

CREDIT OPINION

14 February 2020



Contacts

Evan W Hess +1.212.553.3910

Analyst

evan.hess@moodys.com

Lauren Von Bargen +1.212.553.4491

AVP-Analyst

lauren.vonbargen@moodys.com

CLIENT SERVICES

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

Richmond (City of) VA

Update to analysis following upgrade

Summary

Richmond, VA's (Aa1 stable) sound credit profile incorporates its diverse local economy and sizeable tax base anchored by a large higher education presence as well as its role as the state capital. While resident income levels and poverty rates fall well below the national median for the rating category, partially impacted by a large student population, they are poised to improve modestly over the long-term as the city continues to see growth in higher wage industries such as health care. Despite exhibiting modest improvement in recent years, the city's fund balance reserves remain below those of similarly-rated cities nationwide and are expected to remain stable given management's adherence to formal fiscal policies. The city's credit profile also reflects above-average, yet manageable, debt and pension burdens.

On February 13th, we upgraded to Aa1 from Aa2 the rating on the city's outstanding general obligation debt. Concurrently, the outlook was revised to stable from positive.

Credit strengths

- » Sizeable and growing tax base
- » Stabilizing presence of state government and higher education institutions
- » Stable financial position supported by formal fiscal policies

Credit challenges

- » Reserve and liquidity levels maintained below Aa1 national median
- » Above-average debt burden for the rating category
- » Resident income levels below those of similarly rated cities nationwide

Rating outlook

The stable outlook reflects the likelihood that the city's tax base and resident income levels will continue to improve and that reserves and liquidity will remain stable due to management's conservative budget assumptions and formal fiscal policies.

Factors that could lead to an upgrade

- » Significant and sustained growth of reserves and liquidity
- » Reduction in debt and pension burdens
- » Material improvement in resident income levels

Factors that could lead to a downgrade

- » Reduction in operating flexibility and reserve levels
- » Substantial increase in debt burden
- » Material contraction in tax base and weakened income levels

Key indicators

Exhibit 1

Richmond (City of) VA	2015	2016	2017	2018	2019
Economy/Tax Base					
Total Full Value (\$000)	\$21,568,002	\$22,249,102	\$23,414,527	\$24,586,747	\$24,952,752
Population	213,735	223,170	220,892	228,783	228,783
Full Value Per Capita	\$100,910	\$99,696	\$106,000	\$107,468	\$109,067
Median Family Income (% of US Median)	76.2%	76.8%	76.8%	76.8%	76.8%
Finances					
Operating Revenue (\$000)	\$666,968	\$726,246	\$710,105	\$674,949	\$713,903
Fund Balance (\$000)	\$110,003	\$119,408	\$140,394	\$143,977	\$160,785
Cash Balance (\$000)	\$46,896	\$62,226	\$91,226	\$54,068	\$96,204
Fund Balance as a % of Revenues	16.5%	16.4%	19.8%	21.3%	22.5%
Cash Balance as a % of Revenues	7.0%	8.6%	12.8%	8.0%	13.5%
Debt/Pensions					
Net Direct Debt (\$000)	\$726,645	\$744,799	\$702,315	\$729,089	\$771,516
3-Year Average of Moody's ANPL (\$000)	N/A	\$642,909	\$589,571	\$603,535	\$611,461
Net Direct Debt / Full Value (%)	3.4%	3.3%	3.0%	3.0%	3.1%
Net Direct Debt / Operating Revenues (x)	1.1x	1.0x	1.0x	1.1x	1.1x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	N/A	2.9%	2.5%	2.5%	2.5%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	N/A	0.9x	0.8x	0.9x	0.9x

Source: City of Richmond, VA Audited Financial Statements, US Census American Community Survey, Moody's Investors Service

Profile

Richmond, VA is the capital of the <u>Commonwealth of Virginia</u> (Aaa stable), encompassing just under 63 square miles, and is home to stabilizing government and higher education institutions. The city is governed by a City Council comprised of nine council members who are elected to four-year terms. The Mayor is elected every four years by the citizens of the city. The city's population totaled 220,892 in 2017 according to the most recent U.S. Census American Community Survey, which represents an 8.7% increase since 2011.

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.moodys.com for the most updated credit rating action information and rating history.

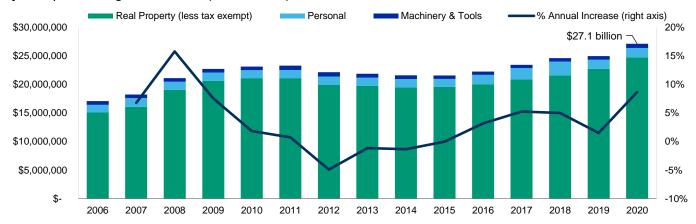
Detailed credit considerations

Economy and tax base: growth and diversification continues, tax base anchored by institutional presence

Growth in Richmond has continued at a moderate pace and additional growth is expected going forward as a result of continued development and property value appreciation. The city's tax base increased by 8.7% to \$27.1 billion for fiscal 2020, which significantly exceeds the national Aa1 median. As the state capital, Richmond is the economic center of central Virginia, serving as the employment center for surrounding counties. A strong university presence including <u>Virginia Commonwealth University</u> (Aa2 negative), the <u>Virginia Commonwealth University Health Systems Authority</u> (Aa3) and the <u>University of Richmond</u> (Aa1 stable) adds further stability to the economy.

The city's economy and employment base continue to diversify, with ongoing expansion in the health care, pharmaceutical, financial service, and logistics industries. Recent investments include <u>Dominion Energy</u>'s (Baa2 stable) new 20-story office tower, multiple expansions by Virginia Commonwealth University at both the university and hospital, and multiple single and multifamily residential developments.

Exhibit 2
Sizeable tax base continues to exhibit healthy annual growth (\$000)
5-year compound annual growth rate of 4.7% (fiscal 2016-2020)



Source: City of Richmond, VA Audited Financial Statements, Moody's Investors Service

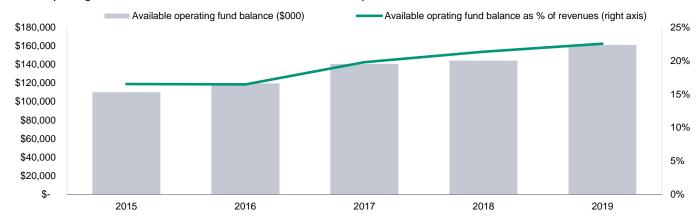
The city's December 2019 unemployment rate of 2.8% is comparable to the state (2.5%) and below the national (3.4%) rates for the same period. Additionally, the county's labor force has grown by nearly 18% over the past decade. According to the most recent U.S. Census American Community Survey, resident income levels fall well below the national median for the rating category with median family income equal to just 76.8% of the US in 2017. The city's poverty rate is also elevated at 25.2%. While income and poverty levels are partially impacted by the city's large student population, they remain a challenge with respect to the city's Aa1 rating.

Financial operations and reserves: adequate and stable reserve position supported by conservative budgeting and formal fiscal policies

Richmond's financial position will remain stable given management's conservative budget assumptions, adherence to formal fiscal policies, and continued tax base growth. While the city's fund balance reserves are maintained below the national Aa1 medians as a percentage of revenues, they are stable and sizeable on an absolute basis. Additionally, the city benefits from strong revenue-generating flexibility stemming from its ample property tax base, where a small increase in rates can yield healthy revenue gains.

Fiscal 2019 ended with a general fund balance of \$151.9 million, or 21.2% of revenues. Total available operating fund balance (inclusive of the general and debt service funds) totaled \$160.8 million, or 22.5% of combined operating fund revenues at fiscal year-end 2019, which is adequate but well below the national median of 43% for the Aa1 rating category. While fund balance levels fall short of the national medians as a percentage of revenues, they are over seven times larger on an absolute basis. Positively, available operating fund balance has steadily increased each year from 16.5% in fiscal 2015. Because Virginia cities' operating funds include school operations, the median operating fund balance is generally lower than national medians.

Exhibit 3
Increases in available fund balance have exceeded budgetary growth in recent years
Available operating fund balance increased to 22.5% of revenues in fiscal 2019, up from 16.5% in fiscal 2015



*Available operating fund balance is a combination of general and debt service fund balance, less non-spendable of restricted amounts. Source: City of Richmond, VA Audited Financial Statements, Moody's Investors Service

For fiscal 2020, management reports that revenues are coming in ahead of budget and that expenditures are tracking as expected. Despite the strong revenue trends, fund balance reserves will likely remain level with the prior year at fiscal year-end 2020 following the planned use of reserves for capital (unspent 1.5% meals tax revenues collected in fiscal 2019 for school projects). Additionally, the city implemented a new 50 cent cigarette tax in fiscal 2020 that will add an estimated \$3.4 million in new revenues annually.

Management adheres to a recently improved formal fund balance policy requiring a minimum level of reserves in the city's rainy day fund and unassigned general fund balance. The policy states that the combined rainy day and unassigned general fund balance shall not be less than 16.67% of budgeted general fund expenses, with the general fund portion being no less than 13.67% of the total.

LIQUIDITY

Richmond's operating funds (inclusive of the general and debt service funds) reported net cash and investments of \$96.2 million at fiscal year-end 2019, or 13.5% of combined operating fund revenues, which is below the national medians for the rating category. Positively, the city's liquidity position has remained relatively stable, averaging 10% of revenues over the past five fiscal years.

Debt and pensions: above-average debt burden will remain manageable despite future borrowing plans

Richmond's debt burden will remain manageable, despite future debt plans, given management's adherence to formal debt policies and continued tax base growth. At fiscal year-end 2019, the city's net direct debt was 3.1% of fiscal 2020 full value, which is manageable but well above the national Aa1 median of 0.7%. Because Virginia cities are responsible for school operations, including capital borrowing, the median direct debt burden is generally higher than national medians as a percentage of full value. The city's direct debt burden represents 1.1 times operating revenues, which is only slightly above the national Aa1 median of 0.8 times.

The city's fiscal 2020-2024 capital improvement plan incorporates \$310.1 million of borrowing, which includes additional \$28.6 million of short-term GO borrowing and \$142 million of long-term GO borrowing. Officials recently introduced a \$150 million 5-year plan of finance for its "New School Investment Program." The program includes project costs for two new elementary schools, a new middle school and design for a new high school. The city passed a 1.5% meals tax increase to support phase 1 of the program.

Management adheres to a formal debt policy that caps tax supported debt levels at 3.75% of total assessed values. Despite additional borrowing plans, the city projections they will remain in compliance with their policy given strong tax base growth trends.

DEBT-RELATED DERIVATIVES

The city is not party to any interest rate swaps or other derivative agreements.

PENSIONS AND OPEB

The city maintains an agent multiple-employer defined benefit plan administered by the Richmond Retirement System (RRS) and participates in the Virginia Retirement System (VRS). For fiscal 2019, the city's total pension contribution (less amounts paid by the city's combined utility system) was \$46.7 million, or 6.5% of operating revenues. The city has funded its pensions above the annually required contribution amount in recent years, which is more than tread water amount (the amount required to prevent the unfunded liability from increasing based on plan assumptions).

Moody's adjusted net pension liability (ANPL) is our measure of a local government's pension burden that uses a market-based interest rate to value accrued liabilities. The city's ANPL has averaged \$611.5 million over the last three years, representing 0.9 times operating revenues, which compares favorably to the national median for the rating category. Our ANPL is based on a discount rate of 3.66%, compared to the combined discount rate of 6.57% used to calculate the reported net pension liability of \$266.7 million.

Employees participate in one of two other post-employment benefit (OPEB) plans: the City of Richmond OPEB Plan and the Virginia Retirement System (VRS) OPEB Plan. The city recently started participating in a pooled OPEB trust, making their first contribution in fiscal 2019. The Moody's adjusted net OPEB liability was \$80.4 million at fiscal year-end 2019.

Total fixed costs (inclusive of pension and OPEB contributions and debt service) account for a manageable 16.9% of revenues in fiscal 2019. Total long-term liabilities (adjusted pension and OPEB liabilities and net direct debt burden) represent 5.6% of 2020 full value.

Environmental, social, and governance considerations

Environmental considerations are not material to the city's credit quality given its inland location. Richmond's exposure to long-term environmental trends is consistent with that of the US local government sector, which as a whole, is low.

Social considerations are material and incorporated by way of full value per capita and median family income.

The City of Richmond, VA will continue to benefit from strong management, conservative budget assumptions, and adherence to multiple formal fiscal policies. Additionally, Virginia cities have an Institutional Framework score of Aaa, which is very high. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. The sector has one or more major revenue sources that are 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 less than 25% of expenditures. Virginia is a Right to Work state, providing significant expenditure-cutting ability. Unpredictable expenditure fluctuations tend to be minor, under 5% annually.

Rating methodology and scorecard factors

The US Local Government General Obligation Debt Rating Methodology includes a scorecard, a tool providing a composite score of a local government's credit profile based on the weighted factors we consider most important, universal and measurable, as well as possible notching factors dependent on individual credit strengths and weaknesses. Its purpose is not to determine the final rating, but rather to provide a standard platform from which to analyze and compare local government credits.

Exhibit 4

Richmond (City of) VA

Rating Factors	Measure	Score
Economy/Tax Base (30%) [1]		
Tax Base Size: Full Value (in 000s)	\$27,116,943	Aaa
Full Value Per Capita	\$118,527	Aa
Median Family Income (% of US Median)	76.8%	Α
Notching Factors: [2]		
Institutional Presence		Up
Finances (30%)		
Fund Balance as a % of Revenues	22.5%	Aa
5-Year Dollar Change in Fund Balance as % of Revenues	4.6%	Α
Cash Balance as a % of Revenues	13.5%	Aa
5-Year Dollar Change in Cash Balance as % of Revenues	1.0%	Α
Management (20%)		
Institutional Framework	Aaa	Aaa
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	1.0x	Α
Notching Factors: ^[2]		
Unusually Strong or Weak Budgetary Management and Planning		Up
Debt and Pensions (20%)		
Net Direct Debt / Full Value (%)	2.8%	Α
Net Direct Debt / Operating Revenues (x)	1.1x	Α
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value (%)	2.3%	Α
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues (x)	0.9x	Α
Score	ecard-Indicated Outcome	Aa1
	Assigned Rating	Aa1

^[1] Economy measures are based on data from the most recent year available

^[2] Notching Factors are specifically defined in the US Local Government General Obligation Debt methodology dated September 27, 2019

Source: City of Richmond, VA Audited Financial Statements, US Census American Community Survey, Moody's Investors Service

© 2020 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/OR ITS CREDIT RATINGS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE
CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S
(COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S INVESTORS SERVICE 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 OR IMPAIRMENT. SEE
MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S
INVESTORS SERVICE CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR
PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER 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. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT
AND DO NOT PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT
AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND
PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR FLOAT HAT 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, ASSESSMENTS, OTHER OPINIONS, AND 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, ASSESSMENTS, OTHER OPINIONS OR 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 WHATSOFVER BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND 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 its 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 CREDIT RATING, ASSESSMENT, 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 credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and Moody's investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.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 657AFSL 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.

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 credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

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

REPORT NUMBER

1214679

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

