

CREDIT OPINION

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Maryland (State of)

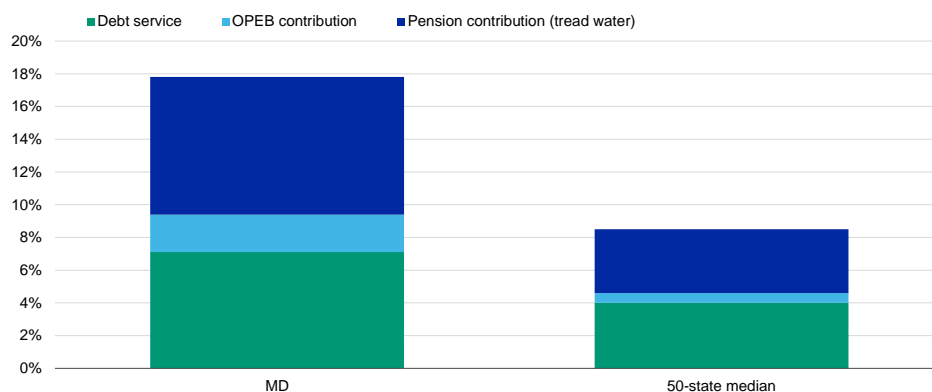
Update to credit analysis

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 initiatives in response to economic cycles. 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 governments Fiscal 2018 fixed costs as % of own-source governmental revenue



Sources: Moody's Investors Service, Maryland audited financial statements

Credit strengths

- » Proactive financial management
- » Stable economy with high personal income levels
- » Adequate budgetary reserves and strong liquidity

Credit challenges

- » High net pension liabilities and above average debt burden compared with Maryland's Aaa peers, 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 the foundation 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 redress large unfunded pension liabilities

Key indicators

Maryland (State of)	2014	2015	2016	2017	2018	50-State Median (2018)
Operating Fund Revenues (000s)	\$18,954,432	\$19,769,076	\$20,471,039	\$20,394,570	\$21,492,002	\$11,520,082
Available Balances as % of Operating Fund Revenues	-0.8%	0.1%	1.6%	0.2%	1.8%	7.4%
Nominal GDP (billions)	\$352.0	\$367.1	\$384.9	\$394.3	\$412.6	\$236.9
Nominal GDP Growth	3.2%	4.3%	4.8%	2.4%	4.6%	4.7%
Total Non-Farm Employment Growth	0.9%	1.5%	1.2%	1.1%	0.8%	1.1%
Fixed Costs as % of Own-Source Revenue	13.9%	16.4%	17.3%	18.7%	17.8%	8.1%
Adjusted Net Pension Liabilities (000s)	\$47,401,327	\$45,790,041	\$46,208,447	\$67,240,080	\$59,264,776	\$12,209,760
Net Tax-Supported Debt (000s)	\$11,290,500	\$11,577,387	\$12,558,200	\$13,095,582	\$14,157,927	\$4,146,966
(Adjusted Net Pension Liability + Net Tax-Supported Debt) / GDP	16.7%	15.6%	15.3%	20.4%	17.8%	7.7%

Sources: Moody's Investors Service, Maryland audited financial statements

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 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 116.4% of the US level in 2018.

Detailed credit considerations

Economy

Maryland's highly educated workforce and proximity to the nation's capital will continue to support steady economic growth. About 40% of the population age 25 and older have at least a bachelor's degree, compared with about 32% nationwide. The state's economy is more concentrated than the nation's in business and professional services, education and health services and government.

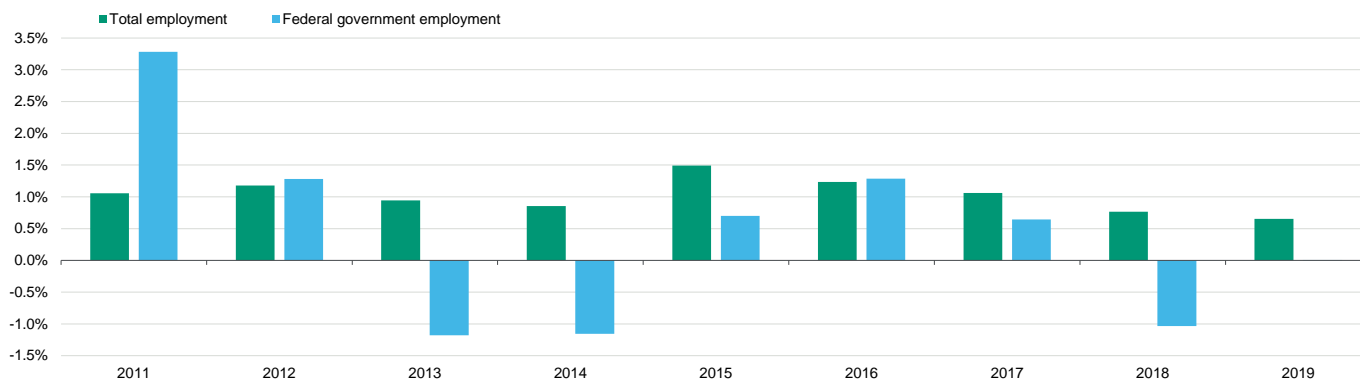
While historically a source of stability, the large federal presence in Maryland has in recent years been a mixed blessing. Federal jobs account for more than 5% of Maryland employment, compared with about 2% nationally. Federal sequestration slowed overall job growth in 2013. While the state economy gained steam after that adjustment period, employment has grown less rapidly than in the nation. In 2019, total employment growth slowed to 0.7% compared with 1.4% growth nationwide, as federal jobs stagnated.

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Exhibit 3

Federal employment drives total employment trends in Maryland

Annual % change in employment



Federal government employment changed by 0.01% in 2019 over the prior year.

Source: Moody's Analytics; US BLS

The state's Board of Revenue Estimates forecasts slowing employment growth over the next several years, reflecting demographic trends that limit growth in the labor force. However, personal income and wage growth is expected to be sustained as a tight labor market helps to bolster earnings.

Given the highly skilled workforce and concentration in government and related employment, Maryland's unemployment rate is typically below the US. However, in December 2019, Maryland's unemployment rate converged with the nation's at 3.5%.

Finances and Liquidity

The state will continue to be challenged by recurring structural imbalances. These projected imbalances reflect revenue growth that is slow compared with historical norms and increasing costs for major expense areas such as public education and Medicaid.

Governor Larry Hogan's proposed fiscal 2021 budget limits general fund budget growth to 1%, inclusive of \$531 million in reduced spending pursuant to the Budget Reconciliation and Financing Act (BRFA) and other legislation. The largest BRFA spending reduction is a \$284 million reduction in appropriations to the rainy day fund; however, the rainy day fund is projected to end fiscal 2021 with a balance of \$1.2 billion, or 6.3% of general fund revenue. The proposed budget leaves a \$37 million structural budget deficit in fiscal 2021. The budget outlook anticipates structural gaps totaling \$3.7 billion from fiscal 2022 through fiscal 2025. The structural gaps will be exacerbated by increased costs recommended by the Kirwan Commission to improve public schools. The commission was created by the state General Assembly in 2016 to make recommendations on how to enhance public schools to better prepare students for college and the workforce. The recommendations, including expanding prekindergarten, raising teacher salaries and providing more support to schools with high concentrations of poor families, would cost an estimated \$4 billion annually when fully phased in and would increase future budget gaps (see exhibit).

The state is currently exploring ways to cover costs resulting from the Kirwan Commission's recommendation, including expanding sales taxes to professional services while cutting the rate from 6% to 5%. The proposal would generate an estimated \$2.6 billion in new revenue by 2025. Other proposals to raise money include legalizing sports betting, boosting the state's tobacco tax and applying the sales tax to downloads of digital media.

Exhibit 4
Maryland faces obstacles to close persistent structural budget gaps



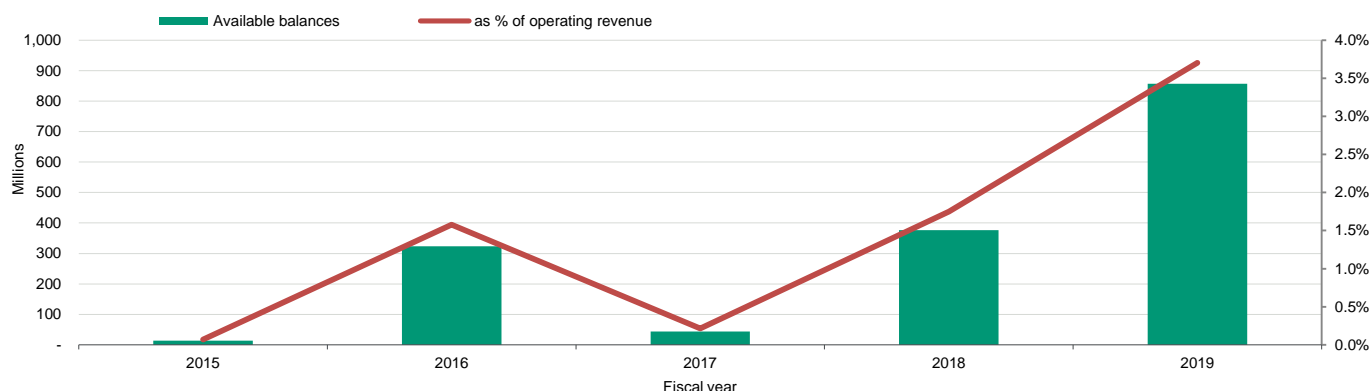
Source: Maryland Department of Legislative Services

Although the state struggles with structural gaps, it is also quick to address midyear shortfalls. In fiscal 2018, the Board of Public Works, which has extensive authority to adjust budgets, made \$67 million in general fund agency reductions to address an identified shortfall. The state also has built its rainy day fund to 6.5% of revenue since balances were replenished after the recession.

Positively, general revenue performance has been strong. Fiscal 2020 general fund revenue is estimated to grow by 2.9% over prior year revenue. As of the end of January, fiscal year-to-date general revenue grew by 7.2% over prior year revenue for the same period. Fiscal 2021 general revenue estimated to by another 2.4%.

On an audited GAAP basis, the state's available balances (unassigned balances plus the rainy day fund balance) have been low but positive since fiscal 2015. The state's unassigned fund balance — those funds that are not otherwise restricted or committed — has been negative partly because of the state carrying a liability stemming from the transfer of funds from a local income tax reserve fund during the 2010-2015 period. Unassigned balances were -\$19 million at the end of fiscal 2019, offset by a \$876 million balance in the revenue stabilization account (RSA). At less than 4% of operating revenue, available balances remain below those of the state's Aaa peers. During the previous decade the state built its GAAP-basis available balances to nearly \$2.3 billion in 2007, a buffer of more than 15% of revenue.

Exhibit 5
Maryland's available balances have improved (but remain low compared with peers)



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

In 2017, the state enacted House Bill 503, which is designed to reduce the impact of volatility on state budgeting, including conservative treatment of revenue from personal income tax non-withholding collections and allocation of positive revenue variances to reduce long-term liabilities such as pensions and retiree health insurance or bolstering the state's rainy day reserves. If the state

abides by the guidelines, the measures should strengthen the state's overall credit profile in the long run by bolstering reserves and reducing leverage.

LIQUIDITY

Maryland's liquidity is strong, bolstered by unfettered access to the state's short-term investment pool. As of January 31 2020, the market value was about \$10.1 billion. The state's very strong cash liquidity helps to mitigate its below-average GAAP basis fund balances.

Debt and Pensions

Maryland's debt levels compared with 50-state medians are high. Moody's 2018 state [debt medians](#) ranks Maryland 13th for debt as a percent of personal income and 9th on a per capita basis. 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.

DEBT STRUCTURE

The state's net tax-supported debt is about \$14.2 billion (see exhibit). The state's debt, as of December 2018, consists primarily of general obligation bonds (67%) and consolidated transportation revenue bonds (25%). The remaining debt consists of GARVEEs, lease commitments and bay restoration bonds. Maryland has about \$36.2 million of outstanding variable rate debt that was issued by the Maryland Stadium Authority for baseball stadium improvements.

Exhibit 6

Maryland's net tax-supported debt dominated by GO and highway bonds

\$ thousands

Security	2014	2015	2016	2017	2018
GO	8,450,300	8,677,214	9,465,285	9,334,205	9,454,429
Lease/appropriation	157,300	163,033	251,800	477,733	603,328
Highway	1,771,500	2,020,250	2,146,085	2,578,385	3,488,800
Other tax-backed	133,100	129,980	301,615	292,880	273,590
GARVEEs	415,800	349,440	181,415	206,590	129,680
Capital leases	362,500	237,470	212,000	205,789	208,100
Total net tax-supported debt	11,290,500	11,577,387	12,558,200	13,095,582	14,157,927

Source: Moody's Investors Service; Maryland financial reports

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 8th in debt service as a percent of own-source governmental funds revenue adjusted for net transfers in our 2018 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 2022. The state also has about \$75.9 million in privately placed loans under the Qualified Zone Academy Bond program as of July 1, 2019.

DEBT-RELATED DERIVATIVES

There is a swap with notional value of \$36.21 million in conjunction with the Maryland Stadium Authority's variable rate debt. The mark-to-market value of the swap was about -\$6.5 million as of January 31, 2020.

PENSIONS AND OPEB

The state's pension costs will continue to grow in coming years, reflecting the poor investment performance in several of the last five fiscal years. The financial condition of Maryland's retirement system represents the state's most significant credit challenge.

The state's reported net pension liability for fiscal 2019 is \$20.6 billion, including the Maryland State Retirement and Pension System (MSRPS), the Maryland Transit Administration Pension Plan. In fiscal 2018, the state's Moody's adjusted net pension liability (ANPL) ranked eighth highest among the states at 14.4% of GDP, more than twice the median of 5.5%. Our adjustments to reported state

pension data include a market-based discount rate to value the liabilities rather than the long-term investment return used in reported figures, and 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) legislation and has shifted the responsibility for paying the normal cost of teacher pension to local governments. 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.

The state's pension liabilities and resulting state contributions are exposed to asset volatility risk. For fiscal 2018, the state ranked second highest on our pension asset shock indicator, which estimates the probability that pension assets could decline by 25% or more of revenue. The high ranking is primarily attributable to pension assets that are high as a percent of state revenue because the state takes responsibility for the unfunded liabilities of the teachers retirement system.

The state's adjusted net OPEB (retiree health insurance) liability was \$15 billion as of June 30, 2019, including liabilities of the Maryland Transit Administration. In fiscal 2018, the adjusted net OPEB liability was 2.6% of GDP, which is higher than the 50-state median of 1.1%. The state made contributions of \$500 million, representing the pay-go cost of retiree health benefits. While the state established a trust fund to accumulate assets to offset accrued OPEB liabilities, it does not regularly contribute to it. As of June 30, 2019, the fund held \$351 million in assets. The state implemented OPEB reforms in 2011 that increased eligibility requirements to contain long-term growth in OPEB liabilities.

ESG considerations

Environmental

The US states sector overall has [low exposure to environmental risks](#) because of states' large and diverse economies, revenue-raising ability and federal government support for disaster recovery costs via FEMA. Maryland is moderately exposed to climate risk because of its location on the Atlantic Ocean and Chesapeake Bay, the nation's largest estuary. The state is a signatory to a series of agreements with neighboring states and the US Environmental Protection Agency to protect the watershed and counteract contamination of the bay that accompanied agriculture and economic development. The agreements address pollution rather than sea level rise.

The statewide property tax, which is dedicated to pay debt service on general obligation debt, is affected by coastal erosion and coastal storms which can adversely effect property values. However, the state has reported that coastal properties remain more valuable, on average, than non-coastal properties.

According to data from Moody's affiliate Four Twenty Seven, Maryland counties' average projected rate of change in five climate risk factors, when weighted by county GDP, is 13th highest in the nation. Most of Maryland's counties have higher exposure to cyclone risk, and nearly half the counties are higher risk for water stress. However, data from the Bureau of Labor Statistics indicate that only 5% of Maryland's employment and wages are earned in hurricane storm surge flood zones. 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 which is overseeing plans to reduce carbon emissions by 40% by 2030 and is also developing requirements for major state projects to assess both emissions related to the project and the sustainability of the project given projections for rising sea levels. In addition, the legislature is considering increasing the state's target for renewable energy sources.

Social

[Social issues, such as demographics, labor force, income and education, are key influencers of a state's economy, governance stability and financial and leverage trends.](#) 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. For more information on social factors, please see our Economy section.

Governance

The constitutional and legal framework governing a state, along with the financial management and budgeting practices a state employs, are [material considerations in state credit quality](#). Generally, states adhere to balanced budget requirements and have significant flexibility over their revenue and expenditures, contributing to strong governance frameworks across the sector. 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

The [US States and Territories Rating Methodology](#) includes a scorecard, which summarizes the 10 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. Maryland's Aaa rating is one notch higher than its scorecard-indicated outcome because the state's strengths in aspects of its finances and governance, as discussed in this credit opinion, are not fully captured by the scorecard.

Exhibit 7

US states and territories rating methodology scorecard Maryland (State of)

Rating Factors	Measure	Score
Factor 1: Economy (25%)		
a) Per Capita Income Relative to US Average [1]	116.4%	Aaa
b) Nominal Gross Domestic Product (\$ billions) [1]	\$412.6	Aaa
Factor 2: Finances (30%)		
a) Structural Balance	Aa	Aa
b) Fixed Costs / State Own-Source Revenue [2]	17.8%	A
c) Liquidity and Fund Balance	Aaa	Aaa
Factor 3: Governance (20%)		
a) Governance / Constitutional Framework	Aaa	Aaa
Factor 4: Debt and Pensions (25%)		
a) (Moody's ANPL + Net Tax-Supported Debt) / State GDP [2] [3]	17.8%	Aa
Factors 5 - 10: Notching Factors [4]		
Adjustments Up: None	0	
Adjustments Down: None	0	
Rating:		
a) Scorecard-Indicated Outcome		Aa1
b) Actual Rating Assigned		Aaa

[1] Economy measures are based on data from the most recent year available.

[2] Fixed costs and debt and pensions measures are based on data from the most recent debt and pensions medians report published by Moody's.

[3] ANPL stands for adjusted net pension liability.

[4] Notching factors 5-10 are specifically defined in the US States and Territories Rating Methodology.

Sources: US Bureau of Economic Analysis, State CAFRs, Moody's Investors Service

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