

**CREDIT OPINION**

30 May 2024



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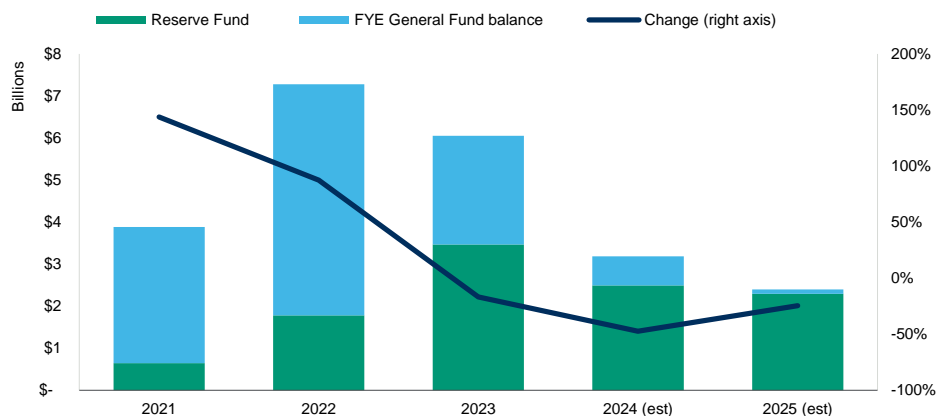
# Maryland (State of)

Update to credit analysis after outlook revision to negative

**Summary**

The [State of Maryland's](#) (Aaa, negative) credit is supported by proactive financial management practices, which include an effective and well-established process for forecasting, monitoring and responding to changing tax revenue trends. Budgetary reserves should remain solid by the state's historical standards through the coming fiscal year, despite authorized withdrawals, as shown in Exhibit 1. Escalating expenditures in education and healthcare, combined with elevated retirement benefit liabilities, will test Maryland's management strengths and likely necessitate measures (spending cuts or new taxes) as yet unidentified. The state's tax base remains diverse and comparatively wealthy, buttressed by proximity to the US capital and innovative research in sectors with potential for strong growth, such as cyber technology, artificial intelligence and medicine. The strategic importance of federal agencies located in Maryland – including the National Security Agency and the National Institutes of Health – should mitigate the state's above-average economic exposure to federal belt-tightening. These factors also support expectations that Maryland's credit will be resistant to weakening in the Government of the [United States of America](#) (Aaa, negative) sovereign credit consistent with a one-notch downgrade. Looking ahead, Maryland's demographic and real GDP growth may continue to be more closely linked to high-cost Northeast regional peers than to fast-growing southern states, which could hamper efforts to restore structural balance. The state's outlook was revised to negative from stable on May 28.

Exhibit 1  
**General fund and reserve fund balance are projected to drop sharply through fiscal 2025**



Line represents annual change in combined balances  
Source: State of Maryland

## Credit strengths

- » Proactive financial management, including regular revenue monitoring and forecast revisions and ability to make midyear adjustments
- » Stable economy with high personal income levels
- » Strong liquidity

## Credit challenges

- » High net pension liabilities and above-average debt burden, resulting in high fixed costs compared with other Aaa-rated states
- » Vulnerability to swings in federal spending

## Rating outlook

The negative outlook incorporates difficulties Maryland will face to achieve balanced financial operations in coming years without sacrificing service delivery goals or increasing the tax burden on individual and corporate taxpayers. The negative outlook also applies to the Baltimore City Public Schools Construction and Revitalization Program, the Baltimore Board of School Commissioners, MD, and the Maryland Infrastructure Financing Intercept Program.

## Factors that could lead to an upgrade

- » Not applicable

## Factors that could lead to a downgrade

- » Economic and financial deterioration that results in deficits, fund transfers and reserve draws beyond what is currently budgeted through fiscal 2025
- » Insufficient plan for near-term replenishment of reserves and structural balance
- » Substantial reductions in federal employment and in the federal government's role in the state's economy that undermine relative financial performance
- » Failures to adhere to policies to address large, unfunded pension liabilities

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 2

	2021	2022	2023	State Medians (2022)
<b>Economy</b>				
Nominal GDP (\$billions)	446.9	480.1	512.3	288.7
Real GDP, annual growth	4.5%	1.6%	2.1%	1.7%
RPP-adjusted per capita income as % of US	101%	102.2%		96.6%
Nonfarm employment, annual growth	3%	2.4%	1.1%	4.3%
<b>Financial performance</b>				
Available balance as % of own-source revenue	15.5%	34.0%	36.2%	38.6%
Net unrestricted cash as % of own-source revenue	20.6%	26.9%	34.5%	73.4%
<b>Leverage</b>				
Total long-term liabilities as % of own-source revenue	328%	252.7%	201.2%	127.0%
Adjusted fixed costs as % of own-source revenue	12.6%	10.0%	11.6%	4.7%

### Other Scorecard Factor

Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-1.6%	-1.9%	-1.2%
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Sources: US Bureau of Economic Analysis, US Bureau of Labor Statistics, annual comprehensive financial reports with Moody's Ratings adjustments.

## Profile

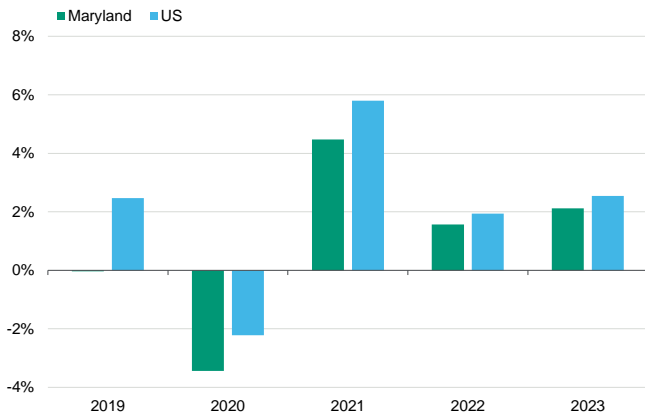
Maryland includes 3,190 miles of the US East Coast, according to the National Oceanic and Atmospheric Administration. Its population of about 6.2 million ranks 19th among the states, based on the 2023 US Census Bureau estimate. The state's \$512.3 billion 2023 state GDP (current-dollar), according to the US Bureau of Economic Analysis, was the 17th-largest.

## Detailed credit considerations

### Economy

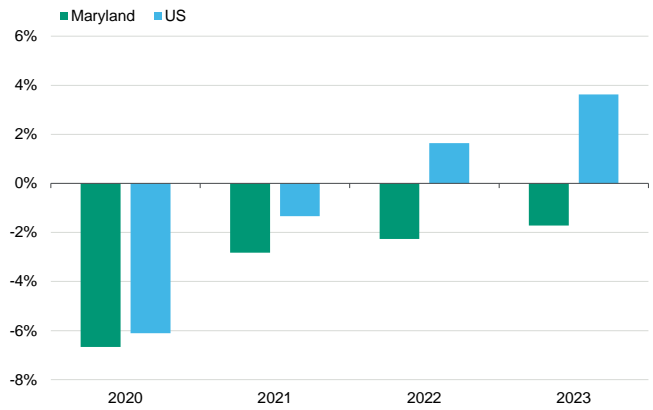
Maryland's economic growth will slow this year and next, continuing to lag national trends. The state anticipates moderate, slowing growth but no recession. Underperformance of national trends will extend the state's relative economic weakness of recent years, shown in the GDP and employment charts below. The state's real GDP shrank more than the nation's in 2020 (-3.4%, compared with -2.2% for the US), and its rebound was slower than the nation's (Exhibit 3). The chart on the right below shows that jobs (based on average annual nonfarm employment) in Maryland remained below pre-pandemic levels through 2023, while the nation exceeded pre-pandemic levels in 2022.

Exhibit 3  
**Maryland's GDP growth has underperformed the nation's in recent years**



Real GDP  
 Source: US Bureau of Economic Analysis

Exhibit 4  
**Change in annual nonfarm payroll employment from 2019 base**

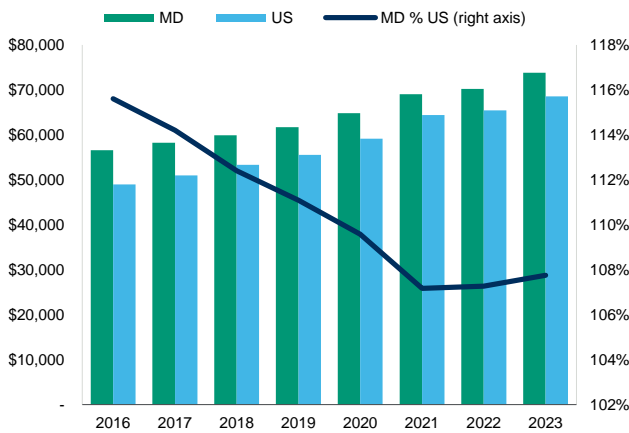


Source: US Bureau of Labor Statistics

The March 26 [collapse of the Key bridge](#) poses some risk to the state's economy, although implications for the warehousing, transportation and other industries connected to the Port of Baltimore will be limited by rapid re-opening of the port.<sup>1</sup> Longer term, the US government's commitment to covering bridge rebuilding costs should be positive. In the more immediate future, the loss of a section of a major artery (I-695) poses economic risk for the metro-Baltimore area. Commercial vehicles that in many cases were banned from Baltimore's harbor tunnels accounted for much of the bridge's traffic. Diversion of these vehicles to other routes will exacerbate congestion. Gov. Wes Moore on April 9 signed the PORT Act, which provided for job retention and other grant and aid programs to assist local businesses and workers. The act also provides a substantial (\$1 billion) increase in debt authorization for the [Maryland Transportation Authority](#) (Aa2, negative for transportation projects revenue bonds), which collected tolls on the bridge.

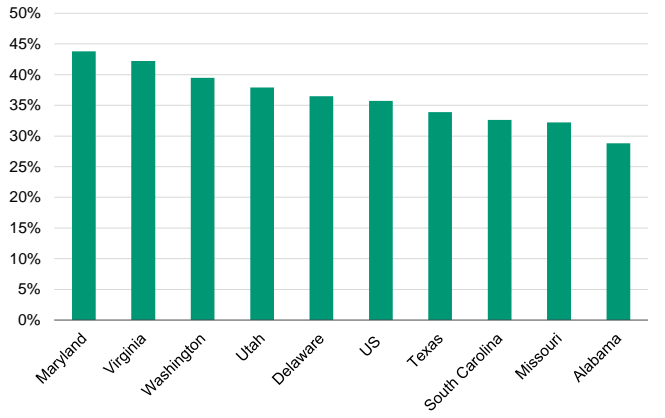
Maryland has long enjoyed per capita income levels exceeding the nation, as shown in Exhibit 5. The chart does not represent income adjusted for the region's high cost of living (as does Exhibit 2's regional price parity-adjusted figure). While the per capita personal income advantage compared with the US has decreased in recent years, it still underscores higher wealth levels that support the state's tax base.

Exhibit 5  
**Per-capita personal income (unadjusted for cost of living) remains strong**



Source: US Bureau of Economic Analysis

Exhibit 6  
**Maryland has significantly higher educational attainment than other states**



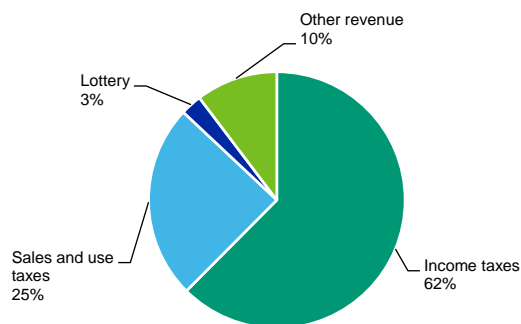
Percentage of population age 25 and over with a bachelor's degree; data are as of 2022  
 Source: US Census Bureau

Comparatively strong individual income stems in part from high-income professionals connected to the US capital. Maryland residents who work in the District of Columbia only pay income tax to their home state, and some contractors to the federal government are located in Maryland. Department of Defense contractor [Northrop Grumman Corp.](#) (Baa1, stable) is one of the state's 10 largest employers. It also incorporates Maryland's high levels of educational attainment (shown in Exhibit 6). Employers in the research and medical field including [Johns Hopkins University](#) (Aa2, stable) and its Health System (also Aa2, stable) together with for-profit companies and the National Institutes of Health and other federal agencies in the state, make Maryland a durable center of education, research and medicine.

**Finances**

Maryland has seen a modest tax revenue slowdown in fiscal 2024, after several years of strong growth fed by the recovery from the pandemic and unprecedented amounts of federal aid. As shown below on the left, the state's largest source of General Fund operating revenue by far is income taxes, followed by sales and use taxes. In the state's most recent revenue forecast in March, the Board of Revenue Estimates [lowered](#) projected collections marginally for both the current year and the following fiscal year (2025). Exhibit 8 incorporates the March forecast, with sales and use collections and some other revenue declining this year, before rebounding in fiscal 2025, when growth is projected at more than 3% in both the income and sales tax categories. The state now expects revenue to be essentially flat in fiscal 2024 and up 1.8% in fiscal 2025 from ongoing General Fund sources. Part of the 2024 decline in sales and use tax revenue as the state devotes a greater share of this revenue to special funds.<sup>2</sup>

Exhibit 7  
**General Fund revenue depends heavily on income taxes**  
 Fiscal 2023



Source: State of Maryland bond offering document

Exhibit 8  
**Total general fund revenue growth has slowed in fiscal 2024**



Source: Maryland Bureau of Revenue Estimates

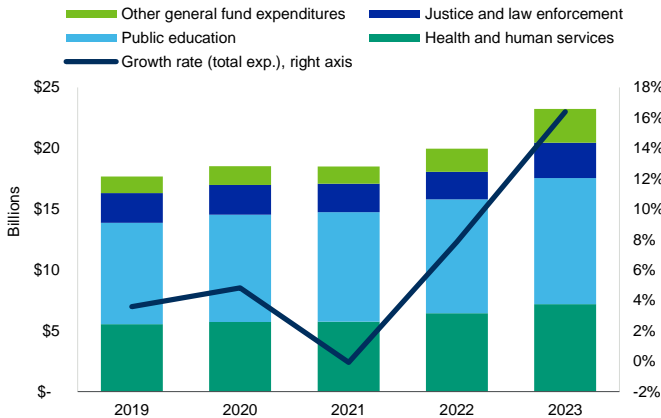
The state's spending has increased rapidly in the past few years, as shown in Exhibit 9. The illustration excludes a large (\$3.04 billion) fiscal 2023 deposit to the state's reserve fund. Total General Fund expenditures (excluding the Reserve Fund payment) grew 16% in fiscal 2023, led by a \$1 billion (or 11%) K-12 funding hike and increases totaling \$732 million (or 11%) in health and human services expenditures. Exhibit 10 shows the compound annual growth rate of state General Fund spending in the years from 2018 through 2023: 6.4% for total, 6.3% for health and human services, 5% for public education and 16% for other areas (such as executive branch agency costs not included elsewhere).

Education's share of total state spending is somewhat understated because more of it will increasingly come from outside the state General Fund. In 2021, Maryland enacted the Blueprint for Maryland's Future Act, which over 13 years aims to expand full-day prekindergarten, increase teacher pay and per-student funding and improve students' college and career readiness. The plan will also provide additional support for schools with high concentrations of students in poverty. The legislation established for a separate Blueprint Fund, which receives revenue from several sources: sales tax, sports gambling and taxes levied on digital advertising. Corporations have sought to block the digital advertising tax, on First Amendment and interstate commerce clause grounds, so money

from that tax is being set aside until the litigation is resolved.<sup>3</sup> The fund will allow the state to increase annual education spending and annual incremental costs are expected to exceed \$4 billion by 2029, signaling outyear funding pressure.

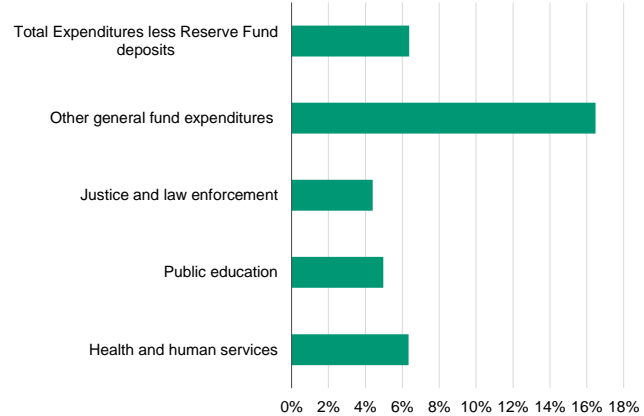
Under current law, the state will allocate a growing share of its sales and use tax collections to the Blueprint Fund rather than to the General Fund: the share will rise from 11% in 2024 to 12.1% in fiscal 2027 and thereafter. The state also intends to allocate to the Blueprint Fund proceeds of tobacco tax increases enacted in the 2024 legislative session. The state increased its per-pack tax on cigarettes to \$5 from \$3.75, and also raised other taxes applicable to cigars, pipe tobacco and other products.

Exhibit 9  
Statutory General Fund expenditures



Expenditures are on a budgetary basis; categories combined for simplicity.  
Source: Maryland offering document: Statutory General Fund Comparative Statement of Revenues, Expenditures and Encumbrances and Changes in Fund Balance, Budget and Actual Fiscal Years 2019 to 2023.

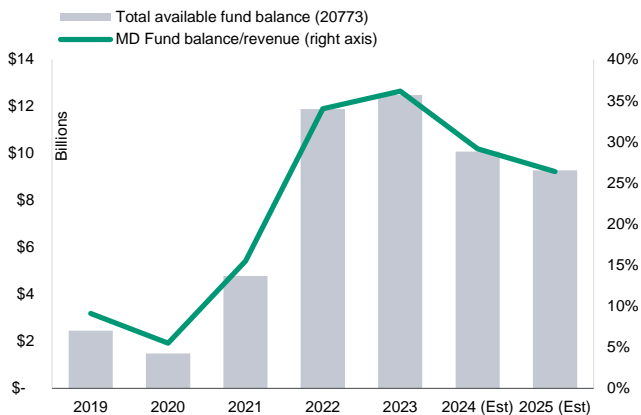
Exhibit 10  
General Fund expenditures increased at a 6% FY '18-'23 CAGR



Source: Maryland offering document: Statutory General Fund Comparative Statement of Revenues, Expenditures and Encumbrances and Changes in Fund Balance, Budget and Actual Fiscal Years 2019 to 2023.

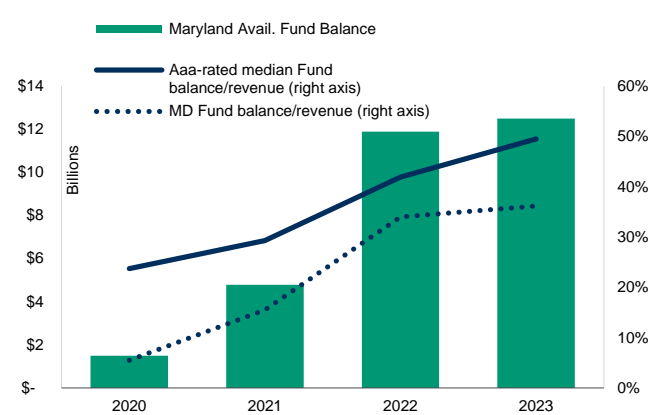
Like other states, Maryland built up significant available fund balances during the recovery from the coronavirus pandemic, as federal largesse fueled economic growth and added to state coffers. Available fund balance surged to \$12.5 billion in fiscal 2023, or about 36% of the state's own-source revenue – an approximately sevenfold gain compared with the ratio of fund balance to revenue in fiscal 2018, as shown in Exhibit 11. The state has historically had weaker available balances than other Aaa-rated states (Exhibit 12), and this relationship likely will continue as the state struggles to keep up with expenditure needs while limiting tax increases.

Exhibit 11  
Available fund balance peaked in fiscal 2023



Source: Moody's data and adjustments based on state information.

Exhibit 12  
Maryland available fund balance versus Aaa-rated state median



Source: Annual comprehensive financial reports with Moody's Ratings adjustments

A portion of the state's balances are contained in the State Reserve Fund, comprising four budgetary reserve sub-funds, of which the Revenue Stabilization Account (RSA or Rainy Day Fund) is by far the largest. The State Reserve Fund's balances at fiscal year end have

ranged from \$646.7 million in fiscal 2021 to almost \$3 billion in fiscal 2023 as shown in Exhibit 1. During that time, RSA balances compared to General Fund revenue ranged from as low as 3% in fiscal 2021 to 14.6% in fiscal 2023. By statute, the RSA receives funds from year-end unappropriated surplus in excess of certain levels. If the General Fund unappropriated surplus exceeds \$10 million, the surplus is allocated to post-retirement health benefits and to public pensions (one quarter for each), up to a combined \$50 million and then to the RSA. Withdrawals from the RSA that will not cause it to fall below 5% of projected General Fund revenue can be included in the state's budget. Larger withdrawals must be authorized in separate legislation. The low balance in fiscal 2021 resulted from use of the RSA for pandemic-relief spending. The legislature in 2024 authorized two RSA uses. First, to cover Medicaid and any other entitlement shortfalls, the state can expend \$90 million in fiscal 2024 and another \$134 million in fiscal 2025, not to exceed a total of \$199 million across both years. In addition, the state's PORT Act authorizes transfers up to \$275 million from the RSA to cover certain response and recovery efforts.

### **Liquidity**

Maryland's liquidity remains strong, given access to the short-term investment pool of governmental and component unit funds. The state's investment portfolio – invested in fixed-income securities – had an \$18.3 billion par value as of 3/31/24, down 11% from a year earlier. A portion of this is invested in the state's Local Government Investment Pool. As of April 30, 2024, the Maryland Local Government Investment Pool had a market value of almost \$9.8 billion.

### **Leverage**

Including outstanding bonds and commitments to retirees and other long-term liabilities, Maryland's leverage is elevated. Total long-term liabilities amounted to \$88 billion and ranked seventh-highest in relation to state revenue, at 252.7%, in our most recent report on US states' liabilities (based on states' fiscal 2022 data).

### **Legal security**

The issuer rating represents the state's fundamental credit quality and is the broadest measure of capacity to pay debt and debtlike obligations. It is the same as the state's general obligation bond rating. Unlike most other states, Maryland levies a statewide property tax, and revenue from this tax is credited to a fund dedicated to paying GO debt service, but the underlying pledge is the state's full faith and credit.

Maryland has issued annual appropriation bonds for various purposes, including transportation and convention centers and sports arenas. The obligation to pay is unconditional once the legislature has appropriated funds for payment.

Bonds issued for the Baltimore City Public Schools Construction and Revitalization Program are payable from several sources, including an allocation of state lottery proceeds and a portion of the state's school aid for the Baltimore City Board of School Commissioners and revenue from the city's bottle tax, table game proceeds and casino rent.

### **Debt structure**

Although a less sizable share of total leverage than pensions, Maryland's bonded debt also is high compared with other states. As of fiscal year 2024, net tax-supported debt was just over \$18 billion, a decrease of about 6% from the preceding year. General obligation bonds account for the largest portion of the state's debt, followed by highway revenue bonds issued by the Maryland Department of Transportation.

Exhibit 13

Components of net tax-supported debt as of June 30, 2023

Debt type	Rating	Amount (000s)
GO bonds	Aaa	\$10,001,238
Consolidated Transportation bonds	Aa1	\$3,297,030
Special Transportation Project Revenue Bonds	A1	\$410,365
Department of Transportation - Certificates of Participation	Aa1	\$21,805
Bay Restoration bonds	Aa3	\$170,429
Built to Learn Revenue bonds	A1	\$697,577
Maryland Stadium Authority lease debt	Aa2	\$159,476
Baltimore City Public Schools Construction and Revitalization Revenue bonds	Aa3	\$475,719
Capital leases		\$1,086,178
Net premium/discount		\$1,919,233
<b>Total net tax-supported debt</b>		<b>\$18,239,050</b>

Source: Maryland annual comprehensive financial report

Maryland's constitution requires a comparatively rapid 15-year amortization of the state's tax-supported debt. This policy increases debt service as a percentage of revenue, but also restores debt capacity rapidly and helps restrain growth in the amounts outstanding. As a share of own-source revenue, the state's fiscal 2022 fixed costs – encompassing OPEB contribution, water pension contribution, the implied debt service and carrying cost of other long-term liabilities – ranked seventh highest, at 10%, compared with a median of 4.7%.

Debt-related derivatives

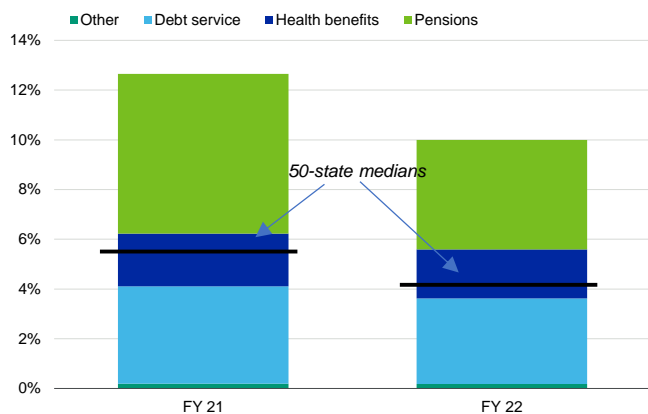
The state is a party to a SIFMA-based swap with notional value of \$22.4 million on the Maryland Stadium Authority's variable rate debt. The mark-to-market value of the swap was negative \$947,126 as of June 30, 2023. Under the terms of the swap, which terminates March 1, 2026, the authority pays interest at fixed rates in exchange for the variable-rate payments.

Pensions and OPEB

Maryland's overall liability numbers declined substantially based on data from the state's fiscal 2023 reporting, primarily because of higher interest rates. Since these factors that will have similar effects for states generally, Maryland likely will remain well above median liability-to-revenue levels. The state's combined adjusted net pension liabilities (ANPL) and adjusted net OPEB (ANOL) liabilities dropped by about 26% from the prior year and 38% from two years earlier (Exhibit 14), based on data included in the state's 2023 financial reports.

Exhibit 14

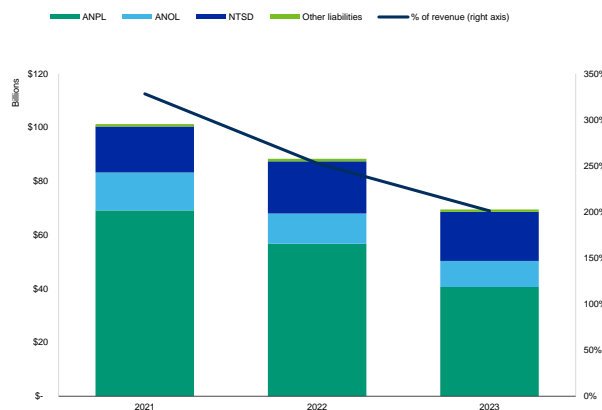
Maryland's long-term liabilities to revenue has been well above US median levels



Source: Audited financial statements with Moody's Ratings adjustments

Exhibit 15

Higher interest rates have trimmed Maryland's retirement benefit liabilities



Source: Audited financial statements with Moody's Ratings adjustments



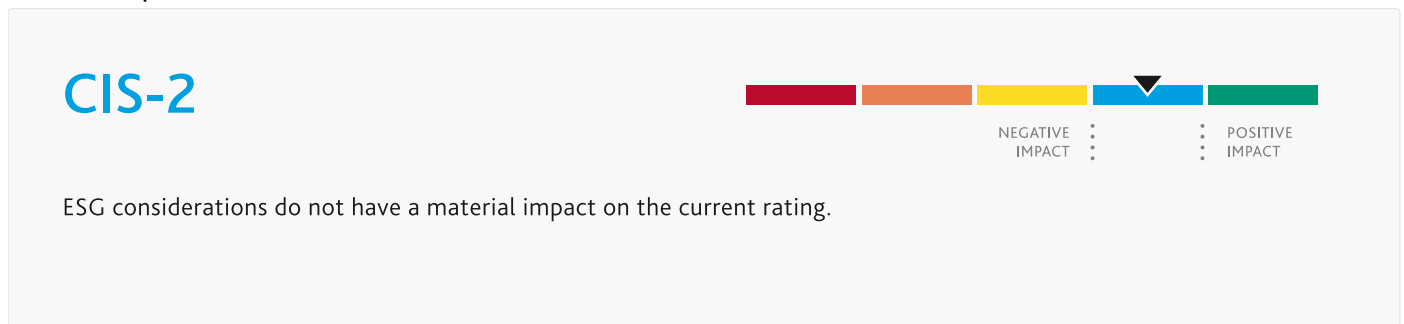
Two factors offset the negative credit impact of Maryland's high leverage and fixed-cost burdens. The first is the state's strong economic capacity to service the liabilities, by raising existing tax rates or creating new revenue sources, if necessary. Second, the state shoulders of burdens on behalf of lower levels of government, which reduces tax-base competition between the state and its local units. If teacher retirement liabilities were similarly included on the balance sheets of other states, Maryland's ANPL burden would be closer to the median.

Because of its large pool of pension investments, Maryland has among the highest pension asset shock indicators (PASI) – which measure a government's likelihood (based on estimated annual volatility of pension assets) of suffering investment losses amounting to 25% or more of governmental revenue. The state's PASI as of 2022 was 3.3%, higher than all but two states. Higher PASI ratios are consistent with larger asset portfolios in relation to revenue, as well as higher assumed rates of return. Another pension risk factor for Maryland is the future impact of salary and COLA increases, both of which are provided for in the 2025 budget. Maryland can modify the benefits that are the root of its elevated retirement liabilities. Reforms enacted in 2011 increased the vesting period and retirement age in the state's pension for new workers. In addition, both existing employees and new workers faced prospective increased employee contribution rates and reduced COLAs for benefits accrued after July 1, 2011.

### ESG considerations

Maryland (State of)'s ESG credit impact score is CIS-2

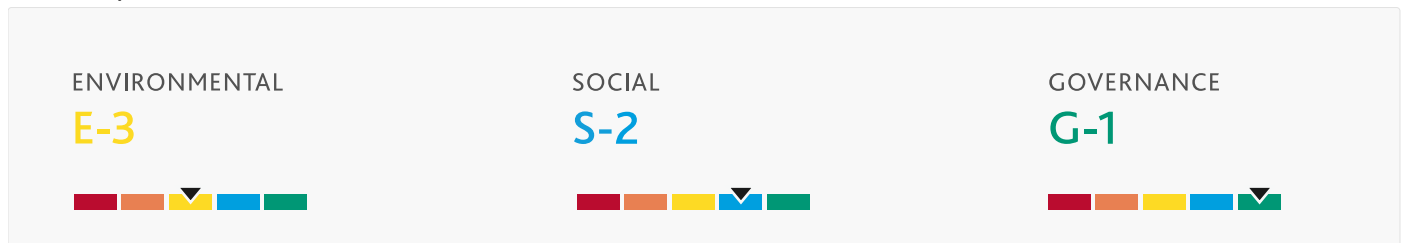
Exhibit 16  
ESG credit impact score



Source: Moody's Ratings

Maryland's ESG Credit Impact Score is neutral-to-low (**CIS-2**) reflecting its moderately negative exposure to environmental risks, neutral-to-low exposure to social risks and a positive governance profile.

Exhibit 17  
ESG issuer profile scores



Source: Moody's Ratings

### Environmental

Maryland's E issuer profile score (**E-3**) reflects the state's location on the Atlantic Ocean and Chesapeake Bay, the nation's largest estuary. This geography leads to above-average exposure to physical and natural climate risks, such as extreme rainfall and hurricanes. About 24% of the state's population and 28% of its GDP are at increasing risk of flooding. The statewide property tax, which is dedicated to pay debt service on general obligation debt, is affected by coastal erosion and coastal storms that can adversely

affect property values. However, the state has reported that coastal properties remain more valuable, on average, than non-coastal properties. Balancing these risks are several mitigating factors. With its high wealth and strong economy, Maryland has economic capacity to withstand the effects of environmental event risk and to generate resources to invest in additional mitigation strategies. The state is considering initiatives to reduce carbon emissions and increase resiliency to climate events. The state has targeted a 60% reduction in carbon emissions by 2031 and achieving "net zero" by 2045, according to legislatively set goals in the state's Climate Pollution Reduction Plan.

### Social

Maryland's S issuer profile score is neutral-to-low (**S-2**). Maryland benefits from a highly educated workforce. This contributes to the state's attractiveness to businesses looking to relocate or expand, which helps boost the state's economy and drives tax revenue. About 40% of the population age 25 and older have at least a bachelor's degree, compared with about 32% nationwide. However, the state's population growth trend has been slowing more than the nation's, as the net migration component of population change has turned negative.

### Governance

Maryland's Governance issuer profile score (**G-1**) incorporates very strong financial practices and a high degree of control and flexibility. For example, the state has a binding consensus revenue forecast, multiyear financial planning, and its Board of Public Works, consisting of the Governor, the Comptroller and the Treasurer, is able to respond swiftly to midyear budget challenges. The state also has no tax and spending limitations or supermajority requirements limiting its flexibility.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

## Rating methodology and scorecard factors

The US States and Territories Rating Methodology includes a scorecard, which summarizes the rating factors generally most important to state and territory credit profiles. Because the scorecard is a summary, and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not map closely to the actual rating assigned.

The Aaa assigned rating differs from the Aa2 scorecard-indicated rating in part because of the state's very strong financial management and governance framework. In addition, the state's economic profile incorporates strengths (from its proximity to the US capital and high concentration of well-educated and highly paid professionals) that are not fully captured in the scorecard. Also, the state's liability profile incorporates pension obligations for school districts that, in many peer states, do not fully factor into the state government liability burden.

Exhibit 18

### Maryland (State of)

	Measure	Weight	Score
<b>Economy</b>			
Resident Income (PCI Adjusted for RPP / US PCI)	102.2%	15%	Aaa
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-1.2%	15%	A
<b>Financial performance</b>			
Financial performance	Aa	20%	Aa
<b>Governance/Institutional Framework</b>			
Governance/Institutional Framework	Aaa	20%	Aaa
<b>Leverage</b>			
Long-term liabilities ratio (adjusted long-term liabilities / own-source revenue)	201.2%	20%	A
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	11.6%	10%	Aa
<b>Notching factors</b>			
Very limited and concentrated economy			
Scorecard-Indicated Outcome			Aa2
<b>Assigned rating</b>			Aaa

Source: Audited financial reports, US Bureau of Economic Analysis, and Moody's Ratings data and adjustments.

## Endnotes

- [1](#) The container ship Dali, which caused the disaster, on May 20 was returned to the port, which will allow for resumption of normal shipping activity.
- [2](#) Within the current fiscal year, the state is also experiencing some temporary sales and use tax payment disruptions resulting from implementation of a new technology for the state's businesses remitting sales tax.
- [3](#) The digital ad tax revenue is not included in the state's budget or financial forecasts and is estimated to be small; tax collections since implementation in fiscal 2022 through March of fiscal 2024 amounted to \$186 million.

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