MOODY'S
INVESTORS SERVICE

CREDIT OPINION
17 October 2022

Send Your Feedback

Contacts

Sunny Zhu +1.415.274.1721
AVP-Analyst
sunny.zhu@moodys.com

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

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

Hawaii (State of)

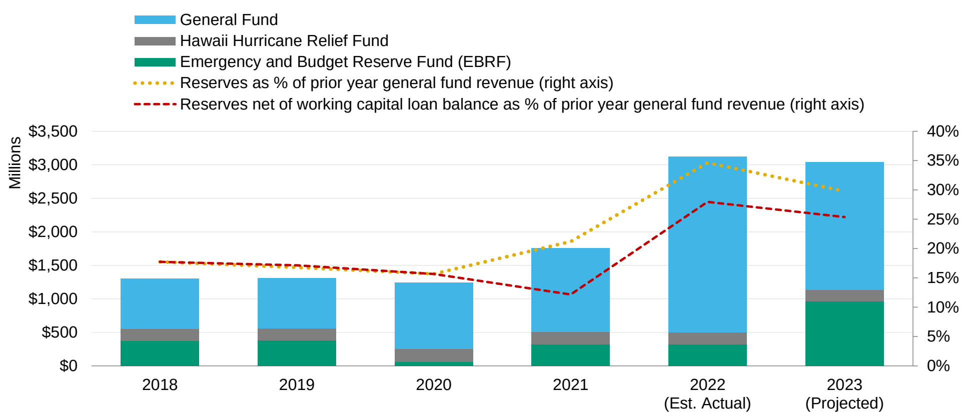
Update to credit analysis following revision of outlook to stable

Summary

The State of Hawaii (Aa2 stable) benefits from conservative and proactive fiscal management as well as strong executive authority to reduce spending. The state's economy has experienced a dramatic turnaround from the coronavirus driven recession; however, its full recovery will likely take place behind many peers'. Hawaii's tourism industry was hard hit by the public health crisis partly because of initial visitor quarantine requirements the state imposed. Now, new global economic headwinds could weigh on Hawaii's recovery; high inflation and interest rates will likely erode consumer purchasing power and diminish business investments, and a strong dollar could deter foreign travelers. The state's high leverage and fixed costs are also credit weaknesses because they limit financial flexibility. However, the availability of federal pandemic aid and better-than-expected revenue performance in recent years have resulted in a significant increase in the state's reserves to record levels (see Exhibit 1), which we expect will help the state weather the current high inflation period and global economic slowdown.

On Oct. 13 we affirmed the state's Aa2 issuer rating and revised the outlook to stable from positive. At the same time, we affirmed all the ratings on the state's other debt instruments.

Exhibit 1
Hawaii's strengthened reserves will help the state weather rising costs and the global economic slowdown
Fiscal year ending June 30



Note: budget basis; this exhibit incorporates the $130 million deposit to the EBRF from the general fund the state anticipates to make during 2Q fiscal 2023
Source: State of Hawaii; Moody's Investors Service

Credit strengths

» Material government and defense industries provide critical anchors to the state's economy

» 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

» Sound reserves and strong liquidity position

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

Credit challenges

» Significant tourism industry leads to above average vulnerability to economic downturns

» High cost of living, outmigration, aging population and below average labor force participation rate constrain long-term economic growth

» Elevated leverage and fixed costs limit financial flexibility

Rating outlook

The revision of the outlook to stable from positive reflects our expectation that given its significant tourism industry, lagging demographic trends and already high cost of living, Hawaii is vulnerable to high inflation and potentially less favorable economic conditions ahead. Nonetheless, the stable outlook reflects our expectation that through careful fiscal management, the state’s financial position will remain healthy and that it will continue to proactively address its social challenges and elevated liabilities over the long-term.

Factors that could lead to an upgrade

» Stronger and more stable trend of economic growth, especially as compared to the US and other states

» Strengthened socioeconomic profile and demographic trends

» Steady continuation of efforts to reduce long-term liabilities

Factors that could lead to a downgrade

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

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

» Sustained growth in leverage and fixed costs

Key indicators

Exhibit 2

	2020	2021	State Medians (2021)
Economy			
Nominal GDP ($billions)	82.5	91.1	251.2
Real GDP, annual growth	-11.5%	6.3%	5.3%
RPP-adjusted per capita income as % of US	88.0%		95.7%
Nonfarm employment, annual growth	-15.0%	4.2%	2.7%
Financial performance			
Available balance as % of own-source revenue	37.3%	47.5%	26.2%
Net unrestricted cash as % of own-source revenue	44.0%	76.5%	40.1%
Leverage			
Total long-term liabilities as % of own-source revenue	427.0%	500.3%	155.0%
Adjusted fixed costs as % of own-source revenue	21.3%	29.4%	6.3%

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 nominal state gross domestic product, $90.1 billion as of 2021, is the 41st largest. The state's resident income levels are below average, with per capita personal income equal to 88% of the US level after adjusting for regional cost of living.

The state government of Hawaii has total responsibility for many functions that are performed by or shared by local governments in most other parts of the US, including the public school system, libraries, public welfare and judiciary.

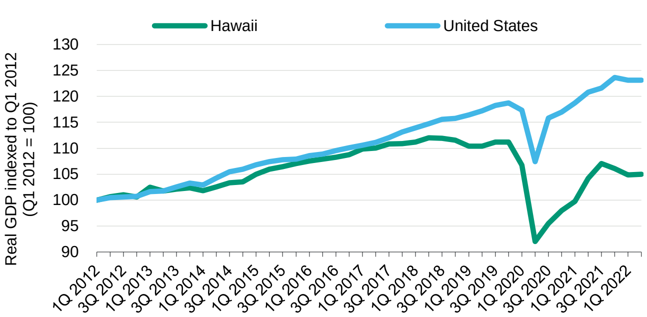
Detailed credit considerations

Economy

Hawaii's economy has experienced a dramatic turnaround from the coronavirus driven recession. However, the current global economic slowdown will likely dampen Hawaii's recovery as high inflation and interest rates erode consumer purchasing power and diminish business investments. Over the long term, the state's economic growth could be constrained by weaker demographic trends, including outmigration, aging population and below average labor force participation.

Exhibit 3

Hawaii's GDP was hard hit by the public health crisis

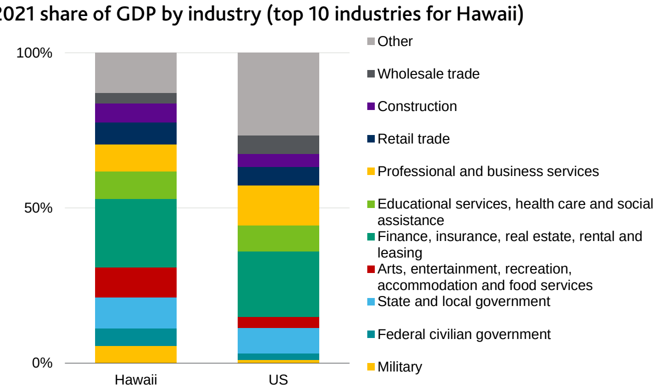


Source: US Bureau of Economic Analysis; Moody's Investors Service

Exhibit 4

Hawaii's large government and military presence provide stability but sizable tourism sector exposes it to volatility

2021 share of GDP by industry (top 10 industries for Hawaii)

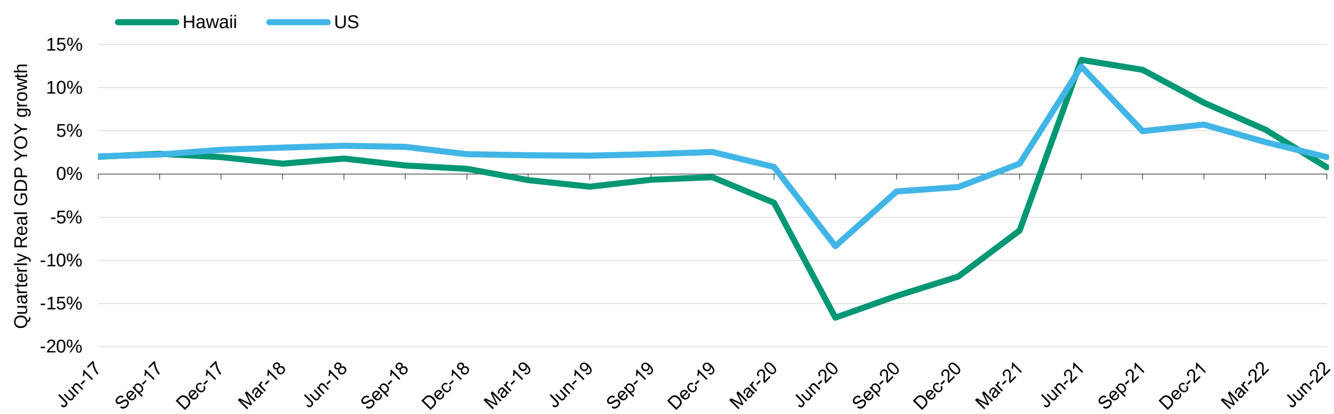


Source: US Bureau of Economic Analysis; Moody's Investors Service

As seen in Exhibit 3, the state's real GDP growth lagged the nation's before the start of the coronavirus pandemic, but then was especially hard hit given its significant tourism industry. The five-year compound average growth rate of its real GDP was 1.5% through 2019, 90 basis points below the US; the five-year compound average growth rate of its real GDP declined to -0.7% through 2021, 280 basis points lower than that of the US. Notably, Hawaii's economy was hard hit by the pandemic in part because the state ordered visitors to self-quaratine for 14-days during early months of the outbreak to protect public health, thereby limiting visitor volume and economic activity. After the state instituted the Safe Travels program in October 2020, its economic recovery resumed strongly, with quarterly real GDP growth outpacing the nation's for several quarters (see Exhibit 5). However, as its suffered larger losses initially, Hawaii's full recovery will likely take longer. As of Q2 2022, Hawaii's real GDP remained 5.6% below its pre-pandemic (Q4 2019) level, while the nation's real GDP has surpassed the pre-pandemic peak by 3.7%. Going forward, Hawaii's economic growth will continue to be more volatile than the nation, given its large leisure and hospitality industry. Positively, Hawaii's significant public sector and large defense industry, dictated by the island's strategic geographic position, will continue to provide stability. The state reported that while the permit values of private construction decreased by 52.8% during Q2 2022 from a year ago, government contracts awarded increased by over 1500% during Q2 2022 from a year ago.

Exhibit 5

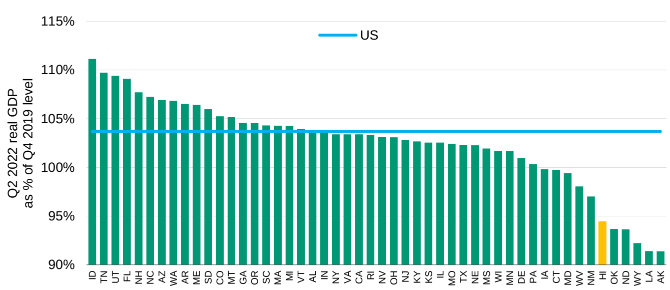
Hawaii's quarterly real GDP growth is outpacing the nation's as it recovers from the coronavirus pandemic



Source: US Bureau of Economic Analysis; Moody's Investors Service

Exhibit 6

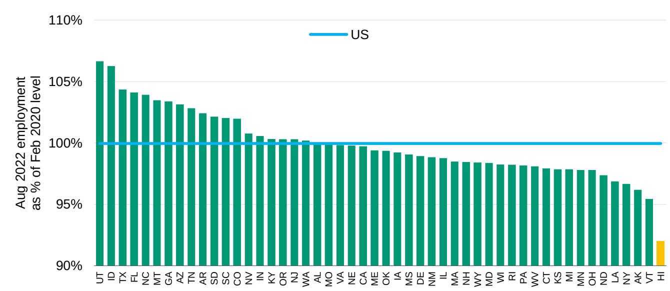
Hawaii's real GDP recovery from the pandemic is still behind most other US states because it was hit harder...



Source: US Bureau of Economic Analysis; Moody's Investors Service

Exhibit 7

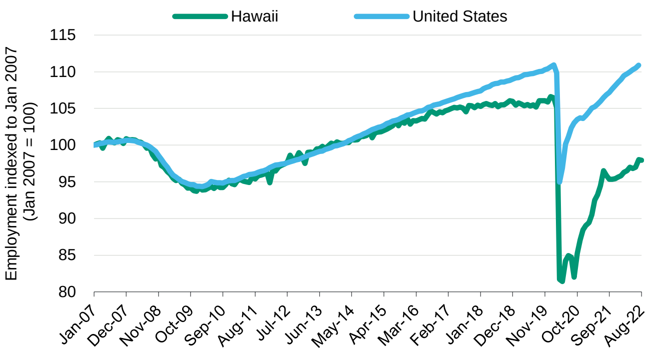
...as is its employment recovery



Source: US Bureau of Labor Statistics; Moody's Investors Service

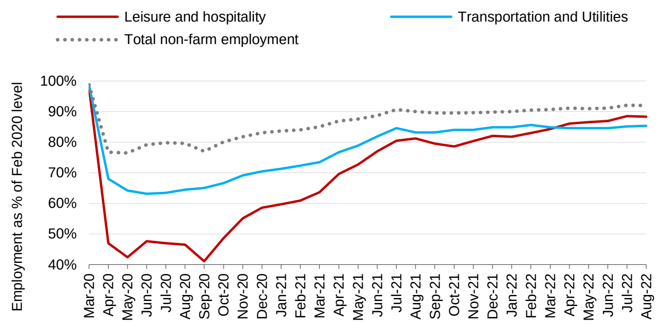
Hawaii's jobs recovery from the coronavirus pandemic is well underway, but also behind its peers (see Exhibit 7) because it suffered larger losses (Exhibit 8). Given its above average reliance on the tourism industry, Hawaii lost 23.5% of jobs during early months of the pandemic, far exceeding the national rate of 14.4%. As of August 2022, the state's employment remained 8.0% below its pre-pandemic (February 2020) level, while the nation overall has fully recovered jobs lost as a result of the pandemic.

Exhibit 8
Hawaii's jobs were hard hit by the pandemic...



Source: US Bureau of Labor Statistics; Moody's Investors Service

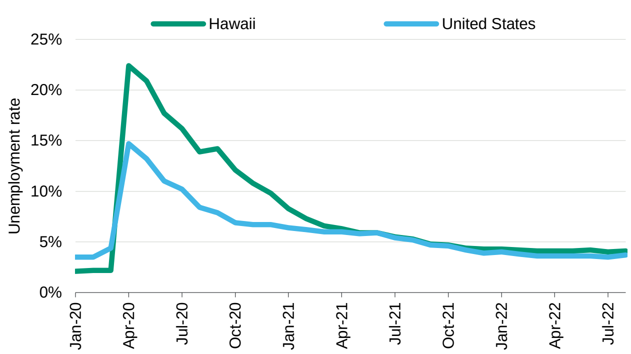
Exhibit 9
...recovery for select sectors and overall have slowed
Hawaii employment



Source: US Bureau of Labor Statistics; Moody's Investors Service

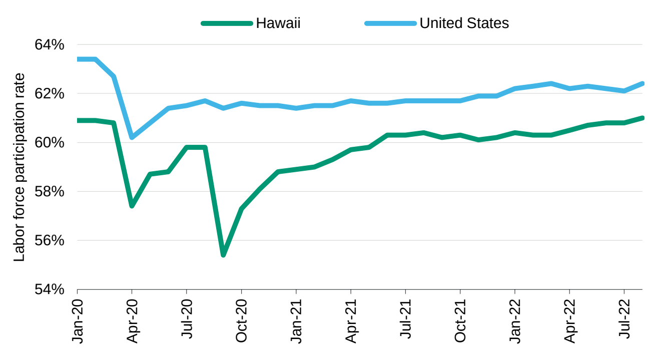
After skyrocketing to 22.4% at the onset of the pandemic, the state's unemployment rate has declined significantly to 4.1% as of August 2022 (Exhibit 10), slightly trailing the national rate (3.7%). However, Hawaii's labor force participation rate remains below average (Exhibit 11), and the state is currently seeing sizable labor shortages that are keeping businesses from running at desired capacity. The state has taken a number of steps to boost its employment base, including dedicating resources toward affordable housing and workforce development programs, allowing out-of-state nurses to temporarily practice in Hawaii without a state license and raising the minimum wage.

Exhibit 10
Hawaii's unemployment rate slightly trails the nation...



Source: U.S. Bureau of Labor Statistics; Moody's Investors Service

Exhibit 11
...and labor force participation rate has recovered to pre-pandemic levels, althought still below average

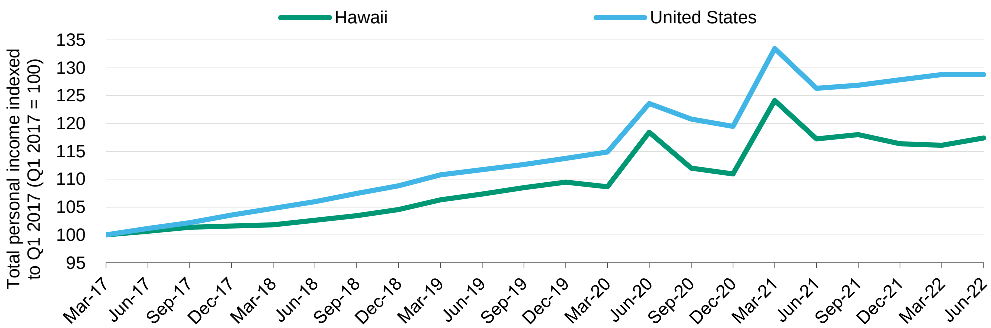


Source: U.S. Bureau of Labor Statistics; Moody's Investors Service

The recovery of Hawaii's tourism industry outpaced earlier projections, but could be dampened by the current global economic slowdown. Calendar year 2022 visitor volume through August represented 87.1% of 2019 levels for the same period. Notably, domestic visitors have surpassed pre-pandemic levels by 13.2%, while international visitor recovery remains slow. Japan's recent lift of travel restrictions could give a boost to Hawaii's tourism industry, but the strong appreciation of the dollar may make Hawaii less competitive as a travel destination. The state's Department of Business, Economic Development & Tourism forecasts that total visitors will not recover to pre-pandemic level until 2025.

Hawaii has the highest cost of living among all 50 states, as measured by regional price parity (RPP). The state's per capita income, after adjusting for RPP, is relatively low at 88.0% of the US. In addition, the state's personal income growth has lagged the nation before the pandemic, with the gap widening following the crisis (see Exhibit 12). Because inflation has a highly regressive effect, states with lower resident income are more likely to see residents reduce consumption than peers. Positively, Hawaii has a larger average household size than the nation, and as such, Hawaii's median household income is favorably higher than the nation's, even after adjusting for cost of living. Hawaii's larger household size provides economy of scale for residents and could help alleviate rising costs, because costs for certain goods and services, such as housing and energy, are shared among more people.

Exhibit 12
Hawaii's personal income growth has been behind the nation's, and the gap widened following the pandemic



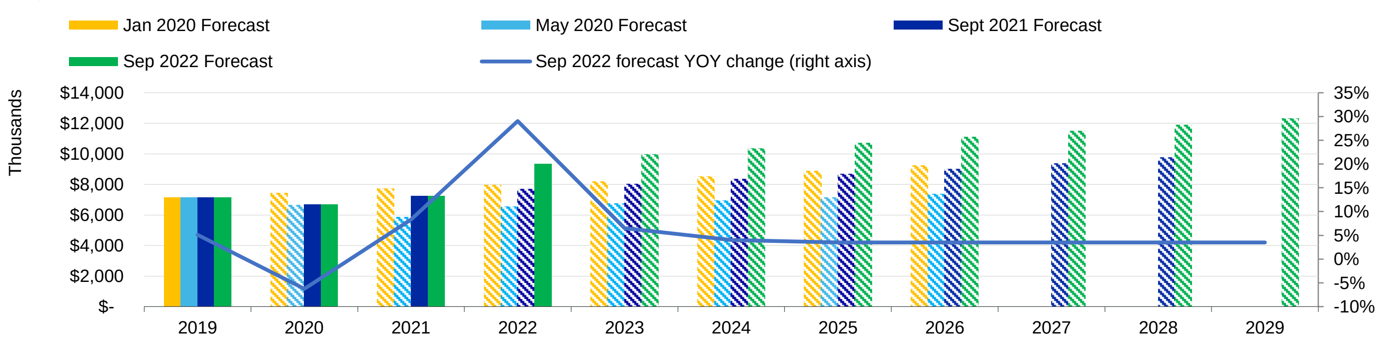
Source: US Bureau of Economic Analysis; Moody's Investors Service

Finances and liquidity

Despite above average revenue volatility that is closely tracked to tourism sector performance, Hawaii's finances will likely remain sound given the state's conservative and proactive fiscal management. The governor has strong executive power to reduce spending and the state has demonstrated a history of addressing revenue shortfalls promptly.

The recovery of visitors, jobs, coupled with the availability of significant federal stimulus aid have resulted in a dramatic turnaround in state revenue. After declining 6.3% in fiscal 2020, budget basis general fund tax revenue grew by 8.3% in fiscal 2021 and a record 29.0% in fiscal 2022, greatly outperforming earlier projections (see Exhibit 13). The September 2022 state Council on Revenue's' forecast projects general fund tax revenue to grow 6.5% in fiscal 2023, roughly in-line with inflation rate projected for calendar 2022. Fiscal 2023 year to date revenue collections through August are up 12.1%, exceeding projections. General fund tax revenue is then forecast to grow by 4.0% in fiscal 2024, followed by 3.5% growth in each of fiscal 2025 through fiscal 2029. General excise tax and income tax, which make up the bulk of Hawaii's general fund tax revenue (see Exhibit 14), have some built-in inflation protection. Also notably, around 30% of the state's general excise tax are paid by nonresidents, alleviating Hawaii residents' tax burden.

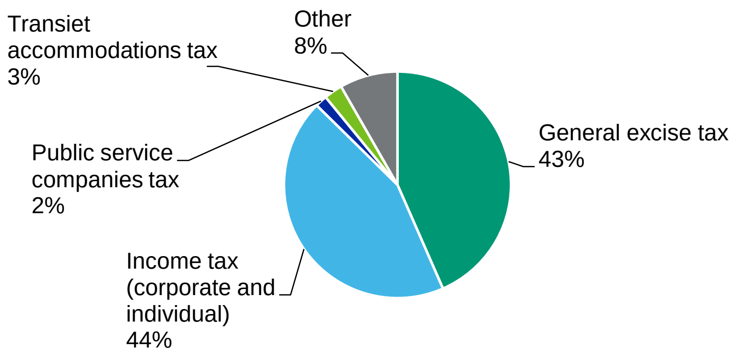
Exhibit 13
Hawaii's general fund tax revenue has significantly outperformed previous projections
Budget basis (fiscal year ending June 30)



Notes: solid bars are actuals; shaded bars represent forecasts
Source: State of Hawaii; Moody's Investors Service

Exhibit 14

General excise tax and income tax contribute the bulk of the state's general fund own source revenue
GAAP basis (fiscal year 2021)



Source: State of Hawaii audited financial; Moody's Investors Service

The state's reserve position has strengthened significantly (see Exhibit 1) with the influx of federal pandemic aid and better-than-expected revenue performance, providing significant buffer against the high inflation era and global economic slowdown. After drawing down its rainy day fund in fiscal 2020, the state's combined general fund plus Emergency Budget Reserve Fund (EBRF) grew to a record $2.9 billion as of fiscal 2022 end or 32.7% of prior year general fund revenue. Netting out the balance of the working capital loan the state took out at the onset of the pandemic, the state's reserves remain at a historical high. Although not formally established as a budget reserve, the Hawaii Hurricane relief fund (HHRF) also serves as an additional a de facto budget reserve. The HHRF was established to provide hurricane insurance coverage for property owners should private market prove unreliable, and can be used to bridge general fund shortfalls if needed, with a majority vote of the Legislature. As of fiscal end 2022, the HHRF balance was $173 million, representing 1.9% of prior year general fund revenue.

Hawaii's fiscal 2023 budget includes a sizable 19.8% increase in general fund operating expenditures that include raises to most bargaining units and to plenish resources to programs slashed under the threat of the pandemic. The supplemental budget also appropriated $2.5 billion in one-time spending for fiscal 2022 and 2023 combined, including $600 million for the Department of Hawaiian Home Lands (DHHL) to expand housing for Native Hawaiians, $336 million to award court-ordered damages to Native Hawaiians wait-listed for DHHL benefits, a $500 million deposit into the EBRF, $300 million pension pre-funding, $300 million deposit into rental housing revolving fund and $200 million to develop facilities to expand public prekindergarten. The legislature also passed a bill to provide one time tax rebate to individuals who earn less than $100,000, which will cost an estimated $338 million (3.3% of fiscal 2022 revenue). Despite the large spending increase and one-time appropriations, the state currently forecasts that it will end fiscal 2023 with combined general fund, EBRF and HHRF exceeding $3.0 billion (cash basis) or around 29% of prior year revenue.

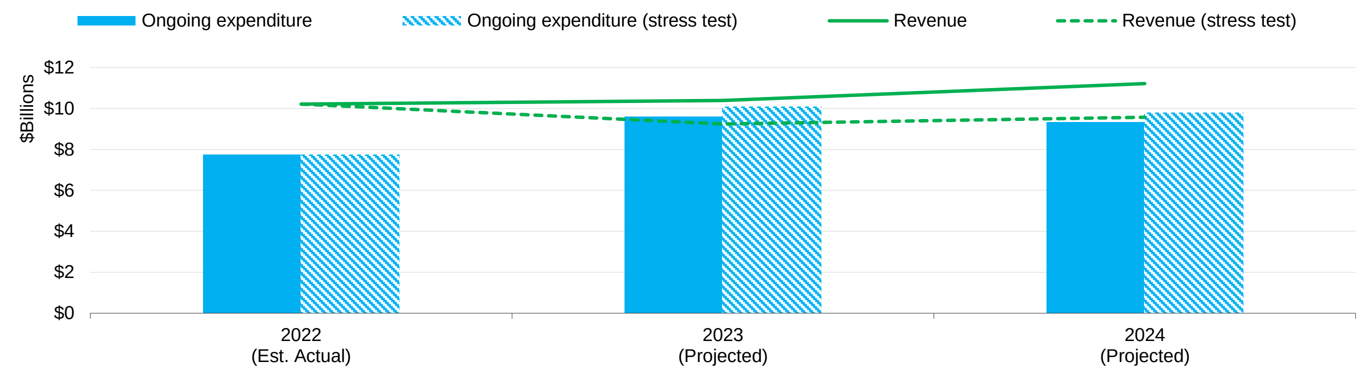
Absent an economic downturn, the state's current multiyear financial projection forecasts general fund surpluses in the outer years and continued build up of reserves. However, state constitution provides that whenever the general fund balance at the close of each of two successive fiscal years exceeds 5% of respective general fund revenue, the Legislature shall provide for a tax refund or tax credit to taxpayers or prepay debt, pension or OPEB liabilities. The Legislature will likely consider a combination of these approaches to draw down reserves, although the state is also considering raising its reserve policy.

Our stress test for Hawaii shows that even if it suffers a revenue downturn as large as that felt during the Great Recession, while expenditures rise unexpectedly because of high inflation, the state will have more than sufficient reserves to cover a potential budget gap and its finances should remain sound. However, the state's ability to tackle its social challenges and elevated long-term liabilities further will be more limited in a downside scenario.

Exhibit 15

Our stress test shows that Hawaii's financials should remain sound even under a stress test scenario

General fund (fiscal year)



Stress test assumes revenue decline of 9.5% in fiscal 2023 followed by 3.5% growth in fiscal 2024; expenditure grows by 5% from budgeted and projected figures.
Source: Moody's Investors Service

Liquidity

Hawaii's liquidity position is strong. On a GAAP basis, the state's available operating fund balance, which for the purpose of our analysis includes unassigned, assigned and committed governmental fund, totaled $4.1 billion (47.5% of own source revenue) as of the end of fiscal 2021. Governmental net unrestricted cash as of fiscal end 2021 represented a robust 76.5% of own source revenue.

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. As of June 30, 2022, the state's total investment portfolio had a market value of approximately $10.6 billion.

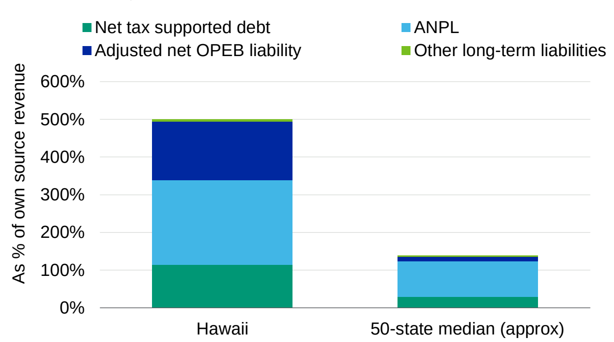
Leverage

Hawaii's overall leverage will likely remain elevated compared to its peers, because it is responsible for several functions that are typically supported by regional and local governments in other states. These additional responsibilities include public education, hospital system, and jail and penitentiary system. Positively, the state has taken various steps to address its pension and OPEB liabilities, which make up most its governmental long-term liabilities.

Exhibit 16

Hawaii's leverage is over three times the 50-state median

Fiscal 2021 long-term liabilities as % of own source revenue

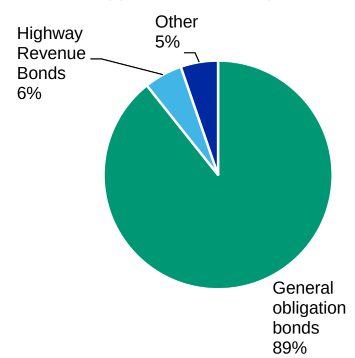


ANPL stands for adjusted net pension liability
Source: State audited financials; Moody's Investors Service

Exhibit 17

The bulk of Hawaii's debt is GO bonds

Fiscal 2021 Hawaii net tax supported debt composition

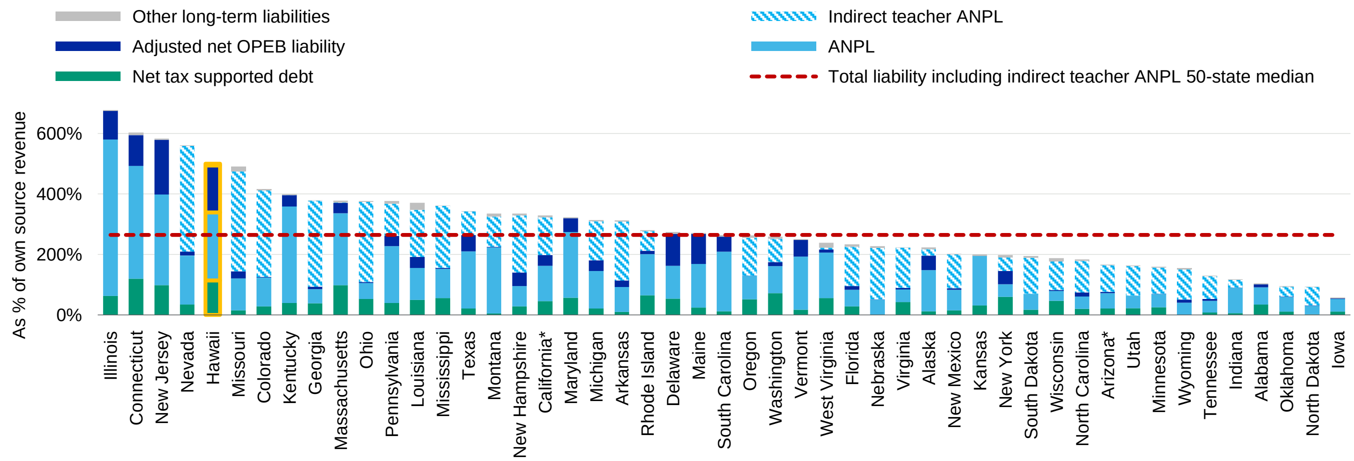


Source: State of Hawaii audited financial; Moody's Investors Service

As of fiscal 2021, the state's governmental long-term liabilities (net tax supported debt, adjusted net pension liability, adjusted net OPEB liability and other long-term liabilities) represented 500.3% of own source revenue, the fourth highest of all 50 states and is over three times the 50-state median (155.0% of own source revenue). The state's leverage is still well above the 50-state median and ranks the fifth highest among all states, even when we include indirect teacher pension liabilities for other states.

Exhibit 18

Hawaii's leverage is high even when we include indirect ANPL for the sector



*Only fiscal 2020 data are available for these states

Note: for states that already report a 100% share of teacher liabilities in their financial statements, no additional indirect teacher liability are added in this chart

Source: State audited financials and pension plan financial statements; Moody's Investors Service

The state also has an elevated fixed costs burden, which limits financial flexibility. As of fiscal 2021, Hawaii's fixed costs (implied debt service, pension tread water contribution, actual OPEB contribution and implied other long-term liabilities carrying costs) represented 29.4% of own-source revenue, the highest among all fifty states and well above the sector median (6.3% of revenue). Excluding the $390 million additional OPEB contribution the state made on top of ARC (mostly for fiscal 2022 pre-funding requirement), the state's fiscal 2021 fixed costs burden would still be elevated at 24.9% of own source revenue.

Debt structure

Hawaii's net tax supported debt (NTSD) is almost entirely comprised of general obligation bonds (89.3% as of fiscal end 2021). The state's constitution limits the issuance of GO bonds so that aggregate maximum annual debt service does not exceed 18.5% of the average of own source general fund revenue in the three fiscal years immediately preceding such issuance. Hawaii's general obligation bonds are long term fixed rate debt, conservatively structured with a maximum maturity of 25 years and level annual debt service. Payout of the state's general obligation debt is relatively rapid with around 69% of principal repaid in 10 years. Post the issuance of the GO Bonds 2022 series GK, the state's GO bonds have a final maturity in 2043.

The state's highway revenue bonds made up around 5.4% of its NTSD as of fiscal end 2021. The highway revenue bonds are also long-term fixed rate bonds and have a final maturity in 2041.

The balance of the state's NTSD is mainly comprised of debt issued by the Department of Hawaiian Homelands, Department of Business, Economic Development and Tourism, notes and loans and capital leases.

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.

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 Department of Hawaiian Homelands' COPs are payable by lease payments to be made by the state from its general fund for the use of the Department of Hawaiian Homeland's headquarters facility in the Kapolei area of Oahu. Lease payments are subject to appropriation by the state legislature.

The Department of Hawaiian Homelands' Revenue Bonds are special limited obligations of the department payable by a first lien on revenue from general leases, licenses, permits and investment income collected from management and operation of the available lands.

In addition, pursuant to a contract between the department and the Office of Hawaiian Affairs (OHA), a separate state agency, OHA has agreed to pay the department $3 million annually as long as the revenue bonds are outstanding. Although not pledged to the bonds, the OHA payments are specifically designated in the contract for the payment of debt service on the revenue bonds. In practice, the department has always used the OHA payments and interest earnings on the payments to pay debt service on the revenue bonds. OHA's obligation to make the annual payments is absolute and unconditional, and not subject to appropriation by the state legislature.

Debt-related derivatives

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

Pensions and OPEB

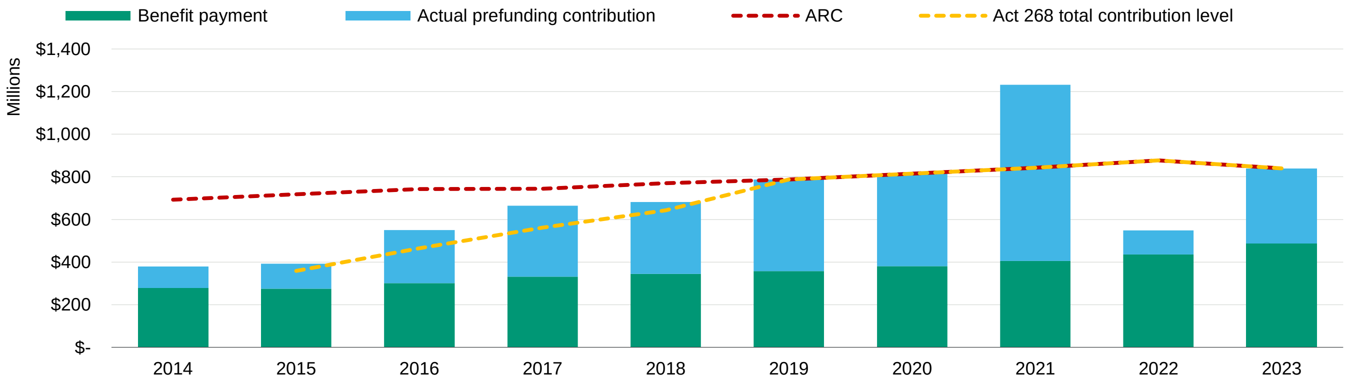
Despite improved pension contributions in recent years, Hawaii’s unfunded pension liabilities will likely remain above median over the medium term. As of fiscal 2021 reporting, Hawaii's governmental adjusted net pension liabilities (ANPL) totaled $19.6 billion, representing 224.5% of own source revenue, well above the 50-state median (92.0% of own source revenue). Similar to its peers, Hawaii's ANPL will likely decline as of fiscal 2023 reporting (2022 measurement date), given increases in the market interest rate that we use to discount these liabilities.

Following a reduction in the discount rate to 7% in 2016, the legislature also enacted higher employer contribution rates to address its elevated pension 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 reported unfunded actuarial accrued liability (UAAL) by 2044, but is challenging the state by increasing its already high fixed costs burden.

As of fiscal 2021 reporting, the state's governmental pension contribution represented 7.8% of own source revenue, but remained around $115.0 million (1.3% of own source revenue) below our pension tread water calculation. Having a tread water gap indicates that the state's net pension liability will continue to grow based on the current investment target. However, following a nearly 27% investment gain by the Hawaii Employees' Retirement System in 2021, the state's pension contributions should exceed our tread water indicator in fiscal year 2022 after years of trailing this benchmark.

Hawaii's unfunded OPEB liability is also quite elevated. At the end of fiscal 2021, Moody's governmental adjusted OPEB liability for the state totaled $13.5 billion, representing 155.2% of own source revenue in comparison to the 50-state median (11.9% of own source revenue). The state historically funded its OPEB 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 Annual Required Contributions (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 at the start the pandemic, improved state revenue and federal funds allowed it to maintain its actuarial requirement contribution levels in 2020 and fiscal 2021. In fiscal 2021, the state also made an additional $390 million contribution to its OPEB trust beyond the actuarial requirement amount, mainly toward fiscal 2022 pre-funding requirement (see Exhibit 19). The state's fiscal 2021 governmental OPEB contribution represented an elevated 12.7% of own source revenue compared to the 50-state median (0.5% of revenue), and would still be high at 8.2% of revenue if it only made contribution based on ARC.

Exhibit 19
Hawaii has ramped up OPEB contribution in recent years

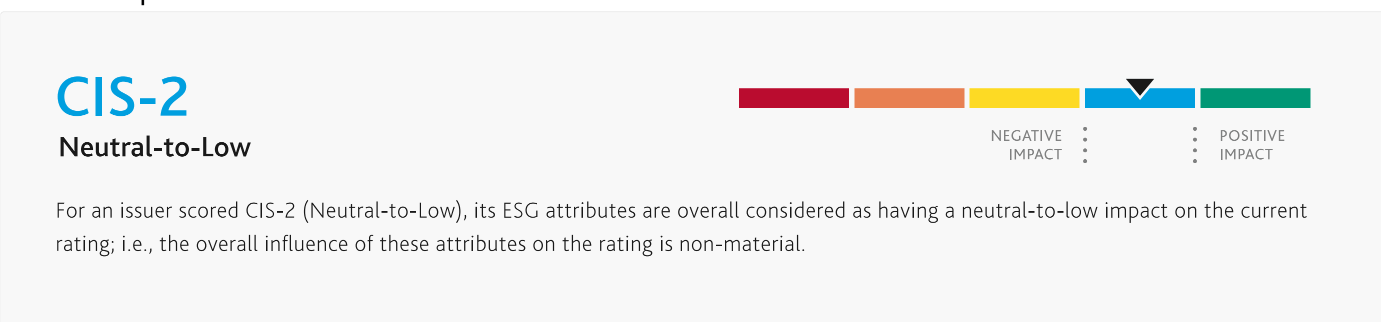


Note: the state made $390 million extra contribution on top of ARC in fiscal 2021, while fiscal 2022 actual contribution was $328.6 million below ARC. As such, the state made $61.3 million additional contribution on top of ARC in fiscal 2021 and fiscal 2022 combined.
Source: State of Hawaii; Moody's Investors Service

ESG considerations

Hawaii (state of)'s ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 20
ESG Credit Impact Score



Source: Moody's Investors Service

Hawaii's ESG Credit Impact Score is neutral **(CIS-2),** reflecting its negative exposure to environmental risks, moderately negative exposure to social risks, offset by strong governance.

Exhibit 21
ESG Issuer Profile Scores

Source: Moody's Investors Service

Environmental

Hawaii's E issuer profile score is moderately negative **(E-3)**, reflecting its above average exposure to physical climate risks, particularly sea level rising. As the only US state that is on islands and given its coastal focused society, Hawaii faces the highest sea level rising risks among all 50 states, according to Moody's ESG solutions: around 68% of its GDP is vulnerable to this long-term risk. The state's Sea Level Rise and Vulnerability and Adaptation Report also predicted that if the state's sea levels were to rise 3.2 feet, an estimated $19 billion of economic loss would result. With global warming, the state is also vulnerable to an increase in frequency and severity of tropical storms and coastal floods. To mitigate these risks, Hawaii created the Hawaii Climate Change Mitigation and Adaptation Commission in 2017 that prioritizes in adaptation to sea level rise, including disaster recovery preparedness, in addition to ground transportation emissions reduction. The state's Office of Planning and Sustainable Development is also initiating a study to identify existing and planned state facilities that are vulnerable to sea level rise, flooding impacts, and natural hazards, and to assess a range of options to mitigate these risks. The state has also established its Hawaii Hurricane Relief Fund to provide hurricane property insurance policies in the event they are not available in the private market, but it will continue to rely upon the availability of federal aid through FEMA to mitigate the costs of the largest storms.

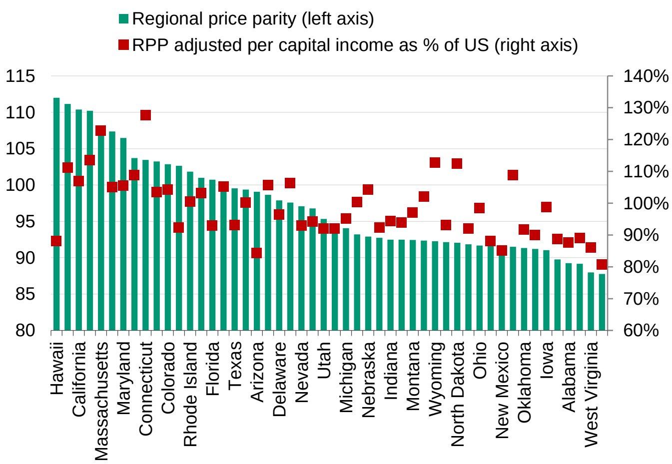
Hawaii's natural capital is one of its most positive assets, attracting tourism. The Department of Land and Natural Resource is dedicated to enhance, protect, conserve and manage Hawaii's unique and limited natural, cultural and historic resources.

Social

Hawaii's S issuer profile score is moderately negative **(S-3)**. The state has the highest cost of living (as measured by regional price parity) among all US states, given its high housing costs, the need to import a significant amount of goods and relatively high tax burden. Shortage of affordable housing is an ongoing challenge that has contributed to sizable net out-migration (see Exhibit 23), labor shortages, and high per capita homeless rate compared to peers.

Exhibit 22

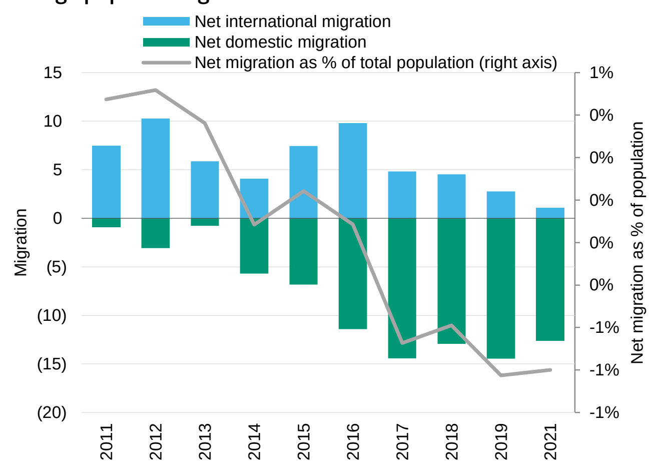
Hawaii has the highest regional price parity (RPP) among all states, and per capita income is low after adjusting for RPP



Source: US Bureau of Economic Analysis; Moody's Investors Service

Exhibit 23

Hawaii's sizable net out-migration has contributed to below average population growth



Note: data is not available in census years (i.e. 2020)
Source: US Census Bureau; Moody's Investors Service

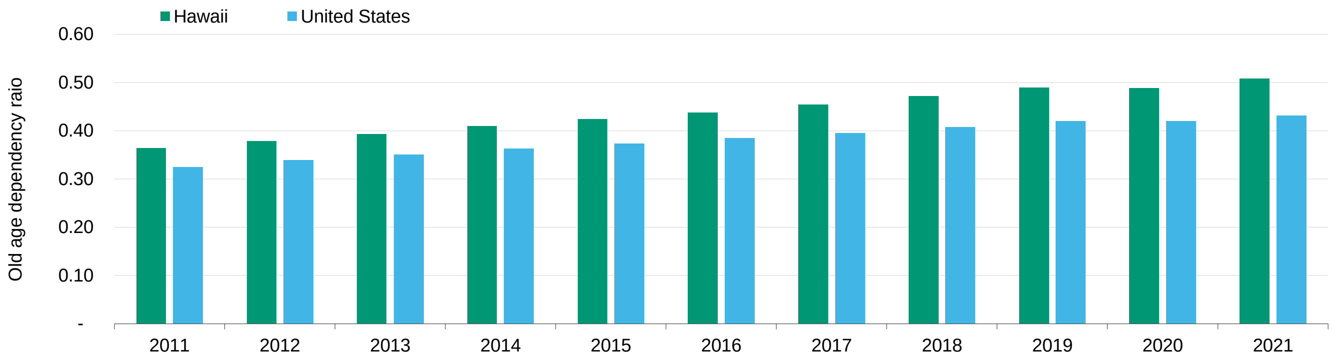
The state has recently dedicated a large share of its operating surpluses toward building affordable housing units and contributing to a rental housing revolving fund, but its housing challenge will take significantly more resources to tackle. Notably, Hawaii is responsible for protecting and improving the lives of Native Hawaiians, including providing affordable homestead leases, per the Hawaiian Homes Commission Act of 1920 incorporated in the State Constitution.

Another demographic challenge for Hawaii is its aging population. Between 2016 to 2021, Hawaii's 65+ population increased by 14.6% while its prime working age population (ages 25-54) decreased by 1.4%. As such, the state's old age dependency ratio, already above the US, has been rising at a faster pace. The state's labor force participation rate is also below the US and the state is currently facing significant labor shortage challenges, as mentioned above. These negative social and demographic trends constrain the state's economic growth and make liabilities less affordable. Positive social factors for Hawaii include above average education attainment and below average crime rate.

Exhibit 24

The state's old age dependency ratio is above US and rising at a faster pace

Population age 65-plus divided by the prime working age population



Source: US Census Bureau; Moody's Investors Service

Governance

Hawaii has very strong governance practices, reflected in its positive G issuer profile score **(G-1)**. These practices include consensus revenue forecasts that are updated quarterly, and multiyear financial and capital planning. The governor has the executive authority to control spending by restricting, delaying or suspending appropriations, including managing labor through furloughs during the fiscal year, if necessary. In addition, the state legislature has the ability to increase taxes and authorize debt without voter approval.

The state has a long track record of conservative debt management practices that are governed by a formal debt management policy, and the state adopted its first debt affordability study and debt polices in December 2016. Hawaii's recent rebuilding of its rainy day fund, and steps taken to increase its pension and OPEB contributions also evidence prudent management.

Rating methodology and scorecard factors

The US States and Territories Rating Methodology includes a scorecard, which summarizes the 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.

Exhibit 25

US states and territories rating methodology scorecard

Hawaii (state of)

	Measure	Weight	Score
Economy			
Resident Income (PCI Adjusted for RPP / US PCI)	88.0%	15%	Aa
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-2.8%	15%	Baa
Financial performance			
Financial performance	Aaa	20%	Aaa
Governance/Institutional Framework			
Governance/Institutional Framework	Aaa	20%	Aaa
Leverage			
Long-term liabilities ratio (adjusted long-term liabilities / own-source revenue)	500.3%	20%	Ba
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	29.4%	10%	Ba
Notching factors			
Very limited and concentrated economy			N/A
Scorecard-Indicated Outcome			A1
Assigned rating			Aa2

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

REPORT NUMBER 1335705

CLIENT SERVICES

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

MOODY'S
INVESTORS SERVICE