

CREDIT OPINION

16 March 2018

Rate this Research



Contacts

Marcia Van Wagner +1.212.553.2952
 VP-Sr Credit Officer
 marcia.vanwagner@moody.com

Genevieve Nolan +1.212.553.3912
 VP-Senior Analyst
 genevieve.nolan@moody.com

CLIENT SERVICES

Americas 1-212-553-1653
 Asia Pacific 852-3551-3077
 Japan 81-3-5408-4100
 EMEA 44-20-7772-5454

Connecticut (State of)

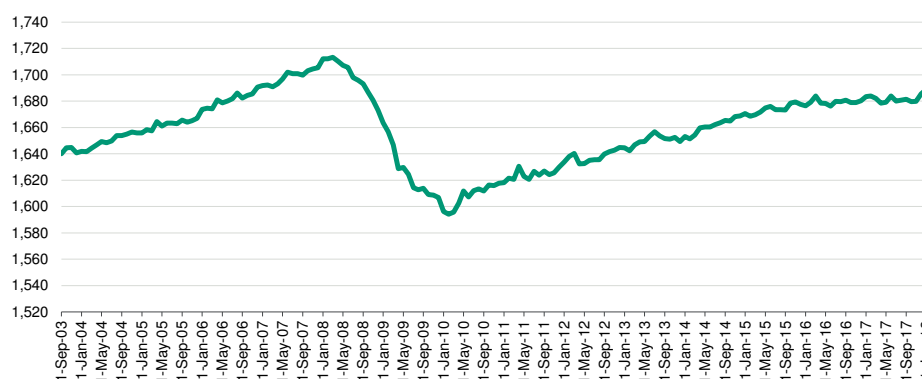
Update to credit analysis

Summary

[Connecticut](#) (A1 stable) has high income levels, strong governance, and adequate liquidity, offset by high fixed costs for debt service, pension, and post-employment benefits relative to the state's budget. Unfunded pension liabilities combined with debt outstanding are among the highest, relative to revenues, of any state in the country. The rating also reflects a lagging economy that is highly dependent on volatile revenue sources, recent consecutive years of population loss and minimal reserve levels.

Exhibit 1

Connecticut total employment still well short of pre-recession peak



Source: US BLS; Moody's Analytics

Credit strengths

- » Wealthiest state in the nation with per capita personal income levels well above national levels
- » Strong governance with the ability to make mid-year budget adjustments
- » Pro-active initiatives to mitigate impacts of revenue volatility and build rainy day fund

Credit challenges

- » Fixed costs for debt, pension and other post-employment benefits (OPEB) relative to budget are among the highest in the nation and restrict budgetary flexibility
- » Vulnerability to financial market fluctuations due to effect on capital gains for very high-wealth residents and employment in the financial services sector
- » General fund balance sheet will remain negative, with a small rainy day fund balance, due to state's slower recovery from the recession

Rating outlook

Connecticut's outlook is stable, reflecting the state's strong provisions to promote fiscal discipline, which pair redressing elements of its high leverage position and requiring GAAP-based budgeting.

Factors that could lead to an upgrade

- » Achievement and maintenance of higher GAAP-basis combined available reserve levels
- » Established trend of structural budget balance
- » Evidence of sustained stronger economic performance
- » Reduced pension and debt leverage relative to Moody's 50-state medians, resulting in lower annual fixed costs

Factors that could lead to a downgrade

- » Significant additional leverage, encompassing bonded debt, pension and OPEB obligations and negative unassigned GAAP balances
- » Rapid acceleration of revenue/economic/demographic weakness
- » Declining liquidity position

Key indicators

Exhibit 2

Connecticut	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Operating Fund Revenues (000s)	16,378,765	16,909,327	16,880,411	17,187,461	17,750,816
Balances as % of Operating Fund Revenues	-6.4%	-7.2%	-1.2%	-2.3%	-4.3%
Net Tax-Supported Debt (000s)	18,615,067	19,623,311	20,272,617	22,103,517	23,265,534
Net Tax-Supported Debt/Personal Income	9.1%	9.2%	9.0%	9.8%	9.7%
Net Tax-Supported Debt/Personal Income 50 State Median	2.8%	2.6%	2.5%	2.5%	2.5%
Debt/Own-Source Governmental Funds Revenue	108.8%	110.7%	113.9%	120.5%	123.4%
Debt/Own-Source Governmental Funds Revenue Median	37.4%	36.1%	35.8%	34.4%	32.7%
ANPL/Own-Source Govt. Funds Revenue	335.7%	326.0%	298.5%	288.5%	285.0%
ANPL/Own-Source Govt. Funds Revenue Median	94.2%	87.6%	81.8%	83.0%	82.2%
Total Non-Farm Employment Change (CY)	0.8%	0.8%	0.7%	0.8%	0.3%
Per Capita Income as a % of US (CY)	146.9%	144.1%	143.7%	142.8%	143.3%

Source: Moody's Investors Service; Connecticut financial statements

Profile

The State of Connecticut has a population of 3.59 million people located in the coastal northeastern US, bordered by [Rhode Island](#) (Aa2 stable), [Massachusetts](#) (Aa1 stable) and [New York](#) (Aa1 stable) with 618 miles of shoreline, according to the NOAA. The state has

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

a large and diverse economy with a gross state product of \$260 billion in 2016. It is the wealthiest state in the country with per capita income of 141% of the US average.

Detailed credit considerations

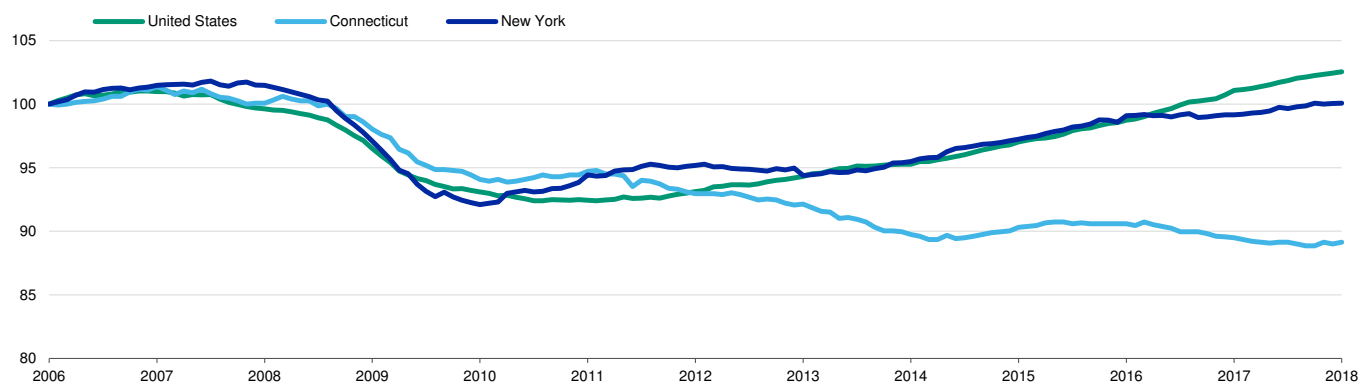
Economy: high income state lags US growth

We expect Connecticut's economy to continue to lag the nation. Connecticut is a wealthy state, with per capita personal income exceeding 141% of the US. However, the state's demographics show a negative trend from 2013 to 2016, and population was flat in 2017. The population trends contribute to an underperforming housing market and lagging labor force growth. The state's unemployment rate as of January is higher, at 4.5%, than the nation's rate of 4.1%, and the state's payroll employment stands at 98% of its peak before the last recession. Wage growth has faltered as a result: total wages grew 2.5% annually from 2010 to 2016 compared to 4.6% annually during the expansion from 2003 to 2008. Total wage growth was a mere 0.8% in 2016, the lowest figure apart from 2008 and 2009 over the past decade. Job gains have been concentrated in education and health services, leisure and hospitality, transportation and utilities and professional and business services. Government employment has contracted nearly 9% since 2008, with the largest declines concentrated in the state sector.

Economic headwinds include lackluster performance in the state's high-paid financial activities sector (see Exhibit 3). While the US has recovered all the financial activities jobs lost in the recession, Connecticut's finance sector continued to lose jobs until 2014 and has failed to recover since.

Exhibit 3

Connecticut's financial activities sector stalls while NY and US gain Jan 2006 = 100



Source: US BLS; Moody's Analytics

Some developments in 2017 point to a firming economic trend. The state did not lose population, and median existing home prices reached their highest levels in five years.

Finances and Liquidity: tax windfall eases short term stress

A slowly growing revenue base and high fixed costs will continue to characterize Connecticut's credit profile and create budgeting and political challenges for the foreseeable future. Spending growth is driven by rising costs for pension and retiree health expenses, as well as Medicaid, crowding out other more discretionary state spending.

Enactment of the 2018-2019 biennial budget was contentious and occurred four months after the beginning of the fiscal year. Appropriating \$18.69 billion for fiscal 2018 and \$18.79 billion for fiscal 2019, the budget closed a projected \$2.28 billion fiscal 2018 gap and a \$2.79 billion fiscal 2019 gap with spending cuts and revenue increases. An additional gap for the current year, fiscal 2018, emerged immediately and is expected to be addressed during the current legislative session.

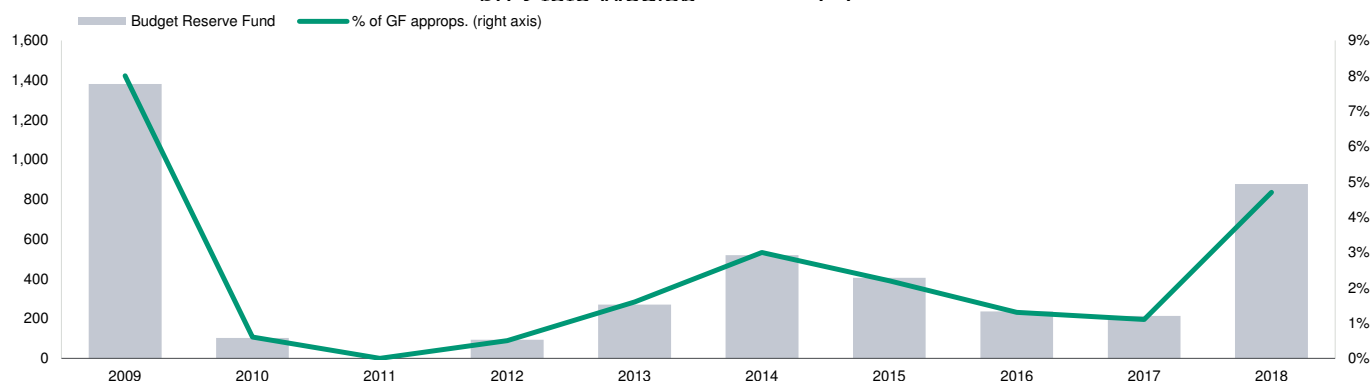
A tax windfall may help the state bolster its finances by providing significant funds for its budget reserve fund and possibly provide one-time resources to help address the current year gap. One-time tax payments by hedge funds pursuant to federal law yielded a surge

in revenue which will, under a "volatility cap" provision just enacted by the state in last year's legislative session, trigger mandatory deposits into the budget reserve fund. This additional deposit is currently pegged at about \$665 million, bringing the reserve to 4.7% of general fund appropriations, the largest reserve since 2009 (see Exhibit 4). Even if the legislature were to choose to solve the current year budget gap by drawing down the reserve, its balance would still be greater than at any time since the recession.

Exhibit 4

Tax windfall will boost budget reserves

dollars in millions



Source: Connecticut Office of Policy and Management

The next biennial budget begins in fiscal 2020, when the deficit is projected at \$2.2 billion, according to the Office of Policy and Management. From there the gap grows to \$3.4 billion by fiscal 2022. The outyear deficits reflect in part the expiration of a health provider tax enacted for two years as part of the fiscal 2018 budget agreement. In addition, sales tax revenues that currently flow into the general fund will once again be diverted to aid local governments. Reconsidering expiration of these measures will likely be taken up when the next biennial budget is created. The legislature may also consider a set of recommendations produced by a nonpartisan Commission on Fiscal Stability and Economic Growth, which proposed a slate of sweeping reforms to the state's finances.

Long-Term Plan to Address Large Negative GAAP Balance Interrupted

On a GAAP basis, the state has a long-standing large cumulative unassigned GAAP deficit, which stood at -\$821 million on June 30 2017, or about -4.6% of operating revenues. The state implemented a plan to address the deficit, which included devoting the proceeds of \$560 million of 2013 general obligation bonds to reduce it and committing to amortize the remaining gap from annual payments from the general fund. While the strategy has had little balance sheet impact in the short run, maintaining discipline over time would reduce the state's liabilities. However, the payments have been suspended in fiscal 2017 and in the 2018-2019 biennium as the state has applied the contributions toward closing budget gaps. The fiscal 2017 payment would have been roughly \$48 million and the fiscal 2018 and 2019 payments would have been \$57.5 million in each year.

Fixed Costs Command a Third of Budget

The state's combined debt service, pension, and OPEB contributions in fiscal 2016 were nearly 30% of own-source governmental revenues, among the highest of the states. As a share of general fund revenues, these fixed costs were 32%, illustrating the tight squeeze that the state's long-term obligations are placing on the operating budget. Fixed costs will command roughly 36% of general fund revenues by fiscal 2019. The high fixed costs are partly attributable to the state's absorption of certain costs covered by local governments in most other states. High fixed costs reduce the share of discretionary spending and the state's budgetary flexibility.

Connecticut's actual pension contributions are closer to the "tread water" amount than many other states with high fixed costs. The "tread water" benchmark is the contribution amount that would prevent further growth in unfunded liabilities were actuarial targets for investment returns and other assumptions met during the year.

LIQUIDITY

Connecticut's liquidity remains adequate. The state did not have to borrow for cash flow purposes in calendar 2015, 2016 or 2017, and does not expect to do so in fiscal 2018. Cash balances averaged \$2 billion in fiscal 2016 and \$2.3 billion in fiscal 2017. As of March 10, 2018 available cash was about \$3.7 billion.

Debt and Pensions: large liabilities create high fixed costs

Connecticut is a frequent borrower and the state's debt per capita and debt-to-personal income ranked first and third, respectively, among the 50 states for Moody's 2017 debt medians. Net tax-supported debt equaled \$6,505 per capita and 9.7% of total state personal income, well above the 50-state median of \$1,006 in debt per capita and 2.5% for debt-to-personal income. These high debt ratios are partly due to substantial capital financing for K-12 school building construction that is carried out at the local level in many other states, and combined state and local debt metrics place Connecticut closer to the middle of the pack. However, pension obligation bonds and GAAP conversion bonds to address a portion of the state's sizeable cumulative GAAP deficit add considerably to the state's normal sizeable annual debt issuances and ensure that Connecticut's debt ratios will remain among the highest in the country for the foreseeable future. Economic recovery notes issued to balance the budget during the recession have matured.

DEBT STRUCTURE

Connecticut's \$23.3 billion in net tax-supported debt outstanding consists primarily of general obligation bonds, which account for 71% of NTSD (see Exhibit 4). Bonds backed by special taxes for highway construction account for another 22% of state debt. Most GO debt is structured with 20-year principal amortization and a declining debt service schedule, resulting in a pay-out rate of 66% within 10 years. Other debt consists primarily of bonds issued by related organizations, especially the University of Connecticut, for which the state guarantees payment from special capital reserve funds.

The state has \$1.54 billion in variable rate debt, most of which is indexed to either SIFMA or CPI. Its variable rate debt accounts for less than 10% of the state's total GO debt. One variable rate series (2016 Series C) is privately placed with an SBPA provided by Bank of America, N.A. (A1(cr)/P-1(cr)). Two series are direct placements, 2017 Series C and 2017 Series D.

DEBT-RELATED DERIVATIVES

Only \$20 million of the state's variable rate debt is swapped to fixed, based on 60% of LIBOR or a percentage point above CPI. The swap counterparty is JP Morgan Chase Bank, N.A. (Aa2(cr)/P-1(cr)). As of December 31 2017, the mark-to-market was minimal, at negative \$682,000 against the state. In accordance with its swap guidelines, the state generally negotiates provisions that permit funding a required termination payment over a period of time to allow time for a refunding. Accordingly, the state would have 270 days to fund a termination payment for its general obligation swaps. The state has no plan to incorporate swaps into future GO bonds.

PENSIONS AND OPEB

Connecticut's adjusted net pension liability (ANPL), our measure of the government's pension burden, is significantly above the 50-state median. As of the state's 2016 financial statements, ANPL was 285% of own-source governmental revenue, and 200% of total governmental revenue, the third highest among the states. The state participates in 3 pension systems, of which the most significant are the State Employees Retirement System (SERS) and the Teachers Retirement System (TRS). Connecticut is among the handful of states that take responsibility for directly funding teacher pensions. Moody's ANPL reflects certain adjustments made to improve comparability of reported pension liabilities.

The state contributes the full amount of its actuarially determined contributions, about \$2.55 billion in fiscal 2017. It is required via bond indenture to pay the full required contribution to the TRS plan and by collective bargaining to do the same for SERS. Even so, its 2016 contributions were not quite enough to prevent its net pension liability (NPL) from growing even if investment returns all the actuarial assumptions associated with the plan had come to fruition. The contributions were about 98% of our "tread water" benchmark, which is the payment covering the year's newly accrued service costs and interest on the NPL. The assumed rate of investment return on the TRS fund assets, which also is used to discount the liabilities, was reduced to 8% from 8.5% starting with the 2016 valuation. This led to a significant increase in the contribution for fiscal 2018, which has been partly offset by a requirement that teachers contribute an additional 1% of salary to the plan.

In late 2016, the state reached an agreement with labor representatives to change its approach to funding SERS to a level dollar payment, lower the investment rate of return assumption to 6.9% from 8%, and extend amortization of most of the plan's unfunded

liabilities to 2046 from 2032. These changes will benefit the budget in future years because SERS contributions were previously scheduled to escalate throughout the next decade until unfunded liabilities were fully amortized. Although improving the long-term outlook for the state, the changes do not mitigate the near- and medium-term pressure from exceptionally large pension contributions.

The 8% discount rate for TRS is increasingly an outlier as other pension plans across the country have brought rates down to reflect a lower-inflation lower-return environment and to decrease risk and volatility in their investment portfolios. The plan's contributions escalate rapidly until 2032, helping drive the state's fixed costs.

Connecticut also has a very high OPEB liability. As reported in the fiscal 2017 financial statements, the net OPEB liability is \$20.86 billion, including a \$3.5 billion Teachers' OPEB liability as of the June 30 2017 valuation date. Employees have been required to make contributions to prefund OPEB benefits since 2011, and the state is now making matching contributions, which total about \$120 million in both fiscal 2018 and fiscal 2019.

Governance: state profile features strong practices

The state's financial management is characterized by strong practices that include timely budget adoption and binding consensus revenue forecasting conducted at least three times a year. Annual multi-year Fiscal Accountability reports are produced by both the governor's budget office and the legislative office of fiscal analysis, and the state releases monthly budgetary updates. The state constitution requires a balanced budget, given greater force by the state's recent move to GAAP-basis budgeting. In addition, the state is not constrained by supermajority requirements to enact tax increases, mandated initiatives or voter referenda.

The governor's executive authority to cut expenses mid-year without legislative approval is limited to 5% of an individual appropriation, not to exceed 3% of any fund providing only moderate flexibility. We consider strong executive flexibility to make mid-year spending adjustments a plus. If a deficit exceeds 1% of the general fund, a timely deficit mitigation plan is required to be developed by law. Some of the state's financial provisions are not highly effective, as the state has accumulated high debt levels and did not until this year make a constitutional spending cap operative.

The state has taken action to address some of its most pressing long-run financial challenges in recent years by implementing pension and OPEB reforms and committing to moving pension contributions to a more adequate level, although the state's long-term obligations remain formidable. In addition, the state legislature recently passed a number of measures designed to contain spending and debt growth, rebuild the state's rainy day fund, and more frequently assess the condition of its pension funds. Following some of these provisions will now be required by bond covenants unless the legislature acts to change the law before it becomes effective for any bonds issued on or after May 15, 2018. While the required practices would strengthen the state's long term credit profile, covenanting to follow them reduces budgetary flexibility.

© 2018 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454