

EFFECT OF LONG-TERM DEBT ON THE FINANCIAL CONDITION OF THE STATE



DEPARTMENT OF LEGISLATIVE SERVICES 2021

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

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

January 2022

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DEPARTMENT OF LEGISLATIVE SERVICES
OFFICE OF POLICY ANALYSIS
MARYLAND GENERAL ASSEMBLY

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January 2022

The Honorable Jim Rosapepe
Senate Chairman, Spending Affordability Committee

The Honorable Marc Korman
House Chairman, Spending Affordability Committee

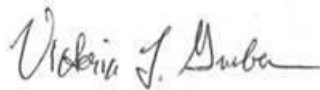
Dear Chairman Rosapepe and Chairman Korman:

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 by October 20 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 Andrew Gray, Emily Haskell, Ian Klein, Matthew Klein, Steven McCulloch, and Robert Rehrmann. The manuscript was prepared by Brett Ogden.

Respectfully submitted,



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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 \$900 million for new authorizations of general obligation (GO) bonds for fiscal 2023. This recommendation is \$215 million less than the planned amount of \$1.115 billion. The State's general fund surplus is sufficient to replace GO bond authorizations by appropriating funds for pay-as-you-go capital projects.

Since 2015, the Spending Affordability Committee has recommended increasing annual authorizations by 1% annually. This policy was adopted so that GO bond authorizations increase more slowly than the revenues supporting the bonds. The General Assembly has adhered to this policy since fiscal 2016. **The Department of Legislative Services (DLS) recommends that the GO bond debt authorizations not exceed \$1.115 billion in fiscal 2023.**

The large general fund balance and higher estimated revenue attainment increases how much debt is affordable. **DLS also recommends that the State should continue its sound fiscal management and prudent debt policies. Should the State reevaluate limits on planned GO bond authorizations in response to revised revenue projections and fund balances, the State should consider policies to guide how much authorizations should be increased annually and how to use general funds to support the capital program. The State should also review what needs are anticipated over the six-year forecast period that have not yet been authorized, especially for non-State debt that is outside the affordability process but supported by revenues that may otherwise support State programs and grants.**

Backlog in Facility Maintenance

Moody's estimates that Maryland's capital assets are among the most depreciated, ranking second among AAA-rated states and ninth when compared to all states. This suggests that Maryland facilities are aging and creates a liability that the State will need to address at some point. The Department of General Services (DGS) identified \$210 million in capital maintenance projects at State-owned buildings and properties. **Insofar as the State currently has a large fund balance that can be used for one-time expenditures and the State's capital assets are among the most depreciated, it is recommended that some of the fund balance be used to support capital maintenance. This is expected to reduce the demand for funding capital maintenance in the out-years and thus free resources for other priorities.**

Review of Capital Leases

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. In 2013, GASB initiated a project to reexamine issues associated with lease accounting. The objective of the project was to examine whether operating leases can meet the definitions of assets or liabilities that could result in new standards for capital leases.

After much deliberation, GASB approved Statement 87, which redefines lease rules. 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 would amortize the leased asset over the term of the lease and recognize interest expense related to the lease liability. The exposure draft provides exceptions for short-term leases lasting 12 months or less, along with financed purchases. Initially, the requirements of the proposed statement would be effective for reporting periods beginning after December 15, 2019, with earlier application permitted. The new GASB guidelines have been delayed due to the COVID-19 pandemic so that the effective date is delayed to fiscal years beginning after June 30, 2022. **DLS recommends that CDAC examine the effect of the new GASB guidelines in 2022 and develop a policy in response to the new guidelines.**

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. The lower projected transportation debt issuances during this forecast period result in more capacity for the issuance of other types of State tax-supported debt than in recent years. As revenues return to prepandemic levels, however, the capacity to issue transportation debt will increase and need to be managed within the context of overall State tax-supported debt limits. **It is recommended that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criteria.**

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. In 2012, the General Assembly adopted legislation to increase funding for these projects. Current plans provide sufficient funding for this initiative. DLS projects that a program consistent with current laws and policies can be supported without issuing an additional

\$100 million in fiscal 2023. Fiscal 2021 revenues declined by over 19%. No clear explanation of why revenues declined has been given. Bay 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 criteria. In addition, it is recommended that the Maryland Department of the Environment update the General Assembly during the 2022 session on the impact of payment delays, telework, and local financial hardship exemptions on BRF revenues. DLS also recommends against issuing any new bonds until reasons for declining revenues in fiscal 2021 are understood.

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 2022 session. Academic bond issuances are discussed in Chapter 7. **DLS concurs with the committee's assessment that issuing \$30 million in new USM ARBs is affordable.**

Chapter 2. Recommendations of the Capital Debt Affordability Committee

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

When reviewing State debt, CDAC considers general obligation (GO) bonds, including various taxable, tax-exempt, and tax credit bonds; 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 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 level of GO bond authorizations for the five-year forecast period beginning in fiscal 2023 below the level recommended by the Spending Affordability Committee in December 2020 and the amount programmed in the 2021 *Capital Improvement Program* (CIP). The CDAC recommendation reduces the fiscal 2023 authorization level from the \$1.115 billion planned in the 2021 CIP to \$900 million. Beginning in fiscal 2024, the committee's recommendation returns the out-year authorization levels to the amount previously planned and includes an annual 1% increase through the planning period. The lower authorization level recommended by the committee is based on the availability of general funds to support the capital program. This is made possible due to recent improvements in the State's General Fund, which closed out fiscal 2021 \$1.8 billion above budgeted estimates.

Higher Education Academic Debt

CDAC recommends a new debt authorization of academic revenue bonds in the amount of \$30 million for the 2022 session. This amount is the same amount authorized in 2021 session and is consistent with the amount programmed for the 2022 session in the 2021 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. If authorized through legislation, GARVEEs can be issued by MDOT and the Maryland Transportation Authority (MDTA). Chapter 472 of 2005 authorized \$750 million to support the Intercounty Connector and, subsequently, \$325 million was issued in fiscal 2008, and \$425 million was issued in fiscal 2009. These last GARVEEs were retired in March 2020. Additional issuances would require General Assembly authorization;
- revenue bonds issued by the Maryland Stadium Authority (MSA), secured by a lease, which is supported by State revenues;
- bay restoration bonds issued by the Maryland Department of the Environment's (MDE) Water Quality Financing Administration, pledging revenues from the Bay Restoration Fund (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. As shown in **Appendix 1**, the Capital Debt Affordability Committee (CDAC) recommendation would provide \$5.4 billion of new GO bond authorizations in fiscal 2023 through 2027. Capital GO bond requests for this same period total \$8.9 billion, or \$3.5 billion more than the recommended authorization level.

New General Obligation Bond Authorization Levels

CDAC recommended a level of GO bond authorizations for the five-year forecast period beginning in fiscal 2023 below the level recommended by the Spending Affordability Committee (SAC) in December 2020 and the amount programmed in the 2021 *Capital Improvement Program* (CIP). The recommendation provides \$900 million of new GO bond authorizations for fiscal 2023, which is \$215 million less than the \$1.1 billion planned in the 2021 CIP. The committee's recommendation returns the out-year authorization levels to the 2020 SAC recommended and 2021 CIP programmed amounts and reinstitutes the 1% annual increase in proposed authorization levels in fiscal 2024.

The committee's recommendation to reduce the fiscal 2023 GO bond authorization level is predicated on the availability of general funds to support the capital program. In September, the Board of Revenue Estimates (BRE) announced that the State closed fiscal 2021 with a \$2.5 billion general fund balance, increased the fiscal 2022 revenue projections by nearly \$1 billion, and adjusted out-year projections within the planning period by nearly \$1.4 billion annually from the time of the board's last revenue revision in March 2021. The State's strong cash position and projected structural surplus provides the means to supplement the capital program with general funds in fiscal 2023 and perhaps through the planning period, but such use will compete with other alternative uses.

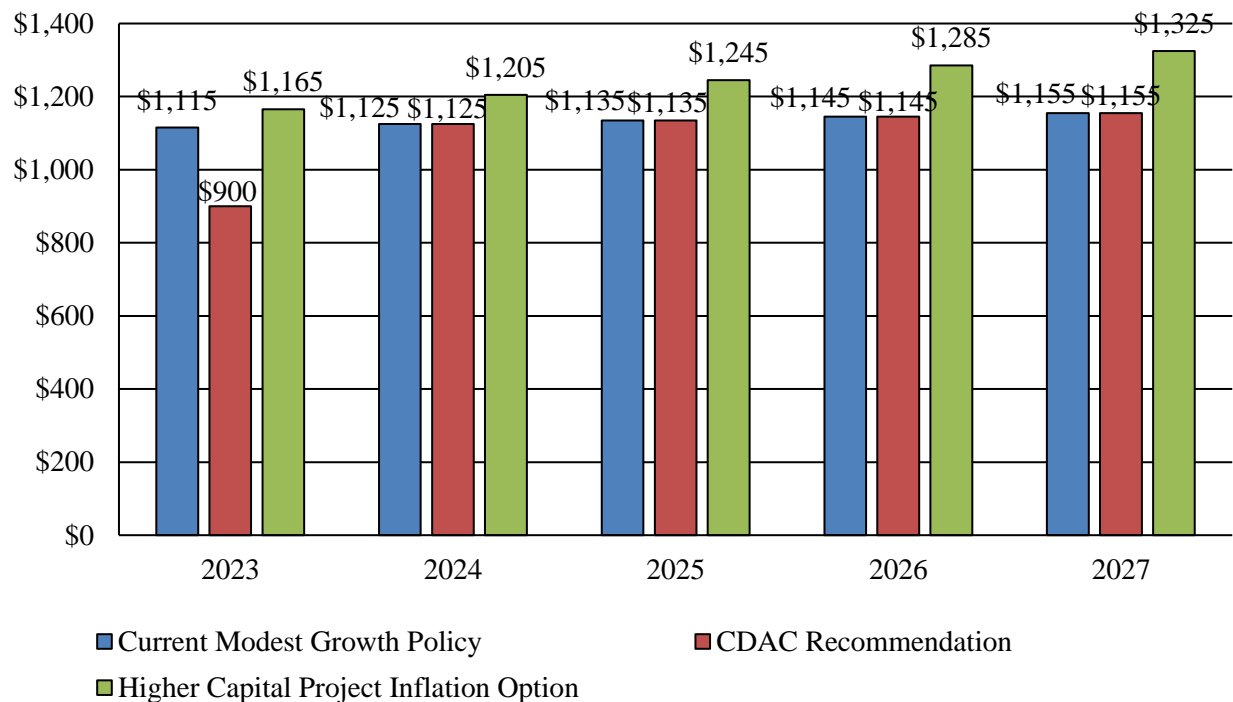
Since 2015, SAC policy has included a 1% annual increase in the authorization level to account for inflation. While this policy in the more recent period of austerity has ensured that the growth in authorizations does not exceed the growth in State property tax revenues, which support debt service costs on the State's GO bonds, this does not take inflation into account, so the capital program may lose purchasing power in some years. In recent years, due to the COVID-19 pandemic and the accompanying disruption in the construction materials supply chain, year-over-year regional construction inflation increased by 9.8% in calendar 2020 and by another 20.4% through September 2021. In recognition of the State's improved fiscal condition and recent rate of inflation, the Department of Legislative Services (DLS) has examined three different GO bond authorization options. **Exhibit 3.1** shows authorizations for the three options,¹ which are:

- continue authorizing bonds at the planned level, which is \$1.1 billion in fiscal 2023 with authorizations increasing by \$10 million annually;

¹ Chapter 4 explains the options in the context of affordability and analyzes the affordability of the three options.

- adopt the CDAC recommendation and reduce the fiscal 2023 authorization to \$900 million, increase the fiscal 2024 authorization to \$1.1 billion, and increase authorizations by \$10 million annually beginning in fiscal 2025; or
- to address the recent higher rate of inflation, increase the fiscal 2023 authorization to \$1.2 billion and increase authorizations by \$40 million annually beginning in fiscal 2024.

Exhibit 3.1
General Obligation Bond Authorizations
Fiscal 2023-2027
(\$ in Millions)



CDAC: Capital Debt Affordability Committee

Source: *Report of the Capital Debt Affordability Committee on Recommended Debt Authorizations*, 2020; *Spending Affordability Committee 2020 Interim Report*, December 2020; and Governor's 2021 *Capital Improvement Program*

General Obligation Bond Debt Service Costs

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. Specifically, 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 compares estimated debt service costs for the CDAC and higher inflation options to the current policy of 1% annual increases in authorizations.

Exhibit 3.2 General Obligation Bond Debt Service Costs Fiscal 2023-2027 (\$ in Millions)

<u>Fiscal Year</u>	<u>Current Modest Growth Policy</u>	<u>CDAC Recommendation Savings</u>	<u>Higher Inflation Costs</u>
2023	\$1,417.7	-\$0.8	\$0.3
2024	1,450.8	-4.1	2.5
2025	1,483.0	-6.5	12.9
2026	1,524.5	-12.2	36.3
2027	1,517.3	-16.8	83.1

CDAC: Capital Debt Affordability Committee

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

General Obligation Bond Refunding

GO bonds recently issued by Maryland are callable after 10 years. Low interest rates provided the State with the opportunity to refund bonds. The bonds were financed by issuing new debt at lower interest rates. The new debt was placed in an escrow account from which debt service payments for the previously issued debt are made 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.

Federal Tax Cuts and Jobs Act Ends Advanced Refunding for Tax-exempt Bonds

STO, with advice from its financial advisor, continually monitors financial markets to determine if refinancing GO debt is advantageous. Should it be determined that market interest rates are sufficient to warrant a refunding, such action would be presented to the Board of Public Works (BPW) for its approval. However, the federal Tax Cuts and Jobs Act (TCJA) of 2017 ended 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 to suspend refunding issuances, which had become common. From fiscal 2010 to 2018, there were 11 refunding issuances; there were no refunding issuances between August 2017 and March 2020. STO and its financial advisor did not project sufficient savings for a refunding sale. However, there now are refunding opportunities. The State's strategy is to:

- ***Determine If Taxable Bonds Realize Sufficient Savings:*** While the law prohibits advanced refunding tax-exempt bonds, there is no prohibition on advanced refunding taxable bonds. Taxable bonds are more expensive than tax-exempt bonds. However, if interest rates decline, taxable bond rates could decline to the point that bonds can be refunded, and taxable bonds issued in their place. The State can also issue forward delivery bonds if STO is concerned that interest rates are favorable and could increase; and
- ***If Taxable Bonds Do Not Provide Sufficient Savings, Refund Bonds at the Call Date:*** If the State waits until bonds are callable, tax-exempt bonds can support retiring the callable bonds.

The first refunding opportunity since the new law was in March 2020. The State retired \$257 million in bonds that were callable one month later. Then there were two refunding issuances in July 2020. The first retired \$152 million in bonds that are callable in September 2020. The second issued advanced refunding taxable bonds for bonds that are not callable in calendar 2020.

While this new approach realizes substantial savings, it is certainly not optimal from the State's perspective. The State is not able to lock savings early of bonds refunded at the call date. With respect to the taxable advanced refunding bonds, the State issues these bonds with a higher true interest cost (TIC) than tax-exempt bonds.

Forward Delivery Bonds Issued in August 2021

At the last bond sale, STO projected that it was the appropriate time to issue these forward funding bonds. Interest rates are currently low, and STO is concerned about the rising possibility that inflation or other factors will lead to an increase in interest rates. So that the State can still get the benefit of currently low interest rates, forward funding bonds were issued that lock into a low rate now. In this sale, the State issued \$237 million in forward funding bonds, of which \$114 million will be settled on or near March 1, 2022, and \$123 million will be settled on or near May 3, 2022. **Exhibit 3.3** provides key summary data from the sales.

Exhibit 3.3 Tax-exempt Forward Delivery Refunding Bonds August 11, 2021 (\$ in Thousands)

<u>Description</u>	<u>Delivery Date</u>	<u>True Interest Cost</u>	<u>Average Maturity (in years)</u>	<u>Amount Sold</u>	<u>Amount Called</u>	<u>Debt Service Savings</u>	<u>NPV of Savings</u>
Series C	March 1, 2022	0.87%	5.73	\$113,840	\$134,655	\$22,387	\$21,274
Series D	May 3, 2022	1.04%	6.28	123,285	141,075	19,010	17,833
Total				\$237,125	\$275,730	\$41,397	\$39,107

NPV: net present value

Source: Public Resources Advisory Group

This bond sale is more complicated and unique than previous sales have been, so this sale is a negotiated sale instead of a competitive bid. STO advises that Bank of America Securities, Inc. (B of A Securities) was chosen to be the underwriter because its affiliated underwriter, Bank of America Merrill Lynch (BAML), has been offering competitive bids recently. For example, BAML offered the lowest bid for both tax-exempt issuances during the February 2021 sale. STO believes that selecting a competitive bidder for this negotiated sale could also encourage other underwriters to offer more competitive bids for traditional tax-exempt and taxable issuances.

With this sale, the State issues forward delivery bonds to retire GO bonds that are callable in calendar 2022. The sale has an initial closing date on August 25, 2021, with settlement dates in March 2022 and May 2022, depending on the call date of the refunded bonds. The State enters into a Forward Delivery Bonds Purchase Agreement with the underwriter, B of A Securities. The forward delivery bonds are sold to third-party purchasers. B of A Securities enters into Delayed Delivery Contracts with the purchasers of the forward delivery bonds. The State is not party to the Delayed Delivery Contracts. Except as specified, a purchaser of forward delivery bonds will not be able to withdraw their orders on the 2022 settlement dates because of market or credit changes,

including changes in the financial condition, operations, performance, or prospects of the State occurring between the closing date in August 2021 and the settlement dates in 2022. As such, the purchasers of the forward delivery bonds assume the market risk.

In addition, the Forward Delivery Bonds Purchase Agreement requires that certain conditions be met by the State prior to the March 2022 and May 2022 settlement dates. Included in these conditions are that the bonds maintain an investment grade rating (ratings of BBB- by Standard and Poor's and Fitch and Baa3 by Moody's), that representations made by the State are accurate, and that the State performs all required obligations. One such obligation is that the State prepare an Updated Official Statement between three weeks and five days before the respective settlement dates.

In this bond sale, each party has obligations. Although it is unlikely, it is possible that not all conditions for settlement will be met. STO and its financial advisor advise that they are not aware of any Forward Delivery Bonds Purchase Agreements that failed to settle in the recent past. Additionally, the State has \$4.8 million received from a good faith deposit from B of A Securities that the State could retain if the deal does not settle. However, if all conditions are not met for settlement, the State may be required to issue additional refunding bonds to call the bonds or the State may not have the proceeds to call the bonds and, therefore, would not realize any refunding savings.

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 per the Budget Reconciliation and Financing Act (BRFA) of 2009 (Chapter 487). 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, POS bonds were not issued; 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 2010 and July 2010, as shown in **Exhibit 3.4**. 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 3.4
Program Open Space GO Bond Issuances
(\$ in Thousands)

<u>Issue Date</u>	<u>GO Bond Issuance</u>	<u>Principal</u>
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 3.5 shows that debt service costs are \$6.9 million in 2021. The debt service is deducted from transfer tax revenues allocated to DNR and MDA proportionately based on the share of the issuance each received. The debt is retired in fiscal 2026.

Exhibit 3.5
Program Open Space GO Bonds Debt Service Payment Schedule
Fiscal 2021-2026
(\$ in Millions)

	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
Debt Outstanding	\$21.4	\$15.0	\$8.4	\$1.6	\$0.0	\$0.0
Debt Service	6.9	7.0	7.0	7.0	1.7	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 the State 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 3.6** 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 3.6
Summary of Special Purpose Issuances

<u>Type</u>	<u>Date Issued</u>	<u>Amount Issued</u>	<u>Debt Service Payments</u>	<u>Total Payments</u>	<u>Similar GO Payments¹</u>	<u>Savings</u>	<u>Sequestration Reduction</u>	<u>Net Savings</u>
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 a Joint Select Committee on Deficit Reduction to further reduce the federal deficit by at least \$1.2 trillion over 10 years. The BCA of 2011 established a backup process to achieve the reduction with automatic spending cuts, or “sequestration.” The committee did not reach any agreement on reductions, and mandatory reductions took effect January 2013. Sequestration cuts are spread equally over nine years and divided equally between defense and nondefense spending, with some programs exempt from sequestration, such as Medicaid and Social Security. Legislation provided some relief to BCA caps in every fiscal year since federal fiscal 2013 (American Taxpayer Relief Act of 2012). In addition to providing short-term relief, prior legislation has also extended the period of sequestration. The most recent legislation, the Bipartisan Budget Act of 2019, increased spending caps and extended mandatory sequester spending to federal fiscal 2029.

Direct pay bonds are affected by mandatory reductions required through sequestration. STO advises that this reduces federal fund reimbursements for these bonds. Initially, the rate was 8.7% in federal fiscal 2013, peaked at 7.3% in federal fiscal 2015, and has declines steadily since federal fiscal 2015. 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 3.7** shows that federal grants are expected to decline. DLS did notice that the fiscal 2020 grant was \$1.7 million less than anticipated after adjusting for sequestration reduction. STO advises that the State may not have received all fiscal 2020 grants due to delays caused by the coronavirus pandemic. Should this be the case, the funds may be received in subsequent years.

Exhibit 3.7 Effect of Sequestration on Federal Fund Revenues Fiscal 2021-2023 (\$ in Thousands)

<u>Issuance</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
July 2009 Build America Bonds	\$796	\$796	\$796	\$2,389
October 2009 Build America Bonds	942	942	798	2,682
February 2010 Build America Bonds	4,528	3,713	2,855	11,096
July 2010 Build America Bonds	1,094	1,094	968	3,155
July 2010 Qualified School Construction Bonds	1,965	1,965	1,965	5,895
December 2010 Qualified Zone Academy Bonds	228	228	228	684
August 2011 Qualified Zone Academy Bonds	660	660	660	1,980
August 2011 Qualified Energy Conservation Bonds	234	234	234	703
August 2012 Qualified Zone Academy Bonds	426	426	426	1,279
<i>Less Sequestration</i>	-620	-573	-509	-1,702
Total	\$10,253	\$9,485	\$8,422	\$28,161

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.

Prior to 2008, the State did not pay interest on QZAB issuances. Instead, bondholders received a federal income tax credit for each year that the bond was held. The State was not required to make payments on the principal until the bonds were redeemed. For example, under its 2001 agreement with Bank of America, the State, through STO, made annual payments into a sinking fund invested into a guaranteed rate of interest. Since the funds were invested in interest-bearing accounts, the repayment of the principal by the State was less than the par value of QZABs, making QZABs less expensive than GO bonds.

In 2008, STO advised that the federal government amended rules regarding arbitrage that precluded the State from investing sinking funds. As a consequence, the State is no longer able to invest the sinking funds payments, interest earnings will no longer be generated, and the State will need to fully appropriate the principal borrowed. Costs also increased because the State cannot issue all QZABs at par but must instead offer a supplemental coupon. The December 2008 sale offered a 1.6% supplemental coupon. As Exhibit 3.7 shows, even with sequestration, QZABs are still less expensive than GO bonds.

Since 2011, the federal government authorized QZABs with a direct payment to the State. Because interest rates are quite low, the federal payment is sufficient to fully subsidize the interest costs. For example, the State issued \$15.2 million in August 2012. The winning bid was submitted by Morgan Stanley & Co., LLC with a TIC that is essentially 0.0% because State debt service costs are reimbursed by the federal government. The net interest cost for the winning bidder was 2.83%.

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.

QSCBs are tax credit bonds entitling the holder of the bond to a tax credit for federal income tax purposes in lieu of receiving current interest on the bonds, similar to QZABs. The tax credit rate on QSCBs is set by the U.S. Treasury to allow for issuance of QSCBs at par

and with no interest costs to the issuer. Unlike QZABs, tax credits may be stripped from bonds and sold separately, which could increase the marketability of the bonds.

Under ideal circumstances, the bonds sell at par without any interest payments (referred to as a supplemental coupon). Prior to December 2009, QSCBs were sold with supplemental coupon payments (such as the Baltimore County sale that included a 1.25% coupon) or at a discount (such as the Virginia Public School sale that generated proceeds equal to 91.0% of the bonds' principal).

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 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 will support the construction of energy conservation projects at a school in St. Mary's County. The winning bid's interest cost was 0.62%. This low rate is attributable to the federal reimbursement. The winning bidders' net interest cost is 4.22%. Insofar as the federal tax credit rate at the day of the sale was 5.15%, and the State will be reimbursed 70.0% of that rate; the effective federal reimbursement is 86.0%. Annual interest payments are approximately \$273,000. The federal subsidy is \$234,000, requiring a net interest payment that is just over \$39,000 from the State. Sequestration reduces the annual federal subsidy by approximately \$13,000, resulting in a \$52,000 payment by the State. 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.

To minimize debt service payments, the State bid the first BABs issuance as both traditional tax-exempt bonds and BABs with the sale awarded to the lowest bid. Nine underwriters bid for BABs, and there were no bids for the tax-exempt bonds. In subsequent bond sales, the State bid them as BABs only.

The federal program expired on December 31, 2010. In 2009 and 2010, the State issued BABs four times: August 2009; October 2009; February 2010; and July 2010. These issuances totaled \$583 million. BABs are structured similarly to tax-exempt GO bonds. In January 2011, DLS estimated that BABs reduced State GO bond debt service costs by \$39 million over the life of the bonds. Since the estimate was prepared, sequestration has reduced the federal subsidy by \$6 million. 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, 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 MDTA. A portion of the financing for the Purple Line transit project will be provided through a federal Transportation Infrastructure Finance and Innovation Act loan, which will be considered MDOT nontraditional debt. The General Assembly annually adopts budget language that imposes a ceiling on MDOT's nontraditional debt.

Impact of the COVID-19 Pandemic

The effects of the COVID-19 pandemic and the actions taken by the State to stop the spread of the virus had an adverse impact on MDOT's financial condition and operations. Revenue attainment for almost all TTF tax and fee revenues declined as a result of a general reduction in travel related to the stay-at-home order and the economic recession caused by the pandemic. MDOT's operating revenues also experienced declines due to decreased transit ridership and passenger air travel.

With the rollout of COVID-19 vaccines, travel has rebounded to varying degrees among the different modes. Although all modes of travel have experienced increased volumes compared to the early months of the pandemic, travel volumes for most modes were still lower at the end of September 2021 than at the same point in 2019. Statewide weekly traffic and MDTA customer traffic were down by less than 10% of prepandemic levels at the end of September 2021, but passenger traffic for all services of the Maryland Transit Administration (MTA) was down 44%,

and passenger traffic at the Baltimore-Washington International Thurgood Marshall Airport (BWI Marshall Airport) was down 31.6% compared to prepandemic levels.

Federal aid through COVID-19 stimulus legislation has helped support MDOT operations and replace revenue losses attributed to the pandemic. In support of its operating budget, MDOT used \$358 million in COVID-19-related federal aid in fiscal 2021 and expects to use \$533 million in fiscal 2022, \$300 million in fiscal 2023, and \$55 million in fiscal 2024. MDOT also received a capital allocation of \$106 million for the Purple Line that is expected to be spent during fiscal 2022. Even with this federal assistance, the capital program was impacted by the pandemic. The 2021 *Consolidated Transportation Program* (CTP) was \$1.2 billion smaller than the previous CTP. The outlook has improved considerably over the past year. The draft CTP issued September 1, 2021, shows an increase of \$115 million in the six-year capital program compared to the 2020 prepandemic program.

Consolidated Transportation Bonds

The issuance of transportation bonds is limited by two criteria: an outstanding debt limit; and a coverage test. Section 3-202(b) of the Transportation Article establishes the maximum aggregate and unpaid principal balance of consolidated transportation bonds that may be outstanding at any one time. During the 2013 session, the maximum outstanding debt limit was increased to \$4.5 billion (from \$2.6 billion) in recognition of the enactment of an increase in motor fuel tax revenue.

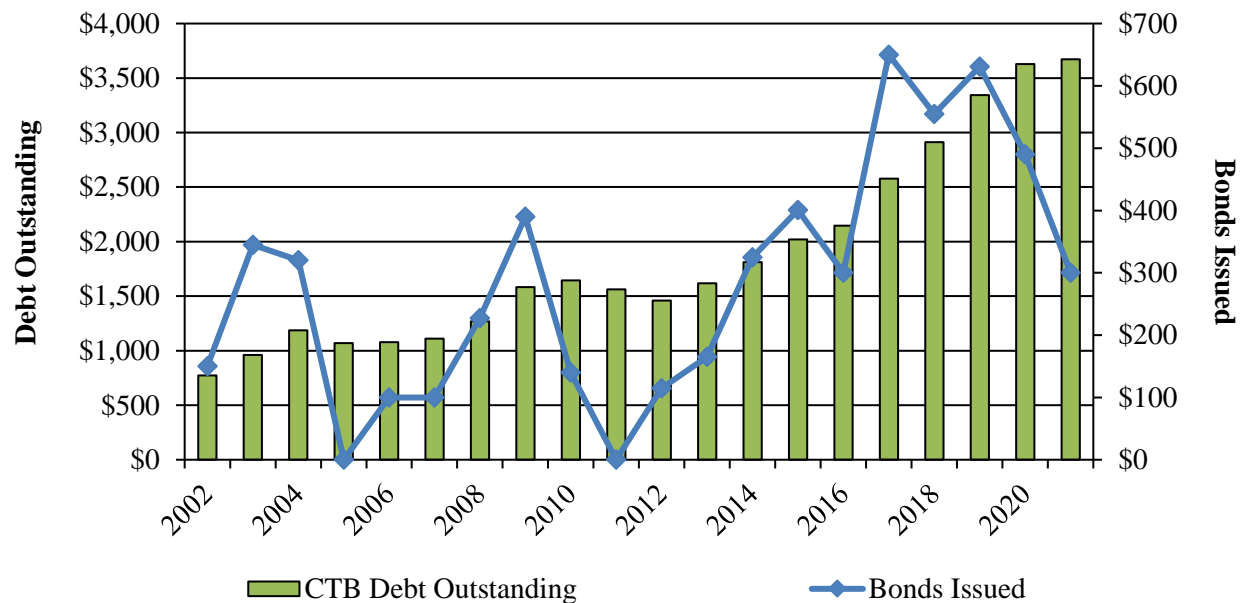
Section 3-202(c) of the Transportation Article further requires the General Assembly to establish each year in the State budget the maximum unpaid principal balance in bonds that may be outstanding at the end of the forthcoming year. The fiscal 2022 Budget Bill set the maximum ceiling for June 30, 2022, at \$3,675,580,000. DLS estimates that as of June 30, 2022, debt outstanding will total \$3,650,980,000.

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, 2022, MDOT will have net income coverage of 3.3 and pledged taxes coverage of 4.7.

MDOT has issued new (*e.g.*, nonrefunding) consolidated transportation bonds in 18 of the last 20 years, with the only exceptions being in 2005 and 2011.

Exhibit 3.8 illustrates annual bond sales and changes in debt outstanding from fiscal 2002 to 2021. In fiscal 2021, MDOT's net debt outstanding was \$3.7 billion, well under the \$4.5 billion debt outstanding debt limit.

Exhibit 3.8
Maryland Department of Transportation
Bonds Issued and Net Debt Outstanding
Fiscal 2002-2021
(\$ in Millions)



CTB: consolidated transportation bond

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 therefore not to be considered 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 \$219,888,000 to refund debt previously issued for certain projects at BWI Marshall Airport. In July 2021, MDOT issued \$190,485,000 in new money bonds to fund construction of the Concourse A and B Connector and Baggage Handling System Replacement project at BWI Marshall Airport.

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, DLS estimates that there is capacity for a small increase in the amount of debt that may be issued during the six-year forecast period. Following is a discussion of the differences between the DLS and MDOT forecasts with respect to revenues, spending, and the planned level of debt issuances.

Total six-year revenues in the DLS forecast are a net \$94.4 million higher than projected by MDOT. DLS projects titling tax revenues will grow at an average annual rate of 1.4% over the forecast (compared to the 1% rate assumed by MDOT) resulting in an additional \$136.3 million over the forecast period. This additional revenue in the DLS forecast is slightly offset by lower motor fuel tax revenue projections over the six-year forecast totaling \$46.2 million.

On the spending side of the equation, the DLS forecast assumes \$139 million in higher operating expenses over the six-year forecast with spending growing at a 3.5% average annual rate compared to 3.3% in the MDOT forecast.

The DLS and MDOT forecasts both assume that the MDOT administrative policy of maintaining a minimum debt service coverage ratio of 2.5 (net income to maximum debt service) is adhered to throughout the forecast. The higher DLS revenue estimates allow for an increase of 5% in the amount of debt (\$66.5 million) that can be issued over the six-year period without breaching the debt service coverage ratio minimum. **Exhibit 3.9** shows the planned level of debt issuances, debt outstanding, debt service, and net income debt service coverage ratios included in the DLS six-year forecast.

Exhibit 3.9 Consolidated Transportation Bonds Fiscal 2022-2027 (\$ in Millions)

<u>Fiscal Year</u>	<u>Issued</u>	<u>Outstanding</u>	<u>Debt Service</u>	<u>Net Income Debt Service Ratio</u>
2022	\$295	\$3,651	\$432	3.3
2023	0	3,221	480	3.7
2024	410	3,435	438	3.6
2025	257	3,378	455	3.0
2026	357	3,425	448	2.8
2027	310	3,385	486	2.5
Total	\$1,275	\$20,204	\$2,655	

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

Source: Maryland Department of Transportation; Department of Legislative Services

Conclusions and Recommendations on Transportation Debt

MDOT competes with other State capital projects within debt affordability limits. Transportation debt capacity is limited by the constraints on debt outstanding, debt service coverage, the cash flow needs for projects in the capital program, and overall State debt affordability limits. The lower projected transportation debt issues during this forecast period result in more capacity for the issuance of other types of State tax-supported debt than in recent years. As revenues return to prepandemic levels, however, the capacity to issue transportation debt will increase and will need to be managed within the context of overall State tax-supported debt limits. **It is recommended that the General Assembly continue to set an annual limit on the level of State transportation debt to keep debt outstanding within the 4% of personal income debt affordability criterion and debt service within the 8% of revenues affordability criteria.**

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 years 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 BPW and that the Legislative Policy Committee (LPC) has 45 days to review and comment on any capital lease prior to submission to BPW. Chapter 479 of 2008 further regulates capital leases by amending § 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 be for less than the entire economic life of the equipment. Equipment leases are especially attractive in an environment where technology is changing very rapidly. Leases may also be written with a cancellation clause that would allow the State to cancel the lease if the equipment 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 advantages of property leases, when compared to GO bonds, are that they allow the State to act more quickly if an unanticipated opportunity presents itself. Because of the extensive planning and legislative approval process involved in the State's construction program, it often takes years to finance a project. Lease agreements are approved by BPW after they have been reviewed by the budget committees. Since BPW and the budget committees meet throughout the year, leases may be approved much more quickly than GO bonds, which must be approved by the entire General Assembly during a legislative session. Therefore, property leases give the State the flexibility to take advantage of economical projects 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 3.10 shows that projected tax-supported capital lease debt outstanding totals \$177 million as of June 30, 2021. Debt service costs are projected to be \$29 million in fiscal 2021. This excludes EPCs for the Ravens and Orioles stadiums that are included in the MSA totals. The last payment for the MDOT headquarters building is in fiscal 2022.

Exhibit 3.10
Tax-supported Capital Lease Debt Outstanding and Debt Service
 (\$ in Millions)

<u>State Agency/Facility</u>	<u>Debt Outstanding June 2021</u>	<u>Debt Service Fiscal 2021</u>
State Treasurer's Office		
Capital Equipment Leases	\$9.1	\$4.5
Energy Performance Projects ¹	6.3	2.7
Maryland Department of Transportation		
Headquarters Office Building	2.7	2.8
Airport Shuttle Buses	21.1	2.1
Department of General Services		
Prince George's County Justice Center	11.3	1.5
Maryland Transportation Authority		
Annapolis State Office Parking Garage	14.6	1.5
Maryland Department of Health		
Public Health Laboratory	111.7	14.0
Total	\$176.7	\$29.0

¹ Energy performance leases include one University of Baltimore project, which is not State debt, and two Maryland Stadium Authority projects that are included in the stadium authority debt when analyzing affordability in Chapter 4.

Source: State Treasurer's Office

Energy Performance Contracts

Chapter 163 of 2011 changed how the State classifies EPCs. Prior to the enactment of the legislation, § 8-104 of the State Finance and Procurement Article required that all capital leases supported by State tax revenues be included in State debt calculations. In 2010, CDAC reviewed this issue and determined that most of these EPC leases yielded savings that exceeded the lease payments. Consequently, these tend to reduce total State spending. STO also surveyed other states about their practices. It is common practice for other states to exclude capital leases that realize savings in excess of the capital cost.

The legislation that was passed 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 19 projects are excluded from CDAC calculations. Debt outstanding at the end of fiscal 2021 was \$64.1 million, and fiscal 2021 debt service totaled \$15.4 million.

Exhibit 3.11 shows that five EPC projects are included as capital leases. The university project is not State debt, the MSA projects are included in the MSA debt, and the two other projects are included in the leasing affordability calculation in Chapter 4.

Exhibit 3.11
Tax-supported Energy Leases Lacking Surety Guarantee
Fiscal 2021
(\$ in Thousands)

<u>Agency</u>	<u>Status</u>	<u>Debt Outstanding as of June 30, 2021</u>	<u>Debt Service</u>
University of Baltimore	Non-State Debt	\$1,883	\$649
Department of Veterans Affairs	State Debt	186	57
Maryland Stadium Authority for Ravens Stadium	State Debt	379	263
Maryland Stadium Authority for Orioles Stadium	State Debt	1,012	716
Maryland Port Administration	State Debt	2,888	964
Total		\$6,348	\$2,650

Source: State Treasurer's Office

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 meet at least one of the following criteria are considered to be 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 into are not considered to be capital leases. Even if the leases represent long-term 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 Lease Accounting Rules Are Postponed

In 2013, GASB initiated a project to reexamine issues associated with lease accounting. The objective of the project was to examine whether operating leases can meet the definitions of assets or liabilities, which could result in new standards for capital leases. A concern was that the current approach to operating leases undervalues liabilities. For example, there are a number of operating leases that include long-term commitments to make payments, but no liabilities are reported.

After much deliberation, GASB unanimously approved Statement 87 that redefines lease rules. The requirements of the proposed statement would be effective for reporting periods beginning after December 15, 2019, with earlier application permitted. In response to the coronavirus pandemic, GASB 95 postponed the effective date by 18 months to June 15, 2021. This affects fiscal 2022, the first fiscal year after the effective date.

New Rules Require Government 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 would amortize the leased asset over the term of the lease and recognize interest expense related to the lease liability. The exposure draft provides exceptions for short-term leases lasting 12 months or less, along with financed purchases.

The new rules would increase the amount of capital leases, but it is unclear to what extent. In response to narrative in the fiscal 2019 *Joint Chairmen's Report* (JCR), 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. This estimate is 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 would adopt GASB 87. For example, State debt measures only include debt supported by State revenues. It is likely that some share of these leases is not supported by State revenues. State agencies should examine leases in detail to more accurately report leases under the GASB guidelines.

Since the new guidelines increase the amount of capital leases, the guidelines affect the debt affordability calculations. In the 2019 interim, a study group that included STO, the Comptroller's Office, DBM, MDOT, and DLS examined how the new guidelines would affect debt affordability. The group recognized that the State cannot accurately determine total debt service and debt outstanding under the new guidelines at this time and recommended that the State maintain the current practice and reexamine this subject.

One issue is that the State has entered into hundreds of small leases, which all require amortization tables to correctly estimate debt outstanding. To do this, the State would need to build a larger administrative infrastructure, which could divert resources from other functions at a time that revenue estimates have been revised downward. One approach could be to exclude leases with an estimated debt outstanding below a certain threshold. This would simplify the administrative process and still acknowledge large leases.

The new GASB guidelines have been delayed due to the COVID-19 pandemic so that the effective date is delayed to fiscal years beginning after June 30, 2022. **DLS recommends that CDAC examine the effect of the new GASB guidelines in 2022 and develop a policy in response to the new GASB guidelines.**

Bay Restoration Bonds

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), which are defined as WWTPs with a design capacity of 0.5 million gallons per day or greater. The fund is administered by MDE's Water Quality Financing Administration. 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). The fees on WWTP users (and users receiving public drinking water) took effect January 1, 2005, and are being collected through water and sewer bills. The fees on septic system and sewage holding tank owners took effect October 1, 2005, and are being collected by the counties. 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.

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. The bond counsel noted that there is a substantial likelihood that, if challenged in court, the Maryland courts would consider bay bonds to be State debt, since the bonds are supported by an involuntary exaction that serves a general public purpose.

Fund Balance Status

DLS has noted a substantial BRF balance in recent years. Committee narrative in the 2020 JCR noted that the budget committees were concerned that MDE had not provided sufficient information about the accounting of the BRF Wastewater Account to understand the cash flow needs of the program. Therefore, the budget committees requested that MDE submit an electronic editable cash flow spreadsheet for the BRF with the fiscal 2022 budget submission and annually thereafter. The spreadsheet was requested to reflect fund balance information that takes into account all commitments and obligations made by MDE on the use of the BRF and to include the following schedules: (1) capital project costs; (2) revenues and expenditures; and (3) revenue bond debt issuance and debt service.

The submitted spreadsheet was inadequate to the task of understanding the cash flow needs of the program. This was due partially to information in the spreadsheet being dated as well as inherent uncertainties about future revenues, encumbrance levels, and expenditures. DLS requested an updated version of the spreadsheet for this report but has not received this updated spreadsheet as of November 2021. The most recent data provided by the Office of the Comptroller shows that the BRF closing balance increased from \$116.1 million in fiscal 2020 to \$132.9 million in fiscal 2021.

Revenue Bond Schedule

Based on the current priority list and estimated capital cost of ENR upgrades, the 2021 CIP schedule of \$75 million annually from fiscal 2022 through 2026, and revenue uncertainties, there currently is no need to issue \$100 million of revenue bonds in fiscal 2023, although MDE is keeping the option open due to the availability of favorable issuance terms, the amount of existing commitments, the future demands for project funding, and additional funding being transferred from the BRF Wastewater Account. Therefore, MDE retains the authorization of \$590 million in revenue bonds and will have a total of \$330 million of revenue bonds supported by the BRF. While the BRFA of 2017 (Chapter 23) expanded the eligible uses of the BRF to include Biological Nutrient Removal (BNR)² projects and authorized the use of up to \$60 million of tax-supported BRF revenue bonds for this purpose, which increased the overall revenue bond authorization from \$530 million to \$590 million, as noted above, MDE's projected total issuance need is now \$330 million which, when combined with the fee revenues deposited into the fund, is projected to be sufficient to cover fund expenses.

² The BRFA of 2017 (Chapter 23) authorized the use of up to \$60 million of tax-supported revenue bonds and the funds in the BRF to fund BNR projects. Chapters 368 and 369 of 2017 (Bay Restoration Fund – Eligible Uses – Expansion) permanently expanded the allowable uses of the BRF to include BNR projects.

Based on the current issuance stream, the debt outstanding peaked at \$301.6 million in fiscal 2016 and then has decreased steadily over the time period shown in **Exhibit 3.12**. Debt service costs increased to \$31.8 million in fiscal 2021. 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 reduced to \$30 per year. This would limit the final issuance to a seven-year maturity if bonds are issued in fiscal 2023. Therefore, based on current law and project schedules reported in the 2021 CIP, and revenue uncertainties, it does not appear necessary or prudent to issue the \$100 million in revenue bonds in fiscal 2023, and DLS does not forecast that these bonds will be issued under current laws and policies.

Exhibit 3.12
Bay Restoration Wastewater Treatment Fund
Fiscal 2021-2027
(\$ in Millions)

	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
Debt Outstanding	\$209.7	\$186.2	\$161.6	\$140.4	\$118.1	\$94.7	\$70.4
Debt Service	31.8	31.8	31.8	27.2	27.2	27.1	27.3

Source: Maryland Department of the Environment

As noted above, MDE does not plan on issuing the full \$590 million authorization in revenue bonds. MDE has reported in the past that the decrease in overall revenue bond issuances from \$590 million to \$330 million and the shift in the timing of issuances is at least partially attributable to the fact that more cash has been used in place of debt as a result of changed assumptions about local government reimbursement schedules. The Septic Fund is operated on a pay-as-you-go basis and does not involve revenue bond proceeds.

Prioritization

As of fiscal 2022, the funding schedule, in order of priority, is as follows:

- **Debt Service:** payment of debt service on outstanding bonds;
- **Operation and Maintenance Grants:** operation and maintenance grants to certain owners of WWTPs that are operating at or above ENR levels to partially offset the cost of operation and maintenance using up to 10% of fees collected annually;

- **Operating Expenses:** reasonable operating expenses to administer the account (up to 1.5% of account funds);
- **Major WWTP:** funding an upgrade of a wastewater facility with a design capacity of 0.5 million gallons or more per day from no upgrade all the way to ENR per Chapters 368 and 369;
- **Minor WWTP:** funding for the most cost-effective ENR upgrades at WWTP with a design capacity of less than 0.5 million gallons per day from no upgrade all the way to ENR per Chapters 368 and 369;
- **Atlantic and Coastal Bays WWTP Upgrades:** funding up to 100.0% for ENR upgrades at WWTPs that discharge into the Atlantic Coastal Bays or other waters of the State;
- **Additional Improvements WWTP Upgrades:** funding future upgrades of WWTPs to achieve additional nutrient removal or water quality improvement that is greater than ENR treatment levels;
- **Additional Project Types:** funding up to 87.5% of the cost for combined sewer overflows abatement, rehabilitation of existing sewers, and upgrading conveyance systems, including pumping stations;
- **Septic Systems and Sewage Holding Tanks:** costs associated with upgrading septic systems and sewage holding tanks;
- **Stormwater:** funding up to 50% for grants for local government stormwater control measures – including projects relating to water quality, climate resiliency, or flood control per Chapter 44 of 2020 – for jurisdictions that have implemented a specified system of charges under current authority, and
- **Stormwater Alternative Compliance Plans:** funding up to 100% for stormwater alternative compliance plans.

In addition to the funding schedule noted above, there were changes made in the 2021 legislative session that impact how the BRF is used. Chapter 150 of 2021 (BRFA of 2021) includes a provision limiting funding to upgrade private owned WWTPs to ENR to 50% of the eligible costs of the planning, design, construction, and upgrade. This change impacts the “Major WWTP” and “Minor WWTP” funding prioritizations noted above. In addition, legislation passed during the 2021 legislative session implemented two mandatory distributions from the BRF, which may only happen after funding any cost-effective minor WWTP upgrades, as follows:

- **Clean Water Commerce Act:** Chapters 694 and 695 of 2021 (Clean Water Commerce

Act), beginning in fiscal 2022, transfer \$20 million annually to the Clean Water Commerce Account to purchase environmental outcomes in support of the State's efforts to achieve the Chesapeake Bay Total Maximum Daily Load; and

- **Tree Solutions Now Act:** Chapter 645 of 2021 (Tree Solutions Now Act), in fiscal 2023 only, transfers to (1) the Chesapeake Bay Trust's Urban Trees Program (\$10 million); (2) DNR's Chesapeake and Atlantic Coastal Bays 2010 Trust Fund (\$2.5 million); and (3) MDA for tree plantings under the Conservation Reserve Enhancement Program and other tree-planting programs on agricultural land (\$2.5 million).

Revenue Fluctuation from Fiscal 2019 to 2021

MDE tracks BRF revenues on a cash basis. **Exhibit 3.13** shows that, since the fee was increased to \$60, annual collections have fluctuated from year to year. MDE advises that the revenue decline in fiscal 2019 was partially due to a ransomware attack in Baltimore City that interrupted collections. Therefore, the fiscal 2019 revenue collection, which was only \$107.5 million, was anticipated to be shifted to fiscal 2020. This is largely in fact what happened as the fiscal 2020 revenues came in at \$121.2 million. The average of the fiscal 2019 and 2020 revenues is \$114.4 million, which is roughly on par with the \$115.3 million received in fiscal 2018.

Exhibit 3.13
Bay Restoration Fund Revenues
Fiscal 2013-2021
(\$ in Millions)

<u>Fiscal Year</u>	<u>Revenues</u>	<u>Change</u>	<u>Percent Change</u>
2013	\$102.1		
2014	110.7	\$8.5	8.4%
2015	109.8	-0.9	-0.8%
2016	124.3	14.5	13.2%
2017	116.0	-8.3	-6.7%
2018	115.3	-0.7	-0.6%
2019	107.5	-7.8	-6.7%
2020	121.2	13.6	12.7%
2021	98.1	-23.1	-19.1%

Source: Maryland Department of the Environment

While revenue declines are not unprecedented, the fiscal 2021 decline is unusually large. The concern is that the decline could have long-term implications for the BRF depending on the underlying reason for the decline. Part of the challenge of reconciling the BRF revenue decline is

that different agencies track revenues differently. MDE tracks BRF revenues on a cash basis, while the Comptroller's Office tracks revenues on an accrual basis. This cash basis may add to the variability of the collections from year to year since collections could be affected by additional external events, like the Baltimore City ransomware attack.³ There appear to be the following three main possible reasons, all related to the COVID-19 pandemic, for the decline:

- **Timing of Payments:** The Comptroller issued a January 6, 2021 Tax Alert extending the due date for bay restoration fees to April 15, 2021. This extension was for bay restoration fees due on January 20, 2021, for the fourth quarter of tax year 2020. It is possible that either the compliance entities or the counties have not remitted these payments yet to the Comptroller.
- **Telework and School Closure Impacts on the Revenue Base:** Commercial and educational institutions (schools and universities) were closed roughly from March 2020 to March 2021 – one-quarter of fiscal 2020 and three-quarters of fiscal 2021. This is important because while residential BRF fee collection is a flat \$60 per household, nonresidential rates – commercial and educational institutions – are based on gallons of usage. Therefore, it is possible that there was a loss of up to three-quarters of the nonresidential BRF fee revenue in fiscal 2021.
- **Hardship Exemptions:** Statute authorizes billing authorities to establish financial hardship exemption programs for certain residential dwellings that demonstrate substantial financial hardship, subject to MDE approval. For instance, Baltimore City instituted a hardship exemption on April 22, 2020, which was to remain effective until either 90 days after the end of the current state of emergency or on December 31, 2020, whichever occurred first. MDE notes that it does not have data on the number and dollar amount of hardship exemptions, but it has noted in the past that there were 128 billing authorities with hardship exemptions and that the level of use of these exemptions had been consistent over time and has not increased substantially during the COVID-19 pandemic. Although there is a potential indeterminate loss of BRF revenues from hardship exemptions, it is expected to be a relatively small loss.

The full explanation for why the fiscal 2021 BRF revenue declined may only be determined by a year-to-year comparison of actual payments by individual account holders. Of the three explanations noted above, though, the two that are most likely are the timing of payments and the telework and school closure impacts. If the timing of payments explanation is the primary reason for the revenue decrease, then this could be a one-time revenue decline that will be remedied as soon as back payments are made. However, if the telework and school closure impacts explanation is the primary reason, then this could be more of a long-term and worrisome outcome because recent teleworking changes may mean that people never fully return to their work locations and, thus, there could a permanent decrease in the BRF fee base.

³ For the CDAC calculation, CDAC has been using MDE's cash collections.

It is recommended 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 criteria. In addition, it is recommended that MDE update the General Assembly during the 2022 session on the impact of payment delays, telework, and local financial hardship exemptions on BRF revenues. DLS also recommends against issuing any new bonds until reasons for declining revenues in fiscal 2021 are understood. DLS also notes that the original purpose of the BRF to upgrade the 67 major WWTPs has been sufficiently funded and, therefore, no additional revenue bond issuances are required to meet the goals of this legislation.

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 subsequent years, MSA's role was expanded to include managing and issuing revenue bonds to renovate and expand convention centers in Baltimore and Ocean City, construct a conference center in Montgomery County, renovate the Hippodrome Performing Arts Center, and renovate Camden Station. 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; and (3) up to \$375 million for horse racing and community development. The Baltimore City school debt, statewide school debt, and racing debt is not considered a debt of the State. **Exhibit 3.14** 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 3.14
Maryland Stadium Authority
Revenue Debt Authorizations, Debt Outstanding, and Debt Service
(\$ in Thousands)

<u>Project</u>	<u>Revenues Supporting Debt</u>	<u>Authorized</u>	<u>Outstanding as of June 30, 2021</u>	<u>Debt Service Fiscal 2021</u>
State Debt				
Baseball and Football Stadiums ¹	Lottery and MSA	\$235,000	\$78,901	\$12,268
Hagerstown Multi-Use Sports and Events Facility	General Fund	59,500	0	0
Montgomery County Conference Center	General Fund	23,185	4,240	1,556
Baltimore City Convention Center	General Fund	55,000	0	0
Ocean City Convention Center	General Fund	24,500	20,915	918
Hippodrome Performing Arts Center	General Fund and Ticket Surcharge	20,250	1,545	1,579
Camden Station ¹	Lottery and MSA	n/a	2,870	757
Subtotal		\$417,435	\$108,471	\$17,079
Non-State Debt				
Baseball and Football Stadiums ¹	Lottery and MSA	n/a	\$7,095	\$2,081
Baltimore City Public Schools	Lottery, Baltimore City, State grants to Baltimore City	\$1,100,000	978,525	59,998
Built to Learn	ETF	2,200,000	0	0
Horse Racing Facilities	Lottery	375,000	0	0
Supplemental Facilities Fund	MSA	25,000	0	0
Subtotal		\$3,700,000	\$985,620	\$62,080
Total		\$4,117,435	\$1,094,091	\$79,158

ETF: Education Trust Fund

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. Total debt is limited to \$235 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 State debt 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 the revenues. The bonds are discussed in more detail later in the chapter.

Lottery Revenues

There are three commitments supported by lottery⁴ revenues:

- The first one is for Camden Yards and the baseball and football stadiums with a \$20 million 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.
- The second lottery commitment is for Baltimore City Public Schools (BCPS) with a \$20 million cap. The financing fund is the pledge to the bondholders. These are parity bonds.
- The third lottery commitment is for the Racing and Community Development Fund with a \$17.5 million cap. This will be structured the same as BCPS bonds with the financing fund being pledged to the bondholders. These will be parity bonds.

MSA Revenues

Since lottery revenues for the stadiums and Camden Yards are capped at \$20 million, MSA's revenues are used to support debt service if the debt service exceeds \$20 million. Stadium authority debt is expected to be \$15 million in fiscal 2021 and 2022, so no general fund appropriations are needed. MSA revenues can also be used to support the Supplemental Facilities Fund.

General Fund and Hippodrome Ticket Surcharge

Issuances for the Baltimore City Convention Center, Ocean City Convention Center, Montgomery County Convention Center, Hippodrome Performing Arts Center, and Hagerstown Multi-Use Sports and Events Facility are supported by general fund appropriations to MSA. The Hippodrome's debt service is partially offset by a \$2 per ticket surcharge for events at the Hippodrome.

⁴ In October 2020, BRE estimates that fiscal 2021 lottery revenues total \$572 million. Lottery sales have exceeded expectations, so BRE increased its estimate by \$7 million over the prepandemic estimate from March 2020.

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 beginning in fiscal 2022. Chapter 20 was contingent on the enactment of the Blueprint for Maryland's Future (House Bill 1300 of 2020), which the Governor vetoed. The veto was overridden, but not until after the budget bill was introduced, so the initial payment into the supplemental financing fund is in fiscal 2023. Annual deposits are \$60 million in fiscal 2023, \$125 million in fiscal 2024 and subsequent years, and \$100 million beginning in fiscal 2026 if Prince George's County enters into a public-private partnership (P3) to construct schools.

Impact of the COVID-19 Pandemic

While revenues supporting MSA issuances have fluctuated, most have remained fairly steady during the pandemic. Lottery revenues, which support stadiums and Baltimore City Schools, declined just under 1% in fiscal 2020 and then increased by over 15% in fiscal 2021. General fund revenues, which support convention centers, increased modestly (2.4%) in fiscal 2020 and then increased substantially (11.8%) in fiscal 2021.

A large share of MSA revenues is derived from admissions fees charged to fans attending Baltimore Orioles and Ravens games. Closing the stadium in 2020 led to a drop in MSA revenues, which largely support MSA operations but also support some revenue bonds. To address the shortfall, the General Assembly approved \$8.5 million in fiscal 2020 deficiency appropriations. This is a clear message that the State supports the commitments made by MSA.

State Debt Issuances

Camden Yards Sports Complex

Provisions of the Financial Institutions Article limit 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. During the construction of the baseball and football stadiums, MSA remained within the statutory limit of \$235 million in outstanding debt; however, BPW has, on several occasions, reallocated

the specific statutory project limits to meet the cash flow needs of the construction efforts. Debt service is supported by lottery revenues. The most recent issuance was \$55 million in May 2019.

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 expects to issue \$56.7 million in 30-year bonds for the facility in January 2022. The sale is expected to generate a substantial premium. The project will also use \$10.5 million in additional appropriations from the State of Maryland. The project budget is \$12.5 million of site acquisition, \$3 million for design and engineering, and \$66.6 million for construction. The Authority will own and the State will lease with the annual lease sufficient to pay debt service. Upon substantial completion of the project, MSA will convey title to the Hagerstown-Washington County Industrial Foundation, and State revenues will flow into the financing fund. This foundation will operate the facility.

Montgomery County Conference Center

In July 2003, MSA issued \$23.2 million in tax-supported bonds to support construction of the Montgomery County Conference Center. Of this amount, \$20.3 million represents the State's contribution to construction costs that totaled \$66 million. The remaining bond proceeds funded a capitalized interest account established as part of the financing plan to fund interest-only debt service payments beginning on June 15, 2003, and continuing through June 15, 2004. Debt service payments thereafter and continuing through June 15, 2024, are paid from funds subject to appropriation by the State. Montgomery County contributed \$13.7 million for construction and another \$2.5 million for project-related enhancements. The project opened in 2004. In 2012, MSA submitted an Amended Comprehensive Plan of Financing for the center to refund the existing issuance at a lower rate. The bonds will retire in fiscal 2024.

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. 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 \$2.6 million from fiscal 2022 through 2039. Complications at the site slowed design and delayed this project so that no bonds have been issued as of October 2021. MSA advises that it has sent some revised plans to the city,

which is reviewing the plans. The timing of project construction or any bond issuances is unclear at this time.

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 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 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.

Hippodrome Performing Arts Center

On July 10, 2002, the authority issued \$20.25 million in taxable revenue bonds for the renovation of the Hippodrome Performing Arts Center in Baltimore City. The total cost of the Hippodrome project was \$63 million, excluding capitalized interest expense. Funding for the project was provided by the State, MSA revenue bonds, Baltimore City, Baltimore County, private contributions, the performing arts center's operator, historic tax credits, and interest earnings. The project was completed in February 2004.

The Hippodrome is leased to the State and, subsequently, leased back to MSA. The rent paid under the lease by the State is equivalent to the debt service on the revenue bonds and is derived from the State's General Fund. Debt service payments are subject to appropriation and were averaging \$1.8 million annually for the 20-year term of the bond. The debt service is partially offset by a \$2 per ticket surcharge for events at the Hippodrome that is required by legislation authorizing the project. The bonds will be retired in fiscal 2022.

Camden Station

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

In February 2004, MSA issued \$8.7 million in 20-year taxable revenue bonds to renovate Camden Station. Of that amount, \$8 million is to pay for 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 issues bonds to support baseball and football stadiums, Baltimore City school construction, the statewide public school construction program, and horse racing facilities that is not considered to be State debt.

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

Since 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 2012, MSA issued approximately \$105 million in fixed-rate lease revenue bonds that were used to refund the 1998 and 1999 variable-rate bonds. This transaction eliminated exposure risks and some annual fees associated with the current variable-rate debt. MSA also issued \$55 million in 2019 to support improvements to the M&T Bank Stadium and Camden warehouse.

While the State does not consider this to be State debt, this interpretation of State debt is not universal. For example, Moody's 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, and this is one factor that results in a lower calculation by CDAC than Moody's.

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 bill. The legislation 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 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 City Convention Center or the Hippodrome Performing Arts Center in Baltimore City. Debt issued is not a debt of the State, MSA, or other governmental unit. MSA has not issued any Supplemental Facilities Fund bonds or identified any specific facilities as of October 2021.

Baltimore City School Revitalization Program

In 2013, the General Assembly adopted House Bill 860 (Chapter 647) authorizing 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 the video lottery facility located in Baltimore City that are dedicated to school construction and 10% of the participation rent paid by the video lottery facility operator to Baltimore City;
- \$10 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 million in annual proceeds from the State lottery (beginning in fiscal 2016);
- \$10 million diverted from State education aid to BCBSC in fiscal 2016 and \$20 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.

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 annual debt service is approximately \$20.8 million.

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 million premium that supports construction. The annual debt service costs total \$48.1 million. MSA anticipates a third sale totaling \$200 million. After all three issuances, debt service costs are expected to be \$60 million, which is consistent with the amount of revenues supporting these projects.

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. Total annual debt service costs are limited to \$60 million, and debt service costs from prior sales totaled \$48 million. 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.

Racing and Community Development Act of 2020

The Racing and Community Development Act (Chapter 590 of 2020) authorizes 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. The bonds support improvements to both facilities, including the clubhouse, racetracks, stables and barns, and associated roads and walkways. The Pimlico site will be conveyed to Baltimore City, the Baltimore Development Corporation, or a designated entity. The legislation requires that the Preakness Stakes remain at Pimlico. There is no change in the ownership of Laurel, and the Maryland Million will be held at Laurel Park.

The bill requires that a minimum of \$180 million support Pimlico and \$155 million support Laurel Park. BPW approval is required prior to any bond issuance, and MSA must provide the fiscal committees financing plans 45 days prior to BPW approval.

The Racing and Community Development Financing Fund is established as a revolving fund for implementing provisions of law concerning racing and community development projects and for the payment of debt service expenses incurred by MSA, or otherwise approved by MSA, concerning the projects. The fund will issue 30-year bonds. Beginning in fiscal 2022, the bill requires the transfer of \$17 million from the State Lottery Fund to the Financing Fund for each fiscal year until the bonds issued for a racing facility have matured. MSA anticipates issuing \$331 million by fiscal 2022. As of October 2021, no debt has been issued.

Built to Learn Act of 2020

The Built to Learn Act (Chapter 20 of 2020) and Built to Learn Act – Revisions (Chapter 698 of 2021) establish 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 beginning in fiscal 2022, for public school construction projects in the State, including to support

a possible P3 agreement for Prince George's County. The legislation also expands school construction costs eligible for State funding and increases or establishes new mandated State funding for other public school construction programs.

MSA's first issuance was in October 2021. The par value was \$257 million, and the sale generated a net premium of \$36 million. The project fund received \$286 million, and \$6 million was deposited into a capitalized interest fund to support the first debt service payment in June 2022. The first deposit into the Supplemental Public School Construction Financing Fund from the ETF is not until November 2022, so the capitalized interest fund was required to make the first debt service payment. MSA anticipates issuing another \$1.5 billion in bonds with one issuance each year. The authority advises that the size of these issuances will be determined by the need as determined by projects approved by the Interagency Commission on School Construction prior to the bond sale.

Local Project Assistance and Feasibility Studies

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

Several studies are currently in various stages of completion by the authority. Studies that MSA is currently conducting include constructing a Prince George's County tennis complex, the St. Mary's County Outdoor Field Complex and Indoor Field House, and the Ocean City Outdoor Field Complex and Indoor Field House as well as renovating and expanding the Wicomico Civic Center.

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

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.

Personal Income

Exhibit 4.1 shows the official Board of Revenue Estimates (BRE) September 2021 personal income estimates. BRE expects personal income to increase modestly in 2022 and then increase more robustly after 2023. In spite of the slow growth in 2022, the average growth rate from 2021 to 2027 is 3.4%. The slowdown in 2022 is attributable to reduced transfer payments from the federal government. In response to the COVID-19 pandemic, the federal government enacted legislation¹ that provided additional transfer payments to individuals. These payments are not expected in 2022.

Revenue Projections

Exhibit 4.2 shows the out-year revenue projections through fiscal 2027. General fund, transfer tax, and Blueprint for Maryland's 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).

¹ The Coronavirus Aid, Relief, and Economic Security Act of 2020 provided up to \$1,200 per eligible individual and \$2,400 per eligible couple, and the American Rescue Plan Act of 2021 provided up to \$1,400 per eligible individual and \$2,800 per eligible couple. The legislation also provided enhanced unemployment benefits.

Exhibit 4.1
Maryland Personal Income
Calendar 2021-2027
(\$ in Billions)

Personal Income		
<u>Year</u>	<u>Estimate</u>	<u>% Change</u>
2021	\$426	5.25%
2022	427	0.25%
2023	444	4.11%
2024	463	4.25%
2025	483	4.19%
2026	502	3.91%
2027	521	3.94%

Source: Board of Revenue Estimates

Exhibit 4.2
Revenue Projections
Fiscal 2022-2027
(\$ in Millions)

<u>Fiscal Year</u>	<u>General Funds</u>	<u>Property Tax</u>	<u>Other ABF</u>	<u>Blueprint</u>	<u>Transfer Taxes</u>	<u>TTF</u>	<u>Stadium</u>	<u>BRF</u>	<u>Total</u>
2022	\$21,096	\$914	\$309	\$671	\$283	\$4,083	\$15	\$110	\$27,482
2023	22,246	931	213	611	298	4,007	15	112	28,431
2024	23,389	947	158	643	317	3,796	14	113	29,376
2025	24,238	956	69	686	322	3,823	13	114	30,221
2026	25,197	967	5	734	322	3,897	11	115	31,249
2027	25,873	978	3	784	322	3,970	3	116	32,050

ABF: Annuity Bond Fund

BRF: Bay Restoration Fund

TTF: Transportation Trust Fund

¹ 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; Capital Debt Affordability Committee; State Department of Assessments and Taxation; Department of Legislative Services

The 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. As mentioned in Chapter 3, DLS TTF estimates are slightly higher than the Maryland Department of Transportation estimates. DLS State property tax estimates use the State Department of Assessments and Taxation's fiscal 2022 to 2024 property base estimates to derive its estimates. Other ABF revenues are primarily federal funds and anticipated bond premiums, which DLS estimates using interest rate estimates from Moody's Analytics and IHS Markit.

Affordability Analysis

DLS has prepared a revised estimate of State debt outstanding to personal income and State debt service to revenues. This analysis assumes a fiscal 2023 general obligation (GO) bond authorization totaling \$1.115 billion. This is consistent with the debt levels recommended by CDAC and the Spending Affordability Committee (SAC) in their 2020 reports for fiscal 2023. CDAC has revised its recommendation to reduce the fiscal 2023 recommendation to authorize \$900 million. The impact of this recommendation is discussed later in this chapter.

Exhibit 4.3 shows affordability calculation assumptions for GO bond authorizations, transportation bonds, capital leases, and MSA.

Exhibit 4.3
Projected New Debt Issuances
Fiscal 2022-2027
(\$ in Millions)

	<u>General Obligation Bond Authorizations</u>	<u>General Obligation Bond Issuances</u>	<u>Transportation Bonds</u>	<u>Capital Leases</u>
2022	\$1,105	\$1,065	\$295	\$14
2023	1,115	1,068	0	51
2024	1,125	1,091	410	22
2025	1,135	1,102	257	15
2026	1,145	1,104	357	15
2027	1,155	1,144	310	15

Source: Maryland Department of Transportation; State Treasurer's Office; Maryland Stadium Authority; Department of Legislative Services

CDAC policy is that tax-supported State debt outstanding not exceed 4% of personal income. **Exhibit 4.4** shows that for the forecast period, debt outstanding as a percent of personal income peaks at 3.31% in fiscal 2022 as the ratio steadily declines.

Exhibit 4.4
State Tax-supported Debt Outstanding
Components and Relationship to Personal Income
Fiscal 2022-2027
(\$ in Millions)

	General Obligation Bonds	Transportation Bonds	Capital Leases	Stadium Authority Bonds	Bay Restoration Bonds	Total Tax-supported Debt
2022	\$10,027	\$3,651	\$165	\$96	\$186	\$14,126
2023	10,108	3,321	183	85	162	13,859
2024	10,193	3,435	168	73	140	14,010
2025	10,219	3,378	136	63	118	13,914
2026	10,266	3,425	106	52	95	13,943
2027	10,369	3,385	87	49	70	13,960

State Tax Supported Debt Outstanding as a Percent of Personal Income
(Affordability criteria = 4.0)

2022	2.35	0.86	0.04	0.02	0.04	3.31
2023	2.27	0.75	0.04	0.02	0.04	3.12
2024	2.20	0.74	0.04	0.02	0.03	3.02
2025	2.12	0.70	0.03	0.01	0.02	2.88
2026	2.05	0.68	0.02	0.01	0.02	2.78
2027	1.99	0.65	0.02	0.01	0.01	2.68

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 not exceed 8% of tax revenues supporting debt service. **Exhibit 4.5** shows that the debt service as a percent of revenues peaks at 7.01% in fiscal 2022 and declines throughout the forecast period.

Both affordability ratios have been influenced by limiting increases in GO bond authorizations to 1% over the prior year's authorization in recent years. This constraint has slowed growth in debt outstanding and debt service costs. As the economy has grown, this slow growth in debt results in improving debt affordability ratios.

Exhibit 4.5
State Tax-supported Debt Service
Components and Relationship to Revenues
Fiscal 2022-2027
(\$ in Millions)

	<u>General Obligation</u>	<u>Transportation Bonds</u>	<u>Capital Leases</u>	<u>Stadium Authority</u>	<u>Bay Restoration Bonds</u>	<u>Total Tax-supported Debt Service</u>
2022	1,376	432	31	23	32	1,894
2023	1,418	480	40	22	32	1,992
2024	1,451	438	44	22	27	1,982
2025	1,483	455	45	20	27	2,030
2026	1,524	448	43	19	27	2,062
2027	1,517	486	31	11	27	2,073

State Tax Supported Debt Service as a Percent of Revenues
(Affordability criteria = 8.0)

2022	5.01	1.57	0.11	0.09	0.12	6.89
2023	4.99	1.69	0.14	0.08	0.11	7.01
2024	4.94	1.49	0.15	0.07	0.09	6.75
2025	4.91	1.50	0.15	0.07	0.09	6.72
2026	4.88	1.43	0.14	0.06	0.09	6.60
2027	4.73	1.52	0.10	0.04	0.09	6.47

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

Proposals to Deviate from Planned Authorizations

From fiscal 2018 to 2022, SAC recommended limiting annual increases in authorizations to 1% over the prior year authorization. These policies were adopted because the State was close to the affordability limits. The debt service to revenues ratio was sufficiently close to the 8% limit that a recession could result in debt service costs exceeding 8% of revenues.

The State fiscal condition has changed substantially over the last year. The State now has a general fund balance that is greater than \$3 billion, and revenue estimates have been revised upward. Affordability ratios have declined, and there is a surplus of funds available. Paradoxically, this new fiscal health has led to discussions about (1) using the surplus to reduce debt

authorizations and (2) allowing for higher authorizations since there is more capacity now and more general funds available in the out-years to service GO bond debt. Two specific options are to:

- ***Reduce the Fiscal 2023 GO Bond Authorization to \$900 Million and Continue the Policy of 1% Growth in the Out-years:*** CDAC's recommendation is to reduce the authorization to \$900 million and to use fund balances for pay-as-you-go capital projects. For fiscal 2024, the recommendation is to increase the authorization to \$1.125 billion, which is the amount that was previously planned for fiscal 2024. This option is essentially a one-time reduction to GO bond debt authorizations; or
- ***Increase the Fiscal 2023 Authorization to \$1.165 Billion and Increase Authorizations by 4% Annually in the Out-years:*** In addition to increased revenues, inflation rates are also increasing. DLS estimates that inflation will increase costs for projects anticipated in the fiscal 2023 capital budget by approximately \$50 million. To keep the capital program's purchasing power, authorizations could be increased correspondingly. DLS also recognizes that inflation in construction could persist. High demand for construction services is anticipated, in part due to increased demand. The State authorized up to \$2.2 billion for public school construction in the Built to Learn program in 2021, and the U.S. Congress has authorized additional federal funds to support infrastructure. To keep the capital program's purchasing power, planned authorizations could be increased by 4% annually.

These options are both affordable. **Exhibit 4.6** shows that the debt outstanding to personal income affordability ratio declines from fiscal 2023 to 2027 if the fiscal 2023 recommendation is reduced and if authorizations are increased to address inflationary pressures.

Exhibit 4.6
Debt Outstanding to Personal Income
Fiscal 2023-2027

	<u>CDAC Recommendation</u>	<u>Current Modest Growth Policy</u>	<u>Higher Capital Project Inflation Option</u>
2023	3.10%	3.12%	3.12%
2024	3.00%	3.02%	3.04%
2025	2.85%	2.88%	2.91%
2026	2.74%	2.78%	2.82%
2027	2.64%	2.68%	2.74%

CDAC: Capital Debt 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

Exhibit 4.7 shows that the debt service to revenues ratio declines even under the higher inflation option.

Exhibit 4.7
Debt Service to Revenues
Fiscal 2023-2027

	<u>CDAC Recommendation</u>	<u>Current Modest Growth Policy</u>	<u>Higher Capital Project Inflation Option</u>
2023	7.00%	7.01%	7.01%
2024	6.73%	6.75%	6.75%
2025	6.70%	6.72%	6.73%
2026	6.56%	6.60%	6.62%
2027	6.42%	6.47%	6.52%

CDAC: Capital Debt 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 was analyzed consistent with the Capital Debt Affordability Committee's debt affordability criteria. The committee compares debt outstanding to personal income and debt service costs to revenues.

While this debt affordability approach is enlightening, it is not sufficient. 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 \$1.115 billion in GO bonds in fiscal 2023 and that authorizations increase \$10 million annually. This is consistent with the recent increases in authorizations by the General Assembly and the amount planned by the Spending Affordability Committee.

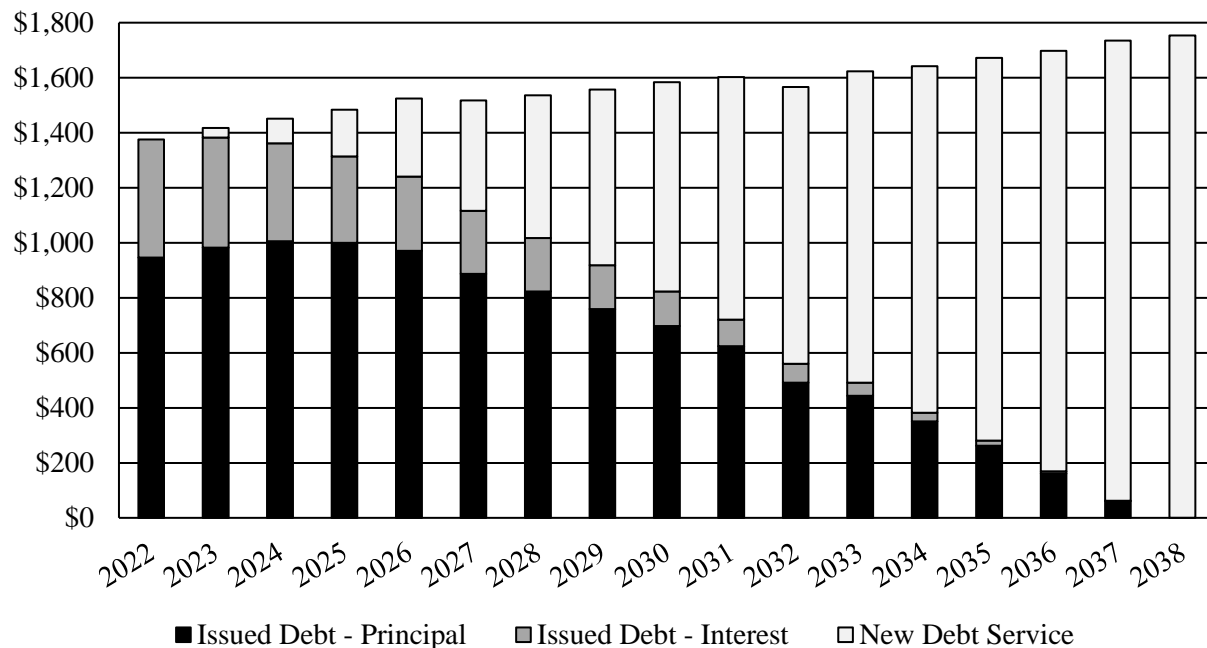
Out-year Debt Service Costs Expected to Increase Steadily

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 2022 will be retired before fiscal 2039. **Exhibit 5.1** shows the principal and interest costs for bonds sold prior to October 2021 as well as the debt service costs for anticipated bond sales. From fiscal 2022 to 2038, debt service costs increase from \$1.38 billion to \$1.75 billion, an annual increase of 1.53%.

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, which is to say that

most of each issuance is retired in 10 years. Fiscal 2022 interest costs total \$429 million, which is 31% of the \$1,376 million in total debt service. The share of interest costs to debt service payments decreases steadily throughout the forecast period for previously issued bonds.

Exhibit 5.1
General Obligation Bonds' Debt Service Costs
Fiscal 2022-2038
(\$ in Millions)



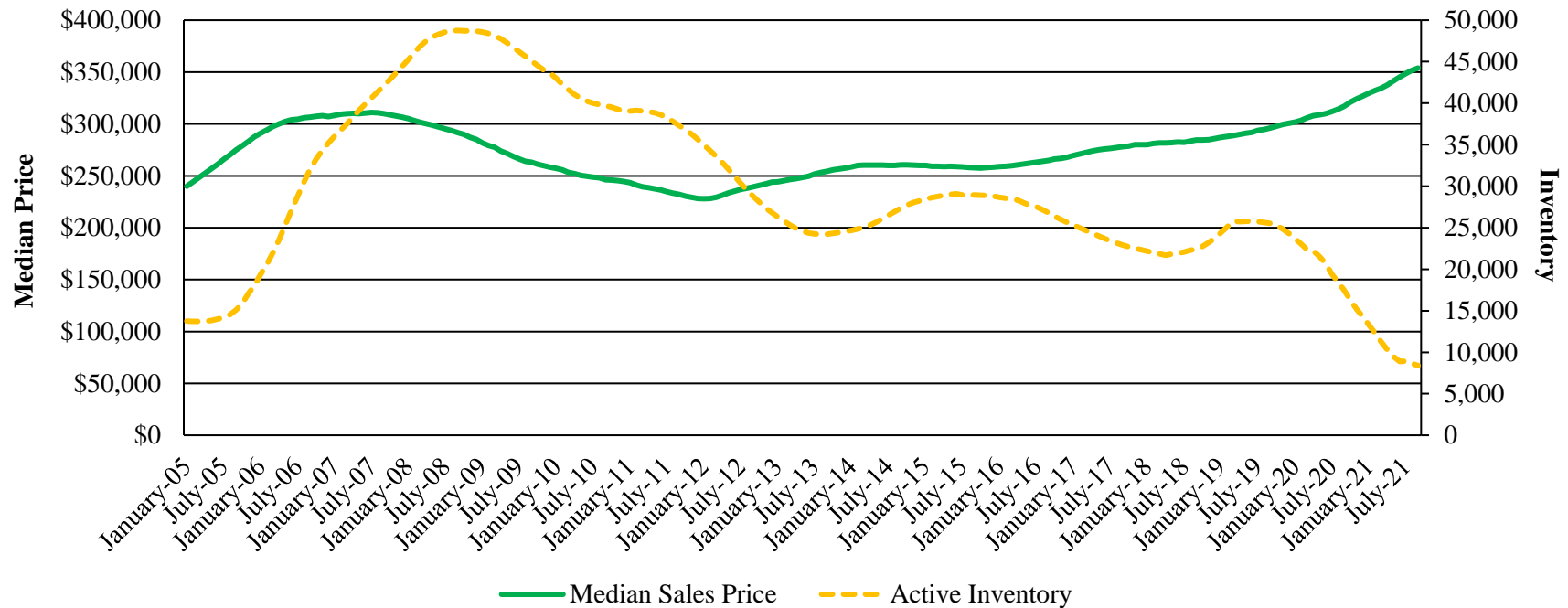
Source: State Treasurer's Office; Department of Legislative Services, October 2021

Home Values Have Increased Modestly and 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 2012, with prices increasing more sharply in 2020 and 2021.

Exhibit 5.2
Maryland Housing – Median Prices and Inventory
12-month Moving Average
January 2005 to September 2021



Note: There were some substantial revisions of calendar 2019 and 2020 inventory data as some months increased 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

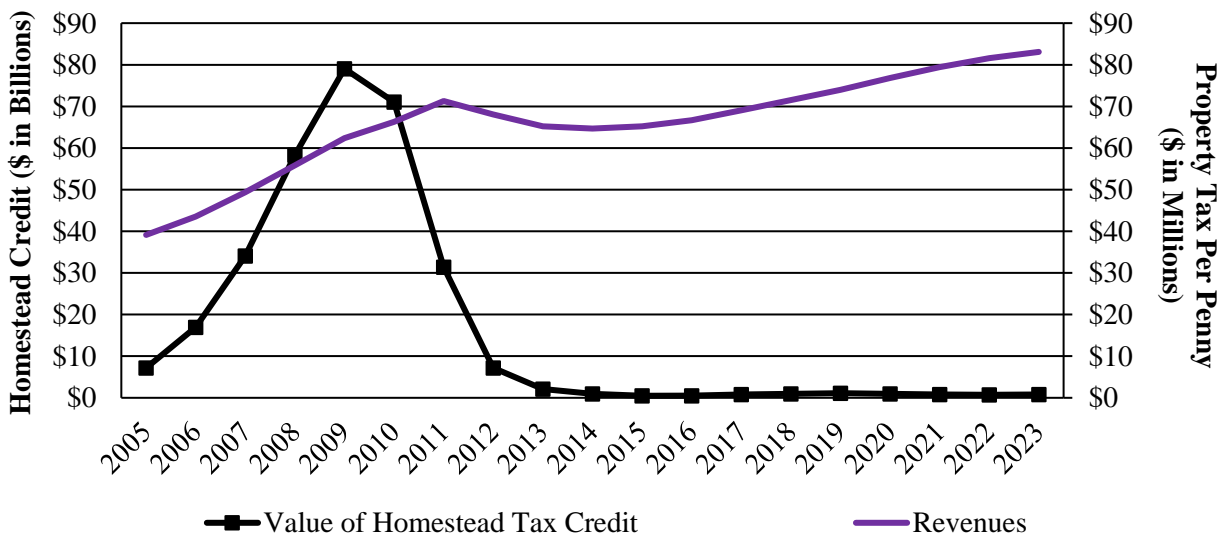
Effect of COVID-19 Pandemic on Home Values: Short-term Increase Observed with Longer Term Unclear

While recessions generally keep home prices down, the downturn in economic activity during the COVID-19 pandemic seems to have had the opposite effect. Exhibit 5.2 shows that home prices increased and inventories shrank since the beginning of this pandemic. The State Department of Assessments and Taxation advises that it has also observed recent increases in home sales prices. Anecdotally, there are many examples of individuals that are now working from home wanting to move to a larger home, which may be increasing the demand for larger homes. There is also data that suggests that there is an increased demand for housing as new homebuyers enter the market. The Enact MI *First Time Homebuyers Report* notes that home sales to first time homebuyers increased by 14%.

Homestead Tax Credit

As expected, the rising property values from 2002 to 2007 increased State property tax receipts. **Exhibit 5.3** shows how much revenue one cent on the State property tax has generated since fiscal 2005. State property tax receipts generated by one cent of revenues continued to increase from fiscal 2004 to 2011, even as home values peaked in fiscal 2007. Revenues declined from fiscal 2011 to 2014 and generally increased since fiscal 2015.

Exhibit 5.3
State Property Tax Homestead Tax Credits and Revenues Per Penny of State
Property Taxes
Fiscal 2005-2023



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 State increase would be 3% in the first year, 6% in the second year, and 9% in the third year.

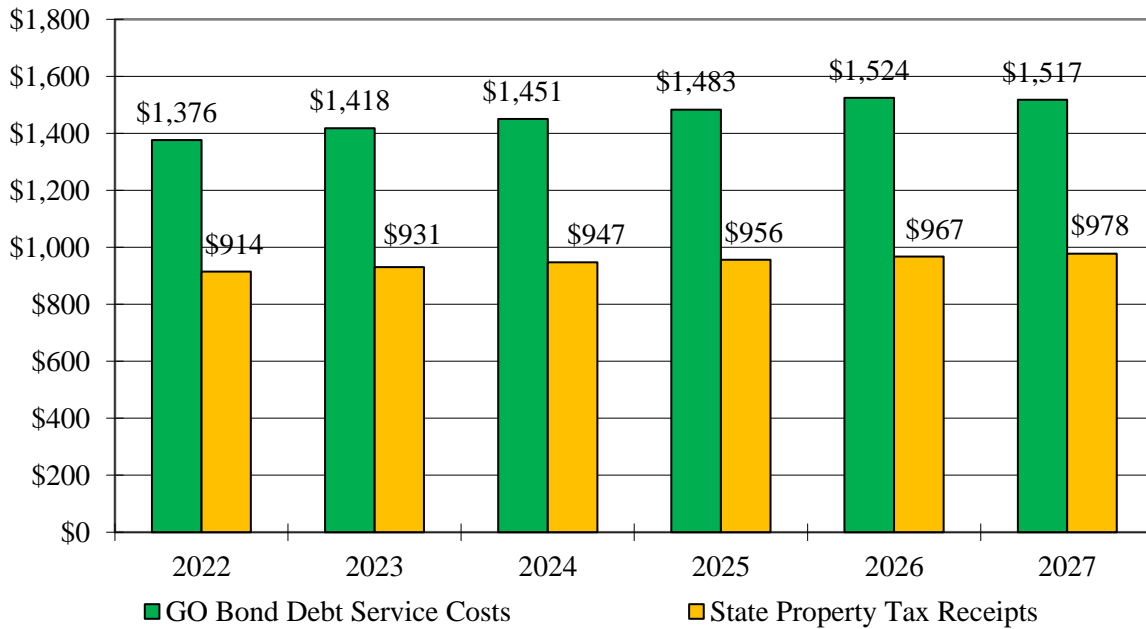
The Homestead Tax Credit limits the annual increase in State property assessments subject to the property tax to 10%. If reassessing a resident's assessed property value results in an increase that exceeds 10%, the homeowner receives a credit for any amount above 10%. This limits revenue growth when 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.

The Homestead Tax Credit also provides the State a hedge against declining property values. As home values declined, the value of homestead credit declined, and revenues continued to increase slowly. The result was to smooth State revenues; State property tax revenue growth was slower as home values increased, and there was no decline in revenues when home values decreased until fiscal 2011, which was four years after peak home prices. Exhibit 5.3 shows that State credits increased to \$79 billion in fiscal 2009, in response to increases in assessments. Since fiscal 2014, aggregate homestead credits have been about \$1 billion each year.

General Funds Are Appropriated to Keep State Property Taxes Low

State property tax revenues are estimated to increase at a rate of 1.4% annually from fiscal 2022 to 2027. This estimate assumes that long-term trends continue. The recent increases in home values are expected to increase the assessable base and State property tax receipts, which suggests that revenues are more likely to increase than decrease in the short term. Debt service costs are expected to increase at a rate of 2% over the same period. **Exhibit 5.4** shows how State property tax revenues, which are \$462 million less than debt service costs in fiscal 2022, are expected to be \$540 million less than debt service costs in fiscal 2027.

Exhibit 5.4
GO Bond Debt Service Costs and State Property Tax Revenue Collections
Fiscal 2022-2027
(\$ 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 budgeted increase from \$260 million in fiscal 2022 to \$536 million in fiscal 2027. Estimates for premiums supporting debt service decline from \$296 million in fiscal 2022 to \$0 by fiscal 2026.

Exhibit 5.5
Revenues Supporting Debt Service
Fiscal 2022-2027

	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
Special Fund Revenues						
State Property Tax Receipts	\$914	\$931	\$947	\$956	\$967	\$978
Bond Sale Premiums	296	202	149	61	0	0
Capital Authorizations ¹	-223	-125	0	0	0	0
Other Revenues	3	3	3	3	3	3
ABF Fund Balance Transferred from Prior Year	147	39	1	1	1	1
<i>Subtotal Special Fund Revenues</i>	<i>\$1,137</i>	<i>\$1,049</i>	<i>\$1,099</i>	<i>\$1,021</i>	<i>\$971</i>	<i>\$982</i>
General Funds	\$260	\$354	\$339	\$451	\$551	\$536
Transfer Tax Special Funds	7	7	7	7	2	0
Federal Funds	10	8	7	5	2	1
Total Revenues	\$1,415	\$1,418	\$1,452	\$1,484	\$1,526	\$1,519
Debt Service Expenditures	\$1,376	\$1,418	\$1,451	\$1,483	\$1,524	\$1,517
End-of-year ABF Balance	\$39	\$1	\$1	\$1	\$1	\$1

ABF: Annuity Bond Fund

¹ The fiscal 2022 capital budget authorizes \$222.85 million for the Washington Metropolitan Area Transit Authority (WMATA), community college construction program, public school construction, and the Legislative Services Building. The Administration's Capital Improvement Program assumes \$125 million for WMATA in fiscal 2023.

Source: Department of Legislative Services

Costs and Savings Attributable to Modifying Authorization Policies

In Chapter 4, the Department of Legislative Services (DLS) examines the affordability of two policy changes:

- ***Capital Debt Affordability Committee (CDAC) Recommendation to Reduce the Fiscal 2023 Authorization to \$900 Million:*** The CDAC recommendation is a one-time reduction that recognizes the large general fund balance and suggests that the State uses the fund balance to reduce GO bond authorizations in fiscal 2023. After fiscal 2023, the CDAC recommends authorizations consistent with the slow-growth approach adopted by the Spending Affordability Committee; and

- **Increase the Fiscal 2023 Authorization to \$1,065 Million and Increase Out-year Authorizations by 4%:** This keeps authorizations at a level so that inflation does not erode the capital program's purchasing power. DLS estimates that recent inflation reduces the fiscal 2023 capital program's spending power by about \$50 million. Recent State legislation, like Built to Learn, and federal legislation, like the Infrastructure Investment and Jobs Act, authorize additional capital spending, which is likely to lead to higher capital project inflation. The higher out-year growth recognizes this potential inflation.

Exhibit 5.6 shows that the CDAC recommendation provides \$1 million in savings in fiscal 2023, which increases to \$17 million in fiscal 2027, compared to the current policy. Savings peak at \$23 million annually. The higher capital project inflation option increases costs modestly in fiscal 2023 but is expected to add \$15 million to fiscal 2027 costs. Over the six-year period, the high inflation option adds \$750 million in GO bond authorizations more than the current slow-growth approach. This adds \$80 million in principal and interest payments annually after all authorized bonds have been issued.

Exhibit 5.6
Comparison of Debt Service Costs
Fiscal 2023-2027
(\$ in Millions)

<u>Fiscal Year</u>	<u>Current Slow Growth Debt Service Costs</u>	<u>CDAC Recommendation Savings</u>	<u>High Inflation Option Costs</u>
2023	\$1,417.7	-\$0.8	\$0.3
2024	1,450.8	-4.1	1.0
2025	1,483.0	-6.5	3.4
2026	1,524.5	-12.2	7.9
2027	1,517.3	-16.8	15.2

CDAC: Capital Debt Affordability Committee

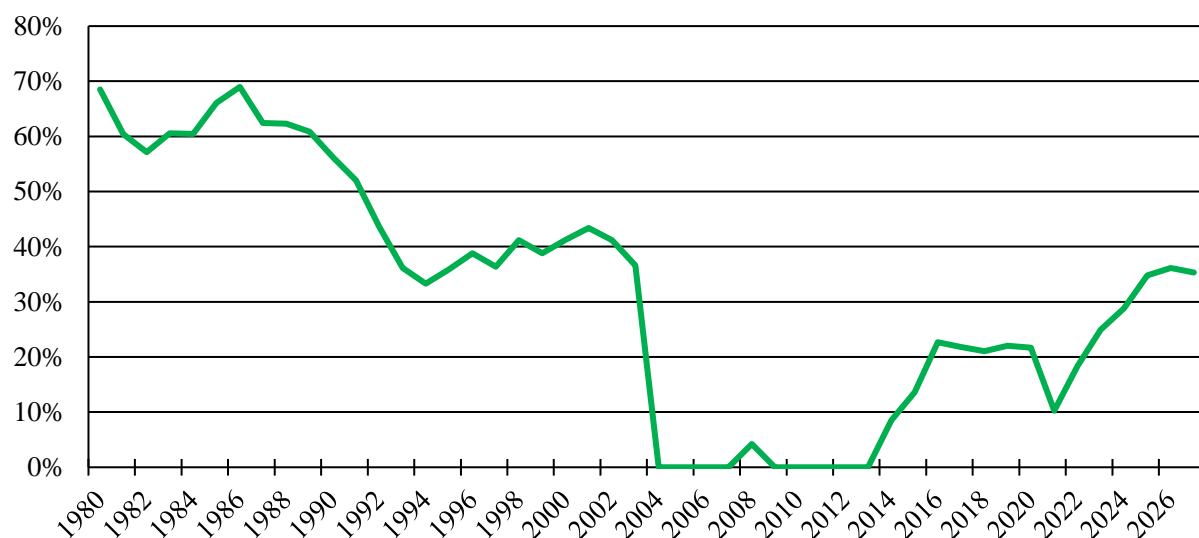
Source: Department of Legislative Services

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 5.7 shows that DLS projects that general fund appropriations for debt service will exceed 30% of debt service appropriations by fiscal 2025. 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 5.7
General Fund Appropriations as a Percent of Debt Service Appropriations
Fiscal 1980-2027

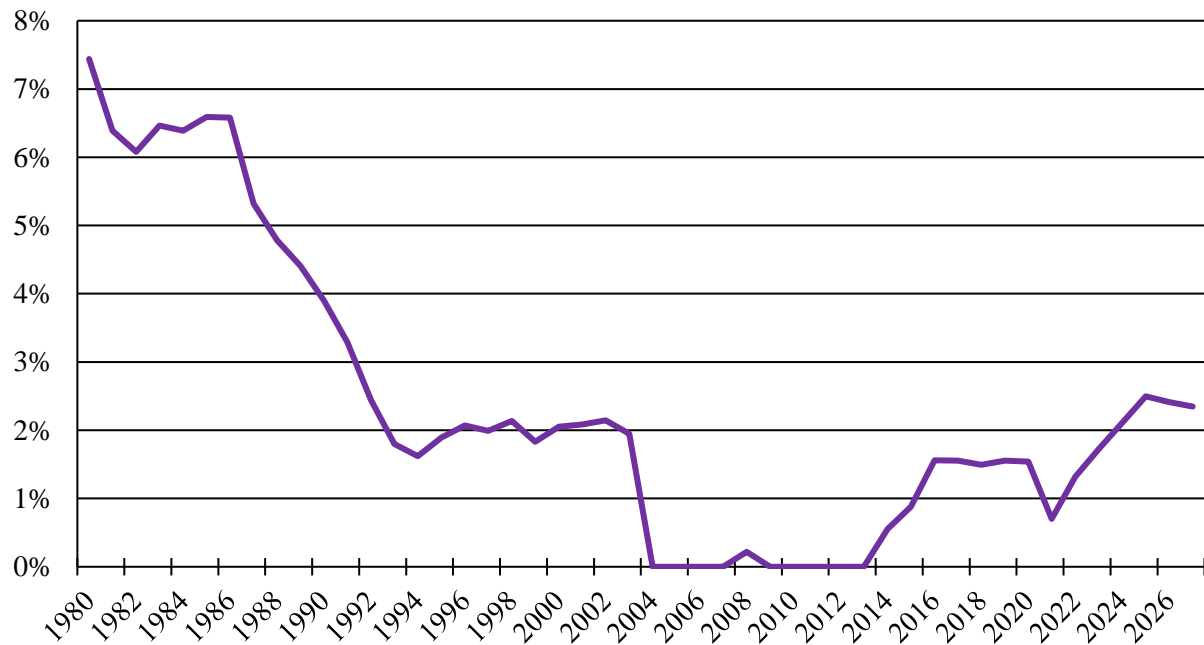


Note: Fiscal 1985 to 2003 includes general funds appropriated in the Maryland State Department of Education for capital school construction. Fiscal 2002 and 2003 are adjusted to remove proceeds from refunding bonds.

Source: Department of Budget and Management

Exhibit 5.8 shows that current estimates expect that the general fund costs for debt service will exceed 2% of total general fund revenues by fiscal 2024. This is about the same level as in the 1990s but well below the previous peaks in the 1980s. 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 5.8
General Fund Debt Service Appropriations as a
Percent of General Fund Revenues
Fiscal 1980-2027



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.

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, and it has been 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 0.2% (20 basis points) compared to the AA+ rating. This reduction may be larger now. The interest cost analysis in Chapter 6 suggests that Maryland's bonds are 0.89% (or 89 basis points) less than *The Bond Buyer* 20-Bond Index¹ due to a flight to quality since the Great Recession, which is approximately \$400,000 per year

¹ The average rating of these bonds is AA by Standard and Poor's and Aa2 by Moody's, which is two ratings below Maryland's AAA rating.

annual debt service for a typical \$500 million bond sale. A ratings downgrade also could reduce this advantage that Maryland bonds have over lesser rated bonds. When reviewing debt, rating agencies have commented on pension liabilities. Pension costs and debt service 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 recently 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. The good news for Maryland is that all three rating agencies have acknowledged Maryland's efforts to achieve adequate pension funding.

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 (which is the annual increase in the pension liability), and the State is responsible for any remaining costs (which is the unfunded liability).

Annual Pension Costs Increased after the Great Recession

Pension contributions increased from \$1.0 billion in fiscal 2010 to over \$2 billion in fiscal 2021. The primary reason for the increased costs is market losses suffered in fiscal 2008 and 2009 when the pension fund lost 5.4% and 20%, respectively. This 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 State 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 has reduced benefits, increased contributions, and required local jurisdictions to share in the costs of teacher pensions.

The most significant pension reform was enacted in 2011. Key provisions include:

- 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;² 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.

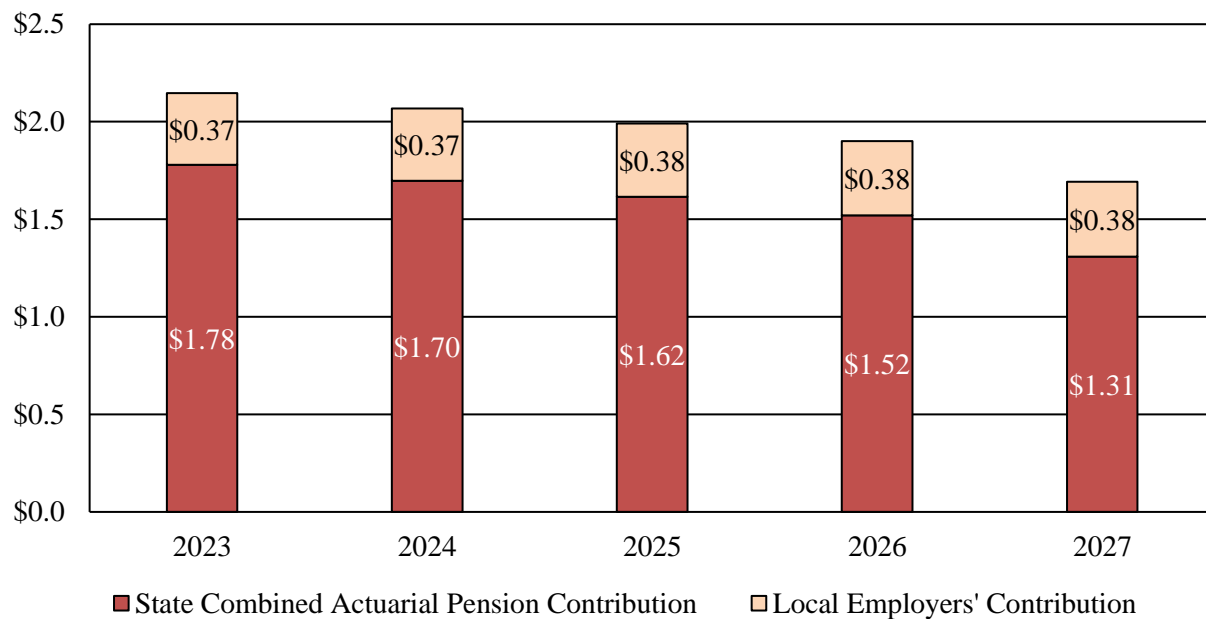
Current law requires supplemental pension contributions. The Administration is required to include \$75 million in supplemental contributions and to provide appropriate unassigned general fund balances of up to \$25 million. In fiscal 2021, unassigned general fund balance totaled \$2,476 million, of which \$25 million is to be appropriated in fiscal 2023. Taken together, these reforms reduce the State's out-year unfunded liabilities.

Pension Cost Outlook

Exhibit 5.9 shows that the State's annual actuarially required contribution is expected to decrease from \$1.78 billion in fiscal 2023 to \$1.31 billion in fiscal 2027, which is an annual decrease of 7.41%. Total pension costs, which include local contributions, increase from \$2.15 billion in fiscal 2023 to \$1.72 billion in fiscal 2027. Total costs decrease by 5.78% annually. These lower costs are primarily attributable to the unusually high return on investments in fiscal 2021, which was 26.7%. The especially large drop in fiscal 2027 costs are also attributable to ending the \$75 million supplemental reinvestment appropriation. State law requires this investment until the pension fund is 85% funded. The State Retirement Agency's actuary's, Gabriel, Roeder, Smith & Company, now estimates that this will be achieved in fiscal 2025 valuation. The first budget after this valuation is fiscal 2027.

² The multiplier remains at 1.8% per year worked for employees hired before June 30, 2011.

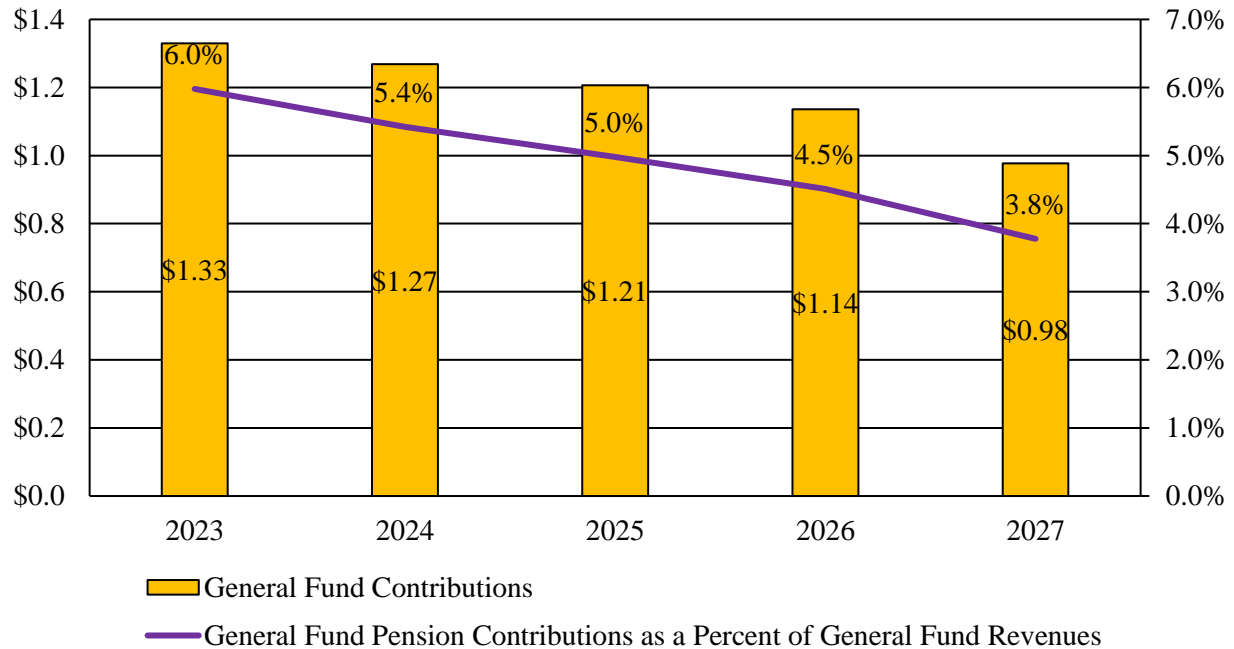
Exhibit 5.9
Total State Pension Costs
Fiscal 2023-2027
(\$ in Billions)



Source: Gabriel, Roeder, Smith & Company; Department of Legislative Services, November 2020

Exhibit 5.10 shows that general fund costs for pensions are expected to drop from 6% in fiscal 2023 to 3.8% in fiscal 2027. Due to the excellent return on investments in fiscal 2021, general fund pension contributions are expected to decrease instead of increase from fiscal 2023 to 2027. Other factors that have moderated costs relate to pension reforms. Rapid turnover in system membership has accelerated the benefits of pension reform. The turnover has resulted in nearly one-third of teachers and employees participating in the reformed pension plan. However, should out-year returns be less than projected, which is 6.80%, these estimates could understate out-year costs.

Exhibit 5.10
General Fund Pension Costs as a
Percent of General Fund Revenues
Fiscal 2023-2027
(\$ in Billions)



Source: Gabriel, Roeder, Smith & Company; Department of Legislative Services

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. In recent years, there have been changes to all these retiree costs. In addition, medical and pharmaceutical inflation rates change from year to year.

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

In 2004, the Governmental Accounting Standards Board (GASB) issued new accounting standards that required State and municipal governments to recognize OPEB liabilities on their balance sheets as they accrue, rather than on a pay-as-you-go basis. In effect, the new standards required public employers to account for OPEB liabilities in a manner similar to the way pension liabilities were treated. While GASB does not have the authority to enforce these standards, State compliance is considered by bond rating agencies.

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. Fiscal 2020 was chosen as the effective date of transition to align with a provision in the 2010 Patient Protection and Affordable Care Act, which eliminated the Medicare Part D coverage gap by calendar 2020. Aligning the transition with the elimination of the Medicare Part D coverage gap 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 is resolved. As a result, there was no change in coverage for Medicare-eligible retirees in calendar 2019. The timeframe for when the lawsuit will be resolved is indeterminate.

In response to concerns raised by retirees about the cost of prescription drugs, Chapter 767 of 2019 establishes 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. The actuary estimates that changes in the benefit terms from June 30, 2018, to June 30, 2019, including the prolonged coverage due to the injunction and the enactment of the reimbursement and catastrophic coverage programs, increase the OPEB liability by \$2.5 billion.

State Does Not Provide Full Actuarial Funding

At the end of fiscal 2021, the State's net OPEB liability was \$14.8 billion, representing a funded ratio of 3% (\$454 million in assets). The State has not met the commission's recommendation regarding payments to prefund the OPEB liability. The State provided payments from fiscal 2007 to 2009 but eliminated payments in fiscal 2010 for budgetary reasons. The State has not provided OPEB liability payments since fiscal 2010. The actuarial report notes that prefunding the OPEB liability on an annual basis requires a \$749 million appropriation in fiscal 2022. By contrast, fiscal 2022 appropriations for health insurance total \$630 million.

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. In fiscal 2020, unassigned general fund balance totaled \$586 million, so the full \$25 million was appropriated. The fiscal 2021 unassigned general fund balance was \$2,476 million, requiring another \$25 million appropriation.

Rating Agency Comments

To date, rating agencies have not downgraded Maryland in response to underfunding OPEB. The agencies are aware of the State's effort to reduce unfunded OPEB and pension liabilities. Agencies regularly comment that actions that increase liabilities, either by reducing funding or increasing benefits without increasing appropriations, would be viewed as a credit weakness that could result in a credit downgrade. Rating agencies do not provide specificity as to how much an unfunded liability can be increased without resulting in a credit downgrade. Instead, agencies react after actions are taken.

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 a number of significant influences in other states and in national studies that include Maryland. To build the sum of least squares regression equation, data was collected and analyzed for the 77 bond issuances since March 1991 (refunding sales are excluded): 69 competitively bid, tax-exempt bond issuances; and 8 negotiated, retail bond issuances. The data collected includes:

- the TIC;
- *The Bond Buyer* 20-bond index;
- date of the bond sale, fiscal year, and calendar years that the bonds were sold;
- if the bond sale includes one of the various call provisions offered since 1991;
- average years to maturity;
- amount of debt sold;
- Consumer Price Index to examine if inflation affected the market's perception of the amount of debt sold;
- use of a financial advisor;
- ratio of Maryland personal income to U.S. personal income; and

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

The Equation Identifies Statistically Significant Factors Influencing Interest Costs

The 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 four statistically significant variables at the 95% confidence level that affect the TIC.¹ **Exhibit 6.1** shows the data for the statistically significant variables. **Appendix 3** provides a summary of the data.

- **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.
- **Years to Maturity:** Under normal economic conditions, bonds with shorter maturities have lower interest costs than bonds with longer maturities. This is referred to as a positive yield curve. The analysis estimates that every year adds 0.156% (16 basis points) to the TIC.
- **Issuing Callable Bonds:** A call is an option that allows the seller to retire debt early. 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 0.301% (30 basis points) to the cost of a bond. In the July 2021 sale, Maryland bonds will be callable on August 1, 2032. Bonds maturing after that date can be called and refunded.
- **Post-financial Crisis:** This is a variable that indicates if a bond was sold before or after the financial crisis of 2008. The financial press has noted a "flight to quality" since the crisis. Statistical data from Maryland bond sales suggests that there has been a flight to quality with respect to bonds sold after March 2008. This date may be related to the

¹ The statistical analysis of the equation suggests that the equation explains GO bond sales' TICs very well. The R-square, which measures how much of the TIC is explained by the equation, is 0.976. The F Statistic, which measures if this group of variables is jointly significant, is 748, which is more than 99.9% significant. DLS ran the Durbin Watson statistic, which measures autocorrelation between variables, and it is 1.582, which is a reasonable, but does suggest some positive autocorrelation.

collapse of Bear Stearns, which resulted in a Federal Reserve bailout and sale to JPMorgan Chase. The equation estimates that Maryland bond yields are 0.887% (89 basis points) less than *The Bond Buyer* 20-bond index since the financial crisis.

Exhibit 6.1
TIC Regression Equation – Evaluating the Independent Variables

<u>Independent Variable</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-test</u>	<u>Sig.</u>	<u>Tol.</u>	<u>Comment</u>
<i>The Bond Buyer</i> 20-bond Index	0.819	0.034	24.273	0.000	0.409	Highest t-test suggests that this is a most significant independent variable and that Maryland bonds are priced at 82% of the index.
Years to Maturity	0.156	0.021	7.534	0.000	0.554	Positive coefficient means that longer maturities tend to have higher TICs.
Callable Bonds	0.301	0.086	3.508	0.001	0.540	Callable bonds' average TIC is 30 basis points (0.30%) higher than noncallable bonds.
Post-financial Crisis	-0.887	0.076	-11.660	0.000	0.453	Maryland bonds' yields are reduced since the crisis.
Constant	-1.534					

Sig.: significance or confidence interval

Std.: standard

TIC: true interest cost

Tol.: tolerance, a test of multicollinearity

Source: Department of Legislative Services

Equation Suggests That the Cost of Issuing Callable Bonds Is Now Substantially Higher Than in Prior Years but Still Cost Effective

Chapter 3 reports on the savings that the State has realized by refunding bonds. Since fiscal 2010, refunding issuances have reduced debt service costs by \$444 million. The State is able to realize these savings because callable bonds are issued. If market rates are lower than the coupon rate, the State can retire callable bonds and issue lower cost debt in its place. As previously mentioned, the bonds issued in July 2021 are callable beginning in the eleventh year.

Historically, the rule-of-thumb was that issuing callable bonds adds 0.05% to 0.10% (5 to 10 basis points) to the bond's TIC. When DLS examined the cost of issuing callable bonds in 2007, the coefficient for a call was 0.079 with a standard error of 0.039. In other words, calls added 0.04% to 0.12% (or 4 to 12 basis points) to a bond's yield, which is somewhat broader than the rule-of-thumb but still consistent with it.

However, this analysis estimates that the coefficient for callable bonds is 0.301 with a standard error of 0.086.² The estimated cost of a call now ranges from 0.215% to 0.387% (22 to 39 basis points). This is a little over four times the cost that was estimated in 2007.

While this level of change is substantial, there is a plausible explanation for this change. Maryland GO bonds have been selling at a premium in recent years. Since premium bonds have a coupon rate above the market rate, premium bonds are more likely to be called, and this is part of the reason why refunding savings have been unusually large in recent years. In the past, investors required a small increase in the TIC for an event that may or not may not happen. Now bonds are structured in such a way that bonds are highly likely to be called, so investors may want a higher TIC. To reduce the likelihood that bonds will be called, it is common for underwriters to offer lower coupon rates on the longest bonds. For example, the most recent bond sale in July 2021 has 5.00% coupon rates for bond maturing in 11 to 13 years and 4.00% coupon rate for bonds maturing in 14 and 15 years.

The July 2021 bond sale is also used to analyze if it is still expected to be cost effective to pay higher debt service costs for callable bonds. The State issued \$281.05 million in callable bonds maturing in 11 to 15 years. The bonds realized a \$89.11 million premium. The model estimates that, since the coefficient for call is 0.301% (30 basis points), issuing these bonds without a call would have reduced the TIC from 1.78% to 1.48%. DLS estimates that this lower TIC would have increased the bond sale premium by \$6.99 million, with the standard error ranging between \$4.19 million and \$9.79 million. This lost premium ranges between 1.39% and 3.49% of the bonds par value. Savings from refunding bonds have averaged about 8% of par value, the present value of which is 7%. This analysis suggests that there is still value in issuing callable bonds.

For this analysis, DLS used data from actual Maryland bond sales over three decades. As such, the analysis may not appreciate the latest market trends. The State Treasurer's Office and its financial advisor should continuously examine the projected costs and benefits of issuing callable bonds. Since the financial advisor has access to current data from many more State and municipal bond sales, it may be able to provide valuable analysis for minimizing the long-term costs of State debt and the State's capital program.

² When this analysis was prepared analyzing 73 issuances in October 2020, the coefficient for the call was 0.349, and the standard error was 0.088. It is unclear if the decline is attributable to the cost of calls declining or more data bringing about a more refined estimate. At any rate, the lower cost estimate increases confidence that it is still sensible to issue callable bonds in this low interest rate environment.

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 a project/program revenue debt or conduit debt, as discussed below:

- **Revenue Bonds:** Revenue bonds are bonds issued to raise funds for a specific project or program. The debt service on these bonds is generally repaid using revenues generated through the operation of the project or program for which the bonds were sold. For example, the Maryland Transportation Authority (MDTA) issues project revenue bonds to finance the cost of constructing revenue-generating transportation facilities, and MDTA then repays the bonds using the revenues generated through the tolls charged to drivers for the use of the facilities.
- **Conduit Debt:** Conduit debt is debt that agencies or authorities issue on behalf of clients. Clients could include local governments, nonprofit organizations, or private companies. When an agency or authority serves as a conduit issuer, the bonds 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 2011 and 2021:

- **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 2011 and 2021
(\$ in Millions)

	<u>2011</u>	<u>2021</u>	<u>Total</u> <u>Change</u>	<u>Annual</u> <u>% Change</u>
Agency Debt Subject to State Regulatory Cap	\$3,436	\$2,173	-\$1,263	-4.5%
Agency Debt Not Subject to State Regulatory Cap	5,226	4,695	-531	-1.1%
Tax-supported Debt	9,575	14,078	4,503	3.9%
Authorities and Corporations Without Caps	11,128	11,233	106	0.1%
Total	\$29,365	\$32,180	\$2,815	0.9%

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 4**.

Revenue and Private Activity Bonds

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

The 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 2021 allocation totaled \$665.0 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 § 13-802(4)(iii).

In practice, most localities transfer much of their allocation authority to CDA because CDA can more efficiently and cost effectively issue mortgage revenue and multifamily housing bonds than 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 non-housing allocations have been reallocated to CDA at year end for carry-forward purposes.

Allocation of Private Activity Bonds

Exhibit 7.2 provides the calendar 2017 through 2021 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
Calendar 2017-2021
(\$ in Millions)

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>YTD 2021</u>
Fund Sources					
Annual Cap	\$601.6	\$635.5	\$634.5	\$634.8	\$665.0
Carry Forward from Prior Years	1,632.2	1,586.1	1,668.7	1,271.4	1,286.5
Total Capacity Available	\$2,233.8	\$2,221.6	\$2,303.2	\$1,906.2	\$1,951.5
Issuances					
Single-family Housing	\$16.4	\$204.6	\$691.3	\$240.0	\$58.2
Mortgage Credit Certificates ¹	262.1	72.0	0.0	0.0	0.0
Multifamily Housing	227.5	265.6	340.5	379.7	99.6
Industrial Development Bonds	6.5	0.0	0.0	0.0	0.0
Total Issuances	\$512.5	\$542.2	\$1,031.7	\$619.7	\$157.7
Prior Year Carry Forward Abandoned	\$135.1	\$10.8	\$0.02	\$0.0	\$0.0
Carry Forward	\$1,586.1	\$1,668.7	\$1,271.4	\$1,286.5	\$1,793.8

YTD: year to date

¹ Mortgage Credit Certificates are not debt issuances. However, federal rules require that they be counted against the State's private activity bond allocation cap.

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

Source: Department of Commerce

Due to the decrease in interest rates as well as increased marketing of DHCD's mortgage programs, CDA drastically increased its single-family housing private activity debt issuances in prior years, going from just \$16.4 million in calendar 2017 to \$691.3 million in calendar 2019 and \$240 million in calendar 2020. However, both DHCD's single-family and multifamily housing issuances that make use of the volume cap have decreased significantly in the current year through September. DHCD's total single-family bond issuances totaled \$367.8 million in calendar 2021 to date, although only \$58.2 million used the volume cap. For multifamily issuances, DHCD expects issuances to significantly increase in the fourth quarter of calendar 2021 and the first quarter of calendar 2022. DHCD attributes this delay compared to prior years to the recent spike in construction costs, which forced projects to revise financing plans, as well as other pandemic-related processing delays.

Impact of the COVID-19 Pandemic

This section discusses the impact of the pandemic on DHCD and MEDCO bonds.

DHCD Bonds

DHCD advises that the COVID-19 pandemic has not had a significant adverse impact on the department's financial condition or outstanding bonds. Supply chain delays, rising materials costs, and labor shortages have the potential to impact the timelines for construction and rehabilitation of multifamily housing projects, which could affect a project's ability to cover debt service payments. Overall, DHCD's rental housing programs maintained stable revenues in fiscal 2021 and anticipate increased revenues in fiscal 2022 and 2023. DHCD's homeownership programs have seen record levels of activity during the pandemic, with the number of mortgages financed nearly doubling in fiscal 2020 for a total of \$1.1 billion. DHCD's revenues from its homeownership programs spiked in fiscal 2021, increasing to more than \$18 million from the fiscal 2020 level of \$6.8 million.

MEDCO Corporation Bonds

The COVID-19 pandemic and resulting business and school closures have had a continued impact on many of MEDCO's projects. MEDCO classifies its projects as "Performing," "Watch," or "Non-performing," and several projects have entered "Watch" or "Non-performing" status during the pandemic.

The Chesapeake Bay Conference Center (CBCC) was already a non-performing project prior to the pandemic, and revenues were further reduced by the closure of the facility in March 2020 and the limited capacity following reopening of the hotel in June 2020. CBCC continues to face ongoing challenges due to labor shortages currently affecting the hospitality industry, as well as continued reluctance to hold large group events. CBCC was not eligible for federal relief funding such as the Paycheck Protection Program, although the project received an award through the Commerce relief program for hospitality businesses. MEDCO advises that the project is able to cover all operating expenses, but revenues are not sufficient to make full debt service payments. Investors extended a short-term forbearance agreement through the end of December 2021.

One of MEDCO's conduit projects (929 North Wolfe Street in Baltimore City) was classified as "Watch" in fiscal 2019 and entered "Non-performing" status in August 2021. The project failed to meet the required debt service coverage ratio of 1.2 for the second consecutive year, and investors entered into a forbearance agreement through the end of December 2021.

The Baltimore City Garages project operated by MEDCO entered "Watch" status in July 2020 when Standard & Poor's downgraded the ratings on several series of bonds for the project to BB- negative. This is not an investment grade rating. The project did not meet required coverage ratios in either fiscal 2020 or 2021, and MEDCO has engaged a parking consultant. Although parking customers have started to increase along with the economy's reopening, MEDCO expects the recovery to be slow.

MEDCO's Purple Line conduit project was classified as "Watch" in August 2020 when Purple Line Transit Partners gave notice of its intent to terminate its agreement with the State. As part of the settlement agreement resolving the issues that prompted notice of intent to terminate, the design-build contractor exited the project, and a solicitation to find a replacement design-build contractor was initiated in summer 2021 with a selection expected by the end of calendar 2021. To facilitate the transition to a new design-build contractor, Purple Line Transit Partners notified bondholders of the intent to pay off the private activity bonds early. Payoff was expected to occur on November 30, 2021. Once the new design-build contractor is onboard, a new project schedule cost estimate will be developed. It is anticipated that MEDCO will serve as the conduit issuer of new debt to complete construction of the project.

Student Housing Bonds

Revenues at student housing facilities, which make up the majority of MEDCO-operated projects, were negatively impacted by the transition during the pandemic from in-person to remote and hybrid learning environments. In March 2020, MEDCO worked with the University System of Maryland (USM) to issue refunds to students living in MEDCO-operated housing projects, and occupancy in some projects remained low through the fall 2020 semester. As a result, several of MEDCO's student housing projects were classified in "Watch" status during the pandemic: University of Maryland, College Park Campus; University of Maryland Baltimore County; University of Maryland, Baltimore Campus (UMB); Salisbury University (SU); Towson University; Bowie State University; and Frostburg State University (FSU). SU and FSU were later removed from "Watch" status.

Most of the projects classified as "Watch" failed to meet the required debt coverage ratio of 1.20 as of the last day of the fiscal year, either at the end of fiscal 2020 or 2021, or both. MEDCO is required to retain a management consultant for these projects. **Exhibit 7.3** shows the debt coverage ratio at the end of the last three fiscal years, the interest and principal payments made in fiscal 2020, and outstanding balance at the end of fiscal 2021 for each housing project. Occupancy at the student housing projects has increased as schools have returned to more in-person learning, ranging from 65% to 100% as of November 2021. MEDCO anticipates that all student housing projects will be able to fund operating expenses and meet their upcoming debt service payments, and MEDCO also expects that all projects with the exception of UMB will return to a debt coverage ratio exceeding 1.20 in fiscal 2022. UMB's recovery has been slower than the other schools, and the management consultant is in the process of evaluating the project and making recommendations.

Exhibit 7.3
Status of MEDCO-operated Student Housing Projects
Fiscal 2019-2021
(\$ in Millions)

<u>Project</u>	Debt Coverage Ratio¹			Maximum Annual Debt Service	Outstanding Balance June 2021
	<u>2019</u>	<u>2020</u>	<u>2021</u>		
Bowie State University	1.58	1.33	1.13	\$1.4	\$12.7
Bowie Mixed Use Project	n/a	n/a	n/a	2.6	44.9
Capitol Technology University	1.78	1.66	1.24	0.9	12.8
Frostburg State University	1.57	1.38	1.26	1.2	11.2
Morgan State University	1.56	1.68	1.33	2.4	24.5
Morgan Mixed Use Project	n/a	n/a	n/a	6.0	80.8
Salisbury University	2.16	1.49	1.93	2.2	17.5
Towson University	1.59	1.06	0.47	3.5	36.0
University of Maryland, Baltimore	1.39	1.16	1.15	1.9	23.2
University of Maryland, Baltimore County	1.79	1.05	0.6	1.2	15.9
University of Maryland, College Park	1.76	1.14	1.41	10.1	113.8
University Village at Sheppard Pratt	2.91	2.27	1.56	1.6	16.2

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

MEDCO: Maryland Economic Development Corporation

Source: Maryland Economic Development Corporation

Debt Service on University Academic and Auxiliary Revenue Bonds

Chapter 93 of 1989 gave Morgan State University (MSU), St. Mary's College of Maryland (SMCM), and USM the authority to issue bonds for academic and auxiliary facilities. Chapter 208 of 1992 gave Baltimore City Community College (BCCC) the authority to issue bonds for auxiliary facilities, and Chapter 213 of 2009 extended its authority to include academic revenue bonds (ARB) as well. Academic facilities are primarily used for the instruction of students, while auxiliary facilities are those that produce income from fees charged for the use of the facility. A residential dormitory is an example of an auxiliary facility. Debt service on auxiliary and academic debt may be paid from:

- auxiliary and academic fees;
- a State appropriation expressly authorized for that purpose; or
- revenues from contracts, gifts, and grants.

Statute specifies that academic facilities must be expressly approved by an act of the General Assembly that determines both the project and bond issue amount. Each year, USM introduces legislation entitled the Academic Facilities Bonding Authority that lists the specific academic projects requiring authorization. Legislation may also increase the total debt limit for institutions when warranted. Section 13-102 of the Education Article limits debt outstanding to \$1.4 billion for USM, \$88 million for MSU, \$65 million for BCCC, and \$60 million for SMCM.

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 policies aim 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. USM aims for debt service that includes payments on capital lease obligations, but not operating lease payments, to be less than 4.0% of operating revenues plus State appropriations including grants and contracts. This ratio was developed after discussions with its financial advisor (Public Financial Management's Higher Education Office), rating agencies, and investors.

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 (which removed the system from negative watch). The most recent credit reviews by the rating agencies were in February 2021. The next full rating meetings will take place in January 2022.

Exhibit 7.4 shows that USM will be under the 4.0% debt service goal for fiscal 2021 to 2027. Including debt issued in fiscal 2021, total debt service will be approximately \$141 million, or 3.1%, of fiscal 2021 operating revenues plus State appropriations, including grants and contracts. As shown in the exhibit, USM expects a roughly 3% decrease in operating revenues and State appropriations in fiscal 2021 with a rebound to occur in fiscal 2022 and growth in future years. The forecast indicates that the ratio will stay at or below 3.1% through the fiscal 2027 projection.

Exhibit 7.4
University System of Maryland Debt Service as Related to
Operating Funds Plus State Appropriations
Fiscal 2011-2027 Estimated
(\$ in Millions)

<u>Year</u>	<u>Total Debt Outstanding</u>	<u>Total Debt Service</u>	<u>Operating Revenues Plus State Appropriations</u>	<u>Ratio of Debt Service to Operating Revenues Plus State Appropriations</u>
2011	\$1,129	\$127	\$4,065	3.1%
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 Estimated	1,182	141	4,959	2.8%
2022 Estimated	1,216	145	5,028	2.9%
2023 Estimated	1,229	148	5,129	2.9%
2024 Estimated	1,231	147	5,232	2.8%
2025 Estimated	1,238	141	5,336	2.6%
2026 Estimated	1,248	143	5,443	2.6%
2027 Estimated	1,256	149	5,552	2.7%

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

Source: University System of Maryland

USM also has a goal for the ratio of expendable resources (defined as unrestricted assets of USM and the affiliated foundation with adjustments for certain long-term liabilities) to debt outstanding. With advice from its financial advisor, USM's goal is for expendable resources to be no less than 90% of total debt outstanding, adjusted for outstanding commitments.

Exhibit 7.5 shows USM's expendable resources to debt outstanding ratio for fiscal 2011 to 2027. USM also makes adjustments to 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 fiscal 2020 ratio is 127%. USM has exceeded the target minimum 90% throughout the entire period. The ratio has grown in recent years, indicating capacity to issue more debt under the

criterion. In the 2022 session, the system will seek authorization for a total of \$30 million in ARBs to provide facility renewal and capital project funding for USM institutions for fiscal 2023. The decline in available resources beginning in fiscal 2021 reflects the use of fund balance to deal with the fiscal crisis associated with State general fund and auxiliary enterprise revenue reductions resulting from the institution's social distancing arrangements, combined with the expenditure of several hundred million of previously authorized and ongoing cash-funded capital projects over time.

Exhibit 7.5
Summary of Available Resources to Debt Outstanding for the
University System of Maryland
Fiscal 2011-2027 Estimated
(\$ in Millions)

<u>Year</u>	<u>Available Resources</u>	<u>Debt Outstanding</u>	<u>Ratio of Available Resources to Debt Outstanding</u>
2011	\$1,432	\$1,129	126.9%
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 Estimated	2,723	1,182	230.4%
2022 Estimated	2,690	1,216	221.2%
2023 Estimated	2,645	1,229	215.2%
2024 Estimated	2,600	1,231	211.2%
2025 Estimated	2,521	1,238	203.6%
2026 Estimated	2,458	1,248	197.0%
2027 Estimated	2,414	1,256	192.2%

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

Source: University System of Maryland

USM to Propose Legislation to Increase Its Debt Cap by \$200 Million

USM testified to the Capital Debt Affordability Committee that it will propose legislation during the 2022 legislative session to increase its debt cap from \$1.4 billion to \$1.6 billion. USM has identified three primary motivations for the need to increase its debt cap, including:

- the current rate of spending is about \$25 million and when the rate of spending is held constant, the cap is on a path to be reached;
- the Governmental Accounting Standards Board (GASB), an independent, nonpolitical organization dedicated to establishing rules that require state and local governments to report clear, consistent, and transparent financial information to which the USM abides, issued Statement Number 87 that requires the reporting of all leases as liability with no distinction between operating and capital; and
- increasing the cap, according to USM, gives USM the capacity to take advantage of low interest rates in times of need.

USM has indicated that should the debt cap legislation become law, that these actions will serve the system's financing needs for the next 5 to 10 years.

Impact of COVID-19 Pandemic

As a result of the pandemic, USM, along with other higher education institutions, is facing multiple challenges. Reductions in State and auxiliary funding, temporary expense increases to comply with State and federal guidelines, and a decline in enrollment have all impacted the financial position of USM. In response to these challenges, USM decided to use reserves and federal recovery funds to cover some expenses and one-time and ongoing spending cuts to bridge the gap. A moratorium was placed on cash-funded capital projects over \$1 million along with shifting previously authorized cash-funded projects to debt funding to preserve cash balances.

For the 2021-2022 academic year, USM moved back to in-person instruction at all institutions. USM mandated that all students, faculty, and staff be vaccinated against COVID-19, exempting those with medical or religious reasons, but mandating that those who remain unvaccinated be tested twice a week for COVID-19. As of September 2021, more than 90% of USM students, faculty, and staff had met the vaccination mandate. For the spring 2022 semester, USM plans to continue the COVID-19 vaccination requirement and indoor masking mandate.

USM has indicated that the pandemic has highlighted the need for increased levels of financial aid due to employment challenges for students and families. USM has also had to increase student support services, both in person and virtual. Whether these trends and changes persist beyond the pandemic remains to be determined. Looking forward, USM is considering new workforce-related programs, as well as highlighting existing certificate and non-degree programs. This will help to combat the softening enrollment trends that were observed over the last 18 months. While total enrollment will likely be down for a couple of years as a result of the lower

first-time, full-time enrollment since spring 2020, USM does not expect this to be a long-term trend.

St. Mary's College of Maryland

SMCM's outstanding debt consists of auxiliary and capital lease debt. SMCM has no outstanding academic debt. The total debt in fiscal 2021 is \$42.1 million, declining to \$29.1 million by fiscal 2027. As shown in **Exhibit 7.6**, the college's ratio of debt service to unrestricted expenditures is also expected to decrease from 4.6% in fiscal 2021 to 3.7% in fiscal 2027.

Exhibit 7.6
St. Mary's College of Maryland Debt Service Related to Unrestricted Funds
Fiscal 2011-2027 Estimated
(\$ in Thousands)

<u>Year</u>	<u>Total Debt Outstanding</u>	<u>Total Debt Service</u>	<u>Unrestricted Expenditures</u>	<u>Ratio of Debt Service to Unrestricted Expenditures</u>
2011	\$41,753	\$3,500	\$65,187	5.4%
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 Estimated	39,865	3,816	69,164	5.5%
2023 Estimated	37,535	3,791	72,019	5.3%
2024 Estimated	35,115	3,786	74,133	5.1%
2025 Estimated	32,965	3,429	75,615	4.5%
2026 Estimated	31,015	3,153	77,128	4.0%
2027 Estimated	29,115	3,033	78,670	3.7%

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 August 2021, SMCM's bond rating was affirmed by Moody's at A2 with a stable outlook, upgraded from the previous rating of A2 negative.

Impact of COVID-19 Pandemic

The SMCM campus was closed in March 2020 with instruction continuing online as a consequence of the COVID-19 pandemic. In fall 2021 (fiscal 2022), SMCM opened with in-person instruction and mandated COVID-19 vaccinations for all students, faculty, and staff with exemptions for those with medical or religious reasons and requiring those who were not vaccinated to be tested twice a week. The current compliance rate is above 95%, and masks continue to be required in all indoor areas and outdoors if in close quarters and if social distancing cannot be maintained.

The college was able to maintain a stable level of enrollment for the 2021-2022 academic year when compared to the previous academic year. Given the stable enrollment, funding received by the college for room and dining is beginning to once more approach prepandemic levels. Moving out of the pandemic, SMCM will continue to focus on strategic marketing initiatives that have proven successful in boosting applications in both the first-year and transfer student body populations and continue their in-person, on-campus teaching format.

Morgan State University

As shown in **Exhibit 7.7**, MSU had \$9.0 million of debt in fiscal 2021 relating to capital lease debt. Total Academic and Auxiliary Revenue debt outstanding is \$0 as of June 30, 2021, as a result of the payoff of the 1993 bonds in July 2020 and the defeasance of the 2012 Revenue Bonds in October 2020. MSU is not currently planning to issue more debt in the next five years. MSU advises that the 1993 series bonds that fully matured on July 1, 2020, were in line with the institution's financial planning.

MSU has taken advantage of the Historically Black College and University (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.

In November 2018 and October 2020, MSU initiated Future Advance Project Funding Bonds from the U.S. Department of Education as part of the HBCU Capital Financing Loan Program totaling \$25.0 and \$69.8 million, respectively. Total amounts disbursed under these loans to date totaled \$33.7 million. This total was forgiven by the U.S. Department of Education pursuant to the Consolidated Appropriations Act of 2021. As a result, MSU had no bond debt outstanding as of June 30, 2021. The remaining \$44.1 million undisbursed from the 2020 HBCU loan is expected to be mostly disbursed in fiscal 2022 for a public safety building and a dining facility with any remaining balance disbursed in fiscal 2023.

MSU received an affirmed A+ Rating from Standard & Poor's in July 2020 with the outlook downgraded to Negative, and Moody's' last review was in May 2021 with an A1 rating and Stable outlook. Discussions are ongoing with Moody's and Standard & Poor's concerning the

COVID-19 pandemic; expectations are that the next review will occur sometime within the next several months.

Exhibit 7.7
Morgan State University Debt Service as Related to Unrestricted Funds
Fiscal 2011-2027 Estimated
(\$ in Thousands)

<u>Year</u>	<u>Total Debt Outstanding¹</u>	<u>Total Debt Service</u>	<u>Unrestricted Expenditures</u>	<u>Ratio of Debt Service to Unrestricted Expenditures</u>
2011	\$59,556	\$8,034	\$150,429	5.3%
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	177,568	3.4%
2016	54,409	7,100	183,346	3.9%
2017	48,481	8,312	198,116	4.2%
2018	46,465	8,332	204,057	4.1%
2019	44,434	7,980	215,484	3.7%
2020	40,973	8,081	212,505	3.8%
2021	9,038	7,545	169,184	4.5%
2022 Estimated	40,191	2,490	243,326	1.0%
2023 Estimated	50,493	2,931	248,222	1.2%
2024 Estimated	47,251	4,280	255,669	1.7%
2025 Estimated	43,924	4,280	263,339	1.6%
2026 Estimated	41,590	3,201	271,239	1.2%
2027 Estimated	40,295	2,121	279,376	0.8%

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 Historically Black College and University 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

Like USM, 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. Also like USM, GASB 87 will have a direct impact on capitalization of operating leases. MSU has indicated that there is an estimated \$42 million in operating leases that would need to be included in the debt services estimates under the new reporting system, which are not identified in Exhibit 7.7. MSU plans to engage an accounting/consulting firm to perform an analysis to determine the actual impact as part

of the implementation of this reporting and in preparation for next year's financial statement audit, which would then include those totals.

Impact of COVID-19 Pandemic

In March 2020, MSU moved to a 100% remote learning and work environment as a result of the COVID-19 pandemic. MSU opted for teaching primarily online, as COVID-19 cases in Maryland continued to rise in March 2020 and finished the semester online. For fall 2020 and spring 2021 (fiscal 2021), MSU offered primarily online instruction, except for research and laboratory programs, due to the pandemic. For fall 2021 (fiscal 2022), MSU is offering online and in-person classroom instructions for its students. MSU also mandated that students, faculty, and staff needed to document proof of vaccination, excluding those with medical or religious objections, prior to being allowed back on campus.

Throughout the pandemic, MSU has been upgrading facilities and technology, resulting in increased costs to support a remote learning environment and a safe work environment for essential employees. Approximately \$57 million of federal stimulus monies was used in fiscal 2021 for student grants, technology, student housing, remote instruction, campus safety and personal protective equipment, and financial aid to cover lost revenues. Approximately \$55 million in additional federal stimulus monies remains for pandemic-related expenditures in fiscal 2022 and 2023.

The federal stimulus provided needed funding to weather the financial impact of the pandemic, for students as well as the institution. These federal funds have enabled the university to improve academic and telework technological infrastructures needed to teach and work remotely. The ongoing costs of maintaining these technological infrastructures and the related staff and equipment costs necessary to provide a continued adequate and appropriate level of functionality are a challenge. Additionally, MSU has expressed concerns about inflation, which could make managing long-term financial stability more challenging.

Baltimore City Community College

To date, BCCC has not taken advantage of its ability to issue 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 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

Key issues examined in this chapter are:

- estimated savings realized by appropriating general funds so that bond sale premiums are not needed to fund debt service costs;
- Maryland's high debt and potential for additional demand over the six-year forecast period;
- how sound debt policies keep the cost of general obligation (GO) bonds low; and
- policies to consider if limits on GO bond authorizations are reevaluated.

Appropriate General Funds to Resize Bond Sales and Reduce Out-year Debt Service Costs

The Annuity Bond Fund (ABF) forecast in Chapter 5 anticipates that bond sale premiums in fiscal 2023 will be \$202 million. The administration's *Capital Improvement Plan* includes a \$125 million capital authorization for the Washington Metropolitan Area Transit Authority (WMATA), leaving \$77 million of premiums in excess of the amount required for capital assets.

GO bond debt service is supported by State property taxes, and general funds are appropriated if property tax collections are less than debt service costs. In prior years, the State deposited excess premiums into the ABF to support debt service. Using excess premiums provided short-term savings in general funds but resulted in the State borrowing to pay debt service costs and increased costs since the State pays debt service costs for these premiums.

The State now anticipates a general fund balance of over \$3 billion at the beginning of fiscal 2023. This large fund balance presents the State with an opportunity to appropriate additional general funds for debt service and reduce issuances at fiscal 2023 bond sales. Bond sales could be resized so that proceeds are sufficient to support anticipated capital issuances and the WMATA authorization only.

Exhibit 8.1 shows that bond sale premiums are expected to generate \$76.8 million more than is needed for the WMATA authorization. The Department of Legislative Services (DLS) estimates that resizing fiscal 2023 bond sales would reduce the debt service costs by \$92.9 million. By reducing the sale, the general fund surplus would be used to reduce out-year costs and generate \$16.1 million in net savings. **Given the State's strong financial position, DLS recommends that the State appropriate general funds to reduce the State's reliance on premiums to pay debt service costs.**

Exhibit 8.1
Savings from Resizing Fiscal 2023 Bond Sales
Fiscal 2023-2039
(\$ in Millions)

Description	<u>Amount</u>
Fiscal 2023 Estimated Bond Premiums	\$201.8
Fiscal 2023 Capital Authorizations	-125.0
Available for Debt Service	\$76.8
Fiscal 2023 General Fund Appropriation to Resize Bond Sale	-\$76.8
Fiscal 2024 to 2039 Savings from Resizing	92.9
Net Savings	\$16.1

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

Maryland Is a High-debt State That May See Increased Demand for Capital Spending during the Six-year Forecast Period

Maryland is a high-debt State that uses debt to support non-State capital assets. Large new bond issuances have been authorized in recent years. The demand for new debt may increase as the State considers renewing leases with the Baltimore Orioles and Ravens. The State's aging infrastructure may also add to the demand for debt.

Maryland Large Capital Program Also Supports Local Jurisdictions and Nonprofit Organizations

Maryland authorizes and issues higher levels of debt than most states, including most AAA-rated states. Maryland has used these high levels of debt to expand its capital program beyond only supporting State agency facilities. More than half of Maryland's capital program supports non-State programs and projects, the largest of which support public education and health.

Each year, Moody's Investors Service compares State debt levels. Two of the measures estimated by Moody's are measures that the State uses when evaluating debt: debt outstanding to personal income; and debt service to revenues. Maryland has the first or second highest ratios among the AAA-rated states for these measures.

Exhibit 8.2 shows that Moody's ranked Maryland the thirteenth highest State with respect to debt outstanding, which is 3.5% of personal income. This is the second highest level among AAA-rated states. Altogether, there are 19 states above the mean and 31 below the mean. The mean is skewed because there are states with exceptionally high levels of debt outstanding. For example, the state with the highest ratio, Hawaii at 10.1%, has a ratio that is almost three times more than Maryland's ratio.

Exhibit 8.2
Ranking AAA-rated States
Net Debt Outstanding as a Percent of Personal Income
Fiscal 2020

<u>Rank</u>	<u>State</u>	<u>Ratio</u>
5	Delaware	6.0%
13	Maryland	3.5%
17	Virginia	2.8%
20	Mean	2.5%
25	Georgia	1.9%
29	Utah	1.7%
30	Florida	1.3%
32	North Carolina	1.2%
39	South Dakota	0.9%
41	Missouri	0.8%
43	Texas	0.7%
44	Tennessee	0.5%
45	Indiana	0.5%
47	Iowa	0.3%

Note: Moody's estimate of net tax-supported debt outstanding excludes non-State debt supported by revenues other than State taxes. Moody's includes all lottery bonds, while Maryland excludes some lottery bonds. Consequently, Moody's estimates are usually higher than Maryland's estimates.

Source: Moody's Investors Services

Exhibit 8.3 shows that Maryland's debt service to revenues is the highest among AAA-rated states, at 6.8%. Maryland bonds have relatively short maturities since the State constitution limits State debt to 15 years. The average maturity for each issuance is 10 years. This increases debt service costs since principal is retired earlier. Rating agencies consider this advantageous; the State retires debt more quickly and is burdened less by prior issuances.

However, this leads to higher debt service payments in the short term, which is reflected in this ratio.

Exhibit 8.3
Ranking AAA-rated States
Net Debt Service as a Percent of Revenues
Fiscal 2020

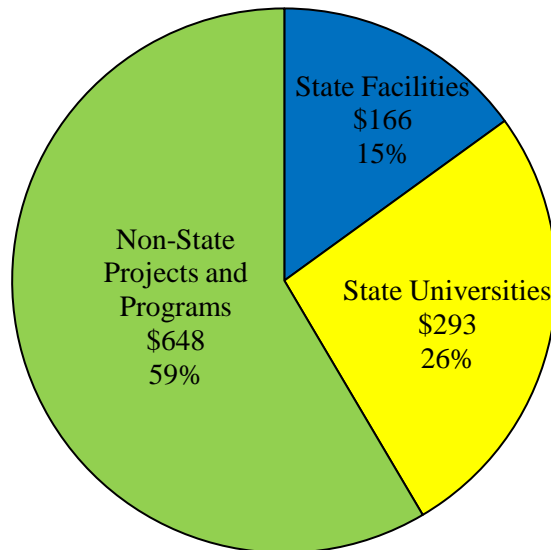
<u>Rank</u>	<u>State</u>	<u>Ratio</u>
8	Maryland	6.8%
11	Delaware	5.6%
15	Georgia	5.4%
19	Virginia	4.5%
20	Utah	4.5%
21	Florida	4.3%
22-23	Mean	4.1%
32	North Carolina	3.0%
33	Missouri	2.7%
34	Texas	2.6%
47	Iowa	0.7%
40	South Dakota	1.7%
44	Tennessee	1.1%
45	Indiana	1.0%

Note: Moody's estimate of net tax-supported debt outstanding excludes non-State debt supported by revenues other than State taxes. Moody's includes all lottery bonds, while Maryland excludes some lottery bonds. Consequently, Moody's estimates are usually higher than Maryland's estimates.

Source: Moody's Investors Services

Maryland's bond program supports various State and non-State projects and programs. **Exhibit 8.4** shows 59% of proposed fiscal 2022 GO bond authorizations support non-State projects and programs. The largest areas of support, public school construction, receives \$248 million, which is 22% of total authorizations.

Exhibit 8.4
Uses of General Obligation Bond Proceeds
Fiscal 2022 as Introduced
(\$ in Millions)



Note: The capital budget bill proposes \$1.107 billion in projects and deauthorizes \$2.4 million so that net authorizations are \$1.105 billion.

Source: Department of Budget and Management

The State Has Authorized a Substantial Amount of Revenue Bonds to Supplement Capital Needs Not Funded with General Obligation Bonds

In addition to the GO bond program, the State authorizes revenue bonds to support various non-State assets. Since 2013, the General Assembly has authorized over \$3.8 billion to support school construction, horse racing and community development, sports and multi-use facilities, and convention centers. **Exhibit 8.5** shows that the State authorized \$3.7 billion in revenue bond authorizations. This non-State debt is supported by revenues from the lottery, the Education Trust Fund, and the Maryland Stadium Authority (MSA).

Exhibit 8.5
Revenue Bond Authorizations
2013-2021 Legislative Sessions
(\$ in Millions)

<u>Description</u>	<u>Legislation</u>	<u>Revenue Source</u>	<u>Annual State Support of Debt Service</u>	<u>Cap on Par Value of Bonds</u>
Non-State Debt				
Baltimore City School Construction ¹	Chapter 647 of 2013	Lottery	\$20.0	\$1,100.0
Supplemental Facilities Fund	Chapter 221 of 2019	Maryland Stadium Authority	n/a	25.0
Pimlico and Laurel Park Improvements	Chapter 590 of 2020	Lottery	17.0	375.0
Built to Learn ²	Chapter 20 of 2020 and Chapter 698 of 2021	Education Trust Fund	125.0	2,200.0
Total Non-State Debt			\$162.0	\$3,700.0
State Debt				
Ocean City Convention Center ³	Chapters 217 and 218 of 2019	General Fund	\$1.0	\$24.5
Baltimore City Convention Center ⁴	Chapter 695 of 2019	General Fund	2.6	55.0
Hagerstown Multi-Use Sports and Events Facility	Chapter 353 of 2021	General Fund	3.8	59.5
Total State Debt			\$7.4	\$139.0

¹ Baltimore City School Construction is supported annually by \$20 million in State lottery revenues and \$40 million from Baltimore City resources.

² Built to Learn provides \$125 million annually beginning in fiscal 2024 and includes an option whereby Prince George's County could enter into a public-private partnership (P3) for its school construction. In which case, the amount for debt service is reduced to \$100 million, and \$25 million supports Prince George's County's P3.

³ Ocean City Convention Center debt service costs are shared between the State, who pays 60%, and Ocean City, who pays 40%. The City's debt service costs are not included in the debt service.

⁴ Baltimore City Convention Center debt service costs are shared between the State, who pays two-thirds, and Baltimore City, who pays one-third. The city's debt service costs are not included in the debt service.

Source: Maryland Stadium Authority; Department of Legislative Services

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. Subsequent bond sales were structured as non-State sales. As noted earlier, Moody's considers bonds supported by lottery revenues to be State debt.

Potential Demand for Additional Debt Authorizations

While the State has committed a substantial amount of revenue to support capital spending, there are other potential needs that the State may fund in the upcoming years. Baltimore has two major sports franchises whose long-term leases are expiring, and State infrastructure is aging and in need of maintenance and renovation.

Orioles and Ravens Stadium Leases

The State financed construction of a stadium for the Baltimore Orioles that opened in 1991 and a stadium for the Baltimore Ravens that opened in 1998. The leases between the State and the teams are coming to an end. The Orioles' stadium lease ended in 2021, and the Orioles signed a two-year extension to extend the leases through the 2023 baseball season. The Ravens lease ends after the 2027 season, which is expected to end in February 2028. It is common for franchises to ask State and local governments to pay for improvements to their stadiums after leases expire. The State may choose to continue to finance stadium improvements. While new stadiums may not need to be constructed, the cost of improving the stadiums, and potentially the area around the stadiums, could be substantial. This could require another large bond authorization.

At this point, it is too soon to know what kinds of improvements will be needed for the franchises to agree to long-term leases, so it is too soon to prepare a reasonable estimate. But costs of major renovations could be substantial. There may also be interest in construction on the Camden Yards site outside the stadium to provide attendees more services.

Past stadium improvements have been supported by lottery revenues. The State no longer considers all bonds supported by lottery revenues to be State debt, so any agreement may not result in new State debt. But this does not mean that there is no cost for using lottery revenues to support revenue bonds. Pledging lottery revenues for bonds reduces the amount of lottery revenues that are available for the General Fund. This restricts operating and capital spending and limits the State's ability and flexibility to address other needs. Capital Debt Affordability Committee (CDAC) affordability ratios are also indirectly affected since general fund revenues are reduced. Any lottery supported debt does create a long-term liability that rating agencies consider when they evaluate State debt.

Moody's Depreciation Ratio: Another Indicator of Maryland's Aging Capital Assets

Moody's has estimated how depreciated each states' capital assets are. The value of states' capital assets, which includes buildings, roads, and other infrastructure, are compared to those

assets' accumulated depreciation. A higher ratio suggests higher depreciation. Moody's notes that states with higher capital asset depreciation ratios may have increased demand for investments in capital assets. A high ratio means that there are excessive levels of unfunded maintenance. This is a liability, like underfunded pension costs, that the State will need to address at some point.

Exhibit 8.6 shows that Maryland's capital assets are among the most depreciated. Maryland is second among AAA-rated states and ninth when compared to all states.

Exhibit 8.6
AAA-rated States Capital Asset Depreciation Ratios
Fiscal 2019

<u>Rank</u>	<u>State</u>	<u>Ratio</u>
1	Indiana	66.1%
9	Maryland	57.3%
15	Georgia	52.9%
21	Iowa ¹	50.9%
22	Missouri	50.7%
28	Florida	49.2%
39	Delaware	45.5%
40	Utah	44.8%
41	Tennessee	44.0%
44	South Dakota	41.4%
47	Virginia	39.9%
49	Texas	34.8%
50	North Carolina	33.9%

¹ Fiscal 2020 data was not available as of publication, so fiscal 2019 data is shown.

Source: Moody's Investors Services

The State is aware that there is a large backlog of capital maintenance projects. The Department of General Services (DGS) manages State facilities exclusive of transportation infrastructure and university facilities. In January 2021, DGS identified \$210 million in capital maintenance projects at State-owned buildings and properties. **Insofar as the State currently has large fund balance that can be used for one-time expenditures and the State's capital assets are among the most depreciated, it is recommended that some of the fund balance be used to support capital maintenance. This is expected to reduce the demand for funding capital maintenance in the out-years and thus free resources for other priorities.**

Sound Debt Policies Give Maryland Access to Inexpensive Debt

Despite Maryland's high levels of debt, GO bond interest rates are low. Maryland's credit strengths include a strong economy and a willingness to make difficult decisions. Adhering to Maryland's affordability process is also a key credit strength.

Maryland Bonds Sell at a Low Rate

The State currently pays one of the lowest interest rates of all issuers of state and municipal debt. Each year, DLS measures the factors that influence GO bonds' interest rates. An analysis of the interest cost of GO bonds in Chapter 6 shows that the State's cost of capital is low. DLS' analysis suggests that:

- State bonds sell at 82% of *The Bond Buyer's* index of 20 state and municipal bonds, which is well below the average; and
- the "flight to quality" since the Great Recession reduces the interest rate by another 0.89% (89 basis points). The market has been more discriminating of credit quality since the Great Recession, which has reduced Maryland rates compared to average and lowered quality issuances.

These trends have become more favorable since the pandemic began. A year ago, the true interest cost was 85% of *The Bond Buyer* Index instead of the current 82%. Similarly, the "flight to quality" coefficient was 0.81% (81 basis points) a year ago and is now 0.89% (89 basis points).

Why Maryland Has a AAA Bond Rating

High levels of debt notwithstanding, Maryland has a AAA bond rating from all three major credit rating agencies. Rating agencies have identified strong economy and financial practices as credit strengths. The State also adheres to its affordability process and policies.

Rating Agencies Identify Maryland's Credit Strengths

Prior to the most recent bond sale in August 2021, rating agencies reaffirmed Maryland's AAA bond rating. That agencies commented on the following credit strengths:

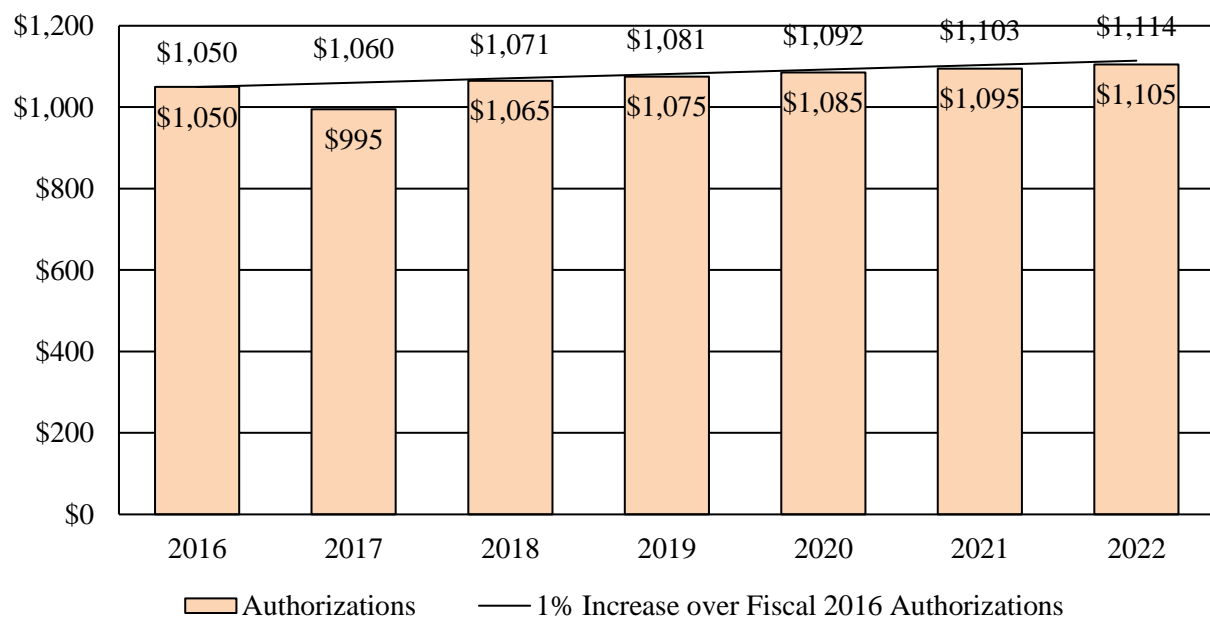
- high wealth and income levels;
- broad and diverse economy;
- strong and well-embedded financial practices; and
- adequate reserves and liquidity.

Maryland Has a History of Making Difficult Decisions to Reduce or Slow the Growth of the Capital Program to Keep Debt Affordable

An example of Maryland's strong and well-embedded financial practices is Maryland's willingness to make difficult decisions. The State has exhibited discipline when ratios were close to breaching the affordability limits. During the Great Recession, revenues declined so substantially that the State debt service to revenues was expected to exceed 8% of revenues in the out-years. In response, GO bond authorizations were reduced from \$1.14 billion in fiscal 2011 to \$925 million in fiscal 2012. The prior plan had been to increase the fiscal 2012 authorizations to \$1.17 million.

The State has also restrained increases in bond authorizations. Since 2015, the Spending Affordability Committee recommended that increases in authorizations be limited to 1%. This policy was adopted when the debt service to revenues ratio was close to the affordability limit. The major revenue source supporting debt service is the State property tax, which was projected to increase between 1% to 2% annually. To keep the growth below revenues, increases in authorizations were limited to 1%. **Exhibit 8.7** shows that increases in GO bond authorizations have been less than the 1% limit.

Exhibit 8.7
General Obligation Bond Authorizations
Fiscal 2016-2022
(\$ in Millions)



Source: Department of Legislative Services

Observations about Maryland's AAA Rating

Based on conversations with rating agencies and the comments in their ratings, DLS observes that:

- ***Most AAA-rated States Have Debt Levels Below the Median:*** While high debt levels do not disqualify states from receiving the AAA rating, most AAA-rated states have debt levels below the median on two key measures. Only 4 of 13 states with AAA ratings from the three major rating agencies have debt outstanding ratios above the median, and 3 of 13 states have debt service ratios above the median. It is clear that AAA-rated states are not authorizing and issuing as much debt as lower-rated states.
- ***Maryland's Affordability Process Is a Credit Strength:*** All three rating agencies comment favorably about Maryland's affordability process. The agencies consider Maryland's financial and debt management processes to be strong, well-embedded, and sustainable. The agencies recognize that the State develops long-term forecasts through a collaborative approach. The process is proactive as the State addresses budget shortfalls quickly and is prepared to make mid-year adjustments. Maryland has also taken actions to reduce long-term liabilities.
- ***Process Matters More:*** As a high-debt, AAA-rated State, process matters more for Maryland than other states. Each of the three major rating agencies is concerned about the high levels of long-term liabilities. If ratings were only about debt levels, Maryland would not get the AAA-rating from all three agencies. Fortunately, the agencies also consider Maryland's financial and debt management processes. These have an excellent reputation for being thorough and adhered to consistently. Rating agency comments suggest that Maryland will need to maintain these high standards to keep the highest ratings for Maryland debt.

Change in the State's Fiscal Condition Could Lead to Reevaluation of Debt Policies

One strength of State debt policy is that it provides both guidance and flexibility. The State has developed policies and implemented them over a period of years. When situations change, this process can be used to evaluate how to adapt policies to reflect the new environment.

Coming out of the Great Recession, the State was close to its debt service to revenue affordability ratio and responded by both reducing the capital program and limiting growth in annual authorizations. Coming out of the nadir of the COVID-19 pandemic, updated revenue estimates put the State in an entirely different and improved fiscal condition. The combination of a large fund balance and higher out-year revenue estimates offers the State the opportunity to increase GO bond authorizations without breaching the limit in the near term. Should the State reevaluate debt policies, the following should be considered:

- ***Should Out-year Growth Be Linked to Revenues or Spending:*** In recent years, increased authorizations have been linked to a performance indicator; the current policy is to limit increases in authorizations by 1% so that debt increases more slowly than the revenues supporting the debt. While this policy was necessary in previous years, this may no longer be necessary under the improved fiscal outlook. Should the State deviate from this policy, it should consider replacing the link to revenues with a link to a new metric. An example of this approach is in Chapter 4, in which DLS assess linking annual growth to capital budget anticipated construction inflation instead of revenues.
- ***Should the Affordability Limit Recognize Pay-as-you-go (PAYGO) Operating Budget Appropriations:*** The CDAC recommendation is to reduce the fiscal 2023 authorization by \$215 million under the planned amount for a \$900 million authorization. This recommendation is not meant to reduce the capital program by \$215 million. Rather, it is implied that the State general fund surplus instead supports the capital program with PAYGO appropriations. For clarity and planning purposes, when a recommendation to reduce authorizations is made, another recommendation for the amount of PAYGO appropriations could also be made.
- ***How Can the General Fund Surplus Support the Capital Program:*** A concern about the fiscal 2023 capital budget is the effect of inflation on purchasing power and if the authorization is sufficient to complete capital projects. The State has a Construction Contingency Fund that provides funding for projects that are over budget. This fund is ideal for addressing inflationary cost increases. The fund's beginning of fiscal 2022 fund balance was \$8.2 million. Should inflationary pressures persist, this balance could be depleted quickly. One approach to dealing with inflation is to provide PAYGO appropriations into the fund.

DLS recommends that the State continue its sound fiscal management and prudent debt policies. In response to revised revenue projections and fund balances, the State may want to reevaluate limits on planned GO bond authorizations. If limits on authorizations are changed, the State should consider policies to guide what authorizations are appropriated and how to use general funds to support the capital program.

Appendix 1
General Obligation Bond Requests
Fiscal 2023-2027
(\$ in Millions)

	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>Total</u>	<u>Category Totals</u>
State Facilities							\$811.2
Board of Public Works	\$112.7	\$137.3	\$114.7	\$181.2	\$115.3	\$661.1	
Veterans Affairs	62.0	1.7	0.0	0.0	0.0	63.7	
Military	1.0	4.3	9.5	3.6	5.8	24.3	
Emergency Management	9.6	8.8	0.0	0.0	0.0	18.5	
Disabilities	2.2	2.0	1.6	1.6	1.6	9.0	
Information Technology	5.5	9.0	8.7	5.5	6.0	34.7	
Health and Social Services							\$443.0
Health	\$14.3	\$33.5	\$36.3	\$20.2	\$33.3	\$137.6	
University of Maryland Medical System	2.6	31.5	33.0	20.0	0.0	87.1	
Senior Citizen Activity Center	2.4	1.6	1.6	1.6	1.6	8.8	
Juvenile Services	34.8	38.7	7.4	21.9	71.7	174.5	
Private Hospital Grant Program	6.5	7.0	7.0	7.0	7.5	35.0	
Environment							\$325.1
Natural Resources	\$30.7	\$26.5	\$8.9	\$8.8	\$9.5	\$84.4	
Agriculture	6.0	7.0	8.0	8.0	8.0	37.0	
Environment	24.0	32.8	32.8	27.8	27.8	145.2	
Maryland Environmental Service	9.6	10.8	17.3	12.1	8.7	58.5	
Education							\$2,599.2
Education	\$7.5	\$7.5	\$7.5	\$7.5	\$7.5	\$37.5	
Maryland School for the Deaf	7.8	1.2	1.2	3.5	6.0	19.7	
Public School Construction	479.6	499.6	499.6	499.6	563.5	2,541.9	
Higher Education							\$2,258.6
University System of Maryland*	\$227.5	\$217.4	\$203.8	\$220.1	\$114.8	\$983.5	
Baltimore City Community College	6.7	16.1	28.9	28.4	32.5	112.6	
St. Mary's College of Maryland	3.4	2.0	3.5	12.0	31.4	52.3	
Morgan State University	100.7	101.6	99.0	113.8	71.9	487.0	
Community Colleges	77.1	80.7	80.4	171.7	154.1	564.0	
Private Facilities Grant Program	11.3	12.0	12.0	12.0	12.0	59.3	
Public Safety							\$939.1
Public Safety and Correctional Services	\$63.2	\$211.2	\$186.1	\$209.2	\$129.3	\$799.0	
State Police	21.9	8.8	15.2	14.6	9.7	70.3	
Local Jails	9.1	10.6	8.0	36.8	5.4	69.8	
Housing and Economic Development							\$859.2

	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>Total</u>	<u>Category Totals</u>
Housing and Community Development	\$161.5	\$162.5	\$162.5	\$162.5	\$162.5	\$811.4	
Historic St. Mary's City	14.7	1.7	1.9	6.9	4.1	29.2	
Planning	11.5	1.8	1.8	1.8	1.8	18.5	
							\$675.0
Legislative Initiatives**	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0	\$375.0	
Miscellaneous***	60.0	60.0	60.0	60.0	60.0	300.0	
Subtotal Request	\$1,662.4	\$1,822.1	\$1,733.1	\$1,954.7	\$1,738.2	\$8,910.4	\$8,910.4
Debt Affordability Limits 2021 CDAC	\$900.0	\$1,115.0	\$1,125.0	\$1,135.0	\$1,145.0	\$5,420.0	
Amount Programmed in 2021 CIP	\$1,115.0	\$1,125.0	\$1,135.0	\$1,145.0	\$1,155.0	\$5,675.0	
Variance 2021 CDAC	\$762.4	\$707.1	\$608.1	\$819.7	\$593.2	\$3,490.4	
Variance 2021 CIP	\$547.4	\$697.1	\$598.1	\$809.7	\$583.2	\$3,235.4	

CDAC: Capital Debt Affordability Committee

CIP: *Capital Improvement Program*

* In addition to the general obligation bond request, the University System of Maryland has requested academic revenue bond funding of \$30.0 million annually for fiscal 2023 through 2027.

** Figures represent the average total funding requests received through local legislative bond initiatives (fiscal 2019 to 2022).

*** Figures represent the average total funding for miscellaneous projects sponsored by the Governor (fiscal 2019 to 2022).

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

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

Appendix 2
Estimated General Obligation Bond Issuances
Fiscal 2022 to Post-2031
(\$ in Millions)

<u>Fiscal</u> <u>Year</u>	<u>Proposed</u> <u>Auth.</u>	<u>Estimated Issuances during Fiscal Year (a) =====></u>											<u>Total Issued</u>
		<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>Post-2031</u>	
2023	\$1,115	\$0	\$346	\$279	\$223	\$167	\$100						\$1,115
2024	1,125		0	349	281	225	169	\$101					1,125
2025	1,135			0	352	284	227	170	\$102				1,135
2026	1,145				0	355	286	229	172	\$103			1,145
2027	1,155					0	358	289	231	173	\$104		1,155
2028	1,165						0	361	291	233	175	\$105	1,165
2029	1,175							0	364	294	235	282	1,175
2030	1,185								0	367	296	522	1,185
2031	1,195									0	370	825	1,195
Total New Authorization		\$0	\$346	\$628	\$856	\$1,031	\$1,140	\$1,150	\$1,160	\$1,170	\$1,180	\$1,734	
Previously Authorized GO Bonds	\$2,573	\$1,065	\$722	\$463	\$246	\$73	\$4	\$0	\$0	\$0	\$0	\$0	\$2,573
Total Issuances		\$1,065	\$1,068	\$1,091	\$1,102	\$1,104	\$1,144	\$1,150	\$1,160	\$1,170	\$1,180	\$1,734	\$12,968
Percentage Issuance Assumptions by Fiscal Year													
Fiscal Year Following Year of Authorization					1st	2nd	3rd	4th	5th	Total			
Percent of Authorization Issued					31.0%	25.0%	20.0%	15.0%	9.0%	100.0%			

GO: general obligation

Source: Department of Legislative Services

Appendix 3
Maryland General Obligation Bond Debt True Interest Cost Analysis
Statistically Significant Variables

<u>Bond Sale Date</u>	<u>TIC</u>	<u>20-bond Index</u>	<u>YTM</u>	<u>Call</u>	<u>Post-crisis</u>
03/13/91	6.31%	7.32%	9.84	Yes	No
07/10/91	6.37%	7.21%	9.85	Yes	No
10/09/91	5.80%	6.66%	9.80	Yes	No
05/13/92	5.80%	6.54%	9.80	Yes	No
01/13/93	5.38%	6.19%	9.73	Yes	No
05/19/93	5.10%	5.77%	9.73	Yes	No
10/06/93	4.45%	5.30%	9.73	Yes	No
02/16/94	4.48%	5.42%	9.74	Yes	No
05/18/94	5.36%	6.14%	9.74	Yes	No
10/05/94	5.69%	6.50%	9.72	Yes	No
03/08/95	5.51%	6.18%	9.78	Yes	No
10/11/95	4.95%	5.82%	9.65	Yes	No
02/14/96	4.51%	5.33%	9.65	Yes	No
06/05/96	5.30%	5.94%	9.69	Yes	No
10/09/96	4.97%	5.73%	9.70	Yes	No
02/26/97	4.90%	5.65%	9.68	Yes	No
07/30/97	4.64%	5.23%	9.68	Yes	No
02/18/98	4.43%	5.07%	9.68	Yes	No
07/08/98	4.57%	5.12%	9.68	Yes	No
02/24/99	4.26%	5.08%	9.60	Yes	No
07/14/99	4.83%	5.36%	9.60	Yes	No
07/19/00	5.05%	5.60%	9.72	Yes	No
02/21/01	4.37%	5.21%	9.71	No	No
07/11/01	4.41%	5.22%	9.68	No	No
03/06/02	4.23%	5.19%	9.61	No	No
07/31/02	3.86%	5.00%	9.66	No	No
02/19/03	3.69%	4.79%	9.60	No	No
07/16/03	3.71%	4.71%	9.67	Yes	No
07/21/04	3.89%	4.84%	9.70	Yes	No
03/02/05	3.81%	4.50%	9.70	Yes	No
07/20/05	3.79%	4.36%	9.69	Yes	No
03/01/06	3.87%	4.39%	9.68	Yes	No
07/26/06	4.18%	4.55%	9.64	Yes	No
02/28/07	3.86%	4.10%	9.64	Yes	No
08/01/07	4.15%	4.51%	9.65	Yes	No
02/27/08	4.14%	5.11%	9.64	Yes	No
07/16/08	3.86%	4.65%	9.60	Yes	Yes
03/04/09	3.39%	4.96%	9.01	Yes	Yes
03/02/09	3.63%	4.87%	10.04	Yes	Yes

<u>Bond Sale Date</u>	<u>TIC</u>	<u>20-bond Index</u>	<u>YTM</u>	<u>Call</u>	<u>Post-crisis</u>
08/05/09	2.93%	4.65%	8.96	Yes	Yes
08/03/09	3.20%	4.69%	9.01	Yes	Yes
10/21/09	2.93%	4.31%	7.91	Yes	Yes
07/28/10	1.64%	4.21%	5.34	No	Yes
07/28/10	1.91%	4.21%	6.20	Yes	Yes
03/07/11	2.69%	4.90%	6.86	No	Yes
03/09/11	3.49%	4.91%	10.51	Yes	Yes
07/25/11	1.99%	4.46%	5.65	No	Yes
07/27/11	3.08%	4.47%	10.05	Yes	Yes
03/02/12	2.18%	3.72%	8.33	Yes	Yes
03/07/12	2.42%	3.84%	9.71	Yes	Yes
07/27/12	2.52%	3.61%	9.10	Yes	Yes
08/01/12	2.17%	3.66%	9.71	Yes	Yes
03/06/13	2.35%	3.86%	9.61	Yes	Yes
07/24/13	3.15%	4.77%	10.20	Yes	Yes
03/05/14	2.84%	4.41%	10.14	Yes	Yes
07/18/14	1.27%	4.36%	4.69	No	Yes
07/23/14	2.65%	4.29%	10.16	Yes	Yes
03/05/15	2.65%	3.68%	9.63	Yes	Yes
07/16/15	2.83%	3.82%	10.33	Yes	Yes
06/08/16	2.17%	3.03%	9.62	Yes	Yes
03/08/17	2.84%	4.02%	10.59	Yes	Yes
08/16/17	2.29%	3.57%	9.59	Yes	Yes
03/07/18	2.83%	3.88%	10.29	Yes	Yes
08/01/18	2.33%	3.95%	6.72	No	Yes
08/01/18	3.12%	3.95%	13.05	Yes	Yes
03/26/19	1.78%	3.79%	6.69	No	Yes
03/26/16	2.71%	3.79%	13.02	Yes	Yes
08/14/19	1.13%	3.10%	7.35	No	Yes
08/14/19	1.98%	3.10%	13.00	Yes	Yes
03/04/20	0.89%	2.31%	7.41	No	Yes
03/04/20	1.85%	2.31%	13.01	Yes	Yes
07/22/20	0.55%	2.10%	6.75	No	Yes
07/22/20	1.74%	2.10%	13.09	Yes	Yes
02/24/21	0.63%	2.44%	7.48	No	Yes
02/24/21	1.73%	2.44%	13.07	Yes	Yes
08/11/21	0.76%	2.14%	7.58	No	Yes
08/11/21	1.78%	2.14%	13.02	Yes	Yes

TIC: true interest cost

YTM: years to maturity

Source: *The Bond Buyer*; Federal Bureau of Economic Analysis; Bond Sale Official Statements

Appendix 4
Agency Debt Outstanding
Fiscal 2011-2021
(\$ in Millions)

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Change 2011-21</u>	<u>Average Annual % Change 2011-2021</u>
<u>Agency Debt Subject to Ceiling and Allocation Caps</u>													
Maryland Environmental Service	\$31.2	\$27.5	\$25.2	\$27.9	\$26.4	\$24.8	\$23.1	\$21.4	\$27.8	\$26.8	\$24.7	-\$6.4	-2.3%
Maryland Transportation Authority	3,292.9	3,279.7	3,303.2	3,179.3	3,176.4	3,062.0	2,928.4	1,588.6	1,552.8	1,910.4	2,135.9	-1,157.0	-4.2%
Maryland Water Quality Financing Administration ¹	112.0	57.7	47.2	36.7	33.2	29.2	24.7	20.3	17.8	15.2	12.4	-99.6	-19.8%
Revenue Cap Total	\$3,436.1	\$3,364.9	\$3,375.6	\$3,243.9	\$3,235.9	\$3,116.0	\$2,976.2	\$1,630.3	\$1,598.4	\$1,952.4	\$2,173.0	-\$1,263.0	-4.5%
% Change/Prior Year	20.0%	-2.1%	0.3%	-3.9%	-0.2%	-3.7%	-4.5%	-45.2%	-2.0%	22.1%	11.3%		
<u>Agency Debt Not Subject to Ceiling and Allocation Caps</u>													
Baltimore City Community College	\$1.2	\$1.0	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	-\$1.2	-100.0%
Department of Housing and Community Development ²	3,238.7	3,106.5	2,979.0	2,783.2	2,557.0	2,535.9	2,445.4	2,295.9	2,601.2	3,038.8	2,922.9	-315.8	-1.0%
Local Government Infrastructure (CDA)	127.2	122.8	129.6	137.1	164.1	156.1	167.8	184.0	191.9	195.9	181.5	54.3	3.6%
Maryland Industrial Development Financing Authority	484.8	492.6	347.7	335.1	312.6	288.3	286.4	265.8	237.0	223.6	213.0	-271.8	-7.9%
MDOT – County Revenue Bonds	89.1	82.9	101.7	94.9	87.9	120.2	108.8	97.0	128.0	113.4	100.6	11.5	1.2%
MDOT – Nontax-supported Issuances	54.2	51.1	47.7	44.7	41.5	38.2	33.4	29.8	26.1	22.1	17.9	-36.3	-10.5%
Morgan State University	59.6	55.2	47.8	44.3	43.5	58.3	51.8	46.5	45.0	40.9	9.0	-50.6	-17.2%
St. Mary’s College of Maryland	41.8	38.3	36.1	34.3	34.6	32.5	32.0	29.6	25.8	24.3	42.1	0.3	0.1%
University System of Maryland	1,129.2	1,170.0	1,195.0	1,269.0	1,128.5	1,178.7	1,202.0	1,186.8	1,196.7	1,202.0	1,207.9	78.7	0.7%
Noncap Total	\$5,225.8	\$5,120.4	\$4,885.5	\$4,742.7	\$4,369.7	\$4,408.2	\$4,327.5	\$4,135.5	\$4,451.6	\$4,861.0	\$4,694.9	-\$530.9	-1.1%
% Change/Prior Year	0.9%	-2.0%	-4.6%	-2.9%	-7.9%	0.9%	-1.8%	-4.4%	1.0%	12.3%	13.5%		

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Change 2011-21</u>	<u>Average Annual % Change 2011-2021</u>
<u>Tax-supported Debt</u>													
Transportation Debt	\$1,561.8	\$1,562.6	\$1,618.0	\$1,813.0	\$2,020.3	\$2,146.1	\$2,578.4	\$2,911.7	\$3,342.9	\$3,627.0	\$3,672.3	\$2,110.5	8.9%
Grant Anticipation Revenue Vehicles	596.9	539.4	479.0	415.8	349.4	279.8	206.6	129.7	48.9	0.0	0.0	-596.9	-100.0%
Capital Leases	166.4	310.3	286.2	260.3	242.2	236.0	216.7	223.6	199.2	198.1	175.4	9.0	0.5%
Maryland Stadium Authority	225.7	218.3	193.0	175.4	151.0	130.5	110.4	88.6	122.8	120.1	108.5	-117.2	-7.1%
Bay Restoration Bonds	41.6	38.8	36.0	133.1	130.0	301.6	292.9	273.6	253.4	232.1	209.2	167.6	17.5%
General Obligation Debt	6,982.8	7,541.1	8,005.8	8,362.3	8,677.2	9,465.3	9,334.2	9,479.4	9,606.9	9,772.5	9,912.9	2,930.1	3.6%
Tax-supported Debt Total	\$9,575.2	\$10,210.5	\$10,618.0	\$11,160.0	\$11,570.1	\$12,559.2	\$12,739.1	\$13,106.6	\$13,574.2	\$13,949.7	\$14,078.3	\$4,503.1	3.9%
% Change/Prior Year	2.4%	6.6%	4.0%	5.1%	3.7%	8.5%	1.4%	2.9%	8.1%	9.5%	7.4%		
<u>Authorities and Corporations Not Subject to Ceiling and Allocation Caps</u>													
Health/Higher Education Facilities Authority	\$8,656.4	\$8,913.1	\$8,835.3	\$8,837.2	\$8,779.5	\$8,664.0	\$9,042.8	\$9,063.4	\$8,903.8	\$8,339.6	\$8,475.2	-\$181.1	-0.2%
Maryland Economic Development Corporation	2,471.2	2,523.1	2,391.0	2,253.8	2,192.7	2,426.6	2,311.0	2,301.9	2,373.0	2,453.7	2,758.2	287.0	1.1%
Authorities and Corporations Total	\$11,127.6	\$11,436.2	\$11,226.3	\$11,091.0	\$10,972.2	\$11,090.6	\$11,353.8	\$11,365.3	\$11,276.8	\$10,793.3	\$11,233.5	\$105.9	0.1%
% Change/Prior Year	1.2%	2.8%	-1.8%	-1.2%	-1.1%	1.1%	2.4%	0.1%	1.7%	-4.9%	-1.2%		

CDA: Community Development Administration
MDOT: Maryland Department of Transportation

¹ Excludes bay restoration bonds.

² Excludes local government infrastructure.