

## **CREDIT OPINION**

4 December 2018

#### New Issue



Rate this Research

#### RATINGS

#### Mediobanca S.p.A.

Domicile	Italy
Long Term CRR	Baa1
Туре	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	Baa1
Туре	LT Bank Deposits - Fgn Curr
Outlook	Stable

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.

#### Contacts

Lorenzo Gren +33.1.5330.1055 Associate Analyst lorenzo.gren@moodys.com

Fabio lannò +33.1.5330.3356 VP-Sr Credit Officer

fabio.ianno@moodys.com

Alain Laurin +33.1.5330.1059

Associate Managing Director alain.laurin@moodys.com

Nick Hill +33.1.5330.1029

MD-Banking

nick.hill@moodys.com

#### **CLIENT SERVICES**

Americas 1-212-553-1653 Asia Pacific 852-3551-3077 Japan 81-3-5408-4100

# Mediobanca S.p.A.

Update to credit analysis

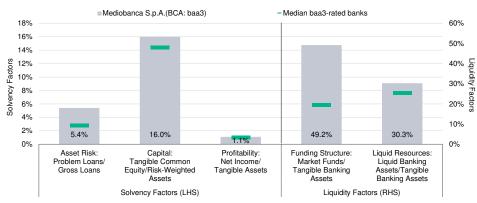
# Summary

<u>Mediobanca S.p.A.</u>'s Baa1 long-term issuer and deposit ratings reflects the bank's standalone creditworthiness (baa3), very low loss-given-failure for both debt classes, and our assessment of a low probability of government support. The outlook on the long-term issuer and deposit ratings is stable.

The bank's baa3 standalone baseline credit assessment (BCA) reflects the bank's good capitalisation, sound and diversified profitability, as well as its reliance on wholesale funding, and high borrower concentration. The BCA also takes account of the bank's large stake in <u>Assicurazioni Generali S.p.A.</u> (Generali, Insurance Financial Strength rating Baa1, stable outlook). This exposes Mediobanca to idiosyncratic risk, mitigated in part by the liquidity of the investment and its contribution to earnings.

Mediobanca's long-term deposits rating was downgraded to Baa1 from A3 on 23 October 2018 following the downgrade on <a href="Italy">Italy</a> to Baa3/stable outlook of 19 October 2018 as, according to our methodology, deposit ratings are typically constrained to two notches above the sovereign bond rating.

Exhibit 1
Rating Scorecard - Key Financial Ratios



Source: Moody's Financial Metrics

# **Credit strengths**

- » Adequate capitalisation, with large buffers over prudential requirements
- » Sound and diversified profitability

# **Credit challenges**

- » High reliance on wholesale funding
- » High borrower concentration and large stake in Generali

#### **Outlook**

The stable outlook on Mediobanca's long-term issuer rating reflects our expectation that the bank's main financials will remain broadly stable in the next 12-18 months, and that the Italian and European economy will continue to grow at a moderate pace.

The outlook on Mediobanca's Baa1 long-term deposit rating is stable, reflecting the stable outlook on Italy's sovereign bond rating (Baa3/stable). In accordance with our Banks methodology, deposit ratings are typically constrained to two notches above the sovereign bond rating, reflecting our view that the expected loss of rated bank instruments is unlikely to be significantly below that of the sovereign's own debt.

# Factors that could lead to an upgrade

An upgrade of Mediobanca's ratings and assessments is unlikely as they are currently capped by Italy's sovereign rating. Moody's does not typically rate a bank's BCA above the sovereign rating, and the long-term ratings more than two notches above the sovereign rating.

# Factors that could lead to a downgrade

Mediobanca's BCA could be downgraded if reliance on capital market activities were to increase; if capital ratios decreased materially; or if its dependence on short-term wholesale funding were to rise. A downgrade of the BCA could lead to a downgrade of Mediobanca's issuer ratings.

Mediobanca's ratings and assessments could also be downgraded following a downgrade of Italy's sovereign debt rating.

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.

# **Key indicators**

Exhibit 2
Mediobanca S.p.A. (Consolidated Financials) [1]

	6-18 <sup>2</sup>	6-17 <sup>2</sup>	6-16 <sup>2</sup>	6-15 <sup>2</sup>	6-14 <sup>2</sup>	CAGR/Avg. <sup>3</sup>
Total Assets (EUR million)	69,940	67,958	66,155	66,669	65,647	1.6 <sup>4</sup>
Total Assets (USD million)	81,658	77,509	73,495	74,283	89,881	-2.4 <sup>4</sup>
Tangible Common Equity (EUR million)	8,140	7,685	7,235	6,913	6,559	5.5 <sup>4</sup>
Tangible Common Equity (USD million)	9,504	8,766	8,037	7,703	8,980	1.44
Problem Loans / Gross Loans (%)	5.2	5.5	5.5	6.2	5.9	5.7 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	16.0	13.8	12.4	10.9	10.4	12.7 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	23.1	23.9	24.7	28.5	28.6	25.8 <sup>5</sup>
Net Interest Margin (%)	2.1	2.0	1.9	1.8	1.6	1.9 <sup>5</sup>
PPI / Average RWA (%)	2.0	1.7	1.5	1.6	1.5	1.7 <sup>6</sup>
Net Income / Tangible Assets (%)	1.3	1.1	0.9	0.9	0.7	1.0 <sup>5</sup>
Cost / Income Ratio (%)	53.6	56.8	54.1	47.2	47.1	51.8 <sup>5</sup>
Market Funds / Tangible Banking Assets (%)	49.2	49.8	59.1	57.6	58.6	54.9 <sup>5</sup>
Liquid Banking Assets / Tangible Banking Assets (%)	30.3	32.7	29.9	31.3	31.5	31.2 <sup>5</sup>
Gross Loans / Due to Customers (%)	207.2	203.7	249.0	250.7	246.9	231.5 <sup>5</sup>

[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 due to scale of reported amounts. [4] Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [5] Simple average of periods presented for the latest accounting regime. [6] Simple average of Basel III periods presented.

Source: Moody's Financial Metrics

#### **Profile**

Mediobanca is a medium-sized financial group with total assets of €72.3 billion as of June 2018, including a 13% stake in European insurer Generali valued at around €3.2 billion. Its main divisions are:

- » Corporate and Investment Banking (CIB), which focuses on lending, capital market activities, and advisory services to large corporate clients. Mediobanca is one of the main CIB players in Italy; its clients are usually large Italian corporates with an international footprint. Mediobanca recently started purchasing Italian distressed loans at deep discounts through its subsidiary MB Credit Solutions, and its proprietary portfolio in September 2018 amounts to around €5 billion.
- » Consumer Banking, mostly through its subsidiary Compass, one of the largest consumer credit companies in Italy. This division operates only in Italy in the following main products areas: unsecured consumer loans, secured personal loans with a direct pledge on the borrower's salary, auto- financing, credit cards, and other consumer loans for the purchase of specific goods. Mediobanca distributes its consumer finance products through (i) other banks and the postal network, (ii) its own branch network and (iii) agents. In August 2018 Compass signed an agreement to acquire a 19.9% stake in Indonesian independent consumer credit operator BFI Finance, but the deal has not yet been finalized.
- » Wealth Management, which includes retail banking through subsidiary CheBanca! (deposits and residential mortgages, unrated), the new "Mediobanca Private" brand, which focuses on high net worth individuals, and Monaco-based private bank Compagnie Monegasque de Banque (unrated). Recently CheBanca! has focused on growing its wealth management business, targeting in particular affluent clients.
- » Principal Investing, which now mostly consists of the bank's 13% share in Generali valued at around €3.2 billion; all other investments in this division are valued at less than €0.8 billion in the bank's books, and are being reduced.
- » Holding Function, which includes all general costs, asset and liability management (ALM), treasury, and leasing business.

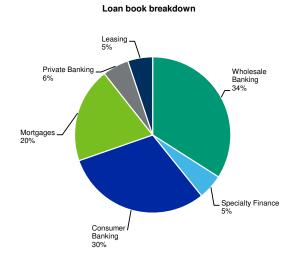
Exhibit 3

Mediobanca has a diversified business model

Main assets and loan book breakdown

# Stake in Generali 4% Cash and securities 26%

Main assets breakdown



Source: Moody's Investors Service, Bank's reports

Loans to customers

# **Detailed credit considerations**

#### Diversified corporate clients base

The weighted Macro Profile for Mediobanca is Strong -, reflecting its strong presence in Italy (Moderate +), but also its exposure to large cross-border companies that operate in the European Union (Strong). Furthermore, it takes account of Generali's international footprint, with only 33% of Generali's premiums generated in Italy.

#### Moderate asset risk

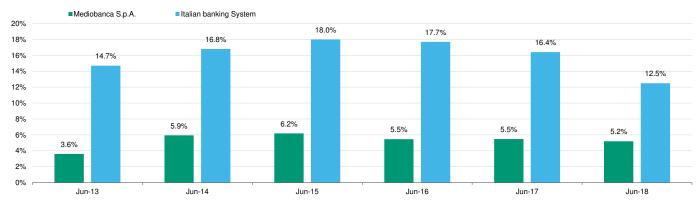
We assess Mediobanca's asset risk as moderate, as indicated by our ba2 score, one notch below the ba1 Macro Adjusted score to reflect the relatively high level of concentration in Mediobanca's loan book.

Mediobanca's problem loans at end-June 2018 accounted for 5.2% of gross loans, a level much lower than the Italian system average of 12.5% at the same date, although higher than the European Union average of below 4%, according to European Banking Authority's data. The coverage ratio is adequate at 68% and compares well with other domestic and international banks.

Our ba2 score also reflects:

- » High risk yet granular in the consumer credit portfolio
- » Low risk yet concentrated corporate loan book, with a small stock of problem loans (exhibit 4)
- » Strict underwriting procedures and a good track record in managing credit risk
- » Idiosyncratic risk resulting from the stake in Generali, which is equivalent to a relatively high around 40% of Mediobanca's Tangible Common Equity (TCE)
- » Moderate market risk:
  - Level 3 assets represent 5% of Mediobanca's Tangible Common Equity (TCE): this is significantly higher than the average for commercial banks, but modest compared to investments banks
  - Trading activities are oriented more towards lower risk securities than complex products

Exhibit 4
Problem loans are much lower than Italian average
Problem Loans % Gross Loans



Source: Moody's Investors Service, Bank of Italy

#### Adequate capitalisation, with large buffers over prudential requirements

Our assessment of Mediobanca's capital is baa1, two notches below the a2 macro adjusted score to reflect our expected trend for the bank's capital ratios, including the bank's strategy to grow through acquisitions, even though the bank has good track record of internal capital generation capabilities thanks to its sound profitability.

Mediobanca reported a 14.24% CET1 ratio and a total capital ratio of 18.1% as of end-June 2018, which Moody's considers to be adequate and largely above its minimum CET1 prudential requirement of 7.63%. The adoption of IFRS 9 had a negative impact of 20 basis points on the fully-loaded CET1 ratio. The bank estimates that without the so-called "Danish compromise" its pro-forma CET1 ratio would be 13.1%, but the bank expects this negative impact to be offset by the sale of a 3% share in Generali, which would bring its stake to, or below 10%.

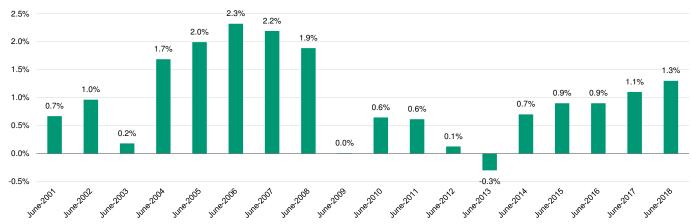
Mediobanca's capital is less sensitive to volatility in Italian sovereign bond prices than other Italian banks. The banks disclosed that an increase in 100 basis points in government spread leads to a decrease in its CET1 ratio of just 8 basis points.

#### Sound and diversified profitability

Our score for Mediobanca's profitability is baa3, one notch below our macro adjusted score. The assigned score reflects our medium-term view on Mediobanca's return on tangible assets once it has reduced its stake in Generali below 10%, as principal investing currently accounts for over one-third of Mediobanca's net profit.

In the last three years, Mediobanca reported an average return on tangible assets of about 110 bps, which is sound in the Italian and European contexts. Furthermore, despite a challenging operating environment, particularly in Italy, Mediobanca has a good track record of generating profits (exhibit 5). Since 2001 the bank has reported only one net annual loss (in 2013). This was driven by losses on the disposal of large stakes in companies, rather than by loan impairments, trading losses, restructuring costs, or conduct-related fines.

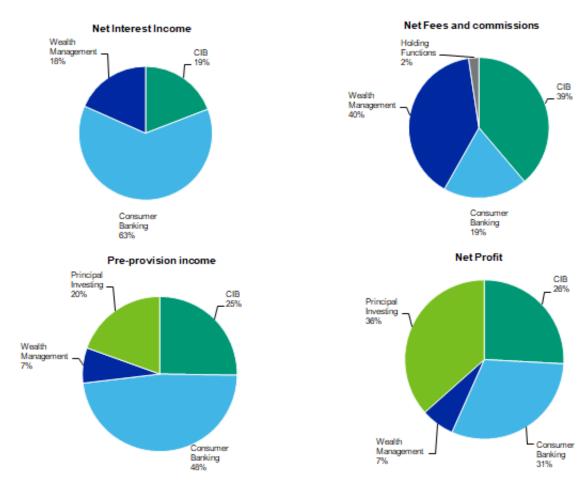
Exhibit 5
Good track record of profits
Returns on Tangible Assets



Source: Moody's Investors Service, Bank's reports

We believe that Mediobanca's business model of different activities has supported the bank's more stable earnings compared to peers. The bank has also significantly expanded its retail business over the next years though the growth of its retail bank subsidiary CheBanca!. Nevertheless, the high concentration in Generali, which makes a sizeable contribution to Mediobanca's consolidated earnings (exhibit 6), represents a material dependence on non-cash earnings outside Mediobanca's full control.

Exhibit 6 Income's breakdown by business line



Source: Moody's Investors Service, Bank's reports

#### High reliance on wholesale funding

Our score for Mediobanca's funding structure is b1, one notch above the b2 macro adjusted score. Our adjustment reflects the overall short maturity of the bank's assets.

Despite Mediobanca's efforts in recent years to increase its share of more stable deposit funding through the creation of retail bank CheBanca! in 2008, the bank is still highly reliant on wholesale funding. At end-June 2018, market funds were around 49% of tangible banking assets, in line with the average for recent years. Mediobanca's reliance on less dependable wholesale funding is the key risk for the bank.

This is partially mitigated by the maturity profile of its funding, the short duration of its loan book, and a large stock of assets that could be pledged against additional funding from the European Central Bank (ECB), which amounts to €4.3 billion at end-June 2018, mostly n the form of TLTROs.

Mediobanca's liquid resources score is baa1, one notch below the a3 macro adjusted score to reflect expected trends, and the bank's large stock of assets eligible for repo transactions with the ECB. The bank reported a Liquidity Coverage Ratio of 186% at end-June 2018.

# Support and structural considerations

#### **Loss Given Failure Analysis**

Mediobanca is subject to the EU Bank Recovery and Resolution Directive, which we consider to be an operational resolution regime. Our analysis assumes residual tangible common equity of 3% and losses post-failure equivalent to 8% of tangible banking assets, a 25% run-off in junior wholesale deposits, a 5% run-off in preferred deposits and 26% of junior deposits over total deposits. These assumptions are in line with our standard assumptions. Furthermore, we expect that deposits will in practice rank above senior debt in a resolution, given the introduction of full deposit preference in Italy in 2019.

Under these assumptions, Mediobanca's deposits are likely to face very low loss-given-failure, owing to the loss absorption provided by the residual equity that we expect in resolution, subordinated debt and senior unsecured debt, as well as the volume of deposits themselves. This is supported by the combination of deposit volume and subordination, and the constraint indicated in our methodology according to which deposit ratings are typically constrained to two notches above the sovereign bond rating. This results in an uplift of two notches from the bank's baa3 BCA to the deposit rating.

We believe that Mediobanca's senior unsecured debt is likely to face very low loss-given-failure, owing to the loss absorption provided by the residual equity that we expect in resolution, and by subordinated debt, as well as the volume of senior unsecured debt itself. This results in an uplift of two notches from the bank's baa3 BCA.

#### Counterparty risk ratings (CRRs)

Moody's Counterparty Risk Ratings (CRRs) are opinions on the ability of entities to honour the uncollateralised portion of non-debt counterparty financial liabilities (CRR liabilities) and also reflect the expected financial losses in the event that such liabilities are not honoured. CRR liabilities typically relate to transactions with unrelated parties. Examples of CRR liabilities include the uncollateralised portion of payables arising from derivative transactions and the uncollateralised portion of liabilities under sale and repurchase agreements. CRRs are not applicable to funding commitments or other obligations associated with covered bonds, letters of credit, guarantees, servicer and trustee obligations, and other similar obligations that arise from a bank performing its essential operating functions

#### Mediobanca's CRRs are positioned at Baa1/Prime-2

Mediobanca's CRRs are two notches above the baa3 BCA. In accordance with our Banks methodology, CRRs are typically constrained to two notches above the sovereign bond rating, reflecting the agency's view that the expected loss of rated bank instruments is unlikely to be significantly lower that of the sovereign's own debt.

The Baa1 CRRs of Mediobanca do not include any further uplift resulting from our expectations for low probability of government support.

#### Counterparty risk assessment

Counterparty Risk (CR) Assessments are opinions of how counterparty obligations are likely to be treated if a bank fails, and are distinct from debt and deposit ratings in that they (1) consider only the risk of default rather than both the likelihood of default and the expected financial loss, and (2) apply to counterparty obligations and contractual commitments rather than debt or deposit instruments. The CR Assessment is an opinion of the counterparty risk related to a bank's covered bonds, contractual performance obligations (servicing), derivatives (for example, swaps), letters of credit, guarantees and liquidity facilities.

#### Mediobanca's CR Assessment is positioned at Baa2(cr)/Prime-2(cr)

This is one notch above the bank's standalone BCA of baa3.

According to our methodology, CR Assessments do not typically exceed by more than one notch the rating of the sovereign in which the bank is domiciled, reflecting our view that the probability of default of counterparty obligations is unlikely to be significantly below that of the sovereign's own debt.

The uplift to Mediobanca's CR Assessment derives from the cushion against default provided to the operating obligations by substantial bail-in-able debt and deposits. The main difference with our Advanced LGF approach used to determine instrument ratings is that the CR Assessment captures the probability of default on certain senior obligations, rather than expected loss, therefore we focus purely on subordination and take no account of the volume of the instrument class

#### **Government support considerations**

We assess the probability of government support to Mediobanca's depositors and senior bondholders as Low.

Mediobanca is a modestly sized bank domestically, and not a key participant in global financial markets. As such we think it unlikely that its debt or deposits would benefit from government support.

## **About Moody's scorecard**

Our Scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our Scorecard may materially differ from what suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The Scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

# Rating methodology and scorecard factors

Exhibit 8

Mediobanca S.p.A.

**Macro Factors** 

Weighted Macro Profile Strong - 100%

Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency	Ratio	Jeore	TTETIG			
Asset Risk						
Problem Loans / Gross Loans	5.4%	ba1	$\leftarrow \rightarrow$	ba2	Single name concentration	
Capital						
TCE / RWA	16.0%	a2	$\leftarrow \rightarrow$	baa1	Expected trend	Stress capital resilience
Profitability						
Net Income / Tangible Assets	1.1%	baa2	$\downarrow$	baa3	Expected trend	
Combined Solvency Score		baa2		baa3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	49.2%	b2	$\leftarrow \rightarrow$	b1	Term structure	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	30.3%	a3	$\leftarrow \rightarrow$	baa1	Expected trend	
Combined Liquidity Score		ba2		ba1		
Financial Profile				baa3		
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint:				Baa3		
Scorecard Calculated BCA range	baa2-ba1					
Assigned BCA	baa3					
Affiliate Support notching	0					
Adjusted BCA				baa3		

Balance Sheet	in-scope	% in-scope	at-failure	% at-failure	
	(EUR million)	-	(EUR million)		
Other liabilities	32,493	47.0%	34,585	50.0%	
Deposits	20,513	29.7%	18,421	26.6%	
Preferred deposits	15,180	21.9%	14,421	20.8%	
Junior Deposits	5,333	7.7%	4,000	5.8%	
Senior unsecured bank debt	11,627	16.8%	11,627	16.8%	
Dated subordinated bank debt	2,471	3.6%	2,471	3.6%	
Equity	2,075	3.0%	2,075	3.0%	
Total Tangible Banking Assets	69,179	100%	69,179	100%	

**FINANCIAL INSTITUTIONS** MOODY'S INVESTORS SERVICE

Debt class	De Jure v	De Jure waterfall De Facto waterfall		Notching		LGF	Assigned	Additiona	l Preliminary	
	volume +			Instrument Sub- on volume + ordination subordination		De Jure De Facto		LGF notching	notching	Rating Assessment
Counterparty Risk Rating	29.2%	29.2%	29.2%	29.2%	2	2	2	2	0	baa1
Counterparty Risk Assessment	29.2%	29.2%	29.2%	29.2%	1	1	1	1	0	baa2 (cr)
Deposits	29.2%	6.6%	29.2%	23.4%	2	2	2	2	0	baa1
Senior unsecured bank debt	29.2%	6.6%	23.4%	6.6%	2	2	2	2	0	baa1

Instrument class	Loss Given	Additional Preliminary Rating		Government	Local Currency	Foreign
	Failure notching	Notching	Assessment	Support notching	Rating	Currency Rating
Counterparty Risk Rating	2	0	baa1	0	Baa1	Baa1
Counterparty Risk Assessment	1	0	baa2 (cr)	0	Baa2 (cr)	
Deposits	2	0	baa1	0	Baa1	Baa1
Senior unsecured bank debt	2	0	baa1	0	Baa1	Baa1

<sup>[1]</sup> Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.

Source: Moody's Financial Metrics

# **Ratings**

Exhibit 9

EXHIBIT 9	
Category	Moody's Rating
MEDIOBANCA S.P.A.	
Outlook	Stable
Counterparty Risk Rating	Baa1/P-2
Bank Deposits	Baa1/P-2
Baseline Credit Assessment	baa3
Adjusted Baseline Credit Assessment	baa3
Counterparty Risk Assessment	Baa2(cr)/P-2(cr)
Issuer Rating	Baa1

Source: Moody's Investors Service

© 2018 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. HOLD ING, OR SAIF.

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.

CREDIT RATINGS AND MOODY'S 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 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 <a href="https://www.moodys.com">www.moodys.com</a> 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 1147793

#### **CLIENT SERVICES**

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

