

CREDIT OPINION

29 June 2017

Update

Rate this Research



RATINGS

OP Insurance Ltd

Domicile	Finland
Long Term Rating	A3
Туре	Insurance Financial Strength
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

Dominic Simpson 44-20-7772-1647 VP-Sr Credit Officer

dominic.simpson@moodys.com

Nicolò Squercina 44-20-7772-1541 Associate Analyst

nicolo.squercina@moodys.com

Giovanni Meloni 44-20-7772-1089

giovanni.meloni@moodys.com

Antonello Aquino 44-20-7772-1582

Associate Managing

Director

antonello.aquino@moodys.com

OP Insurance Ltd

Semi-Annual Update

Summary Rating Rationale

Moody's A3 (stable outlook) insurance financial strength rating (IFSR) on OP Insurance Ltd (OPIL) reflects OP Insurance's strong non-life market position in Finland, as well as its good financial fundamentals with consistent profitability and relatively low, though increased financial leverage. These strengths are off-set by its relative lack of brand reach and geographic diversification outside of Finland, a relatively high proportion of high risk assets in recent years, and a relatively low target Solvency II ratio. The A3 IFSR of OPIL, which represents the vast majority of OP's non-life insurance business (OPNLI), receives no uplift as a result of its ownership by the Finnish cooperative banking group, OP Financial Group, given the a3 BCA of the banking operation.

The vast majority of OPNLI is accounted for by OPIL which is a separate legal entity to the other smaller Non-Life operation, A-Insurance Ltd, which provides insurance for commercial truckers and taxi service branches, although all employees are employed by OPIL. Since it has acquired the minority shares in OP Corporate Bank, which currently owns OPIL, OP Cooperative intends transferring ownership of the Non-life Insurance directly to itself in the future, while it has already transferred the Wealth Management segment at the end of 2015.

As part of the re-organisation process, starting from 1 January 2015, OP-Pohjola Group has been renamed as OP Financial Group. From 4 April 2016, the business names of OP Financial Group's main operating companies have also been renamed under the OP brand. Therefore the Banking, Non-Life insurance, Wealth Management and Property Management businesses have been renamed respectively OP Corporate Bank plc, OP Insurance Ltd, OP Asset Management Ltd and OP Property Management Ltd. As part of the reorganization of the banking activities the Group decided to abandon the plan to merge the two banking operations, OP Corporate Bank plc and Helsinki OP Bank Ltd. Helsinki OP Bank Ltd has been converted from a limited liability company to a cooperative bank effective from 1 April 2016 and it has been renamed Helsinki Area Cooperative Bank (OP Helsinki).

On June 10 2016 OP Financial Group announced an updated long-term strategy aimed at transforming the group from a plain financial services provider into a diversified services company with a strong financial services expertise. The business diversification will involve expanding the Health and Wellbeing business which is intended to become the Group's fourth business line alongside Banking, Non-Life Insurance and Wealth Management.

At Q1 2017, OPNLI's business, which is almost exclusively conducted in Finland, was split, in terms of net earned premiums, 55% private customers, 41% corporate customers, with the remaining 4% from the Baltic States.

On 15 May 2015, OPIL's IFSR was affirmed with a stable outlook. Prior to that in May 2012, the IFSR was downgraded to A3 with a stable outlook assigned, driven primarily by the wider downgrade of the OP Financial Group (please see relevant press release for further details).

Credit Strengths

- » Strong market position in Finland
- » Very good profitability, with relatively low combined ratio, although reliance on realised gains
- » Relatively low, though increased financial leverage
- » Importance to OP Financial Group in light of cross-selling opportunities

Credit Challenges

- » At least 90% of premiums come from a single country, namely Finland
- » Relatively high proportion of high risk assets has been a feature for several years
- » Relatively low target Solvency II ratio, with meaningful dividend payments to parent a recent feature

Rating Outlook

The rating outlook is stable.

What to Watch for:

- » Potential for market value losses on the investment portfolio due to the relatively higher risk investment portfolio
- » Seasonality of losses (particularly in Q1 due to winter related claims)
- » Potential for reserve volatility with OPNLI's reserves vulnerable to longevity risk and a lowering of the discount rate
- » Profitability and investment portfolio mix trends against the background of very low interest rates and equity market volatility
- » Evolution of Finland's gradual economic recovery and its impact on growth prospects and profitability for Non-Life insurance products (particularly in the corporate segment)
- » Evolution of Finnish Competition and Consumer Authority's investigation on OP Financial Group's market position in retail banking services and pricing of non-life insurance products
- » Transfer of ownership of OPIL to OP Cooperative from OP Corporate Bank

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.

Factors that Could Lead to an Upgrade

In the medium term, positive rating pressure could arise from the following:

- » An upgrade of OP Financial Group's BCA
- » A material reduction in high risk assets
- » Meaningful geographic and product line diversification without sacrificing profitability

Factors that Could Lead to a Downgrade

Negative pressure could arise from:

- » A downgrading of OP Financial Group's BCA
- » Material weakening of market position
- » Failure to produce a combined ratio, on a cross-cycle and IFRS basis, of below 95%
- » A weakening of capital adequacy

Key Indicators

Exhibit 1

OPInsurance Ltd[1][2]	2016	2015	2014	2013	2012
As Reported (Euro Millions)					
Total Assets	3,914	3,710	3,454	3,205	3,054
Total Shareholders' Equity	392	563	441	392	372
Net income (loss) attributable to common shareholders'	159	197	228	150	216
Gross Premiums Written	1,281	1,257	1,259	1,149	1,033
Net Premiums Written	1,236	1,209	1,205	1,093	984
Moody's Adjusted Patios					
High Risk Assets % Shareholders' Equity	168.3%	129.0%	142.7%	163.1%	150.1%
Reinsurance Recoverable % Shareholders' Equity	13.3%	13.9%	16.1%	15.4%	15.7%
Goodwill & Intangibles % Shareholders' Equity	15.7%	9.5%	9.6%	10.6%	10.5%
Gross Underwriting Leverage	7.0x	5.5x	6.6x	6.5x	6.0x
Return on avg. Capital (1 yr. avg ROC)	19.7%	26.0%	35.7%	24.2%	36.8%
Sharpe Patio of POC (5 yr. avg)	381.7%	192.0%	181.3%	NA	NA
Adv./(Fav.) Loss Dev. % Beg. Reserves (1 yr. avg)	1.2%	0.6%	-0.4%	1.5%	-0.2%
Financial Leverage	18.1%	15.1%	9.4%	9.3%	9.3%
Total Leverage	18.1%	15.1%	9.4%	9.3%	9.3%
Earnings Coverage (1 yr.)	28.5x	42.3x	73.8x	50.7x	66.8x
Cash Flow Coverage (1 yr.)	NA	NA	NA	NA	NA

 $[\]left[1\right]$ Information based on IFRS financial statements as of Fiscal YE December 31

Source: Company reports, Moody's Investors Service

^[2] Certain items may have been relabeled and/or reclassified for global consistency

Notching Considerations

Not applicable.

Detailed Rating Considerations

Moody's rates OPIL A3 for insurance financial strength which is consistent with the adjusted rating indicated by the Moody's insurance financial strength rating scorecard. The scorecard and associated text below are based on OP Insurance Limited on an unconsolidated basis unless otherwise stated.

Insurance Financial Strength Rating

The key factors currently influencing the rating and outlook are:

Market Position, Brand and Distribution: A - LARGE MARKET SHARE BUT CONCENTRATION IN A RELATIVELY SMALL MARKET (FINLAND)

With its strong market position in Finland, in which it is currently the largest non-life player with around 32.4% market share at YE2016, OPNLI's relative market share metric (of which OPIL is the vast majority) remains very good. Whilst the OP Financial Group connection helps to enhance its customer base and to consolidate its market position (at Q1 2017 40% of OP Financial Group's clients are both banking and non-life insurance customers), Moody's believes that a challenge for OPNLI will be to increase its market share meaningfully without compromising profitability. Notwithstanding its strong market position, OPNLI operates almost exclusively in the relatively small Finnish market which means it lacks the franchise strength and brand reach which characterises a number of other European P&C operations including some Nordic peers.

Furthermore Moody's notes that underwriting expense as percentage of net written premiums has increased in the last 2 years to 17.2% in 2016 from 15.5% in 2014, driven mainly by higher acquisition costs and administrative expenses.

Overall, we consider the market position, brand and distribution to be consistent with an A rated company.

Product risk and Diversification: Baa - COMMERCIAL ACCOUNT AND LIABILITY ORIENTATION, AND CONCENTRATION IN FINLAND

With a Commercial account (40%) and Liability orientation (60%), Moody's views the portfolio as potentially more volatile than, for example, some of its Nordic peers. Product diversification is considered good with four distinct lines of business - Motor, Workers Compensation, Accident and Health and Property- producing at least 10% of premium each. However, this is off-set by the concentration in Finland, which itself is highly concentrated, and in three business lines – Motor, Property and Accident and Health which together account for 74% of gross written premiums.

Overall, we consider the product focus and diversification to be consistent with a Baa rated company.

Asset Quality: A - HIGH RISK ASSETS SOMEWHAT PRESSURISE ASSET QUALITY

Moody's considers OPIL's overall asset quality to be good, albeit high risk assets remain elevated at OPIL. At YE2016, goodwill/intangibles and reinsurance recoverables only represented around 16% and 13%, respectively, of shareholders' equity. Goodwill and intangibles, despite remaining low if related to shareholders' equity, have increased in 2016 by 41% driven by higher development costs and goodwill.

However, the proportion of high risk assets to equity remains significant, particularly at the OPIL level, at 169% as at YE2016 (YE2015: 129%). Within OPIL's high risk assets, the largest holdings were equities (45%), not rated/non-investment grade fixed income securities (25%), real estate (15%) and investments in associates (15%). Although we note a trend in the last two years of increasing high risk assets within the investment portfolio (+11% y-o-y both in 2016 and 2015), the main driver of the deterioration in the high risk assets metric between 2016 and 2015 is the 28% increase in 2015 reported shareholders' equity which did not deduct, compared to previous years, the dividend for 2015, therefore contributing to a strong improvement in 2015 metrics. After deducting the dividend on a like for like basis, high risk assets, reinsurance recoverables and goodwill/intangibles increased respectively to 157%, 17% and 12% of equity at YE2015.

Furthermore, at the OPNLI level Moody's notes the historically high equities concentration in the Finnish market, and the meaningful exposure to financials, including banks subordinated debt, in the bonds and bond funds portfolio which has increased further in 2015 and 2016 reaching 39% of the total investment portfolio at fair value at YE2016, before reducing slightly in Q1 2017 to 34%. More positively, we note that in recent years the overall direct exposure to sovereign debt in peripheral countries has materially reduced and at Q1 2017 equities exposure was stable at 8% of the total investment portfolio at fair value. Overall, invested asset risk remains higher than for most of OPIL's Nordic insurance peers. However, at the OPNLI level, invested asset risk (as a % of Solvency Capital under Solvency II) was somewhat stronger (albeit still significant) at approximately 111% as at YE2016 (88% at YE2015).

Capital Adequacy: Baa - RELATIVELY LOW TARGET SOLVENCY II RATIO, WITH MEANINGFUL DIVIDEND PAYMENTS TO PARENT A RECENT FEATURE

OPNLI is targeting a long term solvency ratio of 120% on a Solvency II basis (excluding transitional provisions) which Moody's views as relatively low. Solvency II ratio target was publicly disclosed until Q3 2016 and is now monitored internally. At YE2016, the Solvency II ratio (excluding the effect of transitional provisions) stood at 127% (YE2015 139%) declining from Q3 2016 level of 146% due to the deduction from own funds of the 2016 proposed dividend of EUR200m. Including the effect of transitional provisions Solvency II ratio at YE2016 was 143% (YE2015 158%). At Q1 2017 the Solvency II ratio was 138% excluding the effect of transitional provisions (153% including transitional provisions).

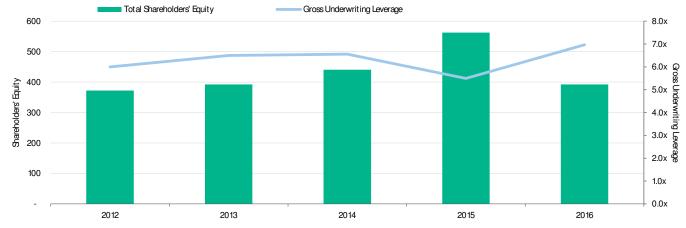
We note that in the past at YE2014 the Solvency II ratio dropped below the target level to 117%, due to the combined impact of lower interest rates and a higher dividend payment. The Solvency II position was later strengthened in Q2 2015 with the issuance of new Tier II subordinated loans of EUR85m.

Meaningful dividend payments to its parent have been a recent feature for OPIL with an average payout ratio in the last 5 years (2016-2012) of 81%, in contrast to capital injections provided to OPNLI during 2008. At YE2016 OPIL's board of directors proposed to distribute a dividend for 2016 of EUR200m (EUR130m in 2015), which represents a payout ratio of 125% (66% in 2015) the highest level in the last 5 years. In 2015 following the issuance of the Tier II subordinated debt, OPIL repaid equity capital for EUR75m. Including the equity repayment the total payout ratio in 2015 was 104%.

At YE2016 reported shareholders' equity declined by 30% to EUR392m compared to YE2015. In contrast to previous years, the 2015 dividend was not deducted from shareholders' equity at YE2015; therefore on a like for like basis, in 2016 reported shareholders' equity declined by 9%.

OPIL's gross underwriting leverage (GUL) deteriorated in 2016 to 7x compared to 5.5x at YE2015, although on a like for like basis after deducting the 2015 dividend, GUL increases to 6.9x at YE2015. GUL reduces back to around 5.2x at YE2016 if the difference between fair value and carrying amount of investments is added to equity.





Source: Company reports, Moody's Investors Service

Moody's also considers OPIL's business to be higher risk than some of its Nordic peers in view of the liability and commercial account orientation, although notes that OPIL has consistently delivered bottom-line profits and has meaningful reinsurance cover.

Profitability: A - VERY GOOD PROFITABILITY AND UNDERWRITING PERFORMANCE, ALTHOUGH HISTORICALLY SUBJECT TO VOLATILITY

OPIL's 2016 five year average return on capital (excluding fair value gains/losses) is an excellent 28% although this has been historically offset by a relatively high volatility due to the impact of investment gains and losses. For example, in the period 2011-2012, ROC was very volatile recording a weak return in 2011 of 4% impacted by fair value investment losses followed by a very strong return in 2012 of 37%. In the last 5 years, the Sharpe ratio, which measures volatility, improved to 382% following more stable returns in the period 2012-2016.

Furthermore, the underwriting environment for Nordic P&C players in recent years has been very favourable. Notwithstanding this, OPNLI's recent underwriting performance has been very good with at YE2016 a reported operating combined ratio of 87.6% (2015: 87.3%). Until Q3 2016, OPNLI had a publicly disclosed target for its operating combined ratio and operating expense ratio of respectively below 92% and 18%. The overall combined ratio, which includes changes in reserving basis and amortization on intangible assets arising from the corporate acquisition, deteriorated slightly to 89.1% (88.8% at YE2015). Moody's notes that at the beginning of 2015 OP Financial Group introduced a new model to calculate operating combined ratio, which now also reflects changes in the discount rate.

At Q1 2017 OPNLI's operating combined ratio increased significantly to 95.5% (88.6% at Q1 2016), driven mainly by the deterioration of the operating combined ratio for the corporate segment. The overall combined ratio also deteriorated to 97% (90.2% at Q1 2016). At YE2016, OPIL reported a slightly improved overall combined ratio of 89.9% (2015: 90.2%) which reduces to 87.3% (87.4%) excluding the unwinding of discount.

At YE2016, OPNLI reported weaker earnings before tax of EUR230m (YE2015: EUR259m), impacted by a lower investment result which reduced by 22% to EUR97m and higher other operating expenses (operating expense ratio increased by 80bps to 18.5%), only partially offset by lower charges as a result of reducing the discount rate for pension liabilities from 2.22% to 1.97% (YE2015: from 2.5% to 2.2%) of EUR55m (EUR62m in 2015). OP Financial Group changed the valuation model for non-life insurance liability in Q1 2015 in such a way that it takes account of a change in the discount rate as one continuously updated variable of an accounting estimate. Earnings before tax at fair value increased in 2016 to EUR298m (EUR171m in 2015) impacted by a EUR68m positive change in fair value reserves compared to a negative change of EUR87m in 2015.

At Q1 2017, OPNLI reported lower earnings before tax of EUR49m (EUR61m at Q1 2016), driven by the combined effect of higher loss ratio (up by 5.3% pts compared to Q1 2016) due to increased price competition in the motor liability insurance segment, higher large claims and by increasing operating expenses (operating expense ratio increased by 1.6% pts to 19.7%) due to higher ICT costs and the expansion of the health and wellbeing business. Net investment income increased by 30% to EUR39m (EUR30m in Q1 2016).

Overall, Moody's considers profitability to be consistent with an A rated company, and going forward, Moody's expects OP Insurance to continue to benefit from the relatively stable market conditions in Finland, despite growth prospects in the corporate segment remaining weak, and its underwriting performance to remain good.

Reserve Adequacy: A - RELATIVELY PREDICTABLE RESERVING ALTHOUGH EXPOSURE TO LONGER-TAIL LINES OF BUSINESS

The reserve adequacy metric is good, driven by a small net reserve deterioration on a weighted average basis of 0.7% of opening net reserves over the last five years, based on IFRS reserve triangles for the 2007-2016 accident years. We note that both in 2016 and 2015 claims development was negative with a reserve strengthening of respectively EUR26m and EUR13m, in contrast to a small reserve release of EUR7m in 2014. However, Moody's notes the presence of longer-tail lines which presents the challenge of associated reserving risk. Moody's also notes that there were methodological changes in the reserving process during 2010 which affected the 2009 vs. 2010 comparative figures.

As has been seen in recent years, OPNLI's reserves are vulnerable to longevity risk and a lowering of the discount rate, the former for example negatively impacting the 2010 combined ratio by 3% points. In light of the low interest rate environment, we expect further

discount rate reductions following the progressive reductions from 3.0% at YE2012 to 1.88% at Q1 2017 which led to a cumulative pre-tax charge of EUR230m. In 2016 the discount rate was lowered to 1.97% from 2.22% with a pre-tax charge of EUR55m. In Q1 2017 the discount rate was further reduced by 9bps to 1.88% with a pre-tax charge of EUR13m.

Financial Flexibility: A - EXCELLENT METRICS ALTHOUGH INCREASED LEVERAGE AND ACCESS TO CAPITAL MARKETS MORE RESTRICTED THAN LISTED PEERS

Overall financial flexibility is considered good. Financial leverage remains relatively low, although increased, at 18.1% at YE2016 (YE2015: 15.1%). On a like for like basis, deducting the 2015 proposed dividend from shareholders' equity, financial leverage increased in 2015 to 17.8%. Financial debt includes a EUR50m internal subordinated loan issued during 2008 to improve the solvency position and more recently a EUR75m Tier II subordinated loan issued during Q2 2015, which replaced equity for the same amount thus increasing leverage by 6% pts during 2015.

The relatively low leverage is reflected in an excellent earnings coverage which on a 5 year average (2012-2016) remains excellent at 52x.

Moody's notes that on a stand-alone basis, none of the OP Insurance non-life companies are listed in their own right. Therefore, access to capital is not viewed as comparable to larger European players.



2014

2015

2016

2013

Source: Company reports, Moody's Investors Service

2012

Other considerations

Nature and Terms of Implicit Support

The A3 IFSR of OPIL receives no uplift as a result of its ownership by OP Financial Group, given the a3 BCA of the banking operation. The adjusted a3 BCA of OP Corporate Bank (including cooperative support) and the a3 BCA of OP Cooperative, which is intended to directly own OP Insurance's non-life business in the future, are used as a reference point for the maximum rating of OPIL. The integration to-date of OP non-life insurance business into OP Corporate Bank and OP Financial Group has been successful and well-managed. However, OP Financial Group's support mechanism in which all the member banks provide each other with joint and several guarantees providing immediate and direct support in case of distress, does not cover, by law, insurance operations.

Rating Methodology and Scorecard Factors

Exhibit 4

Financial Strength Rating Scorecard [1][2]	Aaa	Aa	Α	Baa	Ba	В	Caa	Score	Adjusted Score
Business Profile								Α	Baa
Market Position and Brand (25%)								Aa	Α
- Pelative Market Share Patio			Х						
- Underwriting Expense Patio % Net Premiums Written	17.2%								
Product Focus and Diversification (10%)								Α	Baa
- Product Fisk			Х						
- P&C Insurance Product Diversification		Х							
- Geographic Diversification						Х			
Financial Profile								Α	Α
Asset Quality (10%)								Α	Α
- High Fisk Assets % Shareholders' Equity				168.3%					
- Peinsurance Pecoverable % Shareholders' Equity	13.3%								
- Goodwill & Intangibles % Shareholders' Equity	15.7%								
Capital Adequacy (15%)								Baa	Baa
- Gross Underwriting Leverage				7.0x					
Profitability (15%)								Aa	Α
- Return on Capital (5 yr. avg)	28.5%								
- Sharpe Patio of ROC (5 yr. avg)		381.7%							
Reserve Adequacy (10%)								Α	Α
- Adv./(Fav.) Loss Dev. % Beg. Reserves (5 yr. wtd avg)			0.7%						
Financial Rexibility (15%)								Aa	Α
- Financial Leverage		18.1%							
- Total Leverage		18.1%							
- Earnings Coverage (5 yr. avg)	52.4x								
- Cash How Coverage (5 yr. avg)									
Operating Environment								Aaa - A	Aaa - A
Aggregate Profile								A1	A3

^[1] Information based on IFRS financial statements as of Fiscal YE December 31

Source: Company reports, Moody's Investors Service

Ratings

Exhibit 5

Category	Moody's Rating		
OP INSURANCE LTD			
Rating Outlook	STA		
Insurance Financial Strength	A3		
OP FINANCIAL GROUP			
Rating Outlook	STA		
OP CORPORATE BANK PLC			
Rating Outlook	STA		
Senior Unsecured	Aa3		
Senior Unsecured MTN	(P)Aa3		
Subordinate	Baa1		
Commercial Paper	P-1		
LT Issuer Rating	Aa3		
LT Bank Deposits	Aa3		
Source: Moody's Investors Service			

29 June 2017

^[2] The Scorecard is an important component of the company's published rating, reflecting the stand-alone financial strength before other considerations (discussed above) are incorporated into the analysis

Moody's Related Research

Special reports:

- » Nordic Non-Life Insurance Stability and Underwriting Outperformance to Continue
- » European Non-Life Insurance: Risk of Gradual Deterioration in Underwriting Profit is Increasing
- » EMEA Insurance Monitor
- » Insurance Europe: Lower Interest Rates Accelerate Decline in Profits, Constrain Solvency Ratios

Industry outlook:

» Global P&C Insurance Outlook 2017: Continued Premiums Growth Supported by Economy, but Pricing and Investment Headwinds Remain; Stable Sector Outlook

29 June 2017 OP Insurance Ltd: Semi-Annual Update

© 2017 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-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE HOLDING. OR SALE

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

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

1079909

