

RatingsDirect®

State of Delaware; Appropriations; General Obligation

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State of Delaware; Appropriations; General Obligation

Credit Profile		
US\$250.0 mil GO bnds ser 2019 due 02/01/2039		
Long Term Rating	AAA/Stable	New
Delaware GO		
Long Term Rating	AAA/Stable	Affirmed

Rationale

S&P Global Ratings has assigned its 'AAA' rating, and stable outlook, to the State of Delaware's series 2019 general obligation (GO) bonds. At the same time, S&P Global Ratings affirmed its 'AAA' rating, with a stable outlook, on Delaware's GO debt outstanding and its 'AA+' long-term rating, and stable outlook, on the state's appropriation debt outstanding.

The series 2019 bonds are secured by the general obligation of the state and its full faith and credit pledge.

The 'AAA' rating on the state reflects what we view as Delaware's:

- Strong financial and budget management;
- Relatively diverse economy, which continues to expand at a modest pace and in line with national trends;
- Consistently strong general fund reserves and liquidity even during recessionary periods;
- Moderate overall debt burden, with what we consider strong debt management policies in place; and
- Well-funded pension system and implementation of reforms in past years in addressing other postemployment benefits (OPEB) liabilities, which are significant.

Gov. Carney's recommended general fund operating budget for fiscal 2020 totals \$4.4 billion, limits operating budget growth to 3.8%, and sets aside an additional \$92.1 million beyond the state's constitutionally required annual operating appropriation limit of 98% of estimated budgetary general fund revenues and the previous year's unencumbered budgetary general fund balance. Operating growth of 3.8% complies with Executive Order 21, signed June 30, 2018, that requires the Delaware Economic and Financial Advisory Council (DEFAC) to calculate an advisory benchmark for appropriation growth based on three years of personal income and population growth within the state. We view efforts in recent years to implement spending controls positively. However, in our opinion, 3.8% expenditure growth is somewhat high given that it outpaces projected revenue growth of 2.1% (\$94 million) from fiscal 2019 according to the latest DEFAC projections from December 2018. In addition, S&P Global Ratings expects the pace of economic growth for the states sector to decelerate in 2019. For more information, please see "U.S. State Sector 2019 Outlook: Caution - Slower Speeds Ahead," published Jan. 8, 2019, on RatingsDirect. Given these growth rates, the recommended budget projects a \$106.5 million operating deficit (2.3% of total ordinary expenditures) cured by using the state's strong prior

year's cash balance. The proposal fully funds the rainy-day fund at \$240.4 million, or a good 5.2% of general fund operating expenditures.

Delaware's enacted fiscal 2019 budget totaled \$4.2 billion and limited operating budget growth to 3.99% while the latest DEFAC projections from December 2018 project 1.7% growth over actual collections for fiscal 2018.

In our opinion, Delaware has historically exhibited what we view as prudent fiscal management and we expect this trend to continue. In years past, the state has made difficult decisions to restore budget balance when necessary while managing surpluses to retain structural budget balance. Its fiscal 2018 enacted operating budget totaling \$4.2 billion (including grants in aid and dedicated cash to the bond and capital improvement acts) closed a \$386 million shortfall as of March 2017 (9.2% of expenditures) through a majority of recurring measures.

The DEFAC's estimates as of December 2018 made minor adjustments to projected revenues compared with the council's previous forecast in September 2018. The latest projections show slightly increased revenues in fiscal 2019 and fiscal 2020 at 1.3% and 0.1%, respectively. The forecast for fiscal 2021 was reduced by 0.1%.

Overall economic performance has been historically stable, in our view. However, economic growth is forecast to be somewhat limited in the next four years as GDP growth is forecast below national levels according to IHS Markit. From 2019 to 2022, average real gross state product growth is expected to be 1.6% for the state, which is under the 1.9% for the U.S. For the same time period, the state's average employment growth is expected to mirror the nation's growth rate at 0.8%. Delaware's labor force returned to its pre-recessionary peak at the end of 2014, ahead of IHS Markit's projections, primarily due to strong growth in professional and financial activities jobs. The state is somewhat concentrated in financial services jobs with 4.8% more jobs in this sector compared to the national average, which we believe exposes Delaware to some risk. However, we understand there has been diversification within this sector. The state's unemployment rate has been consistently below the nation's rate for the past 20 years although it rose slightly above the national average for 2017 (4.6% for the state compared to 4.4% for the nation). As of December 2018, the state's unemployment rate is below the U.S. (3.7% for the state compared to 3.9% for the nation).

Beyond the near term, the state faces a significant OPEB liability that has grown despite past reform efforts. As it stands, Delaware's net OPEB liability (NOL) as of the June 30, 2018, under Governmental Accounting Standards Board (GASB) Statement No. 74 reporting, is \$7.2 billion, which we consider significant. This amount is 4.5x higher than the \$1.6 billion state share of the aggregate net pension liability of the state's pension plans (which are well funded in our opinion). On a per-capita basis, we estimate the unfunded liability to be \$7,460 and rank it among the highest in the nation. Applying the 90.4% proportionate share disclosed for fiscal 2017 to the fiscal 2018 collective NOL shows the state is directly responsible for approximately \$6.5 billion of this liability, an amount that we still consider high. Reform efforts included pre-funding the obligation in 2002 and 2003 with lump sum payments and establishing an OPEB trust in 2007--the funded ratio for this trust is currently very low, in our opinion, at 5.0% under GASB Statement No. 74 reporting. Additional reforms to curb the state's liability included plan modifications in 2011 and shifting the costs of retiree pharmacy benefits to the Centers for Medicare and Medicaid Services in 2013.

Although we understand there are no immediate plans to implement additional OPEB reforms, we believe it is possible the state could begin to take additional action to address this liability.

We anticipate that the state will continue to address its OPEB liabilities, which have grown at a rapid pace in recent years, in an effort to curb the long-term liability. Delaware has reported year-over-year growth in excess of 15% in two out of the past four years: 16% in 2017 and 19% in 2016. While the liability decreased from fiscal 2017 to fiscal 2018, we note this was primarily due to an increase in the Bond Buyer GO 20-Bond Municipal Bond Index-- the discount rate utilized under GASB 74. In our view, inaction in addressing this liability over our two year outlook horizon could affect the state's credit quality.

The state successfully implemented reform and made various changes to benefits in previous years to actively manage the estimated liability. In our view, OPEB plans that operate on a pay-as-you-go basis (such as Delaware's) effectively defer contributions until the moment benefits are due. As unfunded OPEB liabilities grow, contributions in the future can be expected to escalate. We believe the state's ability to effectively manage its OPEB liability will be an important credit factor over time.

Delaware's pension liabilities are average, in our view, with what we consider a good three-year average funded ratio of 83.0% across the five pension plans for which the state reports liability. In addition, the state's unfunded liability compared with income and population is moderate in our view. We consider the funding discipline of Delaware's pension plans to be adequate. State contributions to four of its five pension plans are determined on an actuarial basis with contributions historically meeting 100%, which we view as positive. The closed state police plan is funded on a pay-as-you-go basis given the only minimal plan assets, although actual contributions met actuarially determined levels in fiscal 2016. We also note that aggregate annual plan contributions for the pension system were under our calculation of amounts necessary for the plans to cover a portion of the amortization in unfunded liability as well as certain cost drivers of the annual change in the liability. We believe this could also weaken the strength of the state's pension liability profile over time.

S&P Global Ratings considers Delaware's debt ratios moderate. State-supported GO debt was approximately \$1.5 billion as of June 30, 2018, excluding \$501 million, which is supported by the local school districts. Total tax-supported debt in fiscal 2018, including GO, transportation, and appropriation obligations, is moderately high relative to that of state peers, at \$2,513 per capita and 5.1% of personal income. We estimate total tax-supported debt service carrying charges, after excluding the local school district support, were a moderate 5.7% of governmental spending in fiscal 2018. Debt amortization is rapid, in our opinion, with about 67% of state-supported debt scheduled to retire in the next 10 years. Delaware has focused its attention on reducing debt over time with clearly defined debt affordability parameters and a commitment to cash-funding capital projects, especially when the economy is performing well. We believe that this and rapid amortization of principal outstanding will contribute to a stable debt profile.

In recent years, Delaware has faced several lawsuits in regard to its claim to certain abandoned properties. The state is currently litigating claims involving 30 states that allege Delaware improperly accepted certain abandoned property that should have been escheated to those other states. In an attempt to avoid multiple, duplicative complaints, the state filed a Bill of Complaint in the U.S. Supreme Court on May 27, 2016. The complaint seeks to resolve the open district court matters and avoid future, similar litigation from other states. However, on June 9, 2016, 21 states filed suit against Delaware in the U.S. Supreme Court for the very same issue, with an estimated \$162 million asserted against Delaware. The state reports that any resolution is likely to be at least a year away. As of Nov. 29, 2018, the

state's potential aggregate litigation exposure (across multiple claims) could exceed \$203.9 million. In addition, there is ongoing litigation related to the state's abandoned property in the U.S. District Court; however, officials report it creates no financial exposure to the state. In our opinion, abandoned property revenues are a significant revenue source for the state—in fiscal 2019 they are expected to be Delaware's third-largest revenue source (behind personal income taxes and franchise taxes). Estimated net abandoned property revenues of \$554 million in fiscal 2019 represent 12.4% of total general fund revenues. The state reports that the fiscal 2018 operating budget rewrote Delaware's unclaimed property laws to align them with other states.

In terms of other litigation, an ongoing lawsuit filed in January 2018 alleges, among other claims, that Delaware has failed to provide appropriate funding for certain categories of students with an adequate education, violating the state's constitution. Currently, the state allocates its share of public education funding to school districts, based on a formula dependent mostly on enrollment. Officials report it is unknown how the ruling could affect the state's funding for public education.

S&P Global Ratings considers Delaware's management practices strong under its Financial Management Assessment (FMA) methodology. An FMA of strong indicates that practices are strong, well-embedded, and likely sustainable. The state's financial management highlights include regular general fund revenue and expenditure reports, multi-year revenue forecasting, a formal general fund reserve policy, and formal statutory debt affordability issuance guidelines. Delaware has implemented various debt management policies to decrease its debt burden and limit bond issuance. These measures have reduced the state's debt level despite the broad role it maintains in funding capital requirements for education, transportation, and corrections.

Delaware's bonds are eligible to be rated above the sovereign because we believe the state can maintain better credit characteristics than the U.S. in a stress scenario. Under our criteria "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions" (published Nov. 19, 2013), U.S. states are considered to have moderate sensitivity to country risk. State-derived revenues are the sole source of security on the bonds, and the institutional framework in the U.S. is predictable with significant state autonomy and flexibility.

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 '1.6' to Delaware. We have notched up to 'AAA' as allowed as per our state rating methodology criteria reflecting our view of the state's strong fiscal management including timely budget adjustments informed by frequent revenue forecasts (conducted six times per year) and Delaware's history of structural solutions when faced with a shortfall. In addition, the state has managed a stable reserve profile over multiple economic cycles; no funds have been withdrawn from the budget reserve account since its inception in 1980. It also reflects the state's position and income generation from Delaware's business-friendly legal system; the state is home to more than half of all publicly traded firms in the U.S. We believe Delaware's credit profile remains in line with comparable 'AAA' rated peers.

Outlook

The stable outlook reflects what we view as Delaware's strong fiscal management that has allowed the state to

proactively manage its budgets and has been key to the state's credit stability. We believe this will be an important consideration over our two-year outlook horizon. In addition, strong management will be essential to control the state's OPEB liabilities, which are significant in our view. The outlook also reflects the state's healthy reserve and liquidity position, which has been relatively stable over a range of economic cycles. We believe Delaware's strong reserve position adds cushion to the state's budgetary position and note that no funds have been withdrawn from the budget reserve account since its inception in 1980, which we believe is evidence of strong fiscal management.

Downward pressure to the rating could arise from inaction in addressing the state's elevated OPEB liabilities over our two-year outlook horizon, which, absent meaningful reform, we expect will continue to grow requiring increasing pay-as-you-go contributions. We could also lower the rating if the state's budget were to become significantly pressured or structurally imbalanced--stemming from elevated retiree healthcare liabilities, soft revenues, or other factors--to a degree we feel is not commensurate with the rating level. In addition, we could take a rating action if we believe weakened long-term economic trends expose the state to challenges uncharacteristic of the rating level or if the state's reserve position were to decline precipitously due to revenue softening or the outcome of current litigation surrounding the abandoned property program--which is a large revenue source for Delaware.

Government Framework

In our opinion, Delaware has a strong government framework. Due to well-established policies, the state has maintained what we view as a solid financial position, especially during recessionary periods, including the recent recession. The Delaware Constitution requires that the governor submit a balanced budget to the general assembly annually. Although there is no legal requirement to maintain a balanced budget during the year, DEFAC's frequent revenue and expenditures updates allow for timely adjustments. State statute provides the executive branch with the authority to make necessary adjustments after providing for the payment of principal and interest on Delaware's bonds, notes, or revenue notes. The state cannot carry forward operating deficits.

A constitutionally required annual operating appropriation limit of 98% of estimated budgetary general fund revenues and the previous year's unencumbered budgetary general fund balance support the government framework. The state has what we regard as considerable revenue-raising ability; it can increase income tax and license fees as well as implement the imposition or the levy of new taxes or license fees with the concurrence of three-fifths of all members of each house.

Public and higher education, and health and social services are the state's leading expenditures, accounting for 69% in the fiscal 2019 budget. Delaware currently pays 60%-80% of public school capital improvements on approval by the state board of education, with the school district paying the difference. As debt service becomes due, the school districts are required to pay debt service into the state's budgetary general fund from their tax receipts; then the state pays the total debt service from its budgetary general fund appropriations.

If Delaware fails to make sufficient provisions to pay principal and interest on any of the bonds, or if sufficient funds are unavailable at the time an amount is payable, state law requires the state treasurer to set apart a sum to pay principal and interest from the first revenues thereafter received by the state. Delaware does not permit for initiatives

or referendums at the state or local level, and is the only state that does not require popular approval of constitutional amendments.

On a four-point scale, where '1.0' is the strongest and '4.0' is the weakest, S&P Global Ratings has assigned an overall score of '1.4' to Delaware's governmental framework.

Financial Management

Delaware's constitution, statutes, and internally developed policies guide the state's overall financial and budget management. Policy improvements have been made continuously and the state's track record of adhering to policies has been what we consider strong. S&P Global Ratings considers Delaware's management practices strong under its FMA methodology. An FMA of strong indicates practices are strong, well-embedded, and likely sustainable.

Key policies include:

- The regularly updated DEFAC general revenue and budget forecasts for current and future fiscal years, along with an annual DEFAC report that outlines current and subsequent fiscal-year performance and estimates;
- A constitutionally required annual operating appropriation limit of 98% of estimated budgetary general fund revenues and the previous year's unencumbered budgetary general fund balance;
- A constitutionally required general fund budget reserve account funded at 5% of budgetary general fund revenues to provide flexibility against any unexpected revenue declines;
- A cash management policy board that sets formal state investment policies and regularly monitors investments;
- Well-established debt management policies, including a three-part statutory debt affordability limit; and
- Multi-year revenue forecasts updated throughout the fiscal year with a less formal process for general operating expenditures.

Delaware maintains a traditional multi-year capital improvement program. The state fully outlines its annual capital requirements in the annual capital budget, but officials make internal cost estimates for capital projects they expect to span multiple years.

The three-part statutory debt affordability limit includes the following:

- New tax-supported debt authorizations in any one fiscal year cannot exceed 5% of estimated net budgetary general fund revenue for that fiscal year.
- No new tax-supported debt and no transportation authority debt can be issued if the total maximum annual debt service (MADS) on debt outstanding exceeds 15% of estimated budgetary general fund revenues and transportation trust fund revenues for the fiscal year succeeding the fiscal year in which such debt is issued.
- No new state GO debt can be issued if, in any fiscal year, the MADS on existing GO debt exceeds the estimated cash balances, including all reserves, for the fiscal year subsequent to the fiscal year in which the debt is issued.

Budget Management Framework

An executive order mandates DEFAC to submit budgetary general fund and transportation trust fund revenue forecasts to the governor and the general assembly six times a fiscal year--in September, December, March, April, May, and June--for the current fiscal year and the succeeding two fiscal years. Delaware uses these forecasts in the state budget process to ensure compliance with constitutional spending limits and statutory debt limitations. The state has a strong track record of implementing adjustments as needed.

On a four-point scale, where '1.0' is the strongest and '4.0' is the weakest, S&P Global Ratings has assigned an overall score of '1.0' to Delaware's financial management.

Economy

Delaware is bordered by Maryland, New Jersey, and Pennsylvania. In our opinion, the state has significant competitive advantages compared with other states, including: its geographic proximity to New York City, Philadelphia, Baltimore, and Washington DC; its above-average share of highly skilled scientific and technical workers; a critical mass of chemical, pharmaceutical, and biomedical companies; modest but steady population growth; a low cost of living; and a favorable regulatory climate. That said, IHS Markit forecasts that the state's momentum will slow and average employment growth will be just 0.82% from 2019-2022. Furthermore, gross state product and real personal income will average gains of 1.6% and 4.4%, respectively, over this period.

We believe Delaware's economy is relatively diverse following several decades of active economic development at the state level. Economic development initiatives have included targeted statutory and tax policy changes to encourage financial sector, business services, pharmaceutical, and biotech expansion, and have reduced the state's reliance on traditional manufacturing. Although Delaware lost several large manufacturing firms during the recession, many of the sites have been acquired and are undergoing redevelopment.

The state has made significant investments in the Port of Wilmington through expansion and privatization. With a central location on the east coast, the port employs around 2,000 people and is one of the largest importers of containerized bananas and other fruit in the world. In addition, the port regularly handles specialized cargo such as wind turbines, rocket booster cores, and livestock. In 2016, the Diamond State Port Corp. (DSPC), a membership corporation with the Department of State, purchased a new site north of the existing port for the development of a new container terminal. In October 2018, DSPC finalized an agreement on a 50-year port lease with GT USA Wilmington LLC in which GT retains the right to commercially redevelop and operate the port while DSPC receives an annual concession fee. GT is expected to invest \$250 million in the new site over five years and \$60 million in the existing port over three years.

State income levels remain in line with the national average. At \$49,673 per capita, the 2017 personal income was 96% of the national level. The largest sectors in the state's economy, as of 2017 data, were trade, transportation, and public utilities (18.8% of nonfarm payrolls); education and health services (15.8%); government (15.5%); and professional and business services (13.9%). Delaware's financial activities remain significantly higher than that of the U.S. as a whole at

10.5% versus 5.7% for the nation. Within the sector, Delaware has positioned itself to attract financial technology business and employment in this space has begun to build out; Capital One and JPMorgan Chase are building tech teams in the state.

On a four-point scale, where '1.0' is the strongest and '4.0' is the weakest, S&P Global Ratings has assigned an overall score of '1.8' to the state's economic factors.

Budgetary Performance

Delaware's tax and revenue structure is broad, in our opinion. The general fund relies on tax revenues from personal income and corporate income, as well as a corporate franchise tax; business and occupational gross receipts; a bank franchise tax; realty transfers; and cigarette taxes, among others. Additional significant general revenue streams include abandoned property and lottery receipts. Delaware does not levy ad valorem taxes on real or personal property and does not impose a general sales or use tax. The budget reserve account has been a stabilizing factor to the state's overall financial profile and liquidity. The budget reserve account, or rainy-day fund, is funded at 5.5% of estimated budgetary general fund revenues. Officials can appropriate this money only with the approval of a three-fifths vote of the members of each house of the general assembly, and they can only use the money to fund an unexpected budgetary deficit or to provide funds required due to the enactment of legislation reducing revenue. Officials have not withdrawn any funds from the budgetary reserve account since its inception in 1980. In addition, Delaware has the authority to inter-fund borrow from special funds, which are available to meet the state's liquidity needs; Delaware has not needed to issue external revenue anticipation notes for liquidity since fiscal 1977.

Delaware's enacted fiscal 2019 budget totaled \$4.2 billion and limited operating budget growth to 3.99% while the latest DEFAC projections from December 2018 project 1.7% growth over actual collections for fiscal 2018, complying with the state's constitutionally required annual operating appropriation limit of 98% of estimated budgetary general fund revenues and the previous year's unencumbered budgetary general fund balance. In our opinion, the budget expenditure growth is somewhat high given that it outpaces projected revenue growth of 1.7% (\$76.5 million) from fiscal 2018 to fiscal 2019 according to the latest DEFAC projections from December 2018. The budget uses higher-than-anticipated revenues for the fiscal year to fund one-time spending and bond issuances for a variety of projects including transportation, school construction, and environmental projects and fully funds the rainy-day fund at \$236.3 million, or a good 5.5% of general fund operating expenditures.

The state closed its fiscal 2018 year with an increased budgetary balance after reporting declines in fiscal 2017 on both a budgetary and a generally accepted accounting principles (GAAP) basis. Delaware reports that, on a budgetary basis, the general fund's operating cash balance for fiscal 2018 was nearly \$750 million or nearly 18% of expenditures.

DEFAC estimates indicate general fund revenues are growing on a year-over-year basis with fiscal 2020 revenues 2.1% higher than fiscal 2019, and fiscal 2019 revenues 1.7% higher than actual fiscal 2018 collections. The committee meets six times a year to prepare revenue estimates for the state budget, with its next meeting scheduled for March.

Fiscal 2018 audited results

The fiscal 2018 (June 30) general fund increased by \$410.1 million over the previous fiscal year bringing the ending unassigned general fund balance to \$424.4 million, or a strong 8.9% of general fund expenditures (on a GAAP basis). Total general fund revenues increased by \$315.7 million (6.9%), primarily due to \$338 million of increases due to a combination of higher personal income tax collections (brought on by rising personal income) and business taxes (due in part to increased franchise tax rates). These increases were partially offset by a decrease in other revenues of \$97 million. General fund expenditures decreased by \$487.7 million (9.3%), primarily due to \$456 million of decreases in general government spending. The decrease in expenditures relating to general government spending was in part due to decreased budget authority and a decrease in the expenses for the escheat related to the decreased liability.

On a four-point scale, where '1.0' is the strongest and '4.0' is the weakest, S&P Global Ratings has assigned an overall score of '1.3' to Delaware's budgetary performance.

Debt And Liability Profile

The state has focused its attention on reducing debt over time with clearly defined debt affordability parameters and a commitment to cash-funding capital projects, especially when the economy is performing well. We believe that this and rapid amortization of principal outstanding will contribute to a stable debt profile. We view total tax-supported debt, including GO and transportation bonds, as moderately high. Delaware issues debt for political subdivisions. It pays from 60%-80% of the cost of capital improvements for public school districts on approval of such costs; the school districts pay the remaining portions supported by local property taxes.

State-supported GO debt was just over \$1.5 billion as of June 30, 2018, excluding \$501 million, which is supported by the local school districts. Delaware's other major bonding program is associated with the Delaware Transportation Authority, which issues revenue bonds supported primarily by motor fuel taxes, motor vehicle fees, and turnpike tolls. Total tax-supported debt in fiscal 2018, including GO, transportation, and appropriation obligations, is moderately high relative to that of state peers, at \$2,513 per capita and 5.1% of personal income. We estimate total tax-supported debt service carrying charges, after excluding the local school district support, were a moderate 5.7% of governmental spending in fiscal 2018. Debt amortization is rapid, in our opinion, with about 67% of state supported debt scheduled to retire in the next 10 years.

The capital budget for fiscal 2019 totals \$816 million (including \$189 million of general funds). The fiscal 2019 plan includes GO bond authorization of \$218 million and an authorization of \$368 million from the transportation trust fund.

Delaware does not have any variable-rate debt outstanding, and it has not entered into any interest-rate swap agreements or related derivative transactions. The state's GO qualified zone academy bonds (series 2002, 2003, and 2004) were privately placed. The total amount outstanding is \$2.3 million, but this is not a concern given the state's strong liquidity position.

Pensions

Compared with other state pension systems, Delaware has funded its pension system well, in our opinion. The Delaware Public Employees' Retirement System (DPERS) consists of nine separate pension funds, of which the state reports a liability for five. The state employees' pension plan, a multiple-employer, cost-sharing plan, is the largest plan and represents 73.2% of the state's net pension liability as of fiscal 2018. Delaware also reports liability for several single-employer plans: special, new state police, judiciary, and closed state police.

Delaware's unfunded pension liability represents its proportionate share of the state employees' plan and the unfunded liability for its four other single-employer plans for which the state reports a liability. We consider Delaware's three-year-average, pension-funded ratio across its five pension plans to be good at 83%.

The state lowered its long-term investment return assumption for DPERS' state employees' pension plan to 7.0% from 7.2% in fiscal 2017, which we view as conservative and note is below that of most other states. The plan has reduced its discount rate several times in recent years including a reduction to 7.2% from 7.5% in fiscal 2015. Notably, the discount rate stood at 8.0% in fiscal 2011. The lower assumed discount rate is expected to increase required employer contribution rates in future fiscal years.

Contributions for the state employees', special, new state police, and judiciary plans are actuarially based and funding has been historically met at 100% of the actuarially determined contribution (ADC), which we view as a credit positive. However, the closed state police plan is financed on a pay-as-you-go basis. The plan, which was closed in 1980, has a 1.3% funded ratio as of fiscal 2018, which we consider weak and an unfunded liability of \$373 million, which we consider significant. DPERS' comprehensive annual financial report (CAFR) reports an ADC for the plan based on an entry age normal, closed 19-year, level-dollar amortization method with 19 years remaining. Before fiscal 2016, the plan's level-dollar amortization was open. Contributions as a percent of ADC were 89.0% in fiscal 2018, 88.8% in fiscal 2017, and 100% in fiscal 2016. In prior years, this percentage was also at about 90%.

We note that aggregate annual plan contributions across the five plans were under our calculation of amounts necessary for the plans to cover a portion of the amortization in unfunded liability as well as certain cost drivers of the annual change in the liability, which we believe could weaken the strength of the state's pension liability profile over time.

We believe, on the whole, management factors and actuarial inputs do not significantly encumber or improve our view of the state's overall pension funding discipline. DPERS' state employees plan assumes an open 20-year amortization and the "level percentage of pay" method, which assumes rising future payroll and results in escalating pension contributions over time. The plan reported an actual 8.1% five-year average rate of return in its fiscal 2018 CAFR, which is above its actuarial assumed rate of return of 7.0%. The system does not project an asset depletion date under GASB 67, which we believe is reasonable. The plan's ratio of active members to beneficiaries equals 1.38, which is slightly below the median national ratio of 1.50 and we believe it is not a weakness because the plan maintains a good pension-funded ratio, in our opinion. We believe the system incorporates experience trends and industry standards in its experience study and we view favorably its practice of producing an experience study every four years.

Other Postemployment Benefits

The state offers retiree healthcare benefits through a cost-sharing, multiple-employer, defined benefit plan administered by DPERS. The plan is available to retirees and eligible dependents covered under the state employees', new state police, judiciary, and closed state police pension plans.

Delaware faces a large OPEB liability that has grown despite reform efforts in previous years. As of June 30, 2018, the state reports a collective NOL of \$7.2 billion, which we consider significant. On a per-capita basis, this liability is approximately \$7,460 and among the highest in the nation. Because Delaware's OPEBs are administered under a cost-sharing, multiple employer plan, the state discloses its proportionate share of the collective NOL under GASB 75 reporting to reflect that part of the liability that belongs to employers other than the state. Applying the 90.4% proportionate share disclosed for fiscal 2017 to the fiscal 2018 collective NOL shows the state is directly responsible for approximately \$6.5 billion of this liability, which we still consider high.

The state began pre-funding the obligation with lump sum payments and contributions based on a percentage of payroll in 2002 and 2003. It also established an OPEB trust in 2007. Since its inception, the trust has received funds from abandoned property revenues or Medicare Part D subsidies. However, at this time we consider the funding for this trust to have limited assets; the funded ratio is a very low 5.0% as of June 30, 2018, under GASB 74 reporting. In 2011, the governor modified employee health insurance and pension plan programs to establish a fixed-cost share in health insurance programs (for both active employees and retirees) and increased the time to vest for retiree health care benefits. In 2013, Delaware participated in an employee group waiver plan that shifted the costs of pharmacy benefits to the Centers for Medicare and Medicaid Services.

Contributions to the plan are on a pay-as-you-go basis that we believe will lead to further increases in the state's NOL. There is no ADC calculated under new GASB reporting standards for OPEB plans and employers. Under previous reporting standards, contributions to the OPEB plan were historically below the annual required contribution (ARC). Delaware's reported contributions of \$237.4 million in fiscal 2017 representing 43.8% of the ARC, lower than the 50%, 55%, and 48% in past fiscal years 2016, 2015, and 2014, respectively.

We understand that there are no immediate plans to implement additional OPEB reforms, although the state successfully implemented reform and made various changes to benefits in previous years to actively manage the estimated liability.

On a four-point scale, where '1.0' is the strongest and '4.0' is the weakest, S&P Global Ratings has assigned an overall score of '2.6' to Delaware's debt and liability profile.

Ratings Detail (As Of January 31, 2019)

Delaware GO		
<i>Long Term Rating</i>	AAA/Stable	Affirmed
Delaware GO		
<i>Long Term Rating</i>	AAA/Stable	Affirmed

Ratings Detail (As Of January 31, 2019) (cont.)

Sustainable Energy Util, Inc., Delaware

State of Delaware, Delaware

Sustainable Energy Utility, Inc. (Delaware) APPROP

<i>Long Term Rating</i>	AA+/Stable	Affirmed
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Sustainable Energy Util, Inc. (State of Delaware) energy efficiency rev bnds (Delaware) ser 2018 dtd 10/15/2018 due 10/01/2039

<i>Long Term Rating</i>	AA+/Stable	Affirmed
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