

CREDIT OPINION

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Contacts

Marcia Van Wagner +1.212.553.2952
 VP-Sr Credit Officer
 marcia.vanwagner@moodys.com

Pisei Chea +1.212.553.0344
 VP – Senior Analyst
 pisei.chea@moodys.com

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Americas 1-212-553-1653
 Asia Pacific 852-3551-3077
 Japan 81-3-5408-4100
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Maryland (State of)

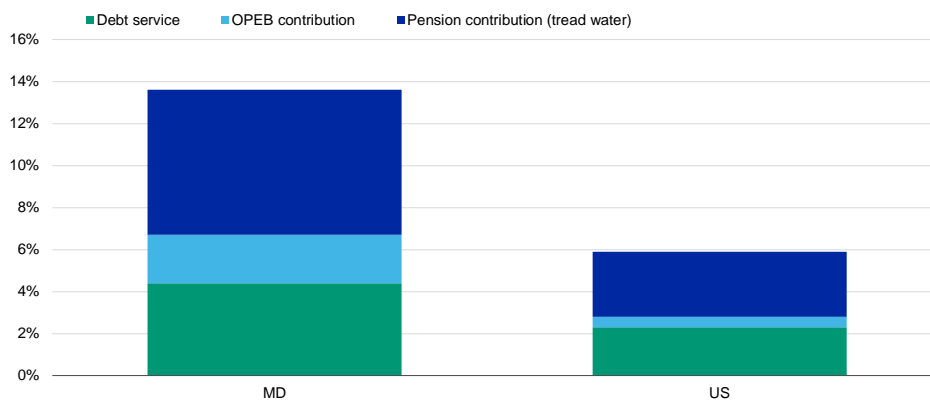
Update to credit analysis

Summary

[Maryland](#) (Aaa stable) benefits from a significant federal presence and proximity to the nation's capital that provides well-paid civilian and national defense jobs and has generally led to a stable economic environment. The state has strong budgetary and financial management practices and a history of proactive measure in response to economic cycles, which will serve the state well in the event of an economic downturn. A relatively high debt and pension burden leads to high fixed costs compared with peers and will continue to test the state's commitment to reducing its long-term liabilities while providing the level of services expected by its residents.

Exhibit 1

High fixed costs reflect Maryland's support of local government Fiscal 2020 fixed costs as a % of own-source governmental revenue



Source: Maryland audited financial statements; Moody's Investors Service

Credit strengths

- » Proactive financial management
- » Stable economy with high personal income levels
- » Strong liquidity

Credit challenges

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

Rating outlook

The outlook for Maryland's general obligation debt is stable. The state's proactive fiscal management enables it to make midcourse corrections and weather economic cycles. It has also taken often difficult actions to strengthen its balance sheet for long-term fiscal sustainability. Even so, growth in fixed costs for pensions, debt service and retiree health benefits will continue to be a challenge.

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 without a plan for near-term replenishment and structural balance
- » Failure to adhere to policies to address large unfunded pension liabilities

Key indicators

Exhibit 2

	2020	2021	State Medians (2020)
Economy			
Nominal GDP (\$billions)	410.7	438.2	243.8
Real GDP, annual growth	-4.5%	3.2%	-3.0%
RPP-adjusted per capita income as % of US	104.1%		96.7%
Nonfarm employment, annual growth	-6.8%	2.5%	-5.5%
Financial performance			
Available balance as % of own-source revenue	5.5%	15.5%	20.2%
Net unrestricted cash as % of own-source revenue	5.0%	20.6%	48.1%
Leverage			
Total long-term liabilities as % of own-source revenue	328.4%	323.1%	164.5%
Adjusted fixed costs as % of own-source revenue	13.8%	12.6%	7.3%

Source: Maryland Audited Financial Statements; US BEA; US DOL; Moody's Investors Service

Profile

Maryland is located on the East Coast of the United States and has 3,190 miles of shoreline, according to the National Oceanic and Atmospheric Administration. Its population of 6.2 million people places it 19th among the 50 states. Its state gross domestic product is 15th largest. The state has above-average wealth, with per capita personal income equal to 109% of the US level in 2021.

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Detailed credit considerations

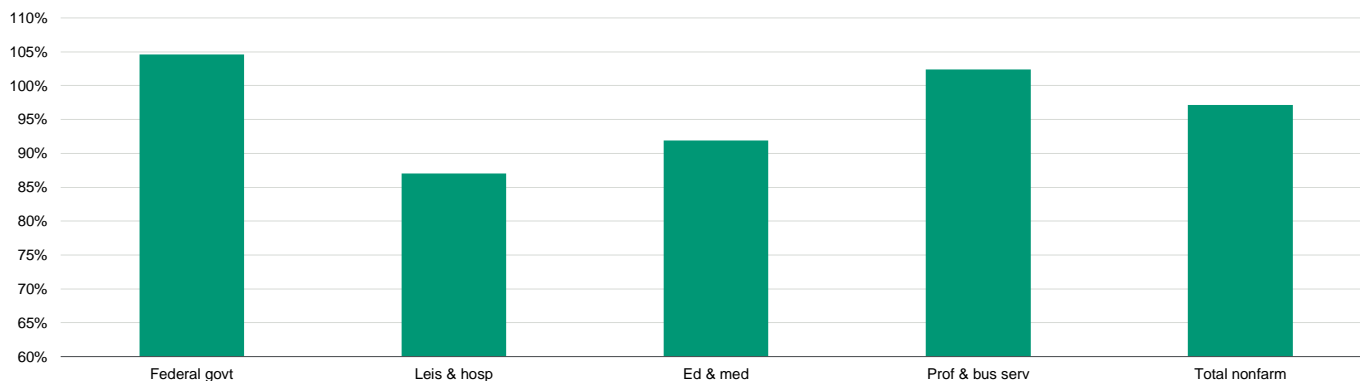
Economy

Maryland has recovered about 80% of the roughly 400,000 jobs lost from February to April of 2020 when the coronavirus pandemic led to nationwide shutdowns, leaving April 2022 total employment at about 97% of its January 2020 peak. The US has recovered virtually all the jobs lost during that initial pandemic shock. While the state's recovery has lagged the nation's somewhat, Maryland has benefited from its concentration of federal employment, which grew, helping to offset slower recovering in some other major sectors such as leisure and hospitality and education (see Exhibit).

The state's unemployment rate never rose as high as the nation's (9.5% in Maryland vs 14.7% nationwide) and had fallen to 4.2% by April 2022, compared to the national rate of 3.6%. Like the US, however, the state's labor force contracted during the pandemic but has seen gains in recent months.

Exhibit 3

Maryland's concentration in federal government employment has helped its pandemic recovery % employment recovery compared to February 2020



Source: US Bureau of Labor Statistics

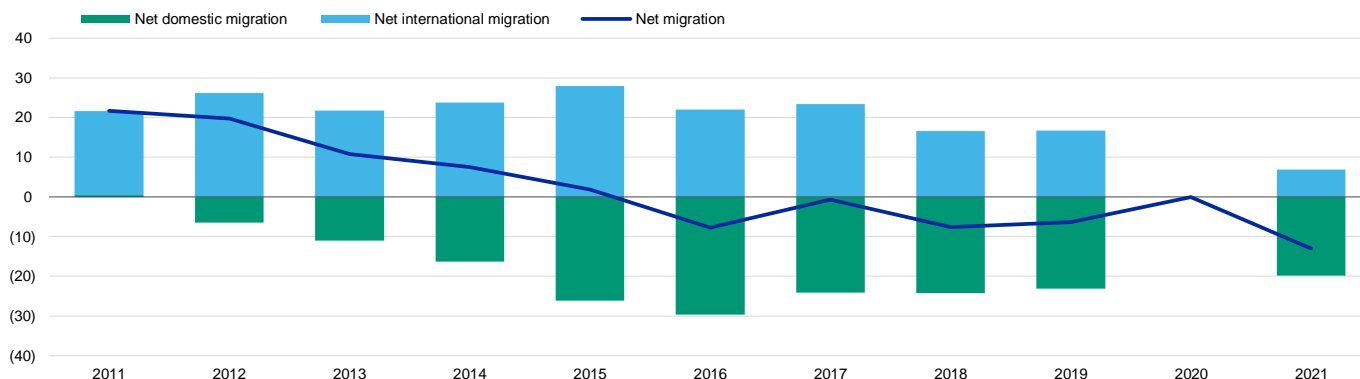
While historically a source of stability, the large federal presence in Maryland can be a mixed blessing. Federal jobs account for more than 5% of Maryland employment, compared with about 2% nationally. However, federal sequestration early in the last decade followed by federal employment attrition – particularly in non-defense functions -- toward the end of the decade led to declines followed by relative stagnation in the state's federal employment trends. In 2020, a decennial census year, federal job growth picked up nationally and in Maryland. After the census employment spike, federal employment nationwide has fallen back closer to its pre-census level, while Maryland's federal employment has remained fairly stable.

About 43% of the population age 25 and older have at least a bachelor's degree, compared with about 35% 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 (see Exhibit). In 2021, the state did not experience a surge in outmigration, possibly reflecting its suburban appeal.

Exhibit 4

Negative net migration stems from less international in-migration as well as domestic outmigration

Migration in thousands, annual estimates



Data not available in Census years.

Source: US Census Bureau

The state's Board of Revenue Estimates December economic outlook showed personal income growth slowing in calendar year 2022 with the withdrawal of federal stimulus, but growing thereafter at about 4.5% per year through 2025 as the economy returns to long-run growth patterns. The March update did not offer detailed economic forecast changes, but the state is recognizing the growing risks from repeated waves of COVID infection, inflationary pressures and policy responses to them, geopolitical developments and likely downward movement of capital gains.

Finances and Liquidity

The state expects the fiscal 2022 budget to end with a balance of at least \$4.6 billion, a gain of \$1.4 billion from the starting balance in a year marked by strong tax revenue collections and the stimulus from plentiful federal aid. For fiscal 2023, the state is planning to deploy resources to a mix of recurring and non-recurring initiatives that would bring the fiscal 2023 ending balance to \$219 million. The fiscal 2022 ending balance already reflects a deposit of nearly \$1.3 billion into the state's rainy day fund, bringing the fund balance to 10% of general fund revenue. We have considered Maryland's reserve balances historically to be weak for its rating category and recent actions to increase them are positive.

Funds have been allocated for more than \$2 billion in pay-go capital funding and a transfer of \$800 million to offset the future costs of its recently enacted Blueprint program, which enhances education funding. Additional funds are directed to employee compensation enhancements, tax relief and miscellaneous grants and programmatic initiatives.

The March consensus revenue update raised fiscal 2022 projected revenue nearly \$900 million from December estimates based on the strength of personal and corporation income tax and sales tax collections, resulting in a 7.8% revenue increase from fiscal 2021. The forecast for fiscal 2023 was also raised by \$737 million, leading to another 4.8% increase in projected revenue. Both figures are net of deductions stemming from the state's volatility cap. To reduce the impact of volatility on the state's operating budget, the cap channels some positive variances from non-withholding personal income tax collections to reduce long-term liabilities or to bolster the state's rainy day reserves.

On an audited GAAP basis, the state's available balances have been low compared to peers since the last recession. In fiscal 2020, available balance as a percent of own-source revenue was 5.5%, compared to a state median of 20.2%. Maryland's balances improved significantly in fiscal 2021.

Liquidity

Maryland's liquidity is strong, bolstered by access to the state's short-term investment pool of governmental and component unit funds. Local government cash is held in a separate pool. As of March 31, 2022, the market value of the state pool was more than \$13 billion. The state's very strong cash liquidity has helped to mitigate its below-average GAAP basis fund balances.

Leverage

Maryland's leverage is high for its rating category, reflecting the state's support for its local governments and school districts and its active transportation program. In fiscal 2020, the state's governmental liabilities totaled 328% of own-source governmental revenue, placing it 7th highest among the 50 states. This translates into fixed costs that are greater than the state's Aaa peers. Somewhat mitigating this burden is the lesser burden on lower levels of government due to the state assumption of some of those obligations. As a result, tax base competition between the state and its localities is not as great as in some other high-liability states.

Legal security

The state's general obligation bonds are backed by the state's pledge of its full faith and credit.

Debt structure

Maryland's debt levels compared with 50-state medians are high. Debt outstanding in fiscal 2020 represented 62% of own-source revenue, compared to a median of 32.5%. The state's debt burden has historically remained within the recommendations of its Capital Debt Affordability Committee, which advises limiting total debt to within 4% of personal income and debt service to within 8% of revenue.

As of fiscal 2021, the state's net tax-supported debt was about \$17.4 billion, of which about \$2 billion consists of bond premium (see Exhibit). The state's debt consists primarily of general obligation bonds (57%) and consolidated transportation revenue bonds (22%). The state has also incurred lease/appropriation debt for school construction programs. Our total includes debt issued by the Maryland Water Quality Financing Authority addressing run-off and sewer discharge impacts on the Chesapeake Bay and obligations incurred under a public-private partnership for the Purple Line, a public transit project.

Exhibit 5

Maryland's outstanding debt consists primarily of GO and highway-related bonds Fiscal 2021 net tax-supported debt outstanding

Security	NTSD debt outstanding
GO	9,912,930
Lease/Approp	593,954
Highway	3,892,210
Maryland Water Quality Bay Restoration	229,150
P3 obligation - Purple Line	250,428
Misc incl premium	2,493,081

Source: Maryland financial statements; Moody's Investors Service

Maryland's constitution requires a rapid 15-year amortization of tax-supported debt. This policy increases debt service as a percentage of revenue, but also quickly replenishes the state's debt capacity and helps restrain growth in the outstanding balance. The state ranked eighth in debt service as a percent of own-source governmental funds revenue adjusted for net transfers in our 2021 State Debt Medians report.

Maryland has a single series of variable rate demand bonds outstanding, issued through the Maryland Stadium Authority. Liquidity support for tenders is provided through an SBPA provided by [Sumitomo Mitsui Banking Corporation](#) (Counterparty Risk Assessment A1(cr)/P-1(cr)) that expires in 2026. The state also has about \$62.1 million in privately placed loans under the Qualified Zone Academy Bond program as of June 30, 2021.

Debt-related derivatives

There is a SIFMA-based swap with notional value of \$27.265 million in conjunction with the Maryland Stadium Authority's variable rate debt. The mark-to-market value of the swap was about -\$4.66 million as of June 30, 2021.

Pensions and OPEB

The financial condition of Maryland's retirement system represents the state's most significant credit challenge. The state's adjusted net pension liability for fiscal 2020 was \$67.3 billion, including the Maryland State Retirement and Pension System (MSRPS), the Maryland

Transit Administration Pension Plan, representing more than 200% of own-source revenue and placing Maryland 5th highest of the states. Our adjustments to reported state pension data are designed to improve comparability among state pension metrics.

Demonstrating its proactive management approach, the state has taken a number of steps to manage its pension burden that have included reductions in its liabilities and efforts to improve funding. It has enacted reforms to both pension and retiree health (OPEB) programs and has shifted the responsibility for paying the normal cost of teacher pension to local governments. However, despite supplemental pension contributions intended to accelerate amortization of the state's liabilities, state contributions do not quite meet the level necessary to "tread water," that is, prevent the state's pension liabilities from growing by covering interest on the beginning of year net pension liability and annual service cost. Meeting the tread water threshold would cost the state less than 1% of its own-source revenue. The supplemental payment has been pared back from time to time to redirect the funds to balance the budget. However, with ample budgetary cushion, the state is making an additional contribution of \$100 million in fiscal 2023.

The state's adjusted net OPEB (retiree health insurance) liability, including liabilities of the Maryland Transit Administration, was \$15 billion or 58% of own source revenue as of June 30, 2020. The 50-state median was 14%. The state generally makes contributions to its retiree health system on a pay-go basis. While the state established a trust fund to accumulate assets to offset accrued OPEB liabilities, it does not regularly contribute to it. The state implemented OPEB reforms in 2011 that increased eligibility requirements to contain long-term growth in OPEB liabilities. A portion of that reform having to do with prescription drug benefits is under court injunction pending the outcome of litigation, and the General Assembly has created programs to limit certain retiree prescription costs.

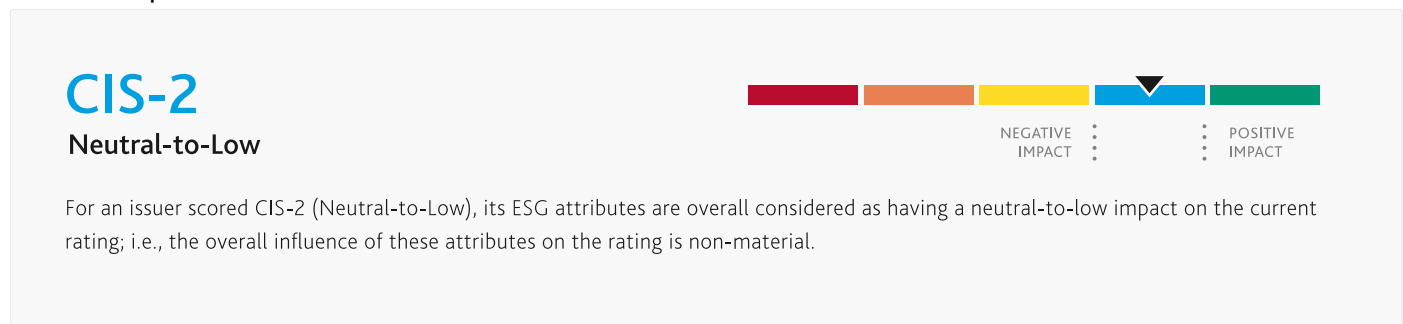
Maryland ranks 11th highest in combined debt, pension and OPEB liabilities compared to state GDP, with these obligations posing the state's most notable credit challenge. The obligations measured nearly 20% of state GDP in fiscal 2019 and combined required 16% of the state's own-source revenue to service.

ESG considerations

MARYLAND (STATE OF)'s ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 6

ESG Credit Impact Score

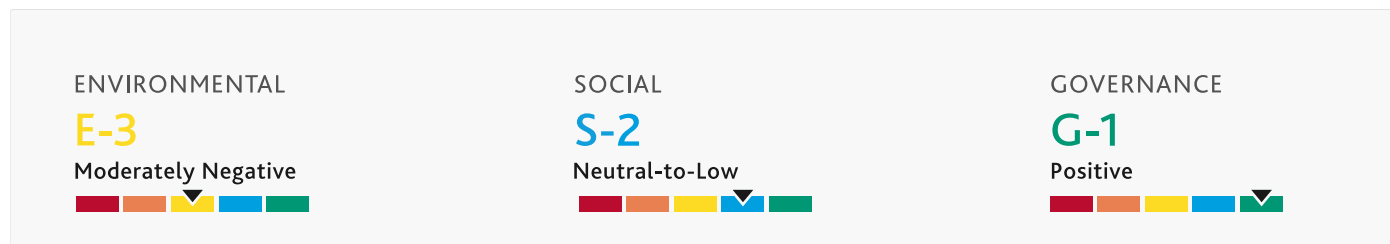


Source: Moody's Investors Service

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 7

ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

Maryland's E issuer profile score is moderately negative (**E-3**). Maryland's climate exposure reflects its 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. According to data from Moody's ESG Solutions, about 24% of the state's population and 28% of its GDP are increasing risk from 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. It has established a Climate Change Commission that is overseeing plans to reduce carbon emissions 40% by 2030 and is also developing requirements for major state projects to assess proposed projects' emissions and sustainability given projections for rising sea levels. In addition, the legislature is considering increasing the state's target for renewable energy sources.

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 G issuer profile score is positive (**G-1**). Maryland's financial practices and flexibility are very strong. 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.

Rating methodology and scorecard factors

Maryland's Aaa issuer rating is two notches higher than its scorecard rating of Aa2. The state's greater relative economic stability and very strong liquidity help explain the difference between the assigned rating and the rating determined by the scorecard.

Exhibit 8

Maryland (state of)

	Measure	Weight	Score
Economy			
Resident Income (PCI Adjusted for RPP / US PCI)	105.4%	15%	Aaa
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-1.7%	15%	A
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)	328.0%	20%	A
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	13.8%	10%	Aa
Notching factors			
Very limited and concentrated economy			
Scorecard-Indicated Outcome			Aa2
Assigned rating			Aaa

Source: US Bureau of Economic Analysis; Maryland audited financial statements; Moody's Investors Service

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