

## CREDIT OPINION

17 January 2022

### Update

 Rate this Research

#### RATINGS

##### Chorus Limited

Domicile	New Zealand
Long Term Rating	Baa2
Type	LT Issuer Rating - Fgn 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

Ian Chitterer +61.2.9270.1420  
VP-Sr Credit Officer  
ian.chitterer@moodys.com

Cameron Mar +61.2927.08186  
Associate Analyst  
cameron.mar@moodys.com

Patrick Winsbury +61.2.9270.8183  
Associate Managing Director  
patrick.winsbury@moodys.com

#### CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

## Chorus Limited

### Credit Opinion Update

#### Summary

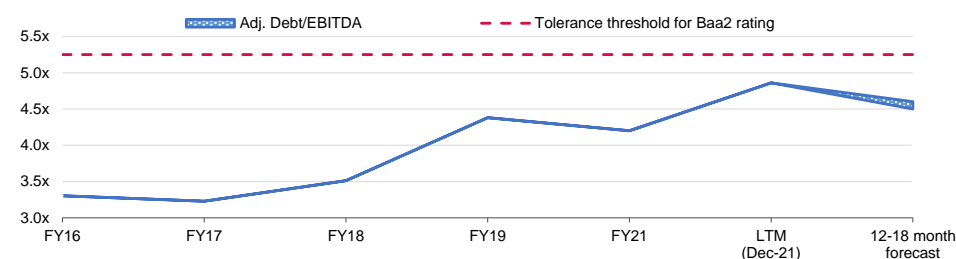
Chorus Limited's (Baa2 stable) credit profile benefits from: (1) its entrenched position in New Zealand's fixed-line access networks and crucial role in the roll-out of the ultra-fast broadband (UFB) network; (2) funding provided by Crown Infrastructure Partners (CIP) to Chorus to partially fund the UFB roll-out, which is a key policy for the New Zealand government; and (3) its transition to a regulated utility model which will improve the predictability of its financial profile.

Elevated capital spending through the UFB build-out process results in negative free cash flow, however, as the UFB roll-out approaches estimated completion in December 2022, capital spending will moderate, and we expect free cash flow (before dividends) to turn positive by fiscal 2023.

Chorus also continues to face competition from local fibre companies and mobile operators offering wireless broadband. We expect the ongoing impact of competition from wireless broadband to be moderate due to the higher cost of mobile data paired with the rise of streaming which supports higher demand for data. Fibre broadband also benefits from performance advantages, including having lower latency as well as being less vulnerable to congestion.

#### Exhibit 1

##### Financial leverage expected to remain below the new tolerance threshold of 5.25x over the next 12-18 months



[1] All figures and ratios are calculated using Moody's estimates and standard adjustments; [2] Moody's forecasts are Moody's opinion and do not represent the views of the issuer; [3] FY19 debt/EBITDA takes into account cash in deposit to prefund debt maturity

Source: Moody's Financial Metrics™, Moody's Investors Service estimates.

## Credit Strengths

- » Entrenched position in New Zealand's fixed-line access networks and crucial role in roll-out of ultra-fast broadband networks
- » CIP securities are supportive of Chorus' leveraged capital structure
- » Transition to regulated utility model will improve revenue predictability

## Credit Challenges

- » Capital expenditure program which is expected to complete by the end of calendar 2022 results in negative free cash flow
- » Competition from local fibre companies and mobile operators

## Rating Outlook

The stable outlook reflects Moody's view that Chorus' credit profile will remain appropriately positioned at Baa2.

## Factors that Could Lead to an Upgrade

The rating could be upgraded if there is a sustained improvement in Chorus' financial profile and change in financial policy such that debt/EBITDA is expected to be sustained at below 4.25x.

## Factors that Could Lead to a Downgrade

The rating could be downgraded if there is a deterioration in Chorus' financial profile with debt/EBITDA increasing above 5.25x.

## Key indicators

Exhibit 2

### Key Indicators Chorus Limited

NZ\$ Millions	Jun-16	Jun-17	Jun-18	Jun-19	Jun-20	Jun-21	12-18 month forecast
Revenue	1,008	1,040	990	970	959	947	920 - 940
FFO Margin %	45.1%	47.0%	51.7%	48.6%	50.7%	56.7%	50% - 52%
(EBITDA - CAPEX) / Interest Expense	0.2x	0.2x	-0.9x	-1.1x	0.0x	0.2x	0.5x - 2.0x
FCF / Debt	-7.7%	-7.5%	-13.2%	-12.8%	-11.1%	-7.2%	-8% - -3%
Debt / EBITDA	3.3x	3.2x	3.5x	4.4x	4.0x	4.2x	4.5x - 4.6x

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. [2] Moody's Forecasts (f) or Projections (p) are Moody's opinion and do not represent the views of the issuer. [3] FY19 debt/EBITDA takes into accounts cash in deposit to prefund debt maturity. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.

Source: Moody's Financial Metrics™; Moody's Investors Service estimates.

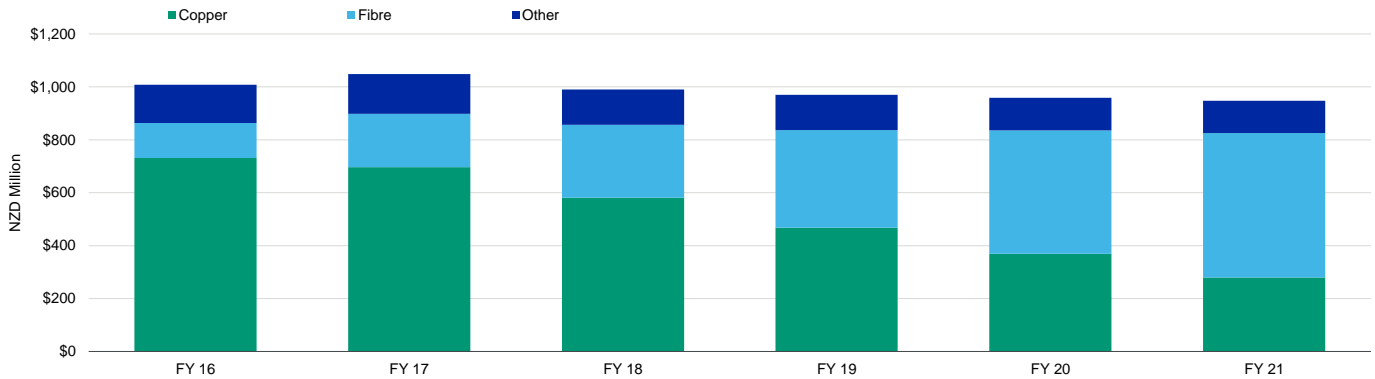
## Profile

Chorus Limited ("Chorus") is a New Zealand Stock Exchange-listed telecommunications utility group. It owns copper and fibre optic fixed-line telecommunications networks in New Zealand, together with exchanges, roadside cabinets, and associated infrastructure. It is a wholesaler of access to these networks.

Chorus is building a fibre-to-the-premises network in New Zealand, with the largest portion of the build, UFB1 being completed in December 2019 and for UFB2, the target date is December 2022. It was appointed by the government's Crown Infrastructure Partners to deliver the majority of its UFB commitment.

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.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

Exhibit 3  
Revenue by segment

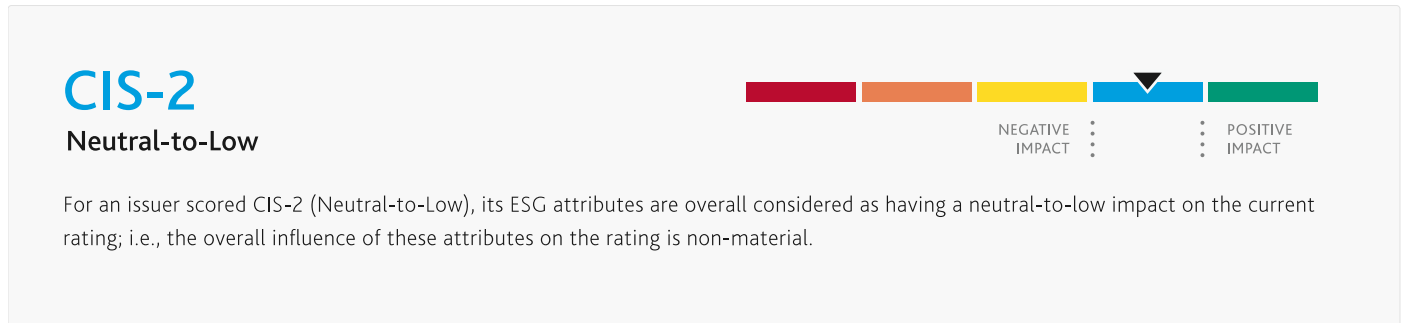


Source: Company reports

## ESG considerations

### CHORUS LIMITED's ESG Credit Impact Score is Neutral-to-Low CIS-2

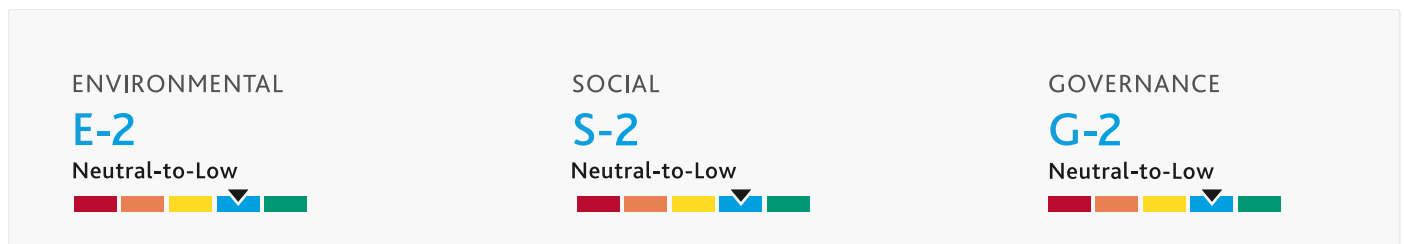
Exhibit 4  
ESG Credit Impact Score



Source: Moody's Investors Service

Chorus Limited's ESG Credit Impact Score is Neutral-to-Low (**CIS-2**). ESG attributes have low credit impact on Chorus' current rating as the company has historically maintained a conservative financial policy. Its management also has a good track record of managing the environmental and social risks and responding to issues appropriately.

Exhibit 5  
ESG Issuer Profile Scores



Source: Moody's Investors Service

## Environmental

The company's environmental risk exposure is low due to the environmental benefits of fiber broadband, which uses materially less electricity than copper and mobile technology, and enables New Zealanders to work more flexibly, reducing carbon emissions associated with commuting.

## Social

In terms of social risks, data privacy, information security and cyber security are key risks in the sector. Telecommunications providers exchange large amounts of data, and a breach could have legal, regulatory or reputation ramifications. We view Chorus as having a lower risk than retail service providers due to lower levels of private data.

## Governance

Chorus has neutral exposure to governance risk. It has a conservative financial policy and an explicit target to maintain a Baa2 rating.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

## Detailed Credit Considerations

### Entrenched position in New Zealand's fixed-line access networks and a crucial role in the roll-out of the ultra-fast broadband network

Chorus' rating reflects its entrenched position in New Zealand's fixed-line copper and fibre markets; and its strategic importance in the UFB initiative having won mandates for around 75% of the total UFB footprint.

In January 2017, Chorus reached an agreement with CIP to expand the UFB rollout, labeled as UFB2, to a further 9% of the population.

In September 2017, UFB2+ was announced, adding a further 2% of the population. This will be completed by December 2022. We see the ongoing increases to Chorus' mandate as indicative of the strong and symbiotic relationship between Chorus and the New Zealand Government.

### CIP securities supportive of Chorus' leveraged capital structure

The government, via CIP issued CIP securities, contributed NZD924 million to Chorus to finance the roll-out of the UFB1, split on a 50% debt : 50% equity basis, with the debt portion further split into senior and subordinated tranches. The structure of this funding is such that there is no interest payable at any time on the debt and no dividend payments before 2025 on the equity.

UFB2 and UFB2+ is expected to be equity funded for the first 75% of the NZD411 million commitment, and thereafter debt funding will be used. The UFB2 and UFB2+ equity securities will only attract a dividend from June 2030, at which time the debt starts to fall due. The proportion of equity that attracts a dividend and debt that becomes due, steps up every three years until June 2036 when the full equity outstanding will be paying a dividend and the debt has been fully repaid.

We view this pre-committed long-term funding as evidence of the intended support by the New Zealand Government for the rollout, which in turn is supportive of Chorus' credit profile.

### Transition to a regulated utility model will improve revenue predictability and stability

The new regulatory regime came into force on 1 January 2022, setting a three-year price-quality path for Chorus. The final decision on the price-quality path was announced on 16th December and contained no major surprises relative to the most recent draft decision. The initial Regulatory Asset Base (RAB) was set at NZD5.425 billion, which includes a Financial Loss Asset (FLA) to recognise losses that Chorus incurred during the rollout of its UFB network. The aggregate Maximum Allowable Revenue (MAR) for the 3 years is NZD2.27 billion split up into NZD690.2 million in 2022, NZD747.4 million in 2023, and NZD789.5 million in 2024 .

Over time, we expect that Chorus will display a utility-like revenue profile, with the majority of the company's revenue subject to regulation. We consider the new regulatory framework to be supportive of Chorus' credit profile because its revenue predictability and stability will improve, allowing Chorus to operate with higher financial leverage at its current Baa2 rating. We have therefore increased Chorus's leverage tolerance threshold to 5.25x

### Capital expenditure to decline as UFB rollout approaches completion

The UFB roll-out had required significant capital spending from Chorus, resulting in continued negative free cash flow over the past decade.

The UFB roll-out is now approaching completion, with capital spending having peaked in fiscal 2019, and it will continue to reduce significantly over the period to fiscal 2024. This is credit positive as free cash flow (before dividends) is expected to turn positive by fiscal 2023.

### Competition from local fibre companies and mobile operators

Chorus continues to face competition from local fibre companies and mobile operators offering wireless broadband. In the first half of fiscal 2021 the retailers were aggressively promoting fixed wireless broadband, resulting in a loss of 6,000 broadband services, but the second half showed a significant improvement with a net increase of 11,000 broadband services.

### Liquidity Analysis

We regard Chorus' liquidity profile as adequate. Primary liquidity sources over the next 12 months include: (1) cash holding of NZD53 million and undrawn bank facilities of NZD210 million as of 30 June 2021; (2) expected operating cash flow of NZD460-480 million; (3) Crown funding of NZD146 million for fiscal 2022.

The above sources of liquidity are expected to be sufficient for expected uses. Expected liquidity uses over the next 12 months include: (1) capital spending of around NZD570 million; and (2) dividends of around NZD75 million. Chorus' next debt maturities will occur in fiscal 2024.

Chorus' **net** debt/EBITDA financial covenant level included in its committed syndicated bank facilities is 4.75x. We expect Chorus to remain comfortably in compliance with its financial covenant. At 30 June 2021, Chorus' reported net debt/ EBITDA was 4.24x based on the bank covenant methodology.

### Rating methodology and scorecard factors

The following table shows Chorus Limited's scorecard-indicated outcome using Communications Infrastructure Industry, with data as of June 30, 2021, and on a forward-looking basis. The rating outcome is two notches above the scorecard-indicated rating.

Exhibit 6

#### Rating Factors Chorus Limited

Communications Infrastructure Industry Scorecard [1][2]			Moody's 12-18 Month Forward View As of 12/8/2021 [3]	
	Current FY 06/30/2021	Score	Measure	Score
<b>Factor 1 : Scale (10%)</b>				
a) Revenue (USD Billion)	\$0.7	B	\$0.6	B
<b>Factor 2 : Business Profile (25%)</b>				
a) Business Model	A	A	A	A
b) Competitive Environment and Business Conditions	A	A	A	A
<b>Factor 3 : Profitability &amp; Efficiency (20%)</b>				
a) FFO Margin	56.7%	Baa	50% - 52%	Baa
<b>Factor 4 : Leverage &amp; Coverage (30%)</b>				
a) (EBITDA - CAPEX) / Interest Expense	0.2x	Ca	0.5x - 2x	B
b) FCF / Debt	-7.2%	Ca	-8% - -3%	Ca
c) Debt / EBITDA	4.2x	Ba	4.5x - 4.6x	Ba
<b>Factor 5 : Financial Policy (15%)</b>				
a) Financial Policy	A	A	A	A
<b>Rating:</b>				
a) Scorecard-Indicated Outcome		Ba1		Ba1
b) Actual Rating Assigned				Baa2

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of FY 6/30/2021

[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 7

Category	Moody's Rating
<b>CHORUS LIMITED</b>	
Outlook	Stable
Issuer Rating	Baa2

Source: Moody's Investors Service

## Appendix

Exhibit 8

### Peer Comparison Chorus Limited

(in US millions)	Chorus Limited Baa2 Stable			CETIN a.s. Baa2 Stable			VECTOR Limited (P)Baa1 Stable		
	FYE Jun-19	FYE Jun-20	FYE Jun-21	FYE Dec-19	FYE Dec-20	LTM Jun-21	FYE Jun-19	FYE Jun-20	FYE Jun-21
Revenue	\$651	\$611	\$658	\$836	\$815	\$825	\$885	\$824	\$889
EBITDA	\$433	\$437	\$472	\$373	\$371	\$398	\$378	\$368	\$447
Total Debt	\$1,900	\$1,781	\$1,998	\$1,144	\$1,225	\$1,205	\$1,810	\$1,898	\$2,172
Cash & Cash Equivalents	\$183		\$37	\$75	\$65	\$42	\$19	\$18	\$12
FFO Margin %	48.6%	50.7%	56.7%	38.5%	40.5%	44.1%	23.2%	26.0%	28.1%
(EBITDA - CapEx) / Interest Expe	-1.1x	0.0x	0.2x	8.9x	7.6x	15.1x	1.1x	0.7x	1.0x
FCF / Debt	-12.8%	-11.1%	-7.2%	0.9%	-0.8%	2.0%	-11.9%	-11.6%	-10.2%
RCF / Debt	14.9%	14.8%	15.8%	18.7%	18.5%	22.4%	5.2%	5.8%	6.2%
DEBT / EBITDA	4.4x	4.0x	4.2x	3.0x	3.1x	3.0x	4.8x	5.1x	4.8x

All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR\* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade.

Source: Moody's Financial Metrics™

Exhibit 9

### Moody's-Adjusted Debt Breakdown Chorus Limited

(in NZ\$ Millions)	FYE Jun-16	FYE Jun-17	FYE Jun-18	FYE Jun-19	FYE Jun-20	FYE Jun-21
<b>As Reported Debt</b>	<b>1,676</b>	<b>1,768</b>	<b>2,050</b>	<b>2,486</b>	<b>2,593</b>	<b>2,637</b>
Operating Leases	35	35	0	0	0	0
Non-Standard Adjustments	299	357	269	344	174	223
<b>Moody's-Adjusted Debt</b>	<b>2,010</b>	<b>2,160</b>	<b>2,319</b>	<b>2,830</b>	<b>2,767</b>	<b>2,860</b>

All figures are calculated using Moody's estimates and standard adjustments.

Source: Moody's Financial Metrics™

Exhibit 10

### Moody's-Adjusted EBITDA Breakdown Chorus Limited

(in NZ\$ Millions)	FYE Jun-16	FYE Jun-17	FYE Jun-18	FYE Jun-19	FYE Jun-20	FYE Jun-21
<b>As Reported EBITDA</b>	<b>601</b>	<b>662</b>	<b>660</b>	<b>646</b>	<b>687</b>	<b>679</b>
Operating Leases	7	7	0	0	0	0
<b>Moody's-Adjusted EBITDA</b>	<b>608</b>	<b>669</b>	<b>660</b>	<b>646</b>	<b>687</b>	<b>679</b>

All figures are calculated using Moody's estimates and standard adjustments.

Source: Moody's Financial Metrics™

© 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's.com](http://www.moody's.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 61 003 399 657 AFSL 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.

## Contacts

Ian Chitterer  
VP-Sr Credit Officer  
ian.chitterer@moodys.com

+61.2.9270.1420

Patrick Winsbury  
Associate Managing  
Director  
patrick.winsbury@moodys.com

+61.2.9270.8183

## CLIENT SERVICES

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