

RatingsDirect®

Hawaii; Appropriations; General Obligation

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Table Of Contents

Rating Action

Negative Outlook

Credit Opinion

Governmental Framework

Financial Management

Economy

Budgetary Performance

Liquidity

Debt And Liability Profile

Hawaii; Appropriations; General Obligation

Credit Profile

Hawaii GO

Long Term Rating

AA+/Negative

Outlook Revised

Rating Action

S&P Global Ratings revised the outlook to negative from stable and affirmed its 'AA+' long-term rating and underlying rating (SPUR) on Hawaii's outstanding general obligation (GO) bonds, as well as its 'AA' long-term rating on the state's certificates of participation (COPs).

The revised outlook reflects our view that the economy's significant exposure to the tourism industry could result in fiscal and economic pressures for Hawaii, stemming from the global COVID-19 pandemic and the subsequent recession. The rating on Hawaii reflects our long-cited view as being susceptible to exogenous shocks that have the potential to hurt its tourism sector, which accounts for 17% of state GDP, along with elevated fixed costs as it continues to address its weak pension funding and large other postemployment benefits (OPEBs). Ultimately, the magnitude of the effects on Hawaii's budget will depend on the severity and duration of the recession. However, prolonged budgetary pressure from the pandemic and the current recession could limit the state's flexibility in addressing the costs to contain the coronavirus and the potential loss in revenues through fiscal 2021. The outlook change reflects that although we view the state's response to the COVID-19 pandemic as prudent, we believe social risks posed by COVID-19 to public health and safety will likely have a direct and material effect on the state's economy and budget performance, which is reflected in our view of environmental, social, and governance (ESG) related risks within the analytic factors we evaluate for states.

All GO bonds are secured by Hawaii's full faith and credit, which the state considers as its highest payment priority, according to its constitution.

Credit overview

As an island-economy state, Hawaii is inherently vulnerable to the negative effects of certain types of exogenous shock events. Although its economy has proved relatively resilient to shocks such as the Sept. 11 terrorist attacks and the SARS epidemic, we believe social distancing measures and the restriction of visitor arrivals to contain the COVID-19 pandemic present unique challenges to the leisure and hospitality industry and the state as a whole. The Bureau of Labor Statistics reports that leisure and hospitality accounts for a significant 19% of the state's 2019 employment.

For the foreseeable future, restrained and restricted economic activities resulting from the COVID-19 pandemic will translate directly into contracted economic output and general revenue declines. To date, the governor has declared a state of emergency and worked to mobilize state agencies and resources to help limit the effects of the outbreak statewide. S&P Global Economics forecasts that the resulting economic toll will be substantial globally. Our current forecast expects the current recession has likely reduced economic activity for the US by 11.8% peak to trough, which is roughly three times the decline seen during the Great Recession in one-third of the time. Annual change in national

GDP for 2020 is now projected to contract by 5.2%. (See "An Already Historic U.S. Downturn Now Looks Even Worse," published April 16, 2020 on RatingsDirect) After COVID-19 containment restrictions are relaxed, we believe that Hawaii's economy remains sensitive to a dampened appetite for tourism globally and could face a protracted road to economic recovery compared to other states.

Hawaii's financial management, however, has reflected an alignment with its economic realities with a commitment to growing its balances and reducing its long-term liabilities to prepare for an economic slowdown. After having used a significant portion of its emergency budget reserve fund (EBRF) and Hawaii Hurricane Relief Fund (HHRF) during and after the Great Recession, Hawaii has rebuilt these balances and begun 2020 in a strong position. On a combined basis, its fiscal 2019 general fund and EBRF (\$1.1 billion) equaled 14.3% of general fund expenditures on a budgetary basis. The state also has reserved funds in its HHRF (\$183 million), which equaled an additional 2.5% of general fund expenditures. Hawaii has generally accumulated these balances in recent years by maintaining conservative fiscal practices even as the economy has continued to expand.

The state's ability to navigate potential budgetary pressures in the next year will weigh heavily on its rating. The state's Council on Revenues (COR) revised its revenue forecast for fiscal years 2020 and 2021 downward in March and the state expects another downward revision in May to reflect the severity of the containment efforts on statewide revenues. The legislature may convene after the May COR projections to address revenue shortfalls through 2021 and amend the adopted budget. While use of reserves in an economic downturn is reasonable, we expect a demonstrated commitment to sustainable budgetary adjustments to maintain its current rating.

The 'AA+' GO rating reflects our view of:

- The state's strong financial position, which has weathered several major economic stressors during the past 15 years;
- Economic contraction in the near term based on a higher-than-average concentration in the tourism sector, although we expect demographic changes to level out growth over time;
- Management's well-established, proactive budget monitoring practices, including frequent revenue forecast updates from the independent COR, which facilitates prompt identification of potential budget adjustments for budget alignment;
- The governor's executive authority to restrict all executive branch expenditures through such actions as cutting spending midyear without legislative approval or cutting or delaying disbursements during the course of a fiscal year; and
- Other strong constitutional protections, including requiring budget balance, that allow for tax increases with legislative approval and give GO bonds first-lien priority before all other disbursements.

Partly offsetting the above strengths is our view of:

- Hawaii's inherent susceptibility to exogenous shocks that have the potential to hurt its tourism sector, which accounts for 17% of state GDP;
- The weak funded status of the state's retirement system and generally higher-than-average debt ratios because of the state's centralized provision of public-sector services; and

- Large OPEB liability, although a 2013 statutory requirement increased annual contributions until fiscal 2019, by which time they equal the actuarially required level.

All GO bonds are secured by Hawaii's full faith and credit, which the state considers as its highest payment priority, according to its constitution.

Environmental, social, and governance factors

Our outlook revision incorporates our view regarding the health and safety risks posed by the COVID-19 pandemic. Absent the implications of COVID-19, we consider the state's social risks slightly higher than the sector given slower growth trends, an older population, and significantly higher living costs which limits in-migration. Hawaii's location also exposes it to considerable environment-related risks, which could dampen its tourism-based economy in the short term, although state has generally displayed resilience over the longer term as demand for tourism has remained strong despite periodic challenges. We view the state's governance risks as being in line with the sector and it has historically maintained a strong management and policy framework to respond to environmental risks.

Based on the analytic factors we evaluate for states, we have assigned Hawaii a composite score of '1.8' on a four-point scale in which '1' is strongest.

Negative Outlook

Our negative outlook reflects a one-in-three chance that we could lower the rating if the current economic conditions lead to significant and persistent revenue declines, which the state is unable to address through sustainable budget adjustments over the next two years. Hawaii's ratings reflect its currently strong financial reserves, which remain particularly important for the state given our expectation of a structural gap through 2021 and its above-average fixed costs stemming from its high debt and relatively large long-term liabilities. Deteriorating fiscal performance and strong reliance on current reserves that lead to a projected significant decline in reserves could lead to a downgrade. We also expect the ratings will be sensitive to either a weaker debt profile or any material deterioration its pension-funded status from its current level due to weak market returns or a change in the state's plans of significantly higher contribution rates to balance future budgets.

If Hawaii is able to adequately manage its budget through the recession and position itself to build up reserves when its economy stabilizes, we could revise the outlook back to stable.

Credit Opinion

Growth of Hawaii's GDP, the broadest measure of its economy, suggests that the state will contract sharply in 2020 after a history of expanding more slowly than national GDP over the last ten years. Nevertheless, certain broad economic metrics suggest a more resilient economy than popularly perceived. For instance, although Hawaii was not immune to the Great Recession, relative to the nation, however, per capita personal income in the state actually increased to 105% in 2009 from 101% in 2007. Relative to the U.S. as a whole, personal income in Hawaii reversed trends and then improved slightly beginning 2016, to 101% in 2019, after years of decline from its peak level in 2009.

The state's population is also growing older, putting Hawaii in a slightly weaker demographic position, in our view, than the nation as a whole. This could result in a challenge for the state in funding government services and anticipated increases in health care costs for the elderly as the working-age population will barely increase over the next decade. We expect the current recession to halt the state's slow pace of economic growth in 2020. This suggests that Hawaii, like most states, could see a reappearance of fiscal pressures related to slowing revenue growth, which may be exacerbated by demographic trends and slower-than-average growth during the years of expansion, coupled with other cost increases in excess of revenue, inflation, and GDP growth.

IHS Markit forecasts that Hawaii's economic contraction will outpace the national average in 2020 but with a faster recovery beginning in 2021. It forecasts that the state's real GDP will decline by 6.2% in 2020 but grow by 8% in 2021. Over the same period, it forecasts that U.S. GDP will contract by 5.6% and 0.9% in 2020 and 2021, respectively.

After having used a significant portion of its EBRF and HHRF during and after the Great Recession, Hawaii has rebuilt these balances and begun 2019 in a strong position. On a combined basis, its fiscal 2018 general fund ending balance (\$750 million), together with its EBRF (\$376 million), equaled 14.3% of general fund expenditures on a budgetary basis. The state also has reserved funds in its HHRF (\$183 million), which equaled an additional 2.5% of general fund expenditures. It has generally accumulated these balances in recent years by maintaining conservative fiscal practices even as the economy has continued to expand. Chief among these are budgetary controls, including the governor's requirement that agencies restrict 5% of budget appropriations. This practice has led to larger-than-budgeted spending lapses, which have resulted in a larger ending balance than anticipated. Current projections reflect that balances would remain strong at 11.7% of expenditures by the end of 2020, although we expect that lower-than-projected revenues in 2020 could lead to slightly weaker reserves.

The most recent COR forecast projects 3.8% growth for 2020 and no growth in 2021, but does not fully incorporate the effect of the COVID pandemic, which could lead to a lower forecast in May. We, however, believe that the state has positioned itself to accommodate the weaker economic and revenue growth anticipated in its multiyear general fund forecast and that the governor will continue the practice of using budget controls to manage discretionary operations and maintain finances. The state's multiyear general fund forecast illustrates that its fiscal capacity could enable it to make continued progress toward more fully funding its large pension and other long-term obligations while maintaining strong budgetary reserves. Projected combined balance before budget adjustments for 2022 is expected to be \$624 million, or 7% of expenditures. A recession would likely test the state's capacity to sustain a weaker revenue environment while adhering to its current multiyear fiscal plan.

Hawaii's financial position has benefited from a strengthening tourism industry with seven straight years of record-setting visitor arrivals. Following state restrictions on visitor and inter-island travel in March 2020, air arrivals dropped significantly, with a 10% decline in the first week of restrictions. We expect that the strength of the tourism industry will be pressured in terms of both national and international travel despite the diversity of international travelers. While the majority of recorded 2019 visitor arrivals came from the contiguous U.S. (65%), significant percentages were from Japan (15%), Canada (5.1%), and Australia (3.5%).

Although the state's debt burden of \$7.8 billion of tax-supported state GO, COP, and highway (gas tax) debt is high, in our view, translating to \$5,479 per capita, it reflects in part Hawaii's centralized state and local government. The state's

debt level stands out as high relative to those of other states' in part because it assumes numerous functions performed at the local level elsewhere. In addition, excise taxes, which are its largest revenue source, are supported not only by the residents of the state but also by visitors, which is not captured in its population but represents a significant portion of its economic activity. However, this remains a pressure for the state as tax-supported debt as a percentage of spending is a high 8%, making budget cuts, if necessary, more limited than in most states. The above-average fixed costs for debt and retiree benefit liabilities are somewhat mitigated by Hawaii's below-average Medicaid-related expenditures and strong financial management, including its debt affordability study, which it uses to keep the debt affordable.

In April 2020, the state entered into a privately placed note purchase agreement with Bank of America intended to be taken out with issuance of fixed-rate GO bonds in more favorable market conditions. The notes are expected to mature by April and October 2021. The notes with a par of \$600 million are secured by the state's GO pledge and are subject to the same covenants as the rated GO bonds. While the bond anticipation notes are privately placed, we view the events of default as standard and the new contract does not pose additional risks to the state's liquidity.

We consider Hawaii's three-year average pension funded ratio weak at 54%. Recent actuarial valuations show a slight improvement in funded ratios to 55.2% in 2018 from 54.9% in the prior year. The state passed Senate bill 936 in the 2017 legislative session to restore the ERS to full funding within the statutorily required 30-year timeframe by phasing in higher systemwide contribution rates through 2021. The bill requires contribution rates to increase from the current 17% in 2017 to 24% by fiscal 2021 for the general employees and a more aggressive jump from 25% to 41% by fiscal 2021 for police and fire. In our opinion, the successful implementation of the higher contribution rate is vital to the state's long-term financial capacity and is essential to maintaining its credit quality.

When looking at combined pension, debt, and OPEB expenses across states, Hawaii ranks fifth, with costs totaling 32% of its general fund budget. To the extent that the implementation of increased contribution rates leads to significant strain on future budget operations or reserves, we could view this as an indication of weakening financial capacity.

Governmental Framework

Hawaii's constitution requires that the state operate on a balanced budget, including on an intrayear basis, as it monitors revenues and expenditures throughout the year and makes necessary adjustments to ensure that general fund expenditures do not exceed current general fund revenues and unencumbered cash balances. There are no constitutional restrictions on its ability to raise taxes or other revenues, but property tax authority rests with the counties. Approval of taxes is by simple majority vote of the legislature, and the legislature has broad legal latitude to adjust spending levels. The governor has authority to restrict all executive branch expenditures and to cut spending midyear without legislative approval via such methods as cutting or delaying spending on education, but this is politically difficult in practice.

Hawaii is not a voter-initiative state, and no vote is required to issue GO bonds or increase taxes. GO bonds in Hawaii have a first-lien status, prior to all other payments, and the issuance of GO bonds must be authorized by a majority

vote of the legislature.

The Hawaii state government is highly centralized, so the level of services provided to local governments is higher than in other states. The state directly runs the public school system, as well as the university and community college systems. It also administers the public welfare system and operates prisons, harbors, and airport systems. The county functions are primarily property related (police, fire, streets, water, sewer, and parks). That being said, Hawaii is less exposed to fiscal pressures from rising health care and Medicaid costs than are most states. Its Prepaid Health Care Act of 1974 effectively mandates that employers provide health care coverage for any employees who work 20 hours or more per week, which has resulted in historically high rates of health care coverage. The transition to complying with the Federal Patient Protection and Affordable Care Act has, therefore, been more incremental in Hawaii than in most states.

On a four-point scale in which '1' is the strongest, we have assigned a score of '1.7' to Hawaii's governmental framework.

Financial Management

We consider the state's management practices strong under our Financial Management Assessment (FMA) methodology. An FMA of strong indicates our view that practices are strong, well embedded, and likely sustainable. Among the highlights of the state's management techniques are statutorily required six-year operating and capital budgets that are updated by the governor and finance staff annually for legislative approval. COR provides quarterly revenue forecasts for inclusion in the biennial budget, budget updates, and the multiyear financial forecast. The state's finance staff identifies budget variances throughout the year, and the governor is empowered to curtail expenditures without legislative approval, if required. The finance staff and treasury adhere to an official investment policy, and investment performance is disclosed monthly.

There are statutory debt caps, including a calculation to ensure that the total amount of debt service payments required will not cause the state to exceed its debt limit of 18.5% of the average of three prior years' general fund revenues. The state constitution requires that all GO state debt begin to amortize principal within five years of issuance, mature within 25 years, and have either level debt service or level principal payments. The state currently does not use swaps or other derivative products. The legislature created the EBRF, which provides for a small controlled emergency fund. A formalized reserve policy has been established with a target of 5% for the unassigned general fund carryover balance and 10% for the EBRF. Additionally, legislatively mandated debt policies and a debt affordability study were adopted in fiscal 2017, restricting the amount and types of bonds issued by the state.

Budget management framework

COR, a seven-member, independent revenue forecasting body, prepares revenue forecasts at least quarterly, but also in special sessions when fiscal conditions warrant. The executive branch and legislature are required to consider the council's estimates in the budget process. Should they use a different forecast, this development and the rationale must be publicized.

Spending is controlled through an allotment system, and the Hawaii Department of Budget and Finance monitors

expenditures throughout the year. Budget adjustments are implemented periodically throughout the fiscal year as the state considers necessary. Restrictions can be implemented at any time but are usually imposed at the beginning of the fiscal year. Adjustments requiring legislative action are handled during the legislative session, which begins shortly after the start of the third quarter; in extraordinary circumstances, a special legislative session may be called. The governor has unilateral authority to restrict executive branch spending. Legislative approval is required to authorize spending, impose new taxes, or increase existing ones.

The state has demonstrated willingness to provide timely and structural budget solutions when confronting previously projected budget deficits in the past decade. As described above, the enacted deficit-closing solutions have been mostly structural. Deficits are not carried forward, but soft revenue performance and an expiration of the previous solutions contribute to a projected shortfall of revenue compared with base-line spending trends, necessitating either adjusted service levels or enhanced revenues for the upcoming biennium.

On a four-point scale in which '1' is the strongest, we have assigned a score of '1' to Hawaii's financial management.

Economy

Economic indicators such as GDP and population growth for the state have slowed down recently. Hawaii's population is also growing older, putting the state in a slightly weaker demographic position, in our view, than the nation as a whole. This could result in a challenge for the state in funding government services and anticipated increases in health care costs for the elderly as the working-age population will barely increase over the next decade.

We anticipate Hawaii's economy will produce slow growth in the upcoming years. From 2009 through 2019, total personal income in the state grew almost in line with the nation. State GDP, on the other hand, has been growing more slowly than U.S. GDP, and the gap has widened more recently. Over the past 10 years, state GDP grew in real terms at an average annual rate of 1.9%, which is below the average U.S. annual rate of GDP growth of 2.3%. For 2020, IHS estimates that Hawaii's GDP will contract by 6.2%, higher than the projected 5.6% national decline, but forecasts show 8% growth in 2021 while the nation's GDP continues to contract.

Similar to sluggish GDP growth, population growth rates have slowed recently, with 2019 growth estimates showing a decline of 0.3% in contrast to the national average growth of 0.5%. During the past 10 years, Hawaii's population has increased 0.5% per year, on average, versus 0.68% for the nation. The state's age-dependency ratio increased to 66% in from 58.4% in 2012, higher than the nation as a whole, which has a ratio of 62.5%. IHS estimates that Hawaii's aging 65-plus population represents a growing 16.5% of its total population, one of the highest proportions of the elderly among all the states. This proportion is expected to increase to 20% by 2025, making Hawaii the sixth-most-aged state in the country.

Hawaii's economy is also subject to changes in federal spending. The federal government accounted for 24.9% of state GDP in 2015, according to the Council of State Governments' most recently available data. The state was the fifth largest in per capita federal spending in 2017. More than half of federal spending in the state is military related, making Hawaii's economy susceptible to cutbacks under the federal Budget Control Act of 2011 (BCA). Most significantly, the BCA's sequestration has translated to \$400 million in reduced military contracts being awarded in Hawaii (\$2 billion

compared to \$2.4 billion). The effects of the cutbacks emerged in 2015, when the number of military personnel fell by 8.4% to 46,764 following a record level in 2014. These declines have continued through 2017, partly contributing to the state population decline. The 2017 level based in Hawaii has, however, remained higher than in all but three years between 1960 and 2013, contributing over 6% to the state's real GDP. The incomes of these personnel and households have a stabilizing influence on the rest of the state economy, in our view.

On a four-point scale in which '1' is strongest, we have revised our score of Hawaii's economy to '1.9'.

Budgetary Performance

After having used a significant portion of its EBRF and HHRF (or rainy day reserves) during and in the aftermath of the Great Recession, Hawaii has rebuilt these balances. Combined general fund and EBRF balances are projected at the end of fiscal 2020 to decrease to \$978 million after specific one-time appropriations. The state has maintained an additional \$183 million in its HHRF at the end of 2019. The HHRF was established to provide hurricane insurance policies when they are not available in the private market. Although the state has used the fund for general reserves in the past, we do not currently consider the HHRF in our calculation of its fund balances, but recognize its availability in the event of budget or liquidity pressures. Favorable revenue trends have enabled the state to accumulate impressive general fund ending balances and budget reserves that, in our view, add to its capacity to weather the potential for economic softening.

According to the general fund financial plan, which is built on March COR revenue forecasts, the outlook is for fiscal performance to soften long term. In fiscal 2017, the governor signed an administrative directive specifying an unassigned general fund carryover balance of at least 5% and an EBRF balance of at least 10% of prior-year revenues as state objectives. On a combined basis, the state's general fund and EBRF balances at the end of fiscal 2019 exceeded this target at 14.3%. A formalized state reserve policy has been established with the administration committed to maintaining budget reserves equal to 10% or more of general fund revenues, which we view favorably. While financial reserves remain particularly important for Hawaii given its above-average fixed costs stemming from its relatively large long-term liabilities, it has achieved an especially strong position. Fiscal year 2019 ended with balanced results, despite specific appropriations and higher ongoing costs from addressing long-term liabilities.

The fiscal 2020-2021 adopted budget includes \$15.6 billion in total state spending in fiscal 2020. General fund spending would be \$8.4 billion in fiscal 2020, projecting general fund revenue growth of 3.6% from 2019. The proposed budget prioritizes education as well as homelessness and housing with appropriations proposed for housing projects, public housing improvements, rent subsidies, and supportive services for the homeless. Dampened revenue projections from COR in March led to an updated general fund plan with lower revenues than originally anticipated. The updated general fund plan projects deficits in fiscal years 2020 and 2021 of 2% and 7.7% of general fund expenditures, respectively. The state expects that these deficits will be reviewed after the next forecast in May.

The EBRF, created by the legislature in 1999, is normally funded from 15% of tobacco settlement funds. Across two consecutive administrations, the state's commitment to maintaining the fund remains and the state has made additional deposits to it since 2015. The total for the HHRF was \$182.5 million for fiscal 2019. We believe the

replenishment and commitment to maintain these funds represent a strengthening of the state's credit quality.

Liquidity

At the end of fiscal 2019, cash and equivalents across all governmental funds totaled \$494 million, or 7.5% of general fund expenditures on a GAAP basis. Cash is monitored on a daily basis, with daily reports reflecting the state's investment positions. The state forecasts its liquidity needs on a one-year-forward basis, including recurring and known expenditures (debt service payments and payroll), and makes investments to provide liquidity on those dates. Annual cash flow is generally predictable, although the state has made downward revisions of forecasted revenue growth following the recession. The state monitors and manages its disbursements with greater-than-average scrutiny to provide for positive general fund balances at fiscal year-end. It has the statutory ability to borrow internally with the approval of the director of finance. The state has not done any external borrowing for cash-flow purposes; it is permitted to issue taxable GO bonds to fund a deficit but never has.

Audited financial statements

Audited fiscal results for 2019 published in the state's comprehensive annual financial report (CAFR) indicate that general fund tax revenues consisted primarily of the general excise and use taxes (approximately 47% of revenues) and the individual and corporate income tax (36%). The audited combined ended assigned and unassigned fund balance in fiscal 2019 was \$1.7 billion, or 25% of expenditures.

We believe the state's reserve position is strong, despite declines from the prior year. At the end of fiscal 2019, general fund cash decreased to \$120 million, from \$138 million at the end of fiscal 2018.

On a four-point scale in which '1' is strongest, we have assigned a score of '1.4' to Hawaii's budgetary performance.

Debt And Liability Profile

Issuance of GO bonds must be authorized by a majority vote of the legislature, and each year, the GO authorization bill determines the aggregate amount of GO bonds that may be issued to finance capital improvement projects. The bill also contains a calculation to ensure that the total amount of debt service payments required will not cause the state to exceed its debt limit of 18.5% of the average of the preceding three years' general fund revenues. The state constitution requires that all GO debt begin to amortize principal within five years of issuance, mature within 25 years, and have level debt service payments.

Hawaii's debt ratios, as of June 30, 2019, on a per capita and percentage basis were high, in our view, with direct state debt (including GO and highway debt) approximately \$7.7 billion, or \$5,479 per capita, 9.5% of total state personal income, and 8 % of state GDP, among the highest of all the U.S. states. We note, however, that the state's excise taxes, which are its largest revenue source, are supported by not only the residents of the state but also visitors, which is not captured in its population but which represents a significant portion of the state's economic activity. Based on the state's data, about 28% of annual tax revenues are supported by tourists rather than residents themselves. Additionally, Hawaii's high per capita debt reflects its assumption of many functions that, in other states, are generally financed by

local governments, including education, health, and welfare. Debt amortization is rapid, with 67% of principal repaid within 10 years. Total annual tax-supported debt service (GO bonds, appropriation-backed debt, and the state highway fund) equaled \$870 million in fiscal 2019, or about 12% of the expenditures from the general and state highway funds, which we consider high.

Pension liabilities

Pension benefits are administered by the ERS of the State of Hawaii, which began operations on Jan. 1, 1926. The system is a cost-sharing, multiple-employer, defined-benefit pension plan that covers all regular employees of the state and each of its counties, including judges and elected officials. The state recognized a net pension liability of \$6.8 billion for fiscal 2019. This translates to \$5,325 on a per capita basis and 9.3% of total personal income, both of which we view as high.

We consider the state's three-year average pension funded ratio weak at 54%. The plan reported what we still consider a pension actuarial market funded ratio of 55.5% as of June 30, 2018. Despite annual valuations, the state historically does not adjust its pension contributions mid-biennium, resulting in a delayed response to required contribution increases. In addition, its prior practice (which ended in 2005) of reducing employer contributions when investment returns exceeded the assumed rate of return contributes to the ERS' currently relatively low funded ratio.

The state has put in place numerous reforms to improve pension funding. Notably, it adopted Senate Bill 936 in the 2017 legislative session to restore the ERS to full funding within the statutorily required 30 years by phasing in higher systemwide contribution rates through 2021. The bill will require contribution rates to increase to 24% by fiscal 2021 for the general plan and a more aggressive jump to 41% by fiscal 2021 for police and fire. It is expected that the increased contribution rates will result in approximately \$15 billion in savings and will begin to fund normal costs by 2046 after eliminating amortized liabilities. The state also adopted a bill which enables each separate employer to be credited individually for advance payments made into the ERS, which may create an incentive for employers to pay down liabilities faster. Previously, an advance payment by one employer benefited all employer members in the system. In our opinion, the successful implementation of the increased contribution rate and other reforms are vital to the state's long-term financial capacity and are essential to maintaining credit quality. To the extent that the changes lead to significant strain on future budgets operations or reserves, we could view this as an indication of weakening financial capacity.

Annual pension contributions are set according to statutory formula. Since 2011, the contribution rate has repeatedly been applied to a smaller-than-expected state government workforce, the growth of which was constrained in response to the Great Recession. As a consequence, actual contributions have fallen short of the actuarially recommended level, though they are typically above 90% of it. However, the state's phased-in statutory contributions are expected to meet its actuarially determined contribution from 2018.

We believe that management factors and actuarial inputs currently implemented for the ERS' 2018 valuation do not change our view of the state's overall pension funding discipline, which we view as weak. However, we also believe that successful implementation of the pension reforms could improve our opinion of funding discipline. The ERS sets statutory contribution rates based on a 30-year amortization period and a level percentage of pay method, which assumes rising future payroll and results in escalating pension contributions over time. The plan reported an actual

5.9% five-year average rate of return as of June 30, 2019, which is lower than its current actuarial assumed rate of return of 7%. Additionally, the plan smooths assets based on a four-year window of actuarial value of assets. This means significant costs are being deferred when investment losses occur. The plan's ratio of active members to beneficiaries equals 1.4, which is in line with the median national ratio. However, the plan's weak pension funded ratio is below the median. It was the ERS' practice to produce an experience study every five years, but state law now requires experience studies to be completed every three years.

OPEB risk assessment

In 2013, Hawaii enacted legislation (Act 268), which initiated a schedule for prefunding its retiree health care benefit liability. Under the legislation, the state's prefunding of the OPEB liability would ramp up to 100% of the annual required contribution (ARC) by fiscal 2019 from 20% of the ARC in fiscal 2015. Although Hawaii's effort to prefund its OPEB liability could contribute to fiscal pressure through fiscal 2021, we believe it illustrates the policymakers' increased commitment in recent years to addressing its liabilities.

It is common that pension and OPEB reform efforts produce material improvement in key metrics only as a result of sustained commitment on the part of policymakers and sometimes over many years. While the effects of Hawaii's Act 268 and its various pension reforms do not result in an immediate improvement to our rating on the state, we view them as important to its ability to maintain the current rating through economic cycles while also enhancing its potential for a higher rating.

We have assigned a score of '3.2' out of '4' to Hawaii's debt and liability profile, on a scale where '1' is the strongest score and '4' the weakest.

Ratings Detail (As Of April 21, 2020)

Hawaii GO (FGIC) (National) <i>Unenhanced Rating</i>	AA+(SPUR)/Negative	Outlook Revised
Hawaii GO (MBIA) (National) <i>Unenhanced Rating</i>	AA+(SPUR)/Negative	Outlook Revised
Hawaii APPROP <i>Long Term Rating</i>	AA/Negative	Outlook Revised

Many issues are enhanced by bond insurance.

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