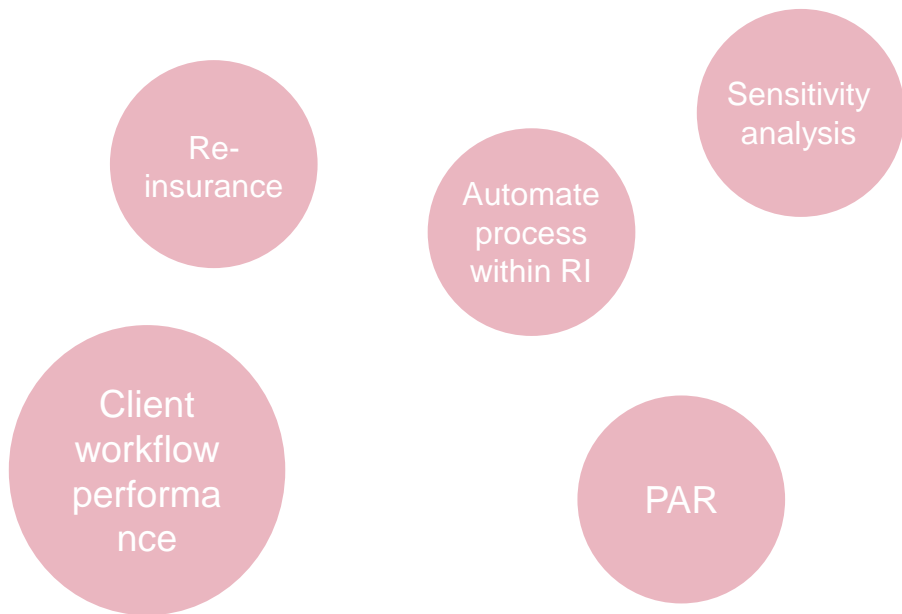


# RiskIntegrity™ Solution for IFRS 17 User Track

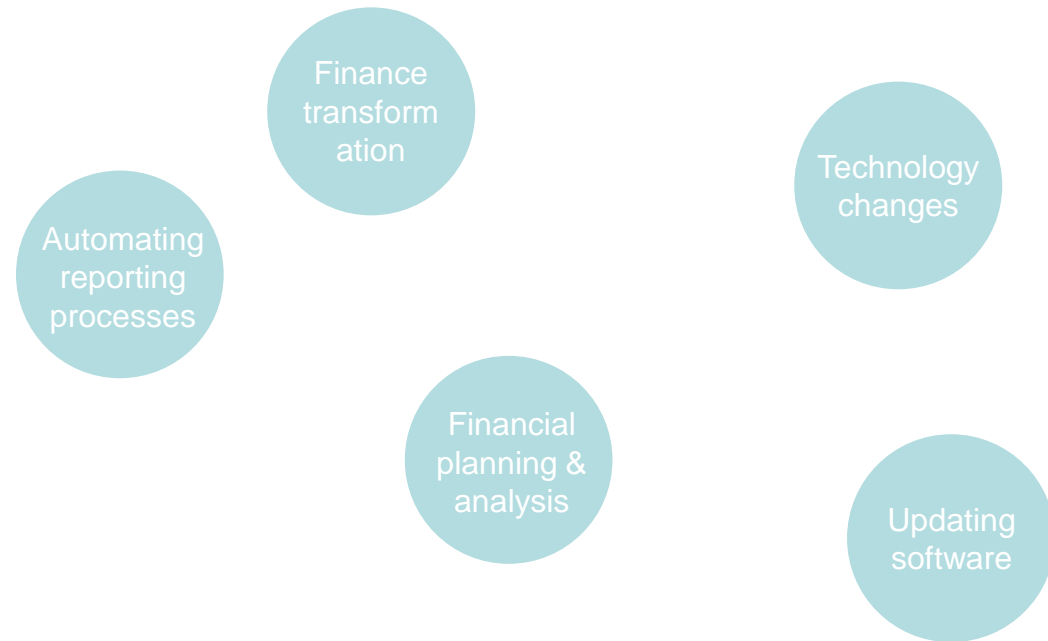
# Breakout session RI17

## Main topics

### Current IFRS17 implementation challenges



### Life after IFRS17 implementation & Go-Live date



# RiskIntegrity™ for IFRS 17 Automation

# Agenda

1. Objectives
2. Public API
3. Data validation and controls
4. Workflow
5. Next steps



1

Objectives

# Objectives

## Approach

- » **Remove human inputs** to decrease errors, increase speed of delivery, boost quality, minimize costs and simplify the business process
- » **Financial reporting tool** = automation is key to enable robust production results and meet reporting deadlines



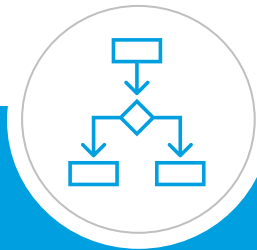
### Public API

Call RiskIntegrity™ functionality from external systems to design client specific processes



### Data validation and controls

Define robust end-to-end processes by incorporating verifications



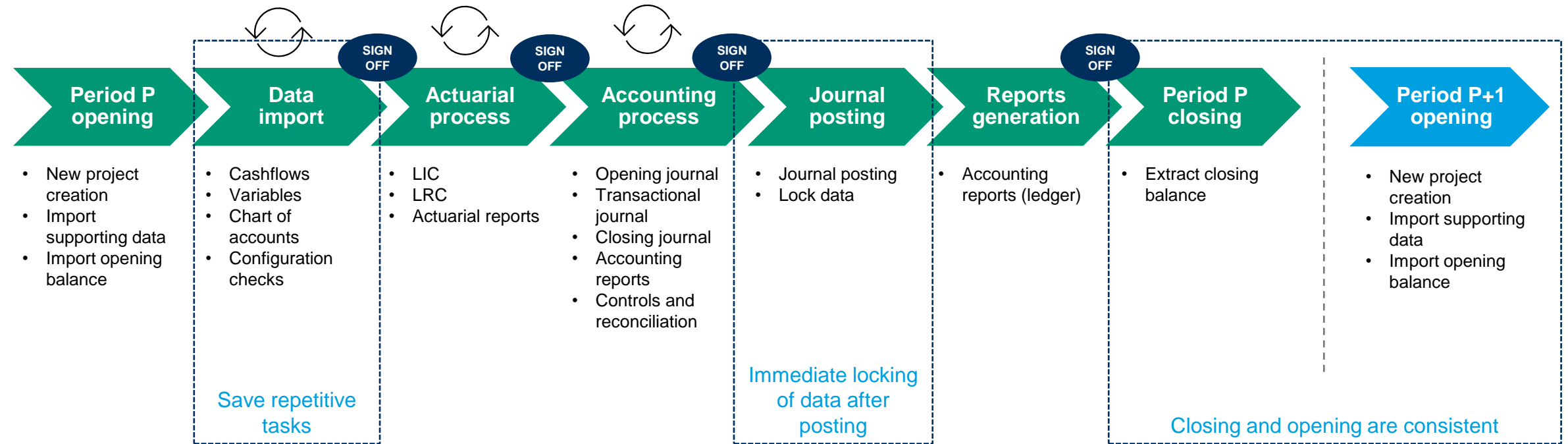
### Workflow

Provide control and guidance for all manual tasks

# Objectives

## Automation use cases

» **Fully automated process** vs. **partial automation** to incorporate manual actions (sign-off)



» **Consolidation**

» **Job scheduler** to execute long-running tasks outside of business hours

2

Public API

# Public API

Customize and automate your process



Application Programming Interface.  
**Use your own tools** to execute actions within RiskIntegrity™ for IFRS 17



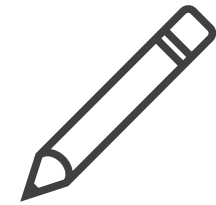
**Expose most of RiskIntegrity™ functionality** to automate any part of the end-to-end process



Provide **granular functions** that can be linked together to design client specific processes



**Continuously improved** based on client feedback.  
**Versioned** with backward compatibility.

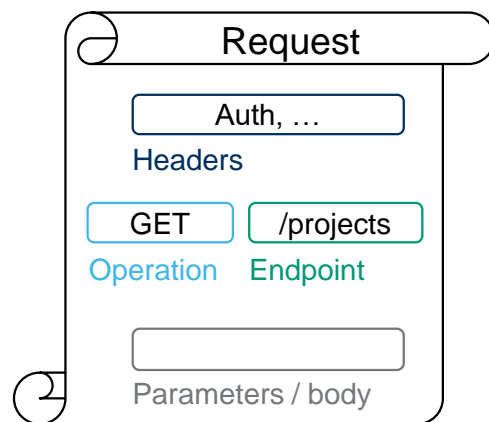


**Incorporate code** between the calls to the public API to implement custom business logic

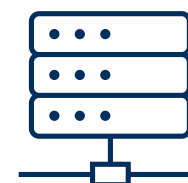
# Public API

## REST / OpenAPI

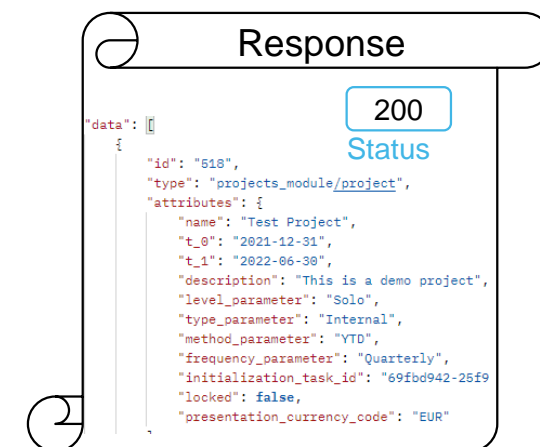
- » Complies with several industry standards to provide intuitive interfaces and great usability
- » **REST** (Representational State Transfer) architectural principles:
  - Simple and standardized approach to communication (HTTP)
  - Scalability and statelessness
  - High-performance



Client



Server



# Public API

## REST / OpenAPI

- » **OpenAPI** specification = standardized format, minimal guesswork from users

```
"/projects_module/projects": {
  "get": {
    "summary": "Retrieve the list of Projects",
    "description": "Retrieve the list of Projects depending of the query parameters",
    "tags": [
      "Project"
    ],
    "parameters": [
      {
        "name": "f[name][eq]",
        "in": "query",
        "description": "Filter on field name",
        "required": false,
        "schema": {
          "type": "string"
        }
      },
      {
        "name": "f[t_0][eq]",
        "in": "query",
        "description": "Filter on field t_0",
        "required": false,
        "schema": {
```

**Project** A project defines a valuation period for the IFRS 17 calculations and associated reports.

- GET** /projects\_module/project\_sets Retrieve the list of Project Sets
- POST** /projects\_module/project\_sets Create a Project Set
- GET** /projects\_module/project\_sets/{id} Retrieve a Project Set by its ID
- DELETE** /projects\_module/project\_sets/{id} Delete a Project Set by its ID
- GET** /projects\_module/projects Retrieve the list of Projects

Retrieve the list of Projects depending of the query parameters

**Filters**

Used to search a Project in a collection that matches the filter's conditions. Filters can be defined using the following syntax:  
f[<field-names>][<operators>]=<values>

**Field Names**

- id
- name
- t\_0
- t\_1
- project\_set\_id

**Filter Operators**

Operator	Description
<op>	<description>

- API documentation including test tool
- Code generators in many programming languages

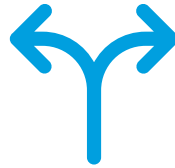
- » **EnterpriseLink**

# Public API

Actual use in the past 30 days...



30 customers



99 endpoints



1.280.969 requests

Most popular endpoints:



Journal export



Data import



Post / revert journal



Actuarial / Accounting  
process

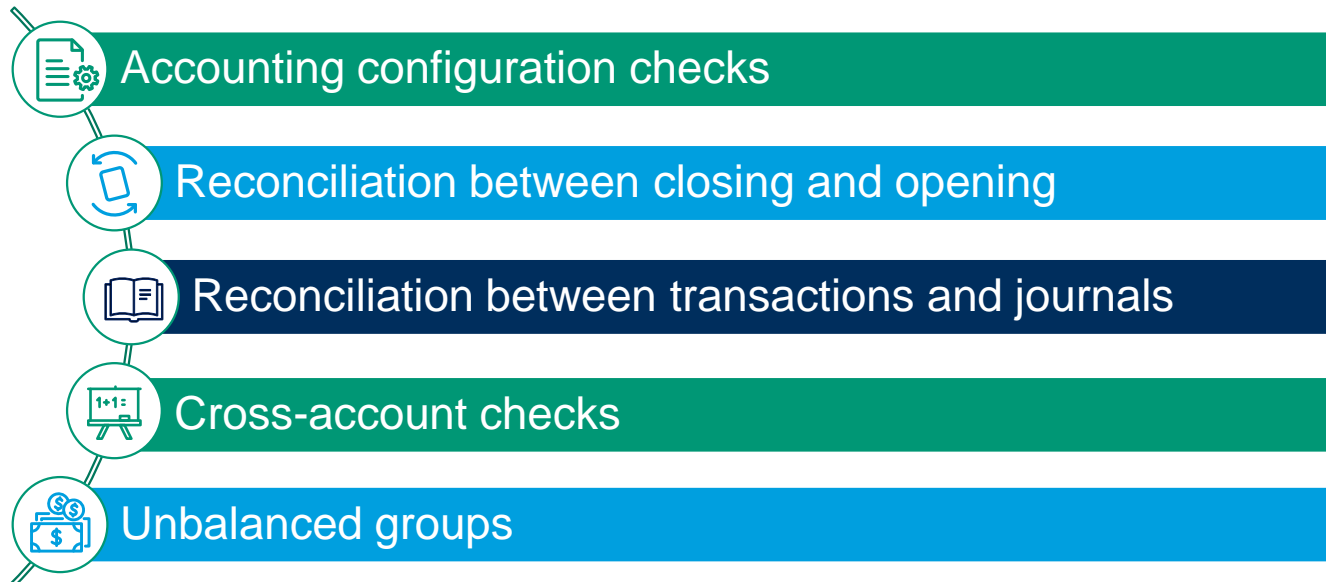
# 3

## Data validation and controls

# Data validation and controls

## Accounting checks

- » Verify **accuracy and consistency** of data at various steps of the process



- » Use public API to add **automatic checkpoints** in the automation chain

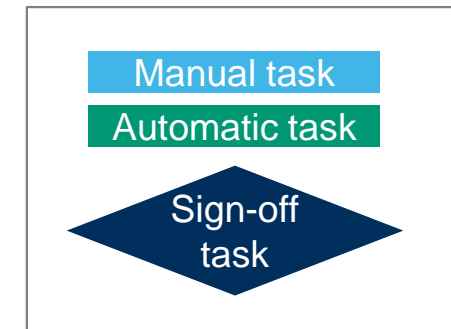
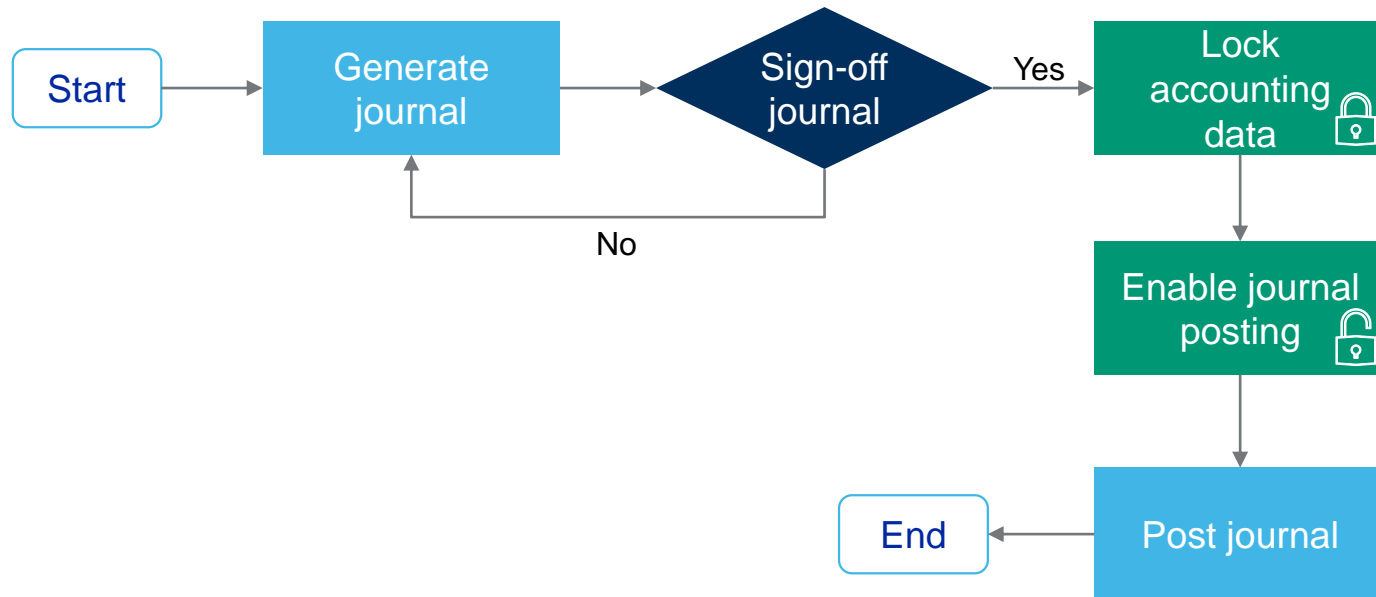
4

Workflow

# Workflow

## Workflow

- » Provide control and guidance for all manual actions performed through the user interface
- » Checklist of manual and automated tasks



5

Next steps

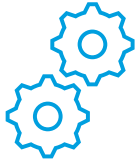
# Next steps

## Recommendations



### Getting started with the public API

Refer to the API documentation and try it out.  
Write small scripts interacting with the public API.  
*The API documentation will be enhanced in version 10.*



### Automation strategy

Define and implement a suitable automation strategy using RiskIntegrity™ features and the public API



**Customer Success is here to support you**



# Questions and Answers

---

RiskIntegrity™ for IFRS 17: Automation

MOODY'S  
ANALYTICS

*Better  
Faster  
Decisions*

[moodysanalytics.com](http://moodysanalytics.com)

# RiskIntegrity for IFRS 17 - Breakout session 1

## Current IFRS17 implementation challenges

Participating products

Client workflow and performance

Automate process within RI

Reinsurance

Sensitivity Analysis

# RiskIntegrity for IFRS 17 - Breakout session 2

## Life after achieving IFRS17 compliance

Finance  
transformation

Financial  
planning &  
analysis

Technology  
changes

Automating  
reporting  
processes

Updating  
software

MOODY'S  
ANALYTICS

*Better  
Faster  
Decisions*

[moodysanalytics.com](http://moodysanalytics.com)

© 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](http://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.

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 JPY100,000 to approximately JPY550,000,000.

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