MOODY'S INVESTORS SERVICE

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New Issue

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Ohio (State of)

New Issue - Moody's Assigns Aa2 and Aa2/VMIG 1 to Ohio's Ser. 2016B,C&D Lease-Appropriation Bonds; Outlook Stable

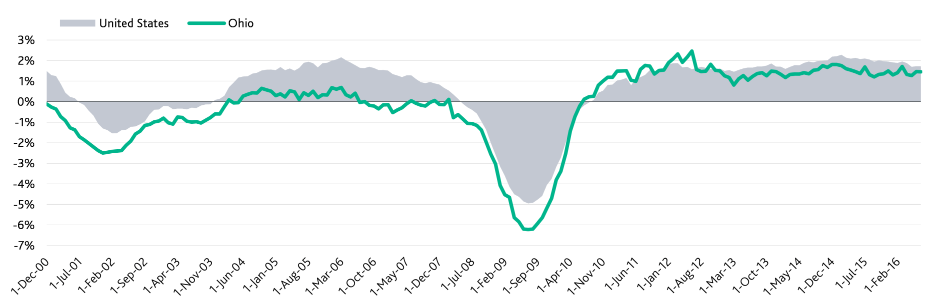
Summary Rating Rationale

Moody's Investors Service has assigned ratings of Aa2/VMIG 1 to Ohio's $64.6 million Capital Facilities Lease-Appropriation Variable Rate Bonds, Series 2016B & C (Adult Correctional Building Fund Projects) and Aa2 to Ohio's $15.4 million Capital Facilities Lease-Appropriation Bonds, Series 2016D. The outlook on the bonds is stable.

The bonds have a long-term rating of Aa2, a notch below the state's Aa1 general obligation (GO) rating, reflecting the need for biennial legislative appropriation of the lease payments backing the bonds. There are no bondholder remedies in the event of non-appropriation. The state's Aa1 GO rating is supported by strong and proactive financial management, including timely response to budget shortfalls and moderate, stable, albeit below-average economic growth, and affordable debt, pension and other post-employment benefit (OPEB) liabilities.

The highest short-term rating of VMIG 1 is based on strong support for the variable rate bonds provided by the state's obligation to purchase bonds tendered and not remarketed, with substantial, highly-liquid state treasury balances available for this purpose. Ample balances are also supported by a sophisticated, dedicated Treasury staff with well-developed procedures in place to monitor the remarketing process and liquidate investment assets as necessary to provide sufficient funds to purchase unremarketed bonds.

Exhibit 1
Ohio's Job Growth Stabilizes Above Pre-Recession Levels But Remains Below US Rate
YOY Non-Farm Job Growth



Source: US Bureau of Labor Statistics; Moody's Investors Service

Credit Strengths

- State maintains ample liquidity available for its self-supported variable-rate debt; covenant in series resolution to provide liquidity
- Conservative fiscal management including sound budgeting and proactive responses to budgetary shortfalls
- High levels of internal liquidity, including available balances outside the general revenue fund
- Relatively moderate long-term liabilities that are affordable compared to the state's budget
- Statutory requirement to deposit surplus year-end revenues in the state's Budget Stabilization Fund

Credit Challenges

- Economy that remains vulnerable to manufacturing industry exposure
- Potential revenue reductions from tax reform that threaten the state's balanced financial operations
- Lack of certain best financial management practices

Rating Outlook

The bonds carry the state's outlook. Ohio's stable outlook is based on our expectation that its enacted budget and proactive financial management will support a satisfactory financial position for the current budget year, offsetting revenue losses from tax reforms. It also reflects our view that the state's economy will continue to improve, despite relatively weak demographic trends.

Factors that Could Lead to an Upgrade

- Sustained increase in reserves and fund balance position significantly above historic levels
- Economic performance that exceeds national averages over an extended period

Factors that Could Lead to a Downgrade

- Evidence of financial deterioration, including a return to budgetary structural imbalance
- Weakening of GAAP-basis general fund balances and liquidity position below current expectations
- Persistent economic weakness, reflected in below-average employment, personal income or demographic trends

Key Indicators

Exhibit 2

Ohio	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Operating Fund Revenues (000s)	22,853,269	23,799,656	25,017,473	24,320,752	25,554,301
Balances as % of Operating Fund Revenues	1.8%	5.3%	13.2%	5.2%	11.7%
Net Tax-Supported Debt (000s)	11,680,585	12,089,413	12,572,156	12,856,609	12,664,731
Net Tax-Supported Debt/Personal Income	2.8%	2.8%	2.7%	2.7%	2.6%
Net Tax-Supported Debt/Personal Income 50 State Median	2.8%	2.8%	2.6%	2.5%	2.5%
Debt/All Governmental Funds Revenue	23.4%	24.5%	24.6%	24.4%	22.6%
Debt/All Governmental Funds Revenue 50 State Median*	22.7%	24.3%	23.8%	23.0%	20.4%
Adjusted Net Pension Liability/All Govt Funds Revenue	19.6%	32.0%	33.0%	27.2%	24.3%
Adjusted Net Pension Liability/All Govt Funds Revenue 50 State Median	48.7%	63.9%	60.3%	59.2%	52.5%
Total Non-Farm Employment Change (CY)	1.3%	1.5%	1.8%	1.3%	1.5%
Per Capita Income as a % of US (CY)	91.4%	91.1%	91.7%	91.7%	91.2%

Source: Ohio Comprehensive Annual Financial Reports; Moody's Investors Service

Recent Developments

Through September, Ohio's fiscal 2017 tax revenues are $71.9 million (1.3%) below estimate, due primarily to income tax collections that are $73 million (3.5%) lower than expected. Sales taxes, the state's second largest revenue source, are also $28.2 million (1.1%) below estimate.

Detailed Rating Considerations

Economy: Stable Employment Growth Allows Recovery of Jobs Lost During Recession

After a strong initial post-recession recovery, Ohio's job growth remains slightly below the national average. Through July 2016, Ohio's monthly non-farm employment grew 1.45% year -over-year, down from approximately 2.3% in mid-2012, and slightly below the nation's 1.72% level. However, in July 2016, seasonally adjusted nonfarm employment rose to 5.51 million, the highest level since June 2006. Ohio's unemployment rate in August dipped slightly below the nation's 4.9%, falling to 4.7%. Labor force growth has been above the US average since April 2016, at 1.7% year-over-year in July, compared to 1.4% for the US.

Manufacturing and energy sectors are showing some signs of softening, balanced with growth in health care and financial services. Although a relatively small part of the economy, mining and logging jobs decreased by 20% on an annualized basis as of May 2016, due to low energy prices. Manufacturing, at 12.7% of total employment, has seen slight 0.2% year-over-year declines through May. The strong dollar and lagging global economic growth continue to challenge manufacturing sector growth nationwide.

Despite some temporary weakening, the state's personal income growth remains above the US, and was 4.7% year-over-year in March, compared to 4.4% for the US. Ohio's 2015 per-capita personal income ($43,478) improved to 91% of the nation's, from 89% in 2008.

Finances and Liquidity: Budget Addresses Revenue Loss Through Income Tax Reduction

Fiscal 2016 tax receipts totaled $21.8 billion, growing 1.9% over the prior year, but falling $214 million (1%) below estimate, which will be partially balanced by lower-than-expected Medicaid spending. Similar to trends seen in other states during 2016, the shortfall was primarily in personal income taxes, which were $218 million (2.7%) below estimate. In response to the fiscal 2016 shortfall, the state has revised its fiscal 2017 income tax estimate down by $223 million (2.6%), bringing total receipts down $282 million, to $22.7 billion. The revised year-over-year revenue growth projection of 4.2% is consistent with the 4.2% base revenue growth (excluding the tax reform impact) experienced in fiscal 2016. The projected unencumbered, unobligated fund balance will be slightly below the original budget, at $460 million (2.1% of revenues). In fiscal 2017, year-end unencumbered, unobligated fund balance is budgeted to remain flat.

Ohio’s fiscal 2016-2017 biennial budget increased general revenue fund appropriations 13.1% and 4.2%, respectively, over fiscal 2016 and 2017. Expenditure growth is concentrated in key spending areas of Primary and Secondary Education (5.3% and 4.1% increases, respectively, in 2016 and 2017) and Medicaid (21.8% and 5.1%). The projected increase in fiscal 2016 Medicaid spending is largely driven by an accounting shift that will move certain expenditures, and the associated federal funding, into the general revenue fund.

The current budget implemented a 6.3% across-the-board income tax rate cut effective this fiscal year. This latest round of rate reductions will be balanced with baseline revenue growth, the cigarette tax increase, increased revenue allocation of existing taxes and $393 million of fund balance that is in excess of the 0.5% ending general revenue fund balance. When added to income tax rate reductions in the past two fiscal years, the top marginal tax rate drops down to 4.99% from 5.93% in 2011. The net revenue decrease from tax reforms adopted between fiscal 2012 through fiscal 2017 is a significant $4.9 billion, or 23.3% of fiscal 2015 state tax receipts.

Although Ohio's conservative budget management and continued economic growth has mostly absorbed the state's tax reforms since 2012, revenue underperformance may challenge the state's ability to maintain budget balance in the medium term. Any late-year budget gaps will increase the risk of using additional fund balances.

LIQUIDITY

The fiscal 2016 General Revenue Fund ending unencumbered fund balance was $765 million (3.4% of state-source revenues), down from a high of $2.3 billion (11% of state-source revenues) in fiscal 2013, but above an earlier projection of $469 million for the fiscal year. With the excess funds, the state made several designated transfers, including: $29.5 million to the Budget Stabilization Fund; $150 million to the Health and Human Services Fund; $100 million to the Public School Building Fund and $25 million to the Emergency Purposes/Contingency Fund. The resulting unencumbered and unobligated balance was $460 million (2.1% of revenues).

The state increased the Budget Stabilization Fund (BSF) statutory target to 8.5% (from 5%) of general revenue fund revenues, followed by a $526.6 million deposit in early fiscal 2016, its fourth consecutive deposit into the BSF. The current BSF balance of $2.0 billion is 9% of state-source general revenue fund revenues.

Fiscal 2015 audited results reflect available balances as 11.73% of total revenues, down from 14.9% the prior year (on a GAAP basis). As discussed earlier, the decrease reflects implementation of the state's tax reforms.

Debt and Pensions

With net tax-supported debt of $12.7 billion, Ohio has maintained a moderate debt burden relative to other states. The state's 2015 net tax-supported debt burden is slightly higher than the 50-state median of 2.5%, at 2.6% of personal income. Ohio ranks 24th among states based on net tax-supported debt as a percentage of personal income, down from 20th in 2005.

In April, Ohio enacted a 2017-2018 capital biennium budget that provides a total of $2.62 billion in capital appropriations, with 83% funded by debt authorizations supported from the state general revenue fund. The budget authorizes $1.33 billion in GO debt and $591 million in lease appropriation debt.

In December 2014, the state, through its Department of Transportation, entered into a public-private partnership (PPP) to construct the Southern Ohio Veterans Memorial Highway (State Route 823), a four-lane limited access highway around the City of Portsmouth, Ohio. The Portsmouth Gateway Group, LLC's $227.4 million senior Tax Exempt Private Activity Bonds, Series 2015 and its $208 million subordinate TIFIA loan were both assigned a Baa2 rating. Ohio's termination payment as of June 30, 2015, for its PPP would be $30.9 million. Given the long-term, debt-like obligation of the state to make availability payments through the life of the concession agreement, we include this obligation in the state's net tax supported debt.

DEBT STRUCTURE

VRDO LIQUIDITY SUPPORT TO BE PROVIDED BY THE STATE

Including the current offering, Ohio will have $492 million of variable-rate demand debt outstanding (or 4.1% of total debt). In the event that tendered securities cannot be remarketed, the state has covenanted in the bond resolutions to provide liquidity to purchase the bonds. The Series 2016B bonds will be issued in a weekly rate mode, and the Series 2016C bonds will be issued in an Alternative Trading System Mode with weekly tenders that are remarketed through an online trading platform.

As of June 2016, Ohio had $5.5 billion of same-day liquid assets available to support the bonds, on a discounted basis, and has access to an additional $2 billion of weekly liquidity (discounted). The combined daily assets provide 8.9x coverage of all debt obligations supported by liquidity (more below). Daily and weekly assets provide 12.4x coverage of these liabilities. The state's daily assets are particularly liquid, with nearly $1.3 billion in money market funds and checking accounts, providing over 2x coverage of self-liquidity liabilities alone. The state's Treasury balances have remained relatively stable over the past four years ranging from $9.2 billion to $11.4 billion, on a non-discounted basis, compared to current non-discounted assets of $9.5 billion.

ADDITIONAL LIQUIDITY SUPPORT PROVIDED TO OHIO MUNICIPAL ASSISTANCE PROGRAM

The state treasury also supports the Ohio Municipal Assistance Program, providing back-up liquidity to qualified local governments that have issued bond anticipation notes. The program authorization is capped at $300 million, and there are currently $58 million of BANs outstanding. The state does detailed credit analysis and monitoring of participating local governments. Stressed coverage tests, including the full authorized OMAP amount, provides 8.7x coverage by daily and weekly assets.

The state has well-organized staff and clearly-articulated policies and procedures for monitoring the VRDO portfolio and potential liquidity calls. The state receives notices of tender 7 days prior to the purchase date for bonds in the weekly mode, and at least one day prior to the purchase date for bonds in the Alternative Trading System Mode. With this timing, the state is prepared to begin liquidating assets the evening before the purchase date, and have sufficient funds available well in advance of the deadline on the purchase date. The state has never had a failed remarketing, but has successfully implemented its liquidity support procedures.

DEBT-RELATED DERIVATIVES

The state is a party to five swap agreements with a combined notional principal of $381 million that hedge interest rate risk on its variable-rate obligations. Collateral posting requirements are pegged to rating levels starting at Aa3 and lower, and termination provisions are triggered if the state's rating falls below Baa3 (Moody's) or BBB- (S&P). Triggers at these low rating levels introduce minimal risk to the state. As of June 30, 2016, the combined mark-to-market value of the swaps was negative $41 million.

PENSIONS AND OPEB

Ohio's 2015 adjusted net pension liability (ANPL), our measure of the government's pension burden, was 43% of own-source revenues, below the 50-state median of 85%. The three-year average ANPL as of 2015 is $14.4 billion, or 48% of revenue. The state participates in three pension systems, including the Ohio Public Employees Retirement System, the State Teachers Retirement System, and the Highway Patrol Retirement System. Moody's ANPL reflects certain adjustments made to improve comparability of reported pension liabilities.

The state contributed $393 million to its pension systems in 2015. This amount is more than the contribution amount that would allow the state's reported net pension liability to "tread water" – or remain stable from one year to the next, assuming investment return and other actuarial assumptions are met for the year. The tread water amount is determined by the actuarial cost of the year's benefit accruals ("service cost") plus interest on the net pension liability at the beginning of the year. The state's contribution relative to the tread water benchmark implies a funding approach that will likely lead to declining net pension liabilities over time.

Unlike most states, which fund other post-employment benefit (OPEB) obligations on a pay-as-you-go basis, Ohio's OPEB programs have substantial assets ($15 billion) pledged to cover liabilities. After the 2012 reforms, OPEB liabilities dropped substantially, and the state's aggregate unfunded OPEB liability is $9.2 billion, with a 63% funded ratio, as of the most recent valuations. Pension and OPEB benefits are not guaranteed under state law, and contribution requirements and benefit levels can be changed for future and current employees.

The state's combined debt service, pension, and OPEB contributions in fiscal 2015 were relatively low at 6.7% of own-source governmental revenues. If the state pension contribution were equal to the "tread water" amount, these fixed costs would have been 6.5% of revenues.

For more information on Moody's insights on employee pensions and the related credit impact on companies, governments and other entities across the globe, please visit Moody's on Pensions at www.moodys.com/pensions.

Management and Governance

Ohio operates on a biennial budget. The state constitution has no revenue raising caps or mandated spending levels, providing flexibility to increase revenues and cut expenditures when needed. The governor also has the ability to reduce appropriations through executive orders. The state rainy day fund's statutory target is 8.5% of the prior year's general revenue fund revenues. The state is also required to retain funding equal to 0.5% of fiscal year revenues in the general revenue fund that could be carried over to the following fiscal year. In addition, there is a statutory requirement to deposit surpluses in excess of 0.5% of general revenue fund revenues into the rainy day fund, which generally accelerates reserve restoration, although the legislature has diverted surpluses for other uses in past years.

Legal Security

The capital facilities lease appropriation bonds are secured by a lease agreements between the Ohio Department of Correction and Rehabilitation, as lessee, and the Ohio Public Facilities Commission, as lessor. Debt service is payable from base rental payments.

The lease stipulates that the obligation to make lease payments is absolute and unconditional, contingent only upon the appropriation of funds by the legislature, and not on whether the financed projects are in use. Debt service payment dates (October 1 and April 1) rely on appropriations enacted every other year and are far enough removed from the July 1 start of the state's fiscal biennium to limit risk of non-appropriation due to late budget adoption.

Pursuant to the leases, the state agencies are required to include the lease payments in biennial budget request to the Office of Budget and Management. There are no debt service reserve funds associated with these bonds, and there are no bondholder remedies in case of default due to non-appropriation. In the event of non-appropriation, the lease will terminate. The importance of maintaining continued market access for subject-to-appropriation lease debt, in general, provides a strong incentive to continue making timely appropriations.

Use of Proceeds

Bond proceeds will finance the various capital projects on adult correctional facilities in the Department of Correction and Rehabilitation.

Obligor Profile

Ohio is the seventh-largest US state by population. Its gross domestic product per capita also ranks seventh among the states (in current dollars).

Methodology

The principal methodology used in the long term rating was Lease, Appropriation, Moral Obligation and Comparable Debt of US State and Local Governments published in July 2016. The principal methodology used in the short term rating was Rating Methodology for Municipal Bonds and Commercial Paper Supported by a Borrower's Self-Liquidity published in January 2012. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

Ratings

Exhibit 3

Ohio (State of)

Issue	Rating
Lease-Appropriation Variable Rate Bonds (Adult Correctional Building Fund Projects), Series 2016B	Aa2
Rating Type	Underlying LT
Sale Amount	$32,300,000
Expected Sale Date	10/25/2016
Rating Description	Lease Rental: Appropriation
Lease-Appropriation Variable Rate Bonds (Adult Correctional Building Fund Projects), Series 2016B	VMIG 1
Rating Type	Underlying ST
Sale Amount	$32,300,000
Expected Sale Date	10/25/2016
Rating Description	Lease Rental: Appropriation
Lease-Appropriation Variable Rate Bonds (Adult Correctional Building Fund Projects), Series 2016C	Aa2
Rating Type	Underlying LT
Sale Amount	$32,300,000
Expected Sale Date	10/25/2016
Rating Description	Lease Rental: Appropriation
Lease-Appropriation Variable Rate Bonds (Adult Correctional Building Fund Projects), Series 2016C	VMIG 1
Rating Type	Underlying ST
Sale Amount	$32,300,000
Expected Sale Date	10/25/2016
Rating Description	Lease Rental: Appropriation
Lease-Appropriation Bonds (Adult Correctional Building Fund Projects), Series 2016D	Aa2
Rating Type	Underlying LT
Sale Amount	$15,385,000
Expected Sale Date	10/18/2016
Rating Description	Lease Rental: Appropriation

Source: Moody's Investors Service

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