

RatingsDirect®

Louisiana; Appropriations; General Obligation

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Credit Profile		
Louisiana GO <i>Long Term Rating</i>	AA-/Stable	Outlook Revised

Rationale

S&P Global Ratings revised its outlook to stable from negative on the state of Louisiana's general obligation (GO) bonds outstanding and affirmed its 'AA-' long-term rating on the debt. We also affirmed our 'A+' long-term rating on the state's appropriation bonds.

The outlook revision reflects, in part, our view that the partial extension of a sun-setting sales tax will afford the state a measure of budgetary predictability, at least through its initial period (through 2025). This is the state's third successive budget adoption to not include one-time resources to balance the budget. By more closely aligning revenue expectations with recurring expenditures, we believe the recent practice of balancing budgets with one-time measures is also now less likely. While S&P Global Ratings' short-term risk of recession odds remain low at 10%-15%, given uneven economic growth relative to the U.S. throughout the current expansionary period, we note that the state remains acutely vulnerable to economic shifts, particularly in the export and energy sector.

The rating reflects our view of the state's:

- Constitutional requirement that requires balanced budgets and recently extended budgetary revenue enhancers which helped align revenue and expenditures in the near term; and
- Moderate debt ratios with a strong legal framework for debt repayment, including significant resources available in the bond security and redemption fund that first pay GO debt service.

Partly offsetting the above strengths, in our view, are:

- Sluggish economic trends, which continue to weigh on employment growth, gross state product (GSP), and revenue collections despite a regional resurgence in the energy sector;
- Exposure to fluctuations in oil and gas prices and their potential effects on broader economic activity that it supports; and
- Louisiana's below-average pension funded ratio and unfunded other postemployment benefit (OPEB) liabilities.

The state's full faith and credit obligation secures its GO bonds. Pursuant to the Louisiana Constitution, the full faith and credit bonds are payable from all state money deposited in the state treasury and allocated in the fiscal year from deposits in the bond security and redemption fund, subject to previous contractual obligations existing when the constitutional provision was passed in 1974. Under the current administrative procedures of the state treasurer's office, amounts are set aside monthly sufficient to pay the debt service payments in the current and next months as they come due.

Based on the application of our "Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness" criteria (published Jan. 22, 2018, on RatingsDirect), we rate the state's appropriation debt one notch lower than the state's general creditworthiness to reflect the appropriation risk associated with the annual payment. These obligations provided funding for projects we believe are significantly important to the state. The state also has an established track record of appropriating for resources necessary to satisfy debt service. In our opinion, there is no unusual political, timing, or administrative risk related to the debt payment.

Much like fiscal 2018's budget development, lawmakers grappled with how to balance fiscal 2019's budget. As noted in our bulletin, "Louisiana Fiscal Cliff Inches Closer" (published March 7, 2018), absent legislative action, the expiration of a "fifth penny" (sales tax) going into fiscal 2019 would have resulted in a near-billion dollar budget gap—later revised downward to approximately \$650 million. Given the levying or authorization of tax measures during a regular session is constitutionally designated to odd-numbered years, Governor Edwards called a special (extraordinary) session prior to the regular session which yielded limited results. Similarly, the second special session, called following the adjournment of the regular session, yielded limited results. By late June, the legislature extended roughly half (0.45) of the expiring fifth penny.

Effective July 1, the state's sales tax rate fell to 4.45% from 5%. The partial extension of the sales tax, including a suspension of various exclusions and exemptions and a 2% tax on business utilities, is estimated to yield roughly \$463 million for the fiscal year. By fiscal 2020, direct revenue is estimated to increase just shy of \$500 million. Together with expenditure restraints, fiscal 2019 general fund appropriations are marginally (0.4%) greater than fiscal 2018. The state's leading revenue streams--sales and individual income taxes--account for approximately 78% of total general fund revenue of \$9.497 billion. Appropriations for the Department of Health, higher education, and K-12 education represent nearly three-fourths of total general fund spending for the year. Relative to fiscal 2018, appropriations for the Department of Health are up 2.6%, 1% for higher education, and down 0.6% for K-12 education. By the end of the fiscal year 2019, the state estimates its budget stabilization fund (BSF) will grow to at least \$346 million from \$321 million, or roughly 3.6% of total appropriations. Although the BSF balance, in our view, remains relatively thin, the state's efforts to rebuild it reflect prudent budgetary management.

Overall, S&P Global Ratings considers Louisiana's financial management practices good under its Financial Management Assessment (FMA) methodology, indicating our view that practices exist in most areas, although not all might be formalized or regularly monitored by governance officials. That said, Louisiana's track record in making difficult revenue and spending decisions to restore long-term balance has lapsed somewhat in recent years. While recent legislative revenue measures demonstrate progress in restoring balance in the short term, most of these measures have included sunset provisions that could likely impair future budget imbalance, including those adopted for fiscal 2019. Given the state's recent experience, however, we believe the political appetite to rely on temporary measures will give way over time to continued longer term initiatives to meet growing service needs.

Standing as only one of three states to experience economic contraction in 2017, and only one of two to contract in both 2016 (negative 0.4%) and 2017 (negative 0.2%), Louisiana entered 2018 in a perilous position. Notwithstanding gross domestic product (GDP) growth of 2.2% in the fourth quarter of 2017, the state's economic contraction would have been substantially greater for the year. Riding fourth-quarter tailwinds, however, it enjoyed 2.3% growth in the

first quarter of 2018—ranking it 14th among states--bolstered in large part by nondurable goods manufacturing, according to the Bureau of Economic Analysis (BEA). The sector's contribution to GDP in the first quarter represented roughly 68% of the state's total growth for the quarter or 1.57 percentage points. Notably, the nondurable goods manufacturing sector was also the sector that weighed down the state's growth in 2017 by 0.9 percentage points.

To the extent the robust acceleration in GDP at the national level observed during the second quarter was shared among states, we would anticipate seeing the state's growth well north of negative territory. BEA's second-quarter state GDP release (scheduled for November) will be especially informative as to whether the state's economic sectors are indeed harmonizing with the broader U.S. economy or diverging from them. IHS Markit estimates the state will realize roughly 2.2% and 2.9% growth in 2018 and 2019, respectively. While the state's 2018 growth estimate is nearly a percentage point below S&P Global Ratings' national estimate, for 2019, the state is estimated to grow half a percentage point more than the national average.

The state's improving economic growth has also been observed through its labor market. Relative to a year ago, overall employment grew just shy of 1% at 0.9% (June 2018, latest available data). IHS notes that the leading employment growth sectors relative to a year ago were manufacturing (2.7%), information (2.7%), professional and business services (2.2%), and leisure and hospitality (1.8%). Trade, transportation, and utilities, along with financial activities and government employment, contracted modestly at 0.5%, 0.2%, and 0.8%, respectively. But for the Lafayette metropolitan statistical area (MSA), all the state's MSAs realized positive employment growth relative to a year ago with the Baton Rouge and Lake Charles MSAs leading with 1.8% and 2.1% growth, respectively.

Overall, we anticipate that the state will continue to share in the country's economic expansion, although we view recent national trends as indicative of a maturing economic cycle. Given the state's recent economic contraction, developing national economic risks could weigh heavily outside of the immediate short term. As noted in our latest "Credit Conditions" report (published on July 26, 2018), escalating trade tensions are presenting uneven headwinds, particularly for states and localities which have strong international trade ties such as Louisiana. Separate and apart, like the nation as a whole, Louisiana will have to continue to contend with certain structural factors, including soft productivity growth and relatively low labor-force participation.

Louisiana's tax-supported debt ratios, including appropriation-dependency debt that the state classifies as net state tax-supported debt, remain moderate by most measures and are largely unchanged since fiscal year-end 2016. Combined, tax-supported debt at the end of fiscal 2017 (audited) was moderate, in our view, at just short of \$1,600 per capita, an estimated 3.6% of state personal income, and 3% of real GSP. Debt amortization is average, in our opinion, with about 50% of tax-supported debt principal (including gas tax debt) due to be repaid in 10 years. Louisiana's debt service burden as a percentage of expenditures is also moderate, in our view, with fiscal 2017 tax-supported debt service (including all GO, appropriation-dependent, and gas tax debt) accounting for approximately 5% of total governmental spending (net of federal government revenue received). As of Dec. 31, 2017, the state calculated a 5.4% debt service carrying charge, which was just below the 6.0% limit mandated by constitutional and statutory debt management policies. We understand that state is contemplating issuing GO bonds in the latter half of fiscal 2019, although no definitive amounts are available.

Based on the fiscal 2017 state and plan comprehensive annual financial reports (CAFRs), we estimate Louisiana's share

of the net pension liability across state pension plans totaled about \$6.4 billion, or approximately \$1,400 per capita; relative to total personal income, its share of the net pension liability was 3.5%. Consistent with the investment experience of most plans in fiscal 2017, the Louisiana State Employees' Retirement System (LASERS) funded ratio improved to 62.5% at June 30, 2017, from 57.7%. Nevertheless, the state's funding ratio--expressed as the combined net position as a percentage of total pension liability--three-year average remained 63%. Favorably, LASERS experienced an investment return of 15.8% at June 30, 2017, which increased the asset value of the plan to more than \$11 billion (up from \$10 billion at June 30, 2016). Furthermore, while we understand pension contributions are set by statute on an actuarial basis, the timing between budgeting for the contribution per employee and actual funding has historically resulted in annual funding shortfalls below the actuarially determined contribution (ADC). Louisiana continues to fund its unfunded OPEB liability on a pay-as-you-go basis despite establishing a trust fund.

We have assigned a total score of '2.2' to Louisiana under our State Ratings Methodology, on a scale where '1.0' is the strongest score and '4.0' is the weakest.

Outlook

The stable outlook reflects our view that state's recent action to partially extend an expiring revenue enhancement will provide a heightened level of budgetary predictability throughout our two-year outlook horizon. With an added measure of budget predictability, we believe the recent reliance on one-time measures to balance budget will be less likely and that the state will instead continue to align recurring revenue expectations with expenditures. Coupled with our view that economic growth will modestly expand, we anticipate the state's overall credit profile will gradually improve as well. While we do not currently anticipate it, a weakening of budgetary performance as a consequence of either deteriorating economic conditions or policy shifts could cause downward rating pressure. Sustained budgetary improvement resulting in material progress towards maintaining reserves at least in line with constitutional limits could lead to upward rating potential.

Government Framework

The state's balanced budget requirements, legal framework for debt, and its lack of voter initiatives, provide a good fiscal policy framework, in our view, despite a constrained revenue structure and limited disbursement autonomy. The constitution requires Louisiana to adopt a balanced budget. If revenues fall short of projections, the governor is empowered to directly cut expenditures, within certain limitations, to maintain budget balance during the year. Should the governor fail to make necessary adjustments to maintain budget balance within 30 days, the constitution and statutes mandate the governor to call a special session of the legislature to address the deficit. Louisiana has the authority to raise revenues, including the authority to levy and raise a broad range of taxes; however, the state constitution requires a two-thirds supermajority when any revenue or property taxation bill is passed, and Article VII of the Louisiana Constitution provides constitutional limits as to how the state may adjust revenues. In addition, the state legislature is limited to adopting revenue enhancements in odd-numbered years. Before 2015 and through the recession, Louisiana's preferred policy approach focused more on expenditure reductions than on tax increases, even though approximately two-thirds of the state's general fund budget is nondiscretionary due to constitutional, statutory,

or other mandates. Louisiana is not a voter-initiative state.

Louisiana's counties and municipalities share the major sources of revenue from certain taxes, subject to certain exemptions. The state has the ability to issue debt for a wide range of purposes, but all state debt requires authorization from two-thirds of each house of the legislature before issuance. The state constitution requires that the debt service payments on net state tax-supported debt not exceed 6% of the general fund and dedicated fund revenues as estimated by the Revenue Estimating Conference (REC). Although the limit has not been changed, an act of the 2013 legislature which expanded the definition of funds to be included in the REC increased the allowable debt service limit on an absolute basis; however, an executive order and a bond commission policy both limit debt issuance to maintain debt service ratios based on historical calculations.

In practice, Louisiana's priority for repaying debt has been high, in our view. The state constitution requires all money deposited in the state treasury (except for grants or donations) to be credited to the bond security and redemption fund from which Louisiana first allocates money to pay full faith and credit obligations. Under the current administrative procedures of the State Treasurer's Office, amounts are set aside monthly that are sufficient to pay the debt service payments in the current and next months as they come due before the remainder flows into the general fund.

We have assigned the state's government framework a score of '1.7' on a scale whereby '1.0' is the strongest and '4.0' is the weakest.

Financial Management: Good

S&P Global Ratings considers Louisiana's financial management practices good under its FMA methodology, indicating that practices exist in most areas, although not all might be formalized or regularly monitored by governance officials.

The state's formal RECs typically take place at least four times a year, and are key to setting the current and upcoming fiscal years' budgets. The REC is composed of the governor, senate president, house speaker, and one long-standing faculty member of Louisiana University with expertise in revenue forecasting. Monthly monitoring through budget status reports and the executive ability to reduce funding or to convene extra legislative sessions to amend budgets allow Louisiana to make timely midyear financial adjustments, if necessary, to maintain fiscal balance. As required by statute, the state treasurer adopts an investment policy and submits investment reports to the governor and legislature at least quarterly. In addition, the state treasurer and Joint Legislative Committee on the Budget monitor Louisiana's general fund revenues and cash balances at least monthly against estimates in anticipation of adjustments that might have to be made. The state also presents a five-year continuation budget that incorporates expenditure forecasts as well as the REC's revenue forecasts for planning purposes. Louisiana maintains a constitutional BSF, or rainy-day fund, that has a legal maximum of 4% of the revenue receipts of the previous year.

The state constitution and statutes require the governor to submit a proposed five-year capital outlay budget to the legislature, from which the legislature approves a bill identifying prioritized projects to be funded only in the first year of the program. Approved spending on capital outlay projects is not tied to the state's bonding capacity. Louisiana adheres to statutory debt management policies that limit net state tax-supported debt service to a percentage of state revenues; this provides the basis for a moderate state debt burden, in our view.

Louisiana has what we consider a generally good budget management framework. We consider the executive branch and budget office to have broad powers to adjust appropriations. If the state projects a shortfall, the governor and the Division of Administration can make budget amendments to improve structural budget gaps and officials are required to respond quickly and empowered to cut expenditures directly. The state's official revenue forecast must be based on existing, recurring revenues as established by the constitution. In addition, state statutes prohibit the governor from submitting a budget that exceeds the official revenue forecast.

We have assigned the state's financial management framework a score of '2.0' on a four-point scale whereby '1.0' is the strongest and '4.0' is the weakest.

Economy

Real GSP trends have also demonstrated cyclical when compared with the national trends; average growth in real state GDP in the previous one, five, and 10 years remains well below average national rates. Reflecting the state's rather limited industrial diversity, 25% of total GSP comes from merchandise exports, including energy products, manufacturing goods, and agricultural products related to the prominence of shipping along the Mississippi River and Gulf of Mexico. Positively, petroleum and coal product export value, which accounted for more than 32% of the state's total export revenues, grew a resounding 33.4% in 2017. Relative to the precipitous fall of nearly 40% in 2015 as a result of weakened commodity prices and weakened demand from Louisiana's largest export destinations (including China and Mexico), 2017's improvement was a welcome development. Equally impressive were oil and gas exports, which grew 153% in 2017.

The state's level of energy consumption, particularly natural gas, also ranks among the highest in the nation due to the energy-intensive chemical manufacturing and petroleum refining industries. Downstream companies have announced expansions due to the low cost of natural gas; however, the volatility of commodity prices relative to natural gas prices could potentially play into future decisions. To the extent that recent trade disputes could erode confidence in long-term trade partnerships, the state could bear a disproportionate share given its strong reliance on trade as an economic engine.

Although Louisiana's unemployment level has historically tracked at or slightly below that of the nation, in the last three years, its unemployment was roughly one percentage point higher than that of the nation. However, the state has narrowed that difference through much of 2018, averaging 0.61 percentage points greater than the national level. Furthermore, IHS estimates by year-end, the unemployment rate will settle near 4.4% and 3.95% in 2019. IHS forecasts annual state employment growth will continue to lag that of the nation through 2021 as Louisiana's limited industrial diversity weakens its economic outlook.

As previously noted, the construction and mining sectors were among the hardest hit through much of 2015 and 2016. Not until recently has each sector begun again to grow at a healthy clip of 2.4% and 2.7%, respectively, in 2018, according to IHS. The state's employment composition through 2017--with the mining and logging sectors (1.8%), construction (7.4%), as well as trade, transportation, and utilities (19.3%) accounting for a higher portion of total employment in Louisiana when compared with employment nationally--reflecting the dominance of the energy and

petrochemical industries. The leisure and hospitality (11.8%) and government (16.6%) sectors also make up a higher percentage of jobs in Louisiana than nationally. However, professional and businesses services jobs are underrepresented at 10.7% of employment compared with 13.8% nationally.

Contending with a contracting economy in 2016 and 2017, Louisiana's real GSP per capita shrank modestly in 2017 (0.15%) relative to the U.S. Real GSP per capita remained near \$44,400 in the previous two completed years. Per capita personal income in 2015 declined to 89% of the U.S. level; however, IHS forecasts that between 2017 and 2018, personal income will grow by 3.9% to 4.7% per year, on average, which we consider good. In our opinion, Louisiana offers many incentives and tax advantages to attract new businesses and to encourage existing businesses to expand within the state.

Through no fault of its own, state population growth declined in the previous decade due in large part to the effects of Hurricanes Katrina and Rita, when Louisiana lost nearly 6% of its population in one year. In 2017, the state's population shrank marginally by 0.04% to 4.68 million compared with the 0.72% national population growth rate. Favorably, Louisiana's age-dependency ratio roughly is in line with the national level.

We have assigned Louisiana's economy a score of '2.6' on a four-point scale whereby '1.0' is the strongest and '4.0' is the weakest.

Budgetary Performance

The state constitution requires Louisiana to maintain a BSF into which it deposits money in excess of the expenditure limit, mineral revenues in excess of \$950 million per year, 25% of nonrecurring revenue as designated in the official REC forecast, and any amount specifically appropriated to the BSF up to its cap of 4% of total state revenue receipts for the previous fiscal year. Appropriations from the fund are limited in any fiscal year to one-third of the balance and require a two-thirds supermajority in both houses of the legislature.

The state drew on one-third of the balance in fiscal 2016 to help address the budget gap. A further \$99 million was drawn to help solve the mid-fiscal 2017 budget gap. As required by law, the state does not consider the account a surplus or available funds when adopting a balanced budget. The 2014 legislature passed a bill that required a minimum of \$25 million be deposited annually into the BSF and directs certain percentages of economic damage settlement receipts related to the litigation connected with the Deep Water Horizon oil spill to be deposited there as well. Despite the budgetary challenges that the state faced, statutorily required deposits indeed were made through fiscal year-end 2018. On a budgetary basis, fiscal 2018 has trended favorably, although final figures will not be available until the latter third of the year. Net of appropriations and other budgetary requirements, after the April REC update, roughly \$146 million were available for additional allocations. Once finalized, the BSF is expected to total roughly \$321 million, or 3.4% of total appropriations and other requirements.

In our view, Louisiana's ability to access cash across various other funds has supported the state's liquidity position to date. The budgetary general fund has regularly borrowed and repaid borrowable cash balances across more than 250 various funds that have been committed or dedicated for certain purposes. As reported by Louisiana, total borrowable cash and investments remained relatively stable at nearly \$2 billion at the end of June 2018. The bulk of the state's

interfund borrowable cash is concentrated among 10 funds, which represent more than 85% of total internal borrowable sources. In our view, the increased general fund cash borrowing highlights the budgetary pressure in the general fund, and while interfund cash balance levels remain mostly stable to support the state's overall liquidity position, continued general fund borrowing trends will require Louisiana to closely monitor and manage receipts and disbursements in borrowable funds.

We believe the state has a strong budgetary framework embedded in balanced budget requirements, frequent revenue and expenditure forecast updates, broad executive powers, and a track record for making prompt expenditure adjustments to eliminate deficits. However, we believe expenditure adjustments have become increasingly difficult in the context of several years of cuts and in an environment of steep revenue declines. As a result, the legislature will need to support long-term structural tax changes and revenue enhancements to maintain structural budget balance.

Audited fiscal 2017 (GAAP basis)

The state's fiscal 2017 CAFR reflects positive operating results of \$211 million (including other financing sources) for the general fund and a \$280 million operating result for governmental funds on a generally accepted accounting principles (GAAP) basis. The total fund balance for the general fund was \$1.49 billion, down from fiscal 2016's \$1.28 billion. The balance reflects \$1.093 billion in nonspendable and restricted funds, \$966 million in committed funds, and a negative \$565 million in unassigned and assigned funds. Notably, the state's unassigned balance improved from negative \$1 billion in 2016. The state had \$1.98 billion in cash and cash equivalents (excluding investments) in its total governmental funds, \$1.29 billion of which was in the general fund.

We have assigned Louisiana's budgetary performance a score of '1.8' on a four-point scale whereby '1.0' is the strongest and '4.0' is the weakest.

Debt And Liability Profile

Louisiana's tax-supported debt ratios, including appropriation-dependency debt that the state classifies as net state tax-supported debt, remain moderate by most measures and are largely unchanged since fiscal year-end 2016.

Combined, tax-supported debt at the end of fiscal 2017 (audited) was moderate, in our view, at just short of \$1,600 per capita, an estimated 3.6% of state personal income, and 3% of real GSP. Debt amortization is average, in our opinion, with about 50% of tax-supported debt principal (including gas tax debt) due to be repaid in 10 years. Louisiana's debt service burden as a percentage of expenditures is also moderate, in our view, with fiscal 2017 tax-supported debt service (including all GO, appropriation-dependent, and gas tax debt) accounting for approximately 5% of total governmental spending (net of federal government revenue received). As of Dec. 31, 2017, the state calculated a 5.4% debt service carrying charge, which was just below the 6.0% limit mandated by constitutional and statutory debt management policies. We understand that state is contemplating issuing GO bonds in latter half of fiscal 2019, although no definitive amounts are available.

Pensions and OPEBs

Louisiana reports a lower unfunded pension liability because of new Governmental Accounting Standards Board (GASB) reporting requirements and the state's allocation of the liability across pension systems in fiscal 2016. The state is a participating employer in seven defined-benefit retirement plans that provide pension benefits for all state

employees: LASERS, public school teachers and certain higher education employees (Teachers Retirement System of Louisiana [TRSL]), certain other school employees (the Louisiana School Employees' Retirement System [LSERS]), state police law enforcement officers (Louisiana State Police Retirement System), district attorneys (District Attorneys' Retirement System); clerks of court and deputies (Louisiana Clerks' of Court Retirement and Relief Fund), and registrars of voters (Registrar of Voters Employees' Retirement System). Louisiana also contributes to the defined pension plans administered by the Firefighters' Retirement System, the Sheriffs' Pension and Relief Fund, and the Municipal Police Employees' Retirement System as a non-employer; however, the state does not report a share of the unfunded pension liability from these respective plans because pension contributions are funded from dedicated annual insurance premium tax collections by statute.

Given the most recent data available for the state's plans, which include market values as of June 30, 2017, we consider the state's three-year average pension funded ratio relatively low and unchanged from 2016, at 63% on the basis of GASB Statement Nos. 67 and 68. LASERS, which represents the largest share of the state's liability, was 62.5% funded as of June 30, 2017, up from 57.7% the prior year. The higher funded ratio largely reflects very strong investment experience in fiscal 2017, consistent with most plans across the U.S. LASERS reported a 14.9% return (annual money-weighted) on investment to end June 2017 compared to a negative return of 2.6% in 2017. Favorably, the plan's board of trustees recently adopted a plan to reduce the discount rate in 0.05% increments which began on July 1, 2017.

For LASERS, the state's largest pension plan, the state constitution assigns the legislature the authority to determine employee contributions while employer contributions are actuarially determined using statutorily established methods. The contribution rates are determined annually and are constitutionally required to cover the employer's portion of the normal cost and provide for amortization of the unfunded accrued liability. Although the state has included the full ADC in the budget, contributions lag one year and any surplus or deficit is included in the following year's valuation report and amortized over five years using a level-dollar amount. Per our calculations, annual plan contributions for LASERS in fiscal 2017 fell short of the amount required to cover service costs and an interest cost component plus some amortization of the unfunded liability.

The 2014 legislature passed reforms to limit benefit growth by granting cost-of-living adjustments every other year rather than every year. It also passed legislation that redirects a portion of excess investment returns, which the state had previously deposited into an experience account to fund retiree benefit increases, to fund the pension unfunded actuarial accrued liability (UAAL). The legislation also limits Louisiana's ability to grant future retiree benefit increases unless the respective systems are funded at certain minimum threshold levels. In addition, the 2014 legislature passed an act to increase the eligible retirement age for certain members of LASERS, TRSL, and LSERS hired after July 1, 2015. In 2011, voters approved a constitutional amendment that requires the state to appropriate no less than 5% of designated nonrecurring revenue in the REC forecast toward the LASERS and TRSL liabilities in fiscal years 2014 and 2015, and 10% of the nonrecurring revenue applied in fiscal 2016 and subsequent years.

We believe, on the whole, management factors and actuarial inputs for LASERS do not significantly encumber or improve our view of the state's overall pension funding discipline. Assumptions for the plan include amortization of the unfunded liability on both a "level-dollar amount" and a "level percentage of pay" over an open, 30-year period, which

assumes rising future payroll and results in escalating pension contributions over time. The state has segregated its unfunded liability into two base amounts: one in existence prior to June 30, 2004 (the original amortization base), which is amortized based on percentage of payroll, and the experience account amortization base, which is amortized based on a level-dollar method. The plan reported an actual 8.76% five-year average rate of return as of June 30, 2017, which we consider to be in line with its assumed rate at the measurement date of 7.75%. Its actuarial study states that the plan has no crossover date, which, based on recent contributions relative to ADC, is reasonable, in our view. However, lower contributions or below-forecast investment returns could lead us to question this assumption. The plan's ratio of active members to beneficiaries is 0.78, which is below the national median of 1.50 and could indicate stress on contribution levels as fewer active employees support retired members. It is LASERS' practice to produce an experience study every five years.

We estimate Louisiana's proportionate share of the net pension liability across state pension plans totaled about \$6.4 billion, or approximately \$1,400 per capita; relative to total personal income, the state's share of the net pension liability was 3.5%.

Louisiana primarily provides retiree health care benefit programs and life insurance through a defined-benefit, agent multiple-employer plan administered through the Office of Group Benefits. The state had an unfunded OPEB actuarial liability of about \$4.65 billion as of July 1, 2016, the most recent actuarial valuation. During the 2008 legislative session, it approved the creation of an OPEB trust, although it had not been funded as of year-end 2017. Louisiana continues to fund the liability on a pay-as-you-go basis and although the state has taken initial steps toward addressing the long-term liability by establishing a trust fund, actual continued pay-as-you-go funding of the liability with minimal plan changes is likely to pressure the future OPEB burden higher.

We have assigned Louisiana's debt and liability profile a score of '2.7' on a four-point scale whereby '1.0' is the strongest and '4.0' is the weakest. This reflects an improvement over our last review, when we assessed a score of '2.9'. The positive change was a result of the assumed long-term plan rate of return

Ratings Detail (As Of August 24, 2018)

Louisiana unclaimed prop spl rev bnds ser 2015 due 09/01/2035		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Louisiana GO		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Louisiana GO		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Louisiana GO (AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	AA-(SPUR)/Stable	Outlook Revised
Louisiana APPROP		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Louisiana (I-49 South Proj)		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Louisiana GO		
<i>Unenhanced Rating</i>	AA-(SPUR)/Stable	Outlook Revised

Ratings Detail (As Of August 24, 2018) (cont.)

<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
England Dist Sub-Dist #1, Louisiana		
Louisiana		
England Dist Sub-Dist #1 (Louisiana)		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Landmark Lsg 2004A, LLC, Louisiana		
Louisiana		
Landmark Lsg 2004A, LLC (Louisiana) (Northrop Grumman Lse Fincg)		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Louisiana Correctional Facs Corp, Louisiana		
Louisiana		
Louisiana Correctional Facs Corp (Louisiana) lse		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Outlook Revised
Louisiana Local Govt Envir Facs Comnty Dev Auth, Louisiana		
Louisiana		
Louisiana Local Govt Envir Facs Comnty Dev Auth (Louisiana) approp (BAM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Outlook Revised
Louisiana Local Govt Envir Facs Comnty Dev Auth (Louisiana) (Bossier Parish Comnty Coll-Campus Facs, Inc. Proj)		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Louisiana Local Govt Envir Facs Comnty Dev Auth (Louisiana) (Delta Campus Facilities Corp Proj) approp (BAM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Outlook Revised
Louisiana Local Govt Envir Facs Comnty Dev Auth (Louisiana) (LCTCS Act 360 Project)		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
Louisiana Local Govt Envir Facs Comnty Dev Auth (Louisiana) (LCTCS Act 360 Proj) approp (BAM)		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Outlook Revised
Louisiana Local Govt Envir Facs & Comnty Dev Auth (Louisiana) (Comnty & Tech Coll Sys Facs Corp Proj) approp		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
LLGEFCDA_Louisiana (LCTCS Facs Corp Proj)		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Outlook Revised
Louisiana Transp Auth, Louisiana		
Louisiana		
Louisiana Transp Auth (Louisiana)		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised
New Orleans Indl Dev Brd, Louisiana		
Louisiana		
New Orleans Indl Dev Brd (Louisiana) (New Orleans Fed Alliance Proj) (ASSURED GTY)		
<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Outlook Revised
Office Facs Corp, Louisiana		
Louisiana		
Office Facs Corp (Louisiana) (State Capitol Complex Prog) approp		
<i>Long Term Rating</i>	A+/Stable	Outlook Revised

Many issues are enhanced by bond insurance.

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