

ASSESSMENT

20 December 2022



Contacts

Tom Collet
 Associate Lead Analyst-SF
 tom.collet@moodys.com

Krister Koskelo
 Associate Analyst
 krister.koskelo@moodys.com

Adriana Cruz Felix
 VP-Sustainable Finance
 adriana.cruzfelix@moodys.com

Rahul Ghosh +44.20.7772.1059
 MD-Sustainable Finance
 rahul.ghosh@moodys.com

Air France–KLM Group

Second Party Opinion – Sustainability-Linked Financing Framework Assigned SQS2 Sustainability Quality Score

Summary

We have assigned an SQS2 sustainability quality score (very good) to Air France–KLM Group's sustainability-linked financing framework dated 12 December 2022. Air France–KLM Group has created this sustainability-linked financing framework to issue sustainability-linked instruments to finance general corporate purposes and has selected one key performance indicator (KPI) on greenhouse gas (GHG) emissions intensity. The main feature of this type of financing is the change in the instruments' financial characteristics, depending on whether or not the issuer achieves predefined sustainability targets. The framework is aligned with the five core components of the International Capital Market Association's Sustainability-Linked Bond Principles (SLBP) 2020 and the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association's (LMA/APLMA/LSTA) Sustainability-Linked Loan Principles (SLLP) 2022. The company also incorporates recommended practices under these principles and all identified best practices. The framework demonstrates a significant contribution to sustainability.

Sustainability quality score

SQS2

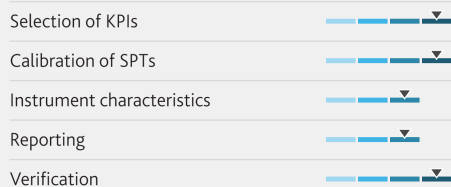


Alignment with principles SUSTAINABILITY-LINKED

Overall alignment

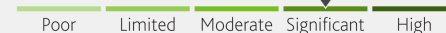


FACTORS



Contribution to sustainability

Overall contribution



Expected impact Relevance and magnitude

ADJUSTMENTS

ESG risk management	No adjustment
Coherence	No adjustment

Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of Air France–KLM Group's sustainability-linked financing framework including its alignment with the ICMA's Sustainability-Linked Bond Principles (SLBP) 2020 and the LMA/APLMA/LSTA's Sustainability-Linked Loan Principles (SLLP) 2022. The company has selected one sustainability key performance indicator (KPI) – in the area of greenhouse gas (GHG) emissions intensity – as outlined in Appendix 2 of this report.

Our assessment is based on the last updated version of the Air France–KLM Group sustainability-linked financing framework, dated 8 December 2022, and our opinion reflects our point-in-time assessment of the details contained in this version of the document, and other public and non-public information provided by the company.

We produced this SPO based on our [Framework to Provide Second Party Opinions on Sustainable Debt](#), published in October 2022.

Issuer profile

Headquartered in Paris, France, Air France–KLM Group is one of Europe's largest airline groups by revenue. In 2021, the company generated €14.3 billion in revenue. Most of its revenue comes from the core passenger and cargo air transportation services provided through its flagship Air France and KLM brands, which account for 86% of its revenue, with another 7% coming from maintenance operations and 7% from Transavia, its low-cost airline division. In 2021, Air France–KLM Group carried 45 million passengers and 1.05 million tons of cargo, serving 310 destinations across 117 countries. The company's sustainability strategy encompasses both social and environmental elements. On environmental issues, the company is seeking to reduce its greenhouse gas emissions principally by modernizing the fleet for more fuel-efficient aircraft and use sustainable aviation fuel (SAF), and its sustainability strategy also encompasses improving air quality and protecting biodiversity. In terms of overarching sustainability goals, the company has publicly set additional greenhouse gas reduction goals for 2030 and 2050.

Strengths

- » The timeline, baseline and trigger events are clearly disclosed.
- » KPI data undergoes both internal and external verification.
- » Verification will be conducted until maturity of the bond.
- » The KPI addresses a significant challenge for the aviation sector.
- » The sustainability performance targets (SPTs) are set in accordance with international standards.

Challenges

- » The company's, and the overall aviation sector's, measures of achievement in terms of carbon footprint reduction involve a relatively high degree of uncertainty, notably around the scalability of key enabling technologies, such as sustainable aviation fuels.
- » Radiative forcing induced by non-CO2 emissions is not included in the KPI calculation methodology and SPTs to reduce the company's impact on climate change, which is also the case for its competitors.

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

Alignment with principles

Air France–KLM Group's sustainability-linked financing framework is aligned with the ICMA's Sustainability-Linked Bond Principles (SLBP) 2020, LMA/APLMA/LSTA's Sustainability-Linked Loan Principles (SLLP) 2022, and incorporates recommended practices under these principles and all identified best practices:

- Green Bond Principles (GBP)
- Social Bond Principles (SBP)
- Green Loan Principles (GLP)
- Social Loan Principles (SLP)
- Sustainability-Linked Bond Principles (SLBP)
- Sustainability Linked Loan Principles (SLLP)

Selection of key performance indicators



Definition – ALIGNED

Air France–KLM Group has clearly detailed the characteristics of the selected KPI, including the units of measurement, the rationale and process for selecting the KPI, the calculation methodologies and the scope. These details have been disclosed in the framework. The company has selected one KPI — greenhouse gas emissions intensity, calculated in metric tons of carbon dioxide (CO₂) equivalent per revenue ton kilometer (gCO₂e/RTK) which is a commonly used metric in the sector despite the potential concomitant increase of absolute emissions.

Measurability, verifiability and benchmark – BEST PRACTICES

The company presents one KPI that is measurable and externally verifiable by independent auditors. The calculation methodology is consistent and in case of any change in methodology, the issuer commits to post-issuance external review of the relevant changes. The data has not been disclosed because of a recent change in methodology, although the numerator and the denominator were previously audited. The KPI's definition relies on external references, such as the GHG Protocol, allowing it to be benchmarked.

Relevance and materiality – ALIGNED

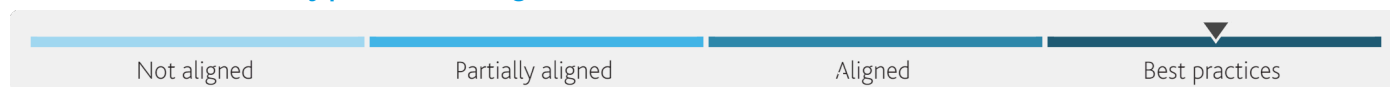
The selected KPI is relevant, core and significant to the airline's business strategy for its current and future operations. The KPI covers the most relevant sustainability challenge for the sector. The level of relevance and the significance of the KPI are analyzed in detail in the "Contribution to sustainability" section.

The scope of coverage for the KPI includes the flight and ground operations of Air France Group and KLM Group, including subsidiaries, as stated in Air France–KLM Group's most recent universal registration document (URD)¹. Most greenhouse gas emissions are generated by Air France–KLM Group's direct activities (Scope 1, representing 73.7% of the group's footprint in 2019 with mainly flight operations, which represent 99.7% of Scope 1), and its indirect emissions linked to fuel production (Scope 3, representing 18.7% of the group's footprint in 2021), which together account for more than 90% of the company's carbon footprint. The KPI does not include Scope 2 (0.1% of emissions) or other elements of Scope 3 such as embodied emissions from aircraft manufacturing.

Best practices identified

- » There is continuity or traceability, with independent verifiers, in case of a change in the methodology used to measure the KPI
- » The KPI's definition explicitly relies on external references, allowing it to be benchmarked
- » Disclosure of the externally verified historical performance of KPI; for example, over at least three years

Calibration of sustainability performance targets



Consistency and ambition – BEST PRACTICES

The SPTs for the KPI are consistent with the company's existing targets set in its sustainability strategy and demonstrate a significant improvement compared with the company's business as usual (BaU). All the SPTs have been benchmarked against sector peers and science-based scenarios, with the level of ambition analyzed in detail in the "Contribution to sustainability" section.

The means for achieving the SPTs are also disclosed and generally credible, notably including a target to use 10% sustainable aviation fuel (SAF) by 2030. The company has identified some of the key factors beyond the issuer's direct control that may affect the achievement of the SPTs. The entire aviation industry is facing challenges in terms of the scalability of enabling technologies to reach net zero. The reliance of many airlines' decarbonization strategies on SAF made from biofuels is a particular challenge. The projected demand for SAF from aviation outstrips realistic supply projections, because of raw materials usage competition (e.g., food production, heating purposes etc.), the need for biofuels and hydrogen-based fuels in other industries, and the higher cost of production compared with more emitting fuels. Air France-KLM group has committed to only source SAF that does not compete with human food or animal feed supply and that is not derived from palm oil.

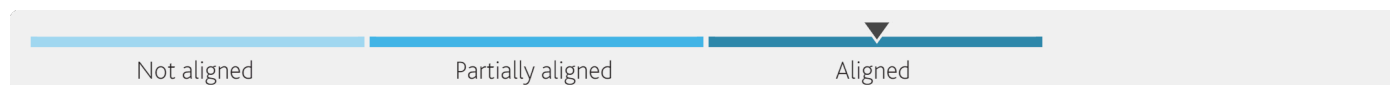
Disclosure – BEST PRACTICES

The timeline, baseline and trigger events have been disclosed in the framework. The issuer has set targets for 2025 and 2030 for its KPI, allowing sufficient visibility for its performance over time. The selected baseline is relevant and reliable.

Best practices identified

- » Disclosure of the means for achieving the SPTs as well as any other key factors beyond the issuer's direct control that may affect the achievement of the SPTs
- » The means for achieving the SPTs are credible
- » Disclosure of the timeline, baseline and trigger events, including relevant intermediate targets
- » The selected baseline is relevant and reliable

Instrument characteristics

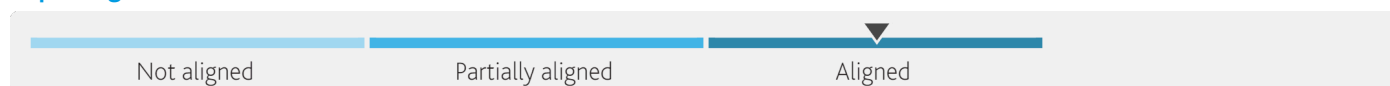


Variation of structural characteristics – ALIGNED

Air France–KLM Group confirms that the instruments issued under this framework will be subject to variations in their financial characteristics depending on the achievement of the defined trigger events. The exact mechanism and impacts will be detailed for each instrument in the corresponding documentation.

The issuer has stated it will assign structural or financial implications, or both, to the achievement or non-achievement of the pre-defined SPT(s) at the relevant target observation date(s). These implications may include, but are not limited to, a coupon step-up, the payment of a premium at maturity of the instrument or a margin adjustment depending on the nature of the instrument. The relevant target observation dates that could trigger the aforementioned implications can be freely chosen by the issuer from the trigger events defined in 2025 and 2030 to ensure the eligibility of short-term instruments under this framework. Cases of failure to comply with some of the reporting or verification requirements will be treated as if the relevant SPT was not met on the relevant target observation date and trigger the respective financial or structural implications, or both.

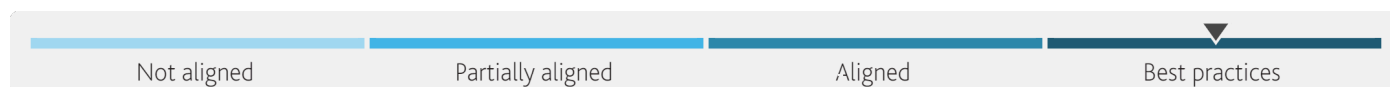
Reporting



Transparency of reporting – ALIGNED

The issuer has committed to report annually until the maturity of the bond. The intended scope and granularity of the reporting is clear and exhaustive, covering all the required and recommended elements, including information on the performance of the KPI and any relevant information enabling investors to monitor the level of ambition of the SPTs.

Verification



Verification process – BEST PRACTICES

The performance of the KPI against its SPTs will be covered by an external verification, on an annual basis and in case of significant changes affecting the sustainability-linked bond's financial or structural characteristics (such as a trigger event), or both, until the maturity of the bond.

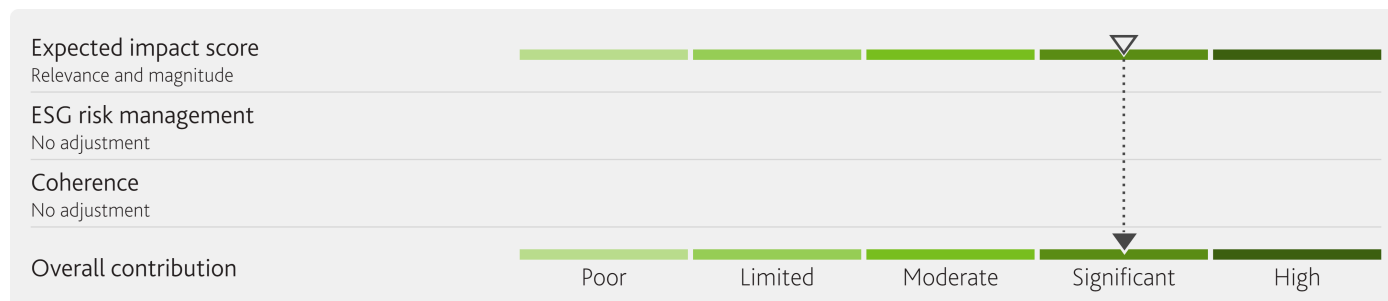
The verification assurance report will be publicly available in the annual URD of Air France–KLM Group.

Best practices identified

- » Verification will be conducted until maturity of the bond or loan

Contribution to sustainability

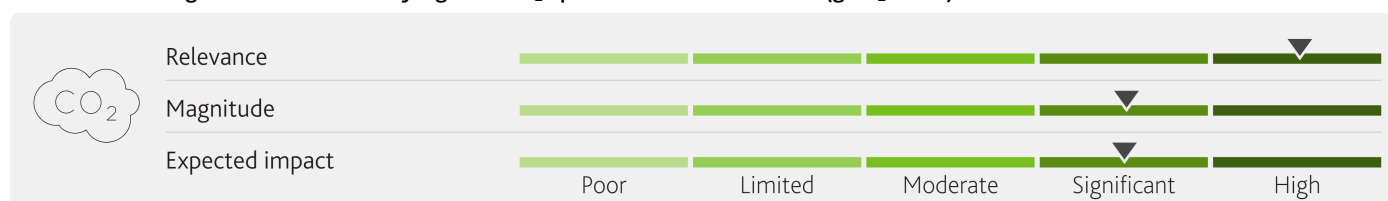
The framework demonstrates a significant contribution to sustainability.



Expected impact

The expected impact of the KPI on environmental objectives is significant. A detailed assessment is provided below.

KPI : Greenhouse gas emissions intensity – grams CO₂e per revenue ton kilometer (gCO₂e/RTK)



The relevance of the KPI is high. Greenhouse gas (GHG) emissions are a highly relevant issue for the aviation sector. The sector accounts for around 2%-2.5% of global CO₂ emissions, and this share is set to grow as other sectors decarbonize and absolute air transportation emissions continue to rise. However, the negative impact of the aviation sector on climate is not limited to the effects of its greenhouse gas emissions alone. Air France–KLM Group acknowledges that the regulatory environment in the future will also take into account the "non-CO₂ climate impact of aviation" (e.g., NO_x, soot particles, contrails, etc.), which may have an impact on the company's activities and that of the aviation sector.² Condensation trails alone are likely to contribute more to the sector's carbon footprint than CO₂ emissions, making the total amount of GHG warming attributable to the sector more than 5%.³

Overall, the magnitude of the SPTs, which reflects their ambition, is considered significant. The company's target represents a significant improvement from its business-as-usual scenario. The KPI fell at an annual average of 2.6% over 2016-19 and at an annual average of 1.6% over 2016-21. Starting from a 2019 baseline, the company plans to decrease greenhouse gas emissions intensity by 10% by 2025, which represents a 1.8% annual decrease, and then to accelerate afterwards to reach a decrease of 30% by 2030, bringing the average annual reduction up to 3.1% for 2025-30.

Air France–KLM Group's target to reduce its greenhouse gas emissions intensity by 30% by 2030 from a 2019 baseline shows a solid ambition compared with the targets of most of its sector peers. This target to reduce GHG emissions intensity by 30% by 2030 to 672 gCO₂e/RTK appears to be in line with American Airlines Group's commitment to reduce similar emissions (related to jet fuel; 45% per RTK from owned and subcontracted operations) by 2035 from a 2019 base year and with Air New Zealand's target reduction of 28.9% per RTK between 2019 and 2030⁴. The Japan Airlines Group's target for 2030, which is to keep total emissions below 90% of the 2019 levels, appears to be one of the most ambitious absolute reduction targets for an airline around the world⁵. When this is translated into a greenhouse gas intensity metric using the Transition Pathway Initiative (TPI) methodology, it is equivalent to 550 gCO₂e/RTK, which makes it one of the few airlines globally to have aligned with the TPI's 1.5°C scenario.

As for international standards, five airlines are currently classified under the Science-Based Targets initiative's (SBTi) Air Transportation – Airlines category with a near-term target status of officially validated. In October 2021, Air France–KLM Group became one of the first aviation groups committed to set carbon intensity reduction targets in line with a trajectory of well below 2°C and get them approved by SBTi. In November 2022, SBTi has validated the target to be aligned with a well-below 2°C trajectory, which supports the magnitude score of significant.

The IEA Net Zero by 2050 scenario states that a shrinkage in demand volume in aviation is critical for the sector to be aligned with the 1.5°C pathway, even if all operational measures and fuel-efficiency technologies to reduce emissions are implemented. In the case of Air France–KLM Group, the absolute greenhouse gas emissions are still likely to be 2% above 2019 levels by 2025. Air France-KLM's SPTs — as is the case for the whole sector — rely heavily on the development of SAF, the availability of which can be uncertain. Air France-KLM has excluded the use of carbon offsets for its 2025 and 2030 targets.

ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. The KPI does not seem to lead to any associated environmental or social negative externalities. Reductions in absolute greenhouse gas emissions are likely.

Coherence

We have not applied a negative adjustment for coherence to the expected impact score because the company's strategy seems aligned with the targets set under this framework.

Appendix 1 - Mapping the KPI to the United Nations' Sustainable Development Goals

The KPI included in Air France-KLM's framework are likely to contribute to three of the United Nations' Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals	KPI	SDG Targets
GOAL 7: Affordable and Clean Energy	Greenhouse gas emissions intensity, measured in CO ₂ e per revenue ton kilometer (RTK)	7.3: Double the global rate of improvement in energy efficiency
GOAL 9: Industry, Innovation and Infrastructure	Greenhouse gas emissions intensity, measured in CO ₂ e per revenue ton kilometer (RTK)	9.4: Upgrade infrastructure and retrofit industries to make them sustainable, with all countries taking action
GOAL 13: Climate Action	Greenhouse gas emissions intensity, measured in CO ₂ e per revenue ton kilometer (RTK)	13.2: Integrate climate change measures into national policies, strategies and planning

The United Nations' Sustainable Development Goals (SDGs) mapping in this SPO considers the KPI and associated sustainability objectives/benefits documented in the issuer's financing framework, as well as resources and guidelines from public institutions, such as the ICMA SDG Mapping Guidance and the UN SDG targets and indicators.

Appendix 2 - Summary of the KPI in Air France-KLM's framework

KPI	SPTs	Sustainability Objectives	Unit
Greenhouse gas emissions intensity, measured in CO ₂ e per revenue ton kilometer (RTK)	SPT 1: 10% emissions intensity reduction by 2025, compared to 2019 SPT 2: 30% emissions intensity reduction by 2030, compared to 2019	Climate Change Mitigation	tCO ₂ e / RTK

Source: Air France-KLM's Framework

Moody's related publications

Second Party Opinion analytical framework:

» [Framework to Provide Second Party Opinions on Sustainable Debt](#), October 2022

Topic page:

» [ESG Credit and Sustainable Finance](#)

Endnotes

1 https://www.airfranceklm.com/en/system/files/airfranceklm_urd_2021_va_0.pdf

2 URD p. 151

3 Lee et al. 2020; ADEME 2021

4 <https://www.aa.com/content/images/customer-service/about-us/corporate-governance/esg/aag-esg-report-2021.pdf>

5 https://www.meti.go.jp/policy/energy_environment/global_warming/transition/transition_finance_case_study_jal_eng.pdf

Moody's assigns SPOs in alignment with the main tenets of the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews and the LSTA/LMA/APLMA Guidance for Green, Social and Sustainability-Linked Loans External Reviews, as applicable; Moody's practices may however diverge in some respects from the practices recommended in those documents. Moody's approach to assigning SPOs is described in its Assessment Framework, and is subject to the ethical and professional principles set forth in the Moody's Investors Service Code of Professional Conduct.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

© 2022 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 CREDIT RATINGS AFFILIATES ARE THEIR 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 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 APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S 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 DO NOT CONSTITUTE OR 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 INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS 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, 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 WHATSOEVER, 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 \$5,000,000. 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.moody.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.

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 credit rating, agreed to pay to MJJK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000. MJJK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1349036