

CREDIT OPINION

1 November 2016

Update

Rate this Research



RATINGS

Avinor AS

Domicile	Norway
Long Term Rating	A1
Туре	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Xavier Lopez Del 44-207-772-8652 Rincon VP- Sr Credit Officer

xavier.lopez-del-rincon@moodys.com

Andrew Blease 44-20-7772-5541

Associate Managing Director

andrew.blease@moodys.com

Avinor AS

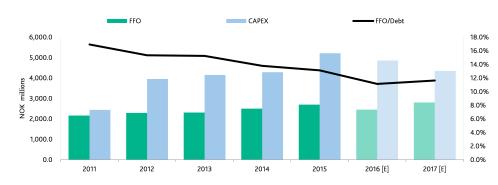
Update to reflect the downgrade of the Baseline Credit Assessment

Summary Rating Rationale

Avinor AS (Avinor)'s A1 rating positively reflects (1) Avinor's strong business profile, on account of its near monopoly position and modest transmodal competition for mediumlong distance travel within Norway; (2) a supportive strategic framework established by the State which reflects the importance of Avinor's operations to achieve societal objectives; (3) a high share of origin and destination traffic, which is, however, concentrated among a relatively small number of airlines; (4) a conservative financial policy; and (5) a three-notch uplift because of the likelihood of extraordinary support being provided by the Government of Norway in the event that this were ever to be required to avoid a default.

However, the rating also reflects the following challenges: (1) Avinor's exposure to Norway's currently sluggish economic environment, which affects aeronautical and commercial revenue growth; and (2) a significant capital expenditure programme which entails investment of approximately NOK22.7 billion during the period 2017-2021.

Exhibit 1 Moody's adjusted FFO and Capital expenditure (NOK million, LHS) and FFO / debt (%, RHS)



The 2016 and 2017 estimates represent Moody's forward view; not the view of the issuer Source: Moody's Financial Metrics for historical data.

Credit Strengths

- » Monopolistic position and modest transmodal competition
- » Supportive strategic framework
- » High share of origin and destination traffic, albeit serviced by relatively few airlines
- » Conservative financial policy
- » Likelihood of support from the Kingdom of Norway, should it become necessary

Credit Challenges

- » Exposure to Norway's sluggish economic environment, which negatively impacts revenue growth
- » Significant capital expenditure programme

Rating Outlook

The stable outlook assigned to the rating reflects the near monopoly position of Avinor and the strategic importance of Avinor's airport and air navigation operations to Norway.

Factors that Could Lead to an Upgrade

Upward rating pressure could develop if Avinor's Cash Interest Coverage Ratio was consistently higher than 5x and FFO / Debt were to be in the high teens in percentage terms on a sustained basis.

Factors that Could Lead to a Downgrade

The rating could come under downward pressure if (i) the capital investment programme were to experience delay and/or overruns; or (ii) Avinor's Cash Interest Coverage Ratio fell below 4.0x and FFO / Debt ratio declined to below 10% on a sustained basis. Furthermore, any downwards move in the Government of Norway's credit rating could put downward pressure on Avinor's rating.

Key Indicators

Exhibit 2

Avinor AS

	12/31/2015	12/31/2014	12/31/2013	12/31/2012	12/31/2011
(FFO + Cash Interest Expense) / (Cash Interest	4.7x	4.6x	4.4x	4.7x	5.1x
Expense)					
FFO / Debt	13.5%	13.8%	15.2%	15.3%	16.9%
Moody's Debt Service Coverage Ratio	4.2x	4.1x	4.4x	4.1x	4.4x
RCF / Debt	11.0%	11.3%	12.2%	12.5%	13.0%

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial Metrics

Note: For definitions of Moody's most common ratio terms please see the accompanying <u>User's Guide</u>.

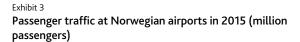
This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Detailed Rating Considerations

Monopolistic position and modest transmodal competition

Avinor is a limited liability company subject to normal laws, albeit 100% owned by the Government of Norway. It is classified in Norway as a category 4 company on the scale of State-owned enterprises, and is thus viewed as an important entity by the State, on the basis that it fulfils "national sectoral political" objectives. Avinor owns and operates 46 airports in Norway, and its management controls all key aviation infrastructure.

Avinor is the sole provider of air navigation services within Norwegian airspace and has a virtual monopoly of air travel originating and ending in Norway capturing approximately 98% of domestic passengers and approximately 88% of international passengers. International airports in other Scandinavian countries are not readily accessible to the Norwegian population. Whilst other forms of transport are used in the south of Norway, the topography of the country and the large distances between population centres means that air travel is by far the most efficient mode of travel. Fast rail connections are limited to the Oslo region and cover a relatively short distance. The location of Norway on the periphery of Europe means that air travel is largely required when travelling internationally.



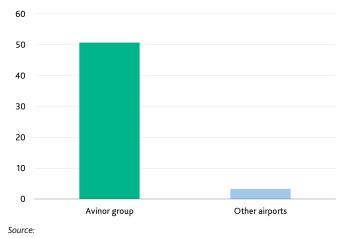
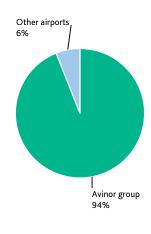


Exhibit 4
Market shares of the Avinor group and other airports in Norway in 2015



Thanks to the geographical reach of the Avinor network, two out of three Norwegians have access to an airport within an hour's travel and 99.5% of the country's population is able to visit the capital Oslo and return home on the same day.

Source:

Supportive strategic framework

The Kingdom of Norway, via the Norwegian Ministry of Transport and Communications ("MoTC"), controls 100 percent of the share capital of Avinor. As owner, the State has established that Avinor should operate in such a way as to support the population of Norway in providing a vital form of transport, rather than as a profit maximizer. Nevertheless the State requires Avinor to operate as a commercial entity with management and a Board that comprise experienced commercial professionals rather than civil servants.

Strategic objectives are outlined in the Ten-Year Transportation Plan, with specific operational and financial requirements set out in the Avinor Ownership Report. These documents are effectively government policy documents, rather than a formal charter. They set out that the focus for Avinor should be on quality improvements for, and financial returns from, the airport network and air navigation system in Norway. International expansion is limited to developments in air navigation services under the North European Functional Airspace Block.

The State also has a role in aeronautical rate-setting. Although Norway is not an EU member state, the government has transposed the EU's Airport Charges Directive into Norwegian law. The directive sets out minimum requirements in terms of transparency, consultation with airlines and non-discrimination of charges, and mandates the setting up of an independent supervisory authority.

Since the transposition of the directive, charges are determined using a RAB-based, single-till formula. Regulated revenues are defined as yearly passenger price caps derived from dividing by annual passenger forecasts the sum of (1) the remuneration of an agreed regulatory asset base at a predetermined weighted average cost of capital; (2) allowances for the recovery of asset depreciation and operating costs; and (3) the netting-off of commercial revenues. The State also requires Avinor to establish a uniform set of aviation charges across its network, which effectively leads to a cross-subsidisation of the marginal rural airports by the more commercially viable larger airports including Oslo, Stavanger, Bergen and Trondheim.

In practice, after consulting with airlines, Avinor management proposes charges in an annual plan which reflects the financial objectives that are outlined in the Ownership Report and the proposed capital investment plans. Regulatory oversight is exercised by officials at the MoTC.

From a competitive perspective, management and the MoTC also endeavour to set charges at levels that will encourage airlines to develop their route strategies in Norway rather than in nearby competitor countries such as Denmark and Sweden. The State aims to ensure its companies make a fair return on capital employed, although this is not the primary objective of Avinor.

Exposure to Norway's sluggish economic environment, which negatively impacts revenue growth

The total population of Norway is 5.1 million (as per Statistics Norway). This represents approximately 1% of the total EEA population and ranks as 21st in population size.

The Norwegian economy can be characterised as a wealthy and well developed economy, with very high standards of living and a cohesive society, as indicated by high GDP per capita figures and some of the lowest levels of income inequality in the world. Norway is routinely ranked near the top of the United Nations' Human Development Index and the Inequality-Adjusted Human Development Index tables.

However, the Norwegian economy is heavily dependent on natural resources, most significantly oil and gas but also hydroelectric power and fishing. Taken together, the oil and gas industries represent 22% of Norway's economy and approximately 60% of Norway's exports. This exposes the country to potential economic pressures in times of low commodity prices and lower economic activity can, in turn, have a negative impact on traffic at Avinor's airports.

Over the last decade passenger growth rate has averaged 4.2% per annum across the 46-airport network, whilst growth at the top 4 airports (Oslo, Bergen, Stavanger and Trondheim) has been slightly higher at 4.5% per annum on average. In addition, compared to most other airports rated by Moody's, Avinor has experienced relatively low volatility of passenger traffic in the last ten years. The standard deviation of the growth rate between 2006 and 2015 was 4.5%.

Traffic growth has, however, been negatively affected by Norway's sluggish economic environment since mid 2014, when crude oil prices began to slide.

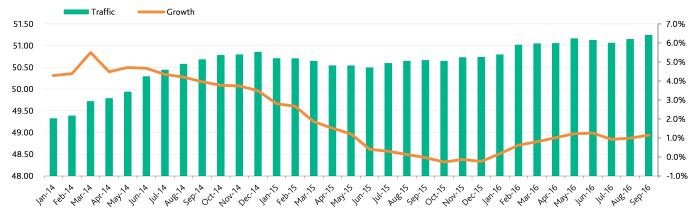
Between June 2014 and January 2015, crude oil prices decreased by more than 50%. A mild recovery in the first half of 2015 was followed by further declines. Although crude oil prices somewhat recovered in the first half of 2016, by the end of October 2016 they were still less than half their average levels in June 2014.

Airports serving cities exposed to the oil industry, such as Stavanger, home to Statoil, the largest oil and gas operator in the Norwegian continental shelf, and Bergen, saw sharp passenger traffic declines in 2015 (-4.6% and -3% respectively). Travel by helicopter to and from oil and gas offshore platforms was also hit by lower levels of activity. The diverse nature of the airports in the Avinor network somehow mitigated the negative impact of lower oil prices, and the network as a whole only saw a modest traffic decline of 0.25% (or c. 0.1 million passengers) in 2015.

The anticipated and subsequent fall in oil revenues for the country triggered a depreciation of the Norwegian Krone, which has lost 33% of its value against the Dollar and 11% against the Euro since September 2014. As the depreciation increases the cost of holidaying abroad, the demand for air travel has been negatively impacted. Although modest by international standards, at 4.9% as of October 2016, Norway's unemployment rate remains higher than its pre 2014 levels and can also explain some reductions in discretionary demand for travel.

Although traffic recovered in 2016 and traffic levels at the network recorded all-time highs in September 2016 on a 12-month rolling basis, growth levels are still well below the levels the network exhibited prior to June 2014.

Exhibit 5
Passenger traffic volumes (million passengers, LHS) and traffic growth (percentage, RHS) on a 12-month rolling basis since January 2014



Source: Avinor AS

The outlook for the immediate future remains uncertain given that oil prices remain depressed. In addition, the effective introduction of a previously unexpected NOK80 tax on every departing passenger was introduced on 1 June 2016 and is expected to weigh on traffic growth.

High share of origin and destination traffic, albeit serviced by relatively few airlines

Avinor is regarded as an origin and destination (O&D) airport system. Avinor's proportion of O&D traffic has been above 80% for the last decade. The current proportion of O&D traffic is approximately 83%, which reflects a strong core of traffic and provides for more resilient revenues when compared to transfer traffic.

Although total transfer and transit transfer at Avinor represents 17% of total traffic, more than half of the transfer and transit traffic reported by Avinor is internal to the Avinor network (trips between two Norwegian airports with a stopover, typically at Oslo airport).

Given the geographic characteristics of Norway and the importance of air transport for internal mobility, this intra-network transfer traffic behaves more like origin and destination traffic and is expected to be resilient to an airline failure. The proportion of traffic that is therefore at risk in the Avinor network is a more modest 7%.

Avinor's carrier base is, however, relatively concentrated, with its two main carriers, SAS and Norwegian, capturing almost three quarters of passenger traffic at Avinor's airports. Given the nature of the traffic on Avinor's network, a failure of either of these airlines would not likely lead to important permanent losses of traffic for the network. However, given the high volume of capacity that would need to be replaced and the relatively small number of carriers already operating at Avinor's airports, it may take some time before the existing demand is serviced by other airlines.

Exhibit 6
Proportion of traffic potentially at risk of permanent loss in case of major airline failure (2015)

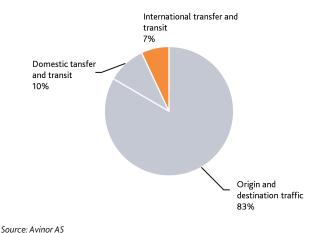
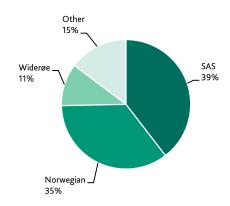


Exhibit 7
Avinor's carrier base by market share in 2015 (percentage of total passengers transported)



Source: Avinor AS

Significant capital expenditure programme

As outlined in the Ten Year National Transportation Plan covering the period 2014-2023, Avinor has embarked on an extensive capital programme, which includes the delivery of two new terminals (one at Oslo and one at Bergen) for a total budgeted cost of NOK16.4 billion.

These are both substantial projects that will deliver important improvements to these two airports. At Oslo, an airport that operates close to capacity at peak times, the expansion works are intended to create an additional 50% in passenger capacity, whereas at Bergen, the new terminal will almost double the capacity of an airport that is already operating above its efficient capacity.

Both projects are on track to be delivered on time (during the course of 2017) and within budget.

However, investment levels are not expected to reduce significantly after the completion of these two projects. In fact, total investment levels may increase in 2018 and 2019, before moderating somewhat in 2020 and 2021. The latest corporate plan includes some NOK18.3 billion of new projects between 2017 and 2023. The new projects notably include several expansionary investments at Oslo airport, such as the provision of US pre-clearance facilities, and an expansion of the non-Schengen terminal area or investments in airside facilities to increase slot capacity. As these projects have not yet started and individually are more modest in size than the two ongoing major investments, management could defer or delay some of these investments if the business rationale no longer justified them.

6,000

4,000

2,000

2016

2017

2018

2019

2020

2021

Exhibit 8
Capital expenditure programme 2016-2021 (NOK million)

Source: Avinor AS

Conservative financial policy

Management has indicated that it intends to pursue a conservative financial strategy, in the context of the requirement to finance the major capital programme. The current debt facility from the EIB contains financial covenants requiring an Equity Ratio (defined as Equity : Equity + Net interest bearing debt) of in excess of 30% and places constraints on Avinor's ability to enter into additional indebtedness.

The conservative approach to financial policy is perhaps best exemplified by the company's dividend strategy. Whilst Avinor's FFO / Debt metric has come under pressure as a result of an important investment programme, the company has nonetheless sought to minimise the additional indebtedness needed to finance these investments. To achieve this Avinor's shareholder, the Norwegian government, has agreed to impose a hard cap of NOK500 million per annum on dividends until 2018. As the company is selling noncore assets, such as hotel businesses located near some of Avinor's airports, the cap on dividends means that the proceeds from these sales are being used to finance investments rather than extracted in the form of dividends, thereby minimising additional indebtedness. As a result, Avinor's RCF / Debt metric has been broadly stable since 2011, in spite of the notable investment effort and the increased indebtedness.

High likelihood of support from the Kingdom of Norway, should it become necessary

Moody's categorises Avinor as a Government-Related Issuer as a result of it being wholly owned by the Government of Norway. Moody's therefore applies its Government-Related Issuers rating methodology, published in October 2014. The A1 rating incorporates: (i) our baseline credit assessment of baa1 for Avinor, (ii) our sovereign rating of Norway (Aaa stable); (iii) our assessment of default dependence being Moderate; and (iv) our assessment of the likelihood of extraordinary support being High.

We have assigned three notches of rating uplift from the baseline credit assessment, reflecting the strategic importance of the asset and the recent examples of extraordinary State support including a payment holiday on the State loan provided to Avinor's subsidies, a relaxation of dividend payments in 2009 and 2010 and the recent decision to lower dividend payments to finance capital investments. Although Avinor does not receive direct ongoing State subsidies in contrast to certain other State-owned companies, we note that existing legislative provisions would allow such subsidies to be provided at relatively short notice.

Structural Considerations

After a corporate reorganization, Oslo Lufthavn AS (the company that owns Oslo Gardermoen airport and was 100% owned by Avinor) was merged into Avinor on 11 January 2016, decreasing the proportion of the Avinor Group debt that was structurally subordinated to indebtedness at the subsidiaries' level from c. 30% to less than 10%. Given the low percentage of group debt provided to Avinor's other operating subsidiaries, we do not adjust Avinor's rating to reflect structural subordination despite the fact that all the remaining debt is from commercial lenders.

Liquidity Analysis

In line with other major airport companies, Avinor generates strong operating cash flow throughout the year, albeit with some seasonality because the northern hemisphere summer season generates more cash flow than the winter season. Avinor's projected cash balances and available bank facilities should be sufficient to meet its cash requirements for the next 12 months, and we expect Avinor to maintain good liquidity.

Avinor benefits from a sound liquidity position by virtue of its positive operating cash flows and sizeable undrawn banking lines. The company's current financing strategy is to pursue diversity in terms of sources of credit and to achieve a spread of maturities.

As at 30 June 2016, Avinor had an estimated NOK1.4 billion of cash and cash equivalents and NOK4.8 billion of undrawn banking lines. The largest undrawn line of NOK4 billion is revolving and subject to utilization conditions and is due to mature in June 2020. Additionally, a fully available NOK0.8 billion revolving credit line due November 2017 is in place. Avinor has around NOK650 million of borrowings (excluding commercial paper issuance) due in 2017. Moody's expect capital expenditure in 2017 to be around NOK4.5 billion.

Profile

Avinor is a company that owns and operates a network of 46 airports in Norway, which together handled over 90% of Norwegian passenger traffic in 2015, and is the sole provider of air navigation services to both civilian and military flights within Norwegian airspace. Avinor is 100% owned by the Government of Norway.

Rating Methodology and Scorecard Factors

Avinor's rating reflects our assessment of the company's business profile and financial pe formance in line with Moody's <u>Privately Managed Airports and Related Issuers</u> Rating Methodology, published in December 2014 and Moody's <u>Government-Related Issuers</u> rating methodology, published in October 2014.

Exhibit 9 **Avinor AS - Rating Factors Grid**

Privately Managed Airports and Related Issuers Industry Grid [1][2]	Current 12/31/2015		Moody's 12-18 Month Forward View As of 10/28/2016 [3]	
Factor 1: Concession and Regulatory Frameworks (15%)	Measure	Score	Measure	Score
a) Ability to Increase Tariffs	Baa	Baa	Baa	Baa
b) Nature of Ownership / Control	Aaa	Aaa	Aaa	Aaa
Factor 2: Market Position (15%)				
a) Size of Service Area	Aa	Aa	Aa	Aa
b) Economic Strength & Diversity of Service Area	Aa	Aa	Aa	Aa
c) Competition for Travel	Aaa	Aaa	Aaa	Aaa
Factor 3: Service Offering (15%)				
a) Passenger Mix	Aa	Aa	Aa	Aa
b) Stability of traffic performance	A	A	A	Α
c) Carrier Base	Baa	Baa	Baa	Α
Factor 4: Capacity and Capital (5%)				
a) Ability to accommodate expected traffic growth	Baa	Baa	Baa	Baa
Factor 5: Financial Policy (10%)				
a) Financial Policy	A	A	Α	Α
Factor 6: Leverage and Coverage (40%)				
a) (FFO + Cash Interest Expense) / (Cash Interest Expense)	4.7x	A	4.2x - 4.8x	Α
b) FFO / Debt	13.5%	Baa	11% - 11.8%	Baa
c) Moody's Debt Service Coverage Ratio	4.2x	Baa	3.5x - 3.7x	Baa
d) RCF / Debt	11.0%	Baa	8.7% - 9.7%	Baa
Rating:				
Indicated Rating from Grid Factors 1-6		A3	•	A3
Rating Lift	0.0	0.0		
a) Indicated Rating from Grid		A3		А3
b) Actual Baseline Credit Assessment Assigned				baa1
Government-Related Issuer	Factor		Factor	
a) Baseline Credit Assessment	baa1		baa1	
b) Government Local Currency Rating	Aaa		Aaa	
c) Default Dependence	Moderate		Moderate	
d) Support	High		High	
e) Final Rating Outcome	A1		A1	

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. [2] As of 12/31/2015. [3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures

Source: Moody's Financial Metrics

Ratings

Exhibit 11

Category	Moody's Rating
AVINOR AS	
Outlook	Stable
Issuer Rating -Dom Curr	A1
Senior Unsecured	A1
Source: Moody's Investors Service	

© 2016 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 CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("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 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.

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.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. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

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

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

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

REPORT NUMBER

1038364

Contacts CLIENT SERVICES

Xavier Lopez Del Rincon 44-207-772-8652

VP- Sr Credit Officer

xavier.lopez-del-rincon@moodys.com

Joanna Fic 44-20-7772-5571

VP-Sr Credit Officer joanna.fic@moodys.com Andrew Blease 44-20-7772-5541 Associate Managing

Director

andrew.blease@moodys.com

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

