

## CREDIT OPINION

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New Issue

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## Connecticut (State of)

New Issue - Moody's Assigns Aa3 to Connecticut's GO Series 2017 A and B Bonds; Outlook Negative

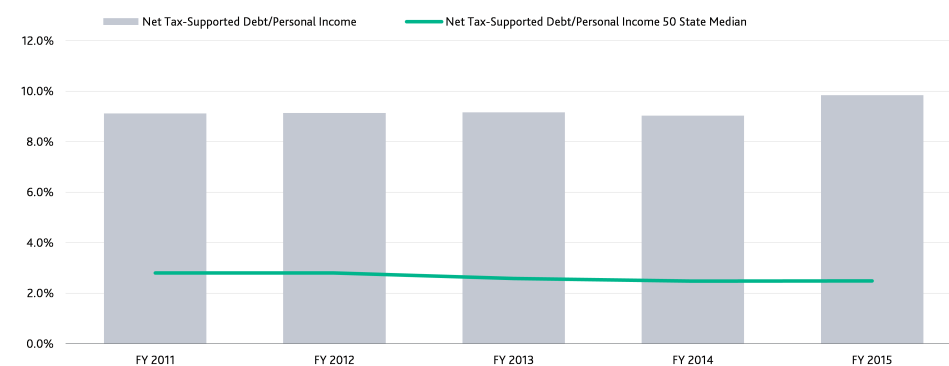
### Summary Rating Rationale

Moody's Investors Service has assigned a Aa3 rating to Connecticut's \$550 million General Obligation Bonds (2017 Series A) and \$200 million General Obligation Refunding Bonds (2017 Series B). The bonds are expected to sell on March 29.

The Aa3 state GO rating reflects Connecticut's high income levels, strong governance, and healthy liquidity, offset by high fixed costs for debt service, pension, and post employment benefits relative to the state's budget; unfunded pension liabilities and debt outstanding that are among the highest, relative to revenues, of any state in the country; and minimal reserve levels, as well as a lagging economy and recent population loss.

Exhibit 1

### Connecticut Net Tax-Supported Debt Far Exceeds State Median High debt stems from borrowing for local governments



Source: Connecticut audited financial statements; Moody's Investors Service

### Credit Strengths

- » Legislated support for application of operating surpluses to the Budget Reserve Fund (BRF)
- » Wealthiest state in the nation with per capita personal income levels well above national levels
- » Strong governance with the ability to make mid-year budget adjustments

## Credit Challenges

- » Fixed costs for debt, pension and other post-employment benefits (OPEB) relative to budget are among the highest in the nation
- » Vulnerability to financial market fluctuations due to effect on capital gains for very high -wealth residents and employment in the financial services sector
- » General fund balance sheet will remain negative over near term and rainy day fund modest due to state's slower recovery from the recession

## Rating Outlook

Connecticut's outlook is negative, which reflects a lagging economy and weakening demographics that have led to budgetary strain as fixed costs have risen. While we expect the state to solve the budgetary gaps with recurring solutions, we believe that economic trends will place negative pressure on the state's finances in the next few years, while the very high fixed costs reduce flexibility.

## Factors that Could Lead to an Upgrade

- » Achievement and maintenance of higher GAAP-basis combined available reserve levels
- » Established trend of structural budget balance
- » Evidence of sustained stronger economic performance
- » Reduced debt ratios relative to Moody's 50-state median and lower fixed annual costs
- » Significantly improved funding of pension and post-retirement liabilities

## Factors that Could Lead to a Downgrade

- » Lack of improvement in available reserve levels
- » Reversion to significant one-time budget solutions, including deficit financings
- » Revenue weakness driven by delayed economic recovery
- » Cash flow strain stemming from reduced liquidity
- » Significant increase in fixed costs as percent of budget

## Key Indicators

Exhibit 2

Connecticut	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Operating Fund Revenues (000s)	13,935,599	16,378,765	16,909,327	16,880,411	17,187,461
Balances as % of Operating Fund Revenues	-12.5%	-6.4%	-7.2%	-1.2%	-2.3%
Net Tax-Supported Debt (000s)	18,247,554	18,615,067	19,623,311	20,272,617	22,103,517
Net Tax-Supported Debt/Personal Income	9.1%	9.1%	9.2%	9.0%	9.8%
Net Tax-Supported Debt/Personal Income 50 State Median	2.8%	2.8%	2.6%	2.5%	2.5%
Debt/All Governmental Funds Revenue	83.2%	78.9%	80.1%	81.4%	84.5%
Debt/All Governmental Funds Revenue 50 State Median*	22.5%	23.8%	23.5%	23.0%	20.4%
Adjusted Net Pension Liability/All Govt Funds Revenue	189.7%	243.4%	236.0%	213.3%	202.3%
Adjusted Net Pension Liability/All Govt Funds Revenue 50 State Median	48.7%	63.9%	60.3%	59.2%	50.4%
Total Non-Farm Employment Change (CY)	1.1%	0.9%	0.9%	0.7%	0.7%
Per Capita Income as a % of US (CY)	150.4%	146.9%	144.2%	143.7%	142.8%

Source: Moody's investors Service; Connecticut state audited financial reports

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## Recent Developments

Recent developments are incorporated in the detailed rating considerations below.

## Detailed Rating Considerations

### Economy: High Income State Lags US Recovery

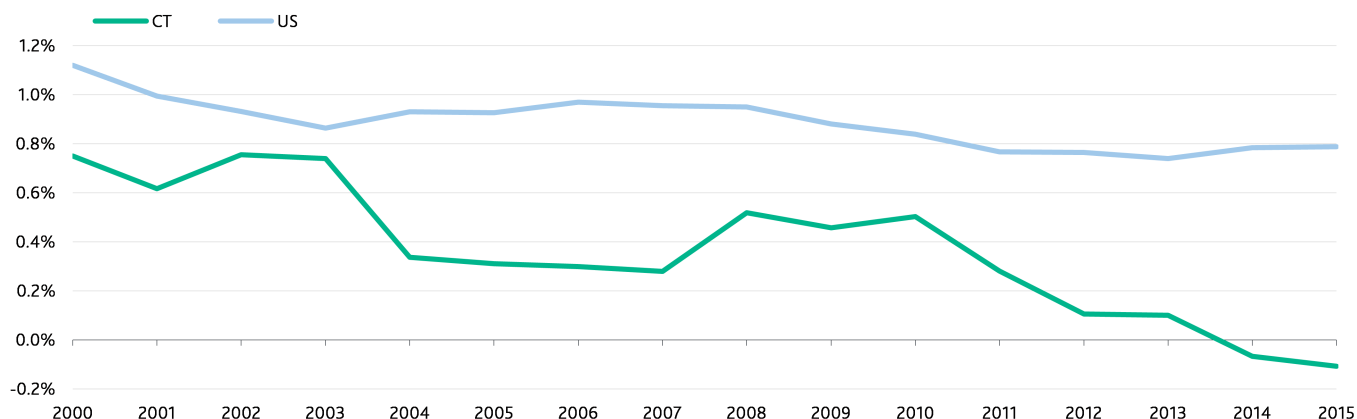
Connecticut is a wealthy state, with per capita personal income exceeding 142.8% of the US. However, the state's economy continues to lag that of the nation. While the state's unemployment rate as of January has fallen below the nation's at 4.5% versus 4.8% nationwide, the state has not yet quite regained the jobs lost to the recession. Job gains have been concentrated in education and health services, leisure and hospitality, transportation and utilities and professional and business services and have yielded slower wage growth than in the past: the state has experienced only 7.2% growth in average annual wages from calendar year 2011-2015 versus 14.5% in calendar 2004-2008.

Economic headwinds include lackluster performance in the state's high-paid financial activities sector. While the US has recovered nearly all the financial activities jobs lost in the recession, Connecticut continued to lose finance jobs into 2014 and has since recovered only about one quarter of those lost. To compound the sluggish recovery, job growth has been concentrated in low-wage sectors such as retail and service jobs.

The state's demographics show a negative trend, with two years of population loss since 2013 contributing to an underperforming housing market and lagging labor force growth.

Exhibit 3

### Negative Population Trends Reflect and Contribute to Weak Recovery CT and US annual population growth



Source: Source: Moody's Analytics; US Bureau of Labor Statistics

### Finances and Liquidity: State Struggles to Close Gaps

Governor Malloy's proposed budget for the FY 2018-FY 2019 biennium recommends general fund spending of \$18 billion in fiscal 2018 and \$18.3 billion in fiscal 2019, representing growth of 0.6% and 1.8%, respectively. To be balanced, the budget must accommodate large and growing fixed costs for pensions, debt service, retiree health coverage and other expenses outlined in the annual Fiscal Accountability Reports of the Office of Policy and Management and the legislative Office of Fiscal Analysis, which in November identified fiscal 2018 gaps of about \$1.3 billion.

The proposed budget's balancing actions are weighted toward expenditure reductions and shifts that will be politically challenging. Labor savings of \$700 million on a recurring basis and the shift of some teacher pension cost to local governments account for 80% of \$1.36 billion in proposed policy changes for fiscal 2018. The pension cost shift is part of a package that would realign responsibilities between the state and local governments and redistribute some local aid toward needier municipalities. The executive budget also includes revenue initiatives including the elimination of a \$200 property tax credit, an increase in cigarette taxes, a reduction in the earned income tax credit, and other tax and fee adjustments.

The executive budget is based on a revenue forecast in which revenues grow just 0.6% in fiscal 2018 and 1.8% in fiscal 2019. These growth rates assume the governor's revenue initiatives are enacted: these add a net \$321 million and \$287 million to the fiscal 2018 and 2019 forecasts, respectively. Revenues have been underperforming expectations and have been revised down in the current fiscal year from enacted levels.

The most recent consensus forecast projects tax revenue growth averaging 0.8% for fiscal 2018 and 2019, without the governor's proposed revenue increases. Average projected annual real US GDP growth is about 2.5%. Inflation is expected to pick up slightly to more than 2% in both years of the biennium. The revenue forecast is reasonable based on the state's recent performance but is subject to the risk of a national recession during the forecast period.

The state ended fiscal 2016 with a deficit of \$170 million, which is the state's second consecutive operating deficit. The deficit was closed with a draw on the state's rainy day fund, resulting in a balance in that fund of \$235 million. The year-end position was an improvement from earlier deficit projections that were as high as \$316 million. There were two rounds of gap-closing programs during the year totaling more than \$500 million in actions. Fiscal 2017 also required significant gap-closing actions after the budget was originally enacted. Based on recent projections by the OPM and the comptroller's office, the state is likely to eke out a small surplus at year end.

#### **CLOSING GAAP DEFICIT INCREASES DEBT BURDEN**

In fiscal 2013, the state implemented a plan to begin addressing Connecticut's sizeable \$1.2 billion cumulative GAAP deficit. The state issued \$560 million of general obligation bonds, which generated \$598.5 million in proceeds (of the \$750 million total authorized by legislature) amortizing the bonds over 15 years and reducing the accumulated GAAP deficit to \$618.5 million. The remaining portion of the deficit will be amortized over 13 years starting in fiscal 2016, resulting in an annual payment of about \$47.5 million. These amounts will be "deemed appropriated", meaning no further legislative action is needed to make the payments.

The GAAP bond proceeds are not counted as General Fund revenues, and the proceeds cannot be used for any current or future budget appropriations. While the funding strategy enabled the state to begin addressing its longstanding sizeable GAAP deficit and injects discipline into the plan, the additional debt adds to the state's already high debt levels and fixed costs. Even with the plan, the unassigned General Fund balance will remain negative over the near term.

#### **LIQUIDITY**

Connecticut's liquidity remains healthy. The state did not have to borrow for cash flow purposes in calendar 2015 or fiscal 2016 and does not expect to do so in fiscal 2017. Cash balances averaged \$2 billion in fiscal 2016 and averaged \$2.2 billion through mid-February of fiscal 2017. As of February 25 2017, available cash was \$2.4 billion.

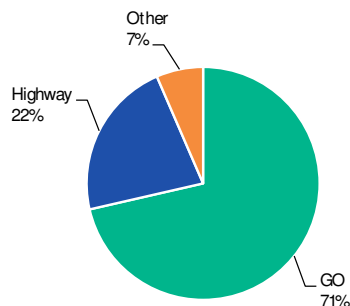
#### **Debt and Pensions: Large Liabilities Create High Fixed Costs**

Connecticut is a frequent borrower and the state's debt per capita and debt-to-personal income ranked first and second, respectively, among the 50 states for Moody's 2015 debt medians. Net tax-supported debt equaled \$5,491 per capita and 9.8% of total state personal income, well above the 50-state median of \$1,054 in debt per capita and 2.5% for debt-to-personal income. These high debt ratios are partly due to substantial capital financing for K-12 school building construction that is carried out at the local level in many other states. However, with the \$2 billion POBs and the sale of \$560 million in GAAP Conversion bonds to address a portion of the state's sizeable cumulative GAAP deficit, on top of the state's normal sizeable annual debt issuances, Connecticut's debt ratios will likely remain among the highest in the country. Connecticut adheres to a 20-year level principal repayment schedule for its general obligation debt, with a declining debt service schedule that provides some flexibility.

#### **DEBT STRUCTURE**

Connecticut's \$23.3 billion in net tax-supported debt outstanding consists primarily of general obligation bonds, which account for 71% of NTSD (see Exhibit). Bonds backed by special taxes for highway construction account for another 22% of state debt. Most GO debt is structured with 20-year principal amortization, resulting in a pay-out rate of 67% within 10 years. The state has issued economic recovery notes as deficit financing instruments, which will be paid off in mid fiscal 2018. Other debt consists primarily of bonds issued by related organizations, especially the University of Connecticut, for which the state guarantees payment from special capital reserve funds.

Exhibit 4

**Connecticut's Debt Outstanding Dominated by General Obligation**

Source: Connecticut financial statements and reports; Moody's Investors Service

The state has \$1.656 billion in variable rate debt, approximately 10% of the state's total GO debt, most of which is indexed to either SIFMA or CPI.

**DEBT-RELATED DERIVATIVES**

Only \$40 million of the state's variable rate debt is swapped to fixed, based on 60% of LIBOR or a percentage point above CPI, after a \$280 million swap was terminated at par on March 1, 2015. The swap counterparties are [JP Morgan Chase Bank, N.A.](#) (Aa2(cr)/P-1(cr)) and Morgan Stanley Capital Services Inc. As of December 30, 2016, the mark-to-market was minimal, at negative \$986,000 against the state. In accordance with its swap guidelines, the state generally negotiates provisions that permit funding a required termination payment over a period of time to allow time for a refunding. Accordingly, the state would have 270 days to fund a termination payment for its general obligation swaps. The state has no plan to incorporate swaps into future GO bonds.

**PENSIONS AND OPEB**

Connecticut's adjusted net pension liability (ANPL), our measure of the government's pension burden, is significantly above the 50-state median. As of the state's 2015 financial statements, ANPL was 288% of own-source governmental revenue, and 202% of total governmental revenue, the second highest among the states. The state participates in 3 pension systems, of which the most significant are the State Employees Retirement System (SERS) and the Teachers Retirement System (TRS). Connecticut is among the handful of states that take responsibility for directly funding teacher pensions. Moody's ANPL reflects certain adjustments made to improve comparability of reported pension liabilities.

The state contributes the full amount of its actuarially determined contribution, about \$2.2 billion in fiscal 2015. It is required via bond indenture to pay the full required contribution to the Teachers plan and by collective bargaining to do the same for the State Employees. Even so, its 2015 contributions would not have prevented its net pension liability (NPL) from growing even if investment returns all the actuarial assumptions associated with the plan had come to fruition, as the contributions were about 92% of our "tread water" benchmark, which is the payment covering the year's newly accrued service costs and interest on the NPL. The assumed rate of investment return on the TRS fund assets, which also is used to discount the liabilities, was reduced to 8% from 8.5% starting with the 2016 valuation, leading to a significant increase in the contribution for fiscal 2018. The state also recently reached an [agreement](#) with labor representatives to change its approach to funding SERS to a level dollar payment, to lower the investment rate of return assumption to 6.9% from 8%, and to extend amortization of most of the plan's unfunded liabilities to 2046 from 2032. These changes will benefit the budget in future years (after the end of the current biennium) because contributions were previously scheduled to escalate throughout the next decade until unfunded liabilities were fully amortized.

Connecticut also has a very high OPEB liability. As of the 2015 valuation, the liability stood at \$18.9 billion. The state is responsible for the \$2.99 billion Teachers' OPEB liability as of the recently-released June 30 2016 valuation, a 23% increase in UAAL since the 2014 valuation. The OPEB trust fund contained \$229.6 million in net assets as of June 30, 2015.

The state's combined debt service, pension, and OPEB contributions in fiscal 2015 were nearly 30% of own-source governmental revenues, among the highest of the states. The high fixed costs are partly attributable to the state's absorption of certain costs covered by local governments in most other states. High fixed costs reduce the share of discretionary spending and the state's budgetary flexibility.

### **Governance: State Profile Features Strong Practices**

The state has a constitutional balanced budget requirement, strong, binding consensus revenue process supported by nonpartisan and objective economic analysis that is conducted three times a year (January, April and November) or can be scheduled more frequently during times of revenue shortfalls or economic distress. There is a constitutional cap on spending, however, the Attorney General opined in November 2015 that it is not operative until the General Assembly adopts definitions. There is a statutory limit on debt payable from the general fund. The state is not subject to mandated initiatives or voter referenda. The Governor has limited executive authority to cut expenses by up to 5% of an individual appropriation, not to exceed 3% of any fund, without legislative approval, and if a deficit exceeds 1% of the general fund, there are requirements for a timely deficit mitigation plan to be developed. A supermajority is not required for tax increases or legislatively enacted budget adjustments. There is monthly budget reporting by both the Governor's budget office and the State Comptroller and budget adoption has been timely. The state does not conduct a debt affordability analysis, however, both the Governor's budget office and the Office of Fiscal Analysis prepare Fiscal Accountability reports that include multiple-year financial planning including projections of debt issuance, debt levels and debt cost. The state has frequently maintained a rainy day fund over the years, and there are statutory requirements that all budget surplus funds be deposited to the rainy day fund at year-end.

### **Legal Security**

The bonds are secured by the full faith and credit of the state of Connecticut.

### **Use of Proceeds**

Proceeds of the new money issuance will be used for various capital purposes of the state. The refunding bond proceeds will be used to refund outstanding debt to provide net debt service savings.

### **Obligor Profile**

The State of Connecticut has a population of almost 3.6 million people. The state, located in the northeastern US, has a large and diverse economy with a gross state product of \$253 billion. It is the wealthiest state in the country with per capita income of 141% of the US average.

### **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.moody.com](http://www.moody.com) for a copy of this methodology.

## Ratings

Exhibit 5

### Connecticut (State of)

Issue	Rating
General Obligation Refunding Bonds (2017 Series B)	Aa3
Rating Type	Underlying LT
Sale Amount	\$200,000,000
Expected Sale Date	03/29/2017
Rating Description	General Obligation
General Obligation Bonds (2017 Series A)	Aa3
Rating Type	Underlying LT
Sale Amount	\$550,000,000
Expected Sale Date	03/29/2017
Rating Description	General Obligation

Source: Moody's Investors Service

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