S&P Global
Ratings

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Connecticut; Appropriations; General Obligation; General Obligation Equivalent Security; Moral Obligation

Primary Credit Analyst:
David G Hitchcock, New York (1) 212-438-2022; david.hitchcock@spglobal.com

Secondary Contact:
Timothy W Little, New York (212) 438-7999; timothy.little@spglobal.com

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US$550.0 mil GO bnds ser 2017A due 04/15/2037		
Long Term Rating	AA-/Negative	New
US$200.0 mil GO rfdg bnds ser 2017B due 04/15/2037		
Long Term Rating	AA-/Negative	New
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO (BAM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed

Rationale

S&P Global Ratings has assigned its 'AA-' rating and negative outlook to the State of Connecticut's $550 million general obligation (GO) bond series 2017A and $200 million GO refunding bonds series 2017B. At the same time, S&P Global Ratings has affirmed its 'AA-'rating on approximately $18 billion of GO debt outstanding. The outlook is negative.

The GO rating on Connecticut reflects our view of the following factors:

- High wealth and income levels;
- A diverse economy, whose performance has been cyclical;
- Ongoing revenue and expenditures that remain near structural alignment at present;
- Active monitoring of revenues and expenditures to identify and correct midfiscal year budget gaps, as exemplified by midyear budget adjustments made for fiscal years 2015, 2016, and 2017; and
- Adequate operating liquidity, despite low generally accepted accounting principles (GAAP) fund balances.

Offsetting factors, in our opinion, include:

- Above-average debt, high unfunded pension liabilities, and large unfunded other postemployment benefits (OPEB) liabilities, all of which create what we believe are significant and growing fixed-cost pressures that restrain the state's budgetary flexibility;
- A history of cyclical budget performance, and currently weak financial reserves available to cushion against the next economic downturn. We expect revenue growth to remain slow for the next several years, the result of economic weakness in Connecticut's high-paying financial sector.

S&P Global Ratings understands that the series 2017A bond proceeds will be used to fund various capital improvements, and the series 2017B will be used to refund certain outstanding bonds.

We view the state's high income level as a key credit strength, with per capita income at 140% of that of the nation in

2015, the best in the U.S. However, Connecticut has been slow in regaining its highest-paying jobs, which we believe has been affecting state revenues. Connecticut has one of the highest concentrations of financial services employment in the country, at 7.8% of total jobs in 2015. The state estimates that it has had a net loss of 8.4% of jobs in the financial sector jobs from its March 2008 peak through December 2016. IHS Global Insight Inc. estimates that the financial sector had consecutive years of job losses between 2008-2014, before a 1.0% gain in 2015 and expected similar growth in 2016. IHS Global Insight estimates total state employment rose a slow 0.7% in 2015, compared with 2.0% for the nation, while estimating 0.7% state employment growth in 2016, and 0.1% in 2017, led by the education and the services industries. Of note is a recent announcement by Sikorsky Aircraft of a commitment to build a new line of helicopters in the state, following recent state tax incentives and union wage concessions, as well as a plant expansion announced by Pratt & Whitney.

Connecticut's unemployment rate remains slightly elevated compared with that of the U.S., but has improved since the recession, dropping to 5.1% in 2016 (compared with 4.9% for the nation) from a peak of 9.3% in 2010, according to the federal Bureau of Labor Statistics. As of January 2017, the state's preliminary unemployment rate was 4.5%.

Substantial revenue shortfalls over the past year have left the state with what we believe are low reserves and an increasing share of the budget devoted to fixed costs, although the budget appears in structural balance at present. In our opinion, Connecticut may be poorly positioned should there be a national economic downturn in the next several years as the governor's budget proposal for the upcoming 2018-2019 biennium would maintain reserves at what we view as low levels even after significant cuts in appropriations. We believe low reserves could prove troublesome in view of Connecticut's historically cyclical finances. At the same time, we believe rising debt service, pension, and OPEB costs have pushed fixed costs to what we see as a significant portion of the overall budget and hamper the state's ability to make further budget cuts should new revenue shortfalls develop. The growth in state fixed costs could be slowed significantly by the governor's proposal to require localities to contribute a third of annual teacher pension contributions. Currently, the state makes all teacher pension contributions. We calculate that the governor's budget proposal would lower combined debt service, pension contributions, and OPEB costs in fiscal 2018 from about 32% of revenue to 29%. These fixed costs are estimated to comprise about 28% of appropriations in fiscal 2017, and are likely to grow due to scheduled annual increases in pension contributions (see "Connecticut’s Recent Pension Agreement With Unions Could Be Mildly Positive For The State," published Jan. 23, 2017, on RatingsDirect). Tax increases in the two most recent biennia have constrained further state revenue-raising ability, in our view.

Despite multiple midbiennium budget adjustments, budget reserves have been falling since fiscal 2014. A fiscal 2016 general fund budgetary basis operating deficit of $170.4 million drew the state's budget stabilization fund (BSF) down to $235.6 million, or only 1.3% of 2016 general fund expenditures. At the end of fiscal 2016, the legislature passed fiscal 2017 budget cuts of $847.2 million, and additional revenue measures of $136.3 million. The state projects a small general fund operating surplus in fiscal 2017 of about $22.9 million, leaving a $258.5 million BSF balance, or 1.4% of expenditures. The separate state legislative office of fiscal analysis projects slightly worse results with a fiscal 2017 operating deficit of $11.9 million.

On a GAAP basis, fiscal 2016 ended with a $424 million drawdown in total general fund balances to a negative $614 million, or 3.3% of expenditures and transfers out. However, the state reports it had ample cash available of $2.4 billion as of Feb. 25, 2017, and has no plans for external cash flow borrowing.

The governor's 2018-2019 upcoming biennium budget proposal closes a $1.68 billion budget gap in fiscal 2018, or 9.5% of projected 2018 general fund revenue, through about $1.36 billion of proposed expenditure reductions and $321 million in revenue adjustments. Proposed gap-closing actions include $700 million in collective bargaining savings or layoffs, and $408 million of net municipal contributions to the teachers' retirement system (see "Connecticut Budget Proposal Highlights Financial Strain At Both State And Municipal Level," published Feb. 15, 2017). It would leave the state with a small $2.1 million operating surplus in fiscal 2018 and $4.5 million in fiscal 2019. Overall general fund spending would rise 0.8% in fiscal 2018 and 1.8% in 2019, after shrinking 0.3% in fiscal 2017. The loss in municipal aid would be structured to minimize loss to the poorest municipalities and be greatest for the wealthiest. This could potentially also address a recent court order, currently on appeal, for more equitable school aid distributions. The general fund budget gap that needs to be closed in fiscal 2018 is in part attributable to the diversion of sales tax to the state's transportation fund and municipal revenue sharing account, which is expected to lead to a slight overall decline in general fund revenue. The state is projecting a 3.6% economic growth rate for income tax withholding in fiscal 2017 and 2.6% in fiscal 2018, while also projecting sales tax economic growth of 2.8% in fiscal 2018. One constraint on future budget cutting is cuts that have already occurred in previous years. After reductions in the number of employees since 2008, the number of executive office agency employees per 1,000 residents is now lower than in 1960.

Weak income tax growth has underlined recent revenue shortfalls, particularly in volatile capital gains taxes, underpinned by the lack of a bounceback in high wage jobs since the last recession. In 2015, millionaires comprised 0.7% of income tax filers and paid 30.4% of total state income tax collections. These taxpayers' incomes are particularly affected by capital gains. After two rounds of well-publicized tax rate increases in recent biennia, and a high profile move of General Electric Corp.'s headquarters to Boston, we believe raising taxes further at this point would be politically difficult.

We consider Connecticut's level of approximately $23 billion in tax-backed GO and transportation tax-supported debt, after this sale, to be high at $6,422 per capita. At fiscal year-end 2016, the date of the last audit, we calculate that the state had $22.3 billion of tax-backed debt outstanding, or $6,210 of tax-backed debt per capita, including combined GO, capital lease, and transportation special tax bonds. Fiscal year-end 2016 tax-backed debt to the most recent available 2015 income figures were high at 9%. Our calculation of tax-backed debt service, less federal revenues and restricted grant funds during fiscal 2016, is what we view as high at 13.1% of total governmental fund expenditures. Gov. Dannel Malloy has proposed a substantial increase in annual transportation capital spending to make up for perceived past underfunding of transportation infrastructure, with up to $6.6 billion of state bonding over five years, consisting mostly of transportation fund-secured bonds. The potential exists for substantially more bonding after the initial five-year period under the contemplated program--the governor has proposed up to $100 billion of transportation-related bonds over 30 years. However, we expect additional transportation-related bonds to be contingent on additional transportation-related tax revenue being made available, and Connecticut has cancelled recently $642 million of net GO bond authorizations.

We consider combined unfunded pension liabilities as high, at $26.6 billion at fiscal year-end 2015. Since fiscal 2012, Connecticut has been fully funding its retirement systems' actuarially required contribution (ARC), which helps ameliorate what we view as currently low retirement systems' funded levels. A previous pension bond issuance includes a covenant to pay the teachers' retirement ARC as long as the bonds are outstanding. Connecticut has funded the ARC using the credit actuarial cost methodology, which differs from the entry age normal actuarial method used in GAAP-based audits, but has recently made a decision to switch to the entry age normal method whereby in the future ARC will match the GAAP actuarial annually determined contribution (ADC). In addition, the state dropped its assumed rate of return to 6.9% from 8.0% for its state employees, and extended its unfunded amortization to 28 years from 15 years. We view the pension funds' combined funded ratio as a relatively low 49% on a combined actuarial basis, using the 2015 Governmental Accounting Standards Board (GASB) 67 and 68 valuations disclosed in the 2016 state audit. The state has released an employees' retirement system actuarial report calculating a non-GAAP actuarial funded ratio of 31.6% using a market value of assets, down from 40.6% the year before. A teachers' retirement system valuation as of June 30, 2016, shows an increase in unfunded liability, in part due to a reduction in its assumed rate of return to 8.0% from 8.5%. The report shows a 56% actuarial funded ratio.

We also consider OPEB high at $22 billion, including both the state employees' retirement fund (SERF) and the state teachers' retirement system. Connecticut law considers state employee OPEB a contractual right of current workers, and state payment of teachers' OPEB a state statutory obligation. Connecticut recently implemented a state employee contribution of 3% of salary toward OPEB, over and above current health costs, which it will match at the 3% rate beginning in fiscal 2018. Combined with small state OPEB trust fund contributions in 2008 and 2011, this will help ameliorate this still-sizable unfunded liability.

Based on the analytic factors we evaluate for states, on a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned a composite score of '2.1' to Connecticut.

Outlook

The negative outlook reflects our belief that there exists a one-in-three chance during our two-year outlook horizon that fixed costs as a percent of the budget could rise significantly enough to seriously impede the state's ability to maintain structural balance in a period of national growth. Connecticut will need to close what we view as large budget gaps in the upcoming fiscal 2018-2019 biennium budget. Although these fixed costs are still expected to grow as a percent of the budget in coming years, the governor's recent proposal to transfer some of the costs of teacher pension contributions to municipalities could lower the rate of growth in state pension costs. Should fixed costs rise substantially further as a percent of the budget, pension-funded ratios decrease below 40%, or the state resort to structurally unbalanced budget balancing measures during a time of national economic growth, we could lower our rating.

However, if revenues grow faster than growth in debt service, pension, and OPEB costs, fixed costs could stabilize as a percent of future budgets. Pension costs for state employees are currently projected to rise for several years and then stabilize under a recent agreement with the state unions. Nevertheless, the governor's proposal to transfer a portion of teacher pension costs to municipalities could restrain growth in the state portion of teacher pension costs, if it is enacted into law if it survived likely legal challenges. If we believe the state's overall fixed costs will stabilize as a percent of the state's budget, while the state maintains structural balance, or should economic growth enable

Connecticut to restore its budget stabilization fund to the point it could provide protection in the next economic downturn, we could revise the outlook to stable. Our current rating anticipates that Connecticut can achieve near structural budget balance during periods of economic expansion, but that it might fall out of structural budget alignment during economic downturns, and will likely maintain what we would characterize as low reserve levels for the near future, despite national economic growth.

Government Framework

The government framework, including fiscal policy and intergovernmental funding within which each state taxes, spends, and issues debt, influences the state's ability to manage through economic cycles.

A key feature of Connecticut's governmental framework is a balanced budget requirement. A voter-approved amendment to the state constitution provides that the amount of general budget expenditures authorized in any fiscal year shall not exceed the estimated amount of revenue for that fiscal year. In developing its budget, Connecticut operates under a statutory expenditure cap that limits spending growth to the greater of personal income growth or the inflation rate. The cap excludes debt service and certain other expenditures. There is no statutory or constitutional prohibition against borrowing for operating purposes. Connecticut is authorized to issue GO debt, special tax obligation debt, and special obligation and revenue debt. Debt outstanding, authorized and payable from the general fund, is limited by statute to 1.6x total general fund tax receipts. As of Feb. 15, 2017, authorized unissued GO debt stood at $2.8 billion. Cancellation of debt authorization must be considered by state statute when Connecticut's debt approaches 90% of the state debt limit.

There are no constitutional or statutory provisions providing for, or precluding, a priority of payment for GO debt service over other claims of the state. Funds for debt service are "deemed to be appropriated" and, as part of the contract between bondholders and Connecticut, the state must appropriate all amounts necessary for the punctual payment of principal and interest.

Connecticut, which is not a voter-initiative state, has the autonomy to raise taxes and has adjusted its tax structure over time. It has relatively broad service responsibilities with about 29% of 2016 budgetary expenditures tied to education funding and other resources shared with local government units. Although it has legal flexibility to adjust funding to local governments, Connecticut previously has avoided sharp midyear reductions in these areas in recent years, although the governor is proposing municipalities pick up a large share of teacher pension contributions. (In Connecticut, municipalities are in charge of kindergarten to grade 12 education.) A recent court case, currently on appeal, has ruled that Connecticut's method of funding schools is unconstitutional under the state's constitution. However, the court ruled the state was providing adequate overall funding, but not distributing school aid in an equitable manner. The governor's proposal to reduce municipal aid would favor poor municipalities over richer ones, which could potentially satisfy the court ruling, or allow a settlement with plaintiffs.

On a scale from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a '1.5' score to Connecticut's governmental framework.

Financial Management

State statutes and internally developed policies guide budget management, long-term financial planning, capital planning, debt management, and investing.

Financial management assessment: "strong'

We consider Connecticut's management practices "strong" under our financial management assessment (FMA) methodology. An FMA of strong indicates that, in our opinion, practices are robust, well embedded, and likely sustainable.

Beginning Oct. 15, 2009, the Office of Policy and Management (OPM) and the legislature's Office of Fiscal Analysis (OFA) have been required by statute to issue consensus revenue estimates each year. An update to the estimate is required by Nov. 10, Jan. 15, and April 30 of each year, and it must cover a five-year period. In addition to its internal resources, Connecticut bases its revenue estimates for budget forecasting on a number of outside data sources and economic forecasting firms. The state's long-term financial planning includes a three-year forecast for the legislature in addition to the biennial budget. The financial plan is updated annually and submitted to the legislature by Nov. 15.

The state also produces a five-year capital improvement plan as part of the November update. State statutes require monthly revenue and expenditure forecasts measured against the budget. The OPM and the Office of the Comptroller generate monthly reports projecting year-end surpluses or deficits. State statutes also prescribe investment of state funds. Dedicated staff monitors investments and generates monthly reports. Connecticut also holds quarterly meetings with the investment advisory commission. The state has a swap management policy and other debt policies that guide amortization and issuance. Connecticut statute authorizes a budgetary reserve fund at a maximum of 10% of general fund appropriations. The statute prescribes that the state must transfer all unappropriated general fund surpluses into the budget reserve fund, and that the fund can only be drawn on to fund operating deficits. At the end of fiscal 2016, the budgetary reserve was at 1.3% of expenditures, and is projected by the state to rise slightly to 1.4% at the end of fiscal 2017.

Budget Management Framework

Connecticut maintains a formal schedule for updating revenues and expenditures on a monthly basis, and this is done by both OPM and the comptroller. If the comptroller reports a projected general fund deficit of greater than 1%, the governor is required to file a deficit mitigation plan. Although the governor might reduce appropriations, this is limited to 5% of total appropriations and 3% of any fund, with any additional reductions requiring legislative approval. Legislative deliberation relating to interim budget adjustments has contributed to a delay in addressing budget gaps at times. The state is allowed to end the year in a deficit, which has periodically been addressed with deficit bonds. However, statutory provisions provide that any new budget deficit after fiscal 2013 must be funded in the ensuing fiscal year budget. Gap-closing solutions in previous bienniums have relied on significant nonrecurring measures and structural solutions.

On a scale from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a score of '1.5' to Connecticut's financial management.

Economy

Although Connecticut's economy and population have been growing slowly recently, the state continues to maintain strong income levels.

Connecticut's population of 3.6 million represents 10-year growth of only 2.4% from 2005-2015, compared with 8.8% for the nation, according to the U.S. Census Bureau. Population has declined in each of the past two years, with a 0.2% decline from 2013-2015. However, the state's age dependency ratio of nonworking age population-to-total population of 58.7% was slightly better than that of the nation at 60.2% in 2014.

The state's average seasonally adjusted unemployment rate in 2016 was 5.1% versus 4.9% for the U.S., according to the federal Bureau of Labor Statistics. The preliminary state unemployment rate in January 2017 was 4.5%. We believe the state's economy exhibits some moderate cyclicality due to exposure to the financial sector. IHS Global Insight Inc. has reported that the important financial industry, with its well-paying jobs, shrank from 2008-2014, before increasing 1.0% in 2015 with similar growth forecast for 2016. In 2015, the well-paying financial activities sector comprised 7.8% of payroll employment, compared with 5.7% for the nation, according to the federal Bureau of Labor statistics. Other major sectors include education and health services (19.5% for the state compared with 15.5% for the U.S.); trade, transportation, and utilities (17.7% of state employment, 19.0% of U.S.); government (14.3% of state, 15.8% of U.S.); professional and business services (12.9% of state, 13.8% of U.S.); and manufacturing (9.5% of state, 8.7% of U.S). Key employers include Sikorsky Aircraft, Pratt & Whitney, Yale University, and Foxwoods Resort Casino, as well as insurance companies and financial sector firms. Jackson Laboratories agreed to build a $1.1 billion research facility in 2011.

State income levels are strong in our opinion. State per capita income of $66,972 in 2015 was 140% of that of the U.S., and GDP per capita of $71,987 in 2015 was 130% of that of the nation. However, GDP growth has been below that of the U.S. periodically. In 2014 and 2015, real state GDP rose 1.2% and 0.6%, respectively, compared with 2.2% and 2.4% for the nation, and fell 0.4% in 2013 compared with 1.3% growth for the U.S. Connecticut also experienced greater decline in GDP than the nation during the recession, although annual growth was stronger than that of the nation in 2007 and 2008 before the recession.

The state's original 2016-2017 biennium budget projected personal income growth of 3.6% in fiscal 2016, and 4.4% in fiscal 2017, compared with IHS Global Insight's current estimated personal income growth of 3.2% in calendar 2016 and 4.1% in calendar 2017. Recent projected revenue shortfalls are attributable in part to a downsizing in Connecticut's forecasted total personal income tax growth rate and capital gains tax among wealthy individuals.

On a scale from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a '1.9' to Connecticut's economy.

Budgetary Performance

State statutes create what we view as a favorable budget reserve fund structure from a legal standpoint, although since fiscal 2014 Connecticut has allowed reserves to be drawn down to what we view as minimal levels, with no plans to replenish reserves through at least fiscal 2019, based on 2017 midbiennium budget revisions and the governor's budget proposal for the 2018-2019 biennium. The state will need to close a sizable $1.7 billion budget gap in fiscal 2018, or 9.5% of projected consensus general fund revenues. We see growth in pension costs and slow revenue growth as the primary driver behind projected out-year gaps.

Connecticut statutes authorize a budgetary reserve fund at a maximum of 10% of general fund appropriations, and require that all unappropriated general fund surpluses go into the budget reserve fund, which can only be drawn on to fund operating deficits. At fiscal year-end 2016, the BSF held an amount equal to about 1.3% of general fund spending, and based on the state's current revenue forecast, the BSF will be largely unchanged at 1.4% of appropriations at the end of fiscal 2017. The governor's 2018-2019 biennium budget proposal projects only minimal increases in the BSF through the end of fiscal 2019.

We consider state liquidity as good. Connecticut projects a weekly cash position that runs throughout each current fiscal year. The state projects its lowest week ending cash position for the remainder of fiscal 2017 at more than $915 million in April, and reported $2.4 billion of available cash at the end of February 2017. The state sold $560 million GAAP funding bonds in fiscal 2014 to improve its fiscal year-end general fund balance on a GAAP basis, which helped boost liquidity and allowed the state to transition into budgeting on a GAAP basis. However, the fiscal 2016 showed a large increased divergence between budgetary unreserved fund balances (positive $116.1 million) and the GAAP unreserved balance (negative $998.9 million), primarily due to increased payables not recognized under budgetary accounting. In previous years, Connecticut has been able to access external debt markets to sell deficit funding bonds in previous years when it ended in a deficit budgetary position in order to maintain adequate liquidity. The state has no current plans for external cash flow borrowing.

We consider Connecticut to have a diverse revenue mix. On a budgetary basis, 52% of fiscal 2016 total general fund revenues were derived from personal income tax, while 24% came from sales tax.

The state has also had a history of making timely midyear budget adjustments, including multiple midyear allotment rescissions imposed by the governor in fiscal 2015, and another rescission in September of fiscal 2015 to close fiscal 2016 projected midyear gaps, as well as additional legislatively enacted adjustments in December 2015 and March 2016. At the end of fiscal 2016, the legislature passed fiscal 2017 budget cuts of $847.2 million, and additional revenue measures of $136.3 million, which the state projected would produce a $200,000 general fund operating surplus in fiscal 2017.

Connecticut uses a consensus revenue forecasting process to produce a five-year revenue forecast for budgeting purposes. We believe the state has substantial legal authority to cut expenditures, but cyclical revenue trends and high costs in such areas as pension and OPEB may somewhat limit state flexibility. Connecticut considers OPEB benefits as a contractual right of employees.

We believe state budgetary performance has shown cyclical trends, with the state at times issuing deficit financing notes. As of Feb. 15, 2017, Connecticut had $177.1 million of deficit financing economic recovery notes outstanding relating to the original deficit bonds in 2009 of $915.8 million. State reserve levels over time indicate cyclical financial performance. The state's BSF was as high as 8.0% of general fund appropriations at fiscal year-end 2008, before dropping to 0.6% at fiscal year-end 2010, and rising most recently to 3.0% at fiscal year-end 2014. The state calculates it will end fiscal 2017 with a 1.4% balance based on current state revenue projections.

In our view, a degree of dependence on top taxpayers, who contribute a greater share of capital gains tax, contributes to cyclicality. The state estimates that millionaires comprising 0.7% of income tax filers contributed 30.4% of total state income tax collections in 2015.

Connecticut estimates that one-time revenue in its originally enacted 2016 budget totaled about 0.8% of budgeted revenues, while we estimate midyear adjustments increased one-time items by about another 0.8%. The state also estimates that only about 2% of fiscal 2017 revenues consist of one-time items following passage by the legislature of midbiennium revisions. We believe the governor's proposed 2018-2019 biennium budget includes only minimal one-time budget items.

The 2016-2017 state budget projects revised personal income tax withholding growth on an economic basis of 2.8% in the second half of calendar 2016, not including the effect of tax law changes, and 2.8% in the first half of first half of fiscal 2017, compared with IHS Global Insight's projected personal income growth of 3.2% for the full calendar 2016 and 4.1% in calendar 2017. Personal income growth has particular importance, as personal income taxes (withholding and estimates and finals) comprised about 61% of fiscal 2016 general fund tax revenue on a budgetary basis (52% of total general fund revenue). Capital gains tax is estimated to comprise a large part of personal income tax due to the large share of the tax derived from upper income taxpayers. The state has attributed recent years' less-than-forecasted revenue largely to fluctuation in capital gains tax.

A positive inclusion in budgets since fiscal 2012 has been full funding of the annual actuarially required state retirement system pension contribution, using Connecticut's unit credit actuarial cost method, that have helped stabilize what we view as currently low retirement systems' funded levels, which we calculate at a relatively low 49% on a combined actuarial GAAP basis, using GASB 68 accounting as of the last 2015 GASB valuation.

On a GAAP basis, the most recent audited fiscal year (2016) ended with a $424 million decline in the total general fund balance position (which includes the BSF) to a negative $614 million, or negative 1.3% of general fund expenditures and transfers out. This represents a worsening from a negative $190 million total general fund balance position at fiscal year-end 2015, or negative 1.0% of general fund expenditures and transfers out.

On a scale from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a score of '1.8' to Connecticut's budgetary performance.

Debt And Liabilities

In our opinion, Connecticut's debt burden is high by all measures when compared with that of state peers, in part reflecting debt issued for education and other programs that might be handled at the local level of government in other states. It also includes previous debt issued for state pension liabilities.

We calculate that Connecticut's approximately $22.3 billion in GO and tax-supported debt at fiscal year-end 2016 puts the state's total tax-supported debt per capita at about $6,210, a level we consider high. Debt levels have been rising, although we expect them to stabilize as the state reaches its debt cap. Connecticut is in the process of cancelling substantial debt authorizations, as it is required to consider when approaching 90% of its statutory debt cap. We calculate debt to 2015 personal income as high at 9.0%, and tax-supported debt service also high at 13.1% of total GAAP general governmental expenditures, less federal revenue and restricted grants. Tax-supported debt includes GO debt, capital leases, and special tax-supported transportation bonds.

The state's transportation infrastructure program is planned to remedy perceived underinvestment in transportation infrastructure in previous years. The program will take a number of years to ramp up, requiring the hiring of new engineers in the department of transportation and new design work and environmental permits. The new program involves up to $6.6 billion of additional state bonding in the initial five years, including fiscal 2016, consisting mostly of transportation fund-secured bonds, and a small portion of new GO bonding. The potential exists for substantial further bonding beyond the initial five-year period, pending approval of future related new revenue.

On a positive note, at fiscal year-end 2016 the amortization of tax-backed debt outstanding remained rapid at 65% in 10 years under our calculation. Connecticut's debt profile is largely in fixed-rate obligations, with approximately 11% of state GO debt consisting of variable-rate debt. The state terminated a $280 million interest rate swap agreement on March 1, 2015, and has only limited remaining exposure to swap agreement risk in our opinion. It has no direct placement debt outstanding.

Because almost all state pension plan liabilities are attributable to either state employees or state-funded teacher pension plans, GASB 68's accounting breakout of the state-only liability does not appreciably change overall state pension liabilities. The SERF has recorded a significant net pension liability of $16.5 billion and a 39.2% GASB 68 funded ratio as of June 30, 2015, and the teachers' system had a net pension liability of $11.0 billion and a 59.5% GASB 68 funded ratio as of June 30, 2015.

The state has since released non-GAAP actuarial reports as of a June 30, 2016, valuation. The actuarial valuations, using a market valuation of assets, show a decline in non-GAAP actuarial funded ratios to 31.6% in 2016 from 40.6% in 2015 for SERF, based in part on a lower and more reasonable 6.9% rate of return assumption, and to 52.2% in 2016 from 61.6% in 2014 for the teachers' system, following a reduction in the teachers' rate of return assumption from 8.5% to what we view as a still aggressive 8.0%. The five-year pension investment returns have been 5.7%. SERF higher unfunded liabilities as the result of the lower rate of return assumption was offset to some degree by a change to a longer 25-year amortization period for the unfunded liability from 18 years.

Connecticut did not fund the full actuarial ARC in fiscal years 2008-2011, but has effectively funded the full ARC/ADC since. The SERF previously used the projected unit credit actuarial cost method, which is not aligned with the GASB standards, but a recent agreement with employee unions will switch SERF to the GAAP-compliant entry age normal actuarial method. The change in rate of return assumptions and move to entry age normal valuations is expected to help amortize the unfunded liability in the future, even though annual state contributions are expected to continue to increase in the next several years as the result of the recent agreement (see "Connecticut's Pension Agreement with Unions Could be Mildly Positive for the State," published Jan. 23, 2017). As a result, of previous underfunding and investment underperformance, unfunded liabilities to personal income is what we view as high at 11.1%.

The state's pension bond sale a few years ago contained a covenant to maintain full ARC/ADC funding for the teachers' pension system, and we anticipate that Connecticut will continue to fully fund the ADC for both the SERF and the teachers' system, although part of the contribution could be made to come from local governments. However, in recent years pension contributions have not been greater than the sum of pension service costs, interest costs, and the amortization component.

SERF's unfunded actuarial liability as of June 30, 2016, was $21.7 billion, up from $14.9 billion the year before. SERF currently calculates ADC based on a level percent of payroll, which we see as a somewhat aggressive assumption since it uses a payroll growth assumption of 3.5% per year (in a period when employee layoffs are expected) and a static mortality assumption. The SERF valuation also uses a 25-year amortization period, although the new 6.9% return assumption is now more in line with other states. SERF currently has a 1.04 ratio of active to retired members, compared with1.5 nationally. SERF uses a 2015 experience study conducted within the past five years, which we view as current.

The Teachers' Retirement Fund (TRF) had an unfunded liability of $13.1 billion at June 30, 2016, under its most recent actuarial valuation, despite a deposit of $2 billion in bond proceeds in 2008. The funded ratio declined to 56.0% an actuarial basis and 52.2% on a market value basis of assets, in part due to a decrease in the assumed rate of return to 8.0%. Using GASB 68 methodology, the state calculated a 59.5% ratio of fiduciary net position to total pension liability of 59.0% as of June 30, 2015, for use in the fiscal 2016 state audit; however, the 2015 GASB 68 valuation used the previous more aggressive 8.5% discount rate. TRF uses a level percent of payroll contribution assumption, which we see as somewhat aggressive due to a 3.7% payroll growth assumption, a closed amortization period of 22 years. The actual investment return for the most recent five years has been 5.7%, although only 0.3% in fiscal 2016. The TRF actuary projects that the unfunded liability should be fully amortized using the given actuarial assumptions. The ratio of active to inactive members is 1.09, compared to the national average of 1.5. The last TRF experience study was conducted in 2015, which we view as current.

Both of the state's major retirement funds are below the average funded ratio for state public pension plans in fiscal 2015, according to S&P Global Ratings' state pension report (see "U.S. State Pensions: Weak Market Returns Will Contribute To Rise In Expense," published Sept. 12, 2016).

Connecticut's OPEB liability is significant compared with that of other states (see "Rising U.S. State Post-Employment Benefit Liabilities Signal An Unsustainable Trend," published Sept. 7, 2016), but recent actions to reduce the liability and pre-funding of an OPEB trust have resulted in a relatively stabilized unfunded liability. The unfunded OPEB was $21.9 billion for the combined OPEB in the most recent SERF valuation as of June 30, 2015, and the teachers' system valuation as of June 30, 2016, or $6,095 per capita. Connecticut's OPEB trust fund is currently small at $230 million, but the state is scheduled to make increased contributions in fiscal 2018, beginning with a $132.6 million step-up matching contribution to match increased employee contributions. Pay-as-you-go costs for funding state employee retiree health costs were $566.4 million in fiscal 2016, which was in contrast to the sizable $1.6 billion actuarial annual OPEB cost in 2016.

The unfunded state employee OPEB liability had been $26.6 billion at June 30, 2008. The lower liability is attributable to a change in the discount rate due to the creation of a trust fund, lower liabilities resulting from changes in plan design negotiated with the State Employee Bargaining Agent Coalition, and various healthcare cost-containment initiatives. Before the plan changes and updated actuarial report, OPEB costs had been forecasted to rise sharply, reaching approximately $45 billion by fiscal 2017.

Connecticut is also statutorily required to fund one-third of teacher pension OPEB costs, plus the shortfall left after employer and employee contributions. The teachers' unfunded OPEB was $3.0 billion as of June 30, 2016, almost unchanged from $3.0 billion in 2012, with no assets in the OPEB trust fund relating to teachers' retirement health care.

On a scale from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a score of '3.5' to Connecticut's debt and long-term liabilities.

Connecticut--General Fund Financial Summary

Audited GAAP basis

(Mil. $)	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
General fund						
Revenue	18,215	17,954	17,400	20,135	19,334	17,707
Expenditures	17,444	16,936	16,591	18,738	18,406	17,415
Transfers in	177	206	460	134	414	518
Transfers out	1,375	1,375	(1,215)	(1,212)	(1,156)	(1,214)
Other	2,861	3	703	4	27	53
Net result	(424)	(148)	547	322	212	(351)
Total general fund balance (GF)	(614)	(190)	(41)	(589)	(912)	(1,297)
as % of GF expenditures and transfers out	(3.3)	(1.0)	(0.3)	(3.4)	(5.3)	(8.0)
Budget reserve fund (which is included in total fund balance)	236	406	519	271	93	0
as % of GF expenditures and transfers out	1.3	2.2	3.4	1.5	0.5	0.0
Debt service fund						
Revenue and other financing sources	533	496	466	424	447	448
Expenditures	464	461	466	467	452	427
Net	70	9	(1)	(43)	(5)	21
Total fund balance	738	668	660	660	703	709
Transportation fund						
Revenue	1,394	1,372	1,393	1,197	1,214	1,112
Expenditures	946	907	855	824	802	759
Net transfers and other	(494)	(433)	(540)	(353)	(376)	(348)
Net result	(46)	32	(2)	20	36	6
Total fund balance	212	257	227	229	209	200

GAAP--Generally accepted accounting principles.

Ratings Detail (As Of March 20, 2017)		
Connecticut Hlth & Ed Fac Auth		
Long Term Rating	AA-/Negative	Affirmed
Connecticut		
Long Term Rating	AA-/Negative	Affirmed
Connecticut approp		
Long Term Rating	A+/Negative	Affirmed
Connecticut taxable GO (AGM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO bnds ser 2016C due 05/15/2034		
Long Term Rating	AA-/A-1/Negative	Affirmed
Connecticut GO bnds ser 2016E due 10/15/2017-2029, 2032-2036		
Long Term Rating	AA-/Negative	Affirmed
Unenhanced Rating	NR(SPUR)	
Connecticut GO (AGM)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed

Ratings Detail (As Of March 20, 2017) (cont.)		
Connecticut GO (BAM)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (BAM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (BAM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (BAM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (BAM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (BAM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (BAM) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO (FGIC)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Long Term Rating	AA-/Negative	Affirmed
Connecticut GO		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Capital City Economic Dev Auth, Connecticut		
Connecticut		
Capital City Economic Dev Auth (Connecticut) GOEQUIV		
Long Term Rating	AA-/Negative	Affirmed
Capital City Economic Dev Auth (Connecticut) GOEQUIV		
Long Term Rating	AA-/A-1/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth, Connecticut		
Connecticut		
Connecticut Hlth & Educl Facs Auth (Connecticut) rev bnds (Child Care Facs Prog) (ASSURED GTY)		
Unenhanced Rating	A-(SPUR)/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev bnds (Connecticut) (Connecticut State Univ Sys Issue) ser J dtd 06/22/2011 due 11/01/2012-2031		

Ratings Detail (As Of March 20, 2017) (cont.)		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev bnds (State Univ Sys Issue) ser D-1&2 dtd 03/15/2002 due 11/01/2003-2022		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev rfdg bnds (Connecticut) (Connecticut State University System Issue) ser P-1 due 11/01/2036		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev rfdg bnds (Connecticut) (Connecticut State University System Issue) ser P-2 due 11/01/2035		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev rfdg bnds (Connecticut) (Connecticut State Univ Sys Issue) ser K dtd 06/22/2011 due 11/01/2012-20		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev rfdg bnds (Connecticut) (Connecticut St Univ Sys Issue) ser L dtd 04/04/2012 due 11/01/2012-2029		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) state supported rev bnds		
Long Term Rating	A+/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) APPROP		
Long Term Rating	A+/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) GOEQUIV		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth nsg home prog		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth (Connecticut) nsg home prog taxable		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth (Connecticut) st univ sys issue		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth rev bnds (Connecticut State Univ Sys Issue) ser D-2 dtd 03/15/2002 due 11/01/2020-2022		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth (Connecticut) univ issue		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut Hsg Fin Auth, Connecticut		
Connecticut		
Connecticut Hsg Fin Auth (Connecticut) state supported spl oblig bnds		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut)		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut)		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut)		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut) (Amt)		

Ratings Detail (As Of March 20, 2017) (cont.)		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut) (Federally Taxable)		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Hsg Fin Auth spl needs hsg mtg fin prog		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Connecticut Innovations Incorporated, Connecticut		
Connecticut		
Connecticut Innovations Incorporated (Connecticut) gen fd oblig bnds		
Long Term Rating	AA-/Negative	Affirmed
Connecticut Dev Auth (Connecticut) GO		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Waterbury, Connecticut		
Connecticut		
Waterbury (Connecticut) GO spl cap reserve fd		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed

Many issues are enhanced by bond insurance.