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CREDIT OPINION
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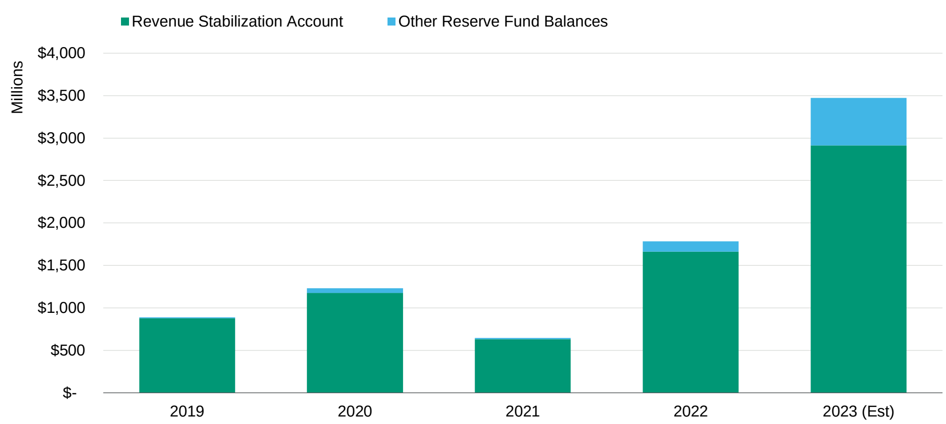
Maryland (State of)

Update to credit analysis

Summary

Maryland (Aaa stable) benefits from a significant federal government presence, and its proximity to the US capital provides well-paid civilian and national defense jobs that historically bolstered the state economy. Strong budgetary and financial management practices, including proactive responses to changing economic conditions, should serve the state well in the event of a recession this year. The state has increased its rainy day fund balance (see Exhibit 1) and has high levels of available liquidity outside of its formal budgetary reserves. At the same time, Maryland's leverage (primarily from adjusted net pension liabilities or ANPLs) ranks very high among states and drives up its fixed costs. Declines in revenue during a downturn, combined with the need to provide the social services expected by its residents, could test the state's commitment to managing these long-term liabilities.

Exhibit 1
Maryland is building up its rainy day fund balances



Source: State of Maryland bond offering documents and annual comprehensive financial reports.

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 and high fixed costs compared with other Aaa-rated states
- Vulnerability to swings in federal spending

Rating outlook

The outlook for Maryland is stable. The state's proactive fiscal management enables it to make midcourse corrections and to weather economic cycles. It has also taken difficult actions to strengthen its balance sheet for long-term fiscal sustainability. Even so, elevated fixed costs for pensions, debt service and retiree 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 (2021)
Economy			
Nominal GDP ($billions)	410.9	443.9	264.2
Real GDP, annual growth	-4.3%	4.6%	5.5%
RPP-adjusted per capita income as % of US	103.2%	102.5%	96.6%
Nonfarm employment, annual growth	-6.8%	2.5%	2.7%
Financial performance			
Available balance as % of own-source revenue	5.5%	15.5%	27.2%
Net unrestricted cash as % of own-source revenue	5.0%	20.6%	63.0%
Leverage			
Total long-term liabilities as % of own-source revenue	328.4%	323.1%	155.0%
Adjusted fixed costs as % of own-source revenue	13.8%	12.6%	6.6%

Other Scorecard Factor			
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-1.0%	-1.6%	

Sources: Moody's Investors Service, US Bureau of Economic Analysis, US Bureau of Labor Statistics and the state's annual financial audits.

Profile

Maryland is located on the East Coast of the US and has 3,190 miles of shoreline, according to the National Oceanic and Atmospheric Administration. Its population of 6.2 million places it 19th among the 50 states, based on the US Census Bureau's estimates for 2022.

Its state gross domestic product, $443.9 billion on a current-dollar basis in 2021 according to the Bureau of Economic Analysis, is 15th-largest.

Detailed credit considerations

Economy

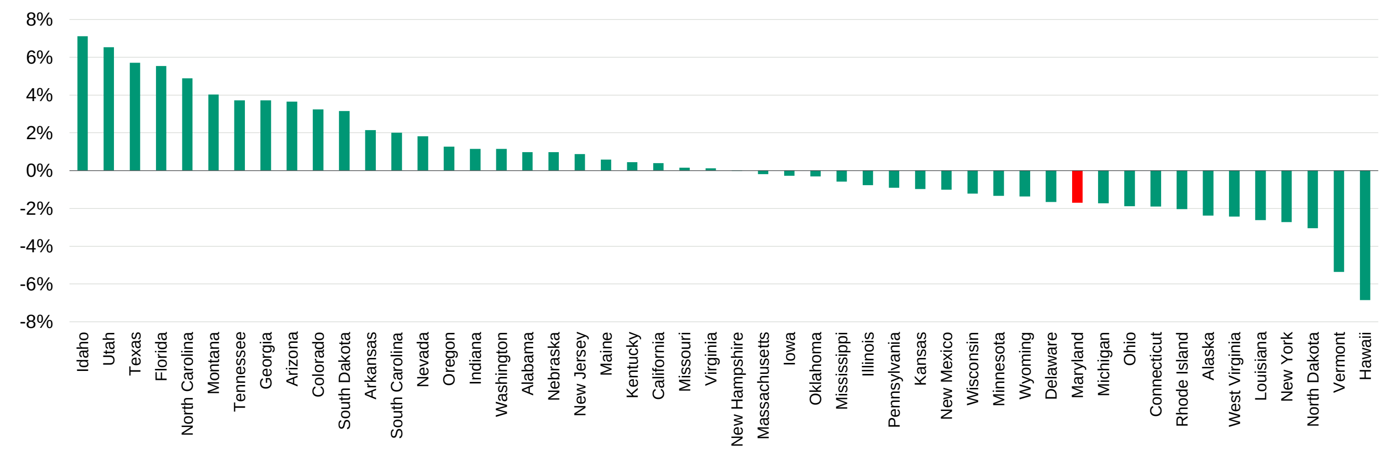
Political dysfunction that leads to an impasse over the federal debt ceiling in coming months will threaten Maryland's economy, as in past instances, such as a partial federal government shutdown in 2019. If a new federal impasse causes other effects such as sharp cuts in federal expenditures, a government shutdown or a debt default, it will undermine an economy that in recent years already has underperformed, in part because of the prior federal funding reductions. Maryland lagged the US real GDP expansion in 2021, as shown in the "Key indicators" table, with 4.6% growth compared with a state median 5.5% pace and overall US real GDP growth of 5.9%. This was a continuation of a multiyear trend: the state's real GDP shrank more than the nation's in 2020 (-4.3%, compared with -2.8% for the US), and it grew less than the nation in 2017 through 2019.

Maryland's economy has been bolstered by strengths in areas including medicine and medical research and by its links to both defense and nondefense federal government spending. This exposure in many respects is an asset, giving Maryland ready access to high-paying government jobs and to government contracting workers in the private sector. As a consequence, Maryland enjoys high wealth levels and per capita income that, even when adjusted for regional price parity, exceeds the US (as shown in Key indicators). Federal civilian activities have accounted for just over 10% of state GDP in Maryland in recent years, more than five times the amount in the US, according to Bureau of Economic Analysis statistics. Government and government enterprises overall accounted for a fifth of the state's real GDP in 2021, compared with 11% nationally. Federal jobs made up 5.6% of Maryland's employment in 2022, compared with 1.9% nationally, according to the Bureau of Labor Statistics (BLS).

The state's labor market has underperformed the nation's since the initial shock of the pandemic in 2020. As shown below, Maryland's total nonfarm payroll employment as of December remained below the pre-pandemic peak level, according to preliminary BLS figures. The state is not alone in this respect, but it significantly trails the median (which is up slightly compared with the prior to the pandemic level). The nation as a whole had added enough jobs as of December to exceed its pre-pandemic employment by about 10%. Unemployment in Maryland was 4.0% in December, on a preliminary basis, compared with the nation's 3.5%, according to BLS.

Exhibit 3

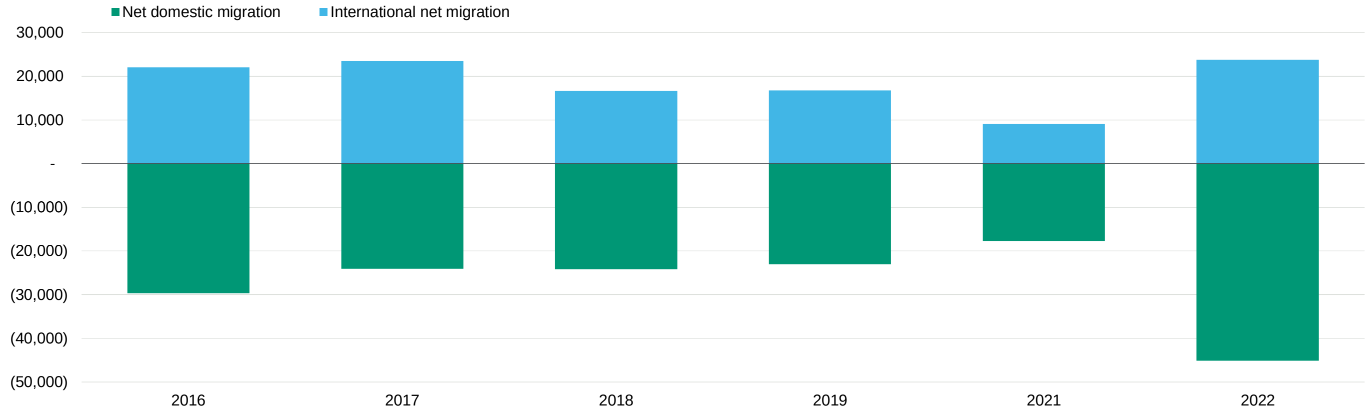
Maryland's total employment has lagged during the pandemic recovery period



Change for each state over its pre-pandemic high in monthly employment, as of December 2022 (preliminary).
Source: US Bureau of Labor Statistics

Other factors that may exacerbate economic underperformance include negative net migration, which has led to weaker-than-average population trends. The state typically loses more residents through migration to other states each year than it gains through international net migration, as shown in the next exhibit. In 2021 the state's pace of net outmigration eased, perhaps reflecting demand for homes in its suburban locations as office employees converted to remote work, although the 2022 net domestic migration loss was Maryland's biggest on record, according to Census Bureau estimates.

Exhibit 4
Negative net migration has restrained Maryland's population growth in recent years



The Census Bureau does not provide estimated data for decennial years, when the national census is conducted
Source: US Census Bureau, Population Estimates

The Maryland Board of Revenue Estimates projects that the state's employment growth will slow to 1.1% in the current calendar year, from 2.5% in 2022, and slow further to 0.6% in 2024. This trend incorporates the effects of the state's aging workforce. Maryland in recent years has seen substantially more growth in its population of older residents (age 65 or older) compared with the prime working age cohort (age 25 to 54).

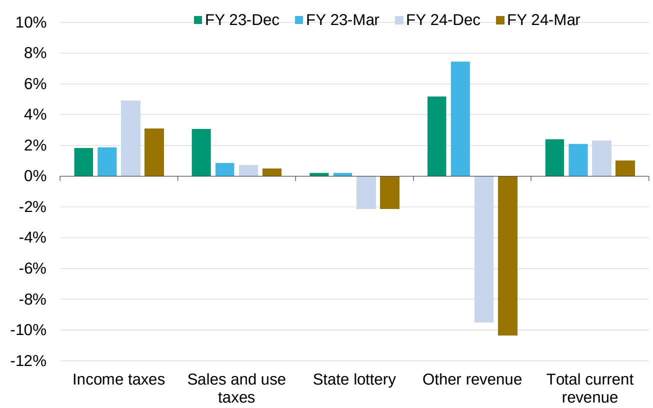
Finances and liquidity

Like other states, Maryland will face slowing tax revenue growth, consistent with moderating economic trends. Maryland previously benefited from substantially better-than-forecast revenue in fiscal 2021 and 2022, largely through the federal government's response to the coronavirus pandemic and a resulting very strong economic recovery from the initial downturn caused by the coronavirus pandemic. These trends let the state amass large financial reserves, including in its Revenue Stabilization Account (or Rainy Day Fund), shown in Exhibit 1. As shown in Exhibit 2, the state's fiscal 2021 available fund balance increased to 15.5% of own-source revenue, based on audited financial statements.

The state's Board of Revenue Estimates on March 9 lowered the state's forecasted collections of major tax types for the fiscal year that starts July 1 (fiscal 2024) and, to a lesser extent, the current year, as shown in the chart below on the left. The primary drivers of the downward revision to the coming year's revenue were income taxes. The state's taxes on individual and corporation income account for the largest share of general fund revenue (see Exhibit 6 below). The BRE lowered its forecast for next year's individual income tax revenue by $329 million, based primarily on recent trends of softening estimated tax payments. The forecast increased projected corporate tax revenue for the current year and somewhat marginally for fiscal 2024. Strengthening corporate profits in the current year (fiscal 2023) offset the BRE's downward revision to individual income taxes. The board lowered its fiscal 2023 projected sales and use tax growth to 0.9% from 3.1% in the December forecast. It made a modest adjustment to the coming fiscal year's forecast, to 0.5% from 0.7%.

Exhibit 5

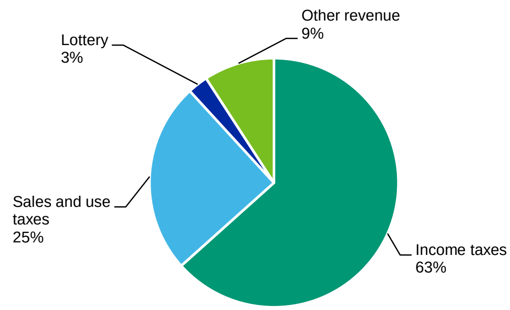
General fund annual growth forecast for fiscal years '23 and '24, by revenue type



Forecasts as of Dec. 15, 2022, and March 9, 2023.
Source: Maryland Board of Revenue Estimates

Exhibit 6

Major components of actual general fund revenue



Actual fiscal 2022 general fund revenue
Source: Maryland Board of Revenue Estimates

Gov. Wes Moore has proposed a budget that would increase spending in a variety of areas viewed as important to the state's economic and social development. Among the areas targeted for increased expenditures are appropriations are $500 million for the state's education investment (under a 2020 law called the Blueprint for Maryland's Future), and another $500 million to make “strategic” transportation infrastructure investments. In addition, the governor's proposal focuses on salary enhancements and hiring of additional workers to “rebuild” the government.

At the same time, it would result in a 4.4% decrease in general fund expenditures (to $26.95 billion). The primary causes of this decrease are removal of Rainy Day Fund contributions, following a large ($2.4 billion) deposit in the current fiscal year, and a dramatic cut to pay-go capital funding, which would fall by $1.2 billion from the $2 billion included in 2023. The proposal, which was based on the state's revenue forecast prior to the March 9 revenue forecast revision, would target maintaining the state's Rainy Day Fund at $2.5 billion, or 10% of general fund revenue, allowing a $479 million transfer out of the fund to support revenue. Fiscal 2024 general fund resources derived from expenditure of opening balance and the reduction in fund balance amount to $1.98 billion, or 7.8% of general fund revenue in the proposed budget.

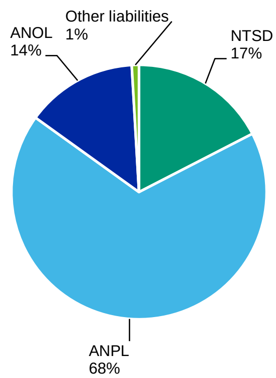
Liquidity
Maryland's liquidity is strong, bolstered by access to the state's short-term investment pool of governmental and component unit funds. Local government cash is held in a separate pool. As of June 30, 2022, the pool's balance was almost $9.7 billion. The very strong cash balances available offset the effects of the state's comparatively weak GAAP-basis available fund balances.

Leverage

Including not only bonds but commitments to retirement benefits and other liabilities, Maryland's leverage is elevated. The state's long-term liabilities totaled $99 billion, or 323% of annual own-source revenue, ranking seventh-highest in our annual report on states' liabilities as of fiscal 2021. More than two-thirds of the state's liabilities resulted from its adjusted net pension liabilities (ANPL), which are heightened partly as a result of the state's support for local governments and school districts. This translates into fixed costs that are greater than the state's Aaa peers. Two factors mitigate the credit impact of the higher-fixed cost burden. The first is the state's strong economic capacity to service the liabilities.[1] Second, the state's shouldering of burdens on behalf of lower levels of government reduces tax-base competition between the state and its local units.

Exhibit 7

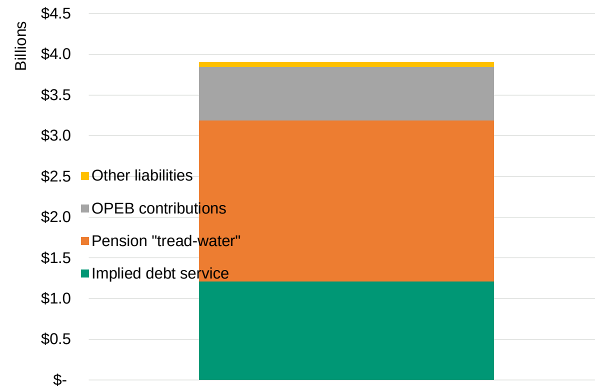
More than four-fifths of Maryland's liabilities are attributable to retirement benefit programs



Source: Audited financial report information combined with Moody's Investors Service Adjustments

Exhibit 8

Retirement benefits accounted for two-thirds of 2021 fixed costs



The tread-water pension level is the annual contribution amount needed to prevent unfunded liabilities from growing, assuming all assumptions are met. Implied debt service is a measure of debt service derived from states' annual audited financial reports, factoring in capital appreciation and amortization of bond premiums and discounts.
Source: Audited financial statements with Moody's Investors Service adjustments.

Legal security

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

The state has several other forms of debt, including Consolidated Transportation Bonds (Aa1, stable), which are payable from an irrevocable pledge of certain taxes deposited into the state's Transportation Trust Fund. In addition, the state's Bay Restoration Fund Bonds (Aa3, stable) are payable from deposits into the restoration fund, derived from water use fees on households and commercial enterprises in the state. The state's Built to Learn Revenue Bonds (A1, stable) are supported by a pledge of net gaming (table games and video lottery terminal) revenue available for debt service after being appropriated to the Supplemental Public School Construction Financing Fund and initially made available for certain other purposes. 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 as well as various other amounts including the city's bottle tax, table game proceeds and casino rent.

Debt structure

Maryland's bonded debt, although a far less sizable component of total leverage than pensions, also is high compared with other states. The state's fiscal 2021, net tax-supported debt was about $17.4 billion, an increase of 3% from the preceding year. That equaled 56% of own-source revenue, compared with a sector median of 28%.

As shown in the table below, which reflects debt as of June 30, 2022, the state's debt consists primarily of GO bonds and transportation bonds including the state's Consolidated Transportation Bonds. The state has various lease obligations for school construction programs,[2] sports facilities and other purposes, which are payable contingent upon annual legislative appropriations. In addition to the highway revenue bonds, there are two other special tax bonds: the Bay Restoration Revenue Fund Bonds and Built to Learn Revenue Bonds. Our net tax-supported debt figures further include obligations under a public-private partnership for the Purple Line, a public transit project, and outstanding bonds' unamortized premiums and discounts as well as accrued interest as of the end of the fiscal year. 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.

Exhibit 9

GO and transportation bonds account for most of the state's net tax-supported debt

Security	Debt outstanding
General obligation	$10,588,593,000
Lease/appropriation	$639,050,000
Transportation Bonds	$4,053,840,000
Maryland Water Infrastructure Financing Administration	$200,095,000
Built to Learn Revenue Bonds	$709,625,000
P3 obligation - Purple Line	$165,000,000
Miscellaneous, including unamortized bond premiums	$2,777,520,000

Major net tax-supported debt components as of June 30, 2022.
Source: State of Maryland, audited 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 quickly replenishes 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 Corp. (Counterparty Risk Assessment A1(cr)/ P-1 (cr)) that expires in 2026. The state also has about $68.1 million in privately placed loans under the Qualified Zone Academy program as of Dec. 31, 2022.

Debt-related derivatives

The state is a party to a SIFMA-based swap with notional value of $22.35 million in conjunction with the Maryland Stadium Authority's variable rate debt. The mark-to-market value of the swap was about $1.3 million as of February 28, 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

Retirement benefit liabilities, as mentioned above, constitute the greatest share of the state's leverage. Maryland has some ability to modify benefits. Reforms enacted in 2011, for example, 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. Savings from the reforms were to be allocated to increased state pension contributions, which were expected to help the state achieve an 80% funded ratio by 2023. (The state's reported funded ratio, including both state and municipal pool liabilities, was 77.2% in as of its June 30, 2022, valuation).

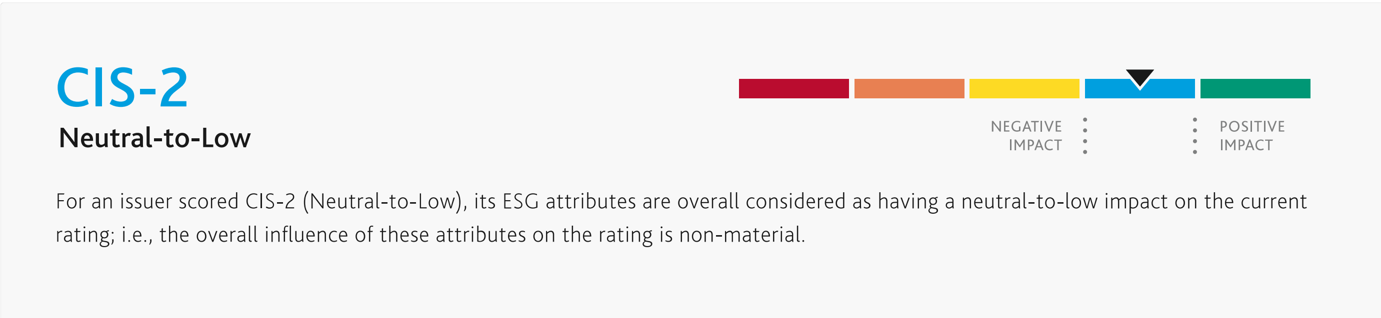
Maryland's ANPL for fiscal 2021 was $67.3 billion, an amount that we estimated would decline by about 14% for 2022, reflecting higher interest rates. The 2021 figure represented 218.1% of own-source revenue, eighth-highest among states. Maryland's ANPL to revenue ratio lies between South Carolina (Aaa, stable), 196.8%, and Massachusetts (Aa1 stable) at 238.3%. The state's adjusted net OPEB liability (ANOL) as of fiscal 2021 was also somewhat elevated, at $14.1 billion. This amounted to 45.7% of own-source revenue, ranking 11th-highest among states.

While Maryland has made some progress improving the status of its retirement benefit programs it still faces elevated risk stemming from its plans' reliance on volatile investments to meet its return targets. The state's pension asset shock indicator (PASI) as of 2021 was 3.6%, higher than any other state's except Maine (Aa2, stable). A state's PASI is its probability (based on estimated annual volatility of pension assets) of suffering investment losses amounting to 25% or more of governmental revenue. Higher PASI ratios are consistent with larger pension asset portfolios in relation to revenue as well as higher assumed rates of return.

ESG considerations

Maryland (State of)'s ESG Credit Impact Score is Neutral-to-Low CIS-2

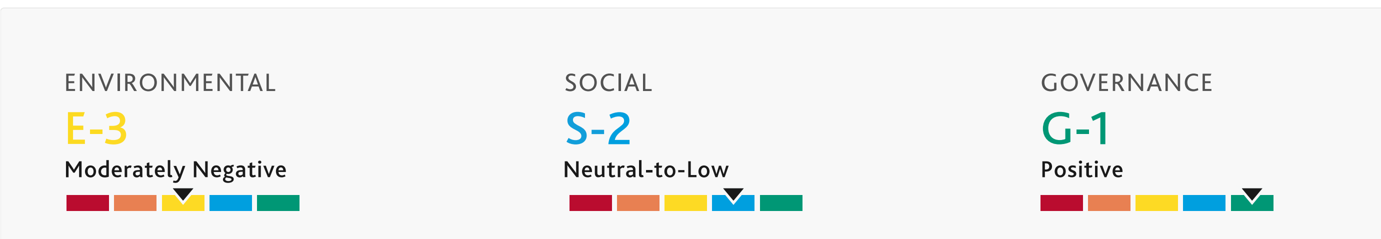
Exhibit 10
ESG Credit Impact Score



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 11
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.

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

Maryland's Aaa issuer rating is two notches higher than its scorecard rating of Aa2. The state's very strong management and liquidity, combined with the stabilizing economic effects of its proximity to the US capital help explain the difference between the assigned rating and the rating determined by the scorecard.

Exhibit 12

Maryland (State of)

	Measure	Weight	Score
Economy			
Resident Income (PCI Adjusted for RPP / US PCI)	102.5%	15%	Aaa
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-1.6%	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)	323.1%	20%	A
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	12.6%	10%	Aa
Notching factors			
Very limited and concentrated economy	NA		
Scorecard-Indicated Outcome			Aa2
Assigned rating			Aaa

Source: US Bureau of Economic Analysis and state's audited financial reports, with Moody's adjustments.

Endnotes

1 While Maryland's total liabilities accounted for 323% of annual own-source revenue, they were less than 25% of the state's total personal income.

2 The lease/appropriation category below includes the state's share of liabilities related to the Baltimore City Public Schools Construction and Revitalization Program.

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