

CREDIT OPINION

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Louisiana (State of)

Update to credit analysis

Summary

Louisiana's (Aa2 stable) finances have been strengthened by statutory parameters put in place to build reserves, cautious budgeting and liquidity management, and favorable revenue trends through the pandemic. The state has funneled surplus funds to rebuild available balances and liquidity in addition to funding capital investment. Debt and pension metrics are moderate because the state's approach to funding its pension system is relatively conservative, which will benefit state finances in the long term as liabilities are paid down. The state's governance benefits from several institutional practices that aid in maintaining budget balance, although these can also function to reduce the state's financial flexibility.

The state's careful financial management is critical to counter its vulnerability to environmental risks and volatility in the energy sector. Furthermore, the state's social risks, including population loss, high poverty and low relative per capita personal income create fundamental constraints on the economic and revenue base and growth potential. The state's low relative income also drives its Medicaid caseload and expenses.

Credit strengths

- » Strengthened reserves because of strong revenue collection, conservative budgeting and constitutional requirements to build balances
- » Adherence to certain positive financial management practices, such as consensus revenue forecasting and executive power to make midyear budget adjustments
- » Strong pension funding approach that promotes amortization of unfunded liability

Credit challenges

- » Modest population decline and low relative income levels that are a drag on economic growth and reduce resiliency to extreme weather events
- » Revenue volatility stemming from financial and economic dependency on oil and gas extraction and refining
- » Constraints on raising revenue and reducing expenditures that impede addressing impacts of economic downturns
- » Elevated exposure to storm damage and sea level rise because of its location, and its state-sponsored insurance entities that, after a severe storm, could substantially increase statewide assessments.

Rating outlook

The state's stable outlook reflects its powers to balance its budget in response to economic shocks and cautious financial management practices that accommodate lagging economic and demographic fundamentals.

Factors that could lead to an upgrade

- » Diversification of the state economy that results in trend of annual real GDP growth of at least 2%, on pace with the nation
- » Return to population growth and improved resident income relative to the nation
- » Sustained structural balance and healthy reserves at current levels relative to revenue
- » Changes in state legal and institutional structures to promote greater financial flexibility

Factors that could lead to a downgrade

- » Failure to balance budgets with preponderance of recurring actions leading to liquidity drain and shrinking budgetary reserves
- » Weakening of key economic and demographic indicators, including trend of employment growth below 1% and further deterioration of population metrics

Key indicators

Louisiana (state of)

	2021	2022	2023	State Medians (2022)
Economy				(2022)
Nominal GDP (\$billions)	263.2	292.0	NA	288.7
Real GDP, annual growth	2.3%	-1.2%	NA	1.7%
RPP-adjusted per capita income as % of US	92.6%	91.9%	NA	96.6%
Nonfarm employment, annual growth	1.8%	2.4%	2.1%	4.3%
Financial performance				
Available balance as % of own-source revenue	20.6%	32.8%	41.2%	38.6%
Net unrestricted cash as % of own-source revenue	89.7%	105.3%	118.3%	73.4%
Leverage				
Total long-term liabilities as % of own-source revenue	220.3%	184.9%	144.7%	127.0%
Adjusted fixed costs as % of own-source revenue	10.7%	8.4%	8.1%	4.7%

Source: US Bureau of Economic Analysis; US Bureau of Labor Statistics; Louisiana financial audits; Moody's Ratings

Profile

Louisiana is the 25th-largest state by population, at 4.6 million. Its state gross domestic product is 26th largest. The state has below-average wealth, with 2022 per capita personal income equal to 83% of the US level, 92% when adjusted for regional price parity and the among the highest poverty rates in the country.

Detailed credit considerations

Economy and Tax Base

Louisiana's economy has historically relied heavily on the oil and gas sector. Its dependency on oil and gas exploration and mining has declined during the past decade, but the sector's share of state GDP, at 4.7% in 2022, remains considerably higher than the nation's as a whole, which is 1.9% of GDP and is still significant enough to generate volatility in the state's overall economy and

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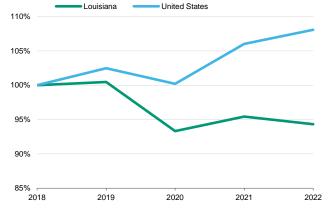
revenue. Nondurable manufacturing, which includes the state's petroleum-related chemical refining and production industries, has also diminished over the past decade.

Increased demand for US-produced oil and gas over the past few years bolstered Louisiana's energy sector. The state is also benefiting from the presence of liquid natural gas (LNG) exporting infrastructure. The state continues to work to develop a strong economic driver outside of the energy sector to provide upward momentum in incomes and revenue given the boom-bust pattern of the oil sector. Given the state's manufacturing infrastructure, areas of promise include green technologies industries like offshore wind, carbon capture, solar panel manufacturing and hydrogen.

Like most states, Louisiana's employment exceeds the early 2020 pre-pandemic level, but faces a longer-term trend of decline that started in 2016 following a large drop in oil prices (see five year history in Exhibit 3). Employment across sectors are down relative to 10 years ago, while growth has occurred in education services, healthcare and social assistance, professional and business services and federal government employment.

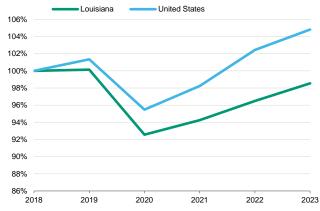
The state's unemployment rate has fallen to 3.5% as of November 2023 from its peak of 13% in April and May of 2020. The nation's unemployment rate in November was slightly higher at 3.7%.

Exhibit 2
Real GDP has been declining over the past five years, lagging the nation
Indexed to 2018



Source: US Bureau of Economic Analysis

Exhibit 3 Employment has recovered from the pandemic, but continues a longer-term trend of decline Indexed to 2018



Source: US Bureau of the Census

Population and labor force trends weaken

Demographic trends in the state are a drag on its potential for economic expansion. Except for a bounce-back after the Katrina and Rita hurricanes, the state's population growth has been slow and the trend has been negative for several years. Over the past five years, Louisiana's population has continued to decline, largely because of domestic outmigration, while the US has modestly grown overall (see Exhibit 2). The state's labor force participation rate has long been below the US average and stood just shy of 59% in 2023, compared to the US level closer to 63%. Persistently low labor force participation indicates underutilization of economic resources and mismatch between skill requirements of jobs and workers.

Historically a poor state, Louisiana's personal income per capita (PIPC) is consistently below the nation as a whole, even when adjusting for regional price parity. After the state's PIPC peaked around 2010 following an inflow of money and investment in the aftermath of Hurricanes Katrina and Rita, PIPC relative to the US has been declining, reaching 92% of the US level (see Exhibit 3).

Exhibit 4
Population has declined over the past five years as the nation's modestly grows
Indexed to 2018

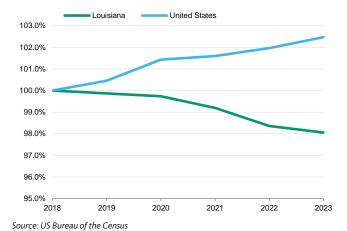
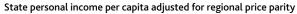
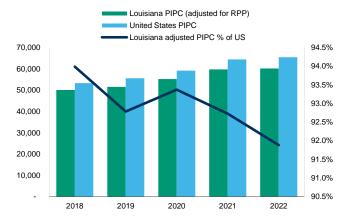


Exhibit 5
Personal income per capita is growing but at a slower pace than the nation's





Source: US Bureau of Economic Analysis

Finances and Liquidity

Louisiana's finances have improved notably since the middle of the last decade, when the state created large structural imbalances by relying on a number of nonrecurring actions to weather the impact of plummeting oil prices. The state has strengthened its balance sheet and has ended seven consecutive fiscal years with surpluses, with an expected surplus again in fiscal 2024.

Year to date through February 2024, major state tax revenue is up 2.5% compared to this time last year, while the adopted December revenue forecast for fiscal 2024 would result in a decline in revenue of 3.5%, meaning that there will likely be positive budget variance if the revenue trend holds though the end of the fiscal year (June 30).

Like most state's, Louisiana's revenue outlook is tempering as the impacts of inflation and higher interested rates have filtered through the economy, reducing demand for goods and services. Over the next several fiscal years, the state is projecting larger revenue declines stemming from the expiration of the 0.45% sales tax and a shift of a portion of sales and use taxes on motor vehicles to a sub fund of the transportation fund. The sales tax expiration is projected to reduce the budget by \$625 million, or about 3% of fiscal 2023 state own-source revenue and about 5% of the state general fund budget. The sales tax increase enacted in 2018 and was part of a temporary solution to its past recurring structural imbalances. The shift of motor vehicle sales tax is projected to have a budgetary impact of \$164 million in fiscal 2024, increasing to \$337 million in 2025 and \$311 million in 2026. As part of planning for the revenue declines, the state is planning to reduce expenses through identifying efficiencies within departments.

In addition, the state has been adjusting to reduced personal and corporate income tax rates. In the fall of 2021, Louisiana voters approved a constitutional amendment that would cap the state's income tax rate at 4.75%, down from the current top rate of 6%. Additionally in 2021, House Bill 278 reduced the personal income tax rate further to 4.25%, effective in 2022. The legislation put in place triggers that would reduce the tax rate further starting in April 2024 if certain tests are met, including a Budget Stabilization Fund balance of at least 2.5% of state revenue receipts, and income tax collections that exceed the 2019 level, adjusted for inflation. Accompanying statutes also broadened the base of the income tax and the corporate tax by eliminating the deductibility on state tax returns of federal income taxes paid. The trigger test was not met for 2024, and tax rates will not change this year.

The state's constitutional requirements for uses of budget surpluses have ensured that they are applied to bolster the rainy day fund, shore up the state's pension system and fund capital purposes. These requirements prevent surpluses being used to promote structural imbalances in ensuing years.

The governor's proposed fiscal 2025 budget decreases general fund spending \$230 million, or 1.9%, in line with the December Revenue Estimating Conference fiscal 2025 projection. Increases in spending would largely go to the department of health and public safety

departments, while K-12 and higher education would see spending reductions, as well as other smaller budget areas. The legislature is currently in session to negotiate a final budget.

Much of the proposed \$200 million increase for the department of health is because of projected increase in Medicaid costs. Medicaid spending is a significant driver of the state's budget, given the state's high poverty rate. Through the pandemic, the federal medical assistance percentage (FMAP) to states was increased by six percentage points, which was phased out over calendar year 2023. The enhanced FMAP also came a requirement to maintain continuous enrollment, which ended April 2023. While Medicaid enrollment has declined, costs per enrollee have increased.

Liquidity

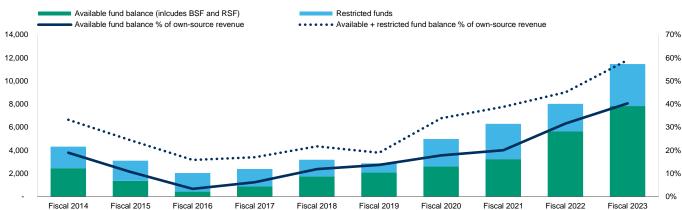
The state has significantly bolstered its governmental fund balances and liquidity in recent years after a period of depletion. In addition to replenishing its rainy day fund, it has built up a substantial balance in its newer Revenue Stabilization Fund (RSF), and reversed or repaired actions that weakened the state's cash position.

Louisiana's GAAP-basis governmental fund balances have sustained their improvement after narrowing significantly in fiscal 2015 and 2016. Increases in available fund balance accelerated through the pandemic like much of the state sector, reaching over 32% of own-source revenue in fiscal 2022 and increasing further to over 40% in fiscal 2023 (see Exhibit 6). As of fiscal 2022 reporting, the median available fund balance for the state sector was 38% of own-source revenue.

The state's recent budgetary surpluses have helped to bring reserves balances to historic highs because of constitutional requirements that a portion of a surplus and other excess revenue be deposited to reserves.

Exhibit 6

Available fund balance has increased substantially since 2016 low



Available fund balance includes the Budget Stabilization Fund and the Revenue Stabilization Fund, which are both reported as restricted Outside of the BSF and RSF, restricted funds are reserves designated for specific purposes like Medicaid, education, environmental restoration and other uses. Source: State of Louisiana ACFRs

The state maintains two key reserve funds within its governmental fund balance, both of which are reported as restricted funds. The state's rainy day fund, called the Budget Stabilization Fund (BSF), is capped by statute at 4% of the state's total revenue receipts from the previous year, equating to a nominal cap of \$1.6 billion for fiscal 2023, while the actual balance stood at \$974 million or 2.6% of the state's total revenue receipts. The fiscal 2024 balance is projected to reach over \$1 billion. The BSF can only be accessed with approval by two-thirds of each house of the legislature and its use is limited to one-third of the balance in one year.

The formal rainy day fund balance is augmented by the rapid build up of the Revenue Stabilization Fund (RSF) and other restricted balances. Deposits are made to the RSF when severance or corporate tax collections hit certain targets. The fund is constitutionally dedicated to capital purposes and has a targeted balance of \$5 billion, but can be tapped by the legislature for emergency purposes with a two-thirds vote. As of fiscal 2023, the RSF reached \$2.25 billion, building quickly amid strong severance and corporate tax collections through the pandemic.

As of fiscal 2023, other restricted balances net of the BSF and RSF totaled \$3.6 billion. The balances of many of these funds are available to provide liquidity to the general fund during a fiscal year. The state borrows regularly from these funds, and has until 45 days after the end of the fiscal year to repay the loans. In addition to providing liquidity, the accumulated balances in some funds can be reprogrammed and the commissioner of the Division of Administration can transfer up to 5% of the balances of statutorily dedicated funds to address budget gaps. However, extensive use of this authority can result in credit-negative reductions in liquidity, as happened in fiscal 2015 and 2016.

Similar to fund balances, the state's cash has increased significantly since the 2016 low and is positioned to remain at a healthy level. As of fiscal 2023, total governmental cash and investments reached \$19.4 billion, nearly 120% of own-source revenue (see Exhibit 7).

25,000 Cash and cash equivalents Investments — Cash and investments to revenues (team file)

140%
120%
15,000
10,000
5,000
20%

Fiscal 2018

Exhibit 7

Governmental cash balances have similarly increased since the 2016 low

Fiscal 2016

Fiscal 2017

Source: State of Louisiana ACFRs

Fiscal 2014

Fiscal 2015

Leverage

Louisiana's combined debt, pension and retiree health (OPEB) liabilities are somewhat elevated relative to economic and financial capacity compared to the US state median. The state's total liability burden was 180% of state own-source revenue in fiscal 2022, compared to the median of 131%. The state's fixed costs, or its combined debt service, pension and OPEB contributions, are also greater than the state median because of its higher debt burden and because it has a more aggressive pension funding approach than many other states. Fiscal 2022 fixed costs, based on actual pension contributions, were about 10.4% of own-source governmental revenue. Fixed costs assuming pension contributions are equal to the state's "tread water" contribution level are 8.3%, greater than the sector median of 4.8%.

Fiscal 2019

Fiscal 2020

Fiscal 2021

Louisiana has made a long-term effort to reduce its debt burden. Debt issuance is subject to review by the state bond commission, and must remain within the state's debt limitation, which limits annual debt service to 6% of revenue. Net tax-supported debt outstanding still remains higher than the state median relative to economic capacity, with its debt to revenue metric ranking at 46% compared to the sector median of 24.5%.

Louisiana is exposed to liabilities related to its public insurance entities, Louisiana Citizens Property Insurance Corporation and the Louisiana Insurance Guaranty Association (LIGA), both of which have debt outstanding backed by emergency assessments levied off the assessment base. The assessment base includes the direct written premium on most lines of insurance statewide. The state offers a tax write-off incentive to insurers for assessments paid associated with LIGA debt. The state has no legal obligation to support debt service associated with the state-sponsored insurance entities.

Legal security

The state's GO bonds are a full faith and credit pledge of the state of Louisiana and have a constitutional first lien on the Bond Security and Redemption Fund, through which most of the state's revenue flows.

Lease appropriation bonds are secured by cooperative endeavor agreements making debt service payments subject to annual legislative appropriation.

0%

Fiscal 2023

Fiscal 2022

Special tax State Highway Improvement Fund bonds are secured by an irrevocable pledge of statewide collections of truck and trailer licensing fees and taxes, which are not subject to legislative appropriation.

Special tax Gas and Fuels Tax bonds are secured by constitutionally protected pledge of a tax on gas, motor and special fuels.

Debt structure

Louisiana had about \$8.3 billion in net tax-supported debt (NTSD) outstanding as of 2022, including premium. When including debt issued by the state's public insurance entities, <u>Louisiana Citizens Property Insurance Corporation</u> (A1 stable) and the <u>Louisiana Insurance Guaranty Association</u> (LIGA, A1 stable), the state's NTSD increases to \$9.2 billion. Fiscal 2023 NTSD, including the state-sponsored insurance entities, declined to \$8.9 billion.

Of the state total (including premium), 45% was general obligation debt, 39% was backed by gas and fuel taxes, registration fees or Federal highway fund reimbursements and the remainder, aside from bond premium and tobacco bonds, is secured by state appropriation or taxes (see Exhibit 7). The state has \$422.5 million of second-lien gas and fuels tax bonds in variable-rate put mode with tender dates in 2025 and 2026.

Exhibit 8
Louisiana's debt is composed largely of GO and highway bonds

otal NTSD	Fis	scal 2022	Fiscal 2023
General obligation	\$	3,541 \$	3,489
Appropriation		54	43
Highway revenue bonds		2,760	2,703
Other special tax revenue bonds		887	766
GARVEE		316	265
Misc incl premium		748	768
Total NTSD	\$	8,307 \$	8,033
Louisiana Citizens assessment debt	\$	287 \$	227
Louisiana Insurance Guaranty Association assessment debt		600	600
Total insurance assessment debt	\$	887 \$	827
TOTAL NTSD with insurance assessment debt	\$	9,194 \$	8,860

Source: Louisiana audited financial statements, Louisiana Citizens audited financial statements, LIGA audited financial statements, Moody's Ratings

Debt-related derivatives

The state has six swap agreements with a notional par of \$424.4 million as of fiscal 2023, which hedge Series 2022 and 2023 second-lien gas and fuels tax bonds that were issued as variable rate demand debt. The swaps include \$60.6 million with JPMorgan Chase (Counter Party Risk Assessment A1(cr)/P-1(cr)), \$242.5 million with The Bank of New York Mellon (Counter Party Risk Assessment A2(cr)/P-1(cr)).

The most recent mark-to-market as of Jan. 31, 2024, valued the swaps at negative \$68.5 million.

Pensions and OPEB

Louisiana is one of a handful of states whose constitutions guarantee pension benefits to retirees, although this requirement is limited to Louisiana's four state systems. The state bears this ultimate responsibility, but it is able to require other levels of government to make contributions to fund the systems. These include the Louisiana State Employees' Retirement System (LASERS), the Louisiana State Police Retirement System (LSPRS), the Teachers' Retirement System of Louisiana (TRSL) and the Louisiana School Employees' Retirement System (LSERS). Other systems for which there is no constitutional guarantee are the District Attorneys' Retirement System (DARS), Louisiana Clerks' of Court Retirement and Relief Fund (LCCRRF), and the Registrar of Voter Employees' Retirement System (ROVERS).

Louisiana's pension burden is moderate. For fiscal 2022, Louisiana's adjusted net pension liability was \$14.5 billion or 81% of own-source revenue, nearly on par with the state median of 80%. Moody's ANPL reflects certain adjustments to reported figures to improve comparability of pension liabilities. The state's ANPL has been declining, as well as ANPL's for the state sector as a whole, as a result of rising interest rates. For fiscal 2023, Louisiana's ANPL will decline to \$11.9 billion, 61% of 2023 own-source revenue. Moody's applies a discount rate to all plans based on the FTSE Pension Liability Index (FTSE PLI). The FTSE PLI as of June 2022 was up to 4.48%, compared to 2.84% as of June 2021.

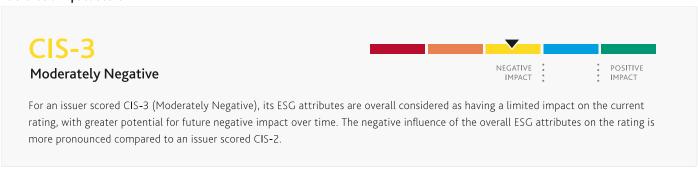
The state's contributions to its pension systems are more than required to allow the state's reported net pension liability to "tread water" – or remain stable from one year to the next assuming investment return and other actuarial assumptions are met for the year. The tread water amount is determined by the actuarial cost of the year's benefit accruals ("service cost") plus interest on the net pension liability at the beginning of the year. The state's contribution relative to the tread water benchmark implies a funding approach that will likely lead to declining net pension liabilities over time.

The state's adjusted net OPEB liability in fiscal 2022 was \$5.8 billion, or 32% of own-source revenue, compared to a median of 9%. Louisiana pays these benefits, which are not guaranteed, on a pay-as-you-go basis.

ESG considerations

Louisiana (State of)'s ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 9
ESG Credit Impact Score



Source: Moody's Ratings

Louisiana's ESG Credit Impact Score is moderately negative (CIS-3) reflecting its highly negative exposure to environmental risks, moderately negative exposure to social risks and neutral governance profile.

Exhibit 10
ESG Issuer Profile Scores



Source: Moody's Ratings

Environmental

Louisiana's E issuer profile score is highly negative (**E-4**). Among states, Louisiana has elevated exposure to environmental risks, incorporating both physical climate factors (such as hurricanes, flooding and sea level rise) and carbon transition, representing economic disruption from long-term shifts to environmentally sustainable energy sources.

The state's economy, which has long benefited from coastal oil and gas extraction employment, could suffer as policies aimed at moving away from that industry take hold. Further, waste and pollution in Louisiana is elevated relative to other states because of its long history with industry concentrations in energy extraction and refinement, as well as manufacturing.

At the same time, Louisiana's location also makes it among the most vulnerable states to some of the immediate consequences of climate change, including increasingly severe and more frequent storms and flooding. According to Moody's ESG Solutions, about 71% of the state's GDP and a commensurate portion of its population are exposed to a high and growing risk of hurricanes. FEMA support has been critical to the state's ability to withstand severe weather events. Devastation from Hurricanes Katrina and Rita was mitigated by FEMA-supported rebuilding, which created a cash infusion that supported the state's liquidity in the storms' aftermath. In recent years, the state has been battered by flooding and damage from numerous hurricanes. The state's Coastal Protection and Restoration Authority has several programs meant to mitigate the threats posed by intense storms and sea level rise. These include rebuilding barrier islands, protecting and conserving wetlands and facilitating federal coastal programs, among others. The activities are financed in large part by federal funds and proceeds from the BP Deepwater Horizon oil spill settlement.

Louisiana's heightened physical climate risks can cause cycles of a shrinking private property insurance market in the state, in particular following major storms when insured losses spike and national insurers pull back, while insolvencies of smaller insurers increase. Availability of property insurance is essential to the economy as it underpins the real estate market as a whole, and is critical for rebuilding following a major storm. As a result, the state created the Louisiana Citizens Property Insurance Corporation (A1 stable) that acts as a residual market for Louisiana residents unable to procure property insurance through the voluntary market. Louisiana Citizens charges rates that must be non-competitive with the private market, thereby maintaining it as an actual insurer of last resort. If losses exceed on-hand resources, Louisiana Citizens may levy assessments on direct written premium statewide, thereby spreading the loss liability across the state.

Social

Louisiana's S issuer profile score is moderately negative (**S-3**). Louisiana's social risks include several consistent with high poverty: income inequality, comparatively low levels of both educational attainment and low labor force participation rates. These social factors represent challenges as potential economic constraints and as drivers of demand for government provided healthcare and other programs. Demographic trends in the state are a drag on its potential for economic expansion. Except for a bounce-back after the Katrina and Rita hurricanes, the state's population growth has been slow and the trend has been negative most years since 2017. The state's labor force participation rate remains below the US. Persistently low labor force participation indicates underutilization of economic resources and mismatch between skill requirements of jobs and workers. Historically a poor state, Louisiana's personal income per capita has generally been well below the national average, with exceptions for periods of very high energy prices or federal emergency aid, and the state's poverty rate is among the highest in the nation.

Governance

Louisiana's G issuer profile score is neutral-to-low (**G-2**). The state follows a number of strong management practices, including consensus revenue forecasting and debt affordability analysis and constraints. These are counterbalanced by weaknesses that include constitutional tax and expenditure limitations, supermajority requirements to enact tax increases and significant portions of spending that are constitutionally protected, which reduces financial flexibility. However, the state has a history of responding rapidly to budget gaps with expenditure cuts in unprotected categories.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Rating methodology and scorecard factors

The <u>US States and Territories Rating Methodology</u> 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.

Louisiana (state of)

	Measure	Weight	Score
Economy			
Resident Income (PCI Adjusted for RPP / US PCI)	91.9%	15%	Aa
Economic Growth (5-year CAGR real GDP - 5-year CAGR US real GDP)	-2.9%	15%	Ваа
Financial performance			
Financial performance	Aa	20%	Aa
Governance/Institutional Framework			
Governance/Institutional Framework	Aa	20%	Aa
Leverage			
Long-term liabilities ratio (adjusted long-term liabilities / own-source revenue)	144.7%	20%	Aa
Fixed-costs ratio (adjusted fixed costs / own-source revenue)	8.1%	10%	Aaa
Notching factors			
Very limited and concentrated economy	NA		
Scorecard-Indicated Outcome			Aa3
Assigned rating			Aa2

Source: Audited financial statements; Moody's Ratings; US Bureau of Economic Analysis

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