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CREDIT OPINION
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Analyst Contacts

Nicholas Samuels +1.212.553.7121
Senior Vice President
nicholas.samuels@moodys.com

Pisei Chea +1.212.553.0344
VP – Senior Analyst
pisei.chea@moodys.com

Emily Raimes +1.212.553.7203
VP-Sr Credit Officer/Manager
emily.raimes@moodys.com

Timothy Blake, CFA +1.212.553.4524
MD-Public Finance
timothy.blake@moodys.com

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Americas 1-212-553-1653
Asia Pacific 852-3551-3077
Japan 81-3-5408-4100
EMEA 44-20-7772-5454

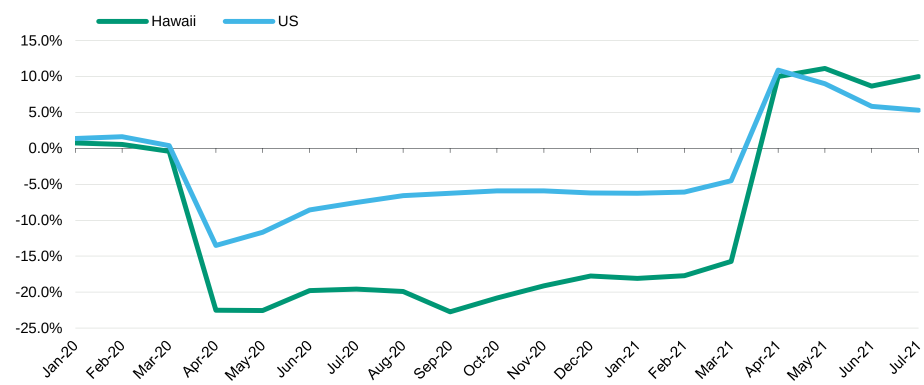
Hawaii (State of)

Update to analysis following outlook revision to positive

Summary

Hawaii's Aa2 general obligation rating reflects the state's strong fiscal governance, combined with its strong financial position and liquidity entering the crisis. Balanced against these strengths are the volatility of the state's tourism industry, above-average debt and pension liabilities and high fixed costs for debt service, pensions and OPEB. The economic and financial picture has brightened considerably since the nadir of the pandemic and on September 20 we revised the state's outlook to positive from stable.

Exhibit 1
Hawaii's economic recovery is accelerating as confidence in the public health response grows
Year-over-year percentage change in employment



Source: US Bureau of Labor Statistics

Credit strengths

» Strong financial governance practices including multiyear planning, quarterly consensus revenue forecasting and strong executive power to reduce spending

» Historical fiscal conservatism; prompt action to address past revenue shortfalls

» Above-average reserves and strong liquidity position

» Rapid amortization of debt; no exposure to variable rate debt or derivative products

Credit challenges

» Significant tourism industry creating an above-average vulnerability to the global downturn driven by the current coronavirus pandemic

» Debt ratios that are among the highest in the nation, largely attributable to the state's responsibility for funding all the capital needs of its centralized K-12 school system

» High pension and OPEB liabilities; very high fixed costs

Rating outlook

The positive outlook reflects a significant turnaround in the state's economic and financial position. Strong domestic visitation exceeds pre-pandemic levels and is driving strong tourist spending although international tourism remains depressed. As a result the employment picture has brightened substantially and fiscal 2022 forecast general fund revenue is 7.9% greater than fiscal 2019, pre-pandemic. In turn the state has continued its retiree healthcare prefunding efforts instead of deferring for budget savings and made substantial additional contributions to reserves. These actions, also reflecting the state's strong governance structure, will strengthen Hawaii's credit profile, absent a material slowdown in the economic recovery.

Factors that could lead to an upgrade

» Sustained improvement in the state's economic and financial recovery

» Steady continuation of efforts to prefund the state's long-term liabilities

Factors that could lead to a downgrade

» Additional economic deterioration that leads to material new revenue declines, budget imbalance, liquidity pressures or a narrower financial position

» Return to reliance on non-recurring solutions to balance the budget

» Increased debt ratios relative to other states, or deterioration of pension funded ratios

Key indicators

Exhibit 2

Hawaii (State of)	2016	2017	2018	2019	2020	50-State Median (2020)
Operating Fund Revenues (000s)	$6,583,418	$6,643,799	$7,120,962	$7,526,131	$7,418,196	$11,933,834
Available Balances as % of Operating Fund Revenues	24.1%	22.4%	16.2%	17.7%	13.2%	8.9%
Nominal GDP (billions)	$85.9	$89.6	$93.1	$95.7	$89.9	$241.8
Nominal GDP Growth	3.9%	4.3%	3.9%	2.8%	-6.1%	-2.4%
Total Non-Farm Employment Growth	1.4%	1.1%	0.5%	0.0%	-15.3%	-5.8%
Fixed Costs as % of Own-Source Revenue	24.1%	27.3%	23.3%	24.7%	24.0%	7.4%
Adjusted Net Pension Liabilities (000s)	$8,391,291	$14,351,491	$13,950,603	$13,558,845	$15,885,146	$11,962,367
Net Tax-Supported Debt (000s)	$7,168,256	$7,504,305	$7,745,335	$7,827,018	$8,613,665	$4,203,064
(Adjusted Net Pension Liability + Net Tax-Supported Debt) / GDP	18.1%	24.4%	23.3%	22.3%	27.3%	7.3%

Source: Hawaii audited financial statements, US Bureau of Labor Statistics, US Bureau of Economic Analysis, Moody's Investors Service

Profile

Hawaii is the 40th largest state by population, at 1.4 million. Its gross domestic product is 38th largest, at $89.9 billion. The population's income levels are above average, with per capita personal income equal to 101% of the US level and a median household income equal to 130%. Its poverty rate is in the bottom third among states.

Detailed credit considerations

Economy

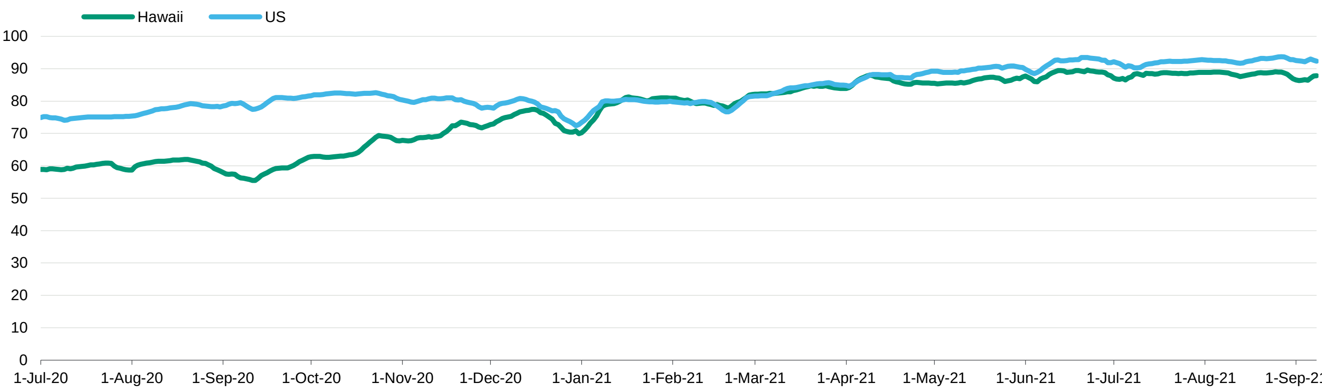
As a prime tourist destination Hawaii's economy faced unique negative impacts. Booming pre-pandemic the unemployment rate skyrocketed from 2.1% in March 2020 to nearly 22% in April 2020 as visitation collapsed. The turnaround now is significant: unemployment is down to 7.3%, although that is still higher than the July 2021 national average of 5.4%. Employment growth is strong, increasing 10% in July compared to a year earlier and with double-digit growth in three of the past four months. That follows twelve consecutive months of double digit employment declines between April 2020 and March 2021 (see Exhibit 1 on page 1).

The improvement reflects pent-up up demand for tourism domestically and a response to the state's significantly positive public health response. Domestic passenger arrivals are 113% of 2019 levels, hotel occupancy is 82% and revenue per available room is $303, which exceeds 2019 levels. Further reflecting the demand for tourism, the MSA that includes Maui (Aa1 stable) had the largest decline in unemployment rate in the nation in July, from 23.3% to 9.2%. Even with the improvement, however, Hawaii's economy still lags in returning to “back-to-normal” (see Exhibit 3).

Exhibit 3

Hawaii trending closer to back-to-normal but still lags the US

Back-to-normal index

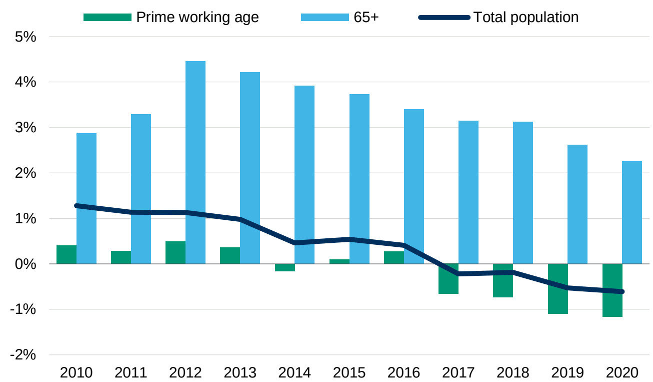


February 29, 2020 = 100. The index uses a mix of traditional economic data and real-time metrics being published by a host of private providers to capture trends both nationally and at a state level. The index is intended to go beyond the usual measures of employment and output to give a realistic sense of how businesses and consumers are responding to the pandemic.
Source: Moody's Analytics

Hawaii’s economy is diversifying but continues to be dominated by tourism and a substantial military presence. The state's industrial diversity is the lowest of the 50 states, according to Moody's Analytics, measuring 0.44 against 1.00 for the US. Leisure and hospitality services account for 14% of the state’s total employment compared to 9% for the US. Although Hawaii has a high concentration of total government employment, nearly 22% of the total compared to 15% for the nation, the federal and military presence plays a stabilizing role in the state economy. Hawaii is already an important strategic location for the US military but this is increasing as geopolitical focus shifts toward Asia and already the state's five largest employers are military installations.

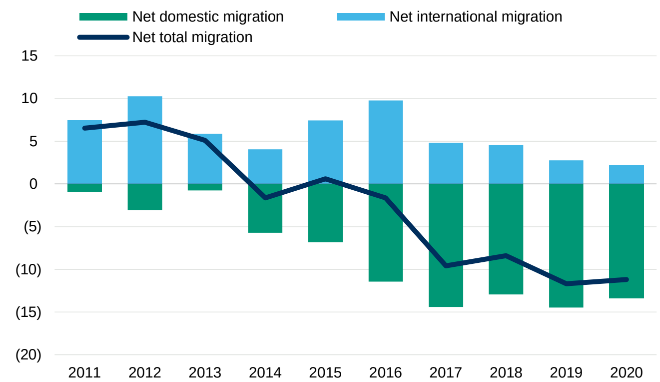
An ongoing challenge for Hawaii is its aging population. From 2010 to 2020 Hawaii's 65+ population has increased 40% and its prime working age population (ages 25-54) has decreased 2.3%, according to the Bureau of Labor Statistics. In addition, total net migration has been negative in six of the past 10 years (see Exhibits 4 and 5).

Exhibit 4
Hawaii's population is aging
Annual percentage change in population



"Prime working age" population is members of the workforce ages 25-54.
Source: US Bureau of the Census

Exhibit 5
Hawaii's net migration is negative
(000s)



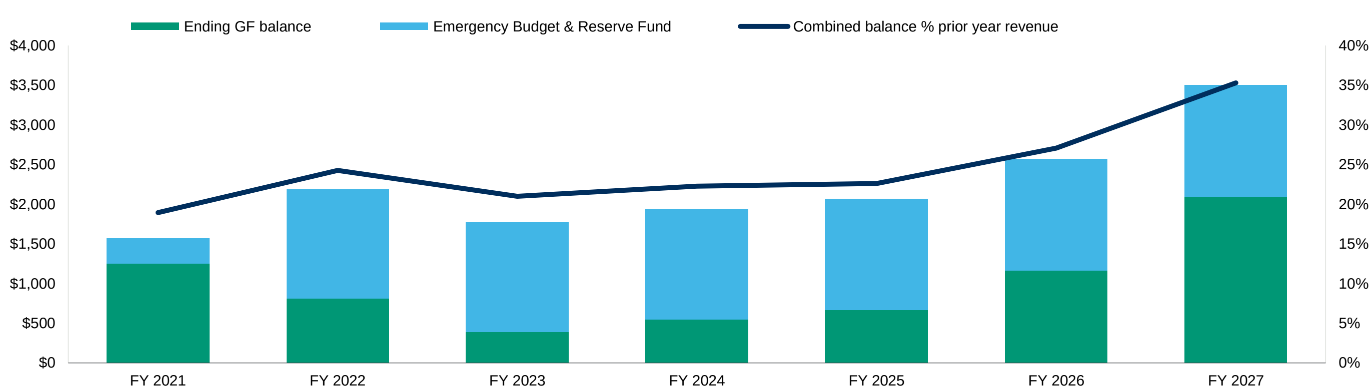
Source: US Bureau of the Census

Finances and liquidity

Hawaii's finances tend to track closely tourism sector performance, and the state experienced steep revenue declines after 9/11, the dot com crash, the SARS outbreak and the Great Recession. The pandemic downturn was no exception: fiscal 2020 revenue declined 5.4% and based on prior forecasts, fiscal 2021 revenue was expected to decline 11%. Reflecting the improved economy, however, fiscal 2021 revenue increased by an estimated 8.1% compared to fiscal 2020.

The revenue turnaround allowed the state to avoid a deferral of its retiree healthcare pre-funding, add additional funding to that effort and add approximately $1 billion to its main reserve fund. Fiscal 2021 tax revenue was 7.9% greater than fiscal 2019, before the pandemic and total revenue was 6.5% greater. Revenue is expected to average 4% growth through fiscal 2027 based on the state's current financial plan, reasonable expectations absent economic deterioration. General fund ending balances are estimated to be healthy and the Emergency Budget and Reserve Fund is estimated to average 15% of prior year revenue through fiscal 2027, with combined balances between fiscal years 2022 and 2027 averaging 25%, strong even compared to more highly rated states (see Exhibit 6).

Exhibit 6
Hawaii's reserve levels are strong
Balances ($ millions) and balances as a percent of prior year revenue



Source: State of Hawaii

Liquidity

Hawaii's liquidity is strong. The state does not engage in short-term borrowing for cash flow purposes and relies on pooled treasury cash for temporary internal borrowing as needed. At the end of fiscal 2021 combined balances in the general fund plus the state's

Emergency Budget and Reserve Fund were $1.8 billion. The state's total liquidity portfolio was $9.6 billion, equal to 131% of estimated fiscal 2021 revenue.

Debt and pensions

Hawaii's net tax-supported debt (NTSD) per capita, $6,122, is the third-highest among the states and nearly six times Moody's 50-state median of $1,039. As a percentage of personal income, Hawaii's debt is the highest in the country at 10.1% (the 50-state median is 1.9%). These debt ratios are, in part, attributable to the fact that, unlike other states, Hawaii is entirely responsible for the capital needs of its centralized K-12 school system. Total state and local government debt ratios indicate that the state's debt is a more manageable burden on the state's economy than suggested by comparison to the state medians. Nevertheless, the state's high levels of direct debt, along with its large pension liability and aggressive OPEB funding plan, contribute to its high fixed costs.

Legal security

Hawaii's general obligation bonds are payable by the state's pledge of its full faith, credit and resources. The bonds have a first charge on all general fund resources.

Debt structure

Hawaii's NTSD is almost entirely (94%) of general obligation bonds. These bonds are general obligations of the state, to which the state has pledged its full faith, credit and resources. The bonds have a first charge on all general fund resources. Hawaii's general obligation bonds are conservatively structured with a maximum maturity of 20 years and level annual debt service. As a result, payout of the state's general obligation debt is relatively rapid with 68% of principal is repaid in 10 years.

The state's highway revenue bonds make up 5% of it NTSD. The highway bonds are limited obligations of the state, secured by a gross pledge of highway fund revenue including fuel taxes, registration fees, weight taxes and car rental surcharges. The balance of the state's NTSD consists primarily of lease- and appropriation-backed obligations including the Department of Hawaiian Homelands' Certificates of Participation (Kapolei Office Facility), 2017 Series A and the Department of Hawaiian Homelands' Revenue Bonds, Series 2017 (see Exhibit 7).

Exhibit 7
Hawaii's outstanding bonded debt is mostly GO bonds
($000s)

Security	Outstanding
General Obligation Bonds	$8,054,598
Lease Rental Bonds/Appropriation Debt	$39,255
Highway Revenue Bonds	$423,355
Capital Leases	$115,147
Gross Debt	**$8,632,355**
Less self-supporting	$18,690
Net tax-supported debt	**$8,613,665**

Source: State of Hawaii audited financial statements

Debt-related derivatives

Hawaii has no has no variable rate debt and no debt-related derivatives.

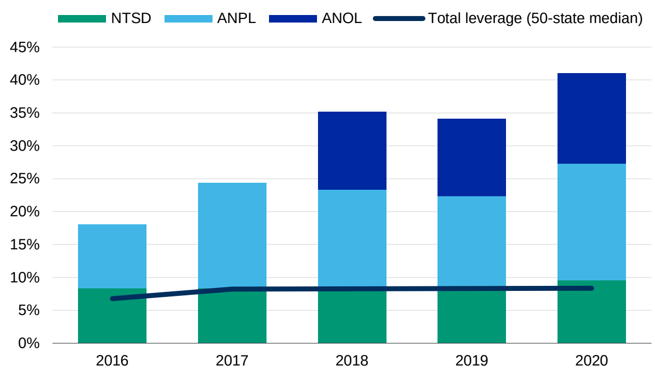
Pensions and OPEB

Hawaii's pension liabilities are above Moody's 50-state medians. Following a reduction in the discount rate to 7% in 2016, the legislature enacted higher employer contribution rates to address the increased liability. Employer contributions were increased from 25% of payroll to 41% for police and fire and from 17% to 24% for general employees. The new rates were phased in over a four-year period ending in fiscal 2021 and are designed to eliminate the UAAL by 2045, but will challenge the state by increasing its already high fixed costs (see Exhibits 8 and 9).

Hawaii's OPEB liability is also quite sizable. As in most states, Hawaii historically funded its OPEB costs on a pay-go basis. However, in the 2013 legislative session, the state enacted a phase-in of higher annual contributions by the state and counties beginning in fiscal 2015, reaching 100% of the ARC in fiscal 2019.

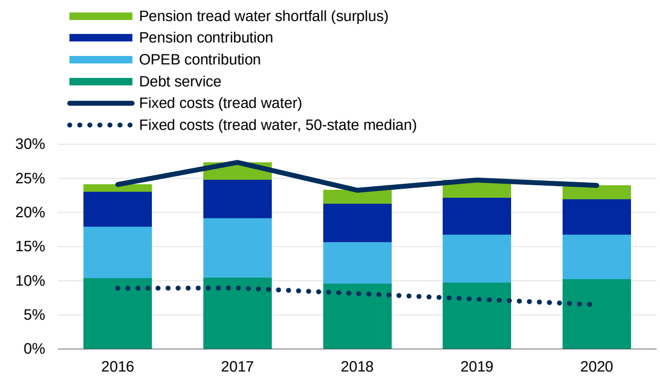
Notably, the state also made supplemental contributions to the OPEB trust beyond the statutorily-required amounts--$100 million in fiscal 2014, $34 million in 2015, $86 million in 2016, $103 million in 2017 and $40 million in 2018. While the state proposed to defer OPEB pre-funding contributions indefinitely as a way to balance the budget during the pandemic, improved state revenue and federal funds allowed it to maintain its ARC contributions and it added an additional $390 million for fiscal 2021. At the end of fiscal 2019, the trust fund had a balance of $1.8 billion and that has increased to $3.7 billion in fiscal 2021.

Exhibit 8
Hawaii's leverage compares unfavorably to other states
Bonded debt, pension and OPEB liabilities as a percentage of GDP



Source: Hawaii audited financial statements, Moody's Investors Service

Exhibit 9
Fixed costs are similarly high
Fixed costs for debt service, pensions and OPEB as a percentage of state own-source revenue



Source: Hawaii audited financial statements, Moody's Investors Service

ESG considerations

Hawaii (State of)'s ESG Credit Impact Score is neutral-to-low CIS-2.

Exhibit 10
ESG Credit Impact Score

CIS-2

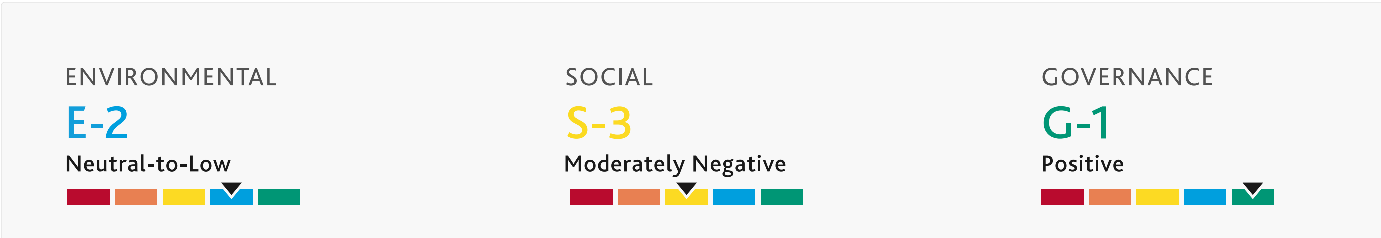
Neutral-to-Low

For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

Source: Moody's Investors Service

Hawaii's ESG Credit Impact Score is neutral-to-low (**CIS-2**) reflecting its neutral-to-low exposure to environmental risks, neutral-to-low exposure to social risks and a positive governance profile.

Exhibit 11
ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

Hawaii's E issuer profile score is neutral-to-low (**E-2**). According to data from Moody's affiliate Four Twenty Seven, Hawaii counties' average projected rate of change in five climate risk factors, when weighted by county GDP, is below average in the nation. Oahu, the City and County of Honolulu, which accounts for over 70% of the state's GDP, is projected to have high heat risk and sea level rise risk according to Four Twenty Seven's assessment scale. The state may also be vulnerable to an increase in the frequency and severity of tropical storms. The state has established its Hawaii Hurricane Relief Fund (HHRF) to address the costs of such storms, but it will continue to rely upon the availability of federal aid through FEMA to mitigate the costs of the largest storms. Hawaii's natural capital is one of its most positive assets, driving tourism and agriculture.

Social

Hawaii's S issuer profile core is moderately negative (**S-3**). While total population increased over the last 10 years, in recent years it is declining slightly. Declines in working age population are particularly persistent and coupled with the state's aging population and negative net migration will make affordability of long term liabilities more difficult.

Governance

Hawaii has very strong governance practices, reflected in its positive G issuer profile score (**G-1**). These practices include consensus revenue forecasts, updated quarterly and multiyear financial planning. The governor has power to restrict spending during the fiscal year, if necessary. The constitution does not provide for voter initiatives. The state adopted its first debt affordability study and debt polices in December 2016.

Rating methodology and scorecard factors

Exhibit 12

Rating Factors	Measure	Score
Factor 1: Economy (25%)		
a) Per Capita Income Relative to US Average [1]	101.7%	Aaa
b) Nominal Gross Domestic Product ($ billions) [1]	$89.9	Aaa
Factor 2: Finances (30%)		
a) Structural Balance	Aa	Aa
b) Fixed Costs / State Own-Source Revenue [2]	24.0%	Baa
c) Liquidity and Fund Balance	Aa	Aa
Factor 3: Governance (20%)		
a) Governance / Constitutional Framework	Aaa	Aaa
Factor 4: Debt and Pensions (25%)		
a) (Moody's ANPL + Net Tax-Supported Debt) / State GDP [2] [3]	27.3%	A
Factors 5 - 10: Notching Factors [4]		
Adjustments Up: None	0	
Adjustments Down: Economic Volatility; Pension/OPEB	-1	
Rating:		
a) Scorecard-Indicated Outcome		A1
b) Actual Rating Assigned		Aa2

[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 Methodology.
Source: US Bureau of Economic Analysis, state audited financial statements, Moody's Investors Service

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