MOODY'S INVESTORS SERVICE

CREDIT OPINION
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New Issue

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Ohio (State of)

New Issue - Moody's Assigns Aa1 to Ohio's $342M Highway G.O. Bonds; Outlook Stable

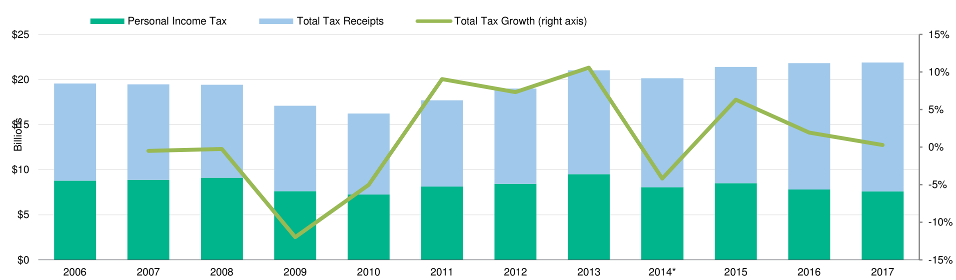
Summary Rating Rationale

Moody's Investors Service has assigned Aa1 ratings to the State of Ohio's $205 million General Obligation Highway Capital Improvements Bonds, Series T (Full Faith and Credit/Highway User Receipts), and $136.8 million General Obligation Highway Capital Improvements Refunding Bonds, Series U (Full Faith and Credit/Highway User Receipts). The outlook on the bonds is stable.

The Aa1 rating is based on the state's GO credit quality, supported by strong and proactive financial management, including timely budget responses to revenue shortfalls and moderate, albeit below-average economic growth, and affordable debt, pension and other post-employment benefit (OPEB) liabilities. Ohio's highway bonds are also secured by a pledge of state highway user revenues, including gasoline taxes and motor vehicle license and registration fees. Although the bonds have substantial (22 times) debt service coverage by a constitutionally dedicated revenue stream, the special tax credit quality is no higher than the state's Aa1 GO rating due to a relatively weak legal structure compared to other highly-rated special tax bonds. In addition, the bonds have insufficient legal revenue separation and economic characteristics to pierce the GO.

Exhibit 1

Fiscal 2017 Slow Revenue Growth Was $890 million Below Budget, Narrowing Financial Performance



*Personal Income Tax Rate Reductions Implemented
Source: Ohio Official Statements; Moody's Investors Service

Credit Strengths

» 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 declines

» Potential revenue reductions from tax reform that threaten the state's balanced financial operations

» Lack of certain best financial management practices

Rating Outlook

Ohio's stable outlook is based on our expectation that the state's enacted budget and proactive financial management will support a satisfactory financial position for the current budget year. It also reflects our view that the state's economy will remain stable, 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 2012	FY 2013	FY 2014	FY 2015	FY 2016
Operating Fund Revenues (000s)	23,799,656	25,017,473	24,320,752	25,554,301	25,428,417
Balances as % of Operating Fund Revenues	5.3%	13.2%	14.9%	11.7%	13.8%
Net Tax-Supported Debt (000s)	12,089,413	12,572,156	12,856,609	12,664,731	12,621,591
Net Tax-Supported Debt/Personal Income	2.8%	2.7%	2.7%	2.6%	2.5%
Net Tax-Supported Debt/Personal Income 50 State Median	2.8%	2.6%	2.5%	2.5%	2.5%
Debt/Own-Source Governmental Funds Revenue	41.9%	40.9%	43.2%	40.3%	39.6%
Debt/Own-Source Governmental Funds Revenue Median	37.4%	36.1%	35.8%	34.4%	32.7%
ANPL/Own-Source Govt Funds Revenue	54.6%	54.9%	48.1%	43.3%	N/A
ANPL/Own-Source Govt Funds Revenue Median	92.6%	87.6%	81.5%	83.1%	N/A
Total Non-Farm Employment Change (CY)	1.8%	1.2%	1.5%	1.5%	1.1%
Per Capita Income as a % of US (CY)	90.9%	91.4%	90.7%	90.5%	90.5%

*All Governmental Funds Revenue excludes Federal revenues
Source: Ohio Comprehensive Annual Financial Reports; Moody's Investors Service

Recent Developments

Recent developments are incorporated in the detailed rating considerations below.

Detailed Rating Considerations

Economy

Since the recession, Ohio's job creation trends compared more favorably with the US than before, but economic growth will continue to be challenged by long-term out-migration and weak population growth. Ohio's employment growth has been slowing since early 2016, despite a brief surge in June 2017 (see Exhibit 1). Through July 2017, Ohio's monthly non-farm employment growth was 0.9% year-over-year, down from 1.6% in March. National job growth has declined less, to 1.4% through July from 1.9% in early 2016. Despite the slowdown, Ohio's seasonally adjusted nonfarm employment remains above its post-recession peak of 5.5 million. Ohio's July unemployment rate of 5.2%, is above the U.S. rate of 4.3%. Year-over-year labor force growth has been strong relative to the US in recent months at 1.2% as of July, compared to 0.8% for the US.

Job growth has been primarily in professional and technical services, healthcare, and financial services. Education and health services, which comprised 16.8% of total employment, saw 2.2% growth year-over-year through May. Manufacturing, which makes up 12.5% of employment, has been a drag on total employment and has weakened to 0.4% growth through May. The strong dollar, lagging global economic growth and slowing auto demand will challenge the manufacturing sector's growth nationwide.

Despite some weakening, Ohio's rate of personal income growth remains near the US pace; it was 3.6% year-over-year through March, compared to 3.7% for the nation. Ohio's 2016 per-capita personal income ($44,876) has improved to 90.5% of the nation's, from 89.1% in 2007.

Finances and Liquidity

Lower-than-expected fiscal 2017 revenues have reduced Ohio's revenue projections, and the state's budget flexibility will narrow in this biennium. In response to the lower revenue forecast, Ohio's adopted fiscal 2018-2019 biennial general revenue fund (GRF) budget incorporated a mix of targeted and across-the-board cuts and modestly increased non-recurring resources relative to the proposed budget. The new budget incorporates reasonable revenue assumptions, modest tax reform, and restrained spending growth to achieve structural balance by the second year of the biennium (ending June 30, 2019).

The state's economic forecast is conservative relative to its consultants' projections, and baseline revenue growth is budgeted at 2.8% and 3.4% in fiscal 2018 and 2019, respectively. However, these relatively modest growth rates are well above the fiscal 2017 revenue growth of 0.3%. Fiscal 2017 revenues ended $849 million (3.7%) below the mid-biennium budget revision primarily due to an income tax shortfall ($653 million, or 8%). Income taxes were negatively affected by weak wages, taxpayers deferring income realization, and unusually large refunds, which the state expects will begin to normalize in fiscal 2018.

Appropriations will decline 6.7% to $32.2 billion in fiscal 2018, due to the reallocation of certain Medicaid expenditures outside the GRF, discussed below. Fiscal 2019 appropriations are projected to grow 3.5%, to $33.3 billion. After growing almost 4% in fiscal 2017, GRF K-12 spending growth will be limited to 1.5% and 1.6% in fiscal 2018 and 2019, respectively, including reductions in transportation cost-sharing and in guaranteed state aid for districts with enrollment declines of 5% or more over the past two years.

To balance the federally enforced elimination of the sales tax on Medicaid managed care organizations (MCOs), the state has implemented a new “Health Insuring Corporation” provider assessment on all MCOs. The state estimates that the managed care sales tax provided the GRF approximately $597 million, which will be more than offset by $615 million from the new assessment. The provider assessment revenue will be collected in a dedicated fund outside the GRF, and the state will shift an equivalent amount of Medicaid expenditures to the new fund, resulting in a net neutral impact on the GRF. The state also plans to make a one-time $207 million transfer in fiscal 2018 to counties and transit agencies to phase in the impact of the loss of the Medicaid MCO sales tax.

LIQUIDITY

Due to revenue underperformance, the fiscal 2017 General Revenue Fund unencumbered, unobligated fund balance (UUFB) ended below fiscal 2016 and lower than budgeted. Fiscal 2017 UUFB was $171 million (0.8%), compared to the mid-biennial budget forecast of $459 million (2.0% of state-source revenues), and down from a high of $710 million (3.2% of state-source revenues) in fiscal 2016. However, the Budget Stabilization Fund (BSF) and total available liquidity remain strong.

Ohio has successfully prioritized and rebuilt its Budget Stabilization Fund (BSF) since the recession. The state raised the statutory target to 8.5% (from 5%) of total general revenue fund revenues (including federal revenues), followed by a $526.6 million deposit in early fiscal 2016, its fourth deposit into the BSF in the past five years. The current BSF balance of $2.0 billion is 9% of state-source general revenue fund revenues.

The state also has significant available liquidity in other operating funds that can be borrowed by the General Revenue Fund within the fiscal year, up to 10% of GRF revenues. As of July 2017, combined daily and weekly liquidity was $4.7 billion.

Debt and Pensions

With net tax-supported debt of $12.6 billion, Ohio has maintained a moderate debt burden relative to other states. The state's 2016 net tax-supported debt burden matches the 50-state median of 2.5% of personal income. Ohio ranks 25th among states based on net tax-supported debt as a percentage of personal income, down from 20th in 2005.

Ohio's net tax-supported debt includes debt issued by JobsOhio as well as a $195 long-term liability associated with the state Department of Transportation's public-private partnership (PPP) with the Portsmouth Gateway Group, LLC to construct the Southern Ohio Veterans Memorial Highway (State Route 823), a four-lane limited access highway around the City of Portsmouth, Ohio.

DEBT STRUCTURE

Ohio has $430.7 million of variable-rate demand debt outstanding (or 3.4% of total debt), for which it maintains an internal liquidity program for tendered bonds that are not remarketed. The short-term ratings on these bonds are VMIG 1, reflecting the state's strong management of available liquid resources. As of July 2017, Ohio had $4.8 billion of daily and weekly assets available to support the bonds, on a discounted basis. The state has never had a failed remarketing, but maintains clearly articulated process documents and has successfully implemented its liquidity support procedures.

The state treasury also supports the Ohio Market Access Program, providing back-up liquidity to qualified local governments that have issued bond anticipation notes. The program authorization is capped at $300 million, and as of July 2017 there were $83.7 million of BANs outstanding.

DEBT-RELATED DERIVATIVES

The state is a party to five swap agreements with a combined notional principal of $346.5 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 2016 adjusted net pension liability (ANPL), our measure of the government's pension burden, is $13.6 billion, or (43% of own-source governmental revenues compared with a 50-state median of 82%. Ohio ranks 43rd in ANPL and a percent of own-source governmental revenues. 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's fiscal 2015 pension contribution was a very low 1.3% of own-source governmental revenues (compared to the 3.4% median) and was slightly 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.

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 ($16.5 billion) pledged to cover liabilities. Its aggregate unfunded OPEB liability is $15.8 billion, 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 2016 were relatively low, at 6.9% of own-source governmental revenues compared to the median of 8.8%.

Management and Governance

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 (state and federal sources). 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

Ohio's general obligation highway bonds are secured by the state's full faith and credit as well as a pledge of state highway user receipts, which includes gasoline taxes and motor vehicle license and registration fees. Pledged revenues are constitutionally dedicated to state highway purposes, including debt repayment, and provide substantial (22 times) coverage of maximum debt service. Bonds have been historically paid entirely from highway user receipts, and the GO backstop has not been tapped.

The highway user receipts pledge provides very strong security for the bonds, but does not surpass the state's Aa1 GO rating. The special tax pledge has a relatively weak legal structure compared to other highly-rated special tax bonds, as well as insufficient legal separation of revenues and economic characteristics to pierce the GO. The special tax legal structure is primarily established through constitutional and statutory provisions, which do not provide the same clarity and framework as a typical special tax indenture. Somewhat unclear are provisions regarding the prioritization of debt service over other transportation spending, a detailed flow of funds, and a thorough leverage constraint. In addition, these bonds do not have sufficiently strong legal and economic characteristics to exceed the GO rating, such as a constitutional dedication that is specifically tied to debt service, and an economic base that is stronger than suggested by the GO rating.

Despite the bonds' strong coverage, future coverage could be reduced by revenue declines, a short debt service schedule, or a change in transportation funding policy, which are not considered by a constitutional cap on issuance of GO debt for highways. GO Highway bond issuance is constitutionally capped at $1.2 billion of total debt outstanding and a $220 million per-year issuance limit, under which unused portions may be added to the annual cap amount in subsequent years. Excluding the current borrowing, the state has approximately $385 million of remaining borrowing capacity. If the state issued all remaining capacity as 15-year bonds (matching the current structure), MADS coverage would decline slightly, to 19 times. Additional flexibility is available due to the state's 15-year amortization policy, which is well below the constitutional authorization to amortize debt over a 30-year span.

Constitutional amendments in Ohio must be approved by a super-majority (3/5) in each legislative chamber, and then by a simple majority in a public vote. While the state has covenanted to levy and collect taxes at levels sufficient to pay debt service on the bonds, it is not prohibited from repealing or reducing the pledged revenues to sum-sufficient coverage.

Highway user receipts also pay the debt service on $76.7 million of state appropriation debt issued for a DOT building (Transportation Building Fund Capital Facilities Bonds, Series 2015A). In addition, in the event of an interruption in Title 23 funding, the DOT Director has covenanted to pay debt service on the state's $738 million of Major New State Infrastructure Project Revenue Bonds (GARVEEs) using other funds lawfully available. The other funds would consist of appropriations of DOT revenues from sources including state gasoline tax receipts, which would become lawfully available after GO Highway debt service is paid.

Use of Proceeds

Series T proceeds will finance highway capital improvements. Series U bonds will refund outstanding Highway GO bonds for net present value savings with no extension of maturity.

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 this rating 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 3

Ohio (State of)

Issue	Rating
General Obligation Highway Capital Improvements Bonds Series T	Aa1
Rating Type	Underlying LT
Sale Amount	$205,080,000
Expected Sale Date	09/19/2017
Rating Description	General Obligation
General Obligation Highway Capital Improvements Refunding Bonds Series U	Aa1
Rating Type	Underlying LT
Sale Amount	$136,790,000
Expected Sale Date	09/19/2017
Rating Description	General Obligation

Source: Moody's Investors Service

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