42	0.08	0.03	0.08	6.22
2029	4.69	1.48	0.08	0.02	0.08	6.35
2030	4.82	1.51	0.07	0.02	0.05	6.48

GO: general obligation
MDOT: Maryland Department of Transportation

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

Source: Capital Debt Affordability Committee; Maryland Department of Transportation; State Treasurer's Office; Maryland Stadium Authority; Maryland Department of the Environment; Department of Legislative Services

Comparing Estimated Debt Service Costs of Recommended Authorization Amounts

As discussed in Chapter 3, DLS' GO Bond authorizations are consistent with the level recommended by SAC in 2023. This has annual authorizations increasing 2% beginning in fiscal 2026. The SAC recommendation for fiscal 2026 is that authorizations are limited to $1.785 billion, instead of remaining at the fiscal 2025 level of $1.75 billion. SAC debt service and debt outstanding estimates are higher than CDAC estimates. **Exhibit 4.6** shows that SAC debt service estimates will be $11 million more in fiscal 2030 than CDAC estimates. DLS notes that long-term SAC estimates are considerably higher than CDAC estimates. Bonds are issued when the funds are needed to support project costs and takes about five years until the full authorization is needed. It is also State policy to pay interest only in the first two years of an issuance so that principal payments are made between the third and fifteenth year. Taken together, this results in a slow debt service cost increase after new bonds are authorized. DLS advises that the maximum debt service cost (years 3 to 15) is $3.7 million for each of the five 2% increases in authorizations. Total maximum debt service costs from the increases are $18.7 million annually when the capital program is fully phased in. This increases the debt service to revenues ratio by as much as 0.07%, or seven basis points.

Exhibit 4.6

Difference between SAC and CDAC Authorizations

Fiscal 2026-2030
($ in Millions)

Fiscal Year	SAC GO Debt Service	CDAC GO Debt Service	Difference	SAC Debt Service Ratio	CDAC Debt Service Ratio	Difference
2026	$1,473	$1,473	$0	6.05%	6.05%	0.00%
2027	1,543	1,542	1	6.17%	6.17%	0.00%
2028	1,594	1,592	2	6.22%	6.21%	0.01%
2029	1,669	1,664	5	6.35%	6.34%	0.01%
2030	1,769	1,757	11	6.48%	6.45%	0.03%

CDAC: Capital Debt Affordability Committee
Debt Service Ratios: State debt as a percentage of State revenues
GO: general obligation
SAC: Spending Affordability Committee

Source: Capital Debt Affordability Committee; Maryland Department of Transportation; State Treasurer's Office; Maryland Stadium Authority; Maryland Department of the Environment; Department of Legislative Services

Chapter 5. Long-term Cost Forecasts

In the previous chapter, the affordability of bonds were analyzed consistent with the Capital Debt Affordability Committee's (CDAC) debt affordability criteria. The committee compares debt outstanding to personal income and debt service costs to revenues.

While this debt affordability approach provides policy guidelines, it does not show how debt service costs affect the State budget. This chapter provides an analysis of out-year costs and the effect of these costs on general fund spending. Specific issues examined are:

- the Annuity Bond Fund (ABF), which provides revenues that support general obligation (GO) bond costs;
- general fund spending on debt service since the affordability process began in fiscal 1979;
- pension costs, which are the State's other large long-term liability that are also examined by rating agencies; and
- cost of Other Post Employment Benefits (OPEB).

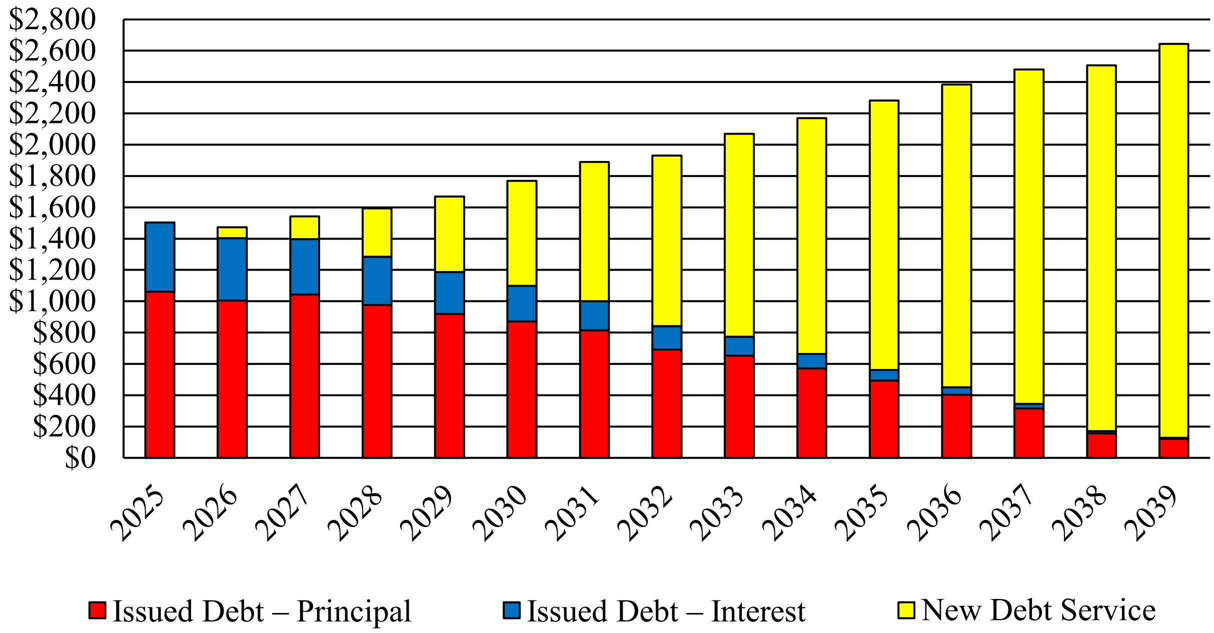
General Fund Appropriations Are Necessary to Support Debt Service

GO bond debt service is primarily supported by State property tax revenues and general funds. The State property tax rate is insufficient to support all debt service costs, so general funds are appropriated to subsidize the shortfall. This analysis assumes that the State authorizes $1.785 billion in GO bonds in fiscal 2026 and that authorizations increase 2% annually. This is consistent with the amount recommended by the Spending Affordability Committee (SAC) in December 2023. As discussed in Chapter 2, CDAC recommended authorizing $1.75 billion in fiscal 2026, which keeps authorizations constant.

Out-year Debt Service Costs Expected to Increase Steadily

The Maryland Constitution limits State debt maturities to 15 years. State policy is to pay interest only in the first 2 years and have level debt service payments from years 3 to 15. Because Maryland bonds have short maturities, debt is retired quickly, and all bonds issued in fiscal 2025 will be retired before fiscal 2040. **Exhibit 5.1** shows the principal and interest costs for bonds sold prior to November 2024 as well as the debt service costs for anticipated bond sales. From fiscal 2025 to 2039, debt service costs increase from $1.5 billion to $2.64 billion, an annual increase of 4.11%.

Exhibit 5.1
General Obligation Bonds' Debt Service Costs
Fiscal 2025-2039
($ in Billions)



Note: Issued principal and interest are adjusted to reflect sinking fund payments.

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

The short maturities mean that debt is retired quickly, and interest costs decline quickly. The average maturity for the State's 15-year GO bonds is just under 10 years, so most of each issuance is retired within 10 years. Fiscal 2025 interest costs total $442 million, which is 29% of $1.504 billion in total debt service. The share of interest costs to debt service payments decreases steadily throughout the forecast period for previously issued bonds. Over the 15-year period, interest is 21% of debt service costs.

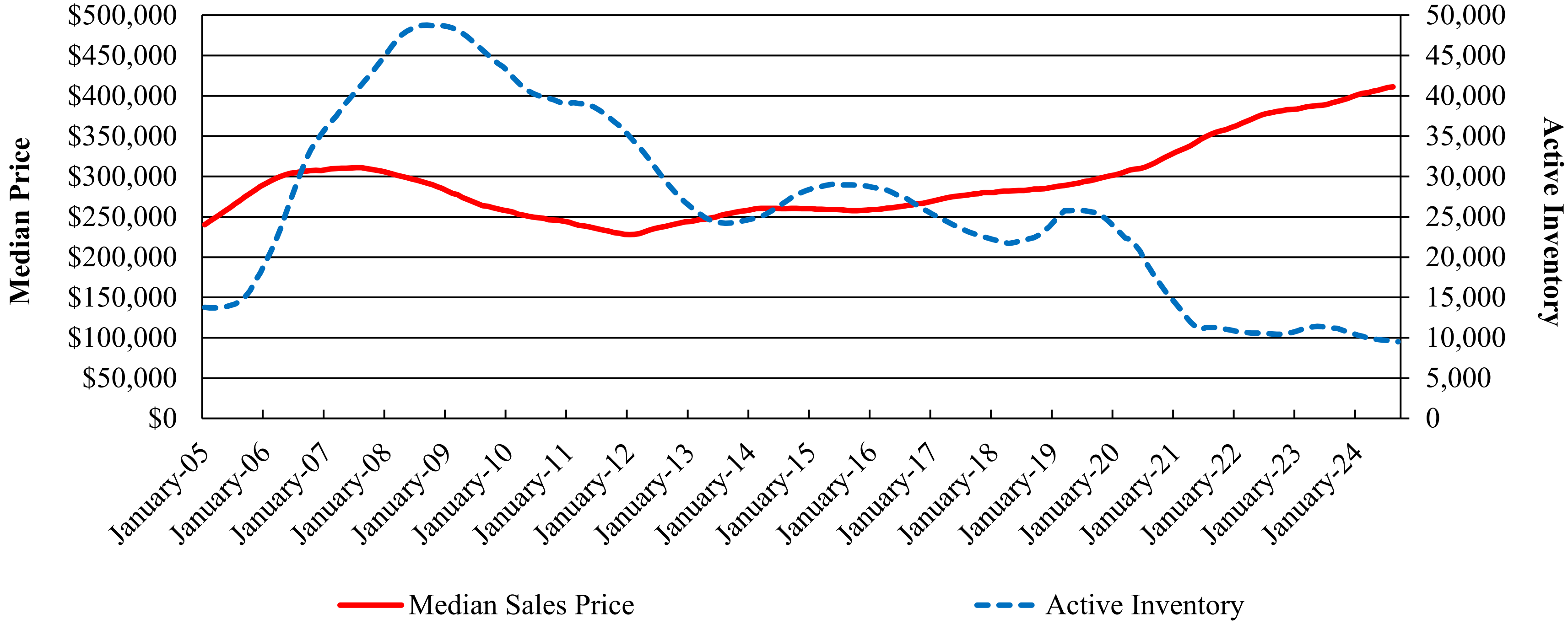
Home Values Have Increased Steadily in Recent Years

GO bond debt service costs are supported by the ABF. The fund's largest revenue source is the State property tax. In April 2006, the State property tax rate was set at $0.112 per $100 of assessable base and has remained at that level since fiscal 2007. Other revenue sources include proceeds from bond sale premiums, interest and penalties on property taxes, and repayments for local bonds. When the ABF has not generated sufficient revenues to fully support debt service, general funds have subsidized debt service payments.

State property tax collections are influenced by trends in the housing market. **Exhibit 5.2** shows that the median home price has increased steadily since calendar 2012. Active inventories have declined unevenly since peaking in 2008. Inventories since September 2021 have been lower than the number of inventories since before calendar 2000. Home sales have also declined substantially since calendar 2021. There were approximately 107,400 sales in Maryland in 2021, compared to 84,700 in calendar 2022 and 67,600 in 2023. In most months in 2024, home sales are below the same month in 2023. Since the summer months have the highest sales, it is expected that 2024 will be less than any of the previous three years.

Exhibit 5.2

Maryland Housing – Median Prices and Inventory
12-month Moving Average
January 2005 to September 2024



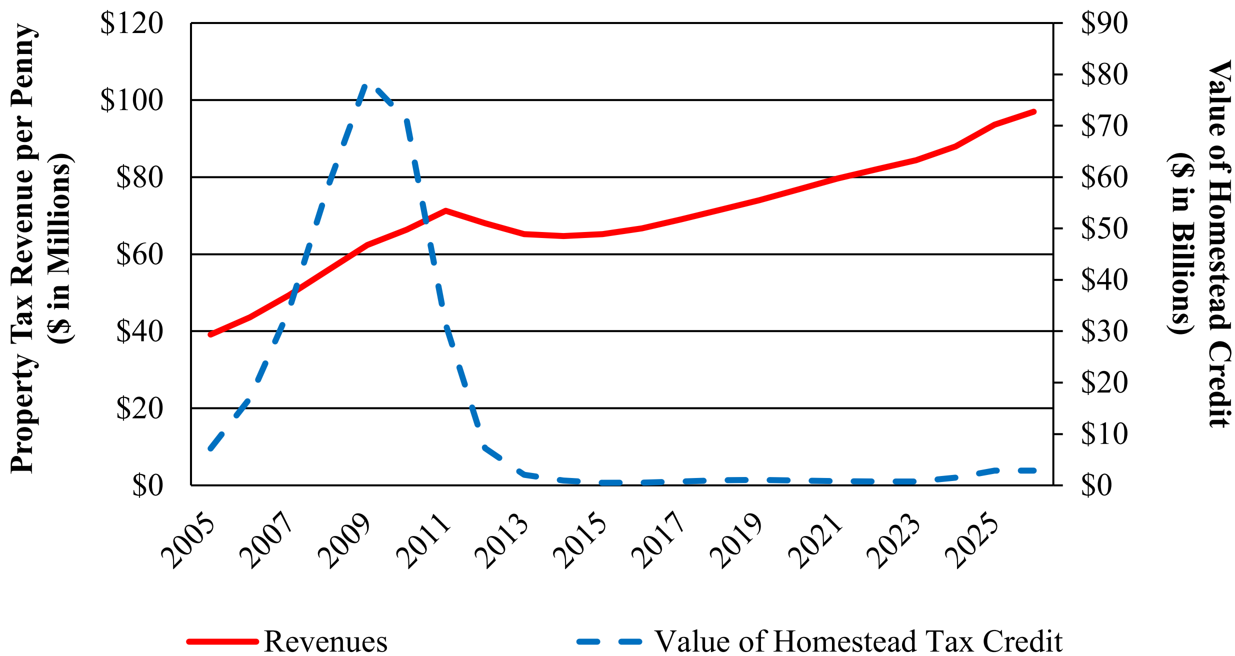
Note: There were sometimes substantial revisions of prior calendar year inventory data as some months were revised by as much as 20%. The data is a 12-month moving average, which cancels any effects from seasonality and shows the underlying trend.

Source: Maryland Association of Realtors; Department of Legislative Services

Homestead Tax Credit and Three-year Assessment Process

Exhibit 5.3 shows how much revenue one cent on the State property tax has generated since fiscal 2005. State property tax receipts generated per one cent of tax increased through fiscal 2011, even as home values peaked in fiscal 2007. Revenues declined from fiscal 2012 to 2014 but have increased since fiscal 2015.

Exhibit 5.3
State Property Tax Homestead Tax Credits and Revenues Per Each Cent of State Property Taxes
Fiscal 2005-2026



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

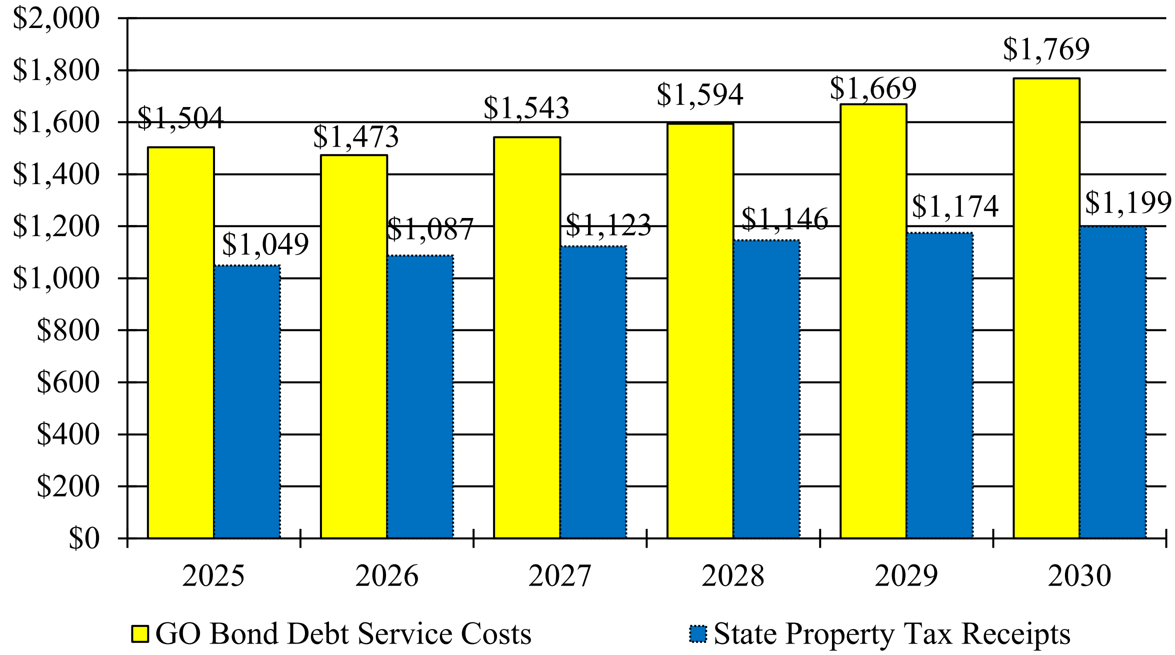
Assessment policies and the Homestead Tax Credit account for the lag between changes in the real estate market and tax receipts. Property values are assessed every three years, and increases are phased in over three years. For example, if a value increases by 9%, the increase would be 3% in the first year, 6% in the second year, and 9% in the third year. Having three years between assessments also moderates fluctuations in State property taxes. Properties assessed in calendar 2025 will have last been assessed in calendar 2022. Home values have increased steadily, which has increased the value of the Homestead Tax Credit.

The Homestead Tax Credit limits the annual increase in State property assessments subject to the property tax to 10%. If reassessing a resident's assessed property value results in an increase that exceeds 10%, the homeowner receives a credit for any amount above 10%. This limits revenue growth when property values rise quickly. Taken together, the three-year assessment process and the Homestead Tax Credit slowed the revenue increases during the real estate boom and delayed the peak until after the decline in property values. Current market conditions suggest that State property tax receipts should be stable over the next few years, even if home values slow or decline modestly.

General Funds Are Appropriated to Keep State Property Taxes Low

State property tax revenues are estimated to increase at a rate of 1.6% annually from fiscal 2025 to 2030. This estimate is consistent with the State Department of Assessments and Taxation estimates that assessable base increases 3.9% in fiscal 2026 and 3% in fiscal 2027. For fiscal 2028 to 2030, the Department of Legislative Services (DLS) expects the assessable base to increase 2% annually. Debt service costs are expected to increase at a rate of 3.6% from fiscal 2025 to 2030. **Exhibit 5.4** shows how State property tax revenues, which are $397 million less than debt service costs in fiscal 2025, are expected to be $570 million less than debt service costs in fiscal 2030. This analysis assumes the authorizations proposed by SAC in December 2023.

Exhibit 5.4
GO Bond Debt Service Costs and State Property Tax Revenue Collections
Fiscal 2025-2030
($ in Millions)



GO: general obligation

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

Exhibit 5.5 shows that estimates of general fund subsidies to the ABF range between $397 million and $568 million from fiscal 2025 to 2030. State property tax revenues are expected to increase steadily throughout the period. Reduced bond sales in fiscal 2023 and 2024 result in a decline in debt service costs in fiscal 2026, which reduces the required general fund appropriation. Bond premiums realized at the calendar 2023 and 2024 sales will be spent over three years. The forecast recognizes these are unspent reserves for future capitalized interest. These amounts were determined on the bond sale date.

Exhibit 5.5
Revenues Supporting Debt Service
Fiscal 2025-2030
($ in Millions)

	2025	2026	2027	2028	2029	2030	Annual % Change
Special Fund Revenues							
Prior Year ABF Fund Balance Transferred	$179	$39	$1	$1	$1	$1	-66.6%
State Property Tax Receipts	1,049	1,087	1,123	1,146	1,174	1,199	2.7%
Other Revenues	2	2	2	2	2	2	0.0%
Bond Premium Capitalized Interest Expenditures	241	118	50	0	0	0	-100.0%
Reserve for Future Capitalized Interest Expenditures	-118	-50	0	0	0	0	-100.0%
Capital Authorizations[1]	-219	0	0	0	0	0	-100.0%
Special Fund Revenues – Subtotal	***$1,134***	***$1,196***	***$1,176***	***$1,149***	***$1,177***	***$1,202***	***1.2%***
General Funds	$397	$274	$368	$437	$493	$568	7.4%
Transfer Tax Special Funds	7	2	0	0	0	0	-100.0%
Federal Funds	5	2	0	8	0	0	-100.0%
Total Revenues	**$1,542**	**$1,474**	**$1,544**	**$1,594**	**$1,670**	**$1,770**	**2.8%**
Debt Service Expenditures	**$1,504**	**$1,473**	**$1,543**	**$1,594**	**$1,669**	**$1,769**	**3.3%**
End-of-year ABF Balance	**$39**	**$1**	**$1**	**$1**	**$1**	**$1**	

[1] Premiums from prior years' bond sales supporting capital projects.

ABF: Annuity Bond Fund

Note: Assumes debt authorizations recommended by the Spending Affordability Committee in December 2023.

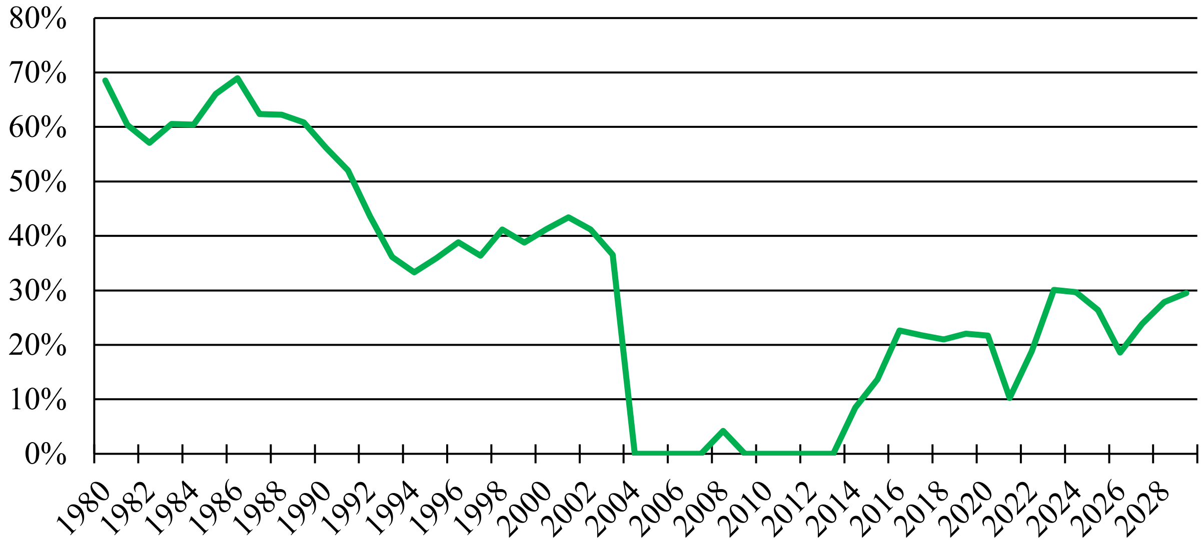
Source: Department of Legislative Services

General Fund Appropriations for Debt Service Since 1980

In most years, State policy has been to keep State property tax rates low. To fund debt service, the State has appropriated general funds in all but nine years since fiscal 1980.

Exhibit 5.6 shows that DLS projects that general fund appropriations for debt service will be 19% to 33% of debt service appropriations from fiscal 2025 to 2030. Since the affordability process began in fiscal 1979, the level of general fund support has varied considerably; general fund support peaked at 69% in fiscal 1986, while no support was provided from fiscal 2004 to 2007 and from fiscal 2009 to 2013.

Exhibit 5.6
General Fund Appropriations as a Percentage of Debt Service Appropriations
Fiscal 1980-2030

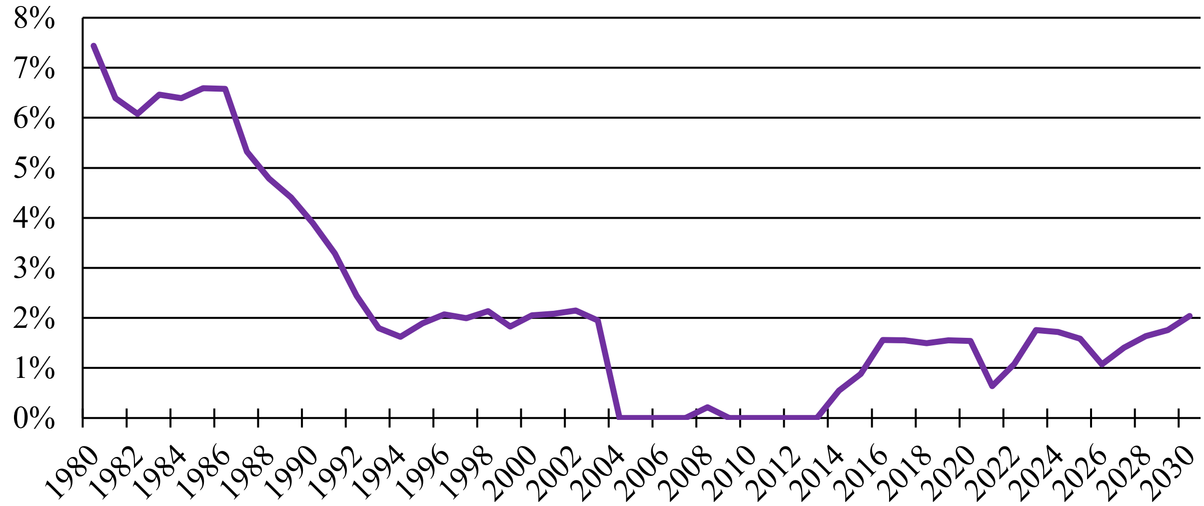


Note: Fiscal 1985 to 2003 includes general funds appropriated in the Maryland State Department of Education for capital school construction. Fiscal 2002 and 2003 are adjusted to remove proceeds from refunding bonds. Fiscal 2023 excludes $219 million appropriated to support capital projects.

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

Exhibit 5.7 shows that current estimates expect that the general fund costs for debt service will range from 1.1% to 2% of total general fund revenues from fiscal 2025 to 2030. From fiscal 2004 to 2013, the State appropriated general funds only once. The State property tax rate was increased from $0.084 to $0.132 per $100 of assessable base in fiscal 2004. The State also benefited from low interest rates, which generated large bond sale premiums that were used to support debt service payments. The State property tax rate was reduced to its current rate, $0.112 per $100 of assessable base, in fiscal 2007.

Exhibit 5.7
General Fund Debt Service Appropriations as a Percentage of General Fund Revenues
Fiscal 1980-2030



Notes: Fiscal 1985 to 2003 includes general funds appropriated in the Maryland State Department of Education for capital school construction. Fiscal 2002 and 2003 are adjusted to remove proceeds from refunding bonds. Fiscal 2023 excludes $219 million appropriated to support capital projects.

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

Rating Agencies Are Concerned about Pension and Other Post Employment Benefits Liabilities

Maryland's bonds are rated AAA from the three major rating agencies. It is State policy to maintain this rating. High ratings tend to reduce interest costs. The traditional estimate is that the AAA rating reduces interest rates by about 0.20% (20 basis points) compared to the AA+ rating. This reduction may be larger now. In recent years, there has been a flight to quality so that higher rated bonds pay lower interest rates. DLS' analysis of GO bonds' true interest costs from prior years suggests that Maryland has benefited from the flight to quality and high rating. A ratings downgrade could reduce this advantage that Maryland bonds have over lower rated bonds, thus increasing debt service costs. Before the June 2024 GO bond sale, Moody's Investors Services rated Maryland's bonds AAA with a negative outlook. Moody's cited high liabilities as a key factor influencing its rating.

When reviewing debt, rating agencies have consistently commented on pension liabilities. Pension costs and OPEB represent the State's two largest long-term liabilities after bond issuances. High pension liabilities are often cited when rating agencies downgrade a State or municipality's debt. For example, Standard & Poor's cited pension liabilities when the state of Illinois' debt rating was downgraded. Pension concerns were also cited when ratings for the city of Fort Worth, Texas and the state of Connecticut were downgraded.

This section examines trends in State pension and OPEB costs. The positive news for Maryland is that all three rating agencies have acknowledged Maryland's efforts to achieve adequate pension funding. However, Moody's rating and comparisons with other AAA-rated states suggest that the State should carefully manage liabilities.

Overview of Defined Benefit Pension Plans

The State provides defined benefit pension plans. These plans require the State to make annual payments that represent the normal cost (the cost of the annual increase in benefits earned by employees) and a share of the unfunded liability. These pension payments are made to employees for years after they retire and represent a long-term liability to the State. Pension costs are supported with general, special, and federal funds.

About 97% of the teachers' pension fund supports the staff of the local school boards. By statute, the local school boards pay the normal costs, and the State is responsible for any remaining costs (which is the unfunded liability).

Annual Pension Costs Increased after the Great Recession

Employer pension contributions increased from $1.0 billion in fiscal 2010 to $2.7 billion in fiscal 2025. Market losses suffered in fiscal 2008 and 2009 when the pension fund lost 5.4% and 20%, respectively, reduced the funded ratio from 80.4% at the beginning of fiscal 2008 to 65% at the end of fiscal 2009. Lower contributions required by the corridor funding method also led to a lower funded ratio. To reduce the unfunded liability, higher appropriations are necessary from the State. The amount that the State appropriates each year is determined by the actuarial funding method. It is the general practice for the Governor to propose and the General Assembly to appropriate the amount certified by the State Retirement and Pension System Board.

Pension Costs Contained in Response to Increasing Liabilities

In response to increasing liabilities, the State enacted pension reform in 2011, which has reduced benefits, increased contributions, and required local jurisdictions to share in the costs of teacher pensions. Specific changes included:

- reducing cost-of-living adjustments earned after fiscal 2011;

- increasing employee contributions from 5% to 7% for most employees (judges, for example, were excluded);

- increasing the vesting period for employees hired after June 30, 2011, from 5 years to 10 years;

- reducing the multiplier for employees hired after June 30, 2011, to 1.5% of salary per year worked; and

- appropriating a share of savings to overfund pension contributions.

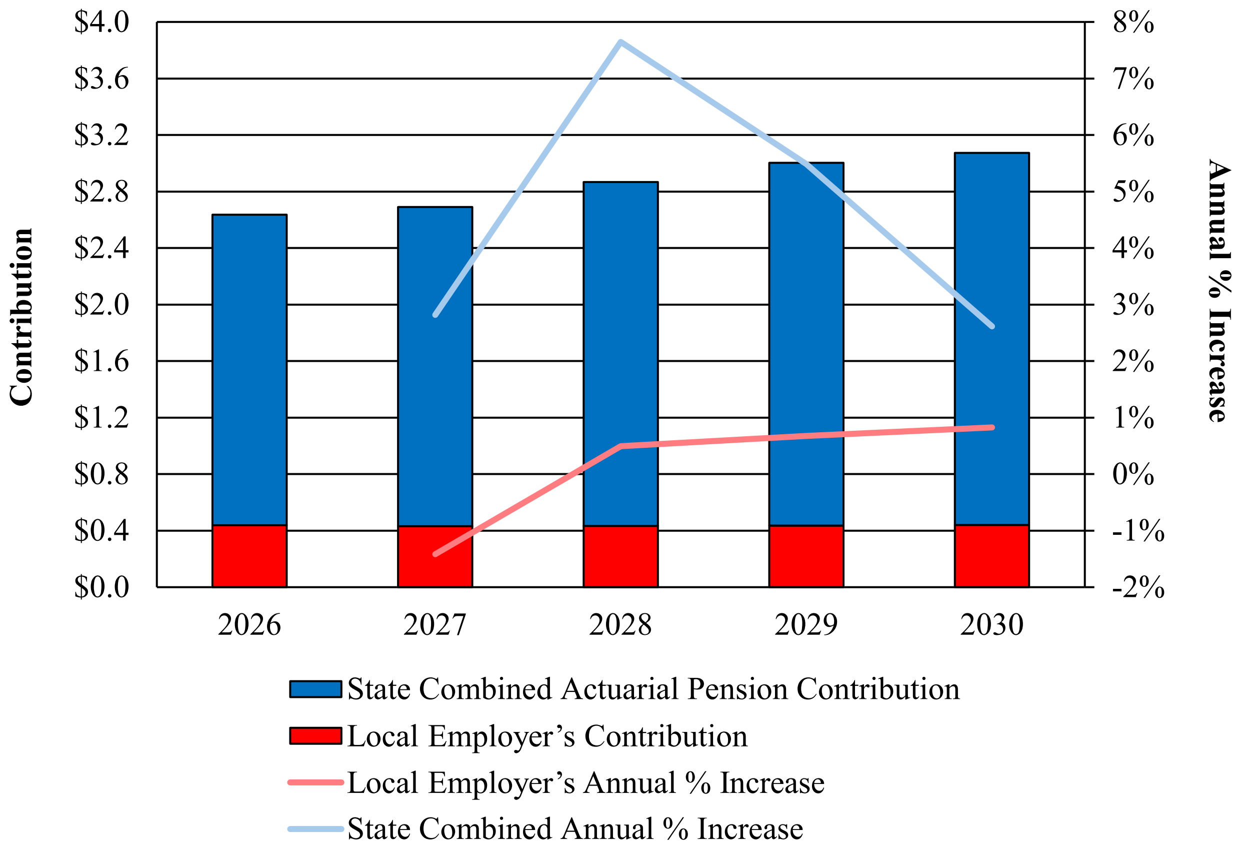
The State also required local governments to begin sharing in teacher pension costs in fiscal 2013. Local governments pay the normal cost for their employees' pensions. The State pays the unfunded liability. Should this liability increase, the State pays the full cost of this increased liability. Under this structure, State payments are larger and tend to be more volatile than the local payments.

Current law requires supplemental pension contributions. The Administration is required to include $50 million in supplemental contributions and to appropriate unassigned general fund balances of up to $25 million if a year ends with a positive fund balance and sufficient funds. The fiscal 2024 unassigned general fund balance was sufficient to require the Governor to add a $25 million appropriation in fiscal 2026.

Pension Cost Outlook

Exhibit 5.8 shows that the State's annual actuarially required contribution is expected to increase from $2.198 billion in fiscal 2026 to $2.63 billion in fiscal 2030, which is an annual increase of 4.62%. Total pension costs, which include local contributions, increase from $2.64 billion in fiscal 2026 to $3.07 billion in fiscal 2030. Local costs, which are only the normal cost and are not affected by losses, increase at an annual rate of 0.14%.

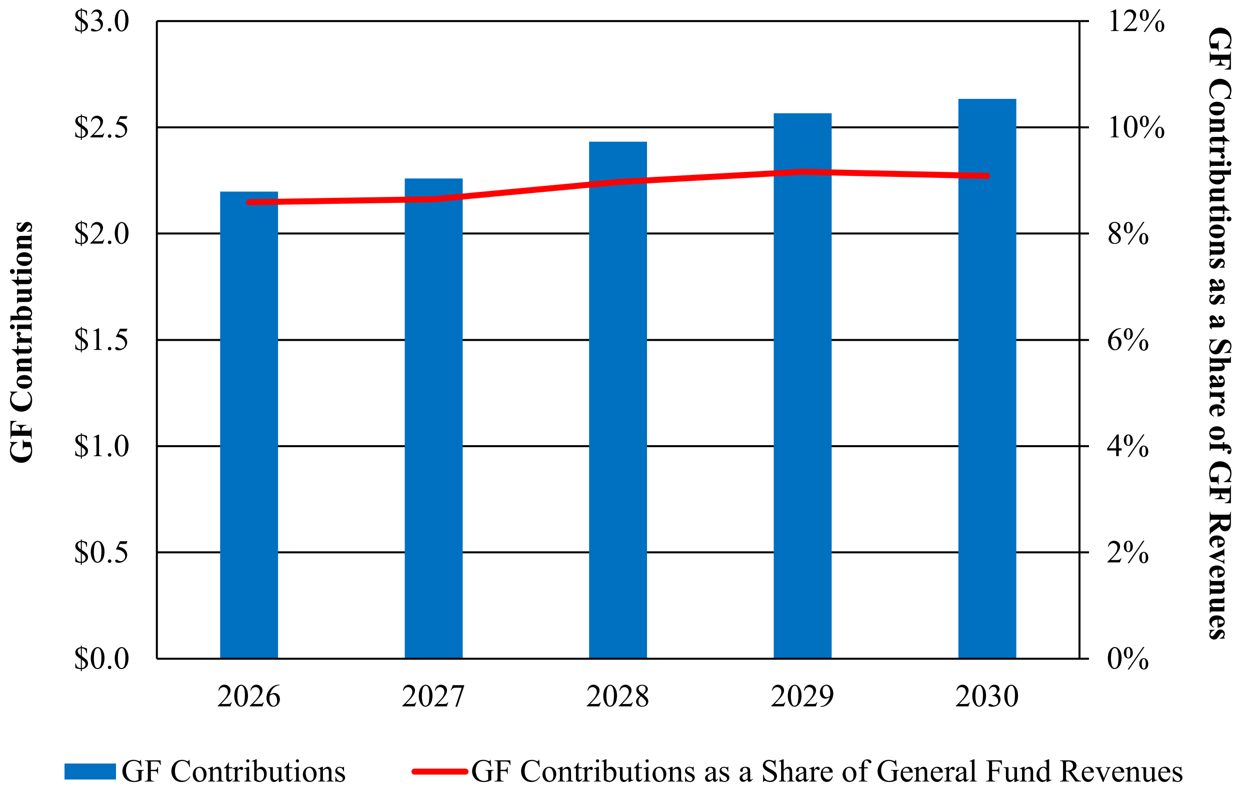
Exhibit 5.8
Total State and Local Pension Costs
Fiscal 2026-2030



Source: GRS; Department of Legislative Services

Exhibit 5.9 shows that general fund costs for pensions as a share of general fund revenues are expected to rise from 8.6% in fiscal 2026 to 9.1% in fiscal 2030. General fund pension costs are increasing at a higher rate than general fund revenues, so pension costs are expected to be a larger share of expenditures in the out-years.

Exhibit 5.9
GF Pension Costs as a Percentage of GF Revenues
Fiscal 2026-2030
($ in Billions)



GF: general fund

Source: GRS; Department of Legislative Services

Each year, Moody's publishes a report that compares state debt service and debt outstanding to wealth indicators like state revenues and personal income. With respect to pensions, Moody's calculates the adjusted net pension liability (ANPL), which is each plan's unfunded liability. To compare pension plans, Moody's recalculates each state's pension liability using the same discount rate. Moody's uses the Financial Times Stock Exchange (FTSE) Pension Liability Index as of June 30 of each year for this purpose. The index is published monthly and is maintained by the FTSE Group. The index includes three discount rates: a standard rate; an intermediate rate; and a short rate. Moody's uses the standard rate to determine APNLs in its report. This rate is currently lower than the reported discount rates used by all pension plans shown in the Moody's report, so APNLs are higher than the net pension liabilities across the board. The larger the difference between the rates, the larger the adjustment Moody's will make. **Exhibit 5.10** shows Maryland's liability is the highest among AAA-rated states when compared to personal income.

Exhibit 5.10
Adjusted Net Pension Liability to Personal Income of AAA-rated States
Fiscal 2023

State	Adjusted Net Pension Liability to Personal Income	State Rank
Maryland	8.7%	9
Delaware	7.8%	14
Mean	5.9%	n/a
Texas	5.3%	20
Median	3.8%	n/a
Missouri	3.4%	25
Indiana	3.3%	29
Minnesota	2.3%	32
Georgia	1.9%	34
Ohio	1.7%	38
North Carolina	1.4%	42
Virginia	1.4%	42
South Dakota	1.3%	44
Utah	1.2%	45
Florida	1.1%	47
Iowa	1.1%	47
Tennessee	1.1%	47

Source: *U.S. State Liabilities Report*, Moody's September 2024

Other Post Employment Benefits Outlook

The State also offers retirees subsidized health care. Retirees participate in the same plan as active employees. Retirees can also participate in Medicare. These plans are not subject to the same benefit protections as pension plans, which have a defined benefit formula that cannot be reduced retroactively and that determines the liability. Instead, retirees participate in a plan that the State can, and does, regularly modify. Retirees pay premiums, copayments, and coinsurance that offset the State's costs. Changes to retiree costs and employee health care costs are common. In addition, medical and pharmaceutical inflation rates change from year to year. This complicates estimating long-term liabilities.

2010 Public Employees' and Retirees' Benefit Sustainability Commission Recommendations and 2011 Legislative Action

In 2010, the Public Employees' and Retirees' Benefit Sustainability Commission, tasked to study and make recommendations with respect to State-funded health care and pension benefits, identified the State's high unfunded OPEB liability, which totaled $15.9 billion, as an issue that the State should address. The commission expressed concern that failure to reduce the high unfunded OPEB liability could endanger the State's AAA bond rating and result in higher costs to borrow money for State projects and needs. The commission specifically recommended that the State establish a goal of reducing its unfunded liability for OPEB by 50% and commit to fully funding its OPEB liabilities within 10 years.

Medicare-eligible retirees' prescription drug cost was determined to be a primary contributor to the State's OPEB liability. The commission proposed fully transitioning Medicare-eligible retirees onto the Medicare Part D prescription drug program and eliminating State prescription drug coverage to these retirees. The recommendation was intended to reduce the OPEB liability substantially while still ensuring that retirees had access to prescription drug coverage through Medicare. Aligning the transition with a provision in the 2010 Patient Protection and Affordable Care Act that eliminated the Medicare Part D coverage gap by calendar 2020 (later accelerated to 2019) was recommended. The alignment was intended to mitigate the financial impact on State retirees. Chapter 397 of 2011 (the Budget Reconciliation and Financing Act) as enacted included the planned transition recommended by the commission. As a result, the State's unfunded OPEB liability decreased from $15.9 billion to $9.5 billion.

Cost Estimates Complicated by 2018 Lawsuit and 2019 Legislation

In September 2018, a lawsuit was filed in the Circuit Court for Baltimore City challenging the planned transition of prescription drug coverage required by Chapter 397. In October 2018, a federal judge granted a temporary restraining order and preliminary injunction, delaying the transition until the lawsuit was resolved. As a result, there was no change in coverage for Medicare-eligible retirees in calendar 2019.

In response to concerns raised by retirees about the cost of prescription drugs, Chapter 767 of 2019 established prescription drug out-of-pocket reimbursement or catastrophic coverage programs for specified State retirees, dependents, or surviving dependents who are enrolled in a Medicare prescription drug benefit plan. State employees hired after June 30, 2011, remain ineligible for prescription drug coverage from the State when they reach Medicare eligibility.

Although a federal District Court judge initially ruled in favor of the plaintiffs, a federal court later dismissed the lawsuit. The State can now implement statutory changes that transition the coverage for prescription drug costs for Medicare-eligible State retirees from the State health plan to Medicare Part D as well as provide State reimbursement for retirees who enroll in Medicare Part D for most of the out-of-pocket expenses incurred in a Part D plan. The changes are not effective until calendar 2025.

State Does Not Provide Full Actuarial Funding

At the end of fiscal 2023, the State's net OPEB liability was $11.6 billion, representing a funded ratio of 4% ($463 million in assets). The State has not met the commission's recommendation regarding payments to prefund the OPEB liability. The State has not provided OPEB liability payments since fiscal 2010.

Beginning in fiscal 2022, the Administration is required to appropriate unassigned general fund balances of up to $25 million into the Postretirement Health Benefits Trust Fund if a year ends with a positive fund balance and sufficient funds. The fiscal 2024 unassigned general fund balance was sufficient to require the Governor to add a $25 million appropriation in fiscal 2026.

Rating Agency Comments

To date, rating agencies have not downgraded Maryland in response to underfunding OPEB, but Moody's rating from June 2024 was AAA with a negative outlook. Among the reasons Moody's cited is a comparatively unfunded high pension and OPEB liabilities. As with the pension liability, Moody's now includes the OPEB liability in its annual review of states' long-term liabilities. **Exhibit 5.11** shows that Maryland has the second highest OPEB liability to personal income ratio among AAA-rated states behind Delaware.

Exhibit 5.11

Adjusted Net OPEB Liability to Personal Income of AAA-rated States

Fiscal 2023

State	Adjusted Net OPEB Liability to Personal Income	State Rank
Delaware	9.1%	1
Maryland	2.1%	10
Texas	1.7%	13
Missouri	0.7%	19
North Carolina	0.6%	22
Florida	0.3%	30
Tennessee	0.3%	30
Virginia	0.2%	32
Minnesota	0.1%	33
Georgia	0.1%	33
Ohio	0.1%	33
Iowa	0.1%	33
Indiana	0.0%	42
South Dakota	0.0%	42
Utah	0.0%	42

OPEB: Other Post Employment Benefits

Source: *U.S. State Liabilities Report*, Moody's September 2024

Chapter 6. Analysis of Factors Influencing Bonds' Interest Cost

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

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

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

Financial theory suggests factors that could influence Maryland's GO bonds' TIC. Research has confirmed numerous significant influences in other states and in national studies that include Maryland. DLS has been collecting data since 1991, which is 85 issuances for through the most recent bond sale in June 2024. Prior analyses used all this data and included a variable for sales after the global financial crises from 2008. This analysis only uses data since the crisis, so it no longer has a variable for identifying which sales were after the crises. This sum of least squares regression equation data was collected and analyzed for the 49 bond issuances and groups since July 2009: 41 competitively bid; tax-exempt bond issuances; and 8 negotiated, retail bond issuances. The analysis does not include taxable bonds or refunding issuances. The data collected includes:

- the TIC;
- *The Bond Buyer* 20-bond index;
- date of the bond sale, fiscal year, and calendar year that the bonds were sold;
- if the bond sale includes one of the various call provisions offered since 1991;
- effect of requiring 5.00% coupon rates, which was done for bond sales since August 2020;
- average years to maturity;
- amount of debt sold;

- Consumer Price Index to examine if inflation affected the market's perception of the amount of debt sold;
- use of a financial advisor;
- effect of rating agencies' negative credit watch;
- effect of the 2008 global financial crisis;
- ratio of Maryland personal income to U.S. personal income; and
- ratio of Maryland gross State product to U.S. gross domestic product, both nominal and adjusted for inflation.

The Equation Identifies Statistically Significant Factors Influencing Interest Costs

The sum of least squares regression analysis dependent variable is the TIC. All the other variables are independent variables that are included to control the factors that could influence the TIC. The question that the regression equation addresses is which of the independent variables influence the dependent variable, which is the TIC. The regression equation examines the variables previously listed and identifies three statistically significant variables at the 95% confidence level that affect the TIC.[1]

The analysis also examined the effect to Moody's negative credit outlook reported with the June 2024 bond sale. While this had a positive coefficient, suggesting that this increases costs, it is not statistically significant. DLS will continue to monitor the effect of the negative credit outlook. **Exhibit 6.1** shows the data for the statistically significant variables included in the equation.[2] **Appendix 2** provides a summary of the data.

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[1] The statistical analysis of the equation suggests that the equation explains GO bond sales' TICs very well. The adjusted R-square, which measures how much of the TIC is explained by the equation, is 0.889. The F Statistic, which measures if this group of variables is jointly significant, is 97.287, which is more than 99.9% significant. DLS ran the Durbin-Watson statistic, which measures autocorrelation between variables, and it is 1.550, which is reasonable but suggests some positive autocorrelation.

[2] GO bonds include a call provision for tranches maturing in 10 to 15 years, so the call is a variable that differentiates between shorter and longer issuances. Years to maturity is a variable that measures how long a maturity is. So, there is some autocorrelation between the call and years to maturity variables. Nonetheless, this analysis includes variables for years to maturity and the call. Excluding years to maturity, results in a Durbin-Watson score of 1.887, which is close to the ideal that is 2.000. But this increases the call's coefficient to 0.967, which suggests that a call increases the cost of including a call almost a full percentage to the TIC. Including years to maturity, which is statistically significant, reduces the call's coefficient to 0.534. which is a more reasonable estimate of the cost that calls add to the TIC. With this approach, the Durbin-Watson declines to 1.550, which is still reasonable, so this is reported.

- ***Bond Buyer 20-bond Index:*** The key variable is the 20-bond index. *The Bond Buyer* is a trade publication that gathers data about the yield on State and municipal bonds. The 20-bond index includes 20 GO State and municipal bonds maturing in 20 years. These bonds have an average rating equivalent to AA by Standard & Poor's and AA2 by Moody's Investors Service, Inc. The data is reported weekly every Friday and reflects the yields from the previous day.

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

- ***Issuing Callable Bonds*:** A call is an option that allows the seller to retire debt early. Maryland GO issuances since 2008 have been callable after 10 years. This can be advantageous if interest rates decline below the rate that the seller is paying. Consequently, buyers often require higher interest rates if an issuance includes a call provision. This analysis estimates that callable bonds add 0.53% (53 basis points) to the cost of a bond. This suggest that the TIC could be reduced by about half a percent if there was no call, but the opportunity to refund bonds is lost. DLS observes that recent calls have required that coupon rates are 5.00%. Previous TIC analyses suggest that the cost of issuing callable bonds has increased since the mandatory 5% coupon has been required in 2020. Allowing for a rate under 5.00% could reduce the cost of the call and still provide opportunities to refund bonds.

- ***Years to Maturity*:** Under normal economic conditions, bonds with shorter maturities have lower interest costs than bonds with longer maturities. The analysis estimates that every additional year adds 0.095% (10 basis points) to the TIC.

Exhibit 6.1

TIC Regression Equation – Evaluating the Independent Variables

Independent Variable	Coefficient	Std. Error	t-test	Sig.	Tol.	Comment
The Bond Buyer 20-bond Index	0.874	0.058	15.115	0.000	0.661	Highest t-test suggests that this is a most significant independent variable and that Maryland bonds are priced at 87% of the index.
Maryland Personal Income to U.S. Personal Income	-1.964	0.368	-5.343	0.000	0.468	Stronger Maryland personal income tends to reduce the TIC.
Callable Bonds	0.534	0.179	2.979	0.005	0.226	Callable bonds' average TIC is 53 basis points (0.53%) higher than noncallable bonds.
Years to Maturity	0.095	0.034	2.773	0.008	0.218	Positive coefficient is a positive yield curve with longer maturities having higher TICs.
Constant	2.094	0.932	2.248	0.000	n/a	

Sig.: significance or confidence interval
Std.: standard
TIC: true interest cost
Tol.: tolerance, a test of multicollinearity

Source: Department of Legislative Services

Chapter 7. Nontax-supported Debt

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

Nontax-supported debt generally takes the form of either project/program revenue debt or conduit debt.

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

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

Debt Outstanding

Exhibit 7.1 summarizes the change in debt outstanding for different types of debt between fiscal 2014 and 2024:

- ***Agency Debt Subject to State Regulatory Cap*:** This category includes debt held by State agencies on which the State sets limits. The debt is not backed by State taxes.

- ***Agency Debt Not Subject to State Regulatory Cap*:** This type of debt is held by State agencies that do not have limits set by the State. The debt is not backed by State taxes.

- ***Tax-supported Debt*:** State debt that is supported by taxes.

- ***Authorities and Corporations*:** Debt held by non-State agencies that is not subject to any debt ceiling or allocation caps.

Exhibit 7.1
Debt Outstanding as of June 30
Fiscal 2014-2024
($ in Millions)

	2014	2024	Total Change	Annual % Change
Agency Debt Subject to State Regulatory Cap	$3,244	$2,368	-$876	-3.1%
Agency Debt Not Subject to State Regulatory Cap	5,365	7,947	2,581	4.0%
Tax-supported Debt	11,160	13,627	2,468	2.0%
Authorities and Corporations without Caps	11,091	11,744	653	0.6%
Total	**$30,860**	**$35,686**	**$4,826**	**1.5%**

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

Source: Department of Legislative Services

A table containing debt outstanding by year for individual agencies is included as **Appendix 3**.

Revenue and Private Activity Bonds

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

The U.S. Tax Reform Act of 2006 established an annual limit on the amount of tax-exempt private activity bonds that may be issued by any state in any calendar year. This limit is based on a per capita limit adjusted annually for inflation. Maryland's 2024 allocation totaled $772.5 million.

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

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

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

Allocation of Private Activity Bonds

Exhibit 7.2 provides the calendar 2020 through 2024 figures for the amount of available tax-exempt bond authority, and the level of issuances made under the volume cap limits. Total carry forward remains high because it has outpaced annual issuances recently; in some years, CDA does not issue any debt directly against that year's allocation if sufficient amounts of carry forward are available to support program activity.

Exhibit 7.2
Allocation of Private Activity Bonds
Fiscal 2020-2024 YTD
($ in Millions)

	2020	2021	2022	2023	YTD 2024
Fund Sources					
Annual Cap	$634.8	$665.0	$678.2	$741.0	$772.5
Carry Forward from Prior Years	1,271.4	1,286.5	1,397.1	1,204.6	1,238.2
Total Capacity Available	**$1,906.2**	**$1,951.5**	**$2,075.3**	**$1,945.6**	**$2,010.7**
Issuances					
Single-family Housing	$240.0	$187.5	$397.6	$124.1	$18.2
Multifamily Housing	379.7	366.8	473.1	483.2	370.5
Total Issuances	**$619.7**	**$554.4**	**$870.7**	**$607.4**	**$388.8**
Prior Year Carry Forward Abandoned	$0.0	$0.0	$0.0	$100.0	$0.0
Carry Forward	1,286.5	1,397.1	1,204.6	1,238.2	1,622.0

YTD: year to date

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

Source: Department of Commerce

CDA's issuance of single-family and multifamily housing private activity debt varies year to year based on housing market conditions and interest rates, and CDA may also issue debt that does not make use of the volume cap. Total issuances using volume cap averaged $663 million annually from calendar 2020 to 2023.

Maryland Economic Development Corporation Bonds

MEDCO classifies its projects as "Performing," "Watch," or "Non-performing" based on the project's ability to meet its financial obligations. As of September 2024, the Chesapeake Bay Conference Center (CBCC) project was non-performing, and two of MEDCO's student housing projects were in watch status.

CBCC has been classified as non-performing since 2014, and the project's bondholders have repeatedly extended forbearance for debt payments in order to ensure that the project has enough cash to sustain operations. Although revenues are not sufficient to fully fund the project's debt obligations, all of the project's operating expenses are being paid, and payments toward interest have been made totaling $5.7 million in fiscal 2023 and $602,000 in fiscal 2024.

Revenue improved in fiscal 2023 due to increased travel demand and group sales; however, those increases began to level off in fiscal 2024, and revenue decreased. Construction of a new residential development nearby is expected to increase demand at CBCC. Construction began in April 2022 but was stalled pending approval of development agreements.

Student Housing Bonds

Student housing facilities make up the majority of MEDCO-operated projects. Projects are classified under "Watch" status if they do not meet a debt coverage ratio of 1.20 at the end of the fiscal year. As of September 2024, two housing facilities were in watch status: University of Maryland, Baltimore (UMB) housing, which has been in watch status since fiscal 2020; and Bowie State University's (BSU) mixed-use project, which entered watch status at the end of fiscal 2024. A Frostburg State University (FSU) project, which was in watch status for fiscal 2022 and 2023, was removed from watch and is now classified as performing.

As of November 2024, MEDCO and UMB were in the process of finalizing the sale of the housing at UMB to a private company, with the sale expected to take place near the end of calendar 2024. If the sale goes through, the listed debt for that project would no longer be outstanding debt for MEDCO.

Exhibit 7.3 shows the debt coverage ratio at the end of the last three fiscal years, the maximum debt service, and outstanding balance at the end of fiscal 2024 for each housing project. MEDCO anticipates that all student housing projects will be able to fund operating expenses and meet their upcoming debt service payments. MEDCO opened a new student housing facility at Morgan State University (MSU), called Legacy Hall, in August 2024. Payments on that project are not scheduled to begin until July 2028.

Exhibit 7.3
Status of MEDCO-operated Student Housing Projects
Fiscal 2022-2024
($ in Millions)

Project	Debt Coverage Ratio[1] 2022	2023	2024	Maximum Annual Debt Service	Outstanding Balance June 2024
Bowie State University	2.62	2.11	1.42	$1.4	$10.4
Bowie Mixed Use Project	1.36	1.36	***1.05***	2.6	48.9
Capitol Technology University	1.51	2.11	2.50	0.7	11.3
Frostburg State University	***1.18***	***0.89***	1.73	1.2	9.4
Morgan State University (MorganView)	1.89	1.23	1.32	2.4	20.9
Morgan Mixed Use Project (Thurgood Marshall)	n/a	n/a	1.32	6.0	83.9
Morgan State University (Legacy Hall)	n/a	n/a	n/a	n/a	111.4
Salisbury University	1.97	2.21	2.26	2.2	13.9
Towson University	***1.16***	1.58	1.53	3.5	34.0
University of Maryland, Baltimore Campus	***1.15***	***1.18***	***1.18***	1.9	22.3
University of Maryland, Baltimore County	1.91	1.83	1.85	1.2	13.7
University of Maryland, College Park Campus	1.28	1.58	1.30	10.2	108.0
University Village at Sheppard Pratt	1.66	1.83	2.79	1.6	14.2

MEDCO: Maryland Economic Development Corporation

[1] Debt coverage ratio is the ratio of net operating income to debt service payments. The required coverage ratio is 1.2.

Note: Bold and italics indicate projects that did not meet the required coverage ratio.

Source: Maryland Economic Development Corporation

University System of Maryland

The University System of Maryland (USM) historically has issued 20-year bonds with serial maturities and level debt service payments. USM also recently added the ability to issue 10-year serial maturities for facilities, renewal projects, and 30-year bonds to the portfolio for student housing projects. The first year is interest only, and the principal is retired in the remaining years.

USM's debt management Board of Regents policy establishes prudent limits and process for the use of debt financing, and to reassure investors and the rating agencies of the system's financial stability and control over debt. The policy was last revised in April 2018 to reflect the current planning metrics used by USM and is currently undergoing another review process. USM aims for debt service that includes payments on capital lease obligations, but not operating lease payments (terms no longer used in the preparation of audited financial statements with the adoption of Governmental Accounting Standards Board (GASB) Statement 87) to be less than 4.0% of operating revenues plus State appropriations, including grants and contracts. Despite GASB changes to lease reporting, only leases that had been classified as capital leases will impact State debt capacity. The current ratio was developed after discussions with its financial advisor (Public Financial Management's Higher Education Office), rating agencies, and investors. Chapter 3 provides a detailed discussion of capital leases and recent GASB changes.

USM reports that it expects to maintain the current rating of AA1 (stable) from Moody's and the equivalent AA+ from both Fitch (stable) and Standard & Poor's (S&P). The most recent credit opinions by the rating agencies were issued in February 2024.

Exhibit 7.4 shows that USM will be under the 4.0% debt service goal for fiscal 2024 to 2030. Total debt service will be approximately $136 million, or 2.1%, of fiscal 2024 operating revenues plus State appropriations, including grants and contracts. The forecast indicates that the ratio will stay at or below 2.1% through the fiscal 2030 projection.

Exhibit 7.4

University System of Maryland Debt Service as Related to Operating Revenues Plus State Appropriations

Fiscal 2012-2030 Est.
($ in Millions)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Operating Revenues Plus State Appropriations	Ratio of Debt Service to Operating Revenues Plus State Appropriations
2012	$1,170	$124	$4,204	3.0%
2013	1,217	139	4,256	3.3%
2014	1,290	130	4,478	3.0%
2015	1,199	141	4,472	3.2%
2016	1,270	146	4,644	3.1%
2017	1,298	142	4,811	3.0%
2018	1,286	145	4,931	2.9%
2019	1,304	154	4,929	3.1%
2020	1,202	154	5,114	3.0%
2021	1,357	136	4,960	2.7%
2022	1,453	153	6,101	2.5%
2023	1,330	140	6,644	2.1%

Fiscal Year	Total Debt Outstanding	Total Debt Service	Operating Revenues Plus State Appropriations	Ratio of Debt Service to Operating Revenues Plus State Appropriations
2024 Est.	1,351	136	6,486	2.1%
2025 Est.	1,363	131	6,615	2.0%
2026 Est.	1,376	133	6,748	2.0%
2027 Est.	1,387	143	6,883	2.1%
2028 Est.	1,396	147	7,020	2.1%
2029 Est.	1,404	150	7,161	2.1%
2030 Est.	1,449	153	7,304	2.1%

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

Source: University System of Maryland

USM also has a policy limit for the ratio of available resources (defined as unrestricted net position, or fund balance of USM and the affiliated foundation with adjustments for certain long-term liabilities) to debt outstanding. With advice from its financial advisor, USM's Board of Regents policy limits debt authorizations such that the ratio of available resources is to be no less than 90% of total debt outstanding, adjusted for outstanding commitments; in practice, this is managed to a ratio of 1:1.

Exhibit 7.5 shows USM's available resources to debt outstanding ratio for fiscal 2011 to 2030. USM also adjusts this ratio in its internal cash management analysis. Adjustments include expanding debt outstanding to include anticipated issuances for projects that the system is committed to completing. This reduces the ratio of available resources to debt outstanding by increasing the denominator of the fraction. USM advises that after adjustments are made, the preliminary fiscal year-end 2024 ratio was 147%. USM has exceeded the target minimum 90% throughout the entire period. In the 2025 session, the system will seek authorization for a total of $30 million in academic revenue bonds to provide facility renewal and capital project funding for USM institutions for fiscal 2026.

Exhibit 7.5
Summary of Available Resources to Debt Outstanding for the University System of Maryland
Fiscal 2012-2030 Est.
($ in Millions)

Fiscal Year	Available Resources	Debt Outstanding	Ratio of Available Resources to Debt Outstanding
2012	$1,622	$1,170	138.6%
2013	1,752	1,217	144.0%
2014	1,748	1,290	135.5%
2015	1,902	1,199	158.6%
2016	2,067	1,270	162.8%
2017	2,178	1,298	167.8%
2018	2,384	1,286	185.5%
2019	2,576	1,304	197.6%
2020	2,617	1,202	217.7%
2021	2,798	1,357	206.2%
2022	2,946	1,453	202.8%
2023	3,356	1,330	252.3%
2024 Est.	3,465	1,351	256.4%
2025 Est.	3,406	1,363	249.9%
2026 Est.	3,373	1,376	245.1%
2027 Est.	3,389	1,387	244.4%
2028 Est.	3,406	1,396	244.0%
2029 Est.	3,423	1,404	243.9%
2030 Est.	3,440	1,449	237.4%

Note: Debt outstanding includes auxiliary, academic, and capital lease debt. The ratios include planned $30 million annual academic revenue bond issuances but not any other potential future obligations.

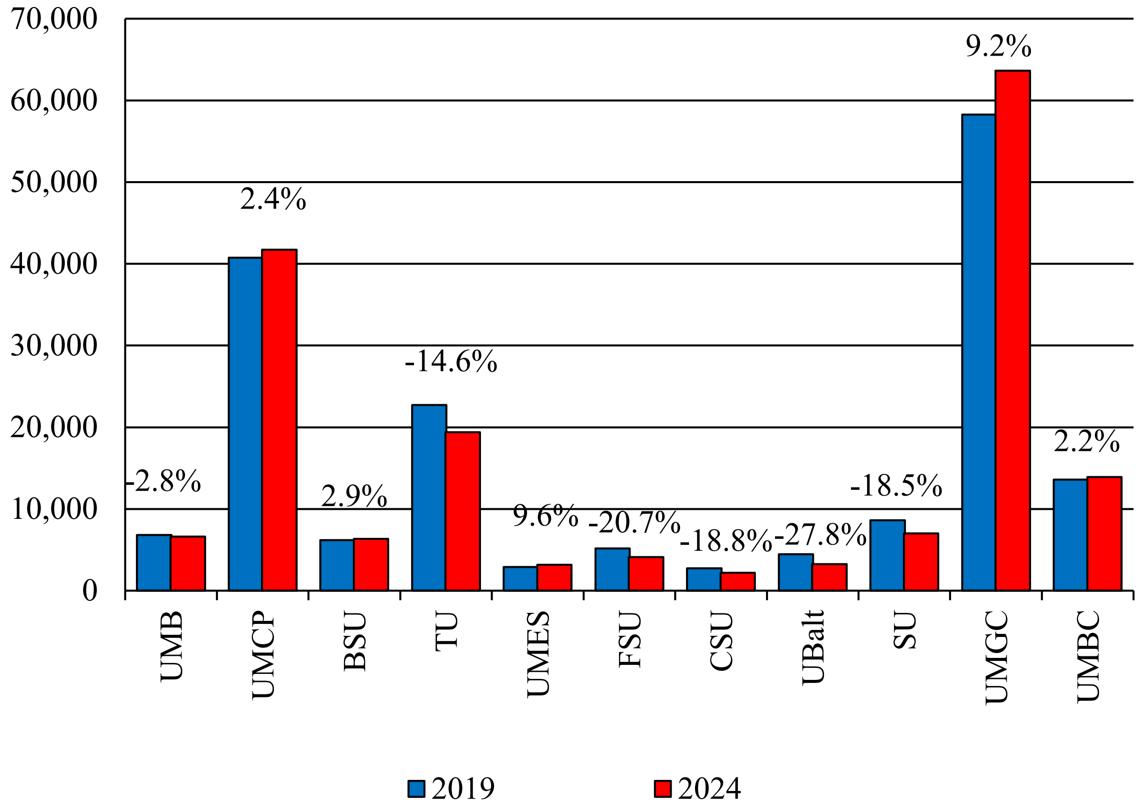
Source: University System of Maryland

USM Enrollment Is Near Prepandemic Levels

Exhibit 7.6 compares student headcounts from the fall 2019 to 2024. Total fall headcount enrollment at USM institutions is 0.5% less in 2024 than 2019. However, enrollment has increased in recent years as enrollment of full-time undergraduate students increased at USM institutions for four consecutive years. In general, more selective institutions and historically Black colleges and universities (HBCU), such as the University of Maryland, College Park Campus; the University of Maryland Baltimore County; BSU; and the University of Maryland Eastern Shore, are above prepandemic enrollment levels, while regional institutions, like FSU, Salisbury University, and

Towson University, are not.

Exhibit 7.6
Total Fall Headcount Enrollment and Percentage Change
Fall 2019 and Fall 2024



BSU: Bowie State University
CSU: Coppin State University
FSU: Frostburg State University
SU: Salisbury University
TU: Towson University
UBalt: University of Baltimore
UMB: University of Maryland, Baltimore Campus
UMBC: University of Maryland Baltimore County
UMCP: University of Maryland, College Park Campus
UMES: University of Maryland Eastern Shore
UMGC: University of Maryland Global Campus

Note: Percent change is by institution from fall 2019 to 2024. Fall 2024 are preliminary data.

Source: University System of Maryland, November 2024

Nationally, for fall 2024, first-time enrollment across all higher education institutions declined by 5% since last year, while USM institutions experienced a 3% increase in first-time enrollment since last year. Another positive indicator is that the enrollment of full-time undergraduate students increased at USM institutions for the fourth consecutive year. The total first-time, full-time cohort broke last year's record-setting size to establish a new USM record.

St. Mary's College of Maryland

St. Mary's College of Maryland's (SMCM) outstanding debt consists of auxiliary and capital lease debt. The total debt in fiscal 2024 is $35.1 million, declining to $23.3 million by fiscal 2030. As shown in **Exhibit 7.7**, the college's ratio of debt service to unrestricted expenditures is also expected to decrease from 4.2% in fiscal 2024 to 2.2% in fiscal 2030.

Exhibit 7.7

St. Mary's College of Maryland Debt Service Related to Unrestricted Expenditures

Fiscal 2012-2030 Est.

($ in Thousands)

Fiscal Year	Total Debt Outstanding	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2012	$38,313	$3,416	$66,817	5.1%
2013	38,311	3,211	63,082	5.1%
2014	36,387	3,208	61,031	5.3%
2015	34,268	3,200	65,858	4.9%
2016	33,904	3,436	70,310	4.9%
2017	31,735	3,682	68,414	5.4%
2018	31,390	3,516	64,059	5.5%
2019	25,760	4,044	66,490	6.1%
2020	24,340	2,708	66,286	4.1%
2021	42,135	3,034	65,895	4.6%
2022	39,865	3,816	73,402	5.2%
2023	37,535	3,791	80,702	4.6%
2024	35,115	3,786	90,241	4.2%
2025 Est.	32,965	3,429	92,948	3.7%
2026 Est.	31,015	3,153	95,736	3.3%
2027 Est.	29,115	3,033	98,608	3.0%
2028 Est.	27,135	3,041	101,566	3.9%
2029 Est.	25,765	2,370	104,612	2.3%
2030 Est.	23,345	2,374	107,227	2.2%

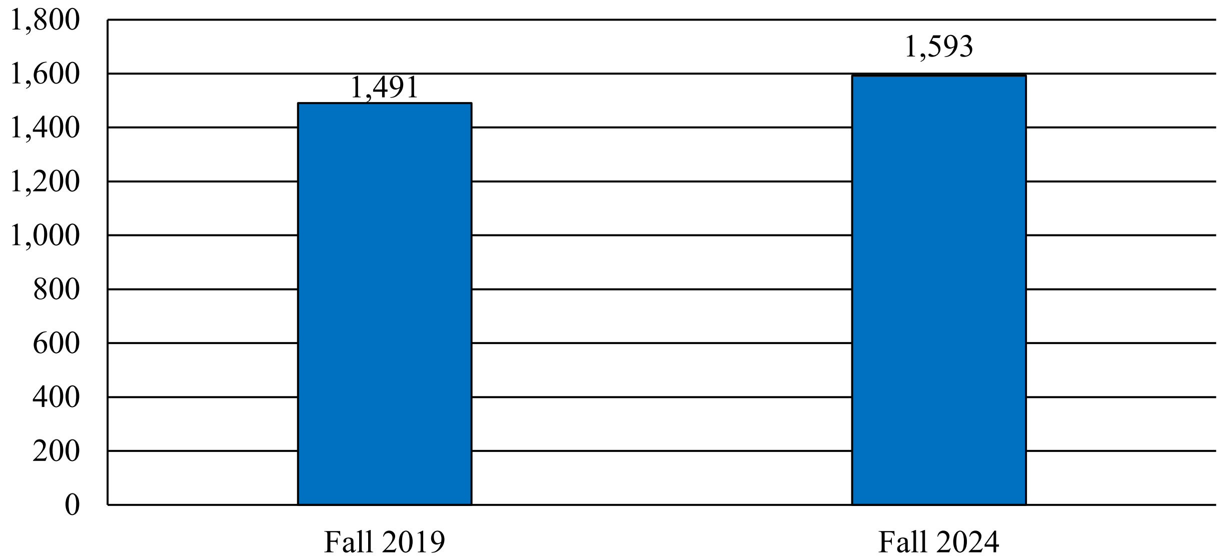
Note: Total debt outstanding and total debt service includes auxiliary and capital lease debt only. St. Mary's College of Maryland does not have any academic debt.

Source: St. Mary's College of Maryland

In June 2024, SMCM's bond rating was affirmed by Moody's at A2 with an outlook change from stable to negative.

Enrollment projections continue to be rebound for the college. As shown in **Exhibit 7.8**, the SMCM full-time undergraduate enrollment for fall 2024 is 1,593 total students, compared to 1,491 for fall 2019, an increase of 6.8%.

Exhibit 7.8
St. Mary's College Enrollment Headcount
Fall 2019 and Fall 2024



Source: St. Mary's College of Maryland, October 2024

Morgan State University

As shown in **Exhibit 7.9**, MSU had \$69.3 million of debt in fiscal 2024 relating to \$3.2 million in capital lease debt and \$66.1 million in HBCU loan disbursements. There was no academic and auxiliary revenue debt outstanding as of June 30, 2024. MSU last initiated an HBCU loan for \$65 million to fund student housing renovations and critical deferred maintenance projects on December 2, 2022. No further issuance of debt is currently under consideration over the next five years.

Exhibit 7.9

Morgan State University Debt Service as Related to Unrestricted Expenditures

Fiscal 2012-2030 Est.
($ in Thousands)

Fiscal Year	Total Debt Outstanding[1]	Total Debt Service	Unrestricted Expenditures	Ratio of Debt Service to Unrestricted Expenditures
2012	$55,165	$7,429	$157,647	4.7%
2013	47,761	5,776	165,502	3.5%
2014	43,770	6,422	164,211	3.9%
2015	43,145	6,078	170,966	3.6%
2016	54,409	7,100	179,011	4.0%
2017	48,481	8,312	195,529	4.3%
2018	46,465	8,332	201,361	4.1%
2019	44,434	7,980	205,670	3.9%
2020	40,973	8,081	203,560	4.0%
2021	9,038	7,588	166,919	4.5%
2022	27,960	2,159	253,291	0.9%
2023	44,391	3,050	308,209	1.0%
2024	69,252	4,441	361,313	1.2%
2025 Est.	106,480	5,189	372,100	1.4%
2026 Est.	103,076	7,620	383,200	2.0%
2027 Est.	100,637	6,540	394,600	1.7%
2028 Est.	98,081	6,540	406,400	1.6%
2029 Est.	95,431	6,540	418,500	1.6%
2030 Est.	92,676	6,540	431,000	1.5%

[1]Morgan State University advises that fiscal 2021 debt outstanding was low because the university retired $22.6 million in 1993 and 2012 bonds in fiscal 2020. Another $7.5 million in loans were forgiven, leaving $9 million in capital leases outstanding.

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

Source: Morgan State University

MSU has taken advantage of the HBCU Capital Financing Program through the U.S. Department of Education. This program provides low-cost capital to finance improvements to the infrastructure of the nation's HBCUs. HBCU Capital Financing Program debt is not considered revenue bonds outstanding but rather a general obligation of the university.

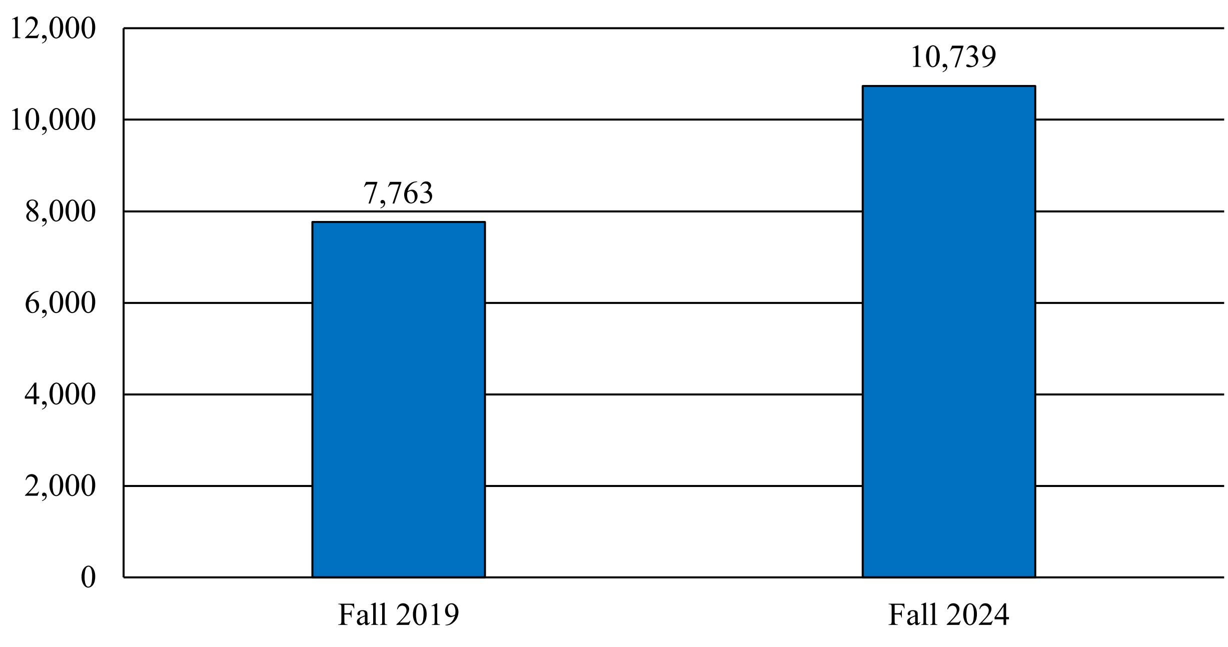
MSU indicated that, for financial statement purposes, this debt should not be considered outstanding until it is disbursed. In other words, this is similar to a line of credit.

MSU received an affirmed A+ Rating from S&P in July 2024 with a stable outlook, and Moody's' last review was in December 2023 with an A1 rating and stable outlook.

MSU generally issues 20-year bonds with serial maturities and level debt service payments with the first-year interest only, and the principal retired over the remaining 19 years. MSU has indicated that, in response to GASB 87 implementation, there is an estimated additional $43.4 million in capital leases arising from those leases previously accounted for as operating leases. MSU has engaged an accounting and consulting firm to perform an analysis to determine the actual impact of GASB 87 on its financial statements. See Chapter 3 for more details about GASB statements and capital leases.

MSU has seen a steady increase in enrollment. **Exhibit 7.10** shows that since fall 2019, MSU's total headcount increased from 7,763 to 10,739 in fall 2024, which is a 27.7% increase.

Exhibit 7.10
Morgan State University Enrollment Headcount
Fall 2020 and Fall 2024



Source: Morgan State University, October 2024

Baltimore City Community College

To date, Baltimore City Community College (BCCC) has not issued auxiliary or academic debt but is authorized to issue up to $65 million. Since both the amount and eligible uses of its debt authorization were expanded in the 2009 session, BCCC has not initiated the bond rating process to issue debt. BCCC has more recently decided to assess its position to issue debt before pursuing the rating process. This position will be reviewed by its Board of Trustees, which is tasked with reviewing the institution's capital planning needs.

Chapter 8. Issues

Issues examined in this chapter are:

- the implications of Moody's rating Maryland's general obligation (GO) bonds as AAA with a negative outlook prior to the June 2024 sale;
- updates on market interest rates and State interest rate assumptions;
- factors that suggest that the State may want to reevaluate the decades-old GO bond issuance formulas; and
- the advantages to readopting a policy to have multiple bond sales annually.

Moody's Investors Service Assigns Negative Outlook to Maryland General Obligation Bonds

Prior to the June 2024 GO bond sale, Maryland received AAA bond ratings from all three major rating agencies, Moody's Investors Service, S&P Global Ratings, and Fitch Ratings. However, Moody's changed Maryland's outlook from stable to negative. Reasons cited were projected structural budget deficits and anticipated reductions in general fund reserves.

Moody's revised its ratings methodology in July 2024, and S&P revised its methodology in September 2024. Both agencies are moving toward more quantitative approaches so that data measuring economic and financial performance, liabilities, and reserves are now a larger share of the rating evaluation.

In its November 2024 briefing to the Spending Affordability Committee, the Department of Legislative Services (DLS) estimated that the State's structural deficit will be an estimated $2.7 billion in fiscal 2026, increasing to $5.7 billion by fiscal 2030. Moody's noted that a factor that could lead to a downgrade is continued structural operating deficits that cause reserve draws beyond fiscal 2025, without a plan for replenishment. The State has had structural deficits in prior years and resolved them. Moody's comments suggest that resolving structural deficits again is required to avoid a downgrade.

Effect of Negative Outlook on Interest Costs Is Unclear

This is not the first time that Moody's has placed Maryland GO bonds on negative outlook. Prior to the July 2011 sale, Moody's placed five states, including Maryland, on a negative credit outlook. This was during a federal government shutdown when there were concerns that there would be a federal default. Each of the five states had an unusually high dependance on federal spending. The resolution from this shutdown was federal sequestration of funds. At the time, DLS estimated that the negative outlook added 0.23% to the true interest cost (TIC), but that the effect faded quickly and did not affect other bond sales. After this sale, DLS again estimated if there were any additional costs, but the analysis was inconclusive. DLS will continue to monitor this.

Maryland Is a High-debt State

Maryland is a high-debt state, and the State's debt ratios compare poorly to other AAA-rated states. **Exhibit 8.1** shows that Moody's ranked Maryland the twelfth highest state with respect to debt outstanding, which is 3.9% of personal income. This is the second highest level among AAA-rated states. Most AAA-rated states are below the mean ratio, suggesting that it is more difficult to keep a high bond rating as levels of debt increase. The state with the highest ratio nationwide is Hawaii, with a ratio of 10.4%.

Exhibit 8.1
Ranking AAA-rated States
Net Tax Supported Debt Outstanding as a Percentage of Personal Income
Fiscal 2023

State	Debt Outstanding to Personal Income	State Rank
Delaware	6.8%	4
Maryland	**3.9%**	**12**
Virginia	2.8%	18
Mean – All States	2.6%	n/a
Ohio	2.5%	22
Minnesota	2.1%	24
Georgia	1.8%	27
Utah	1.1%	33
Florida	1.0%	34
North Carolina	1.0%	34
Texas	1.0%	34
South Dakota	0.8%	39
Indiana	0.6%	42
Iowa	0.6%	42
Missouri	0.6%	42
Tennessee	0.4%	47

Source: Moody's Investors Services, September 2024

Exhibit 8.2 shows that Maryland's debt service to revenues ratio of 3.9% is the highest among AAA-rated states. To make the comparison comparable, Moody's estimates an implied debt service. This is done by amortizing all debt over 20 years. Since Maryland's GO and transportation bonds are amortized over 15 years, Maryland GO bonds' implied debt service costs are less than actual debt service costs, which lowers Maryland's ratio. However, Moody's includes issuances that the Capital Debt Affordability Committee (CDAC) does not include in its State debt calculations, which increases the ratio. This is discussed further in the next section.

Overall, Moody's ratio is less than the State ratio, so the net effect of this process is to reduce Maryland's ratio. Even with net favorable debt service adjustments, Maryland still has the highest ratio among AAA-rated states. Connecticut has the highest debt service to revenues ratio nationally, with debt service at 7.7% of State revenues.

Exhibit 8.2

Ranking AAA-rated States
Net Debt Service as a Percentage of Revenues

Fiscal 2023

State	Implied Debt Service to State Revenues	State Rank
Maryland	**3.9%**	**7**
Delaware	3.4%	10
Ohio	3.1%	14
Virginia	3.0%	16
Georgia	2.3%	19
Mean – All States	2.2%	n/a
Minnesota	1.8%	25
Florida	1.4%	28
Texas	1.3%	30
North Carolina	1.2%	32
Utah	1.2%	32
Missouri	0.9%	37
Indiana	0.6%	42
Iowa	0.6%	42
South Dakota	0.6%	42
Tennessee	0.5%	47

Source: Moody's Investors Services, September 2024

Maryland also has other large, long-term liabilities. In Chapter 5, DLS notes that Maryland's unfunded pension liability is highest among AAA-rated states and the unfunded Other Post Employment Benefits liability is second highest, after Delaware, among AAA-rated states.

Maryland Has Authorized Large Amounts of Stadium Authority Debt Since Calendar 2019

In addition to the GO bond program, the State authorizes revenue bonds to support various non-State assets. Since 2019, the General Assembly has authorized over $4.5 billion in Maryland Stadium Authority (MSA) debt to support the following projects:

- $2.2 billion for Built to Learn school construction projects;
- $1.2 billion for stadium improvements to the Baltimore Orioles and Ravens' stadiums;
- $400 million for constructing and renovating Blue Line Corridor projects in Prince George's County;
- $375 million for improvements to horse racing at Pimlico and Laurel Park;
- $220 million for minor league sports stadiums and entertainment facilities;
- $59.5 million for constructing the Hagerstown Multi-Use Sports and Events Facility;
- $55 million for renovating and expanding the Baltimore City Convention Center;
- $25 million for a Supplemental Facilities Fund; and
- $24.5 million for renovating and expanding the Ocean City Convention Center.

Prior to 2010, MSA bonds supported by lottery revenues were classified as State debt. Bond counsel advised that this debt can be structured so that it is not State debt if the Comptroller's Office deposits the lottery funds with a trustee for the bondholders. Stadium bond sales in 2013 and 2014 were structured as non-State sales. Of MSA's $5.7 billion in total authorized debt, $5.5 billion is counted by the State as non-State debt.

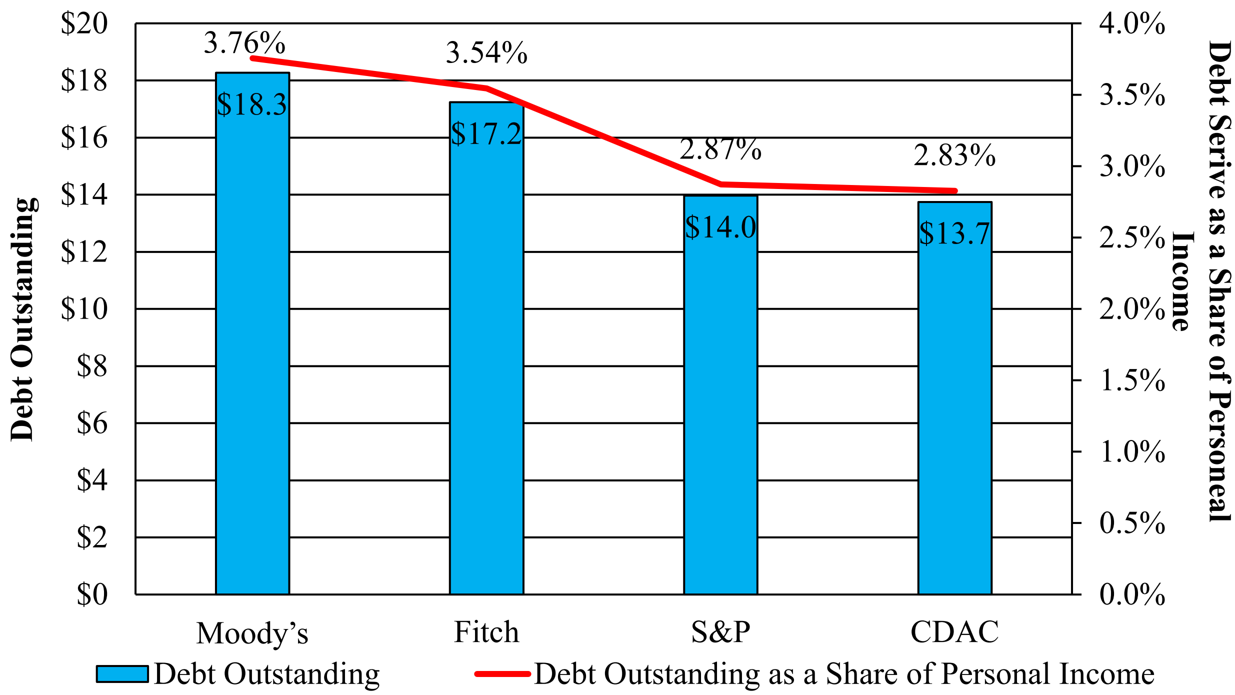
What Is Classified as State Debt Varies Across Rating Agencies, but All Agencies Include More Liabilities than Maryland Does

CDAC and State law determine what liabilities are State debt. The guiding principle is that debt supported by State taxes is State debt. This includes debt supported by general funds, transportation gas tax and vehicle excise taxes, and the bay restoration fee. Toll revenues are not a tax, so bonds issued by the Maryland Transportation Authority are not State debt.

Although these examples are easy to define, some revenue sources are less easily defined. For example, how to define lottery revenue is less obvious. Before fiscal 2010, MSA bonds supported by lottery revenues were State debt. After deductions, lottery revenues are deposited into the General Fund to support the State budget. Since fiscal 2010, MSA has issued Sports Facilities Taxable Lease Revenue Bonds to fund capital improvement projects at the Camden Yards Sports Complex. The bonds have been secured by lottery revenues and, in the opinion of bond counsel, did not constitute tax-supported debt. An agreement with the Comptroller ensures that lottery proceeds are deposited with a trustee for the benefit of the holders of the bonds. Rating agencies consider much of this debt to be State debt, even though the State no longer classifies this as State debt.

Exhibit 8.3 shows that CDAC's State debt calculation, which totals $13.7 billion, is less than any of the rating agency calculations, which range from $14.0 billion to $18.3 billion. In all cases, debt outstanding is less than the 4% threshold, but in the case of Moody's and Fitch, Maryland is less than half of a percent below the limit.

Exhibit 8.3
Comparing CDAC Debt Outstanding with Rating Agency Estimates
Fiscal 2024
($ in Billions)



CDAC: Capital Debt Affordability Committee
S&P: S&P Global Ratings

Source: Moody's Investors Service, S&P Global Ratings, Fitch Ratings, State Treasurer's Office, Department of Legislative Services

Rating agencies' higher debt outstanding calculations are attributable to the agencies classifying liabilities in their calculations that the State does not include in its State debt calculations. For example:

- Fitch includes $2.5 billion in public-private partnership commitments;
- Moody's includes $1.9 billion to reflect net premiums and discounts, which is already factored into CDAC's calculations. The State Treasurer's Office (STO) advises that they have asked Moody's for an explanation as to why debt that CDAC already includes in the calculation is increased beyond what the State's liability is;
- Moody's includes $1.1 billion in capital leases consistent with Governmental Accounting Standard Board Statement 87;[1]
- Moody's and Fitch include $0.5 billion to $1 billion in Baltimore City school debt supported by lottery revenues;
- Moody's includes approximately $700 million and Fitch includes approximately $620 million in Built to Learn bonds supported by Education Trust Fund revenues;
- Fitch includes $650 million in nonschool MSA debt supported by lottery revenues;
- Moody's includes $410 million in special transportation project bonds; and
- S&P includes over $200 million in financing agreements.

Recommendations

To address concerns raised by Moody's in the most recent credit evaluation, DLS recommends that:

- **the State make substantial progress in addressing the structural deficit in the upcoming legislative session;**
- **the State avoid adding large, new capital budget commitments;**
- **CDAC should consider reviewing State debt to determine if some non-State debt is more appropriately classified as State debt. Since rating agencies themselves do not**

[1] As discussed in Chapter 3, the new statement considers almost all multi-year leases to be capital leases. CDAC uses the previous definition, which required that certain long-term leases are capital and does not track all multi-year leases due to high administrative costs.

agree on how to classify all bonds, there is clearly ambiguity regarding these definitions; and

- **STO reconsider its policy to require that coupon rates[2] for GO bonds not be less than 5.00% to maximize bond sale premiums that are used to support debt service. In Chapter 6, DLS estimates that this adds 0.53% (53 basis points) the GO bonds' TIC. Although a case can be made that the TIC approach may undervalue the call provisions that come with GO bonds, the current rate may be too high when interest rates are substantially below 5.00%. STO should consider if a more moderate approach is appropriate.**

Interest Rate Update

Interest rates have been unusually low recently and are now bouncing back to be in line with prior years' rates. Federal Reserve policies and concerns about the economy kept interest rates low during the COVID-19 pandemic. **Exhibit 8.4** shows that the 10-year U.S. Treasury Note[3] stayed below 2% over much of that period. While it occasionally dipped below 2% in prior years, this was the only extended period below 2%. Interest rates were below 1% for 288 business days in 2020 and 2021. Since March 2022, interest rates have trended upward, albeit unevenly. The 10-year rate was last below 2% on March 11, 2022, at 1.98%. Rates have exceeded 4.5% since September 2023 but have not exceeded 5%.

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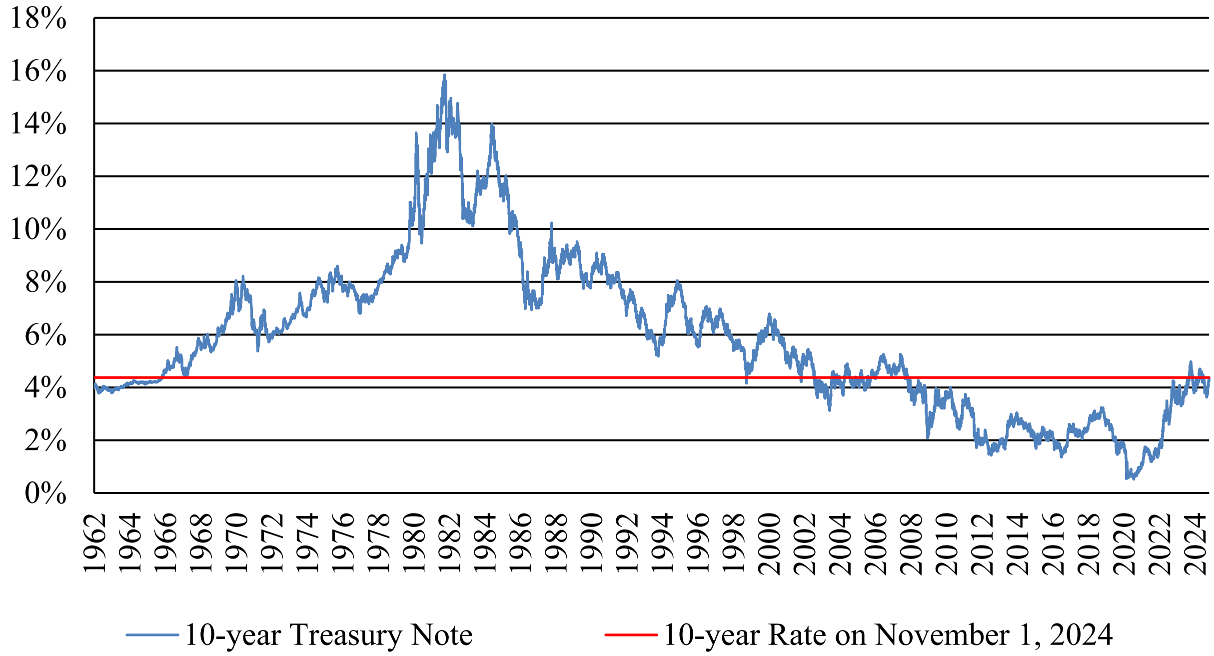
[2] The coupon rate is the interest rate that is paid to the bondholders on the par value of the bonds. Par value is the nominal value of the bond as indicated by the Official Statement. As interest rates change, bonds can be sold for more or less than par value. If the market rate is below the coupon rate, bonds sell at a premium and proceeds exceed par value. In recent years, the State has been selling bonds at a premium and using the funds to support debt service. This has short–term benefits but has increased GO bonds outstanding by hundreds of millions for dollars.

[3] DLS uses the 10-year rate as a basis for comparison since GO bond issuances average maturities are 10 years.

Exhibit 8.4
10-year U.S. Treasury Note Interest Rates
January 1962 to November 2024

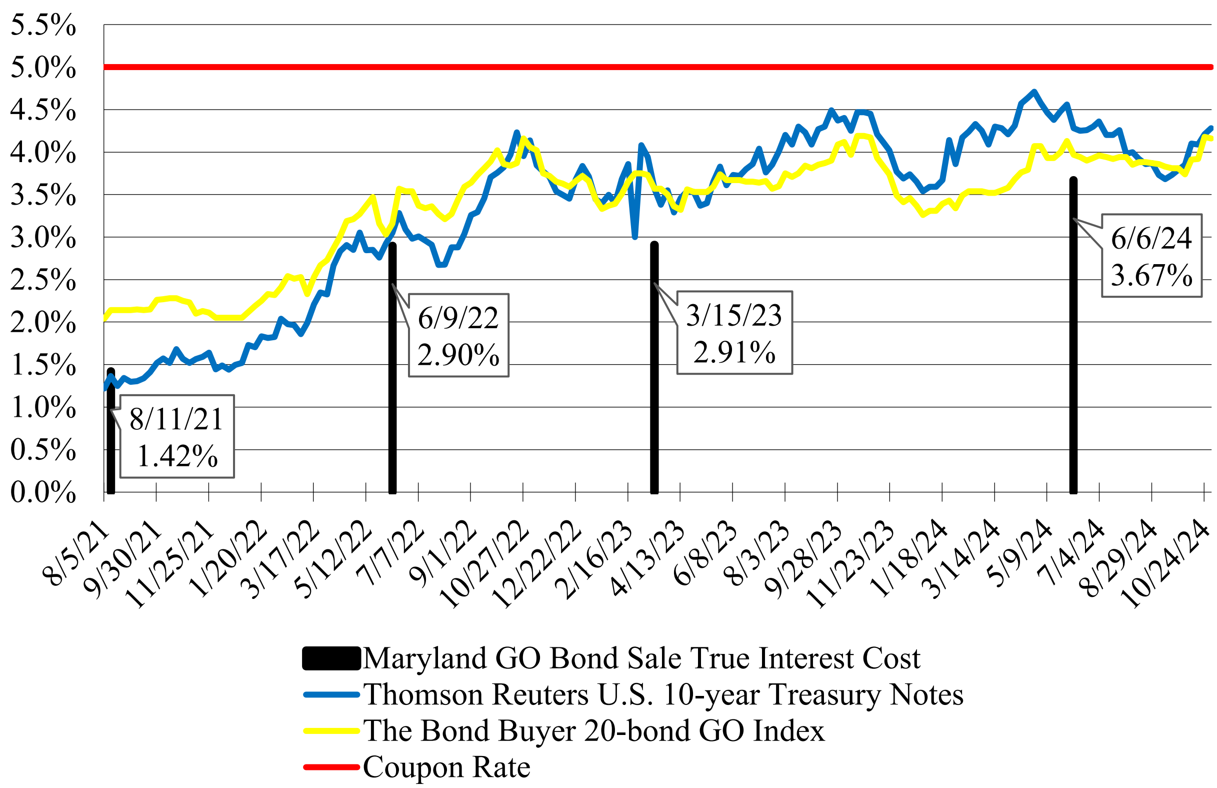


Source: Board of Governors of the Federal Reserve System

Interest Rates Are Still Below the 5% Coupon Rates

To date, higher interest rates have not increased debt service costs. STO and DLS' interest rate estimates assume a 5.00% coupon rate on bond sales. Until the TIC is higher than 5.00%, higher interest rates will not increase debt service costs. When the TIC is less than the coupon rate, bonds sell at a premium. Higher interest rates have reduced premiums rather than increase debt service costs. **Exhibit 8.5** shows that the TIC, which is the market rate, of the most recent GO bond sale in June 2024 was 3.67%. The 10-year U.S. Treasury Note rate was 4.28% on the date of the sale. The U.S. Treasury Note rate has not exceeded 5.00%. If interest rates remain at current levels, debt service costs will not increase, but premiums will be quite small. Additional increases in interest rates above 5.00% could affect debt service costs. **DLS recommends that interest rates should be closely monitored and that interest rate assumptions increase if an anticipated TIC is more than 5.00%.**

Exhibit 8.5
General Obligation Bond Sales' True Interest Costs Compared to Interest Rate Indices
Issuances from Calendar 2021-2024



GO: general obligation

Source: Public Resources Advisory Group; Board of Governors of the Federal Reserve System; Department of Legislative Services

Reevaluating Cash Flow Assumptions in Response to Slower Project Spending

The budget bill authorizes GO bonds. There are no costs to these authorizations until bonds are sold. To estimate out-year costs, the State uses a formula that estimates how quickly bonds will be sold. To avoid federal arbitrage[4] rebates, bonds should not be issued too early, but funds must be available to pay contractors, so bonds should also not be sold too late.

The formula used to estimate GO bond issuances was developed more than three decades ago. It assumes that (1) 31% of bonds are issued in the first year, (2) 25% are issued in the second year, (3) 20% are issued in the third year, (4) 15% are issued in the fourth year, and (5) 9% are issued in the fifth year. The capital program's composition and policies have changed since the formula was developed. Recent bills authorize substantial amounts of non-State debt that support local governments and nonprofit institutions. The capital budget also cash flows more projects, whereby a partial authorization is made preauthorizing the remaining funds, rather than authorizing the full amount for each project in the initial authorization. STO advises that monthly GO bond proceed spending declined in fiscal 2024, resulting in increasing amounts of authorized but unissued debt. This suggests that issuance patterns may be changing.

The pace of capital spending seems to have slowed in recent years. **Exhibit 8.6** shows that the amount of authorized but unissued debt, which has been about 20% of all authorized debt, increased to 24% at the end of fiscal 2023 and 27% at the end of fiscal 2024.

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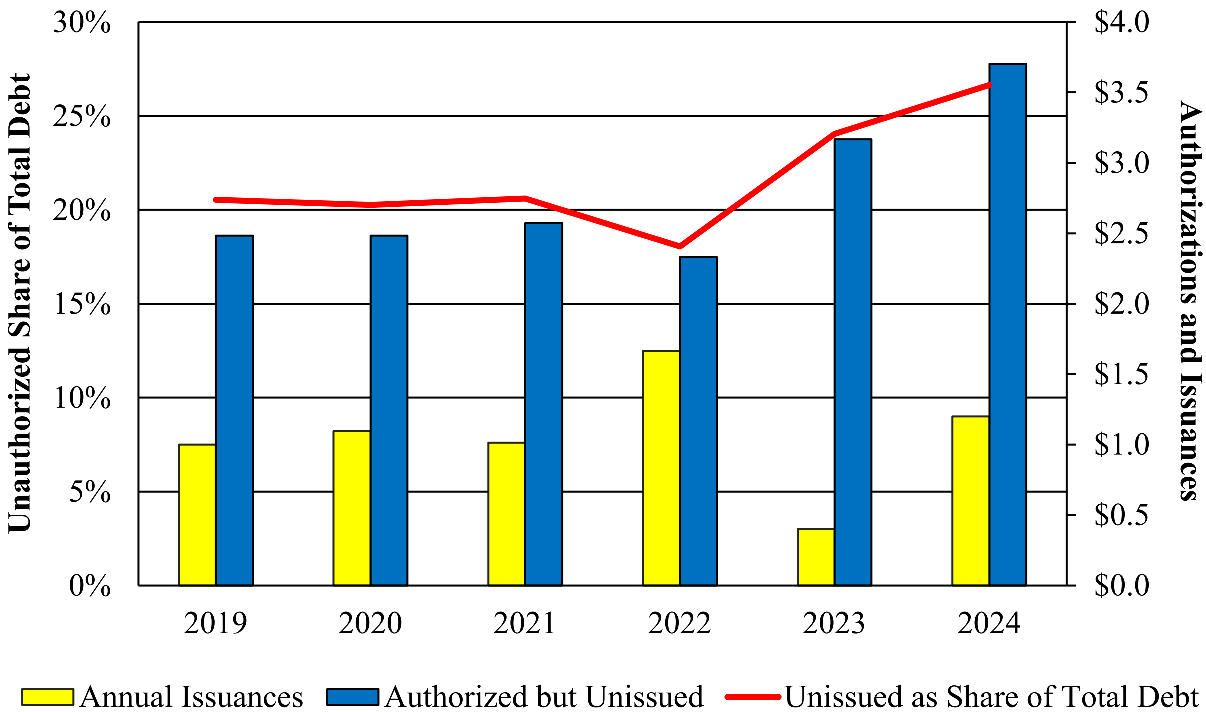
[4] Federal government arbitrage regulations require the expenditure of tax-exempt bond proceeds soon after issuance. Every six months a share of proceeds must be spent so that all proceeds are spent within two or three years, depending on the issuance. To avoid paying arbitrage rebates, bonds are issued when project and program funds are needed. A common question asked when interest rates are low, is why not issue more than needed to take advantage of low rates? The answer is that arbitrage rebates will nullify benefits.

Exhibit 8.6
Authorized but Unissued Debt is Increasing
Fiscal 2019-2024
($ in Billions)



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

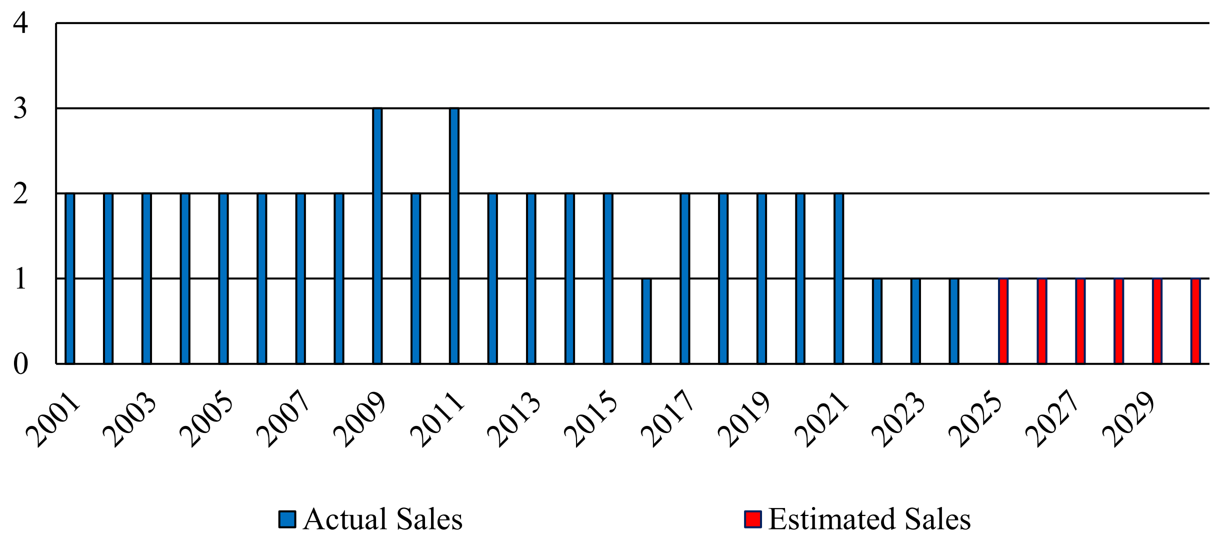
Changes in the capital program since the current issuance formula was developed decades ago, and increasing levels of authorized but unissued debt suggest that it may be time to reevaluate the issuance formula. **DLS recommends that STO evaluate whether the State should revise the current GO bond issuance formula. This review should include other agencies that brief CDAC regarding GO bonds.**

Benefits of Readopting Policy to Have Two Annual General Obligation Bond Sales

State procurement policy goals include providing a framework whereby procurements allow the State to get maximum benefits from its purchasing power. Consistent with this policy, GO bonds are sold by competitive sealed bids. Generally, at least three bidders are required for each sale. To further increase purchasing power, STO has divided tax-exempt GO bonds into multiple bidding groups in each sale. These policies strengthen the State's purchasing power.

To keep costs low, Maryland has historically divided bond sales into multiple sales in each year. **Exhibit 8.7** shows that, from fiscal 2001 to 2021, Maryland had two sales in every calendar year except calendar 2009 and 2011 when there were three sales, and calendar 2016 when there was one sale. The 2016 issuance coincided with STO rebidding underwriters and merging the winter and fall sales into one large sale in June.

Exhibit 8.7
General Obligation Bond Sales
Calendar 2001-2024 Actual, 2025 to 2030 Estimated



Source: State Treasurer's Office

Readopting the policy to have multiple bond sales each year has the following advantages:

- ***Smaller Bond Sale Size Reduces Interest Costs:*** Maryland generally has large bond sales, and underwriters purchasing GO bonds must sell a substantial amount of debt on the secondary market when buying Maryland bonds. Since larger bond sales are more difficult to sell in the secondary market, larger sales tend to push up interest rates. GO bond sales have ranged from $400 million to over $1.1 billion since calendar 2008. DLS' statistical analysis of bond sales suggests that increasing the size of GO bond issuances increases the interest rate paid. In a 2009 study, DLS estimated that every $100 million in par value adds 0.06% to the TIC. To reduce the size of sales, STO divides bond sales into bidding groups to make sales more competitive. It seems reducing the size by moving a share of the bonds to another day could potentially strengthen the State's market power even more.

- ***More Bond Sales Reduce Risk Associated with the Timing of Sales:*** Bond yields fluctuate daily and are heavily influenced by current events that are difficult to predict. The timing of a sale can be fortunate or unfortunate. Maryland sold $777 million in par values on March 4, 2020. The yield was, at the time, the lowest 15-year maturity TIC on record. However, this was shortly before effects of the COVID-19 pandemic were felt. At the time, DLS asked STO how the bond sale would have been handled if it has been planned later that month when markets were unstable. STO's response was that the sale would have been delayed until markets stabilize. Another example is the July 2011 sale, which occurred within weeks of Moody's placing Maryland on negative credit outlook. At the time, DLS estimated that this added 0.23% to the TIC, but that the effect faded quickly and did not affect other bond sales. Under current plans to issue all bonds in the last month of the fiscal year, the State has less flexibility regarding the timing of the sales. Having more and smaller sales reduces the market timing risk and gives the State more flexibility when issuing bonds.

Having two smaller bond sales instead of one larger bond sale is expected to decrease costs. **DLS recommends that STO review its policy of having one bond sale at the end of each fiscal year and consider having two sales if total annual issuances approach $1 billion.**

Appendix 1

Estimated General Obligation Bond Issuances

Fiscal 2025 to Post-2034
($ in Millions)

Fiscal Year	Proposed Auth.	Estimated Issuances During Fiscal Year (a) ====> 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Post-2034	Total Issued
2026	$1,785	$0	$553	$446	$357	$268	$161						$1,785
2027	1,820		0	564	455	364	273	$164					1,820
2028	1,855			0	575	464	371	278	$167				1,855
2029	1,890				0	586	473	378	284	$169			1,890
2030	1,930					0	598	483	386	290	$173		1,930
2031	1,970						0	611	493	394	296	$176	1,970
2032	2,010							0	623	503	402	482	2,010
2033	2,050								0	636	513	901	2,050
2034	2,090									0	648	1,442	2,090
2035	2,130										0	2,130	2,130
Total New Authorization		**$0**	**$553**	**$1,010**	**$1,387**	**$1,682**	**$1,876**	**$1,914**	**$1,953**	**$1,992**	**$2,032**	**$5,131**	**$19,530**
Previously Authorized	**$3,703**	**$1,390**	**$982**	**$670**	**$368**	**$158**	**$29**	**$21**	**$32**	**$33**	**$8**	**$12**	**$3,703**
Total Issuances		**$1,390**	**$1,535**	**$1,680**	**$1,755**	**$1,840**	**$1,905**	**$1,935**	**$1,985**	**$2,025**	**$2,040**	**$5,143**	**$23,233**

Appendix 2

Maryland General Obligation Bond Debt True Interest Cost Analysis

Statistically Significant Variables

Bond Sale Date	TIC	20-bond Index	MD/US PI	YTM	Call
07/16/08	3.86%	4.65%	2.213	9.60	Yes
03/04/09	3.39%	4.96%	2.287	9.01	Yes
03/02/09	3.63%	4.87%	2.287	10.04	Yes
08/05/09	2.93%	4.65%	2.303	8.96	Yes
08/03/09	3.20%	4.69%	2.303	9.01	Yes
10/21/09	2.93%	4.31%	2.242	7.91	Yes
07/28/10	1.64%	4.21%	2.259	5.34	No
07/28/10	1.91%	4.21%	2.259	6.20	Yes
03/07/11	2.69%	4.90%	2.286	6.86	No
03/09/11	3.49%	4.91%	2.286	10.51	Yes
07/25/11	1.99%	4.46%	2.299	5.65	No
07/27/11	3.08%	4.47%	2.299	10.05	Yes
03/02/12	2.18%	3.72%	2.306	8.33	Yes
03/07/12	2.42%	3.84%	2.306	9.71	Yes
07/27/12	2.52%	3.61%	2.277	9.10	Yes
08/01/12	2.17%	3.66%	2.277	9.71	Yes
03/06/13	2.35%	3.86%	2.288	9.61	Yes
07/24/13	3.15%	4.77%	2.284	10.20	Yes
03/05/14	2.84%	4.41%	2.265	10.14	Yes
07/18/14	1.27%	4.36%	2.240	4.69	No
07/23/14	2.65%	4.29%	2.240	10.16	Yes
03/05/15	2.65%	3.68%	2.232	9.63	Yes
07/16/15	2.83%	3.82%	2.238	10.33	Yes
06/08/16	2.17%	3.03%	2.207	9.62	Yes
03/08/17	2.84%	4.02%	2.205	10.59	Yes
08/16/17	2.29%	3.57%	2.200	9.59	Yes
03/07/18	2.83%	3.88%	2.129	10.29	Yes
08/01/18	2.33%	3.95%	2.124	6.72	No
08/01/18	3.12%	3.95%	2.124	13.05	Yes
03/26/19	1.78%	3.79%	2.138	6.69	No
03/26/16	2.71%	3.79%	2.138	13.02	Yes
08/14/19	1.13%	3.10%	2.128	7.35	No
08/14/19	1.98%	3.10%	2.128	13.00	Yes
03/04/20	0.89%	2.31%	2.107	7.41	No
03/04/20	1.85%	2.31%	2.107	13.01	Yes
07/22/20	0.55%	2.10%	2.090	6.75	No
07/22/20	1.74%	2.10%	2.090	13.09	Yes
02/24/21	0.63%	2.44%	2.009	7.48	No

Bond Sale Date	TIC	20-bond Index	MD/US PI	YTM	Call
02/24/21	1.73%	2.44%	2.009	13.07	Yes
08/11/21	0.76%	2.14%	2.009	7.58	No
08/11/21	1.78%	2.14%	2.009	13.02	Yes
06/08/22	2.32%	3.16%	1.885	7.19	No
06/08/22	2.83%	3.16%	1.885	10.97	Yes
06/08/22	3.29%	3.16%	1.885	13.97	Yes
03/15/23	2.35%	3.57%	1.820	7.71	No
03/15/23	3.22%	3.57%	1.820	13.04	Yes
06/05/24	2.97%	3.97%	1.859	7.44	No
06/05/24	3.14%	3.97%	1.859	10.98	Yes
06/05/24	3.66%	3.97%	1.859	13.98	Yes

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

Source for 20-bond Index: *The Bond Buyer*
Source for personal income: Moody's Analytics; IHS Markit
Remaining Sources: Bond Sale Official Statements

Appendix 3
Agency Debt Outstanding
Fiscal 2014-2024
($ in Millions)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Change 2014-2024	Average Annual % Change 2014-2024
Agency Debt Subject to Ceiling and Allocation Caps													
Maryland Environmental Service	$27.9	$26.4	$24.8	$23.1	$21.4	$27.8	$26.8	$24.7	$22.3	$19.9	$17.3	-$10.6	-4.7%
Maryland Transportation Authority	3,179.3	3,176.4	3,062.0	2,928.4	2,149.9	2,097.5	2,393.5	2,479.5	2,424.9	2,566.2	2,347.0	-832.3	-3.0%
Maryland Water Quality Financing Administration[1]	36.7	33.2	29.2	24.7	20.3	17.8	15.2	12.4	9.5	6.5	3.4	-33.3	-21.1%
Revenue Cap Total	**$3,243.9**	**$3,235.9**	**$3,116.0**	**$2,976.2**	**$2,191.6**	**$2,143.1**	**$2,435.5**	**$2,516.6**	**$2,456.6**	**$2,592.6**	**$2,367.7**	**-$876.2**	**-3.1%**
% Change/Prior Year	**-3.9%**	**-0.2%**	**-3.7%**	**-4.5%**	**-26.4%**	**-2.2%**	**13.6%**	**3.3%**	**-2.4%**	**5.5%**	**-8.7%**		
Agency Debt Not Subject to Ceiling and Allocation Caps													
Department of Housing and Community Development[2]	$2,783.2	$2,557.0	$2,535.9	$2,445.4	$2,295.9	$2,601.2	$3,038.8	$2,922.9	$3,193.1	$3,883.5	$4,834.6	$2,051.4	5.7%
Local Government Infrastructure (CDA)	137.1	164.1	156.1	167.8	184.0	191.9	195.9	181.5	165.9	175.7	198.8	61.7	3.8%
Maryland Industrial Development Financing Authority	335.1	312.6	288.3	286.4	265.8	237.0	223.6	213.0	185.8	187.9	178.5	-156.6	-6.1%
MDOT – County Revenue Bonds	94.9	87.9	120.2	108.8	97.0	128.0	113.4	100.6	87.2	76.0	64.3	-30.6	-3.8%
MDOT – Revenue-backed Debt	667.2	671.8	634.6	596.0	557.6	626.8	585.4	566.7	733.6	709.1	613.3	-53.9	-0.8%
MDOT – Purple Line[3]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	256.1	856.9	856.9	n/a
Morgan State University	44.3	43.5	58.3	51.8	46.5	45.0	40.9	9.0	27.9	44.4	69.2	24.9	4.6%
St. Mary's College of Maryland	34.3	34.6	32.5	32.0	29.6	25.8	24.3	42.1	39.9	37.5	35.1	0.8	0.2%
University System of Maryland	1,269.0	1,128.5	1,178.7	1,202.0	1,186.8	1,196.7	1,202.0	1,207.9	1,297.8	1,285.9	1,095.9	-173.1	-1.5%
Noncap Total	**$5,365.2**	**$4,999.9**	**$5,004.7**	**$4,890.1**	**$4,663.2**	**$5,052.3**	**$5,424.3**	**$5,243.7**	**$5,731.1**	**$6,656.2**	**$7,946.7**	**$2,581.5**	**4.0%**
% Change/Prior Year	**9.8%**	**-6.8%**	**0.1%**	**-2.3%**	**-4.6%**	**8.3%**	**7.4%**	**-3.3%**	**9.3%**	**16.1%**	**19.4%**		

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Change 2014-2024	Average Annual % Change 2014-2024
Tax-supported Debt													
Transportation Debt	$1,813.0	$2,020.3	$2,146.1	$2,578.4	$2,911.7	$3,342.9	$3,627.0	$3,672.3	$3,643.5	$3,297.0	$3,022.2	$1,209.2	5.2%
Grant Anticipation Revenue Vehicles	415.8	349.4	279.8	206.6	129.7	48.9	0.0	0.0	0.0	0.0	0.0	-415.8	-100.0%
Capital Leases	260.3	242.2	236.0	216.7	223.6	199.2	198.1	175.4	160.0	147.1	140.2	-120.1	-6.0%
Maryland Stadium Authority	175.4	151.0	130.5	110.4	88.6	122.8	120.1	108.5	153.8	142.0	129.5	-46.0	-3.0%
Bay Restoration Bonds	133.1	130.0	301.6	292.9	273.6	253.4	232.1	209.7	186.2	161.6	140.4	7.3	0.5%
General Obligation Debt	8,362.3	8,677.2	9,465.3	9,334.2	9,479.4	9,606.9	9,772.5	9,912.9	10,588.6	10,001.2	10,195.2	1,832.9	2.0%
Tax-supported Debt Total	**$11,160.0**	**$11,570.1**	**$12,559.2**	**$12,739.1**	**$13,106.6**	**$13,574.2**	**$13,949.7**	**$14,078.8**	**$14,732.2**	**$13,748.9**	**$13,627.5**	**$2,467.5**	**2.0%**
% Change/Prior Year	**5.1%**	**3.7%**	**8.5%**	**1.4%**	**2.9%**	**3.6%**	**2.8%**	**0.9%**	**4.6%**	**-6.7%**	**-0.9%**		
Authorities and Corporations Not Subject to Ceiling and Allocation Caps													
Health/Higher Education Facilities Authority	$8,837.2	$8,779.5	$8,664.0	$9,042.8	$9,063.4	$8,903.8	$8,339.6	$8,475.2	$8,600.2	$8,512.1	$8,423.3	-$413.9	-0.5%
Maryland Economic Development Corporation	2,253.8	2,192.7	2,426.6	2,311.0	2,301.9	2,373.0	2,453.7	2,758.2	3,029.4	3,001.5	3,320.9	1,067.1	4.0%
Authorities and Corporations Total	**$11,091.0**	**$10,972.2**	**$11,090.6**	**$11,353.8**	**$11,365.3**	**$11,276.8**	**$10,793.3**	**$11,233.5**	**$11,629.6**	**$11,513.6**	**$11,744.2**	**$653.2**	**0.6%**
% Change/Prior Year	**-1.2%**	**-1.1%**	**1.1%**	**2.4%**	**0.1%**	**-0.8%**	**-4.3%**	**4.1%**	**3.5%**	**-1.0%**	**2.0%**		

CDA: Community Development Administration
MDOT: Maryland Department of Transportation

[1] Excludes bay restoration bonds.
[2] Excludes local government infrastructure.
[3] Excludes debt issued by the Maryland Economic Development Corporation