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

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

## Credit Profile

US\$367.0 mil GO rfdg bnds ser 2018B due 04/15/2028

<i>Long Term Rating</i>	A+/Negative	New
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US\$250.0 mil GO bnds ser 2018A due 04/15/2038

<i>Long Term Rating</i>	A+/Negative	New
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Connecticut GO

<i>Long Term Rating</i>	A+/Negative	Affirmed
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## Rationale

S&P Global Ratings has assigned its 'A+' rating and negative outlook to the State of Connecticut's \$250 million general obligation (GO) bonds (2018 series A) and \$367 million GO refunding bonds (2018 series B). At the same time, S&P Global Ratings has affirmed its 'A+' rating on the state's approximately \$18.5 billion of GO debt outstanding, its 'A' rating on state appropriation-secured debt, and its 'BBB+' rating on state moral obligation debt. The outlook on all long-term debt is negative.

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

- The state's high income levels;
- A diverse economy;
- Near structural budget balance, assuming in the next biennium the state reauthorizes a recent hospital tax, carries forward current flat funding of aid to local governments, and economic growth aligns with current projections;
- Active monitoring of revenues and expenditures to identify and correct midyear budget gaps, as exemplified by midyear budget adjustments made in fiscal years 2015, 2016, and 2017; and
- Adequate operating liquidity, despite negative generally accepted accounting principles (GAAP) general fund balances.

Offsetting factors, in our opinion, include:

- Above-average debt, high unfunded pension liabilities, and large unfunded other postemployment benefit (OPEB) liabilities, all of which create what we believe are significant and growing fixed-cost pressures that restrain Connecticut's budgetary flexibility, as evidenced by a four-month delay in enacting the fiscal 2018-2019 biennium budget. Should state tax revenue decline, or grow more slowly than currently projected, these large fixed costs will remain an impediment to solving future potential budget gaps;
- Recent population declines and slow economic growth, exacerbated by job losses in the state's well-paying financial sector, which is expected to contribute to weak revenue growth over the next several years and lead to difficult

budget-balancing decisions beyond the current biennium; and

- A history of cyclical budget performance, and a recent history of drawing down financial reserves available to cushion against the next economic downturn to a low level at the end of fiscal 2017. The state projects a one-time boost in fiscal 2018 reserves due to repatriation of hedge fund money and an acceleration of calendar 2017 income tax payments because of federal tax reform. However, we believe another drawdown of the now larger budget stabilization fund (BSF) remains likely in fiscal 2018 to solve a projected small \$198.5 million general fund midyear budget gap (1.1% of expenditures) in fiscal 2018. There also remains uncertainty regarding an upcoming April consensus revenue forecast, which will update economic trends and incorporate the effect of federal tax reform for the first time.

The state enacted a bi-partisan 2018-2019 biennium budget four months late into the fiscal year that began July 1, 2017. The delay arose from a need to close large budget gaps resulting from a combination of weak income tax revenue growth; increased pension, OPEB, and Medicaid costs; and a resistance in the legislature to additional tax increases after several rounds of tax hikes in preceding bienniums.

Resulting budget gaps were solved with the help of a new labor agreement that produced savings in the current biennium, but will also require a 3.5% wage increase in each of fiscal years 2020 and 2021, as well as prohibit layoffs for four years and extends nonwage benefit provisions to 2027. Other gap-closing measures included a new hospital provider tax, designed so that hospitals will be largely held harmless for the tax increase after the effect of increased federal reimbursements; cuts in aid to local governments (Connecticut local governments provide kindergarten to grade 12 [K-12] education); and cuts to higher education.

The state originally projected a fiscal 2018 general fund budget gap of \$2.3 billion before budget-closing actions, or a large 13% of originally projected revenue. These actions involved \$1.7 billion of increased revenues and \$675 million of decreased expenditures. Gap-closing measures included \$700.0 million of workforce savings; \$343.9 million of new revenue from the hospital provider tax resulting in \$448.4 million of increased federal reimbursements, offset by \$586.2 million in increased payments to hospitals; \$327.8 million of suspended sales tax transfers to a municipal revenue-sharing account; \$172.8 million of fund transfers into the general fund; \$159.6 million in education-related grant cuts to localities; \$68.4 million in reductions to higher education; and \$35.3 million of tobacco tax increases, among other items. Certain hospitals are litigating the validity of the new hospital provider tax, which we understand is similarly structured to comparable taxes of other states. While we do not expect the courts to rule the tax invalid, should they, the state indicates it retains the ability to introduce a different hospital tax to accomplish similar revenue goals.

Connecticut estimates one-time budgeted items in its enacted 2018-2019 budget add up to only \$173 million in fiscal 2018, or just 0.9% of revenue, which we view as essentially near structural balance, assuming no further revenue deterioration. Fiscal 2018 gap-closing actions are largely carried over to fiscal 2019. However, without reauthorization of the reductions in local aid in fiscal 2020 and a renewal of the hospital provider tax, the state currently projects a \$1.2 billion structural deficit in fiscal 2020 due to nonrecurring items. However, if these two areas were reauthorized it would lower the projected 2020 structural gap to \$371 million, or 2% of projected revenue, based on original budget projections.

Weak revenue growth since the budget enactment has opened up a new midfiscal 2018 budget gap, estimated by the state budget office at \$194.8 million, and more recently by the state comptroller at \$198.5 million, or 1.1% of expenditures. Indications are that the state legislature might delay midyear budget-closing actions until release of a new April consensus revenue forecast, which will update the current November forecast. Connecticut has indicated that the state income tax is not closely coupled with federal tax law, so it does not anticipate major direct impact to ongoing state revenue due to federal tax reform. However, the current state forecast includes \$665 million of extra one-time income tax payments in fiscal 2018 because of federal requirements to repatriate certain hedge fund money by 2017, and state residents' acceleration of income recognition into calendar 2017 to maximize federal tax deductions for state and local taxes. The budget redirects such one-time payments (certain annual income tax collections above \$3.15 billion) into its budget reserve fund. As a result, the state projects its budget reserve will rise from \$212.9 million, or what we consider a relatively low 1.2% of expenditures at fiscal year-end 2017, to \$877.8 million, or an adequate 4.7% at fiscal year-end 2018, assuming the state fully closes the projected midyear budget gap in fiscal 2018.

However, we believe that by waiting until April to close the midyear gap, time to implement midyear cuts could be limited. In light of the state's difficulties in enacting the current biennium budget, and recent history of drawing down the budget reserve, we believe there is a good probability that Connecticut will solve at least part of the current budget gap with use of the budget reserve or, through inaction, allow the reserve to be drawn down. The release of the April forecast will provide more clarity on the size of the budget gap, the effect of federal tax reform on state revenue, and the impact of a recent uptick in state economic growth.

The state calculates \$5.4 billion of combined fixed costs for debt service, pension, and OPEB in fiscal 2018, totaling 29% of budgeted general fund expenditures, a slight increase from 28% in 2017, with \$91 million of this representing additional deposits into an OPEB trust fund beyond pay-as-you-go OPEB funding. Adding in \$2.6 billion of projected 2018 Medicaid payments would bring fixed costs up to 42% of 2018 expenditures. In addition, adding \$1.3 billion of other entitlement account spending reported by the state in fiscal 2017 would bring the total fixed cost percent up to 49%. In our view, fixed costs are high and could potentially squeeze remaining unrestricted budget areas such as local aid, higher education, and to a lesser extent transportation, in the event of future budget gaps. A pension agreement with the state employee union has helped control fixed cost growth in the near term by smoothing out what would have been a potential spike in pension payments over the next few years and pushing amortization of some unfunded pension liabilities payments into later years. At the same time, it lowered the state employees' retirement system assumed rate of return to a more conservative 6.9% from 8.0% (see "Connecticut's Recent Pension Agreement With Unions Could Be Mildly Positive For The State," published Jan. 23, 2017, on RatingsDirect). The lower return assumption, as well as a drop in the teacher retirement system assumed rate of return to 8.0% from 8.5%, has had the effect of raising actuarial liabilities, offset by a strong 15.7% teachers' investment return realized for the one year through Dec. 31, 2017. The state continues to fully fund its pension funds' annual actuarially determined contribution (ADC).

The state also has recently made changes in financial procedures that could more rigidly control spending and bonding, and has placed some of these financial restrictions into future bond covenants that would take the ability to change these procedures out of the hands of future legislatures for 10 years. This could help credit quality to the extent it enhanced structural balance if reserve balances were preserved during good economic times, but could potentially

squeeze discretionary spending if fixed costs continue to escalate. The changes include placement of a spending cap into the state constitution that limits expenditure growth to the greater of the percent increase in personal income over a five-year period, or the percent increase in inflation over the previous calendar year, unless overridden by the governor and three-fifths of the legislature. The current biennium budget also directs bonds sold subsequent to May 15, 2018, to include bond covenants turning certain new statutory budgeting practices into contractual obligations for the next 10 years. These reforms include budgeting for only 99.5% of forecast revenues in fiscal 2020, with a phase down to 98.0% of revenue by 2026, transferring certain annual income tax revenue above \$3.15 billion to the budget reserve, and implementation of various bond caps, unless the governor and three-fifths of the legislature declare a financial emergency. Statutory law also now limits use of the budget reserve to instances when revenues are forecast to decline 1% or more, or if the budget reserve equals 5% or more of current-year appropriations, for the purpose of paying the unfunded past service liability of the employees' and teachers' pension systems in excess of regular contributions. By making reserve drawdowns more difficult, BSF balances might more likely be preserved for recessionary periods.

On a GAAP basis, the state had a general fund balance deficit of \$494 million at the end of fiscal 2017, the last audited year, or 2.6% of expenditures and transfers out, an improvement from a larger negative fund balance of \$614 million, or 3.3% at fiscal year-end 2016.

Despite negative GAAP balances, Connecticut projects adequate cash and has no plans for external cash flow financing. The state projects weekly total available cash of \$1.3 billion-\$3.0 billion (average balance of \$2.0 billion) in fiscal 2018, with the exception of several weeks in December when cash was drawn down for capital projects to be reimbursed from bonds whose sale was delayed by the late enacted budget.

The state still ranks first in per capita income at 141% of that of the U.S. in 2016. The economy continues to grow, although more slowly than that of the nation, despite population declines since 2014-2016, and a slow 0.3% increase in 2017. Connecticut has regained about 76% of the jobs lost in the last recession. IHS Markit forecasts real gross state product growth of 2.3% in 2018, 1.9% in 2019, and 1.5% in 2020, levels slightly below those of the nation. Loss of jobs in the well-paying financial sector has contributed to revenue weakness, but the remaining above-average proportion of jobs in this sector still represents a wealthy tax base, and financial sector employment started to grow slowly again in 2017. State defense industries could also do well if federal defense spending escalates. Connecticut retains legal authority to make cuts in local aid, although further large cuts may be politically difficult. The state has been making full actuarial pension contributions for six years, and has been operating with near structural balance, despite the need for multiple midyear budget corrections.

At the same time, we view state long-term liabilities as high and growing. We calculate tax-backed debt at 9.5% of personal income at fiscal year-end 2017, the last audited fiscal year, and unfunded pension liabilities are also high at 14.0% of personal income as of a 2017 Governmental Accounting Standards Board (GASB) 67 basis, while the state's combined pension-funded ratio on a GASB basis is low at 45%, despite annual funding of the ADC. We view the state combined state employee and teacher unfunded OPEB as high at \$20.9 billion, or 8.8% of income, although it has declined and stabilized in recent years due to partial funding of an OPEB trust fund. However, state debt and pension ratios are approaching levels that could each trigger a one-notch downgrade under our state rating criteria.

We believe pending federal tax reform's disallowance of certain state and local tax deductions on federal tax returns could have a potential disproportionate effect on high tax states, such as Connecticut (see "U.S. Tax Reform: Legislation Lays Groundwork For Reshaping The Federal-State Fiscal Relationship," published Dec. 4, 2017) .

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 '2.3' to Connecticut, indicative of an 'A+'. However, we also calculate that a majority of Connecticut's debt ratios in our state scoring criteria now lie more than one-third above the level necessary to score a '4', which triggers a one-notch rating override under our state scoring criteria. At the same time, we are using the flexibility under our state criteria to rate one notch above the indicative rating of 'A', due to the likelihood that the override will no longer apply after potentially higher calendar 2017 state income and gross state product figures are released shortly by the U.S. Bureau of Economic Analysis. High state debt levels also reflect a lack of active county debt issuance, compared to that of other states, which leaves combined state and local debt levels closer to the national average.

## Outlook

The negative outlook represents a one-in-three chance we could lower the rating during our two-year outlook horizon. The outlook also reflects what we believe to be increasing constraints on achieving long-term structural balance, highlighted by Connecticut's delay in enacting a fiscal 2018-2019 biennium budget. These budget constraints include revenue weakness because of slow economic growth and recent population decline and reduced revenue-raising flexibility after the state instituted substantial tax increases in the past two biennium budgets.

We believe several recent high profile relocations of various business headquarters out of state have reduced political willingness for further broad-based tax increases. At the same time, we believe there is less expenditure flexibility following implementation of new constitutional spending caps; reductions in state aid to localities; implementation of a recent labor agreement that reduced costs, but also created fixed pay schedules and prohibits layoffs over the next four years; and rising fixed-debt service, pension, and OPEB expenditures.

Should there be further significant midbiennium budget gaps that appear politically difficult to close, we could lower the rating. Although Connecticut has been operating with close-to-structural balance, we are concerned that potential future state aid cuts to localities could also diminish the state's long-term economic attractiveness, should the cuts materially impact local property tax rates, municipal services, or the quality of local education. However, if economic growth comes in at or above the state's budget forecast, fixed costs and rising revenues could conversely contribute to favorable operating surpluses that improve Connecticut's fiscal posture and allow us to revise the outlook on the state to stable. We could also lower the rating if we believe that the state's debt levels will continue to result in the triggering of our rating override provisions for high debt levels.

## Government Framework

The government framework--including fiscal policy and intergovernmental funding within which each state taxes, spends, and issues debt--influences Connecticut'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 constitutional expenditure cap that limits spending growth to the greater of personal income growth or the inflation rate, unless the governor declares a state of emergency, or three-fifths of each house of the legislature votes to exceed the limit due to extraordinary circumstances. The expenditure cap used to be statutory and excludes certain pension payments, debt service, municipal aid to poor localities, and federal grants and matching payments, but now is constitutional and includes this municipal aid, while phasing in pension costs under the cap in stages beginning in 2024 and excluding payments from federal grants. 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. 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 28% of 2017 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, we believe it might be politically difficult to make large municipal aid cuts, in light of the recent four-month budget impasse following large proposed cuts in municipal aid by the governor. The state has previously avoided sharp midyear reductions in these areas in recent years. (In Connecticut, municipalities are in charge of K-12 education.)

As part of the fiscal 2018-2019 biennium budget, the state is required to put certain current statutory spending limitations into bond covenants for bonds sold after May 15, 2018. The legislature has the power to delay these covenants up until the time bonds such bonds are sold; afterward they would be in place for 10 years as an essentially unbreakable contractual obligation. These provisions budgeting for only 99.5% of forecast revenues in fiscal 2020, with a phase down to 98.0% by 2026, transferring certain annual income tax revenue above \$3.15 billion to the budget reserve, and various bonding caps, unless the governor and three-fifths of the legislature declare a financial emergency.

New statutory law also limits use of the budget reserve to instances when revenues are forecast to decline 1% or more, or if the budget reserve equals 5% or more of current year appropriations of the amount in excess of 5% for the payment of unfunded past service liability of the employees' and teachers' pension systems in excess of regular contributions, unless the governor declares a state of emergency and three-fifths of the legislature agree.

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

## **Financial Management**

### **Financial management assessment: Strong**

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

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 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.

Connecticut 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 15% of general fund appropriations (raised from 10% in the recent legislative session). 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. However, the budgetary reserve was at 1.2% of expenditures at the end of fiscal 2017. The state projects one-time revenue as a result of federal tax law that will boost the reserve to 4.7% of expenditures in fiscal 2018, assuming it is not used to cover the current 1.1% midyear fiscal 2018 budget gap.

## **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 budget of the year following the next fiscal year (when the magnitude of the previous budget deficit has become fully known).

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 '2.0' to Connecticut's financial management.

## **Economy**

The state continues to maintain strong income levels, although Connecticut's population dropped for three years from 2014-2016 and its economy has been growing slowly since the Great Recession.

Connecticut experienced a 0.5% loss in population from 2013-2016, including a 0.2% loss in 2016, before a population gain of 0.3% in 2017, to 3.58 million. State population growth has been below the U.S. over the past 10 years, according to the U.S. Census Bureau. However, the state's age dependency ratio of nonworking age population-to-total population of 59.1% was slightly better than that of the nation's 61.3% in 2016.

The state's average seasonally adjusted unemployment rate in 2017 was 4.7% versus 4.4% for the U.S., according to the federal Bureau of Labor Statistics (BLS). We believe the state's economy exhibits some moderate cyclicity due to exposure to the financial sector. IHS Markit has reported that the important financial industry, with its well-paying jobs, shrank from 2008-2014, before increasing 1.1% in 2015, holding steady in 2016, and increasing 1.7% in 2017. In 2016, the well-paying financial activities sector comprised 7.7% of state payroll employment, compared with 5.7% for the nation, according to the BLS.

Other major sectors include education and health services (19.6% for the state compared with 15.7% for the U.S.); trade, transportation, and utilities (17.8% for the state, 18.9% for the U.S.); government (14.1% for the state, 15.7% for the U.S.); professional and business services (13.0% for the state, 13.9% for the U.S.); and manufacturing (9.3% for the state, 8.5% for the U.S). Key employers include Sikorsky Aircraft Corp., Electric Boat (maker of nuclear submarines), 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. Recently, General Electric decided to move its headquarters to Boston, while Aetna Inc. (which might be bought by CVS Health) announced a move of its headquarters from Hartford to New York City, which it later rescinded.

Connecticut income levels are strong in our opinion. State per capita income of \$69,311 in 2016 was 141% of that of the U.S., and GDP per capita of \$73,643 in 2016 was 129% of that of the nation. However, GDP growth has been below that of the U.S. for some time. One-, five-, and 10-year compound annual state GDP growth rates were 0.96%, 0.20%, and negative 0.28%, respectively, compared with 1.54%, 1.96%, and 1.14%, respectively, for the nation. Connecticut also experienced greater decline in GDP than the nation during the recession, although annual growth was stronger than that of the U.S. in 2007 and 2008 before the recession.

IHS Markit forecasts nominal personal income growth of 3.8% in calendar 2018, 4.6% in 2019, and 4.4% in 2020. Midyear revenue shortfalls against budget in recent years were attributable in part to a downsizing in Connecticut's forecast total personal income tax (PIT) 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 '2.2' 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. The budget reserve was \$212.9 million at fiscal year-end 2017, or 1.2% of expenditures. In fiscal 2017, the state had to make \$164 million of midyear budget corrections, primarily due to weak income tax growth in capital gains, and ended afterward with a small \$22.7 million operating deficit, covered by a transfer from the state's BSF. However, the state projects that the budget reserve will be built up to \$877.8 million, or 4.7% of expenditures in fiscal 2018 due to diversion of one-time "excess" income tax as the result of federal tax law, assuming that there are no draws to meet mid-2018 fiscal budget gaps.

Connecticut originally estimated it would need to close a fiscal 2018 general fund budget gap of about 13% of revenues before budget-closing actions. Since then, a new labor agreement and cuts to local aid and higher education have decreased costs. The new labor agreement cuts employee benefits and freezes salaries for two years and provides significant 2018-2019 biennium budget savings. However, in our view it reduces state expenditure flexibility by also prohibiting layoffs through fiscal 2021 and locking in 3.5% salary increases in each of fiscal years 2020 and 2021, although the state could still somewhat reduce labor costs through attrition. Since then, the state comptroller has forecast a new fiscal 2018 budget gap of \$198 million.

State statutes authorize the BSF's maximum level at 15% of general fund appropriations (raised from 10% in the last legislative session). However, at fiscal year-end 2017, the BSF held an amount equal to about 1.2% of 2017 general fund spending, and we believe there is a significant likelihood that the reserve will get drawn partially down again to meet fiscal 2018 midyear budget gaps, following the one-time boost in reserves in fiscal 2018 because of federal tax law.

We consider Connecticut's liquidity good. The state reported a total cash position of \$3.7 billion as of March 10, 2018. Connecticut projects a weekly cash position that runs throughout each current fiscal year, and currently projects from \$1.3 billion-\$3.0 billion in week ending cash for the remainder of fiscal 2018.

The state sold \$560 million in 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 Connecticut to transition into GAAP-based budgeting. However, fiscal 2017 showed a large increased divergence between budgetary unreserved fund balances (\$116.1 million) and the GAAP unreserved balance (negative \$821.1 million), primarily due to increased payables not recognized under budgetary accounting. As part of proposed fiscal 2018-2019 budget balancing proposals, certain costs relating to the transition to GAAP have been delayed.

In previous years, Connecticut had been able to access external debt markets to sell deficit funding bonds 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, 51% of fiscal 2017 total general fund revenues were derived from PIT, while 24% came from sales tax.

The state has 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 that fiscal year 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. Fiscal 2017 ended with a \$22.7 million general fund operating deficit, or 0.1% of expenditures. We anticipate that the state will make a combination of budget adjustments and budget reserve drawdowns to meet its currently forecast \$198 million mid-2018 budget shortfall.

Connecticut uses consensus revenue forecasting 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. Connecticut's deficit financing economic recovery notes from the last recession matured on Jan. 1, 2018, relating to an original deficit financing of \$915.8 million in 2009. 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. Fiscal 2017 ended with a 1.2% balance.

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 estimated only about 2% of fiscal 2017 revenues consisted of one-time items following passage by the legislature of midbiennium revisions, but estimates one-time budget items of only 0.9% of budget in fiscal 2018.

The 2018-2019 consensus revenue forecast projects an economic growth rate of 2.1% for PIT in fiscal 2018 for withholding, and negative 1.5% for estimates and finals (including capital gains tax), compared with IHS Markit's projected personal income growth forecast of 2.8% for the full calendar 2017 and 3.8% in calendar 2018. PIT has been particularly difficult to forecast in recent years due to the progressive nature of the state income tax, the dependence on top taxpayers, and the proportion of variable capital gains tax realized by top taxpayers. Connecticut has attributed recent years' less-than-forecasted revenue largely to fluctuation in capital gains tax. In our view, a degree of dependence on top taxpayers, who contribute a greater share of capital gains tax, adds to cyclicity. The state estimates that millionaires comprising 0.7% of income tax filers contributed 26.4% of total state income tax collections in 2016.

A positive inclusion in budgets since fiscal 2012 has been full funding of the annual actuarially required state retirement system pension contribution, which we calculate at a relatively low 46% on a combined actuarial GAAP basis, using GASB 68 accounting as of the last 2017 GASB valuation. Recent, more conservative actuarial return assumptions have lowered funded ratios. The state employees system currently assumes a 6.9% return assumption, in conjunction, however, with what we see as an aggressive payroll growth assumption of 3.5% per year and a static mortality projection. The teachers' retirement system has also lowered its assumed rate of return to 8.0% from 8.5%.

On a GAAP basis, the most recent audited fiscal year (2017) ended with a \$120 million improvement in the total general fund balance position (which includes the BSF) to a still negative \$494 million, or negative 2.6% of general fund expenditures and transfers out. The unreserved general fund balance was negative \$821.1 million.

On a scale from '1.0' (strongest) to '4.0' (weakest), S&P Global Ratings assigned a score of '2.0' 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 \$23.6 billion in GO and tax-supported debt at fiscal year-end 2017 puts the state's total tax-supported debt per capita at about \$6,591, a level we consider high. Debt levels have been rising, although we expect them to stabilize as the state reaches its debt cap, and GO debt has declined temporarily recently due to lack of debt issuance because of the delayed budget. We calculate debt to personal income as high at 9.5% at fiscal year-end 2017, using 2017 debt and 2016 reported personal income, and tax-supported debt service also high at 14.1% 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, 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, although the transportation program could also be cut back if new transportation-related revenue is not approved.

On a positive note, at fiscal year-end 2017 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 9% of state GO debt outstanding consisting of variable-rate debt. The state has only a low \$20 million exposure to swap agreement risk in our opinion. It recently sold a \$300 million variable-rate direct placement GO bond, and a \$135 million direct placement variable-rate GO refunding. However, we do not believe the direct placement debt poses a significant contingent risk, as it does not allow debt acceleration in the event of a default.

On a combined basis, the state's retirement systems had a 45.7% GASB 68-funded ratio at fiscal year-end 2017, improved from 41.4% at fiscal year-end 2016 because of the result of strong investment returns in the most recent year.

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 compared to the state's actuarial report. The State Employees' Retirement Fund (SERF) has recorded a significant net pension liability of \$21.1 billion and a 36.3% GASB 68-funded ratio as of June 30, 2017, improved from 31.7% the year before in part due to a 14.3% fiscal 2017 investment return, and the teachers' system had a net pension liability of \$13.5 billion and a 55.9% GASB 68-funded ratio as of June 30, 2017, up from 52.3% the year before.

The state has also released non-GAAP actuarial reports as of a June 30, 2017, valuation. The actuarial valuations, using a market valuation of assets, show the five-year pension investment returns have been 8.8% through June 30, 2017. The report also shows that SERF's higher unfunded liabilities, as a result of the lower rate of return assumption, were offset to some degree by a change to a longer 25-year amortization period for the unfunded liability from 17 years. This change to the amortization period will go into effect for the fiscal year ending June 30, 2018.

Connecticut did not fund the full actuarial annual required contribution (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 because of the recent agreement (see "Connecticut's Recent Pension Agreement With Unions Could Be Mildly Positive For The State," published Jan. 23, 2017). As a result of previous underfunding, investment underperformance, and implementation of a more conservative actuarial return assumption, unfunded liabilities to personal income is what we view as high at 13.9%, although improved from 15.0% the year before due to strong investment performance.

The state's pension bond sale in 2008 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. The state has discussed pledging state lottery revenue toward the teachers' pension system with a view to pushing out amortization of unfunded pension liabilities, without breaking bond covenants.

Connecticut's OPEB liability is significant compared with that of other states (see "U.S. State Retiree Medical And Other Postemployment Benefit Liabilities Keep Rising As States Prioritize Other Obligations," published Oct. 18, 2017), but recent actions to reduce the liability and pre-funding of an OPEB trust have resulted in a relatively stabilized unfunded liability. The combined net OPEB liability was \$20.9 billion for the combined OPEB in the most recent SERF and teachers' valuations as of June 30, 2017, or \$5,814 per capita, of which the state employees' net OPEB liability alone was \$17.4 billion. Connecticut's OPEB trust funds have a relatively small combined fiduciary net position of \$606 million, but the state is scheduled to make increased contributions in fiscal 2018, beginning with an estimated \$120.0 million step-up matching contribution to the OPEB trust fund equal to increased employee contributions. The state contributed a total of \$667.4 million, or 65% of the actuarial annual OPEB cost for the state employees system in fiscal 2017 on a GASB basis, or \$711.2 million on a state budgetary basis.

The unfunded state employee OPEB liability had been a larger \$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 state reformed its OPEB system, OPEB costs had been forecast 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' net OPEB liability alone was \$3.6 billion as of June 30, 2017, with a fiduciary net position of only \$63.4 million in the 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.

<b>Connecticut--General Fund Financial Summary</b>						
	<b>--Fiscal year ended June 30--</b>					
<b>(Mil. \$)</b>	<b>2019p</b>	<b>2018p</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>General fund (GF)--audited GAAP basis</b>						
Revenue	N/A	N/A	18,502	18,215	17,954	17,400
Expenditures	N/A	N/A	17,138	17,444	16,936	16,591
Transfers in	N/A	N/A	394	177	206	460
Transfers out	N/A	N/A	1,641.0	1,375.0	1,375.0	(1,215)
Other	N/A	N/A	4.0	3.0	3.0	703.0
Net result	N/A	N/A	121.0	(424)	(148)	547.0
Total GF GAAP balance	N/A	N/A	(494)	(614)	(190)	(41)
as % of GF expenditures and transfers out	N/A	N/A	(2.6)	(3.3)	(1.0)	(0.3)
Budget reserve fund (included in total fund balance)	N/A	N/A	213	236	406	519
as % of GF expenditures and transfers out	N/A	N/A	1.1	1.3	2.2	3.4
<b>GF--budgetary basis of accounting*</b>						
Revenue	18,625	18,497	17,703	17,781	17,282	17,608
Net expenditures	18,791	18,692	17,726	17,951	17,395	17,360
Operating surplus	(166)	(195)	(23)	(170)	(113)	249.0
Net operating surplus % of net expenditures*	(0.9)	(1.0)	(0.1)	(0.9)	(0.6)	1.4
Budget reserve fund	472	638*	213	236	406	519
Budget reserve as % of net expenditures	2.5*	3.7*	1.2	1.3	2.3	3.0
<b>Tax-backed debt</b>						
GO debt	N/A	N/A	18,399	17,395	16,403	15,282
Transportation fund debt	N/A	N/A	5,042	4,520	4,090	3,771
Other tax-backed debt	N/A	N/A	208	385	555	618
Total tax-backed debt	N/A	N/A	23,649	22,300	21,048	19,671
State population (mil.)	N/A	N/A	3,558,184	3,576,452	3,584,733	3,351,873
Tax-backed debt per capita	N/A	N/A	6,646	6,235	5,872	5,869

\*February state OPM forecast for fiscal 2018 and January revenue forecast for fiscal 2019 based on original fiscal 2018-2019 biennium budget, excluding potential fiscal 2018-2019 mid-biennium adjustments; budget reserve includes one-time transfer in during fiscal 2018 of \$665 million "excess" income tax from acceleration of payments due to federal tax reform, which is not included in 2018 revenue. OMP--Office of Policy and Management. p--Projected. GAAP--Generally accepted accounting principles. GO--General obligation. N/A--Not applicable.

Ratings Detail (As Of March 20, 2018)		
Connecticut Hlth & Ed Fac Auth		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut approp		
<i>Long Term Rating</i>	A/Negative	Affirmed
Connecticut GO		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut GO		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut GO		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut GO		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO bnds ser 2016C due 05/15/2034		
<i>Long Term Rating</i>	A+/A-1/Negative	Affirmed
Connecticut GO bnds ser 2016E due 10/15/2017-2029, 2032-2036		
<i>Long Term Rating</i>	A+/Negative	Affirmed
<i>Unenhanced Rating</i>	NR(SPUR)	
Connecticut GO (AGM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SECMKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SECMKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SECMKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
Connecticut GO (AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed





**Ratings Detail (As Of March 20, 2018) (cont.)**

Connecticut GO		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut GO		
<i>Long Term Rating</i>	A+/Negative	Affirmed
<b>Connecticut GO</b>		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
<b>Capital City Economic Dev Auth, Connecticut</b>		
Connecticut		
Capital City Economic Dev Auth (Connecticut) GOEQUIV		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Capital City Economic Dev Auth (Connecticut) GOEQUIV		
<i>Long Term Rating</i>	A+/A-1/Negative	Affirmed
<b>Connecticut Hlth &amp; Educl Facs Auth, Connecticut</b>		
Connecticut		
Connecticut Hlth & Educl Facs Auth (Connecticut) rev bnds (Child Care Facs Prog) (ASSURED GTY)		
<i>Unenhanced Rating</i>	BBB+(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		
<i>Long Term Rating</i>	A+/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		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev rfdg bnds (Connecticut) (Connecticut State University System Issue) ser P-1 due 11/01/2036		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) rev rfdg bnds (Connecticut) (Connecticut State University System Issue) ser P-2 due 11/01/2035		
<i>Long Term Rating</i>	A+/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		
<i>Long Term Rating</i>	A+/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		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) state supported rev bnds		
<i>Long Term Rating</i>	A/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) APPROP		
<i>Long Term Rating</i>	A/Negative	Affirmed
Connecticut Hlth & Educl Facs Auth (Connecticut) GOEQUIV		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth nsg home prog		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hlth & Ed Fac Auth (Connecticut) nsg home prog taxable		
<i>Long Term Rating</i>	A+/Negative	Affirmed

**Ratings Detail (As Of March 20, 2018) (cont.)**

Connecticut Hlth & Ed Fac Auth (Connecticut) st univ sys issue		
<i>Long Term Rating</i>	A+/Negative	Affirmed
<b>Connecticut Hlth &amp; Ed Fac Auth rev bnds (Connecticut State Univ Sys Issue) ser D-2 dtd 03/15/2002 due 11/01/2020-2022</b>		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
<b>Connecticut Hlth &amp; Ed Fac Auth (Connecticut) univ issue</b>		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
<b>Connecticut Hsg Fin Auth, Connecticut</b>		
Connecticut		
Connecticut Hsg Fin Auth (Connecticut) state supported spl oblig bnds		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut)		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut)		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut)		
<i>Long Term Rating</i>	A+/Negative	Affirmed
Connecticut Hsg Fin Auth (Connecticut) state-supported spl oblig bnds (Connecticut) (Amt)		
<i>Long Term Rating</i>	A+/Negative	Affirmed
<b>Connecticut Hsg Fin Auth spl needs hsg mtg fin prog</b>		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed
<b>Connecticut Innovations Incorporated, Connecticut</b>		
Connecticut		
Connecticut Innovations Incorporated (Connecticut) gen fd oblig bnds		
<i>Long Term Rating</i>	A+/Negative	Affirmed
<b>Connecticut Dev Auth (Connecticut) GO</b>		
<i>Unenhanced Rating</i>	A+(SPUR)/Negative	Affirmed

Many issues are enhanced by bond insurance.

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