

## CREDIT OPINION

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 Rate this Research

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# Delaware (State of)

## Update to credit analysis

### Summary

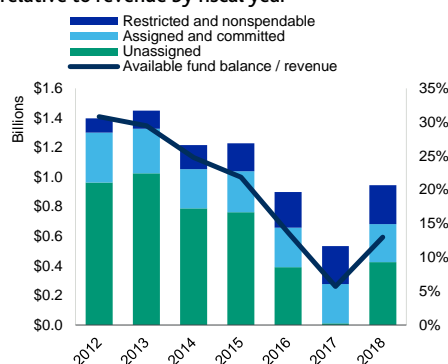
The [State of Delaware](#) (Aaa stable) maintains a strong credit position that is largely supported by its strong management and governance and its healthy and stable finances. The state's well-established process for monitoring revenue and its statutory limits on annual spending growth are important tools that aid financial management. The state's healthy reserves provide a cushion in the event of a revenue downturn, which could be more pronounced in Delaware given its high reliance on business taxes.

The state's economic profile is solid, though it lags the US on several growth measures. Delaware has seen less growth in recent years in its financial services sector, which has slowed the rise in state income relative to the nation. However, certain sectors of the economy have potential to expand and the state's lower business costs and cost of living could continue to attract residents to fill new positions.

Relative to highly-rated states, Delaware's leverage is high and consists mostly of unfunded pensions and retiree healthcare liabilities. The high leverage largely stems from the state assuming total responsibility for funding post-employment benefits of local school districts. The state recently began an effort to explore options for addressing retiree healthcare obligations, which could present it with an opportunity to reduce its overall leverage.

Exhibit 1

**Delaware increased its available fund balance after steadily drawing down through 2017**  
Components of general fund balance and balance relative to revenue by fiscal year

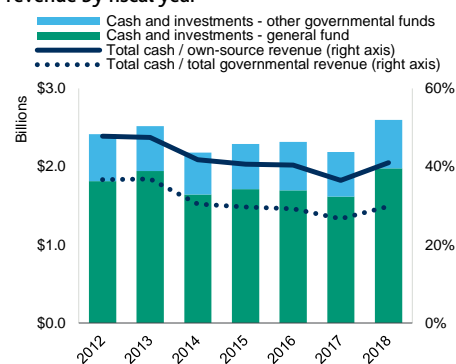


Available fund balance is the sum of unassigned, assigned and committed fund balance. It excludes restricted and nonspendable fund balance.

Source: Delaware's audited financial statements

Exhibit 2

**Liquidity across the general fund and other governmental funds is stable and strong**  
Cash and investments across funds and relative to revenue by fiscal year



Other governmental fund cash and investments and revenue includes amounts reported by the Delaware Department of Transportation, which is a business enterprise of the state.

Source: Delaware's audited financial statements

## Credit strengths

- » Stable budget reserve account backed by additional unencumbered reserves following strong operations in fiscal years 2018 and 2019
- » Very healthy liquidity and improved GAAP-basis fund balance
- » Strong financial management and governance indicated by frequent revenue forecasting and statutory limit on spending
- » Lower business costs and cost of living relative to neighboring states could continue to attract new residents as certain economic sectors have the potential to expand

## Credit challenges

- » Low industrial diversity among US states given sizeable economic concentration in financial services
- » Heavy dependence on business taxes and a sustained role as the preferred legal home of many publicly traded companies
- » Medicaid expenditures are steadily rising and consuming a growing share of the state's total revenue

## Rating outlook

The stable outlook is supported by the state's strong structural governance features that will keep the state in a sound position relative to peers through future economic cycles.

## Factors that could lead to an upgrade

No applicable.

## Factors that could lead to a downgrade

- » Growth in spending that the state accommodates with nonrecurring resources or a material use of reserves
- » A sustained and material slowdown in economic expansion that is a drag on revenue growth
- » Growth in long-term liabilities that outpaces expansion of the state's economy

## Key indicators

Exhibit 3

Delaware (State of)	2014	2015	2016	2017	2018	50-State Median (2017)
Operating Fund Revenues (000s)	4,255,647	4,749,041	4,816,998	4,854,688	5,265,653	10,869,281
Available Balances as % of Operating Fund Revenues	24.7%	21.9%	13.6%	5.7%	13.0%	4.6%
Nominal GDP (billions)	67.2	70.9	70.4	72.2	75.0	224.0
Nominal GDP Growth	10.7%	5.5%	-0.7%	2.5%	3.9%	3.9%
Total Non-Farm Employment Growth	2.3%	2.3%	1.0%	0.8%	1.1%	1.1%
Fixed Costs as % of Own-Source Revenue	NA	13.8%	13.7%	14.2%	13.2%	8.9%
Adjusted Net Pension Liabilities (000s)	4,161,993	3,859,643	3,406,059	6,373,422	5,827,393	12,033,341
Net Tax-Supported Debt (000s)	2,818,890	2,789,718	2,939,056	2,985,593	3,101,007	4,412,204
(Adjusted Net Pension Liability + Net Tax-Supported Debt) / GDP	10.4%	9.4%	9.0%	13.0%	11.9%	8.2%

Source: Delaware's audited financial statements, US Bureau of Economic Analysis and Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Profile

Delaware is the sixth-smallest state, based on its estimated population of just over 960,000. The state's gross domestic product, currently about \$75 billion, ranks 41st among states. Delaware's personal income per capita in 2018 was \$51,500, or 96% of the national level.

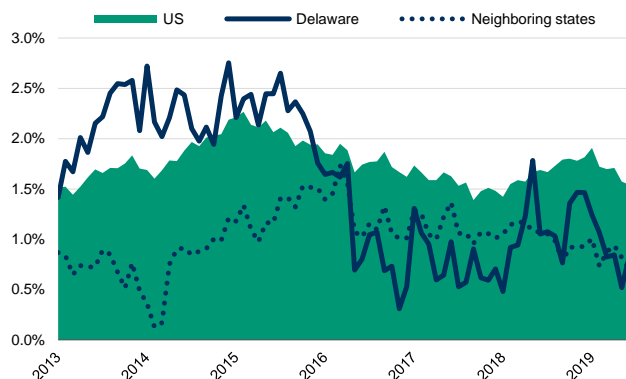
## Detailed credit considerations

### Economy

Delaware's economic outlook is solid even though on many measures of growth, such as change in employment, GDP and income, the state continues to lag the US. Most recent job gains have been in the leisure/hospitality and business/professional services sectors. Less progress has been made in the state's large finance industry, which may explain income growth that lagged that of the US. The state's bioscience industry has also stagnated and jobs in pharmaceutical production are slowly declining. Firms continue to invest in their facilities, but many improvements will likely achieve stable or improved output with less labor.

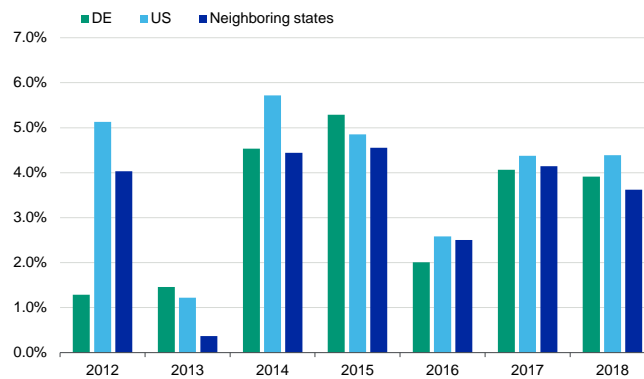
On the more positive side, there is potential for growth in the financial technology, shipping and transportation industries. Delaware remains a financial services hub and as financial firms expand their technology-oriented footprint, their workforces will likely rise. The port operator, Gulftainer, assumed operations of the Port of Wilmington last year and is in the process of making a \$600 million upgrade of the port's facilities. The upgrade will enhance the port's capacity to accommodate the larger ships that are now capable of crossing the expanded Panama Canal. This will preserve the port's role as a vital shipping hub along the Atlantic coast.

Exhibit 4  
Delaware's job growth remains steady and in line with neighbors, but trails that of the US  
Year-over-year growth in monthly nonfarm employment



Neighboring states consists of the District of Columbia, Maryland, New Jersey, Pennsylvania and Virginia  
Source: US Bureau of Labor Statistics

Exhibit 5  
Personal income growth also slightly lags that of the US, but remains solid  
Annual growth in personal income



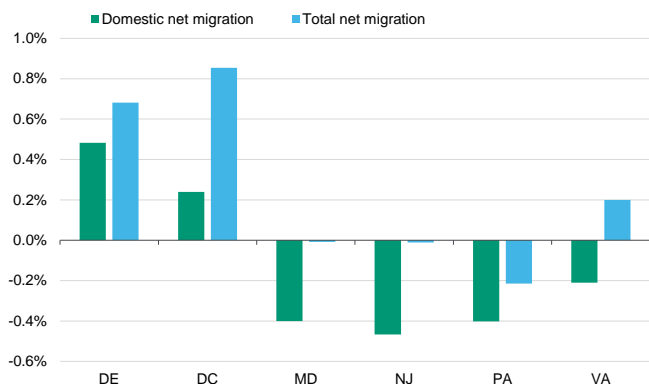
Neighboring states consists of the District of Columbia, Maryland, New Jersey, Pennsylvania and Virginia  
Source: Moody's Analytics

As certain sectors of the state's economy expand, they will benefit from the positive in-flow of new residents. Aside from the District of Columbia, Delaware is unique in its Mid-Atlantic locale for its positive net migration, both on a domestic basis and total basis (Exhibit 6). Its neighboring states have fared more poorly with regard to domestic migration, in part because many residents of the region have moved to Delaware. The state's low costs attract businesses and its low taxes and cost of living are a draw for residents. Furthermore, even though Delaware has a reputation as a retiree destination, it is showing greater stability in its prime working age population (Exhibit 7).

Delaware's population of residents aged 25-54 (prime working age) boomed in the mid 2000s. It rose again over the period 2013-2015. Since then, this population has remained fairly flat. But this sets Delaware apart from its neighbors, who, with the exception of DC, have seen a slow and steady decline in their prime working age population.

Exhibit 6

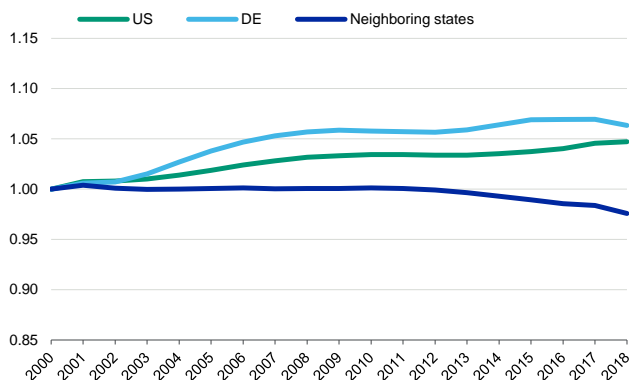
**Net migration, both domestic and total, is more positive in Delaware than most of its neighbors**  
Five-year average of annual migration as a percentage of state population



Source: Moody's Analytics

Exhibit 7

**Delaware's prime working age population grew faster than peers over the past several years**  
Prime working age population relative to the year 2000



Neighboring states consists of the District of Columbia, Maryland, New Jersey, Pennsylvania and Virginia

Source: Moody's Analytics

As a US state, Delaware will continue to demonstrate high resilience to environmental risks, especially relative to other sectors. In general, US states face low credit risk stemming from environmental events, the most likely to occur being natural disasters. When disaster strikes, states typically incur minimal costs, with the federal government, via FEMA, taking a large role in funding recovery. That said, Delaware's exposure to flood and storm risk is higher than many states given its small size and location on the Atlantic Ocean.

An estimated 10% of Delaware's dwelling units are located in a 100/500 year floodplain, which is equal to the median ratio among states with coastlines. The state has been spared extensive damage by storms that hit areas further south and north along the eastern seaboard. From 1980 through 2017, damage from tropical storms, adjusted for annual inflation, was a small 0.9% of Delaware's GDP. This is a ratio lower than that of some of the state's neighbors, including New Jersey (5.7%), Virginia (1.4%) and Maryland (1.2%), and states further south along the coast, such as North Carolina (5.5%) and South Carolina (7.4%).

## Finances

Delaware's finances are strong. The state faced a large budget gap in fiscal 2018 after expenditures grew more quickly than revenue for several years. The state enacted a mix of spending reductions and tax increases to more than offset the gap. On a budgetary basis, the state closed fiscal 2018 with a \$275 million general fund operating surplus. On a GAAP-basis, the state increased its available fund balance to 13% of revenue from 5.7% in fiscal 2017 (see Exhibit 1 above). On a budgetary basis, the state's unencumbered reserves grew to just under 13% of revenue (see Exhibit 8 below). This consists of the state's mandated 5% budget reserve and other unencumbered cash.

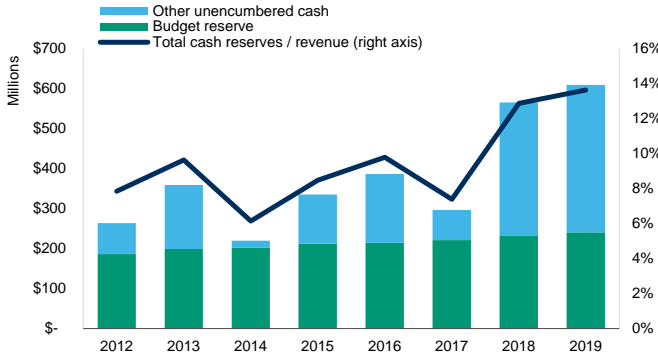
The fiscal 2019 budget kept recurring revenue well above recurring expenses. The budget included \$238 million of nonrecurring spending (80% for capital investments) and assumed general fund budgetary reserves would drop to about 11% of revenue from 13% in fiscal 2018. However, revenue and spending assumptions were conservative and the state estimates year-end fiscal 2019 general fund reserves at just under 14% of revenue.

The fiscal 2020 budget includes growth in recurring spending of 4.2%, with the bulk of increased spending accommodating schools. The budget also sets aside about \$126 million in a new savings account separate from the state's statutory budget reserve. Combined, the year-end budget reserve and savings account should amount to at least 8% of fiscal 2020 general fund revenue. It is very likely the state will also close the year with an additional balance of unencumbered cash.

Delaware's tax revenue system relies on the state's role as the preferred legal home for publicly traded companies. About half of all US publicly traded firms and more than two-thirds of the Fortune 500 are organized under Delaware law. The state derives half of its general fund revenue from taxes on businesses (see Exhibit 9 below). The two largest components of business-related revenue are

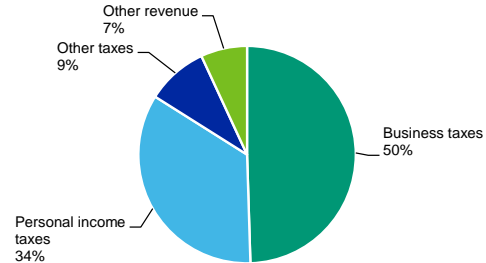
franchise taxes levied on corporations based in the state and abandoned property revenue. Together, these two sources account for almost 30% of the state's anticipated fiscal 2020 general fund revenue.

**Exhibit 8**  
**Delaware added to its available reserves over the past couple years**  
**Budgetary-basis reserves by fiscal year**



Source: Delaware budget documentation

**Exhibit 9**  
**Delaware's general fund is heavily dependent on business taxes**  
**Composition of projected fiscal 2020 general fund revenue**



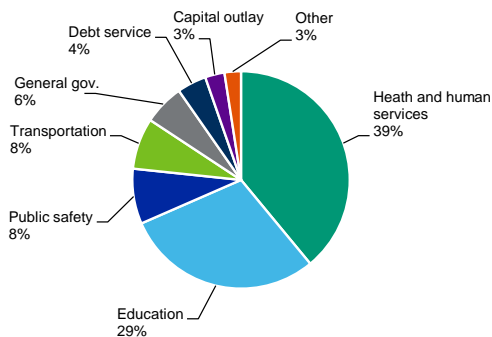
Source: June 2019 report of the Delaware Economic and Financial Advisory Council

The state created the secondary general fund savings account in the fiscal 2020 budget primarily to better prepare itself for a downturn in revenue that could be exacerbated by the concentration of business taxes. The new savings account is on top of the state's budget reserve account, which it has maintained since 1980. The budget reserve can have as much as 5% of the state general fund's estimated budgetary revenue. Drawing these funds requires approval by three-fifths of both legislative chambers.

By observing a limit on appropriations, Delaware creates a second buffer against revenue underperformance. The state can only appropriate 98% of estimated available funds (sum of general fund revenue and unencumbered cash outside of the budget reserve account), and this can only be waived with approval of three-fifths of the legislature.

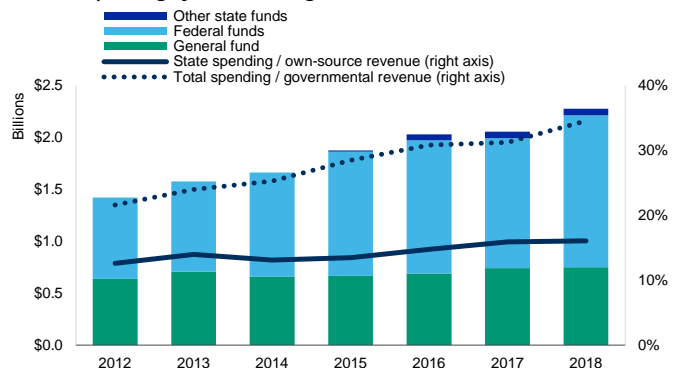
As in most states, education and healthcare dominate Delaware's spending (Exhibit 10). Medicaid spending makes up about two-thirds of the state's total health and human services spending, or 26% of total state spending. As of April 2019, 25% of Delaware residents were covered by Medicaid, compared to 22% nationwide. The share of state spending on Medicaid has remained stable as a share of Delaware's own-source revenue (Exhibit 11), and, at 16%, it is just lower than the 50-state median of 17%. At the same time, however, total Medicaid spending is rising. Most of this spending growth has been accommodated with federal funds, but total Medicaid spending now consumes 35% of Delaware's total governmental revenue, up from 22% in 2012. A change in federal funding of Medicaid could present the state with difficult spending and policy decisions.

**Exhibit 10**  
**As in most states, education and health services dominate Delaware's state spending**  
**Composition of total state spending, fiscal 2018**



Source: Delaware's audited financial statements

**Exhibit 11**  
**Medicaid spending from state funds is flat, but total expenditures are rising steadily**  
**Medicaid spending by state funding source**



Source: National Association of State Budget Officers, Delaware's audited financial statements, and Moody's Investors Service

## LIQUIDITY

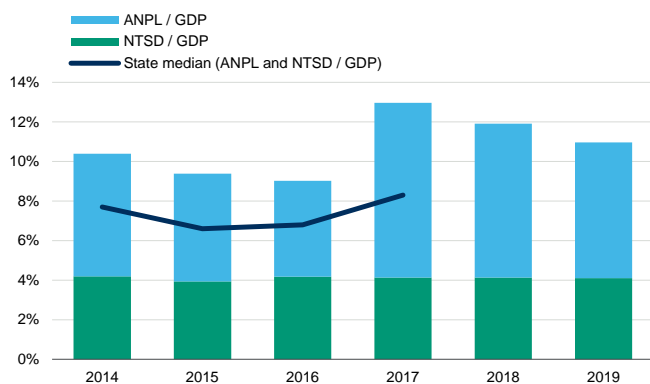
Delaware's liquidity has always been strong. The state reports most of its pooled cash and investments in its general fund and closed fiscal 2018 with just under \$2 billion of cash and investments in that fund (see Exhibit 2 above). Across governmental activities, liquidity has remained stable for several years and Delaware has not had to issue bond- or revenue-anticipation notes in more than 40 years.

## Debt and pensions

Delaware's debt and pension burden is high among states relative to GDP. Relative to revenue, Delaware's burden is much closer to the state median (see Exhibits 12 and 13 below). A share of Delaware's revenue is derived from economic activity outside the state because of the state's taxes and franchise fees on businesses incorporated in the state. This largely accounts for the difference in the debt and pension burdens as shares of GDP and revenue relative to other states.

Exhibit 12

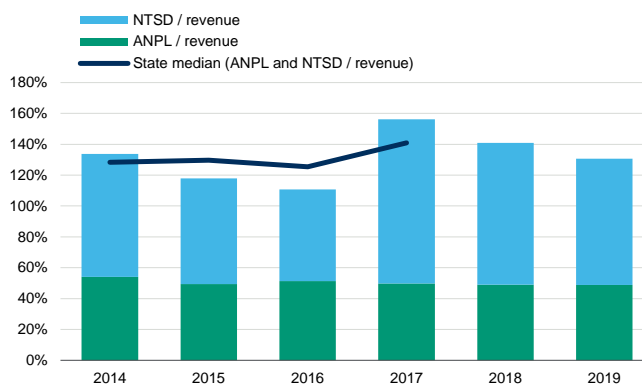
**Delaware's debt and pension burden is well above the state median relative to GDP...**



NTSD is net tax supported debt. ANPL is adjusted net pension liability. 2019 ratios assume growth in state GDP equal to the average growth rate of the past five years. Sufficient information is not yet available for all states to compute medians for 2018 and 2019. Source: Audited financial statements of Delaware and its pension plans, and Moody's Investors Service

Exhibit 13

**...but much more aligned with other states when compared to state revenue**



NTSD is net tax supported debt. ANPL is adjusted net pension liability. 2019 ratios assume growth in state revenue equal to the average growth rate of the past five years. Sufficient information is not yet available for all states to compute medians for 2018 and 2019. Source: Audited financial statements of Delaware and its pension plans, and Moody's Investors Service

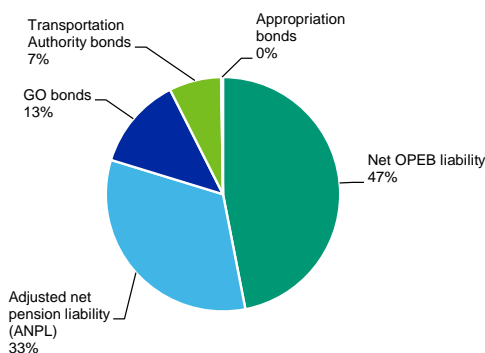
It is also important to note that Delaware's pension burden accounts for all assets and liabilities of plans associated with local school districts, which is not the case for all states. Despite remaining above the annual state median, Delaware's combined debt and pension burden is not on a rapidly growing path. Available financial statements of Delaware's pension plans indicate the state's ANPL declined moderately in the plans' most recently completed fiscal years. This ANPL will be reported in the state's fiscal 2019 financial statements.<sup>1</sup>

Delaware also carries a large unfunded OPEB liability, which, as Exhibit 14 below indicates, is the principal component of the state's leverage. As with pensions, the state's OPEB liability incorporates retiree healthcare benefits of local school districts, the employees of which are state employees. At the close of fiscal 2018, the state's reported net OPEB liability was \$7.6 billion, or 10% of GDP and 120% of own-source revenue. There is no constitutional guarantee of retiree healthcare benefits and we discuss below a new effort by the state to address these unfunded obligations.

General obligation bonds account for nearly two-thirds of Delaware's outstanding net tax-supported debt (Exhibit 15). The remainder mostly consists of bonds issued by the [Delaware Transportation Authority](#), a component of the Delaware Department of Transportation. The state has a small amount of debt outstanding secured by annual appropriations of the legislature. The state's general obligation bonds include about \$500 million of bonds paid with school district property taxes. The state accounts for the property taxes in its audited financial statements and, because the taxes are part of the state's revenue base, we include these bonds in net tax-supported debt.

Exhibit 14

### Unfunded post-employment benefits liabilities (pensions and OPEB) dominate Delaware's leverage Composition of leverage



Includes an estimated \$146 million of in soon-to-be-issued Delaware Transportation Authority bonds.

Source: Audited financial statements of Delaware and its pension plans, and Moody's Investors Service

### DEBT STRUCTURE

All of Delaware's debt is fixed rate.

### DEBT-RELATED DERIVATIVES

The state is not party to any debt-related derivative agreements.

### PENSIONS AND OPEB

The state reports 100% of local school district retirement liabilities on its own balance sheet and these are incorporated in our calculation of the state's adjusted liabilities. The rise in the ANPL from 2016 to 2017 was driven by several factors. These include pension fund asset losses, an increase in the reported liability due to a change in mortality assumptions, and a drop in the market-based interest rate we use to value accrued pension liabilities when calculating a government's ANPL. The market-based interest rate used to calculate the state's fiscal 2017 ANPL was 3.6%, down from 4.4% used to calculate the fiscal 2016 ANPL. The market-based interest rate rose moderately to 3.9% for the state's fiscal 2018 ANPL and further to 4.14% for estimating the fiscal 2019 ANPL.

Delaware's fiscal 2018 fixed costs were 13.2% of its own-source revenue (all governmental revenue and transportation revenue less federal revenue). Fixed costs consist of debt service, pension contributions and payments of other post-employment benefits (OPEB). Delaware's fiscal 2018 OPEB payment was \$218 million. For the pension contribution, we calculate a pension "tread water" indicator, which is an estimate of the payment to a government's pension plans that keeps reported net pension liabilities from growing, assuming other actuarial assumptions hold. For fiscal 2018, we estimate Delaware's "tread water" indicator at about \$244 million. The state's actual pension contribution was \$247 million.

On July 10, the governor issued an executive order creating a Retirement Benefit Study Committee and directing that committee to identify options for eliminating or reducing the state's unfunded OPEB liability. The order directs the committee to commence regular meetings no later than September 15, 2019 and to present preliminary findings no later than March 2020. Given the lack of a constitutional protection of retiree healthcare benefits in Delaware, it is possible that the committee could determine a reduction in benefits or a shift in the financing of benefits from the state to employees and retirees to be prudent options and recommend those actions to the governor. There could still be political obstacles to implementing these kinds of adjustments, but they would present the state with some options to reduce its obligations without a significant increase in spending.

### Governance

Delaware's Aaa rating is based in large part on legal provisions that will encourage the state to maintain a strong financial profile over a long period. A panel of 31 gubernatorial appointees, known as the Delaware Economic and Financial Advisory Council, provides the

Exhibit 15

### The majority of net tax-supported debt consists of general obligation bonds

#### Composition of Delaware's bonded debt, fiscal 2019 plus forthcoming revenue bonds

Type of debt	Principal (millions)
GO bonds	\$2,080.9
Appropriation bonds	\$42.1
Delaware Transportation Authority	
Transportation system revenue bonds	\$714.7
US 301 project revenue bonds	\$398.1
GARVEEs	\$56.7
<b>Total tax-supported debt</b>	<b>\$3,292.4</b>

Includes an estimated \$146 million of in soon-to-be-issued Delaware Transportation Authority bonds.

Source: Delaware's audited financial statements and Moody's Investors Service

state's revenue estimates. This panel, which includes officials from the public and private sector, meets six times each year and issues revenue and expenditure forecasts used by both the executive and legislative branches of government during the budget process.

The state's requirements for consensus forecasts, well-managed expenditure growth, and a limit on appropriations support long-term prospects for financial strength. Delaware's otherwise strong management profile is tempered by a constitutional requirement that tax increases be approved by a three-fifths legislative majority, which reduces the state's financial flexibility.

### Rating methodology and scorecard factors

The [US States and Territories Rating Methodology](#) includes a scorecard, which summarizes the 10 rating factors generally most important to state and territory credit profiles. Because the scorecard is a summary, and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not map closely to the actual rating assigned.

Delaware's Aaa rating is one notch above its scorecard-indicated outcome because it incorporates a history of quickly responding to operating challenges identified by its strong forecasting methods in order to avoid the use of reserves to close budget gaps.

Exhibit 16

#### US state and territories rating methodology scorecard Delaware (State of)

Rating Factors	Measure	Score
<b>Factor 1: Economy (25%)</b>		
a) Per Capita Income Relative to US Average [1]	95.8%	Aa
b) Nominal Gross Domestic Product (\$ billions) [1]	\$75.0	Aaa
<b>Factor 2: Finances (30%)</b>		
a) Structural Balance	Aaa	Aaa
b) Fixed Costs / State Own-Source Revenue [2]	13.3%	Aa
c) Liquidity and Fund Balance	Aa	Aa
<b>Factor 3: Governance (20%)</b>		
a) Governance / Constitutional Framework	Aaa	Aaa
<b>Factor 4: Debt and Pensions (25%)</b>		
a) (Moody's ANPL + Net Tax-Supported Debt) / State GDP [2] [3]	11.9%	Aa
<b>Factors 5 - 10: Notching Factors [4]</b>		
Adjustments Up: None	0	
Adjustments Down: Pension or OPEB Characteristics	-0.5	
<b>Rating:</b>		
a) Scorecard-Indicated Outcome		Aa1
b) Actual Rating Assigned		Aaa

[1] Economy measures are based on data from the most recent year available.

[2] Fixed costs and debt and pensions measures are based on data from the most recent debt and pensions medians report published by Moody's.

[3] ANPL stands for adjusted net pension liability.

[4] Notching factors 5-10 are specifically defined in the US States and Territories Rating Methodology.

Source: US Bureau of Economic Analysis, Delaware's audited financial statements and Moody's Investors Service

### Endnotes

1 The state's pension reporting lags the financial reporting of its pension plans by one year. The total pension liability and plan fiduciary position included in the plans' available fiscal 2018 audited financial statements will be incorporated in the state's fiscal 2019 audited financial statements. We use the plans' fiscal 2018 reports to calculate the state's fiscal 2019 ANPL.



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