MOODY'S INVESTORS SERVICE

CREDIT OPINION

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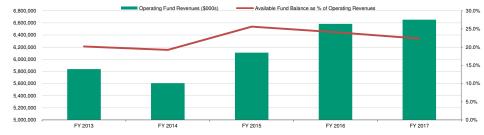
Update to Credit Analysis

Summary

Exhibit 1

Hawaii's general government credit quality benefits the state's positive economic and revenue trends, the restoration and maintenance of sizable reserves, and proactive measures to improve the funding of its pension and OPEB liabilities. State statutes require it to ramp up its OPEB contribution to 100% of the actuarially required contribution (ARC) by fiscal 2019; the state, notably, contributed more than the statutorily-required amount in fiscal years 2014 through 2017 which will result in savings in future years. The legislature also enacted, in 2017, higher employer pension contributions in response to a significant increase in the estimated pension liability. Hawaii's fixed costs will remain among the highest in the country at least over the medium term, which will challenge the state in the event of a downturn. Hawaii's general obligation bonds are rated Aa1, with a stable outlook.

Strong Revenue Growth Drives Increase in Reserves



Source: State of Hawaii CAFRs with Moody's Investors Service adjustments.

Credit strengths

- » Strong financial governance practices including multi-year planning, quarterly consensus revenue forecasting, and strong executive power to reduce spending.
- » Historical fiscal conservatism; prompt action to address revenue shortfalls.
- » Low unemployment rates; healthy growth in tourism industry; stable military presence.
- » Positive revenue trends; above average reserves; strong liquidity position.
- » Rapid amortization of debt; no exposure to variable rate debt or derivative products.
- » Commitment to and progress toward reducing pension and OPEB liabilities, including plans to fund fully the OPEB ARC.

Credit challenges

- » Vulnerability to shifts in Hawaii's tourism-based economy, resulting in revenue falloff and budget shortfalls.
- » 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 stable outlook reflects the expectation that the state will maintain strong reserves while continuing to make planned progress in funding its pension and OPEB liabilities.

Factors that could lead to an upgrade

- » Increased economic diversification and reduced economic volatility.
- » Sustained reduction in debt ratios and significant improvement in pension funded ratios, sooner than currently projected.

Factors that could lead to a downgrade

- » Economic weakening leading to deteriorating revenue trends, budget imbalance, liquidity pressures, and narrowing of 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	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Operating Fund Revenues (000s)	5,838,577	5,606,221	6,109,019	6,583,418	6,652,418
Balances as % of Operating Fund Revenues	20.2%	19.2%	25.6%	24.1%	22.4%
Net Tax-Supported Debt (000s)	6,636,905	6,908,297	6,523,739	7,168,256	N/A
Net Tax-Supported Debt/Personal Income	10.6%	10.8%	9.9%	10.5%	N/A
Net Tax-Supported Debt/Personal Income 50 State Median	2.6%	2.5%	2.5%	2.5%	N/A
Debt/Own-Source Government al Funds Pevenue	99.8%	106.7%	94.1%	98.0%	N/A
Debt/Own-Source Government al Funds Revenue Median	36.1%	35.8%	34.4%	32.7%	N/A
ANPL/Own-Source Govt Funds Revenue	137.3%	152.6%	118.3%	114.7%	N/A
ANPL/Own-Source Govt Funds Revenue Median	87.6%	81.8%	83.0%	82.2%	N/A
Total Non-Farm Employment Change (CY)	2.0%	1.4%	1.8%	1.5%	N/A
Per Capita Income as a % of US(CY)	100.3%	100.3%	100.7%	102.0%	N/A

Sources: State of Hawaii CAFRs with Moody's Investors Service adjustments; Moody's state debt and pension medians reports; US Bureau of Labor Statistics; US Bureau of Economic Analysis.

Profile

Hawaii is the 40th largest state by population, at 1.4 million. Its state gross domestic product is 38th largest. The population's income levels are above average, with per capita personal income equal to 102% of the US level and a median household income equal to 133%. Its poverty rate is in the bottom third among states.

Detailed credit considerations

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Economy and Tax Base

Although Hawaii's economy has shown some diversification, its large tourism industry remains key to the economy and the state's economic performance closely tracks tourism trends. As a highly desirable tourist destination for international and domestic visitors, the tourism industry is somewhat insulated from US economic cycles and has at times been counter-cyclical. The last recession was particularly challenging since both national and international visitations were affected at the same time. Visitor arrivals did not surpass the pre-recession peak (2007) until 2012. Growth since that time has been particularly strong, however, and visitor arrivals reached record levels in 2015 (8.7 million) and 2016 (8.9 million), and are projected to hit another new record in 2017 (9.3 million). Hotel revenues per room night are expected to reach \$210 in 2017, compared to \$124 in 2010.

A sizable military presence adds stability, and military housing construction has contributed to expanding construction activity. Federal defense spending in Hawaii, dictated by the island's strategic geographic importance, plays a large part in the state's economy. Federal activity amounts to about 12% of Hawaii's gross state product, with much of it defense related.

The economy is also boosted by strong construction activity. The value of building permits issued has returned to pre-recession levels. Major projects include high-rise condos in Central <u>Honolulu</u> (Aa1 stable)targeted at both visitors and residents, as well as retail commercial projects in Honolulu and new hotel/resort projects primarily on the neighbor islands. Two new master planned communities with a total of 15,250 housing units have been approved in Honolulu and began construction in 2017. Large public projects include the Honolulu rail system and improvements at the airports and port.

The state's employment trends are generally less volatile than in other tourism dependent states such as <u>Florida</u> (Aa1 stable) and <u>Nevada</u> (Aa2 stable). Unlike most mainland states, Hawaii did not experience a severe housing market bust during the recession. Hawaii's unemployment rate, 3.0% for 2017, remains well below the national average of 4.9%, as it was throughout the recession. Median family and household incomes are among the highest in the nation, but per capita income levels are closer to the US average.

Financial Operations and Reserves

Driven by the underlying economic trends, the state has experienced generally strong revenue since the recession. General Fund tax revenues increased by 6.8% in fiscal 2015 and 8.0% in fiscal 2016. Growth slowed somewhat in 2017. In its January 2018 forecast, the Hawaii Council of Revenues raised its general fund revenue growth projections for fiscal 2018 to 4.5% from 4.3%. It is projecting annual growth of 4.3% in fiscal 2019 and 4.0% in the out years (2020-2024) of its multi-year forecast period.

Strong reserve levels are important for Hawaii given the state's high fixed costs and its vulnerability to shifts in its essential tourismbased economy. Balance sheet deterioration during the recent recession reflected the state's use of one-time actions for budget relief, including the use of reserve balances from both the Emergency and Budget Reserve Fund (EBRF) and the Hawaii Hurricane Relief Fund (HHRF). At the low point, the state reported negative GAAP balances for fiscal years 2009 and 2010.

As its economy has recovered, Hawaii has rebuilt its balances to a healthy position relatively quickly. Moody's measure of available GAAP-basis reserves (primarily unassigned General Fund balance plus the HHRF) grew to a strong \$1.175 billion or 20.2% of operating revenues at the end of fiscal 2013, up from 11.1% at the end of fiscal 2012 and essentially equal to the pre-recession peak of 21% at the end of fiscal 2006. Reserves have remained strong since then, despite the state ramping up its OPEB contribution and making supplemental deposits to its OPEB trust. At the end of fiscal 2017, available GAAP-basis reserves stood at \$1.487 billion or 22.4% of operating revenues.

On a budget basis, total reserves, including the General Fund ending balance plus the EBRF but excluding the HHRF, are expected to be drawn down gradually from 2018 through 2023 as the state increases it pension contribution. But overall reserves are projected to remain well above comparably-rated states.

LIQUIDITY

Hawaii does not engage in short-term borrowing for cash flow purposes and relies on pooled treasury cash for temporary internal borrowing as needed. During the recession, when the state's General Fund reserves were depleted, some liquidity strain was indicated by payment deferrals at the end of fiscal 2009 and the delay of fiscal 2010 personal income tax refunds until fiscal 2011. But liquidity levels have improved substantially since that time and the state has not engaged in any additional deferrals.

Debt and Pensions

DEBT STRUCTURE

Hawaii compares unfavorably with other states on its debt ratios, pension funding levels, and OPEB liabilities. Debt per capita is \$5,018 ranking Hawaii third highest among the states and almost five times Moody's 50-state median of \$1,006. As a percentage of personal income, Hawaii's debt is the highest in the country at 10.5%, compared with the median of 2.5%.

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.

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 67% of principal is repaid in 10 years.

DEBT-RELATED DERIVATIVES

The state has no variable rate debt and no debt-related derivatives.

PENSIONS AND OPEB

The state's pension liabilities are above average. Moody's 2016 Adjusted Net Pension Liability (ANPL) for Hawaii was \$8.4 billion or 115% of state own-source governmental revenues, the 18th highest of the 50 states and well above Moody's 50-state median of 82%. Hawaii's three-year average ANPL was 121% of revenues, the 16th highest and well above the median of 78%.

Pension reforms adopted in 2011 are expected to improve the funding levels of the state's retirement system over the long term. Benefits were reduced for new members after June 30, 2012, and employer contributions were increased. A moratorium on any enhancement of retirement benefits remains in effect until the funded ratio reaches 100%. Additional reforms approved by the legislature and the governor in 2012 focused on reducing the "spiking" of final compensation.

The fiscal 2016 system valuation resulted in an increase in the UAAL from \$8.8 billion to \$12.4 billion and a reduction in the funded ratio from 62.4% to 51.3% based on market value of assets, primarily as a result of a reduction in the discount rate from 7.65% to 7.00% and revisions to the mortality table. The legislature recently enacted higher employer contribution rates to address the increased liability. Employer contributions will increase from 25% to 41% for police and fire and from 17% to 24% for general employees. The new rates are projected to eliminate the UAAL by 2045, but will challenge the state by increasing its already high fixed costs.

Hawaii's OPEB unfunded obligation is also quite sizeable. The valuation report for July 1, 2017 showed a total unfunded obligation of \$9.8 billion for the plan, almost all of which was attributable to the state. As in most states, Hawaii historically funded its OPEB costs on a pay-go basis. However, in the 2013 legislative session, the state adopted a plan to require phasing in higher annual contributions by the state and counties beginning in fiscal 2015. By fiscal 2019, the payments would reach 100% of the ARC. 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, and \$102 million in 2017.

Management and Governance

Hawaii has very strong governance practices, including consensus revenue forecasts, updated quarterly, and multi-year 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.

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