

## CREDIT OPINION

7 August 2018

 Rate this Research

### Contacts

**Dan Steed** +1.415.274.1716  
*AVP-Analyst*  
 dan.steed@moody's.com

**William Oh** +1.415.274.1739  
*AVP-Analyst*  
 william.oh@moody's.com

**Leonard Jones** +1.212.553.3806  
*MD-Public Finance*  
 leonard.jones@moody's.com

### CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

# Honolulu (City & County of) HI

## Update to credit analysis

### Summary

The [City and County of Honolulu](#), HI's (Aa1 stable) credit profile reflects the city's large economic and property tax base, both of which continue to expand, supported by solid tourism metrics, ongoing large private and public construction projects and a significant, stable military presence. Financial operations benefit from a strong management team and prudent conservative budgeting policies. Operating reserve levels remain generally stable and comparable to similarly-rated large cities. Our review also takes into account the city's high and escalating budgetary burden from the combination of debt service, pension and employee and retiree healthcare costs. The long-term rating carries a stable outlook.

### Credit strengths

- » Large tax base; very low unemployment rates; healthy growth in tourism industry; stable military presence
- » Prudent fiscal management demonstrated by conservative budgeting practices and stable reserve levels
- » Demonstrated willingness to raise revenues and reduce spending to achieve budget balance
- » Commitment to and progress toward reducing pension and OPEB liabilities, including plans to fund fully the OPEB ARC

### Credit challenges

- » High cost of living and vulnerability to shifts in tourism sector
- » High fixed cost burden from pensions, debt and retiree medical costs will continue increasing because contribution requirements to statewide pension system are rapidly escalating
- » Uncertainty surrounding timing of light rail construction completion, final construction costs and level of enterprise risk exposure to the city, especially during construction and ramp-up phases

### Rating outlook

Honolulu's stable outlook reflects the city's healthy economy and our expectation that the city will maintain solid reserve levels while continuing to make planned progress in funding its pension and OPEB liabilities and also challenges related to construction of the light rail.

## Factors that could lead to an upgrade

- » Increased local economic diversification and improvement in socioeconomic wealth indices
- » Significant improvement in funding OPEB and pension liabilities
- » Sustained financial and debt characteristics consistent with higher-rated entities
- » Greater certainty regarding rail costs and potential impact on City

## Factors that could lead to a downgrade

- » Economic weakening and prolonged declines in assessed valuation
- » Deterioration of financial operations and reserve levels
- » Inability to manage escalating fixed cost burden

## Key indicators

Exhibit 1

Honolulu (City & County of) HI	2013	2014	2015	2016	2017
<b>Economy/Tax Base</b>					
Total Full Value (\$000)	\$155,333,754	\$159,095,727	\$174,335,551	\$187,718,834	\$199,626,577
Population	964,678	975,690	984,178	986,999	986,999
Full Value Per Capita	\$161,021	\$163,060	\$177,138	\$190,192	\$202,256
Median Family Income (% of USMedian)	132.0%	131.2%	130.8%	132.4%	132.4%
<b>Finances</b>					
Operating Revenue (\$000)	\$1,259,422	\$1,284,977	\$1,387,777	\$1,444,691	\$1,573,455
Fund Balance (\$000)	\$334,190	\$309,015	\$323,742	\$315,640	\$326,511
Cash Balance (\$000)	\$368,638	\$277,607	\$401,309	\$395,140	\$279,631
Fund Balance as a % of Revenues	26.5%	24.0%	23.3%	21.8%	20.8%
Cash Balance as a % of Revenues	29.3%	21.6%	28.9%	27.4%	17.8%
<b>Debt/Pensions</b>					
Net Direct Debt (\$000)	\$2,755,948	\$2,624,168	\$2,891,752	\$2,749,028	\$2,821,693
3-Year Average of Moody's ANPL (\$000)	\$2,366,435	\$2,488,457	\$2,447,229	\$2,578,646	\$3,383,118
Net Direct Debt / Full Value (%)	1.8%	1.6%	1.7%	1.5%	1.4%
Net Direct Debt / Operating Revenues (x)	2.2x	2.0x	2.1x	1.9x	1.8x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	1.5%	1.6%	1.4%	1.4%	1.7%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	1.9x	1.9x	1.8x	1.8x	2.2x

Source: Moody's Investors Service

## Profile

Honolulu, the capital and principal city of the State of Hawaii was incorporated in 1907 and is coterminous with the island of Oahu. The City and County of Honolulu has an area of 597 square miles and includes the entire island of Oahu.

## Detailed credit considerations

### Economy and tax base: large tourism-driven economy, anchored by military presence

Honolulu's economy is strong with record low unemployment levels, supported by its large tourism industry, as well as numerous, large public and private construction projects and finally, anchored by the military's significant and expanding presence. The City/County

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](http://www.moody's.com) for the most updated credit rating action information and rating history.

(the "City") is coterminous with the island of Oahu with an area encompassing 597 square miles, including Waikiki beach and Pearl Harbor. Population growth has been relatively flat in recent years and as of July 2016, the city was home to an estimated 988,650 residents (2017), or about 69% of the state's population.

According to Moody's Economy.com (March 2018), Honolulu's expansion is in its late stage as the economy grapples with capacity constraints. Payroll employment growth has ticked up to match the U.S. average but remains considerably below that in the fast-growing West. Strength in tourism is fueling robust job gains in leisure/hospitality, but retail trade employment is contracting. As of May 2018, the city's 1.9% unemployment rate is extraordinarily low and well below the nation (3.6%). The forecast from the Moody's Economy.com March 2018 report projects that Honolulu's economy "will maintain its heading in 2018. Tourism will cool off, but the military will prove a reliable anchor. Long term, high costs will suppress population additions, keeping job and income gains below the U.S. average."

Between 2014 and 2019, assessed valuation (AV) increased an average of 7.3% annually, including healthy growth of 7.1% this past year (2019); AV adjustments lag the market by 18 -24 months. The city's AV is very large at \$226.6 billion. Moody's notes Honolulu historically has not experienced much foreclosure activity given the relative rarity of sub-prime financing in Hawaii. The 2016 estimated median family income edged up over the prior year to a 132% of national levels and the city's full value per capita is strong at \$226,642.

Real estate has been an important element of Honolulu's economic growth. Single family home resale prices have increased 3.5% annually from 2013 to 2017. Condo resale price growth has been more volatile but also increased during this time, averaging 12.7% annually. However, these rising prices add to the island's CPI growth and slows population growth as Honolulu is one of the least affordable housing markets in the nation. Aside from the tourism and military sectors, Honolulu is also anchored by a significant public sector while health care, banking and agriculture add further diversity.

## HONOLULU RAIL

The city, through the Honolulu Authority for Rapid Transportation (HART) continues construction of the new 20-mile mass transit system along Oahu's east-west corridor. An estimated 60% of the city's population lives within this corridor and the city projects that population growth within this area will outpace the balance of Oahu. To date, more than \$4.3 billion worth of contracts have been awarded with \$2.8 billion expended for planning and design, site acquisition and guideway and track construction and HART notes that roughly 50% of the guideway is complete.

Construction of the light rail system is expected to be completed in 2025, according to HART, compared to original estimates of a 2019 completion. Costs related to construction of the system, which have increased from its original estimate of \$5.2 billion to \$8.2 billion, are expected to be funded primarily with revenue generated by the 0.5% general excise and use tax surcharge (the surcharge) implemented by the city on January 1, 2007; the surcharge is projected to generate \$5.89 billion from October 2009 through 2030. Approximately \$1.11 billion of funding will be generated from a dedicated 1.0% increase in the State transient accommodation tax (TAT) through December 2030; [the surcharge extension and the TAT increase were enacted in 2017](#). Additional funding is expected from a \$1.55 billion grant from the U.S. Department of Transportation, Federal Transit Administration under a full funding grant agreement (FFGA) dated December 2012. Cost increases have been a result of various factors including lawsuits in earlier years and rapid growth in construction prices.

As of July 2017, the city had received \$1.98 billion from the surcharge, net of administrative fees charged by the State, and have drawn down on the entire \$806 million that had been obligated by the Federal Transit Administration (FTA) under the full-funding grant agreement dated December 19, 2012; the US Congress has appropriated the remaining \$744 million as part of the FFGA, but the FTA has not yet obligated this amount. The FTA requested and received an updated financial plan from HART in September 15, 2017. HART expects to receive a response from FTA on the updated financial plan by the end of the year (2018). More recently a rail transit project update ("risk refresh") was conducted by the FTA in June 2018 that indicates there is a likelihood that the rail transit project as currently scoped will exceed its currently budgeted rail transit project revenue by approximately \$134 million, and take until September 2026 to complete. HART and the city are analyzing the updated risk refresh report.

In anticipation of receiving future surcharge and TAT revenue through the current sunset of 2030 and receipt of the balance of the federal grant, construction of the project is expected to be financed with a combination of general obligation commercial paper notes, bond anticipation notes, and general obligation bonds issued by the city; last year's Series 2017H bond issuance was the first GO sale for rail construction.

Notably, the city and HART have entered into a memorandum of understanding prior to any debt issuance that would entitle the city to reimbursement from HART for debt service and other costs associated with such obligations.

Given the current capital plan and scheduled expiration of the surcharge in 2030, it is projected that the city would need to subsidize rail system operations to offset operating costs not paid from passenger fares; the amount of the subsidy is not yet available. The additional budgetary burden from the operating subsidy in the out years will further constrain the city's financial flexibility given already escalating fixed costs from debt, pension and retiree health costs.

We will continue to monitor the likelihood and potential magnitude of the costs associated with the construction and operation of the rail on the city. Given the city's intent to provide contingent support for rail construction and operation, we will incorporate rail-related debt into the city's debt profile to gauge the potential strain on the city's operations. We will also monitor the rail's need for financial support from the city; we would consider continued construction cost overruns, below average surcharge collections and/or operational subsidies above current projections as red flags. Finally we also monitor changes in public and political support and the willingness of the city to continue to provide contingent support.

#### **Financial operations and reserves: stable operating reserves; growing fixed cost burden**

Financial operations are well managed and operating reserve levels provide the city sound flexibility. The city's fiscal 2017 available operating reserve dropped slightly for the second consecutive year but was still a healthy 20.8% of revenue, below the fiscal 2017 Aa1-rated large city median fund balance of 26.4%. The city's General Fund balance includes a Reserve for Fiscal Stability (RFS) Fund that was established back in fiscal 2010. Since 2012, the city has increased the RFS Fund annually and in fiscal 2017 the fund totaled 7.2% of general fund revenues (\$104 million). Operating funds include the city's General, Highway and Debt Service Funds, although nearly all resources flow through the General Fund. In 2017, the city again maintained flat tax rates for all property classes and combined with growth in AV, collections grew 7.6% over the prior year and similar to the prior year's growth. General Fund resources are comprised primarily by property taxes which totaled 89% of General Fund revenues in fiscal 2017.

In fiscal 2018 the city again maintained flat property tax rates for nearly all property classifications except one, the Residential A classification. Residential A properties, a classification in effect since 2013, are taxed at a higher rate and apply to larger more valuable homes that are typically owned by those who do not reside on the island full time. Combined with nearly 8% growth in AV, 2018 property tax revenues increased a similar 7.7% (unaudited). The city's FY 2018 (unaudited) unassigned general fund balance and RFS both grew slightly

The city's zero-based budgeting approach balanced the 2019 budget after identifying another comparatively small budget gap. For the fourth year, the city maintained flat tax rates for all properties except Residential A and estimates year-end property tax collections will grow by about 8.5%, the largest growth in collections since FY 2015.

Despite the city's demonstrated ability to maintain healthy and stable reserve levels, the city's financial profile will continue to be challenged by high fixed obligations and likely operational subsidies in the out years for the city's rail system. In fiscal 2017, debt service, pension and OPEB costs represented about 33% of operating revenues. Going forward, Moody's will monitor annual revenue increases and the city's ability to absorb these costs. The city's commitment to maintaining budget balance and adequate reserve levels has been an important factor in Moody's credit evaluation of Honolulu.

#### **LIQUIDITY**

General fund cash equaled 16.4% of revenues in fiscal 2017, down from the prior year and largely due to an interfund receivable due from bond funds. The city notes the receivable was repaid from the sale of last year's bonds in October 2017. The city anticipates fiscal year ending 2019 general fund cash will be similar to historical levels.

## Debt and pensions

The city's debt position is average with a net direct debt burden of 1.2%, which approximates the median for large Aa1-rated cities nationally. Honolulu benefits from the active role the state government plays in financing traditional municipal capital needs more typically funded at the local level throughout the rest of the country including transportation, health, justice, and education.

Including the current offering, the city has approximately \$3.6 billion of outstanding general obligation bonds, including reimbursable GO bonds. Approximately 61% of the city's general obligation debt is retired in ten years.

### DEBT STRUCTURE

The city has \$3.6 billion in general obligation bonds outstanding, post-sale, with the latest maturity in 2042. About 28% of the city's general obligations are reimbursable from non-tax revenues. Including rail and reimbursable debt service, annual debt service increases in 2023 before declining through final maturity.

### DEBT-RELATED DERIVATIVES

The Series 2017H bonds issued last year are the city's only variable rate debt outstanding (\$350 million).

The city has no derivative instruments in its G.O. borrowing program. The 2017H bonds bear a variable interest rate based on a spread to the tax-exempt SIFMA index and pose a modest level of interest rate risk to the city. As the notes are not associated with an interest rate swap, increases in SIFMA would impose higher debt service costs on the city. The interest rate cap is 8%. Even in a worst-case scenario where the interest rate spikes to that level just after issuance, the additional debt service would represent a still manageable risk. The nominal maturity range from 2022 through 2028 coincides with construction completion and mature prior to the General Excise and Use Tax surcharge sunset date of 12/31/2030.

### PENSIONS AND OPEB

Honolulu has an average defined-benefit pension burden, based on unfunded liabilities for a multi-employer plan and for its Moody's estimated share of a cost-sharing plan administered by the state. Reported unfunded liabilities in fiscal 2017 were approximately \$2.2 billion, or 51% funded. Pension and OPEB budgetary pressures have been growing and will continue increasing because contribution requirements to the statewide pension system are rapidly escalating. The next five years will be critical in how the city addresses these rising costs given the multiple budgetary tools it has available, including the legal flexibility to raise revenue or to trim other operating expenses. Net of reimbursements from the city's self-sufficient enterprises, the city's fiscal 2017 contribution was approximately \$132 million, or 8% of operating revenue. Fixed costs have gradually consumed a greater proportion of the city's budget and in fiscal 2017, pension contributions, debt service and PAYGO costs for OPEB benefits represented 33% of operating revenues. Looking forward, fixed costs could grow to a high, estimated 35 – 39% of operating revenue by fiscal 2021, assuming no growth in revenues and primarily as a result of a four-year phase-in of higher employer contributions (discussed below).

Net of proportional shares allocated to business enterprises based on actual contributions from those entities, the three year average Moody's adjusted net pension liability (ANPL) for the city, under our methodology for adjusting reported pension data, is \$3.4 billion. In the three years through fiscal 2017, the ANPL has averaged a moderate 3.09 times annual operating revenue and 2.4% of full valuation.

Moody's ANPL reflects certain adjustments we make to improve comparability of reported pension liabilities. The adjustments are not intended to replace Honolulu's reported liability information, but to improve comparability with other rated entities.

The latest, fiscal 2016, system valuation resulted in an increase in the statewide UAAL from \$8.7 billion to \$12.4 billion and a reduction in the funded ratio from 62.4% to 51.3% based on market value of assets, primarily as a result of a reduction in the discount rate from 7.65% to 7.00% and revisions to the mortality table. The legislature recently enacted higher employer contribution rates to address the increased liability. However, given the timing difference between lowering the discount rate, updated mortality tables and the legislature enacting higher contribution rates, the city's actual 2017 contribution was below the "tread water" indicator, resulting in a tread water gap equal to 8.3% of operating revenues. The tread water indicator measures the annual government contributions required to prevent reported net pension liabilities from growing, under reported assumptions. Employer contributions will increase from 25% to 41% for police and fire and from 17% to 24% for general employees over a four year phase-in period. The new rates are projected to eliminate the UAAL by 2045 and are expected to significantly reduce the tread water gap.

The city's OPEB liability is sizeable and remains a challenge. As of July 1, 2017 the unfunded OPEB liability was \$1.77 billion or 1.5 times fiscal 2016 operating revenues. Importantly, in the 2013 legislative session, the state adopted a plan to require phasing in higher annual required contribution (ARC) payments by all counties and the state beginning in fiscal 2015. By fiscal 2019, the payments would reach 100% of the ARC. Honolulu began setting aside amounts to pre-fund its OPEB liability beginning in 2008, and the 2019 payment is equal to 100% of its annual OPEB ARC.

Hawaii is the only state that has adopted a plan to fully fund its OPEB ARC payments. While the pension and OPEB actions are credit positive, they will substantially increase all local government's (including Honolulu) annual fixed costs relative to budget.

### Management and Governance

Hawaii Counties have an Institutional Framework score of Aa, which is high. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. The sector's major revenues source is property taxes which is not subject to any caps. Unpredictable revenue fluctuations tend to be minor, or under 5% annually. Across the sector, fixed and mandated costs are generally greater than 25% of expenditures. Hawaii has public sector unions and additional constraints, which limit the ability to cut expenditures. Unpredictable expenditure fluctuations tend to be moderate, between 5-10% annually.

© 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](http://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. ("MJJK") 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 MJJK. 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. MJJK 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.

MJJK 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 MJJK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJJK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJJK 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