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CREDIT OPINION
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Hawaii (State of)

Update to credit analysis

Summary

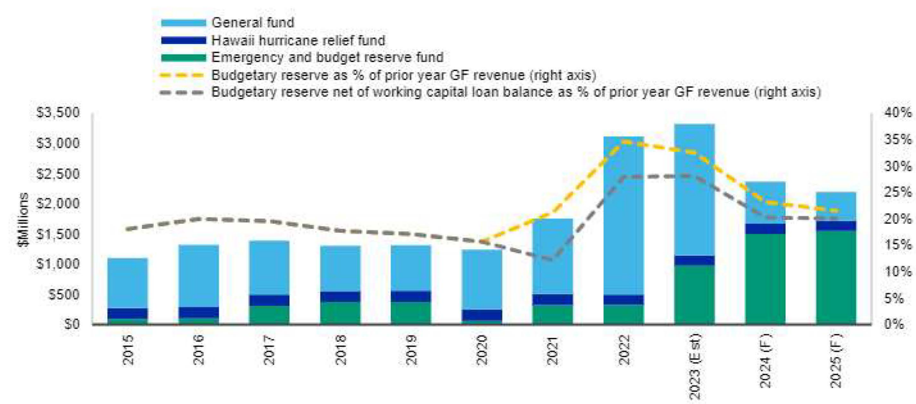
The State of Hawaii (Aa2 stable) benefits from conservative and proactive fiscal management as well as strong executive authority to reduce spending. The state's economy will continue to recover from the coronavirus pandemic, but only at a slower pace given softening global economic conditions. Attracting visitors to its natural beauty, warm climate and rich cultural heritage, Hawaii has a large tourism industry that can be vulnerable to external factors. Persistent high cost of living and weaker demographic trends stand to constrain Hawaii's longer-term economic growth and can add to social related expenses. Positively, the state's strengthened reserves (see Exhibit 1) will help it weather rising costs amid slower revenue growth. Significant federal support and the state's strong budget discipline will also allow it to manage recovery costs from the August 2023 Maui wildfires.

The state's leverage and fixed costs continue to be well above the sector median, limiting financial flexibilities, although these metrics have improved in recent years. The state is committed to addressing these burdens over the long-term.

Exhibit 1

Hawaii's strengthened reserves will help the state weather rising costs amid softening economic conditions

Fiscal year ending June 30



Note: budget basis; (F) represents forecast based on the state's September 2023 revenue forecast and fiscal 2024-2025 biennium budget.
In fiscal 2020, the state made a one-time transfer of $648 million from the Emergency and Budget Reserve Fund to general fund.
In fiscal year 2021, increase in reserve was in part driven by the state taking out a one-time $750 million working capital loan.
Source: State of Hawaii; Moody's Investors Service

Related Research

Share

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 actions to address revenue shortfalls/ unexpected expense increases

» Sound reserves and strong liquidity position, including a fully funded formal rainy day fund

» 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, geopolitical and public health events, as well as climate change

» 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

Hawaii's 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, adapt to climate change and reduce elevated unfunded 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 unfunded 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	2022	State Medians*
Economy				
Nominal GDP ($billions)	84.6	93.1	101.1	294.6
Real GDP, annual growth	-10.5%	5.7%	1.3%	1.7%
RPP-adjusted per capita income as % of US	85.5%	84.3%	83.3%	97.8%
Nonfarm employment, annual growth	-14.9%	4.8%	5.3%	3.6%
Financial performance				
Available balance as % of own-source revenue	37.3%	47.5%	49.5%	71.5%
Net unrestricted cash as % of own-source revenue	44.0%	76.5%	65.7%	38.6%
Leverage				
Total long-term liabilities as % of own-source revenue	427.0%	500.3%	396.4%	131.0%
Adjusted fixed costs as % of own-source revenue	21.3%	29.4%	18.4%	4.8%

*Financial and leverage medians reflect preliminary for FY2022 because select states have not released fiscal 2022 audited financial statements
Source: US Bureau of Economic Analysis, state audited financial statements, Moody's Investors Service

Profile

Hawaii is the 40th largest state by population, at 1.4 million. Its nominal state gross domestic product, $101.1 billion as of 2022, is the 40th largest. The state's resident income levels are below average, with per capita personal income equal to roughly 83.3% of the US level after adjusting for regional cost of living. However, Hawaii has a larger average household size than the nation and as such, Hawaii's median household income is around 107.5% of the nation's even 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; these include the public school system, libraries, public welfare and judiciary.

Detailed credit considerations

Economy

Hawaii's economic growth will slow in the coming quarters, along with the nation's, as tight financial conditions dampen consumers' purchasing power and weigh on business activity. The August 2023 wildfires on Maui will also add a hurdle to the state's full economic recovery from the coronavirus pandemic and add to its housing challenges. Over the longer-term, the state's very high costs of living and demographic challenges, including outmigration, aging population and below average labor force participation rate stand to constrain economic growth.

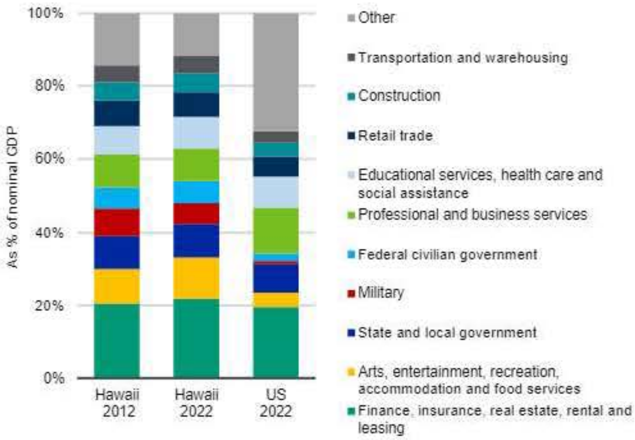
While Hawaii's economy has demonstrated remarkable resiliency over the years, its above average exposure to the tourism industry makes it vulnerable to external factors, including global economic conditions, geopolitical events, health crisis and natural disasters driven by climate change. The arts, entertainment, recreation, accommodation and food services industries contributed to 11.3% of Hawaii's 2022 nominal GDP (see Exhibit 3), higher than its share 10 years ago (9.5% in 2012) and more than double the nation's (4.1% in 2022). Yet, these statistics understate the tourism industry's overall impact on Hawaii's economy. Many other sectors – from real estate, construction, retail, business services to transportation – are connected to the tourism industry.

Hawaii's significant public sector and defense industries, anchored by the island's strategic geographic position in the Pacific, provides economic stability as they ensure a steady influx of federal fund and employment opportunities. However, this also means the state's economy could be vulnerable to changes in federal spending policies.

Exhibit 3

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

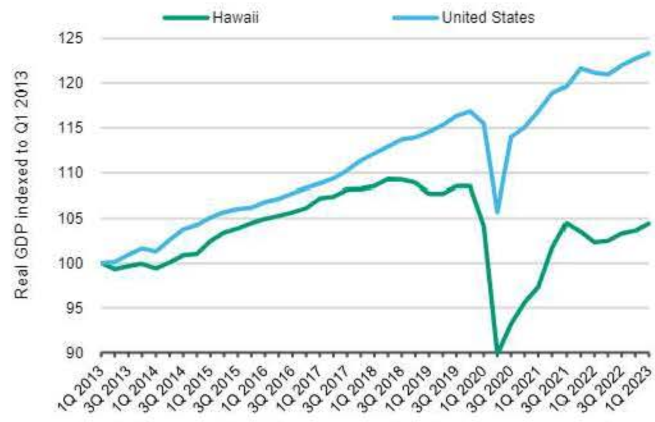
Share of nominal GDP by industry (top 10 industries for Hawaii)



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

Exhibit 4

Hawaii's real GDP is still recovering from the coronavirus pandemic

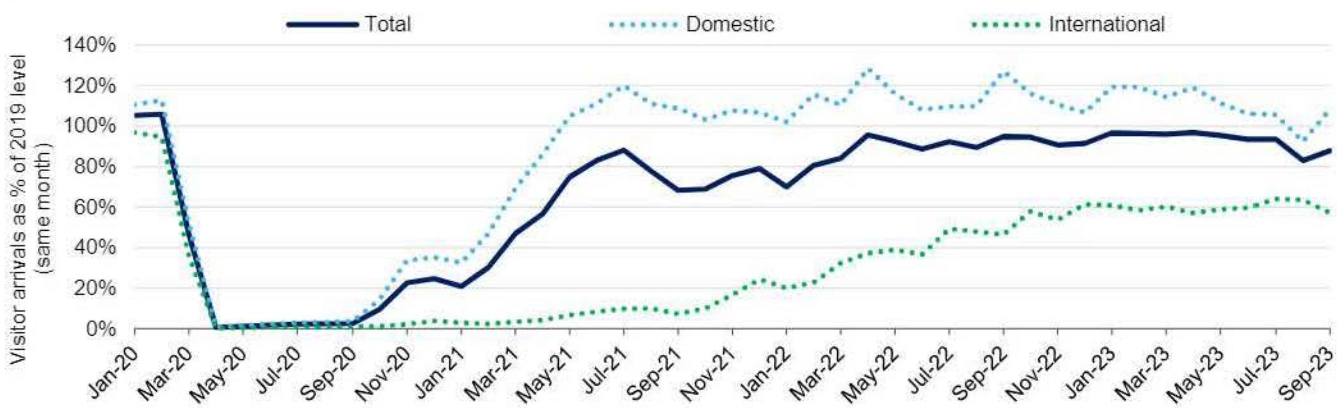


Source: US Bureau of Economic Analysis; Moody's Investors Service

As seen in Exhibit 4, Hawaii's economy was hard hit by the coronavirus pandemic in part because the state ordered visitors to self-quarantine for 14-days during early months of the outbreak, thereby limiting visitor volume and economic activity; while the state's economy recovered quickly after it eased quarantine requirements (Fall 2020), its real GDP growth has moderated in recent quarters as visitor growth plateaus (Exhibit 5). Positively, while visitor volumes have not recovered to pre-pandemic levels, visitor expenditures have exceeded 2019 levels by around 18.3% in 2023 through September.

Exhibit 5

Hawaii saw rapid visitor recovery after it eased quarantine requirements in October 2020, but total visitor growth has slowed in recent months

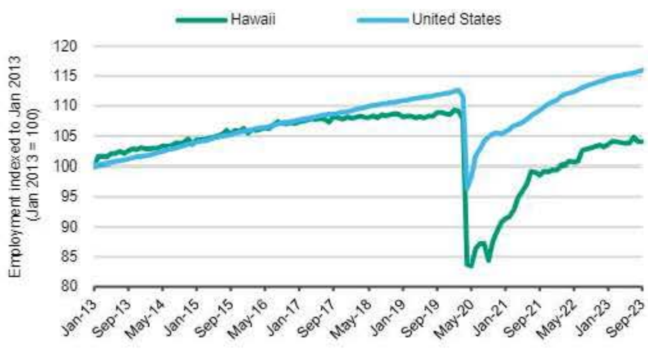


Source: State of Hawaii Department of Business, Economic Development & Tourism; Moody's Investors Service

Hawaii's jobs recovery from the coronavirus pandemic is still underway (Exhibit 6). As of September 2023, the state's employment remained 4.6% below its pre-pandemic (January 2020) level, while the nation has more than recovered jobs lost as a result of the pandemic. The state's employment in the leisure and hospitality industry (18.2% of 2022 total nonfarm employment) was hard hit by the public health crisis, while federal government jobs (5.6% of 2022 nonfarm employment) and healthcare and social assistance jobs (11.7% of 2022 nonfarm employment) demonstrated strong resiliency (Exhibit 7).

Exhibit 6

Hawaii's employment is still recovering from the pandemic...

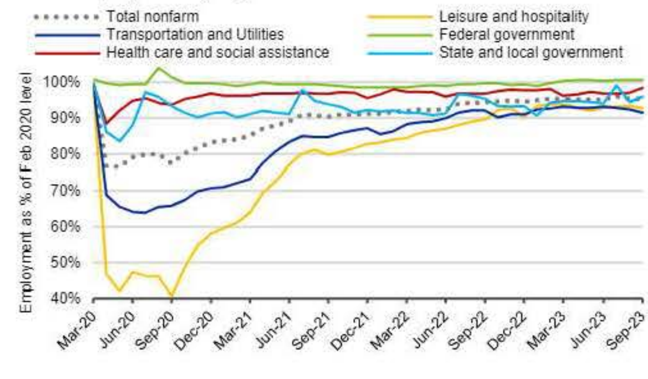


Source: US Bureau of Labor Statistics; Moody's Investors Service

Exhibit 7

...while tourism related jobs were hard hit by the pandemic, federal government jobs and healthcare and social assistance jobs demonstrated significant resiliency

Hawaii employment by key industries

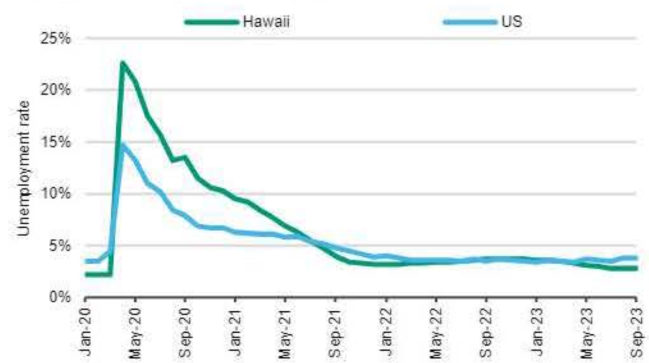


Source: US Bureau of Labor Statistics; Moody's Investors Service

After increasing to 22.4% at the onset of the pandemic, the state's unemployment rate has declined significantly and remained very low for months (Exhibit 8). However, Hawaii's population growth trails the nation's (see ESG section) and its labor force participation rate is below average (Exhibit 9), which can hamper economic outputs. The state continues to face labor shortages, in part given its very high cost of living, keeping industries from running at desired capacities. The state has taken a number of steps to boost its employment base, including dedicating resources toward affordable housing and workforce development programs, raising the minimum wage and funding education loan repayments for healthcare professionals.

Exhibit 8

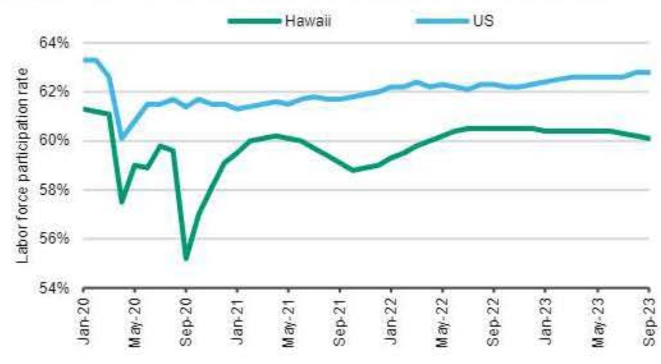
Hawaii's unemployment rate has been very low for months...



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

Exhibit 9

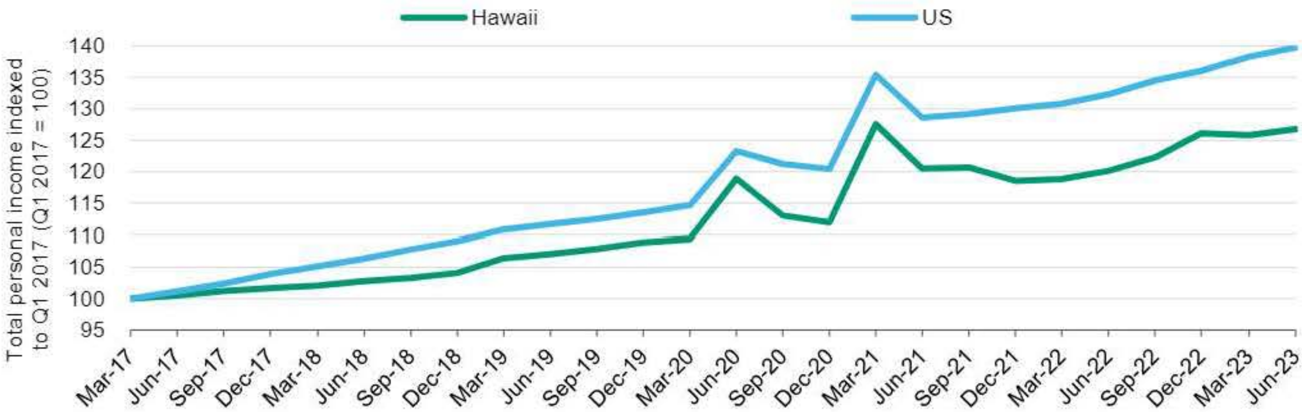
...although its labor force participation rate is below average



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

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 83.6% of the US. In addition, the state's personal income growth has trailed the nation in recent years (see Exhibit 10). Positively, Hawaii has a larger average household size than the nation and as such, its median household income is favorably higher than the nation's. Hawaii's larger household size provides economy of scale for residents, because costs for certain goods and services, such as housing and energy, are shared among more people.

Exhibit 10
Hawaii's personal income growth trails the nation's



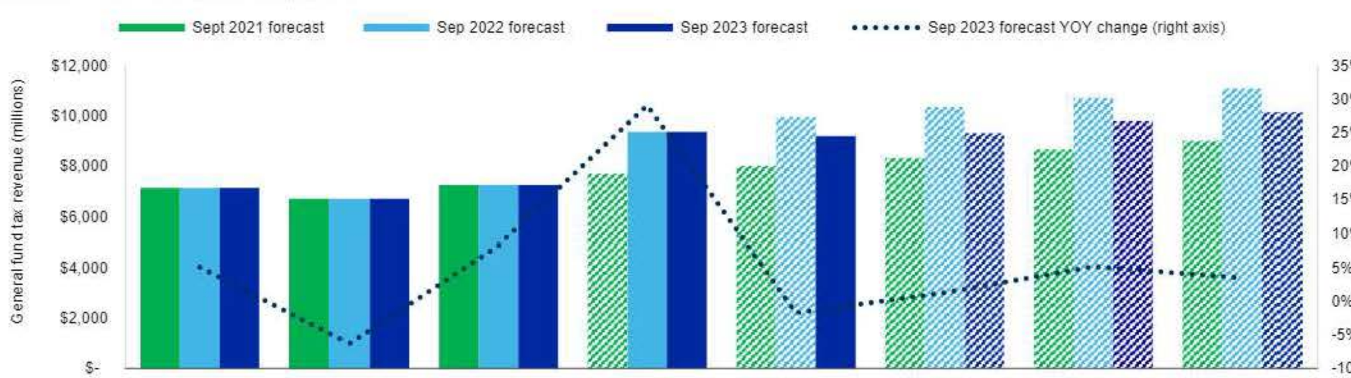
Source: US Bureau of Economic Analysis; Moody's Investors Service

Finances and liquidity

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/ unexpected expenditure increases promptly.

Similar to many of its peers, Hawaii's revenue growth is slowing down after experiencing record increases that benefited from consumers' income boost from federal stimulus aid, pent up demand for travel and high inflation. After seeing a 29.1% year-over-year growth in fiscal 2022, the state's underlying general fund tax revenue grew by 1.7% in fiscal 2023; actual receipts declined by 1.7% because of a one-time tax refund. The state's September 2023 Council on Revenue's forecast projects underlying general fund tax revenue to decrease by 2.0% in fiscal 2024 given signs of economic slowdown and recent wildfires in Maui, or a 1.3% growth from actual fiscal 2023 receipts (incorporating the one-time tax rebate). General fund tax revenue is then forecast to grow by 5.2% in fiscal 2025 amid post-fire rebuilding activities, followed by a 3.5% growth in fiscal 2026 (Exhibit 11).

Exhibit 11
Hawaii's fiscal 2024 general fund tax revenue forecast has been revised down from a year ago, but still exceeds projections during the coronavirus pandemic
Budget basis (fiscal year ending June 30)



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

The state's total governmental own-source revenue tracks the performance of its tourism industry, although its revenue has shown less volatility than visitor volume during the coronavirus pandemic (see Exhibit 12). According to Hawaii Tourism Authority's analysis, 2022 statewide visitor spending contributed $2.24 billion of the state's direct, indirect and induced tax revenue (over 20% of state governmental own-source revenue). General excise tax and income tax contribute the bulk of the state's governmental own source revenue; the broad nature of its general excise tax contributes to Hawaii's relative revenue stability.

Exhibit 12

Hawaii's governmental own-source revenue performance is affected by the tourism industry, but has generally been more resilient

Governmental own source revenue reflects total governmental fund revenue less federal revenue. General excise tax, income tax, transient accommodations tax and other governmental revenue data presented by fiscal year (ending June 30). Visitor days by calendar year.
Source: State of Hawaii and Moody's Investors Service

The state's reserve position has strengthened through fiscal 2023 (see Exhibit 1) with the influx of federal pandemic aid and better-than-expected revenue performance in recent years, providing a crucial buffer against the global economic slowdown and rising costs. The state's combined general fund, Emergency Budget Reserve Fund (EBRF) and Hawaii Hurricane relief fund (HHRF) totaled $3.3 billion (32.5% of prior year general fund revenue) as of fiscal end 2023 (unaudited), including a record $973.8 million in the EBRF. Notably, the state strengthened its reserve policy in December 2022 and now targets to maintain an overall budgetary reserve balance (general fund, EBRF, HHRF) at 25% of general fund revenue or 20% of revenue if EBRF is above 10% of revenue. The state recently deposited another $500 million into its EBRF in fiscal 2024, which is now at a record $1.5 billion (14.7% of prior year general fund tax revenue).

Hawaii's 2024-2025 biennium budget (July 1, 2023 — June 30, 2025) increases general fund expenditure by around $3.1 billion (15.8%) to tackle the state's pressing challenges, including housing affordability and homelessness, healthcare, climate and energy and education. Around $1.5 billion of the biennium budget appropriations reflect one-time items: $500 million deposit into EBRF, $280 million deposit into rental housing revolving fund, $100 million dwelling unit revolving fund deposit and various one-time capital projects. Post the Maui wildfires, the Governor has used his executive power to repurpose around $164.1 million of fiscal 2024 one-time appropriations to fund the state's share of debris removal and housing costs as well as make a $65 million deposit to the state's Major Disaster Fund as contingency. The Federal Government is providing significant support for Maui's recovery, including 100% of debris removal costs for six months, 100% of housing costs for victims for three months and 90% thereafter for 18 months. A modest $250 million general fund structural deficit (2.5% of general fund revenue) is currently projected for fiscal 2024, but this not expected to carry forward to fiscal 2025.

Based on its September 2023 revenue forecast, the state's budget basis reserves will retreat from record levels but remain sound at $2.2 billion (21.5% of prior year general fund revenue) by the end of fiscal 2025. Of which, the EBRF is projected to be maintained at over $1.5 billion. Absent a more drastic 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.

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 $5.1 billion (49.5% of own source revenue) as of the end of fiscal 2022. Governmental net unrestricted cash as of fiscal end 2022 represented a robust 65.7% 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 Aug. 31, 2023, the state's total investment portfolio had a market value of approximately $11.2 billion.

Leverage

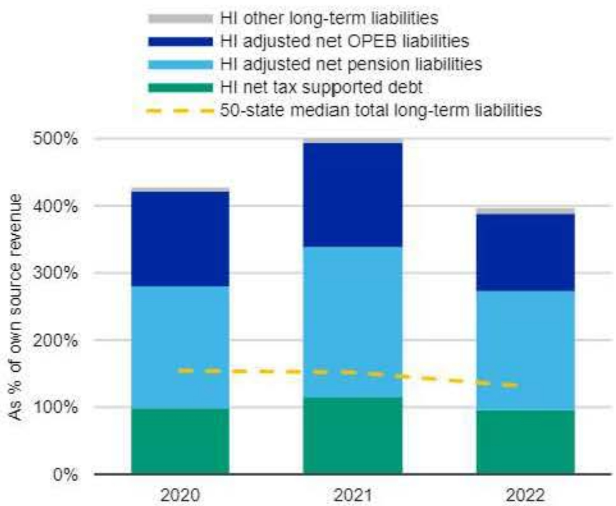
Similar to many of its peers, Hawaii's ability to service long-term liabilities improved in fiscal 2022 as it saw strong revenue growth, while pension obligations declined because of record investment gains in fiscal 2021. However, the state's leverage will remain elevated compared to its peers, because it is responsible for several functions that are typically supported by regional and local governments in other states. These include public education, hospital system and jail and penitentiary system. In addition, constructions costs in Hawaii is roughly 30% more costly than on the mainland.

Positively, the state has taken proactive steps to address its pension and OPEB liabilities, which make up most its governmental long-term liabilities.

Exhibit 13

Hawaii's ability to service long-term liabilities improved in fiscal 2022, but remains three times the 50-state median

Fiscal year

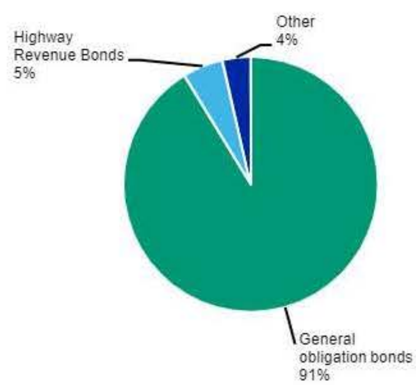


Source: State audited financials; Moody's Investors Service

Exhibit 14

The bulk of Hawaii's debt is GO bonds

Fiscal 2022 Hawaii net tax supported debt composition



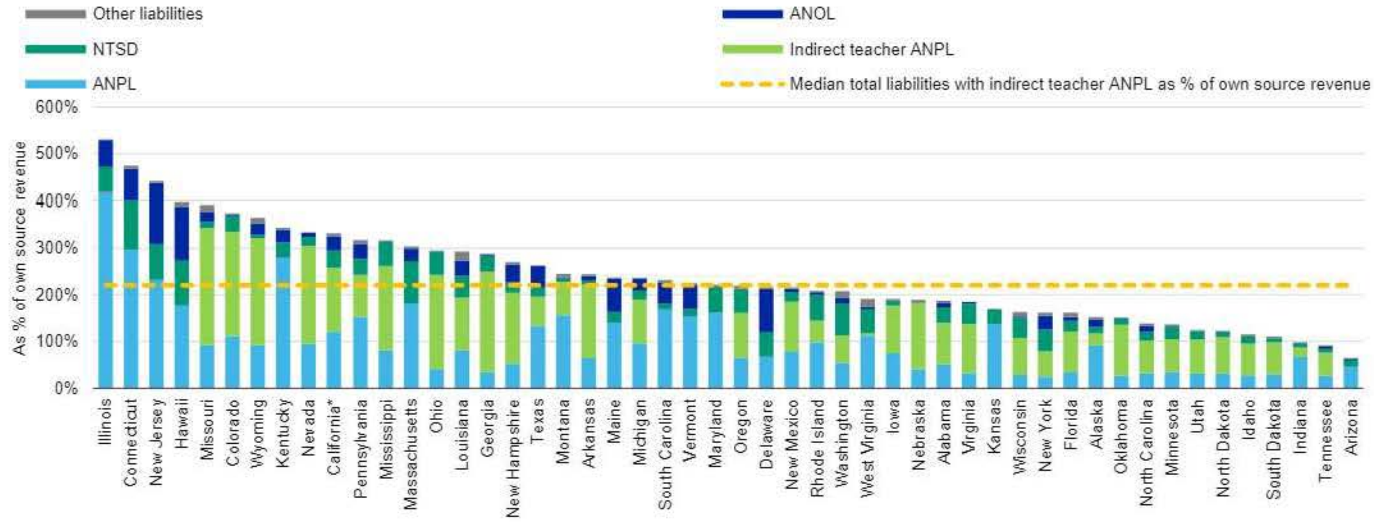
Source: State of Hawaii audited financial; Moody's Investors Service

As of fiscal 2022, 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 396.4% of own source revenue, among the highest of all 50 states and is roughly three times the 50-state median (131.0% of own source revenue). The state's leverage is still well above the 50-state median and ranks the fourth highest among all states, even when we include indirect teacher pension liabilities for other states (see Exhibit below).

Exhibit 15

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

Fiscal 2022 leverage



*Reflects FY2022 estimates because California's financial statement is not available

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

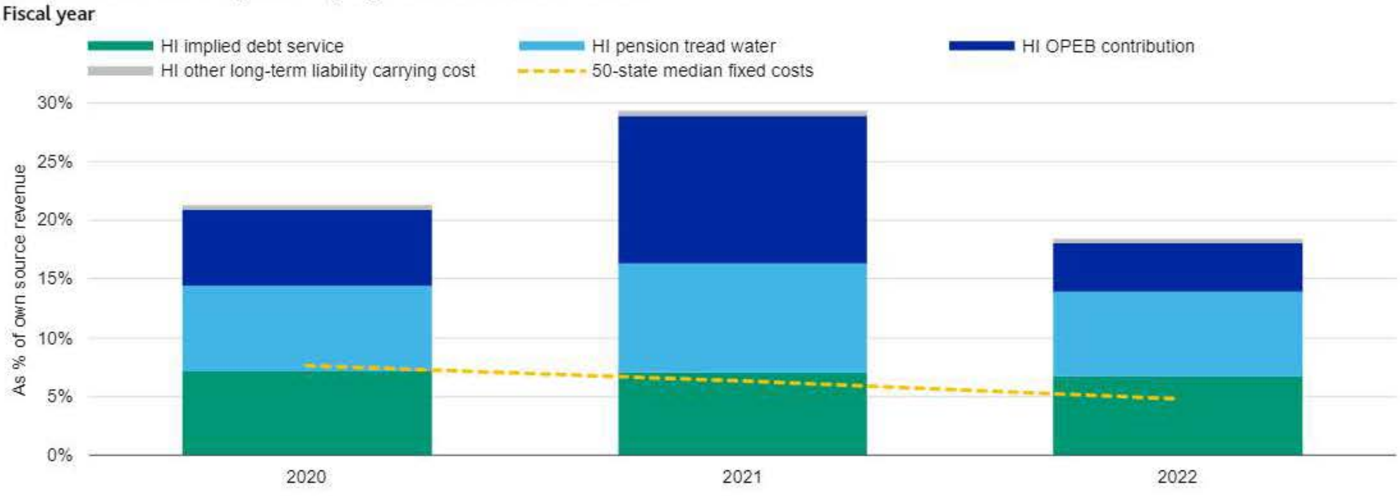
Source: state financial statements and pension reporting; Moody's Investors Service

The state also has an elevated fixed costs burden, which limits financial flexibility. As of fiscal 2022, Hawaii's fixed costs (implied debt service, pension tread water contribution, actual OPEB contribution and implied other long-term liabilities carrying costs) represented 18.4% of own-source revenue, the third highest among all fifty states and well above the sector median (4.8% of own source revenue). Hawaii's 2022 fixed costs was substantially lower than fiscal 2021 level (29.4%) because in 2021, Hawaii made large one-time OPEB pre-funding contributions on behalf of fiscal 2022 (see OPEB section).

Exhibit 16

Hawaii's fixed costs is significantly higher than the sector median

Fiscal year



Note: fiscal 2022 median is preliminary because select states have not yet released fiscal 2022 audited financial statements

Source: State audited financials; Moody's Investors Service

Debt structure

Hawaii's net tax supported debt (NTSD) is almost entirely comprised of general obligation bonds (91.3% as of fiscal end 2022). 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 69% of principal repaid in 10 years. Post the issuance of the GO Bonds 2023 series GM, the state's GO bonds have a final maturity in fiscal 2043.

The state's highway revenue bonds made up around 5.1% of its NTSD as of fiscal end 2022. 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 2022 reporting, Hawaii's governmental adjusted net pension liabilities (ANPL) totaled $18.3 billion, representing 177.2% of own source revenue, well above the 50-state median (79.8% of own source revenue). Similar to its peers, Hawaii's ANPL should decline as of fiscal 2023 reporting (2022 measurement date), because of 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 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.

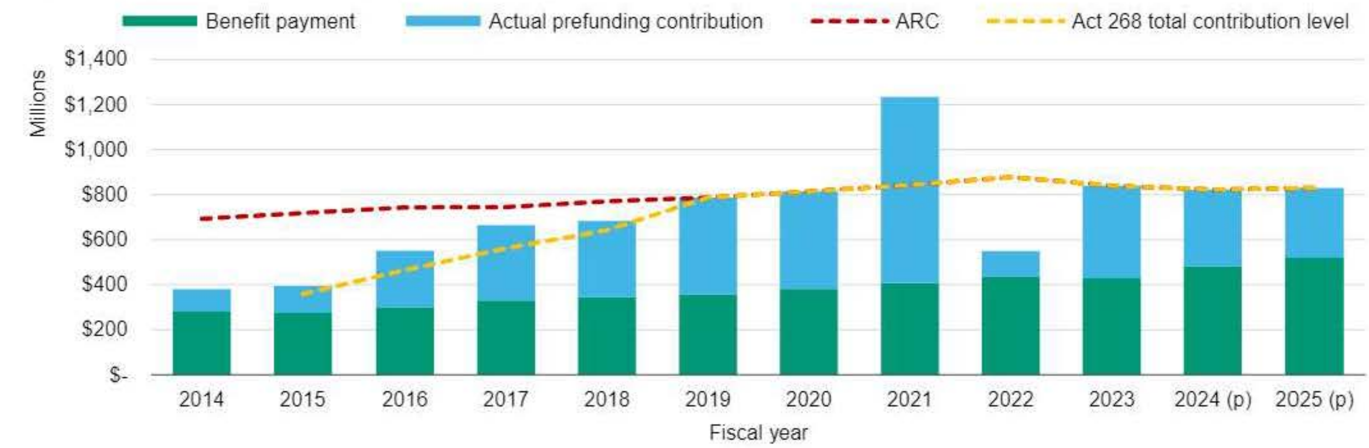
In fiscal 2022, the state's governmental pension contribution represented 7.5% of own source revenue and was $33.9 million above our pension tread water calculation. Contributing above tread water indicates that the state's reported net pension liability will continue to decline if current investment targets are met.

Hawaii's unfunded OPEB liability is also quite elevated. At the end of fiscal 2022, Moody's governmental adjusted OPEB liability for the state totaled $11.9 billion, representing 114.8% of own source revenue in comparison to the 50-state median (8.8% 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 in fiscal 2022 and fiscal 2023 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 17).

In 2023, new laws were passed to reduce the retiree healthcare benefit, by eliminating the state and county reimbursement of spousal and income-related monthly adjustment amounts of Medicare Part B premiums for retirees hired on or after July 1, 2023. These changes are expected to save the state $1.5 billion over 30 years.

Exhibit 17

Hawaii has ramped up OPEB contribution in recent years



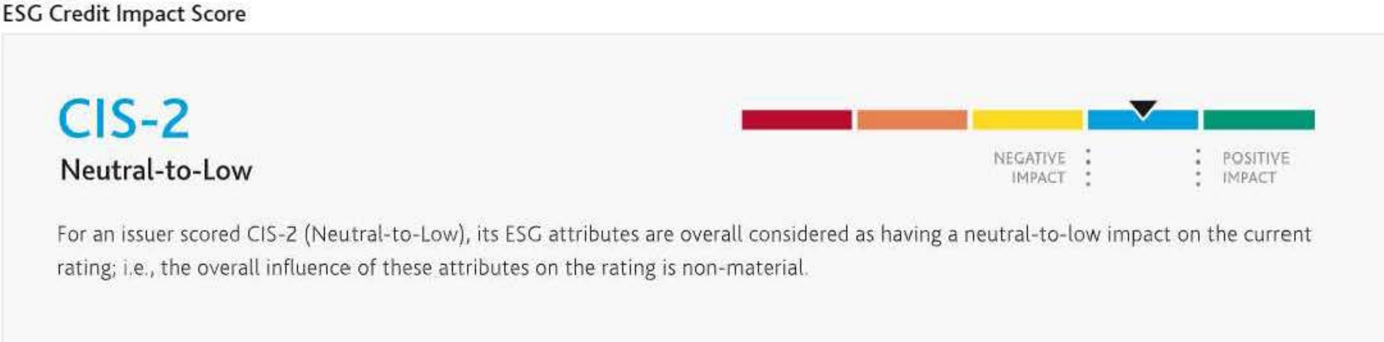
Note: the state made $390 million extra contribution on top of ARC in fiscal 2021, while fiscal 2022 actual contribution was $328.6 million below ARC. As such, the state made $61.3 million additional contribution on top of ARC in fiscal 2021 and fiscal 2022 combined. (P) stands for projected.
Source: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

ESG considerations

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

Exhibit 18

ESG Credit Impact Score



Source: Moody's Investors Service

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

Exhibit 19
ESG Issuer Profile Scores

ENVIRONMENTAL	SOCIAL	GOVERNANCE
E-3	S-3	G-2
Moderately Negative	Moderately Negative	Neutral-to-Low

Source: Moody's Investors Service

Environmental

Hawaii's environmental issuer profile score is **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.

The risk of wildfires are also increasing and could be exacerbated by climate change. In response to the deadly Maui wildfires, the Governor has indicated that the current administration and the 2024 legislative session will focus on ways to mitigate the risk of future wildfires and other climate catastrophes. The state is currently pursuing investments to control wild grasslands, relocate utility poles underground, create firebreaks and modernize warning systems, among other strategies.

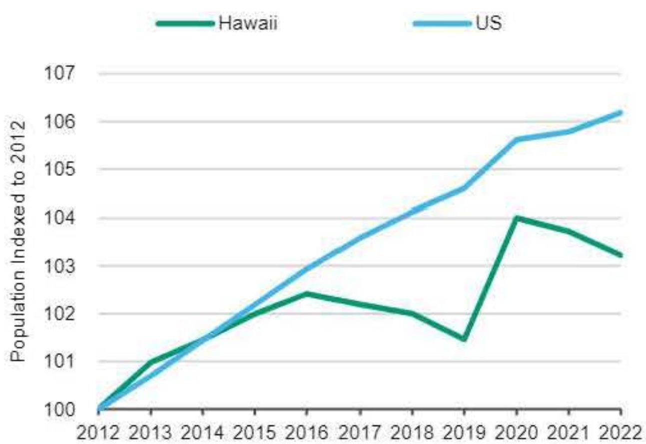
Hawaii's natural capital continues to be one of its most positive assets, attracting tourism. The Department of Land and Natural Resource is dedicated to enhance, protect, conserve and manage Hawaii's unique and limited natural, cultural and historic resources.

Social

Hawaii's social issuer profile score is **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. Weak housing affordability is an ongoing challenge that has contributed to sizable net outmigration (Exhibit below) and slower population growth, labor shortages and high per capita homeless rate compared to peers. The state has recently dedicated a large share of its recent 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.

Exhibit 20

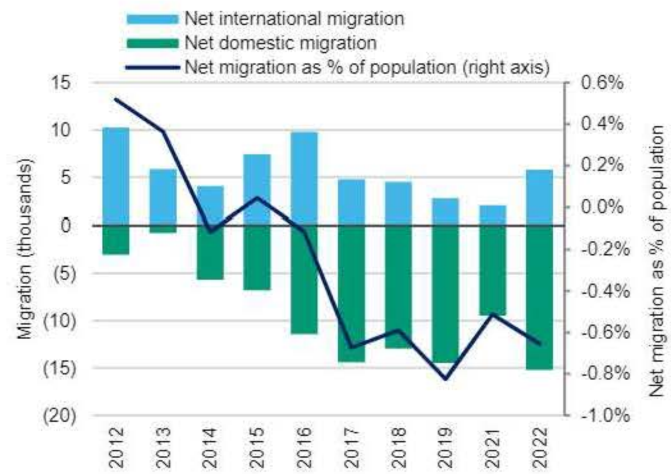
Hawaii's population growth is behind the nation's over the last decade...



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

Exhibit 21

...in part driven by sizable net outmigration



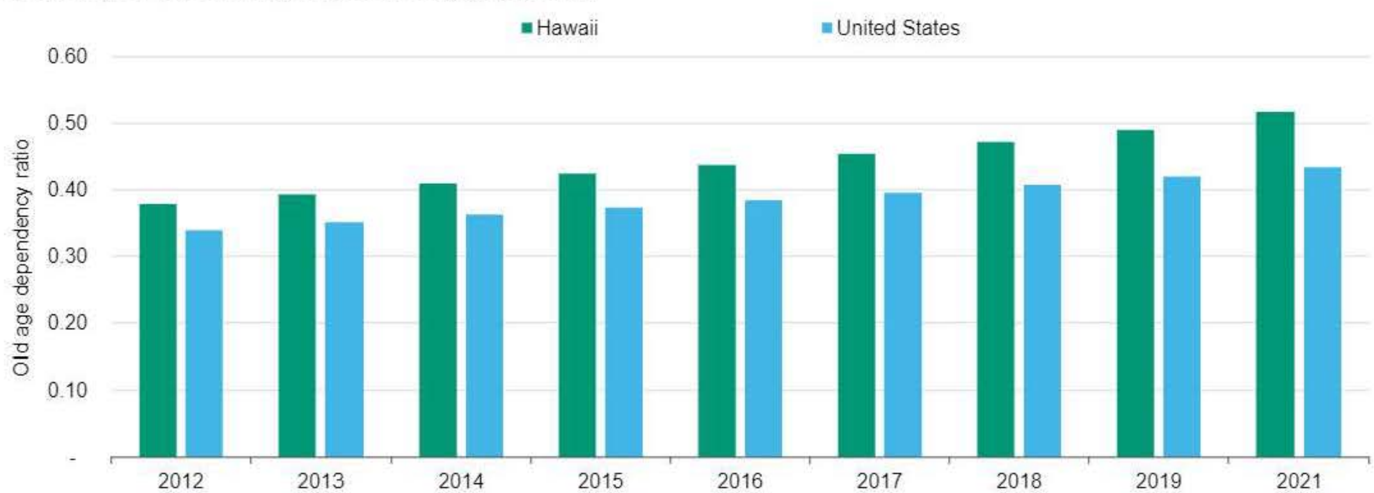
Note: migration data is not available in census years (i.e. 2020)
Source: US Census Bureau; Moody's Investors Service

Another demographic challenge for Hawaii is its aging population. Over the last decade, Hawaii's 65+ population increased by a cumulative 39% (compared to a 6% increase for US overall) while its prime working age population (ages 25-54) remained relatively flat (compared to a 1.9% increase for US overall). As such, the state's old age dependency ratio, already above the US, has been rising at a faster pace (see Exhibit below). The state's labor force participation rate is also below the national average, as mentioned above. These social and demographic trends stand to constrain the state's economic growth and add to expenses.

Positive social factors for Hawaii include above average education attainment and below average crime rate.

Exhibit 22

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 governance issuer profile score of **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.

Hawaii has a track record of maintaining fiscal responsibility. The state constitution requires a balanced budget, and the state recently increased its reserve policy. Recent efforts to rebuild its rainy day fund and proactive steps taken to tackle its pension and OPEB burden also evidence prudent management. 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.

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 23

US states and territories rating methodology scorecard

Hawaii (state of)

	Measure	Weight	Score
Economy			
Resident Income (PCI Adjusted for RPP / US PCI)	83.3%	15%	A
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-2.7%	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)	396.4%	20%	Baa
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	18.4%	10%	A
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

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