State of Maryland

New Issue - Moody's Assigns Aaa to Maryland's 2017 First Series GO Bonds; Outlook Stable

Summary Rating Rationale

Moody's Investors Service has assigned a Aaa rating to Maryland's $575 million General Obligation State and Local Facilities Loan of 2017, First Series A Tax-Exempt Bonds; $100 million General Obligation State and Local Facilities Loan of 2017, First Series B Taxable Bonds; and $524.47 million General Obligation State and Local Facilities Loan of 2017, First Series C Refunding Bonds. The highest-quality rating reflects Maryland's strong financial management policies, strong liquidity levels, stable economy and high personal income levels. The rating also acknowledges the state’s economic exposure to constrained federal spending, and above-average debt and pension burdens stemming from the state's practice of issuing debt and absorbing certain pension costs on behalf of local governments. The state expects to sell the bonds in a competitive sale March 8.

Exhibit 1
Maryland Available Balances Turn Positive as Rainy Day Fund Grows

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

» Proactive financial management

» Stable economy with high personal income levels

» Adequate reserve levels and strong liquidity

**Credit Challenges**

» Uncertainty regarding impact of federal budget priorities on large federal sector employment

» High fixed costs, which include debt service, OPEB contributions and pension actuarial contributions

» High net pension liabilities and above average debt burden relative to Maryland’s Aaa peers

**Rating Outlook**

The outlook for Maryland’s general obligation debt is stable. Consistent with its history of proactive financial management, the state has proactively addressed its structural budget gap and pension funding challenges even under historically slow economic growth conditions.

**Factors that Could Lead to an Upgrade**

» Maryland’s Aaa rating is at the highest level.

**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 plans to redress large unfunded pension liabilities

» Downgrade of the US government

**Key Indicators**

**Exhibit 3**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Operating Fund Revenues (000s)</td>
<td>17,861,360</td>
<td>18,809,434</td>
<td>18,954,432</td>
<td>19,769,076</td>
<td>20,471,039</td>
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<tr>
<td>Balances as % of Operating Fund Revenues</td>
<td>0.0%</td>
<td>0.5%</td>
<td>-0.8%</td>
<td>0.1%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Net Tax Supported Debt (000s)</td>
<td>10,585,600</td>
<td>10,617,996</td>
<td>11,290,500</td>
<td>11,577,387</td>
<td>N/A</td>
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<tr>
<td>Net Tax Supported Debt/Personal Income</td>
<td>3.6%</td>
<td>3.4%</td>
<td>3.5%</td>
<td>3.5%</td>
<td>N/A</td>
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<tr>
<td>Net Tax-Supported Debt/Personal Income 50 State Median</td>
<td>2.8%</td>
<td>2.6%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>N/A</td>
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<tr>
<td>Debt/Own-Source Governmental Funds Revenue</td>
<td>52.4%</td>
<td>49.4%</td>
<td>51.7%</td>
<td>50.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Debt/Own-Source Governmental Funds Revenue Median</td>
<td>37.4%</td>
<td>36.1%</td>
<td>35.8%</td>
<td>34.4%</td>
<td>N/A</td>
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<tr>
<td>ANPL/Own-Source Govt Funds Revenue</td>
<td>241%</td>
<td>197%</td>
<td>217%</td>
<td>206%</td>
<td>209%</td>
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<tr>
<td>ANPL/Own-Source Govt Funds Revenue Median</td>
<td>94.2%</td>
<td>91.8%</td>
<td>90.9%</td>
<td>84.9%</td>
<td>N/A</td>
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<tr>
<td>Total Non-Farm Employment Change (CY)</td>
<td>1.2%</td>
<td>0.8%</td>
<td>0.9%</td>
<td>1.5%</td>
<td>1.7%</td>
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<tr>
<td>Per Capita income as a % of US (CY)</td>
<td>120.5%</td>
<td>118.4%</td>
<td>116.4%</td>
<td>116.3%</td>
<td>N/A</td>
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</tbody>
</table>

Source: Maryland CAFRs; Moody’s Investors Service; Moody’s Analytics

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.
Recent Developments
Recent developments are incorporated into Detailed Rating Considerations.

Detailed Rating Considerations

Economy
With a population of 6 million, Maryland’s 2015 per capita personal income of $55,972 is 116% of the national average of $48,112. The labor force is well-educated -- about 39% of the population age 25 and over have at least a bachelor’s degree, compared to nearly 31% nationwide. The state’s economy is more concentrated than the nation’s in business and professional services, education and health services, and government due to its proximity to nation’s capital.

As the impact of federal sequestration has waned, Maryland’s economy continued to gain momentum in 2016, approaching the national trend. Average employment grew 1.7% in 2016, versus a 1.8% gain nationally.

While not suffering as deep a recession, Maryland’s recovery lagged the nation because of federal spending cutbacks. Federal jobs account for more than 5% of Maryland employment, compared to about 2% nationally. The state’s job growth rose from about 0.9% in 2013 and 2014, when national employment growth averaged about 1.7%, to 1.5% in 2015. Maryland’s unemployment rate was 4.2% in December compared to 4.7% in the US.

Finances and Liquidity
On an audited GAAP basis, the state’s available balances (unassigned balances plus the rainy day fund balance) moved more firmly into positive territory in fiscal 2016. The state's unassigned fund balance—those funds that are not otherwise restricted or committed—has been negative due to 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 -$509 million at the end of fiscal 2016, more than offset by a $832 million balance in the revenue stabilization account (RSA). At about 1.6% of operating revenues, reserves remain below those of their Aaa peers. During the previous decade the state built its GAAP-basis available balances to nearly $2.3 billion in 2007, a cushion of more than 15% of revenues.

On a cash basis, revenue volatility is reflected in fluctuating year-end budgetary cash positions. In addition to the funds in the RSA, the state ended fiscal 2016 with a general fund balance of $384 million. However, the expected fiscal 2017 year-end budgetary balance of about $68 million will be achieved with a $170 million transfer from the revenue stabilization account.

Tax revenues have underperformed projections from the enacted budget, stemming primarily from taxes on capital gains realizations. A shortfall in collections in fiscal 2016 led the state in September to reduce its fiscal 2017 tax projections by $365 million and lower projections for fiscal 2018 by $418 million, with relatively minor additional adjustments in December. The state also has identified additional spending needs totaling about $156 million in fiscal 2017. The resulting mid-year gap has been closed with spending reductions in addition to the RSA transfer.

The governor’s executive budget proposal for fiscal 2018 relies on a mix of recurring and one-time budget balancing actions. The Budget Reconciliation and Financing Act (BRFA) includes some non-recurring actions such as canceling supplemental contributions to pensions and the RSA that had been previously scheduled. The BRFA also includes proposed limitations on spending mandates (such as police and health grants to local government) emanating from last year’s legislative session. The budget proposal also includes savings from Medicaid, cancellation of employee raises and other spending reductions. Projected gaps after implementation of the executive’s proposal would grow from $434 million in fiscal 2019 to $1.199 billion in fiscal 2022. With prudent management, we consider these manageable as the state has time to develop and implement solutions and offsets to the imbalance.

A state working group has studied the state’s revenue volatility and has recommended steps to reduce the impact of volatility on state budgeting, including conservative treatment of revenues from personal income tax non-withholding collections and devoting overattainment of revenues to reduce long-term liabilities such as pensions and retiree health insurance or bolstering the state’s rainy day reserves.

LIQUIDITY
Maryland’s liquidity is bolstered by unfettered access to the state’s short-term investment pool. As of January 31, 2017, the balance was about $7.5 billion.
Debt and Pensions
Maryland’s debt levels relative to 50-state medians are high. Moody’s 2016 State Debt Medians ranks Maryland 15th for debt as a percent of personal income and 11th 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 revenues.

DEBT STRUCTURE
The state’s tax-supported debt is about $12 billion. The state’s debt consists primarily of general obligation bonds (75%) and consolidated transportation revenue bonds (18%). The remaining debt consists of GARVEEs, lease commitments and bay restoration bonds. Maryland has about $50 million of outstanding variable rate debt that was issued by the Maryland Stadium Authority for baseball stadium improvements.

Exhibit 4
Most Maryland Debt is GO

Maryland’s constitution requires a rapid 15-year amortization of tax-supported debt. This policy increases debt service as a percentage of revenues, but also quickly replenishes the state’s debt capacity and helps restrain growth in the outstanding balance. The state ranked 14th in debt service as a percent of own-source governmental funds revenue adjusted for net transfers in our 2016 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 2019.

DEBT-RELATED DERIVATIVES
There is a swap with notional value of $74 million in conjunction with the Maryland Stadium Authority's variable rate debt. The mark-to-market value of the swap was about -$14 million as of June 15, 2015.

PENSIONS AND OPEB
The financial condition of Maryland’s retirement system represents the state’s most significant credit challenge. The state’s weak pension position stems from the combined effects of asset losses associated with the financial crisis and the enactment in 2002 of a corridor funding method that resulted in contributions less than actuarially required when the pension system had a funded ratio of less than 90%.

The state’s reported net pension liability for fiscal 2016 is $19.536 billion for the Maryland State Retirement and Pension System (MSRPS), representing 94% of the plan’s total net pension liability, and $1.115 billion for the Maryland Transit Administration Pension Plan. Moody’s adjusted net pension liability (ANPL) for Maryland was $49.77 billion in fiscal 2016, up from about $47 billion the previous year. In fiscal 2015, the state’s 3-year average ANPL ranked seventh-highest among the states at 200% of own-source.
governmental revenues, significantly more than twice the median of 52.8%. 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.

Demonstrating its proactive management approach, the state has taken a number of measures 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. The state has phased out its corridor funding method and starting with fiscal 2017 makes contributions based on full payment of actuarially determined contribution (ADC) amounts. In addition, the state has committed to adding $75 million to its contributions to amortize its liabilities more rapidly than the baseline actuarial schedule and to contribute additional amounts depending on year-end general fund surpluses. These additional contributions have brought the state's contribution level nearer to the “tread water” amount that would prevent the state's pension liabilities from growing by covering interest on the beginning of year net pension liability and annual service cost. In fiscal 2015 and 2016, the contribution shortfall from the tread water benchmark was $104 million and $157 million, respectively. With the move to payment of the full ADC, the state may reach the tread water benchmark if it continues to make supplemental payments. The state's pension costs will continue to grow in coming years reflecting the poor investment performance of fiscal year 2016.

The state's OPEB (retiree health insurance) annual required contribution (ARC) rose to $634 million in fiscal 2016, an increase from $574 million in 2015. The state made actual payments of $490.8 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 2015, the fund held $276 million in assets to offset $12.08 billion in liabilities. The state implemented OPEB reforms in 2011 that increased eligibility requirements to contain long-term growth in OPEB liabilities.

**Governance**
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 mid-year budget challenges. The state also has no tax and spending limitations or supermajority requirements limiting its flexibility.

**Legal Security**
The bonds are full faith and credit obligations of the State of Maryland.

**Use of Proceeds**
Proceeds of the bonds will be used for various capital purposes of the state, including acquisition and construction of state facilities, capital grants to local governments for public schools and other projects.

**Obligor Profile**
Maryland is the 19th-largest state by population, at 6 million. Its state gross domestic product is 15th largest. The state has above-average wealth, with per capita personal income equal to 118% of the US level.

**Methodology**
The principal methodology used in these ratings was US States Rating Methodology published in April 2013. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.
# Ratings

## Exhibit 5

### Maryland (State of)

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<th>Rating</th>
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<td>State and Local Facilities Loan of 2017, First Series</td>
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<td>Rating Type</td>
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*Source: Moody’s Investors Service*
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