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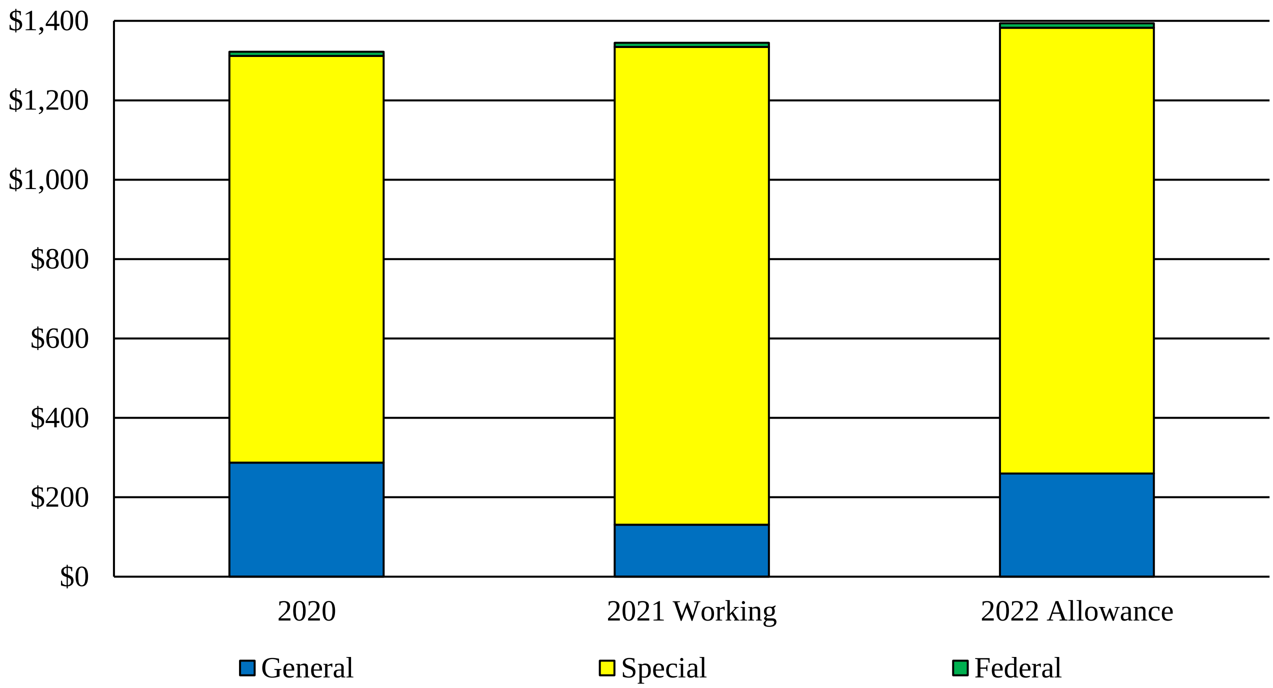
Public Debt

Executive Summary

The Public Debt program appropriates funds for general obligation (GO) bonds' debt service principal and interest payments. GO bonds support the State's general construction program. GO bonds do not pledge specific revenues but rather pledge the State's full faith and credit. Debt service payments are supported by the Annuity Bond Fund, whose largest revenue source is the State property tax.

Operating Budget Summary

Fiscal 2022 Budget Increases by $49 Million, or 3.6%, to $1.394 Billion
($ in Millions)



- General fund appropriations in fiscal 2022 increase from fiscal 2021. Revised bond counsel advice limits the amount of bond sale premiums that can support debt service to three-years' interest payments. This reduces the amount of bond sale premiums anticipated to be available for GO bond debt service costs.

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Key Observations

- ***Maryland's Highly-rated Debt Policies Served the State Well during the COVID-19 Pandemic:*** GO bonds issued during the pandemic sold at historically low levels that were well below market indices. Rating agencies approved of the State's debt management policies. The July 2020 bond sale refunding reduced fiscal 2021 debt service costs by $61 million.

- ***Maryland Is a High-debt State That Has Expanded Its Capital Program Beyond State Facilities but Maintains an AAA Bond Rating:*** Maryland's net debt service to revenues is the ninth highest among the states, and net debt outstanding as a percent of personal income is the fourteenth highest among the states. Compared to AAA-rated states, Maryland has the highest debt service to revenues, and Maryland is highest behind Delaware with respect to debt outstanding to personal income. This additional debt is used to support capital projects for grants to local jurisdictions and nonprofit organizations, which accounts for 48% of the fiscal 2022 capital budget. In spite of these high levels of State debt, Maryland retains its AAA bond rating because of its prudent debt management policies.

- ***Review of State's Bond Sale Premium Policies:*** The 2020 *Joint Chairmen's Report* required that the State Treasurer's Office, the Department of Budget and Management, and the Department of Legislative Services examine the State policies regarding bond premiums that are realized at GO bond sales. The agencies recommended that the State reduce its reliance on bond sale premiums to support GO bond debt service.

Operating Budget Recommended Actions

		Funds
1.	Reduce debt service costs to reflect March 2021 and summer 2021 issuances.	$ 2,000,000
	Total Reductions	**$ 2,000,000**

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Public Debt

Operating Budget Analysis

Program Description

The Public Debt program appropriates funds for general obligation (GO) bonds' debt service payments. This includes principal and interest payments. The Capital Debt Affordability Committee (CDAC) develops State debt policies and recommends limits on State debt. GO bonds support the State's general construction program, which includes grants to local public school construction, other grants to local jurisdictions and nonprofit organizations, higher education facilities, and State facilities. GO bonds do not pledge specific revenues but rather pledge the State's full faith and credit. Recent issuances include:

- tax-exempt bonds sold to institutional investors;
- tax-exempt bonds sold to retail investors;
- taxable bonds sold to institutional investors;
- Build America Bonds (BAB) that were taxable bonds for which the State receives a direct subsidy from the federal government;
- Qualified Zone Academy Bonds (QZAB) that support specific education projects. Depending on the date of issuance, these bonds have received federal tax credits or direct federal subsidies;
- Qualified School Construction Bonds (QSCB) that supported specific education projects. Depending on the date of issuance, these bonds have received federal tax credits or direct federal subsidies; and
- Qualified Energy Conservation Bonds (QECB) that are direct federal subsidy bonds that support energy efficiency capital expenditures in public buildings, renewable energy production, and other related projects.

GO bond debt service payments are supported by the Annuity Bond Fund (ABF). ABF revenues include State property tax revenues; federal subsidies; bond sale premiums; and repayments from certain State agencies, subdivisions, and private organizations. General funds may subsidize debt service if these funds are insufficient.

The State usually issues tax-exempt GO bonds to institutional investors twice a year. Other bonds are issued as they become authorized as needed (taxable) or as they are in demand (retail bonds). Each issuance's goal is to minimize the bonds' debt service costs.

Budget Reconciliation and Financing Act

Under current law, bond premiums are dedicated to the payment of debt service. In fiscal 2021 and in some prior years, the General Assembly temporarily expanded the use of bond premiums to support capital projects authorized in the capital budget. Provisions in the Budget Reconciliation and Financing Act (BRFA) of 2021 expand the allowable uses of bond premiums to include reducing the principal amount of the current or future sales, supporting capital projects included in previous GO bond authorizations, and supporting capital projects authorized subsequent to the issuance of the GO bonds for fiscal 2021 to 2023.

For over a decade, tax-exempt GO bond sales have realized proceeds in excess of the par value of the bonds. These excess proceeds are referred to as a bond sale premium. In the most recent bond sale in July 2020, the State issued $540 million that realized $721 million in proceeds. After deducting the underwriter's discount and cost of issuance, the sale realized a $180 million premium. Section 8-132 of the State Finance and Procurement Article requires that any premiums realized are deposited into the ABF to pay the bonds' debt service costs.

That GO bonds are selling at a premium is attributable to market demand. Interest rates are currently at historically low levels and Maryland issues fixed-rate bonds. Interest rates are expected to remain low so subsequent bond sales are anticipated to sell bonds at a premium.

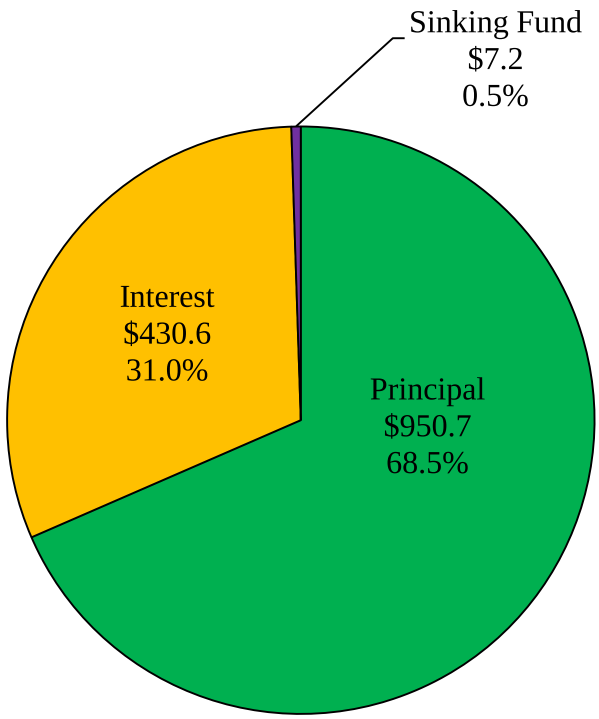
In 2020, bond counsel revised its opinion concerning the use of premiums realized in tax-exempt bond sales. The new advice limits the amount of premiums that can be used for debt service to capitalized interest, which the bond counsel defines as the first three-years' interest payments.

Some of Maryland GO bond sales have generated premiums in excess of three-years' debt service payments. The BRFA provides the State Treasurer's Office (STO) the flexibility to apply premiums to capital projects authorized by the General Assembly or reduce subsequent bond issuance if premiums in excess of capitalized interest are realized and authorizes the premiums in excess of three-years' debt service to support projects in the capital budget.

Fiscal 2022 Overview of Agency Spending

Exhibit 1 shows that over two-thirds of debt service costs are principal payments. This is an unusually high level of principal payments and is attributable to Maryland GO bonds' relatively short maturities. The State constitution does not allow for any State debts in excess of 15 years. To level out debt service payments, each issuance sells tranches of bonds that mature between 3 and 15 years with an average maturity of 10 years. This means that Maryland tends to have higher debt service payments for the level of debt that is outstanding and also retires debt more quickly.

Exhibit 1
DLS Estimate of Fiscal 2022 Debt Service
Fiscal 2022 Allowance
($ in Millions)



DLS: Department of Legislative Services

[1] Sinking funds payments are required of some federal tax credit bonds. These bonds have a reduced or even 0% interest rate so that most of the sinking fund appropriations support the principal.

[2] The DLS estimate of total fiscal 2022 debt service varies from spending reported in the budget books. The DLS estimate adds anticipated March 2021 and summer 2021 debt service to debt service from prior bond sales as reported by the State Comptroller's Office. Detail is provided in Exhibit 2.

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

Exhibit 2 shows that most of the State's debt is fixed-rate bonds sold to institutional investors. The State has also issued taxable bonds and has $136.4 million taxable debt outstanding at the beginning of fiscal 2022, of which $36.4 million will be retired during the year.[1] BABs, QZABs, QSCBs, and QECBs issuances are structured to take advantage of federal tax credits or subsidies. Debt service payments for these issuances are less than traditional GO bonds. At the beginning of fiscal 2022, $477.3 million of the State's GO debt outstanding is attributable to these bonds.

Exhibit 2
Debt Service Costs
Fiscal 2022
($ in Millions)

Type of Debt	Principal	Interest	Sinking Fund	Total
Previously Issued Debt				
General Obligation Bonds Sold to Institutional Investors	$851.0	$373.8	$0.0	$1,224.8
Taxable Bonds	36.4	2.1	0.0	38.5
Build America Bonds	57.0	13.7	0.0	70.7
Qualified Zone Academy Bonds	6.3	1.3	0.8	8.5
Qualified School Construction Bonds	0.0	2.0	6.4	8.3
Qualified Energy Conservation Bonds	0.0	0.3	0.0	0.3
Subtotal	**$950.7**	**$393.3**	**$7.2**	**$1,351.2**
Debt to be Issued				
March 2021 Bond Sale[1]	$0.0	$23.8	$0.0	$23.8
Summer 2021 Bond Sale[2]	0.0	13.6	0.0	13.6
Subtotal	**$0.0**	**$37.4**	**$0.0**	**$37.4**
Total	**$950.7**	**$430.6**	**$7.2**	**$1,388.5**

[1] The State Treasurer's Office (STO) advises that the March 2021 bond sale will issue $475 million ($425 million in tax-exempt and $50 million in taxable bonds) with a 5.00% coupon rate, requiring $23.75 million in debt service appropriations. The Department of Budget and Management (DBM) assumes $540 million will be issued, requiring $27 million in debt service appropriations.
[2] DBM appropriates $12.5 million for debt service. STO advises that $545 million in issuances with a 5.00% coupon rate will require $13.63 million.

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

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

[1] Taxable debt is more expensive than tax-exempt debt, so taxable bonds are issued with shorter maturities. This minimizes the extra costs paid for taxable bonds. At the bond sale in August 2019, the State sold $50 million in taxable GO bonds to institutional investors with three- and four-year maturities. The issuance's yield was 1.61% for the four-year bonds. Thirty minutes later, the State also issued $14.89 million in tax-exempt bonds to institutional investors. The tax-exempt bond sale had a true interest cost of 0.94%. The difference between the four-year bonds was 0.67% (67 basis points). The Department of Legislative Services estimates that the additional 67 basis points paid for taxable three- and four-year bonds increased interest payments by $1.13 million from fiscal 2020 to 2023.

Fiscal 2021 Annuity Bond Fund Projections

Most of the revenues supporting GO bond debt service are derived from State property taxes. **Exhibit 3** shows that for fiscal 2022, State property taxes provide $912 million, which represents 66% of the appropriation. The Department of Budget and Management (DBM) projects total fiscal 2021 premiums will be $308 million. DBM also estimates $210 million in fiscal 2022 premiums. The Administration proposes authorizing $136 million and $210 million in premiums for capital projects in fiscal 2021 and 2022, respectively. To support debt service without raising State property taxes, which has a tax rate of $0.112 per $100 of assessable base, the allowance includes $260 million in general funds.

Exhibit 3
Annuity Bond Fund Forecast
Fiscal 2020-2022
($ in Millions)

	2020 Expenditures	2021 Appropriation	2022 Allowance
Annuity Bond Fund Activity			
Beginning Balance	$113.4	$207.1	$140.8
Property Tax Receipts[1]	860.6	888.5	912.3
Interest and Penalties on Property Taxes	2.3	2.5	2.5
Other Repayments and Receipts	0.1	0.1	0.1
Bond Premiums	248.4	308.0	291.8
Bond Premiums Supporting Capital Projects	0.0	-136.0	-210.0
Transfer to Reserve (End of Year Fund Balance)	-207.1	-140.8	-25.4
ABF Special Fund Appropriations	**$1,017.6**	**$1,129.5**	**$1,112.2**
General Fund Appropriations	$287.0	$131.0	$260.0
Transfer Tax Special Fund Appropriations	6.9	6.9	6.9
Federal Fund Appropriations[2]	10.4	10.2	9.5
Projected Total Debt Service Expenditures[3]	**$1,321.8**	**$1,277.6**	**$1,388.5**

ABF: Annuity Bond Fund

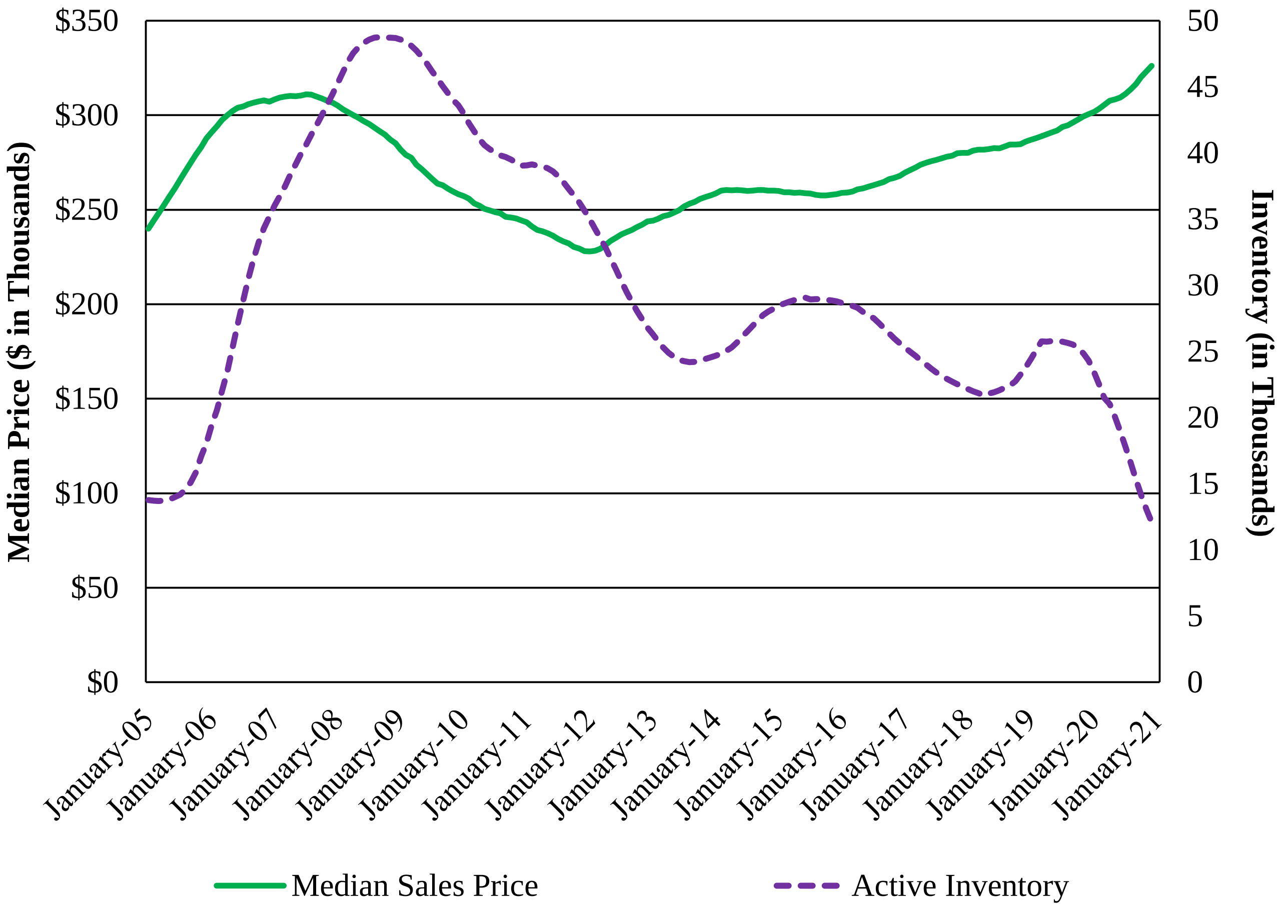
[1] This varies from the Governor's Budget Books. Fiscal 2021 and 2022 reflect November State property tax assessable base estimates prepared by the State Department of Assessments and Taxation.
[2] This varies from the Governor's Budget Books. This is adjusted to reflect reductions anticipated from sequestration.
[3] The Department of Legislative Services estimates will be used throughout the analysis instead of the amounts reported by the Administration in the Budget Books.

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

Annuity Bond Fund Six-year Forecast

In developing estimates of State property tax collections, understanding trends in the housing market is important. **Exhibit 4** shows that the median home price has increased steadily since 2012. This was preceded by a substantial increase in real estate values, which peaked in summer 2007, followed by a decline in values. Inventories went through a similar increase and decline. However, they have often lagged behind the pattern seen in home prices.

Exhibit 4
Maryland Housing – Median Prices and Inventory
12-month Moving Average
January 2005 to December 2020



Note: There were some substantial revisions of calendar 2019 inventory data as some months increased by as much as 20%.

Source: Maryland Association of Realtors; Department of Legislative Services

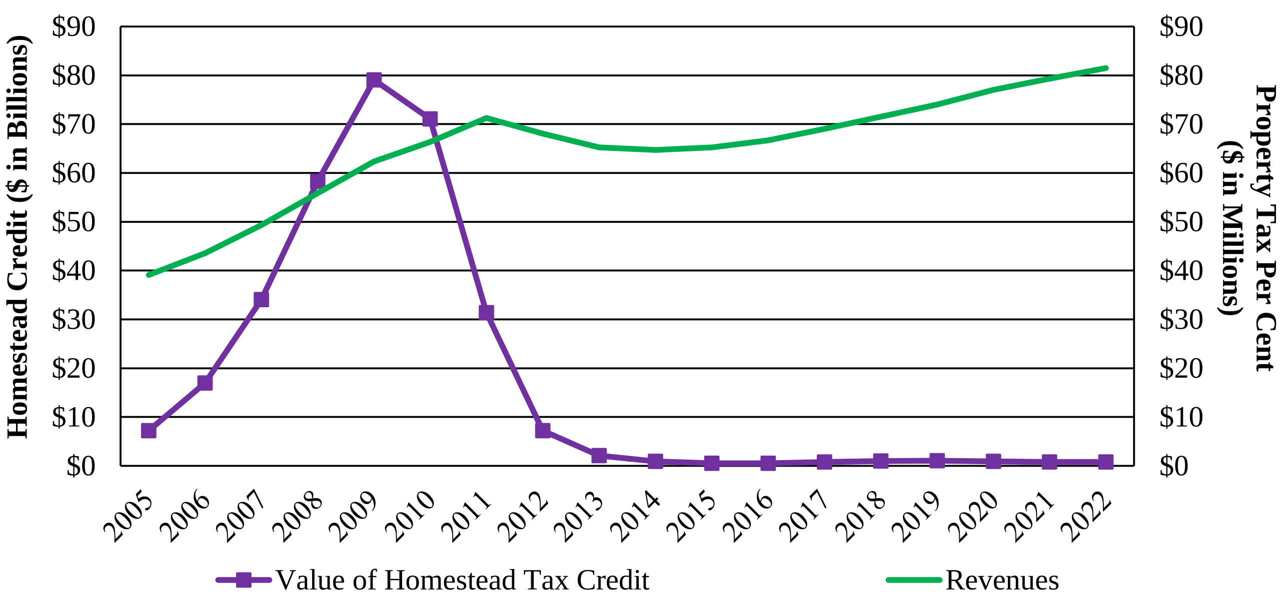
Effect of COVID-19 Pandemic on Home Values: Short-term Increase Observed with Longer Term Unclear

While recessions generally keep home prices down, the recession caused by the pandemic has been unusual in that a number of industries with higher-paid employees, such as finance and insurance, professional/business services, and manufacturing, have experienced increased personal income tax withholding collections in calendar 2020 compared to 2019. Increased wages for higher-income workers and extremely low interest rates appear to be contributing to the increase in home prices observed in the early months of the pandemic. Also, the cyclical nature of home values is that they tend to peak in July and August and then decline. During 2020, however, median home prices in September, October, and November exceeded the median home prices in July. If the pandemic persists and currently growing industries are affected by the recession, it is possible that this could depress demand for housing and lead to reduced home prices.

Homestead Tax Credit

As expected, the rising property values prior to 2007 increased State property tax receipts. **Exhibit 5** shows how much revenue $0.01 on the State property tax has generated since fiscal 2005. State property tax receipts generated by $0.01 of revenues continued to increase from fiscal 2005 to 2011, even as home values peaked in fiscal 2007. Revenues declined from fiscal 2011 to 2014 and have generally increased since fiscal 2015.

Exhibit 5
State Property Tax Homestead Tax Credits and Property Tax Receipts
Fiscal 2005-2022



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

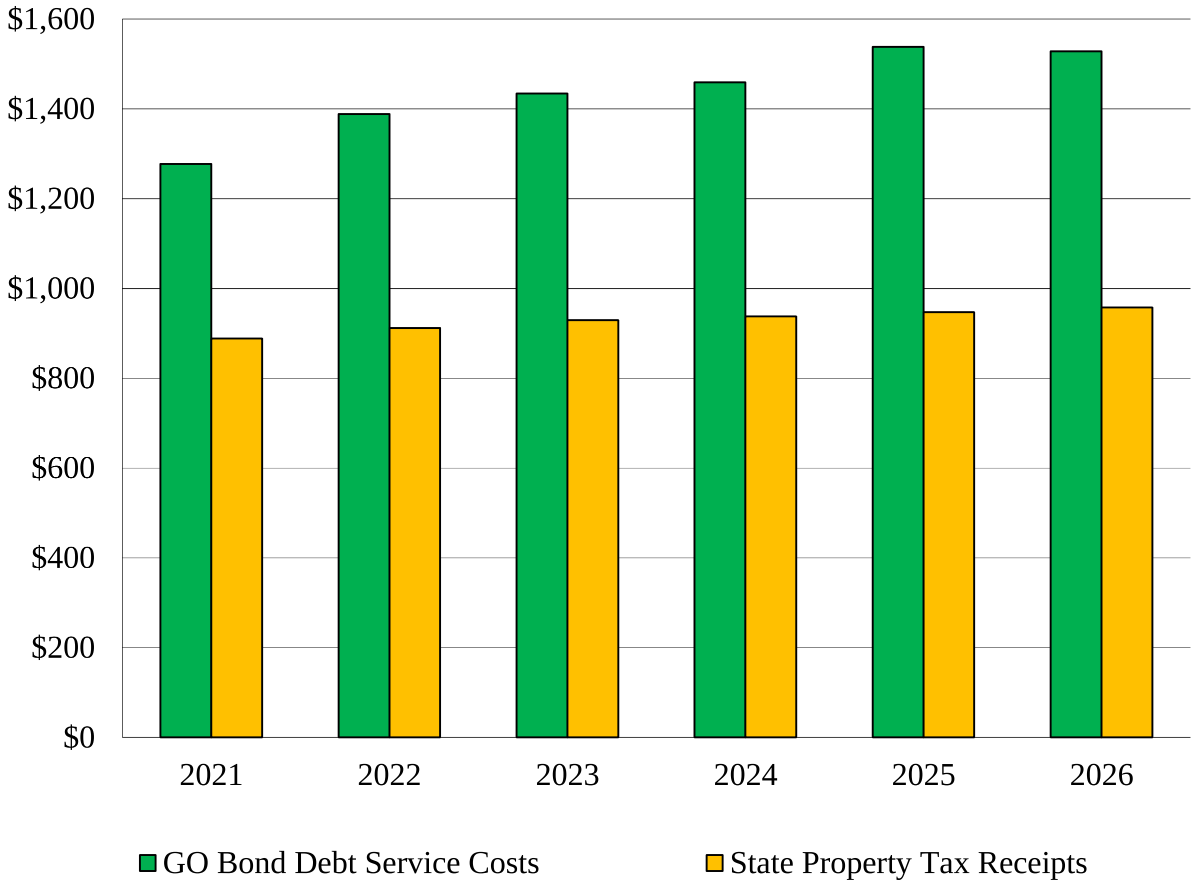
Assessment policies and the Homestead Tax Credit account for the lag between changes in the real estate market and tax receipts. Property values are assessed every three years, and increases are phased in over three years. The Homestead Tax Credit limits the annual increase in State property assessments 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 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 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. Since the homestead credit is much smaller in 2020 than it was in 2008, a recession that leads to a reduction in home values could slow increases in property tax collections much sooner than during the Great Recession.

General Fund Appropriation Will Be Needed to Avoid State Property Tax Increases

State property tax revenues are estimated to increase at a moderate rate of 1.5% annually from fiscal 2021 to 2026. This is less than debt service costs, which are expected to increase at a rate of 3.6% over the same period. **Exhibit 6** shows that steady increases in State property tax revenues and debt service costs are projected. Unless State property tax rates are increased, the State will need to continue to subsidize the ABF with general funds, as shown in **Exhibit 7**.

Exhibit 6
GO Bond Debt Service Costs and State Property Tax Revenue Collections
Fiscal 2021-2026
($ in Millions)



GO: general obligation

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

Exhibit 7
Revenues Supporting Debt Service
Fiscal 2021-2026
($ in Millions)

	2021	2022	2023	2024	2025	2026	Annual % Change
Special Fund Revenues							
State Property Tax Receipts	$889	$912	$929	$938	$947	$958	1.5%
Bond Sale Premiums	308	292	102	14	0	0	-100.0%
Capital Authorizations	-136	-210	0	0	0	0	-100.0%
Other Revenues	3	3	3	3	3	3	0.0%
ABF Fund Balance Transferred from Prior Year	207	141	25	1	1	1	-64.7%
Subtotal Special Fund Revenues	**$1,270**	**$1,138**	**$1,059**	**$956**	**$951**	**$961**	**-5.4%**
General Funds	131	260	361	491	576	564	33.9%
Transfer Tax Special Funds	7	7	7	7	7	2	-24.8%
Federal Funds	10	9	8	7	5	2	-25.1%
Total Revenues	**$1,418**	**$1,414**	**$1,435**	**$1,461**	**$1,539**	**$1,529**	1.5%
Debt Service Expenditures	**$1,278**	**$1,389**	**$1,434**	**$1,459**	**$1,538**	**$1,528**	3.6%
End-of-year ABF Balance	**$141**	**$25**	**$1**	**$1**	**$1**	**$1**	

ABF: Annuity Bond Fund

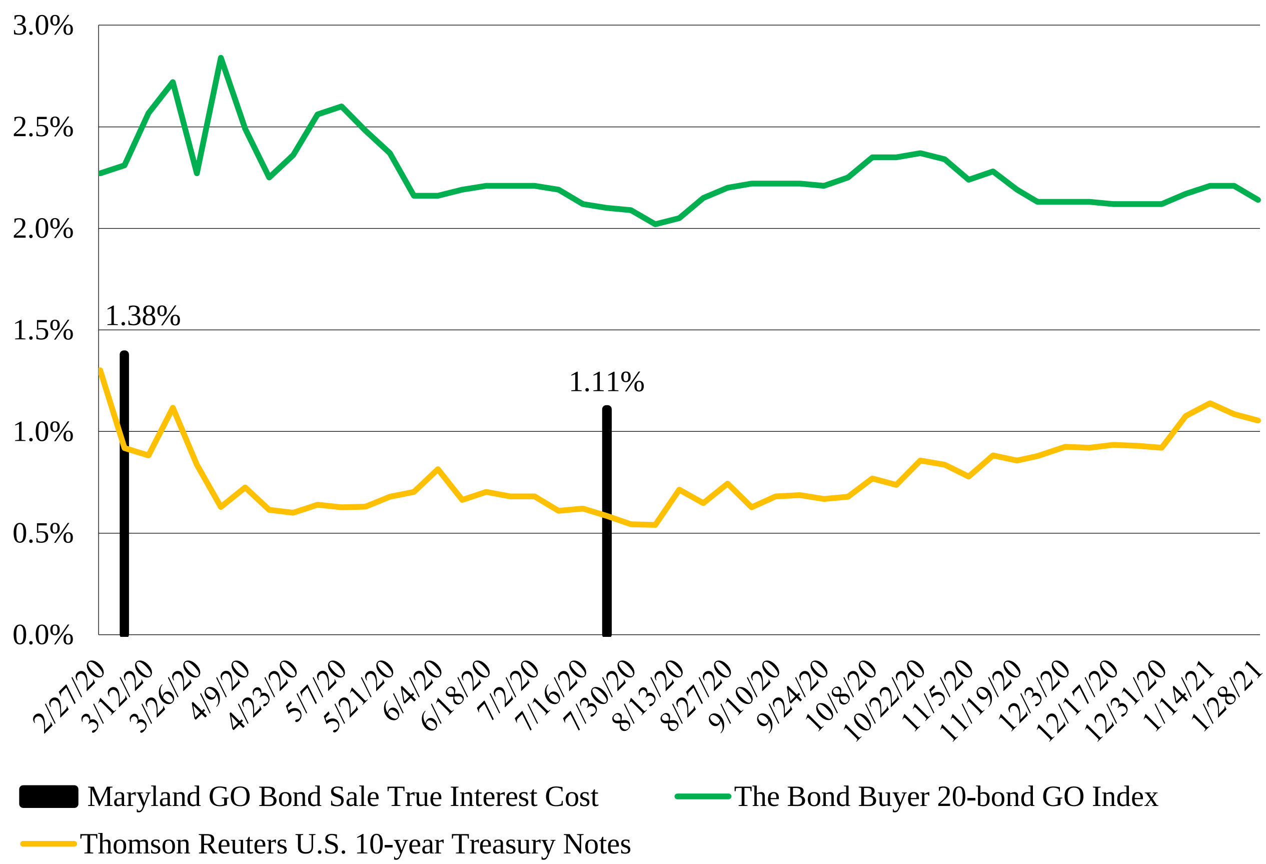
Source: Department of Legislative Services

Issues

1. Impact of COVID-19 Pandemic on Bond Markets and GO Bond Sales

The COVID-19 pandemic led to a recession and turmoil in financial markets in 2020. **Exhibit 8** shows how volatile markets were early in the pandemic as numerous states imposed public health restrictions. The most volatile period was from March 12, 2020, to April 9, 2020. For example, *The Bond Buyer* Index declined 17% from March 19, 2020, to March 26, 2020; increased 25% from March 26, 2020, to April 2, 2020; and declined 12% from April 2, 2020, to April 9, 2020. This level of volatility is uncommon in the bond market, which is dominated by low-risk securities.

Exhibit 8
Bond Market Volatility and General Obligation Bond Sales
February 2020 to January 2021



GO: general obligation

Source: *The Bond Buyer*; Public Resources Advisory Group; Department of Legislative Services

Maryland has had two GO bond sales during the pandemic. The first, in March 2020, was issued before bond markets reacted to the pandemic, and the second, in July 2020, was issued after the federal government had taken actions to calm markets.

On March 4, 2020, the State sold $777 million in GO bonds that included $495 million in tax-exempt GO bonds, $50 million in taxable GO bonds, and $232 million in refunding bonds. The timing of the sale was fortunate in that it was a week before the market volatility began. The true interest cost (TIC) for the sale was 1.38%, compared to 1.66% for the previous sale in August 2019.

July 2020 GO Refunding Bond Sale Restructures Debt Service Payments

At the July 2020 bond sale, the State issued $471.4 million to refund $494.3 million in previously issued bonds. In prior refunding bond sales, the State structured bond sales so that the maturities of the new bonds roughly corresponded with the refunded bonds. This maximizes total savings and keeps debt service payments even. However, this sale was structured so that fiscal 2021 savings were maximized. This was done by issuing longer term bonds in the tax-exempt sale. The average life of this sale, which totaled $115.8 million, increased from 3.5 years to 7.4 years. **Exhibit 9** shows that this reduced fiscal 2021 debt service costs by almost $61 million.

Exhibit 9
Effect of Refunding Sale on Debt Service Costs
Fiscal 2021-2029
($ in Millions)

	Prior Debt Service	Refunding Debt Service	Difference
2021	$64.9	$4.0	-$60.9
2022	15.0	14.7	-0.2
2023	15.1	15.1	0.0
2024	59.7	59.7	0.0
2025	104.2	104.2	0.0
2026	97.7	97.7	0.0
2027	56.9	56.9	0.0
2028	126.7	126.7	0.0
2029	47.7	47.7	0.0
Total	**$587.9**	**$526.7**	**-$61.2**

Source: Public Resources Advisory Group; Department of Legislative Services

2. Overview of Debt Affordability Ratios

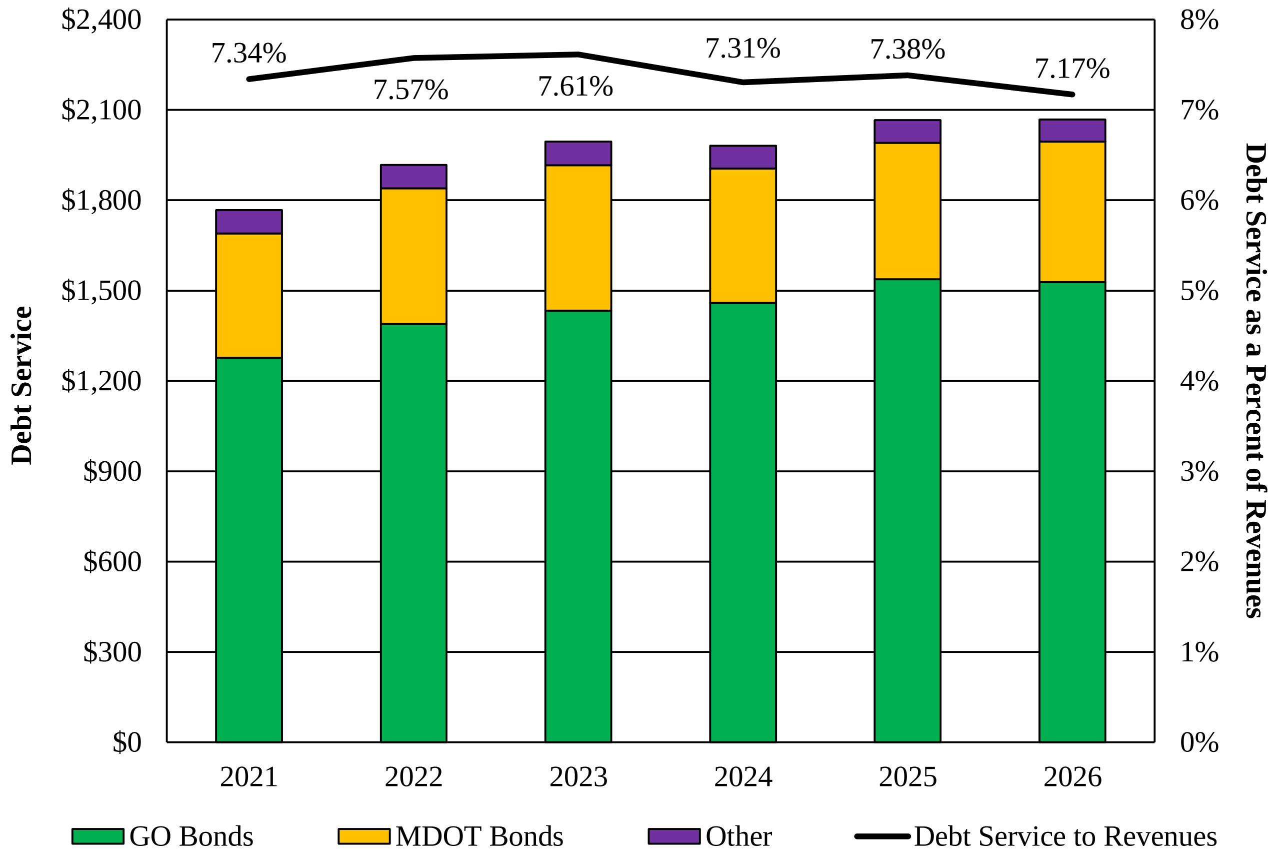
State debt includes GO bonds, Maryland Department of Transportation's (MDOT) transportation bonds, Grant Anticipation Revenue Vehicles (GARVEE) capital leases supported by State revenues, Maryland Stadium Authority (MSA) bonds supported by State revenues, and bay restoration bonds. To manage this State debt, CDAC was created in 1978. The committee sets limits on GO bond issuances. The committee also evaluates the affordability of all State debt. CDAC has two affordability criteria: State debt outstanding cannot exceed 4% of State personal income; and State debt service cannot exceed 8% of State revenues.

State Debt Is Affordable

The ratio that the State is closest to breaching is debt service to revenues. Maryland nearly exceeded this ratio after the Great Recession. To avoid exceeding the ratio, the State reduced the fiscal 2012 GO bond authorization to $925 million, which was $215 million less than the fiscal 2011 GO bond authorization. The State has also limited debt in recent years as the Spending Affordability Committee has recommended limiting annual increases in GO bond authorizations to 1% since 2015. This level was chosen because it is less than anticipated increases in revenues, which reduces the debt service to revenues ratio. **Exhibit 10** shows that State debt service to revenues is expected to peak in fiscal 2023 and decline thereafter.[2]

[2] One factor that tends to increase out-year debt service costs is the use of bond sale premiums for GO bond debt service costs. To estimate the effect of using bond sale premiums to support debt service, the Department of Legislative Services (DLS) reviewed the August 2019 bond sale and found that annual debt service costs from years 3 to 15 (when the bonds are retired) could have been reduced by $7.4 million if the bonds had been resized, which is to reduce the issuance so that the proceeds only support capital projects. The total additional debt service costs for that sale was $110.1 million spread over 15 years. The State issues GO bonds twice a year and other bonds sales also provided bond sale premiums to support service costs. Although DLS has not analyzed every bond sale, it is reasonable to expect that the cumulative effect of these sales is well over $100 million annually. Bond sale premiums are discussed in Issue 4.

Exhibit 10
Total State Debt Service and Debt Service as a Percent of Revenues
Fiscal 2021-2026
($ in Millions)



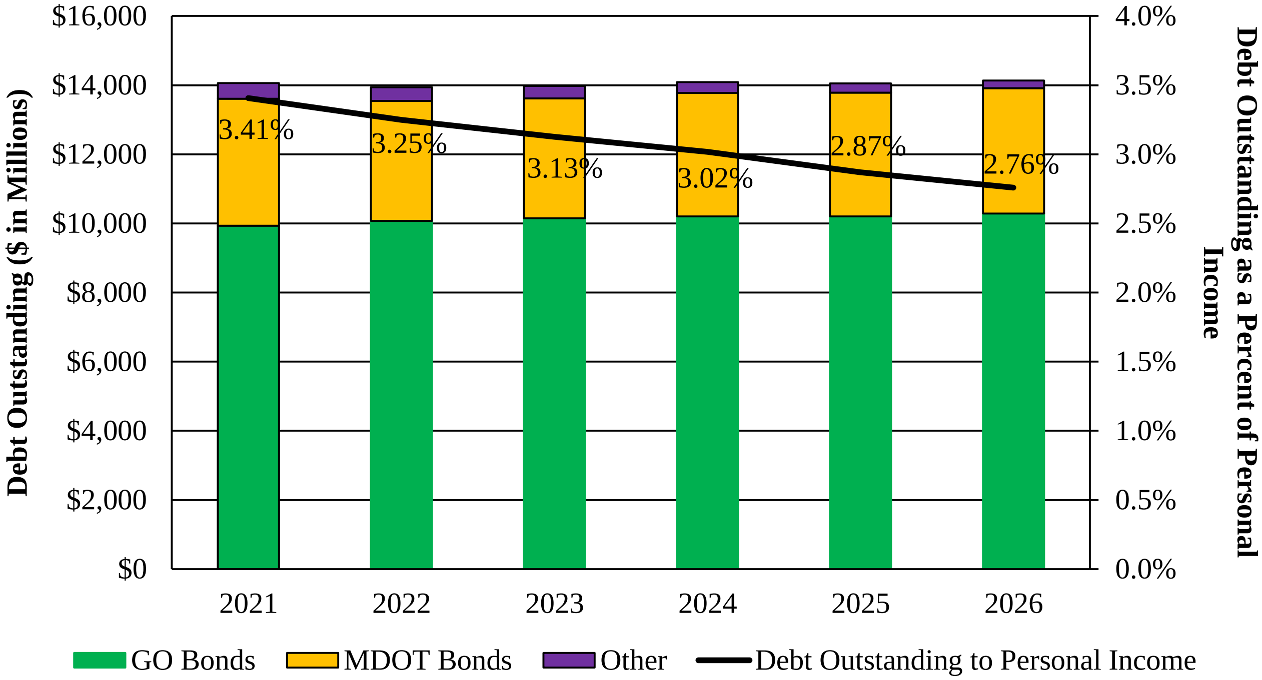
GO: general obligation
MDOT: Maryland Department of Transportation

Note: Other debt is capital leases, Bay Restoration Bonds, and certain Maryland Stadium Authority issuances.

Source: State Treasurer's Office; Department of Budget and Management; Bureau of Revenue Estimates; Maryland Department of Transportation; Maryland Stadium Authority; Maryland Department of the Environment; Department of Legislative Services

Maryland's other affordability criterion, debt outstanding to personal income, is expected to decline steadily through fiscal 2026. **Exhibit 11** shows that State debt outstanding is essentially flat over the six-year forecast period. GO bond debt outstanding increases at a rate of 0.7% annually, while MDOT bonds and other debt outstanding is expected to decline. As personal income is projected to increase, the ratio declines to 2.76%.

Exhibit 11
Total State Debt Outstanding and
Debt Outstanding as a Percent of Personal Income
Fiscal 2021-2026
($ in Millions)



GO: general obligation
MDOT: Maryland Department of Transportation

Note: Other debt is capital leases, Bay Restoration Bonds, and certain Maryland Stadium Authority issuances.

Source: State Treasurer's Office; Department of Budget and Management; Bureau of Revenue Estimates; Maryland Department of Transportation; Maryland Stadium Authority; Maryland Department of the Environment; Department of Legislative Services

Legislation to Expand the Authority of MDOT to Issue GARVEE Bonds Is Introduced

SB 259 expands the authority of MDOT and the Maryland Transportation Authority (MDTA) to issue additional GARVEEs backed by future federal aid. Chapters 471 and 472 of 2005 authorized MDOT and MDTA to issue a maximum of $750 million in GARVEE bonds backed by future federal aid. Under this authority, $750 million in bonds were issued in 2007 and 2008 as part of the financing plan for the Intercounty Connector. The last issuance was retired in March 2020. Due to the

$750 million limit, MDOT and MDTA have not been able to finance any other transportation projects or their capital program using GARVEEs backed by future federal aid.

The bill alters the limitation on the issuance of GARVEE bonds by authorizing MDOT and MDTA to issue GARVEE bonds as long as the aggregate outstanding and unpaid principal amount of debt issued does not exceed $750 million as of June 30 of any year. Existing requirements that govern the issuance and repayment of the bonds apply, including that the date of maturity may not be later than 12 years after the date of the bond issuance.

When issuing bonds, MDOT's covenants to bondholders limit net Transportation Trust Fund (TTF) revenues and pledges taxes (motor fuel tax, titling tax, rental car sales tax, and TTF share or corporate income tax) to 2 times maximum debt service. To avoid breaching this limit, MDOT's policy is to manage debt so that these ratios are 2.5 times maximum debt service. These policies restrict how much debt MDOT can issue. Since GARVEE bonds are backed by federal funds, instead of TTF revenues, they expand how much debt MDOT can issue.

Section 8-104 of the State Finance and Procurement Article requires that GARVEEs are State debt and should be included in the CDAC affordability calculation. DLS estimates that annual debt service on $750 million of GARVEE bonds issued with a 5% coupon rate, would require $85 million over the 12-year life of the bonds, which adds to the State's total debt service. Including GARVEE bonds in the State debt calculation would require adding the federal funds supporting the bonds to State revenues. DLS estimates that adding debt service and revenues if the full $750 million is issued would increase the CDAC debt service to revenues ratio by 0.12%.

3. Maryland Is a High-debt State

Maryland authorizes and issues higher levels of debt than most states and also 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 education and housing.

Maryland's Debt Ratios Are Higher than Most AAA-rated States

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 is among the highest debt states for both measures.

Exhibit 12 shows that Moody's ranked Maryland the fourteenth 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 highest ratio, Hawaii at 9.6%, has a ratio that is more than two times Maryland's ratio.

Exhibit 12
Ranking AAA-rated States
Net Debt Outstanding as a Percent of Personal Income
Fiscal 2019

Rank	State	Ratio
4	Delaware	6.1%
14	Maryland	3.5%
19	Virginia	2.8%
20	Mean	2.6%
25	Georgia	2.0%
30	Florida	1.5%
31	Utah	1.5%
32	North Carolina	1.2%
40	Missouri	0.9%
41	South Dakota	0.9%
42	Texas	0.7%
44	Tennessee	0.6%
45	Indiana	0.5%
46	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 a few tenths of a percent higher than Maryland's estimates.

Source: Moody's Analytics

Exhibit 13 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 13
Ranking AAA-rated States
Debt Service as a Percent of Revenues
Fiscal 2019

Rank	State	Ratio
9	Maryland	6.8%
12	Delaware	5.7%
14	Georgia	5.4%
20	Virginia	4.6%
21	Mean	4.3%
27	Utah	3.7%
28	Florida	3.6%
30	Missouri	3.3%
33	North Carolina	2.9%
34	Texas	2.5%
36	Iowa	2.2%
39	South Dakota	2.0%
45	Tennessee	1.2%
46	Indiana	1.1%

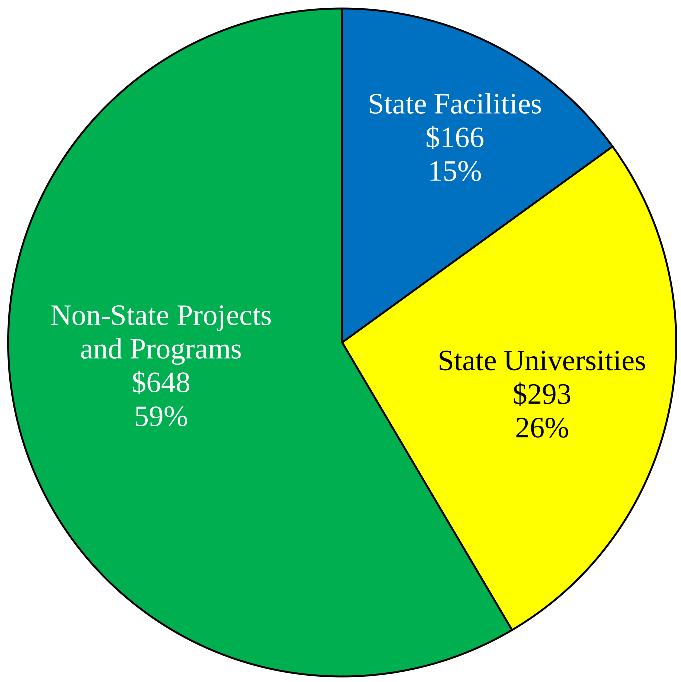
Note: Moody's estimate of debt service excludes non-State debt supported by revenues other than taxes. Moody's does include all lottery bonds, while Maryland excludes some lottery bonds. Consequently, Moody's estimates are a few tenths of a percent higher than Maryland's estimates.

Source: Moody's Analytics

Maryland's Bond Program Supports Non-State Programs

Maryland's bond program supports various State and non-State projects and programs. **Exhibit 14** 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 14
Uses of General Obligation Bonds' Proceeds
Fiscal 2022 as Introduced
($ in Millions)



Note: The capital budget bill proposes $1,107.4 million in projects and deauthorizes $2.4 million so that net authorizations are $1,105 million.

Source: Department of Budget and Management

General Assembly Has Authorized Long-term Liabilities Supporting School Construction and the Racing and Community Development Act

The Maryland General Assembly has also supported funding non-State debt to support school construction, horse racing, and community development. **Exhibit 15** summarizes the programs.

Exhibit 15
Large Authorizations of Non-State Debt
($ in Millions)

Description	Legislation	State Revenue Source	Annual State Support of Debt Service	Bond Proceeds[1]
Baltimore City School Construction	Chapter 647 of 2013	Lottery	$20	$1,145
Pimlico and Laurel Park Improvements	Chapter 590 of 2020	Lottery	17	375
Statewide School Construction	Chapter 20 of 2020 [2]	Education Trust Fund	125	2,200

[1] All issuances have 30-year maturities.

[2] Chapter 20 of 2020 is effective contingent on the enactment of HB 1300 of 2020, the Blueprint for Maryland's Future. HB 1300 was vetoed by the Governor. The General Assembly is considering overriding the Governor's veto.

Source: Maryland Stadium Authority; Department of Legislative Services

Baltimore City School Construction

Chapter 647 of 2013 established a partnership between the State, Baltimore City, and Baltimore City Public Schools (BCPS) to issue bonds that support public school improvements issued by MSA. The State provides $20 million annually in lottery revenues with the city and BCPS providing another $40 million. The issuances have realized $1.14 billion in bond sale proceeds, $994 million in par bonds and $151 million in premiums, supporting capital projects. The State has not pledged any other revenues and does not consider these lottery revenues to be State debt. But as previously noted, Moody's considers all lottery debt to be State debt.

Racing and Community Development Act

The Racing and Community Development Act (Chapter 590 of 2020) authorizes MSA to issue up to $375 million in bonds for finance planning, design, construction, and related expenses for racing facilities at Pimlico and Laurel Park. The bill requires a minimum of $180 million support for Pimlico and $155 million support for Laurel Park. MSA anticipates issuing the first series of bonds for Laurel Park in early calendar 2022. It is unclear when bonds for Pimlico will be issued.

Built to Learn Act

Chapter 20 of 2020, the Built to Learn Act, proposes to give MSA the authority to issue up to $2.2 billion in 30-year revenue-supported bonds. Revenues supporting debt service payments would come from casino revenues in the Education Trust Fund. Debt service costs can total up to $125 million annually and can be reduced to $100 million if Prince George's County utilizes a public-private partnership to construct schools. Chapter 20 is contingent on the enactment of HB 1300, the Blueprint for Maryland's Future. HB 1300 passed the General Assembly but was vetoed by the Governor. It is expected that the General Assembly will consider an override of the Governor's veto during the 2021 session. The Administration's *Capital Improvement Program* anticipates that MSA will issue $520 million in bonds in fiscal 2022 and a total of $2.2 billion through fiscal 2026. Based on the timing of the bond sales, no debt service costs are anticipated in fiscal 2022.

Pension and Other Post Employment Benefits Liabilities

In addition to debt outstanding and debt service costs, creditors and rating agencies also consider other long-term liabilities. In addition to bonds, Maryland also has substantial pension and Other Post Employment Benefits (OPEB) liabilities.

Maryland's major pension plans include plans for State employees, employees of local education boards, community colleges and libraries, State police officers, other law enforcement officers, and judges. As of June 30, 2020, membership for all State plans totaled approximately 193,000 active members, 50,000 vested former members, and 165,000 retirees. Local government agencies can participate in the plans and are referred to as Participating Governmental Units (PGU) if they do participate. PGU membership totals approximately 26,000 active members, 6,000 vested former members, and 20,000 retirees.

OPEB benefits are health insurance benefits for retired State employees. As of June 30, 2020, approximately 53,000 retirees, 2,500 inactive vested, and 82,000 State employees were participating in the State's health insurance plan.

Exhibit 16 shows that as of June 30, 2020, pension and OPEB liabilities total $87 billion, of which $35 billion is unfunded. The actuaries estimate that the fiscal 2022 pension contribution should be $2 billion, and the fiscal 2020 OPEB contribution should be $612 million.[3] In recent years, the State has been making the full pension contribution and an additional $75 million to reduce the unfunded liability more quickly. With respect to OPEB, the State is not making any attempt to reduce the unfunded liability, simply making pay-as-you-go payments. State law requires that $25 million in unappropriated general fund revenues from fiscal 2020 be appropriated in fiscal 2022 to reduce each of the pension and OPEB liabilities. This is included in the budget bill, but the Administration is proposing to delete the appropriation in the BRFA of 2021.

[3] As introduced, the fiscal 2022 budget includes $372 million for retiree health care benefits.

Exhibit 16
Pension and Other Post Employment Benefits Liabilities and Annual Costs
($ in Millions)

	Total Liability[2]	Unfunded Liability[2]	Funded Ratio[2]	Actuarially Determined Contribution[3]	Contribution Rate as a Percent of Salaries[3]
Pension[1]	$70,409	$19,104	73%	$2,031	18.18%
OPEB	16,780	16,425	2%	612	n/a

OPEB: Other Post Employment Benefits

[1] Total liability and unfunded liability include participating governmental units.
[2] Fiscal 2020 end-of-year from actuarial reports.
[3] Pension amount is projected for fiscal 2022 and includes $296.5 million of local school board's share. OPEB amount is fiscal 2021.
[4] State rate is projected for fiscal 2022 and includes reinvestment that totals $75 million in fiscal 2021.

Sources: Gabriel, Roeder, Smith & Company, November 2020; Segal Consulting, October 2020

Rating Agencies Give Maryland AAA Rating and Identify Credit Strengths

Maryland has been rated AAA from the three major rating agencies – Fitch Ratings, Moody's Investors Service, and Standard and Poor's (S&P) Global Ratings – for decades. The rating agencies have consistently noted Maryland's credit strengths. Prior to the July 2020 bond sale, the three major rating agencies reaffirmed the State's AAA bond rating for GO bonds. All three agencies consider the rating stable. The rating agencies identified the following strengths:

- ***Wealth and Income Levels***: Maryland's per capita personal income was 116% of the national average in 2019;

- ***Broad and Diverse Economy:*** Strengths include a concentration of employment in higher paying sectors such as business services, education and health services, and government. Moody's notes that Maryland has a highly educated workforce whereby 40% of the population over 25 has at least a bachelor's degree, compared to about 32% nationwide; and

- ***Strong and Well-embedded Financial Practices:*** Maryland State government has a long history of managing debt prudently. Comments from rating agencies include:

    - Fitch notes that the State has "very strong fiscal management with consensus-oriented long-term planning and multiple sources of flexibility, all of which position the state to address implications of the ongoing coronavirus pandemic."

- Moody's considers Maryland's "proactive financial management" to be a credit strength and that the Board of Public Works "is able to respond swiftly to midyear budget challenges."

- S&P considers that Maryland's financial "practices are strong, well embedded, and likely sustainable."

- The agencies also noted that the State has made numerous attempts to address the unfunded pension liability, such as increasing State and employee retirement contributions, moving to an actuarially approved approach, reducing benefits, and increasing the length of time that it takes new employees to vest. Strengths of the capital budget process include CDAC process.

Markets Have Not Punished Maryland during the Pandemic; Maryland's Credit Strengths Are Well Known and Appreciated

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. This analysis compares Maryland bonds' TIC to *The Bond Buyer* 20-bond index.[4] The analysis of the July 2020 GO bond sale in the *Effect of Long-term Debt on the Fiscal Condition of the State* shows that the State's cost of capital is low. DLS estimates of the sum of least squares regression coefficients suggest that:

- State bonds sell at 85% 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 0.81% (81 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 continued since the pandemic began. Bond markets have continued to value Maryland GO bonds.

[4] The index includes 20 bonds with an average rating of AA. It includes five AAA-rated states from all three rating agencies (Florida, Georgia, Maryland, North Carolina, and Texas) and two AAA-rated municipalities (Denver and Seattle). The lowest rated municipality has a rating of A1 (Milwaukee).

Conclusions

From this review of the State's debt ratios and credit rating compared to other states, the following conclusions can be drawn:

- ***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.

DLS recommends that the State should continue its sound fiscal management and prudent debt policies of limiting increases in GO bond authorizations to 1%.

4. *Joint Chairmen's Report* Recommends That the State Phase Out Use of Bond Sale Premiums to Support GO Bond Debt Service Costs

The 2020 *Joint Chairmen's Report* required STO, DBM, and DLS to examine bond premiums that are realized at GO bond sales including uses of bond premiums; costs of bond premiums; and options for reducing long-term debt service costs, such as resizing bond sales to reduce premiums.

As noted above, recent Maryland GO bond issuances have realized large premiums. Although these premiums reduce general funds needed to pay debt service costs in the short term, excess premiums increase out-year debt service costs. The magnitude of GO bond premiums is such that it is common for a typical bond sale to add $7 million in annual debt service costs for the 13 years that the principal payments are made. Insofar as the State generally issues bonds twice a year, these additional out-year debt service costs are substantial.

To limit spending, most other AAA-rated states resize bond sales. This involves reducing the par amount of the issuance so that par value of the bonds and the premium are sufficient to support capital projects. The STO review of nine, AAA–rated states found that eight of these states either resize bond sales or authorize bonds on a proceeds basis, which essentially sets the bond sale to be equal to capital requirements so that there is no excess premium. To date, Maryland has not resized GO bond sales and in 2018, The Volcker Alliance released its *Truth and Integrity in State Budgeting* report. With respect to "budget maneuvers," the report gave Maryland the grade of "C." The report noted that the State funds recurring expenditures, debt service costs, with debt, bond sale premiums.

The workgroup has considered all options and agrees that the State should phase out use of bond sale premiums to support debt service payments by resizing bond sales and/or authorizing new projects instead. Additionally, due to the change in bond counsel advice concerning the use of bond sale premiums, legislation amending the use of bond premiums will be necessary to preserve the tax-exempt status of the issuances. Two pieces of legislation amending the law have been introduced in the 2021 Session.

SB 60 and HB 887 propose to modify Section 8-132 of the State Finance and Procurement Article. The modification allows the use of bond sale premiums for capital projects and pay for uses authorized by the Internal Revenue Code (IRC) of 1986 regulations and rulings. This enhances the State's flexibility to maintain the tax-exempt status of interest on GO bonds.

SB 493 and HB 589 (Budget and Reconciliation and Financing Act) proposed by the Administration also amend Section 8-132 of the State Finance and Procurement Article. However, the provision authorizes the use of bond premiums to support capital projects from fiscal years 2021 to 2023 only, but not beyond fiscal 2023. The proposal also does not include the provision that bond premiums pay for uses authorized by the IRC.

Operating Budget Recommended Actions

		Amount Reduction	
1.	Reduce debt service costs to reflect March 2021 and summer 2021 issuances. The State Treasurer's Office (STO) advises that the March 2021 bond sale will issue $475 million ($425 million in tax-exempt and $50 million in taxable bonds). If the sale's coupon rate is 5.00%, which is the standard assumption that is consistent with recent sales, fiscal 2022 debt service costs will be $23.75 million in debt service appropriations. The Department of Budget and Management (DBM) included $27 million in debt service appropriations. For the summer 2021 bond sale, DBM appropriates $12.5 million for debt service. STO advises that $545 million in issuances with a 5.00% coupon rate are anticipated, requiring $13.625 million. Taken together, proposed appropriations for these bonds sale exceed the estimates by $2 million.	$ 2,000,000	GF
	Total General Fund Reductions	**$ 2,000,000**	

Appendix 1
Fiscal Summary
Public Debt

Program/Unit	FY 20 Actual	FY 21 Working Appropriation	FY 22 Allowance	FY 21 - FY 22 Change	Percent Change
01 Redemption and Interest on State Bonds	$ 1,321,826,589	$ 1,345,000,000	$ 1,394,000,000	$ 49,000,000	3.6%
Total Expenditures	**$ 1,321,826,589**	**$ 1,345,000,000**	**$ 1,394,000,000**	**$ 49,000,000**	**3.6%**
Funds					
01 General Fund	$ 287,000,000	$ 131,000,000	$ 260,000,000	$ 129,000,000	98.5%
03 Special Fund	1,024,441,843	1,203,000,000	1,123,000,000	-80,000,000	-6.7%
05 Federal Fund	10,384,746	11,000,000	11,000,000	0	0%
Total Appropriations	**$ 1,321,826,589**	**$ 1,345,000,000**	**$ 1,394,000,000**	**$ 49,000,000**	**3.6%**