# FITCH RATES CONNECTICUT'S \$850MM GOS 'A+'; OUTLOOK STABLE

Fitch Ratings-New York-19 March 2019: Fitch Ratings has assigned an 'A+' rating to \$850 million of state of Connecticut general obligation (GO) bonds consisting of the following:

--\$600 million GO bonds (2019 series A); --\$250 million taxable GO bonds (2019 series A).

The bonds are expected to be sold via negotiation on or about March 28, 2019. Proceeds will be applied to various state projects and purposes.

In addition, Fitch has affirmed the state's Issuer Default (IDR) and outstanding GOs at 'A+' and affirmed the ratings on bonds supported by state appropriations as listed at the end of this release.

The Rating Outlook is Stable.

# SECURITY

The GO bonds are supported by the full faith and credit of the state pledged to payment of principal and interest.

# ANALYTICAL CONCLUSION

The state's 'A+' IDR and GO bond rating incorporate expectations for relatively flat economic and revenue performance that will continue to challenge the state in matching revenues to expenditures together with the state's broad economic resource base and the continued fiscal flexibility inherent in the state's budget autonomy. The state's long-term liabilities are expected to remain well above the U.S. state average, an elevated although still moderate burden on the wealthy resource base and one that limits expenditure flexibility compared with that of most states. Gap-closing capacity remains strong and weakened financial resiliency has recently improved through substantial required deposits to the BRF.

# Economic Resource Base

Connecticut has a mature, diverse economy anchored by a large finance sector and important manufacturing and education and health sectors. The impact of the Great Recession on Connecticut was severe, and slow economic growth since that time has trailed that of the U.S. The state forecasts fairly weak employment growth over the next several years. The state is the wealthiest in the U.S. as measured by per capita personal income, although aggregate personal income gains have been below the nation and key finance and manufacturing sectors are experiencing only modest growth after the retrenchment of recent years.

# KEY RATING DRIVERS

# Revenue Framework: 'a'

The state's largest tax revenue source, personal income tax (PIT), is subject to considerable cyclicality, but sales, corporate income, transportation and gaming taxes serve to diversify resources. Baseline growth of taxes has been marginal, requiring tax policy changes to boost revenues, and Fitch believes modest future economic growth will continue to constrain resources. The state has unlimited legal ability to levy taxes.

Expenditure Framework: 'aa'

Connecticut's natural pace of spending growth is expected to be higher than that of revenues given projections for weak growth in revenues. The state has consistently demonstrated the ability to cover its comparatively high fixed costs, which are excluded from the constitutional cap on annual expenditure growth, including making full actuarial contributions to pensions, and benefits from the large degree of budget autonomy common to states.

### Long-Term Liability Burden: 'a'

The state's long-term liability burden is elevated and among the highest for a U.S. state but still considered moderate. Long-term debt consists primarily of GO and transportation borrowings, with much of GO borrowing undertaken on behalf of local schools. Net pension liabilities are more significant, with the state carrying obligations for its own retirees as well as for local school teachers.

### Operating Performance: 'a'

Gap-closing capacity remains strong, and resiliency has improved with the deposit of windfall revenue to the budget reserve fund (BRF) in fiscal 2018, as required under the state's relatively recently enacted revenue volatility cap. The deposit was net of an appropriation to cure a sizable forecast budget deficit, reflecting challenges in the state's financial operations separate from statutory triggers that require deposits to reserves. A further deposit is expected in current fiscal 2019. Future cyclical budgetary pressures and out-year budget gaps remain an issue to be addressed although frequent revenue re-forecasting allows the state to identify revenue underperformance and quickly implement corrective actions.

#### **RATING SENSITIVITIES**

MAINTAINING FISCAL RESILIENCE: Movement in Connecticut's IDR is sensitive to the state's ability to balance financial operations in response to current economic and revenue growth expectations while maintaining its recently improved financial resilience. The IDR is also sensitive to shifts in the state's elevated liability burden and expenditure flexibility.

# CREDIT PROFILE

Connecticut has a diverse, mature and wealthy economic base, with flat to modestly declining population trends and an aging demographic profile. In contrast to past economic expansions, the state's performance in the current expansion has been unusually slow and has weighed on the natural pace of revenue growth. The state projects positive economic growth over the medium term but at rates below the nation.

Employment gains through much of the recovery have been well below national averages and slower than past recoveries; through January 2019, the state has regained only 84% of jobs lost in the Great Recession. Rates of recovery have varied across the state's larger metropolitan regions, ranging from robust gains in the New Haven region to only modest gains in areas like New London and Waterbury. The finance sector, with important banking and investment activity in the southwestern part of the state and insurance activity in Hartford, saw sizable employment losses through the Great Recession and well into the recovery. Employment in these areas remains below the post-recession peak.

The state's large and sophisticated manufacturing sector has seen relatively flat employment since steep recessionary losses ended, although important defense-related manufacturing anchors the sector and may bring future gains. Tourism has grown in importance over time, but prospects for the state's gaming resorts are more uncertain given rising competition in neighboring states. The opening of a state-approved third tribal casino, which could stem revenue losses to venues outside the state, has been subject to delays. The state's unemployment rate has historically run below the U.S. rate but has exceeded the nation since 2012. Personal income per capita ranks highest among

the states, at 139% of the national level, and aggregate personal income growth continues, albeit at rates below the nation.

#### **Revenue Framework**

Tax revenues for general fund needs are diverse, with PIT, corporate income and sales taxes serving as the primary tax sources. PIT receipts, particularly those derived from non-withholding, are particularly important, but their volatility has had a negative impact on the state's financial position. An inflationary-adjusted revenue volatility cap, enacted in 2017 and currently equal to \$3.2 billion in fiscal 2019, partly addresses this volatility by directing non-withholding revenue (estimates and final component of the PIT and the fiscal 2018-enacted pass-through entity tax, explained below) above the cap to the BRF. A separate, statutorily-enacted revenue cap that limits appropriations to a level below expected revenue begins to be incorporated in fiscal 2020. The revenue cap, required to reach 98% in fiscal 2026, is to be phased in at 0.25% increments. The separate transportation fund receives a range of transportation-related receipts as well as resources from the general fund.

Historical growth in revenues, after adjusting for the estimated impact of tax policy changes, has been well below the pace of national GDP growth, and below inflation, due to contractions in the important financial services sector as well as the maturity of the state's economy. As of Feb. 20, 2019, the Office of Policy and Management (OPM), the state's budget office, expects \$19.5 billion in revenue for the fiscal year ending June 30, 2019 (ahead of the forecast used to enact the budget and not inclusive of an estimated \$648 million in revenue subject to the state's volatility cap).

The January 2019 consensus revenue estimate (CRE) estimated almost \$18 billion in revenue for fiscal 2020, a drop of almost 8% based on current law, as nonrecurring revenue actions fall off and the state's hospital tax is automatically reduced barring further action. The governor's budget for the 2020-2021 biennium proposes revisions and expansions in several tax categories, including an extension of the hospital tax; however, even with these tax measures implemented, the forecast pace for ongoing and available revenue sources is expected to be slow, partly as a result of the revenue cap phase-in.

The state has unlimited legal ability to raise tax revenues. Tax rate competitiveness is more of a factor in Connecticut than in some other states due to the nature of its taxpayer base, its relatively small size, and its proximity to neighboring states' urban employment centers. Passage of the federal Tax Cut and Jobs Act (TCJA) heightened this concern, as the deduction for state and local taxes was limited, increasing residents' effective tax burden. As part of the fiscal 2019 budget discussions, the state enacted legislation intended to mitigate the expected negative effects of TCJA on state taxpayers. Approved legislation created a revenue-neutral tax on pass-through entities, offset by a personal income tax credit, and authorized municipalities to create charitable organizations in support of town services accompanied by a local property tax credit.

Transportation revenues, while statutorily dedicated for transportation needs, have been subject in the past to frequent diversion for general operations. To bind the state to recent practice, voters approved a constitutional amendment in November 2018 ballot that restricts moneys collected in the special transportation fund (STF) to transportation purposes. The fiscal 2019 revised budget also accelerated the deposit of motor vehicle sales taxes to the special transportation fund from the general fund, although the governor's proposed budget for the next biennium suspends the acceleration and instead, recommends a comprehensive system of tolling to fund capital projects, though first toll revenue will not be received until fiscal 2023. The proposal returns \$91 million to the general fund in fiscal 2020 which is projected to escalate to \$340 million by fiscal 2024 but leaves the STF with larger projected out-year budget gaps. The tolling proposal is currently being discussed by the legislature.

**Expenditure Framework** 

As with many smaller states, Connecticut's scope of spending is very broad, with the state responsible for delivering or funding numerous services normally handled at the local level. Formula funding for local schools and subsidies for higher education highlight the state's role in education, which extends as well to making teacher pension contributions and funding school capital. Municipal aid is also significant, although previous sharing of sales tax revenue was suspended in the enacted budget for the current biennium. Municipal aid in the current budget is instead funded through a number of targeted grants coming directly from the general fund, including to the financially troubled city of Hartford.

The state's constitutional cap on expenditure growth, excluding appropriations for certain fixed or federal requirements, limits increases in annual appropriations to compound annual growth of personal income over the past five calendar years or of the annual growth in the U.S. consumer price index less food and energy, whichever is greater. This cap, in concert with comparatively weak forecast revenue growth, results in the state's need to limit annual growth in expenditures.

The state retains solid ability to cut spending despite successive budgetary adjustments during the current and last biennia. Statute requires swift response in the event of forecast underperformance, either through rescissions, allotment cuts, or with legislative concurrence, depending on the size of the projected deficit. Fitch believes agreements with its collective bargaining units that have successfully constrained growth in annual expenditures will nevertheless restrain the state's flexibility to adjust expenditures in an unforeseen economic or financial downturn.

The state partly addressed a forecast \$5 billion (15% of 2018-2019 baseline revenue) forecast budget gap for the current biennium with savings (\$700 million in fiscal 2018 and escalating over time) from a renegotiated contract with the state employee bargaining agent coalition (SEBAC), providing one of the largest recurring actions. The agreement somewhat reduced the state's operating flexibility, as it extended the length of the existing SEBAC agreement for pension and healthcare benefits from fiscal 2022 to fiscal 2027 and provided layoff protection through June 30, 2021 for existing employees. The wage agreement remains in effect through fiscal 2021.

The state's relatively high carrying costs for debt service, actuarial pension contributions, and other post-employment benefits (OPEB), totaling almost 22% in fiscal 2018, continue to constrain policy options. Carrying costs in fiscal 2018 include the state's commitment to match the 3% employee contribution to the state's OPEB trust fund; this contribution totaled \$120 million. The governor's budget proposes achieving annual savings through revisions to its agreement with SEBAC for annual cost of living increases (COLAs) for retirees and by re-amortizing a portion of the outstanding unfunded pension liability for the state employee retirement system (SERS). These two changes would reduce General Fund budget requirements for SERS' actuarially determined contribution (ADC) by \$132 million (over 8%) in fiscal 2020 and \$142 million fiscal 2021 and are in addition to the governor's proposals for achieving employee health care savings by setting price ceilings on medical services.

The budget proposal also includes reforms to the teachers' retirement system (TRS) that would extend the amortization of the unfunded liability beyond the current 2032 requirement, allowing for a lower discount rate, while avoiding the risk of a sharp spike in the ADC. If enacted, the reforms would lower the TRS ADC beginning in fiscal 2020 by \$119 million and require municipal contributions toward the employer share of normal costs for the pension plan.

Spending for Medicaid remains a key fiscal challenge for Connecticut and for all U.S. states. The nature of the program as well as federal government rules limit the states' options in managing the pace of spending growth. In other major areas of spending such as education, the state is able to more easily adjust the trajectory of growth. Federal action to revise Medicaid's programmatic and financial structure appears less likely in the near term given divided control in Congress.

#### Long-Term Liability Burden

Connecticut's long-term liability burden for debt and pensions, adjusted to a 6% return assumption, is amongst the highest for a U.S. state at 28% of 2017 personal income as of Fitch's 2018 State Pension Update report. It remains a moderate, albeit elevated, burden on resources. Long-term debt alone totals almost \$25 billion, or about 10% of 2017 personal income, of which almost 70% is GO, including a large share issued for local school capital needs. GO borrowing includes \$2.3 billion in pension bonds issued in 2008 to improve the funded ratio of the TRS. Debt attributable to the state now also includes almost \$540 million of GO bonds issued by Hartford as part of the contract assistance agreement between the state and the city. Annual new debt issuance is limited to \$1.9 billion per year under a state-enacted bond cap, excluding UCONN and Connecticut State Colleges and University (CSCU) 2020 higher education borrowing, as well as borrowing for refunding purposes.

Both of the state's two major pension systems have relatively low funded ratios driven by weak contribution practices in the past. Both plans have now received nearly full actuarial contributions for many years, the TRS under a covenant linked to the GO pension bonds. A December 2016 memorandum of understanding (MOU) for SERS extended the state's closed amortization period and lowered the return assumption to 6.9%, producing budgetary savings but raising the liability in the process. The May 2017 agreement with SEBAC conversely lowered the liability as benefit changes were incorporated in the valuation. The 2017 SEBAC agreement included increased employee pension contributions for all existing members, revised the COLA formula and timing for post-2022 retirees, and created a new hybrid defined benefit/defined contribution tier for all new employees.

Based on the fiscal 2018 state audit, the total adjusted liability burden declines to 27%, reflecting more recent investment experience for the pension systems and SERS modifications under the 2017 agreement with SEBAC. The state estimates an OPEB liability of \$17.4 billion (7% of personal income) as of June 30, 2017 inclusive of the SEBAC agreement in 2017. The state's OPEB trust had a market value of \$919 million as of Sept. 30, 2018.

For additional information on proposed pension changes currently under consideration by the state, please see "Fitch Ratings: Connecticut Teacher Pension Changes Costly, But Lower Fiscal Risks" dated Feb. 28, 2019 and available at www.fitchratings.com.

# **Operating Performance**

Connecticut's strong gap-closing capacity declined in recent biennia due to the state's comparatively weak economic and revenue performance. Expenditure and revenue actions, particularly expenditure cuts, have been the state's primary sources of financial resilience given limited reserve funding since the Great Recession. The BRF balance was depleted in fiscal 2011, and until fiscal 2018 inconsistent fiscal performance precluded the build-up of noteworthy reserves.

The enactment of a revenue volatility cap in fiscal 2018 in conjunction with passage of the TCJA, which eliminated disincentives to repatriate foreign income, pushed the state's collection of PIT estimates and finals' over the cap, resulted in a significant \$972 million net deposit to the BRF, after applying \$483 million (3% of revenues) of the windfall to solving a fiscal 2018 budget gap. The volatility cap threshold is adjusted annually by a formula of compound annual growth in personal income over the prior five-year period. This change has the effect of annually increasing the threshold that mandates deposits to the BRF. The threshold amount may also be modified by a three-fifths majority of the General Assembly in response to changes in state or federal tax law or significant adjustments to economic growth or tax collections.

With the fiscal 2018 deposit, the BRF was boosted to a more substantial 6.5% of net revenues from 1.2% in fiscal 2017, and is projected to rise further in fiscal 2019. If the BRF reaches a balance of

15% of net general fund appropriations, no additional deposits are required and revenues over the cap are applied to reducing the state's liabilities. The BRF may be drawn upon to cure a prior fiscal year deficit or if estimated general fund revenues decline by 1% or more from the forecast used to enact the budget. Future legislation can also assign surplus balances to other uses. These powers permitted the state's use of the BRF as part of its actions to close the budget gap in fiscal 2018 and follows draws on the BRF balance to close ending deficits in fiscal years 2015, 2016, and 2017.

Budgetary challenges are historically driven by revenue underperformance, particularly in the nonwithholding component of PIT collections. The state consistently takes extensive administrative and legislative actions first to narrow forecast gaps before relying on reserves. Fitch believes tax rate increases adopted in recent biennial budgets, together with the passage of the TCJA, could make future revenue initiatives more challenging. Financial resilience is supported by multiple revenue monitoring mechanisms, including consensus forecasting, and disciplined mechanisms to respond to identified budgetary weakness.

Despite the challenges posed by its slow recovery from the Great Recession, the state's fiscal management has generally improved in recent biennia, with a greater reliance on structural solutions and continued full actuarial pension contributions. Fitch also recognizes state actions to bolster balances in the BRF, remove some of the cyclicality of PIT collections from the general fund, and moderate annual growth in expenditures and debt issuance through statute in addition to bond covenants that impose limitations through June 30, 2023. Nonetheless, expirations on taxes, above average fixed costs, persistent lack of consensus on transportation capital funding, and contractually agreed-upon appropriations to correct a longstanding GAAP deficit are likely to weigh on the state in future years. Appropriations to amortize the GAAP deficit were pledged in a 2014 bond issue whereby the state covenanted to amortize this deficit, now at \$680 million, by fiscal 2028.

# **Current Financial Operations**

The enacted 2018-2019 general fund biennial budget provided for \$18.7 billion in appropriations for fiscal 2018 and \$18.8 billion for fiscal 2019. The state's April 2018 CRE and May revised budget plan continued to anticipate lower fiscal 2018 revenues from most state tax sources, excluding the PIT, and the delayed receipt of \$622 million in federal grants related to hospital supplemental payments and Medicaid. The revised budget plan eliminated the shortfall by appropriating part of windfall revenue that would otherwise be deposited to the BRF and also provided for the carry forward of fiscal 2018 appropriations into fiscal 2019, largely related to the delayed federal grants for hospital payments and Medicaid. Final revenues in fiscal 2018 totaled \$18.2 billion while final expenditures were \$18.7 billion, requiring a \$483 million application of windfall revenue to balance. Nevertheless, the BRF increased to almost \$1.2 billion in fiscal 2018 from \$213 million in fiscal 2017.

The adjusted budget planned for \$19 billion in revenues for fiscal 2019 to fund almost \$19 billion in appropriations and anticipated a modest operating surplus. OPM currently anticipates \$19.5 billion in revenue for the current fiscal year despite some year over year weakness in collections through February 2019, largely in PIT estimates and finals, that the state attributes to TCJA's disincentive to prepay PIT. Similar to other states, Connecticut expects the balance of PIT revenue forecast for fiscal 2019 will be collected by April as state economic conditions and employment remain stable. Appropriations are expected to be down slightly from budget and provide for an operating surplus of \$516 million. The surplus, and \$648 million in revenue subject to the volatility cap, would be deposited to the BRF, increasing the balance to \$2.3 billion (12% of 2019 revenues); however, as part of the TRS reform proposal, the governor has proposed allocating \$381 million of the operating surplus to funding a special capital reserve fund for TRS to meet covenants associated with the 2008 POBs. If the proposal is enacted, the BRF would still increase to 10% of revenue.

The governor's executive budget proposal for the 2020-2021 biennium contains a number of tax policy actions including a broadening of the sales tax base, an extension of the current hospital tax rate in addition to other proposals to maintain current tax policy, and a freeze on the transfer of car sales tax revenue to the STF. The revenue proposals, almost \$1.3 billion in fiscal 2020 and \$1.7 billion in fiscal 2021, are in addition to expenditure adjustments to fund budget gaps estimated at \$1.5 billion in fiscal 2020 and \$2.2 billion in fiscal 2021. The recommended \$19.3 billion budget for fiscal 2020 and \$19.9 billion budget for fiscal 2021 are being considered by the legislature. While some of the automatic actions embedded in current law may prove less controversial to adjust, should the proposed revenue measures fail to be approved, other revenue solutions or expenditure reductions will need to be identified to balance the 2020-2021 biennial budget.

# **Related Ratings**

In conjunction with affirmation of the state's IDR, Fitch has affirmed the following ratings that are supported by state appropriations and rated one notch below the IDR:

--University of Connecticut state debt service commitment bonds, subject to annual appropriation, at 'A';

--Connecticut Higher Education Supplemental Loan Authority state supported revenue bonds payable from special capital reserve funds, subject to annual appropriation, at 'A';

--Capital Region Development Authority appropriation-backed parking and energy fee revenue bonds, series 2018 refunding bonds at 'A'.

Contact:

Primary Analyst Marcy Block Senior Director +1-212-908-0239 Fitch Ratings, Inc. 33 Whitehall Street New York, NY 10004

Secondary Analyst Douglas Offerman Senior Director +1-212-908-0889

Committee Chairperson Laura Porter Managing Director +1-212-908-0575

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

Media Relations: Sandro Scenga, New York, Tel: +1 212 908 0278, Email: sandro.scenga@thefitchgroup.com.

Additional information is available on www.fitchratings.com

Applicable Criteria U.S. Public Finance Tax-Supported Rating Criteria (pub. 03 Apr 2018)

#### https://www.fitchratings.com/site/re/10024656

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: HTTPS://WWW.FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS. IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT WWW.FITCHRATINGS.COM. PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. DIRECTORS AND SHAREHOLDERS RELEVANT INTERESTS ARE AVAILABLE AT HTTPS://WWW.FITCHRATINGS.COM/SITE/ REGULATORY. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2019 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third- party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001

Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the "NRSRO"). While certain of the NRSRO's credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see https://www.fitchratings.com/site/regulatory), other credit rating subsidiaries are not listed on Form NRSRO (the "non-NRSROs") and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.