

CREDIT OPINION

12 July 2024

Update



RATINGS

Avvens

, .y	
Domicile	Rueil-Malmaison-Fr, France
Long Term CRR	Not Assigned
Long Term Debt	A1
Туре	Senior Unsecured - Fgn Curr
Outlook	Negative
Long Term Deposit	Not Assigned

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

Analyst Contacts

Guillaume Lucien- +33.1.5330.3350

VP-Senior Analyst

guillaume.lucien-baugas@moodys.com

Mikhail Panasiuk +33.1.5330.3442

Sr Ratings Associate

mikhail.panasiuk@moodys.com

Olivier Panis +33.1.5330.5987

Associate Managing Director olivier.panis@moodys.com

Ayvens

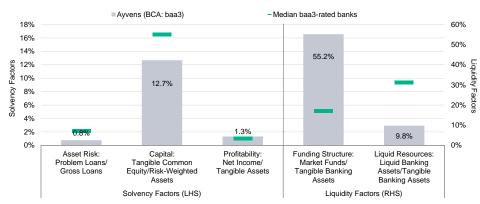
Update to credit analysis following rating action

Summary

Ayvens' long-term issuer and senior unsecured debt ratings of A1 reflect (1) the group's Baseline Credit Assessment (BCA) of baa3, (2) a very high probability of affiliate support from its majority shareholder Société Générale (A1 deposits and senior unsecured debt, negative outlook, baa2 BCA), resulting in an adjusted BCA of baa2, (3) three notches of uplift under our Advanced Loss Given Failure (LGF) analysis, based on the application of its parent Société Générale's resolution perimeter and reflecting the extremely low loss rate that senior debtholders are likely to incur in case of failure, and (4) a moderate probability of support from the Government of France (Aa2, stable outlook) for Ayvens' senior debtholders resulting in one notch of further uplift.

Ayvens' baa3 BCA reflects (1) the strong franchise and leading position of the group in the European car leasing market, (2) its strong ability to generate revenue across the mobility services chain, (3) its large structural exposure to residual value risk on used vehicles, (4) its solid overall capitalisation, (5) its diversified funding profile which will benefit from the ongoing support of Société Générale and (6) its modest on-balance sheet liquid assets in line with its match-funded profile. We believe that operational risks remain elevated in the context of the complex cross-border acquisition of LeasePlan, although the integration is already well underway. Lastly, we apply a negative one-notch adjustment for business diversification, given Ayvens' narrow franchise, as is the case for similar monoline issuers in the car financing business.

Exhibit 1
Rating Scorecard - Key financial ratios



Note: Data as of year-end 2023. Moody's calculated Tangible Common Equity (TCE) differs from the regulatory Common Equity Tier 1 ratio, which was 12.5% at year-end 2023.

Source: Moody's Ratings

Credit strengths

- » Leading franchise in multi-brand car leasing in Europe.
- » Diversified client base with a dominance of large corporate clients across many industries, resulting in strong asset quality.
- » Solid overall capitalisation.
- » Good underlying profitability underpinned by high margins.
- » Well diversified and matched funding profile benefiting from Société Générale's ongoing support.

Credit challenges

- » Monoline business model inherent to automotive lessors.
- » Material exposure to residual-value risk.
- » Structural reliance on wholesale funding.
- » Profitability pressure as higher interest rates hit lease margins and extraordinary profits on used car sales decrease.
- » Increased operational risks linked to the integration of LeasePlan.

Rating outlook

The outlook on Ayvens' long-term issuer and senior unsecured debt ratings is negative, reflecting the outlook on the ratings of its majority shareholder Société Générale.

Factors that could lead to an upgrade

» Ayvens' BCA could be upgraded if operational risks linked to the integration of LeasePlan decreased and if the prospects of high residual value risk in the context of rapidly evolving mobility technologies and regulations were to subside, also resulting in a sustainably higher profitability level.

Factors that could lead to a downgrade

- » Ayvens' BCA could be downgraded if its financial profile were to weaken, possibly owing to (1) the failure to adequately manage residual value risks, resulting in lower capitalisation and profitability; (2) any evidence of deterioration in the bank's funding and liquidity profiles, for example because of wider-than-expected liquidity gaps; or (3) a structural deterioration in profitability.
- » Ayvens' Adjusted BCA and long-term ratings would be downgraded in the case of a downgrade of Société Générale's BCA. They could also be downgraded if we assumed a lower probability of affiliate support resulting from lesser strategic importance of Ayvens for Société Générale, although unlikely at present. In addition, Ayvens' long-term ratings would be downgraded if the rating uplift benefiting Société Générale's senior unsecured debt rating under our LGF analysis were to be lowered.

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

Key Indicators

Exhibit 2

Ayvens (Consolidated Financials) [1]

	12-23 ²	12-22 ²	12-21 ²	12-20 ²	12-19 ²	CAGR/Avg.3
Total Assets (EUR Million)	70,261.1	31,302.3	26,991.4	25,068.7	25,587.9	28.7 ⁴
Total Assets (USD Million)	77,614.3	33,407.3	30,584.1	30,673.0	28,722.4	28.2 ⁴
Tangible Common Equity (EUR Million)	7,273.9	6,094.8	4,142.5	3,519.9	3,391.7	21.0 ⁴
Tangible Common Equity (USD Million)	8,035.2	6,504.7	4,693.9	4,306.8	3,807.2	20.5 ⁴
Problem Loans / Gross Loans (%)	0.5	0.9	0.9	1.0	0.7	0.85
Tangible Common Equity / Risk Weighted Assets (%)	12.7					12.7 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	3.8	3.5	5.0	5.7	4.7	4.5 ⁵
Net Interest Margin (%)	1.6	2.6	3.0	2.8	2.8	2.6 ⁵
PPI / Average RWA (%)	2.2					2.2 ⁶
Net Income / Tangible Assets (%)	1.3	4.1	3.4	2.1	2.3	2.6 ⁵
Cost / Income Ratio (%)	57.0	34.1	37.0	48.0	46.3	44.5 ⁵
Market Funds / Tangible Banking Assets (%)	55.2	65.4	70.4	72.4	73.8	67.4 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	9.8	5.7	2.9	2.4	2.1	4.6 ⁵
Gross Loans / Due to Customers (%)	463.3					463.3 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; IFRS. [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. [5] Simple average of periods for the latest accounting regime. [6] Simple average of Basel III periods.

Sources: Moody's Ratings and company filings

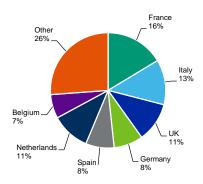
Profile

Ayvens (formerly ALD) is a fleet and vehicle management company based in France with a leading European franchise in full service auto leasing. As of year-end 2023, the company reported a leasing portfolio of €54.6 billion (€25.3bn in 2022). The operated fleet was 3.4 million vehicles at year-end 2023 (1.8 million in 2022), of which 2.7 million were funded by Ayvens and 0.7 million vehicles were under management contracts. The increase in the leasing portfolio is primarily driven by the acquisition of LeasePlan on 22 May 2023, bringing a fleet of 1.6 million vehicles. The combined entity is a financial holding company, subject to European banking regulation and supervised by the European Central Bank. Ayvens now operates in 42 countries through direct presence, employs 14,580 people worldwide and manages 3.4 million vehicles.

Exhibit 3

Ayvens' lease portfolio is largely focused on European countries

Total fleet breakdown in lease value by country as of end-December 2023



Source: Company reports and Moody's Ratings

Ayvens now consolidates the deposit-taking LeasePlan, which has been chartered as a bank since 1993 and has collected online saving deposits in the Netherlands since 2010 and in Germany since 2015. Ayvens will continue to use LeasePlan's bank charter to raise retail deposits on behalf of the group. LeasePlan still has to comply with regulatory capital and liquidity requirements as a bank on a standalone basis. We expect these requirements to be managed centrally at Ayvens' and Société Générale's levels.

Société Générale is Ayvens' majority shareholder with 52.6% of the shares, the remainder being held by the former private equity shareholders (30.8%) and the public (16.6%).

Detailed credit considerations

Strong asset quality reflecting well diversified exposures across industries and geographies, but residual value risk is substantial.

We view Ayvens' asset quality as strong overall, thanks to its focus on leasing to large corporate clients resulting in only modest cost of risk, but with substantial residual value risk typically stemming from operating leases. Our Asset Risk score of baa2 is adjusted by five notches from aa3 to reflect substantial exposure to residual value risk and elevated operational risks linked to the integration of LeasePlan.

Asset quality is supported by (i) its ownership of the leased vehicles, which can be repossessed in case of default; (ii) the focus on large international corporate clients, which account for two thirds of its lease portfolio, (iii) the diversified client base across various industries and (iv) the footprint in many countries throughout Western Europe.

Asset risk can arise from the customer (lessee) defaulting on the repayment of the leased vehicle (monthly instalment for instance), resulting into provisioning costs in the lessor's P&L. We expect Ayvens' cost of risk, which was a moderate 18 basis points (bps) in 2023 (20 bps in 2022) and 25 bps in Q1 2024, to modestly increase as recessionary trends persist. In addition, Ayvens' exposure to the retail sector, comprising small and mid-sized enterprises (SMEs) and private individuals, may also weigh on the cost of risk. The lower cost of risk recorded at LeasePlan in recent years was a consequence of its lower exposure to SMEs/private individuals and its strong market share in large corporates with higher-end cars. In December 2023, Ayvens' doubtful leases represented only 0.5% of gross leases.

Exhibit 4
The cost of risk has been very contained over time, but could slightly deteriorate as recessionary trends persist
Cost of risk in bps of average earning assets

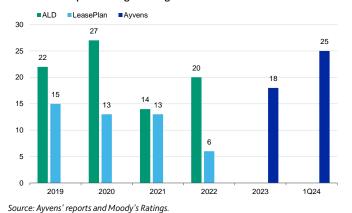
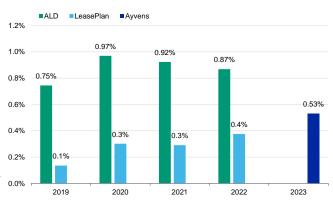


Exhibit 5
Asset quality is strong, which is visible in low historical doubtful lease ratios



Source: Ayvens' reports and Moody's Ratings.

The group is also structurally exposed to substantial residual value risk, which arises from the uncertainty surrounding the future market value of vehicles upon the lease contract termination compared with their book value. The residual values of the total lease portfolios were 32.8 billion for Ayvens at year-end 2023, or 4.5x the Tangible Common Equity of the group.

Although residual values gave rise to significant profits in recent years, they have recently decreased due to increased competition and a decrease in used car prices, an effect amplified by the rise in new car deliveries and their improved affordability. Ayvens currently loses money on electric vehicles sold in 2021-2022 as the price of batteries has since plummeted. As such, the rapid evolution of technologies in the automotive industry can challenge Ayvens' ability to adequately estimate residual values. Nonetheless, Ayvens' multi-brand fleet and its proven track record of residual value management mitigate the risk of losses.

Given the complexity involved with a cross-border acquisition that has doubled Ayvens' size, we also believe that operational risks are elevated even if those risks are moderated by the fact the two firms do the same business.

Solid overall capitalisation with good buffers above capital requirements.

Ayvens has a solid capitalisation overall. Our Capital score of a3 reflects Ayvens' solid regulatory capital ratios and public targets. At end-March 2024, Ayvens reported a Common Equity Tier 1 (CET1) ratio of 12.3%, calculated under the Basel Committee's Standardized Approach of credit risk measurement. Its Total Capital ratio, including Additional Tier 1 (AT1) securities and Tier 2 debt, was 16.4% at year-end 2023. Société Générale plans to maintain Ayvens' CET1 ratio at around 12% and Total Capital ratio at around 16% going forward, with a dividend pay-out ratio target of 50%. These capital ratios leave a solid management buffer above regulatory requirements.

The leverage ratio, which we calculate as Tangible Common Equity divided by Tangible Assets, was 10.9% at year-end 2023, which is very high and illustrates the high regulatory capital risk weights of operating leases under the Standardized Approach. The regulatory Tier 1 leverage ratio was 13.9% at the same date.

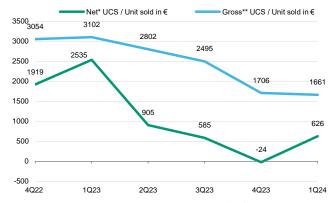
Good profitability, currently affected by normalising used car sales results and restructuring costs

Ayvens exhibits a good profitability overall, as the company enjoys high lease margins and a relatively low cost structure, but profitability can be volatile due to residual value risk. The profitability is supported by a strong capacity to generate revenue across the mobility chain. The group's revenue benefits from comfortable financial margins from the leasing business, profits generated by additional services and end-of-contract results. Our assigned Profitability score of a3 refects the decline in profits made on used car sales as well as lingering pressures on margins and high integration costs.

As expected, used car sales results are currently normalizing after a period of extraordinary profits. Ayvens' profitability was down significantly as a result, with net income representing 1.3% of tangible assets in 2023 versus 4.1% in 2022. In 2024, profits will be affected by restructuring charges and lower used car sales results, but the stabilization of margins of leasing contracts and services, as well as the progressive ramp up of post-acquisition synergies, will help profitability rebound in 2025 and to a greater extent in 2026 as per the company's forecast.

Ayvens identified annual pre-tax cost synergies of €440 million to be delivered by 2026, implying a cost-to-income ratio of 52% for that year, excluding profits from used car sales. The underlying cost-to-income ratio was a high 68% in the first quarter of 2024.

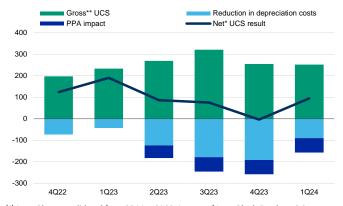
The results from used car sales are declining Used cars sales (UCS) result per unit sold (1) in €



*Including the negative impact of Purchase Price Allocation (PPA) and reduction in deprecation costs. **Prior to the negative impact of reduction in depreciation costs and PPA.

Source: Ayvens' presentations.

Exhibit 7 Used cars sales (UCS) results breakdown, in € millions

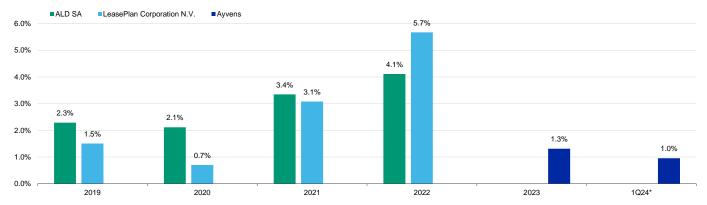


(1) LeasePlan consolidated from 22 May 2023. Impact of LeasePlan's Purchase Price Allocation (PPA) attributed to each quarter since acquisition closing. Source: Ayvens' presentations and Moody's Ratings.

Exhibit 8

Ayvens' profitability was affected by higher interest and inflation rates

Net income /Tangible assets



*1Q24: annualized.

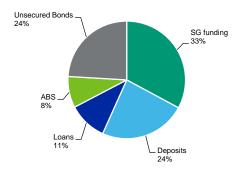
Source: Company reports and Moody's Ratings

Diversified funding profile, benefiting from ongoing support from Société Générale, and adequate liquidity

Our assigned Combined Liquidity score of ba2 is adjusted upward by three notches in order to reflect intragroup funding and access to committed lines from Société Générale.

Ayvens has a diversified funding profile, benefiting from Société Générale's ongoing support. As year-end 2023, the funding consisted of a third provided by Société Générale through the shape of senior bank lending (€16 billion), a quarter of online retail deposits raised by LeasePlan, a quarter of Euro Medium-Term Notes (EMTNs) and the remainder spread between securitization and loans from other financial institutions. Senior non-preferred debt, Tier 2 debt and AT1 securities, which will form part of Ayvens' capital and long-term funding profile, are downstreamed by Société Générale. Ayvens intends to gradually decrease its reliance on Société Générale for funding to 25-30% from 33% currently.

Exhibit 9
SG funding is currently 33% of the total funding, which Ayvens aims to slightly reduce to 25-30%
Breakdown of total funding in %



Source: Ayvens' annual report and Moody's Ratings.

Although on-balance sheet liquidity is modest, Ayvens' actual liquidity is adequate. Ayvens' assets and liabilities are matched-funded, enabling liquidity to remain always positive in a runoff scenario. On-balance sheet liquidity has increased with the integration of LeasePlan because of liquidity requirements at LeasePlan linked to deposit funding and Liquidity Coverage Ratio constraints.

Our assigned BCA is baa3, one notch below the Financial Profile of baa2. We apply a negative adjustment for business diversification, given Ayvens' narrow franchise, as is the case for similar monoline issuers in the car financing business.

ESG considerations

Ayvens' ESG credit impact score is CIS-2

Exhibit 10

ESG credit impact score



Source: Moody's Ratings

Ayvens' **CIS-2** indicates that ESG considerations do not have a material impact on the current rating. Environmental risks are moderate and incorporate the need to transition the fleet to battery electric vehicles. Social risks are high, mainly reflecting the risk related to customer relations, typically linked to business dealings with retail individuals. Governance risk is low, reflecting Ayvens' solid track record of strong financial performance and good management of residual value risk.

Exhibit 11
ESG issuer profile scores



Source: Moody's Ratings

Environmental

The moderate credit exposure of Ayvens to environmental risks reflects the need to transition its very large fleet of rental cars to battery electric vehicles over time, because of stricter environmental regulation and the trend towards low and zero emission vehicles. These vehicles likely have a higher purchase price. At the same time, customers' willingness to pay a higher rate for battery electric vehicles remains uncertain. Residual values for battery electric vehicles could be more volatile, because of potential battery quality issues and battery technology evolution. Ayvens' carbon transition exposure is mitigated by its multi-brand operations, permitting the company to swiftly adapt to evolving client preferences.

Social

Ayvens has high exposure to social considerations. This reflects mainly the customer relations risk that brand image and franchise value can be tarnished by highly publicized customer incidents, particularly in its retail business. It is also exposed to fines and reputational damage due to product mis-selling or other types of misconduct. The need to protect large quantities of customer data also poses a customer relations risk. Ayvens' key product is auto leasing, the demand for which is subject to demographic changes like higher adoption of mass transportation and heightened environmental awareness.

Governance

Ayvens' governance risks are low, despite relatively elevated reliance on its parent for funding and liquidity. The group has well-developed risk management and governance practices in place, in line with industry practices. The management has a solid track

record of strong financial performance and has been able to manage residual value risks adequately. Ayvens' financial strategy and risk management are adequate and the large-scale acquisition of LeasePlan is already well advanced. Ayvens is majority owned by Société Générale, but the regulation and supervision to which the group is submitted mitigate risks from limited board independence.

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.

Support and structural considerations

Affiliate support

We believe that there is a very high probability of extraordinary support by Société Générale viewing its high stake in the new group (52.6%), all the more so since Ayvens' activities have become one of Société Générale's three strategic pillars. This translates into one notch of affiliate support and an Adjusted BCA of baa2, in line with that of Société Générale.

Loss Given Failure (LGF) analysis

Ayvens is subject to the European Union's Bank Recovery and Resolution Directive and is included in Société Générale's resolution scope. Therefore, we apply Société Générale's Advanced LGF analysis to Ayvens' senior creditors, which results in extremely low loss given failure for senior creditors, translating in a three-notch uplift from the Adjusted BCA of baa2.

In our LGF tables below, we present Société Générale's Advanced LGF analysis which drives the loss given failure of Ayvens' senior creditors. Therefore, the balance sheet figures are those of Société Générale, not those of Ayvens.

Government support considerations

We assume a moderate probability of government support in favour of Ayvens' senior creditors, resulting in a one-notch uplift and long-term issuer and senior unsecured debt ratings of A1. In our opinion, Ayvens' senior creditors would benefit from the government support that could be provided to its parent Société Générale in view of its systemic importance.

Rating methodology and scorecard factors

Exhibit 12

Ayvens

Macro Factors	.,			,			
Weighted Macro Profile Strong	100%						
Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2	
Solvency							
Asset Risk							
Problem Loans / Gross Loans	0.8%	aa3	\leftrightarrow	baa2	Non lending credit risk	Quality of assets	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	12.7%	baa1	\leftrightarrow	a3	Nominal leverage		
Profitability							
Net Income / Tangible Assets	1.3%	a3	\leftrightarrow	a3	Expected trend		
Combined Solvency Score		a2		baa1			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	55.2%	b3	\leftrightarrow	ba3	Term structure	Market funding quality	
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	9.8%	ba3	\leftrightarrow	ba1	Access to committed facilities	Additional liquidity resources	
Combined Liquidity Score		b2		ba2		· · ·	
Financial Profile				baa2			
Qualitative Adjustments				Adjustment			
Business Diversification				-1			
Opacity and Complexity				0			
Corporate Behavior				0			
Total Qualitative Adjustments				-1			
Sovereign or Affiliate constraint				Aa2			
BCA Scorecard-indicated Outcome - Range				baa2 - ba1			
Assigned BCA				baa3			
Affiliate Support notching				1			
Adjusted BCA				baa2			

Balance Sheet is not applicable.

Debt Class	De Jure waterfal	ll De Facto water	fall Not	Notching		Assigned	Additiona	al Preliminary
	Instrument Sub- volume + ordinat subordination	Instrument Sub ion volume + ordina subordination	•	De Facto	•	LGF notching	Notching	g Rating Assessment
					Adjusted BCA			
Senior unsecured bank debt			-	-	-	-	-	-
Instrument Class	Loss Given Failure notching	Additional Preli g notching A	minary Rating ssessment		nment notching		Currency ting	Foreign Currency Rating

Senior unsecured bank debt [1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information. Source: Moody's Ratings

A1

Α1

Ratings

Exhibit 13

Category	Moody's Rating
AYVENS	
Outlook	Negative
Baseline Credit Assessment	baa3
Adjusted Baseline Credit Assessment	baa2
Issuer Rating	A1
Senior Unsecured	A1
ST Issuer Rating	P-1
PARENT: SOCIETE GENERALE	
Outlook	Negative
Counterparty Risk Rating	A1/P-1
Bank Deposits	A1/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	baa2
Counterparty Risk Assessment	A1(cr)/P-1(cr)
Issuer Rating	A1
Senior Unsecured	A1
Junior Senior Unsecured	Baa2
Junior Senior Unsecured MTN	(P)Baa2
Subordinate	Baa3
Jr Subordinate MTN -Dom Curr	(P)Ba1
Pref. Stock Non-cumulative	Ba2 (hyb)
Commercial Paper	P-1
Other Short Term	(P)P-1
LEASEPLAN CORPORATION N.V.	
Outlook	Negative
Counterparty Risk Rating	A1/P-1
Bank Deposits -Dom Curr	A1/P-1
Baseline Credit Assessment	baa3
Adjusted Baseline Credit Assessment	baa2
Counterparty Risk Assessment	A1(cr)/P-1(cr)
Issuer Rating -Dom Curr	A1
Senior Unsecured	A1

© 2024 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 OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") 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 MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS 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 MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS 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 OR OTHERWISE MAKES AVAILABLE ITS MATERIALS 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 MATERIALS 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 MATERIALS 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. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS 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 credit rating process or in preparing its Materials.

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. 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, Inc. 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 — Charter Documents - Director and Shareholder Affiliation

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

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

REPORT NUMBER

1409947

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454