

CREDIT OPINION

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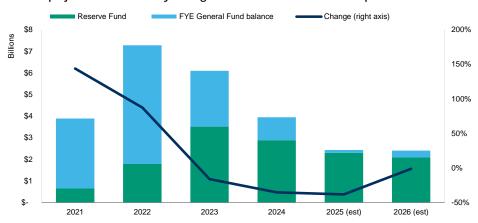
Maryland (State of)

Update to credit analysis following downgrade to Aa1

Summary

The <u>State of Maryland</u>'s (Aa1, stable) credit features notable strengths, including the state's systematic revenue forecast adjustments, strong ability to impose midyear spending reductions, and a wealthy tax base. It also encompasses vulnerability to federal job cuts and evolving US government policies that, by many measures, is <u>greater than all other states</u>. This will extend a period of economic underperformance. The state demonstrated its solid financial management through spending restraint and recurring revenue increases to address a more than \$3 billion deficit projected for the fiscal year starting July 1, which should keep the state's combined Reserve Fund and General Fund balances steady through the coming year, if economic and revenue assumptions are met (Exhibit 1). However, further adjustments to respond to adverse conditions will prove difficult and will keep financial metrics weaker than Aaa-rated states.

Exhibit 1
Reserves projected to hold steady through fiscal 2026 if economic assumptions hold



The Reserve Fund is one component of the state's total available fund balance. Source: State of Maryland bond offering documents

Credit strengths

- » Proactive financial management, including regular revenue monitoring and forecast revisions and ability to make midyear adjustments
- » High personal income levels compared with the nation that have been supported by federal employment and scientific research funded by federal grants

Credit challenges

» High net pension liabilities and above-average debt burden, resulting in high fixed costs

» Vulnerability to swings in federal spending

Rating outlook

A stable outlook on the issuer and long-term ratings is consistent with Maryland's capacity to adjust to conditions including federal policy changes that may undermine tax revenue or increase need for state funding. This outlook also applies to the Baltimore City Schools Construction and Revitalization Program, MD, the Baltimore Board of School Commissioners, MD, and the Maryland Infrastructure Financing Intercept Program.

Factors that could lead to an upgrade

- » Economic outperformance demonstrated by real GDP growth, exceeding the national pace by at least 30 basis points, and demonstrating reduced vulnerability to federal actions
- » Sustainable measures that eliminate out-year budget gaps linked to education funding or other programs

Factors that could lead to a downgrade

- » Inability to maintain fiscal balance despite recent revenue increases that leads to a 20% reduction in available fund balance
- » Recurrence of unanticipated program expense increases or reliance on one-time sources
- » Failure to adhere to policies to address large, unfunded pension liabilities

Key indicators

Exhibit 2

	2020	2021	2022	2023	2024	State Medians (2023)
Economy						
Nominal GDP (\$billions)	413.5	447.8	484.9	515.6	542.8	313.0
Real GDP, annual growth	-3.4%	4.7%	2.3%	1.6%	2.2%	2.2%
RPP-adjusted per capita income as % of US	103.2%	101.0%	102.6%	103.9%	104.3%	97.7%
Nonfarm employment, annual growth	-6.8%	2.6%	2.5%	1.7%	1.9%	2.1%
Financial performance						
Available balance as % of own-source revenue	5.5%	15.5%	34.0%	36.2%	36.2%	44.4%
Net unrestricted cash as % of own-source revenue	5.0%	20.6%	26.9%	34.5%	27.7%	72.4%
Leverage						
Total long-term liabilities as % of own-source revenue	327.4%	328.1%	252.7%	201.2%	188.2%	99.4%
Adjusted fixed costs as % of own-source revenue	13.8%	12.6%	10.0%	11.6%	10.6%	5.2%

Source: US Bureau of Economic Analysis, US Bureau of Labor Statistics, audited state financial reports, Moody's Ratings

Profile

Maryland includes 3,190 miles of the US East Coast, according to the National Oceanic and Atmospheric Administration. Its population of almost 6.26 million ranks 18th among the states, according to the 2024 estimate from the US Census Bureau. Maryland's economy also ranked 18th, based on current-dollar 2024 state GDP of \$542.8 billion, according to the US Bureau of Economic Analysis.

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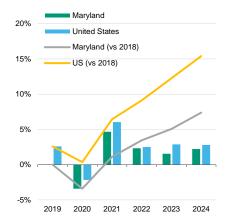
Detailed credit considerations

Economy

Maryland will face greater economic risk than other states from federal government actions, in view of its elevated level of federal employment and several other key measures. After supporting the state economy for many years, the presence of federal agencies including the National Institutes of Health, the Food and Drug Administration, the Social Security Administration and many other agencies creates a vulnerability at a time of federal downsizing. The state will likely underperform relative to its economic assumptions and growth will lag similarly rated states. This follows an already long period of tepid economic growth and will potentially weigh on relative financial strength.

US real GDP grew by 15% during the six years ending in December 2024, more than double the pace for Maryland. The state's total nonfarm employment also struggled through the pandemic period, taking about a year longer than the nation to return to prepandemic levels (middle chart, below). Nevertheless, Maryland's economy still benefits from comparatively high personal income levels that connections to the US government and to research institutions like <u>Johns Hopkins University</u> (Aa2 positive) and the <u>University System of Maryland</u> (Aa1 stable) have supported for many years.

Exhibit 3
GDP has lagged the national pace in recent years
Real GDP



Lines represent cumulative change from 2018 Source: US Bureau of Economic Analysis

Exhibit 4
Maryland's employment recovery trailed national trends after the pandemic
Nonfarm employment compared with 2019



Annual average of monthly data, change compared with 2019
Source: US Bureau of Labor Statistics

Exhibit 5
Personal income per capita remains higher than the nation's



Source: US Bureau of Economic Analysis

Finances

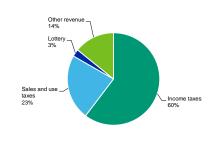
Maryland will struggle more than many other similarly rated states to address the next economic downturn, when it arrives, having recently imposed revenue increases and certain expenditure cuts to address a shortfall of approximately \$3.3 billion (or 12% of the fiscal 2026 appropriations). Tax hikes for fiscal 2026 included the addition of high-income brackets (for those earning upward of \$500,000 or \$1 million), generating an estimated \$351 million; expanding the sales tax to digital and information technology services, producing an estimated \$482 million; imposing a surcharge on capital gains income, expected to generate \$229 million for the general fund, and various sin tax increases and other measures, projected to raise \$94 million.

Maryland like many other states relies heavily on income taxes (Exhibit 6). This year's tax overhaul will reinforce that connection and, by increasing the burden on higher earners, potentially add to revenue volatility, which historically has been low for Maryland. Through March, the state's revenues have stayed on track, exceeding the fiscal 2025 forecast. Sales and use tax collections were in line with expectations and withholding tax collections grew by 9%, more than the 5.5% projected.

The state will reduce anticipated fiscal 2026 general fund outlays by \$1.64 billion through cost cuts that in some cases are recurring, such as personnel reductions (saving \$121 million), limiting salary increases for nonunion employees (for another \$30 million) and

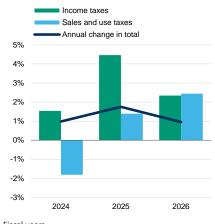
reining in state university system support (\$44 million). This will prove positive for a state where recent years' spending growth has been rapid, as depicted in Exhibit 8. Some budget elements, however, save money by suspending prudent fiscal policies, such as withholding a statutorily indicated rainy day fund contribution (\$420 million).¹

Exhibit 6
General fund revenue depends heavily on income taxes
Fiscal 2024



Source: Bond offering document

Exhibit 7
Maryland projects slowing tax revenue growth



Fiscal years
Source: Maryland Board of Revenue Estimates

Exhibit 8 General Fund expenditures have risen sharply Expenditures excluding rainy day fund deposits



Statutory General Fund actual expenditures and encumbrances
Source: Maryland offering documents.

The revenue and spending measures will help maintain the state's financial reserves (Exhibit 1) through the end of fiscal 2026. The state has been proactive in lowering its forecast withholding tax for growth (to 2.4% in March from 3.1% in December, for tax year 2025, for example). Its current projection shows state and local withholding collections declining by \$262 million in tax year 2025, because of a 30,000 employment reduction, almost triple the 10,900 federal government and contractor job loss from across-the-board "sequestration" measures in federal fiscal years 2011 through 2013. In addition the budget includes contingency provisions that would guide the state's response if federal revenue is reduced by \$1 billion below the assumed amount.

To some extent, the budget assumes the US government maintains current support for Medicaid, the health insurance program for the poor and disabled jointly funded by states and the federal government. A reduced federal commitment will necessitate additional measures. Separately, Maryland also has deferred spending growth associated with its Blueprint for Maryland's Future education funding program. That program, covered from a dedicated fund, still faces deficits ranging from \$2 billion to \$3 billion in fiscal 2028 through 2030.

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 a \$17.8 billion par value as of 3/31/25 – little changed from a year earlier, according to the state's bond offering document. A portion of this is invested in the state's Local Government Investment Pool. As of April 30, 2025, the Maryland Local Government Investment Pool had a market value of \$11 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 \$69.5 billion and ranked seventh-highest in relation to state revenue, at 201%, in our most recent report on US states' liabilities (based on states' fiscal 2023 data).

Legal security

The issuer rating represents the state's fundamental credit quality and is the broadest measure of capacity to pay debt and debt-like obligations and consistent with the state's GO credit. 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.

Consolidated Transportation bonds are payable from an irrevocable pledge of taxes deposited to the Transportation Trust Fund, which must be used for debt service before other Department of Transportation needs.

Annual appropriation bonds rated a notch below the state's issuer rating were issued for more essential state government purposes, such as public infrastructure (primarily transportation-related). Annual appropriation debt two notches below the issuer rating likewise are payable from appropriated funds but were issued for less-essential purposes (such as stadium projects).

Bay Restoration Fund bonds are payable from water usage fees imposed on households and commercial enterprises throughout the state.

Built to Learn revenue bonds are payable from net gaming (table games and video lottery terminal or VLT) proceeds, after prizes and operating costs, which have been deposited by the state comptroller into the Maryland Stadium Authority's Supplemental Public School Construction Financing Fund from the constitutionally protected Education Trust Fund (ETF). Transfers are subject to appropriation and made semiannually.

Baltimore City Public Schools Construction and Revitalization Program bonds are payable from several sources, including an allocation of state lottery proceeds and a portion of state school aid to the Baltimore City Board of School Commissioners and the city's bottle tax, as well as its 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, and about \$20.8 billion including liabilities related to public private partnership for the Purple Line light rail project. General obligation bonds account for the largest portion of the state's debt, followed by highway revenue (Consolidated Transportation) bonds issued by the Maryland Department of Transportation.

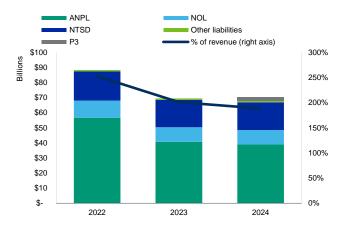
Debt-related derivatives

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 \$506,020 as of June 30, 2024. 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 have declined substantially in recent years (Exhibit 14), primarily because of higher interest rates. This favorable environment benefits all states with significant pension and OPEB liabilities. Maryland remains well above median liability-to-revenue levels and will continue to do so until it is able to make considerable progress funding these liabilities. For the fiscal 2023 financial reporting cycle, the state's combined adjusted net pension liabilities (ANPL) and adjusted net OPEB liabilities (ANOL) dropped by about 26% from the prior year. For 2024, liabilities increased slightly but declined as a share of own-source revenue.

Exhibit 9
Total debt has declined largely because of interest rates' effect on pensions



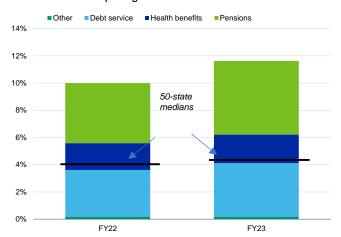
Liabilities by financial reporting year; ANPL is adjusted net pension liability; NTSD is net tax-supported debt; NOL is net OPEB liability and P3 relates to debt associated with the Purple Line public-private partnership.

Source: Audited financial statements, Moody's Ratings adjustments

Exhibit 10

Fixed costs-to-revenue ratio is more than twice the 50-state median

Fiscal 2023 financial reporting



Sector median fixed costs were 5.3% of own-source revenue based on fiscal 2023 numbers.

Source: Audited financial statements, Moody's Ratings adjustments

Two factors mitigate 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.

ESG considerations

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

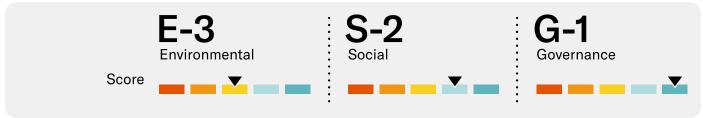
Exhibit 11
ESG credit impact score



Source: Moody's Ratings

Maryland's ESG Credit Impact Score reflects moderately negative exposure to environmental risks, neutral-to-low exposure to social risks and a positive governance profile.

Exhibit 12
ESG issuer profile scores



Source: Moody's Ratings

Environmental

Maryland's E issuer profile score reflects its location on the Atlantic Ocean and Chesapeake Bay, the nation's largest estuary. This geography brings above-average risk from physical climate risks such as extreme rainfall, sea level rise and hurricanes. About a quarter of the state's population and a third 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 reduce property values. Balancing these risks are several mitigating factors. With its high wealth, Maryland has capacity to withstand the effects of environmental risk and to generate resources to invest in additional mitigation strategies. The state has pursued successful initiatives to reduce carbon emissions. It targets a 60% reduction in carbon emissions by 2031 and "net zero" by 2045, under legislatively set goals in the state's Climate Pollution Reduction Plan. The state has also begun to take action to increase resiliency to climate events. The state comptroller recently cited a study that estimated that protecting homes, business and roads from chronic flooding by 2040 would cost \$27.4 billion, under a moderate sea-level-rise scenario.

Social

Maryland's social issuer profile score encompasses the strengths of 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 44% of the population age 25 and older have at least a bachelor's degree, compared with about 36% nationwide. However, the state's population growth trend has lagged the nation's, and federal government policy shifts and layoffs threaten to exacerbate this trend.

Governance

Maryland's Governance issuer profile score 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 Moodys.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 Aa1 assigned rating differs from the Aa2 scorecard-indicated rating in part because of the state's very strong financial management and governance framework. 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 13 US States and territories scorecard State of Maryland

	Measure	Weight	Score
Economy			
Resident Income (PCI Adjusted for RPP / US PCI)	104.3%	15%	Aaa
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-1.3%	15%	А
Financial performance			
Financial performance	Aa	20%	Aa
Governance/Institutional Framework			
Governance/Institutional Framework	Aaa	20%	Aaa
Leverage			
Long-term liabilities ratio (adjusted long-term liabilities / own-source revenue)	188.2%	20%	Aa
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	10.6%	10%	Aa
Notching factors			
Very limited and concentrated economy	N/A		
Scorecard-Indicated Outcome			Aa2
Assigned rating			Aa1

Economic growth metric is derived from 2018 through 2023 performance.

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

Endnotes

- 1 The amount is calculated based on statute that requires any unappropriated surplus exceeding \$10 million (net of certain distributions) be transferred to the rainy day fund.
- 2 The P3 obligation factors in the amount of debt (including private activity bonds and a TIFIA Loan) for the project's developer, Purple Line Transit Partners LLC.

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