

## CREDIT OPINION

3 April 2024

Update



Send Your Feedback

### RATINGS

#### Banca Sella Holding S.p.A.

Domicile	Biella, Italy
Long Term CRR	Baa2
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Withdrawn
Type	Senior Unsecured - Dom Curr
Outlook	Rating(s) WithDrawn
Long Term Deposit	Baa3
Type	LT Bank Deposits - 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

Fabio Iannò +331.5330.3356  
VP-Sr Credit Officer  
fabio.ianno@moodys.com

Giorgio Violetta +331.5330.3410  
Ratings Associate  
giorgio.violetta@moodys.com

Alain Laurin +331.5330.1059  
Associate Managing Director  
alain.laurin@moodys.com

### CLIENT SERVICES

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

## Banca Sella Holding S.p.A.

### Update to credit analysis

#### Summary

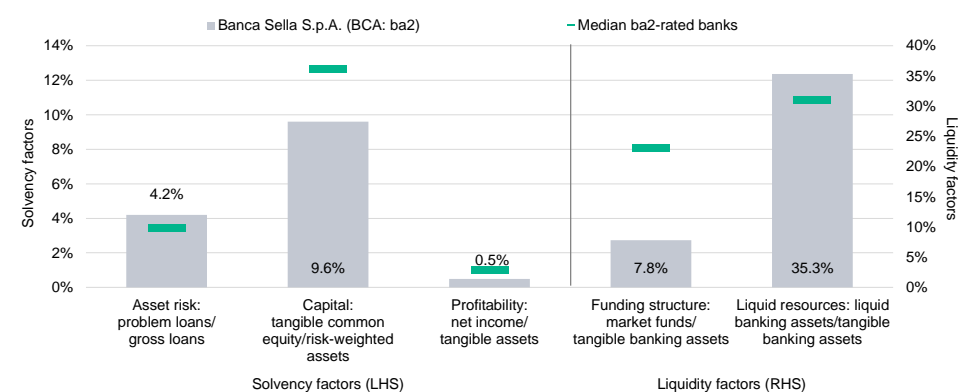
[Banca Sella Holding S.p.A.](#)'s (Sella; Baa3 stable) long-term deposit rating reflects [Banca Sella S.p.A.](#)'s (Banca Sella, Baa3 stable, ba2) Baseline Credit Assessment (BCA) of ba2 and a very low loss given failure under our Advanced Loss Given Failure (LGF) analysis, which results in two notches of uplift from the BCA.

Banca Sella's BCA reflects its focus on small and medium-sized enterprises (SMEs) lending as well as its significant role in the domestic payment services relative to the size of the bank and its moderate stock of nonperforming loans (NPLs). The BCA also reflects Banca Sella's sound retail funding and strong level of liquidity, its modest profitability and capitalisation.

Sella's deposit ratings also factors in a low probability of support from the [Government of Italy](#) (Baa3 stable), which results in no further rating uplift.

#### Exhibit 1

#### Rating Scorecard - Key financial ratios



Data as of June 2023, based on consolidated financials  
Source: Moody's Ratings

## Credit strengths

- » Strong retail funding profile
- » High stock of liquid assets

## Credit challenges

- » High exposure to small and medium-sized enterprises (SMEs)
- » Weak capitalisation

## Outlook

The stable outlook on the long-term deposit ratings of Banca Sella reflects our expectation of broadly stable capitalisation, asset quality, profitability and funding over the next 12 to 18 months. The stable outlook on these ratings is also driven by the stable outlook on Italy's sovereign debt rating. The outlook on Sella's deposit ratings is stable as it is aligned with the outlook of Banca Sella.

## Factors that could lead to an upgrade

Banca Sella's deposit ratings could be upgraded following an upgrade of the BCA. An upgrade of the bank's BCA would be driven by a significant improvement in asset quality or a material strengthening of its capital position.

The deposit ratings could also be upgraded if the bank were to significantly increase its outstanding amount of bail-in-able debt. Sella's deposit ratings would be upgraded if the deposit ratings of Banca Sella are upgraded.

## Factors that could lead to a downgrade

A downgrade of Banca Sella's BCA of ba2 would likely lead to a downgrade of its deposit ratings. The BCA could be downgraded in case of a significant deterioration in the bank's asset quality, capital and profitability.

The deposit ratings could also be downgraded if the bank's volume of deposits was to significantly reduce. Sella's deposit ratings would be downgraded if the deposit ratings of Banca Sella are downgraded.

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.moody's.com> for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 2

### Banca Sella Holding S.p.A. (Consolidated Financials) [1]

	06-23 <sup>2</sup>	12-22 <sup>2</sup>	12-21 <sup>2</sup>	12-20 <sup>2</sup>	12-19 <sup>2</sup>	CAGR/Avg. <sup>3</sup>
Total Assets (EUR Million)	21,381.0	20,335.5	20,478.6	17,846.1	15,004.1	10.6 <sup>4</sup>
Total Assets (USD Million)	23,326.7	21,703.0	23,204.4	21,835.7	16,842.1	9.8 <sup>4</sup>
Tangible Common Equity (EUR Million)	989.7	910.2	849.7	767.5	757.8	7.9 <sup>4</sup>
Tangible Common Equity (USD Million)	1,079.8	971.4	962.8	939.1	850.6	7.1 <sup>4</sup>
Problem Loans / Gross Loans (%)	3.3	3.5	4.3	5.7	6.9	4.7 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	9.6	9.1	8.3	8.0	7.9	8.6 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	29.8	32.6	37.9	47.5	54.0	40.4 <sup>5</sup>
Net Interest Margin (%)	2.7	--	1.4	1.5	1.7	1.8 <sup>5</sup>
PPI / Average RWA (%)	3.4	2.2	1.7	1.3	1.3	2.0 <sup>6</sup>
Net Income / Tangible Assets (%)	0.8	0.5	0.4	0.2	0.3	0.4 <sup>5</sup>
Cost / Income Ratio (%)	70.0	76.0	79.4	82.9	82.4	78.2 <sup>5</sup>
Market Funds / Tangible Banking Assets (%)	11.4	7.8	13.1	11.8	4.4	9.7 <sup>5</sup>
Liquid Banking Assets / Tangible Banking Assets (%)	38.3	35.3	41.5	40.7	34.4	38.1 <sup>5</sup>
Gross Loans / Due to Customers (%)	68.3	65.1	63.6	65.4	69.8	66.4 <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 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

Banca Sella Holding S.p.A. is the parent company of a small banking group based in the north-west of Italy with total consolidated assets of €21.8 billion as of December 2023. This is a universal bank that provides a broad range of financial services, including commercial banking, leasing, insurance, asset management, fund management, private banking, payment systems, brokerage and consumer finance. The bank benefits from a significant market share in payment services in Italy relative to its size, having a market share in the merchant acquiring and issuing businesses of 8.98% and 2.23%, respectively as of December 2022.

Sella group operates in Italy through a network of more than 300 branches, including its head office and the branches of its subsidiaries, Banca Sella S.p.A. (285) and Banca Patrimoni Sella & C. S.p.A. (26) as of June 2023. Sella group has developed open banking activities and services for the financial industry and a digital bank (called Hype) in a 50:50 joint venture with illimity Bank S.p.A. (illimity).

Sella group was set up in 1886 with the formation of Banca Gaudenzio Sella & Co., a limited partnership established by members of the Sella family. The current name of the parent company was adopted in March 2008. The group is almost fully owned by the Sella family.

## Detailed credit considerations

### BCA of the bank based on consolidated financials of the group

Banca Sella's BCA is based on the consolidated financials of the group since the bank accounts for around 80% of assets held by Sella Holding S.p.A.. We therefore consider the two entities as not analytically distinguishable in an event of default.

### Weak combined solvency could undermine Sella's liquidity

We currently position Banca Sella's BCA of ba2 at the low end of our scorecard range. This reflects the bank weak combined solvency to which we assign a higher weight in our methodology, reflecting that the bank's strong metrics on liquidity and funding do not compensate for its weak solvency.

### Good asset quality but high exposure to SME segment

We assign an Asset Risk score of ba3, three notches below the initial Macro-Adjusted score. The score reflects the bank's non-performing loans ratio but also its limited franchise despite diversified activities, and the bank's concentration on SME lending.

As of December 2023, the bank reported a non-performing loan ratio of 3.0%, moderately improving from 3.5% as of December 2022. This improvement was mainly driven by the sale of gross €62 million of non-performing loans in the first half of 2023 and by moderate

lending growth. Sella's problem loan ratio is slightly higher than the Italian banking system average of 2.8% as of June 2023<sup>1</sup>. We expect asset quality to moderately deteriorate in the next 12 to 18 months in a volatile economic environment, with still high inflation and high interest rates. The coverage of non-performing loans as of the end of December 2023 decreased to 48.8% from 49.5% as of December 2022, this was mainly due to the disposal of more covered NPL positions in 2023 and greater share of secured loans. Sella's coverage is still below the Italian average of 54.3% as of September 2023<sup>2</sup>.

Lending to the SME segment accounts for around one-third of the total loan book which amounted €11.4 billion as of June 2023, although this is mainly in the economically stronger north of Italy, and is mitigated by good sectors diversification. Sella's investments in Italian government bonds also account for a significant share of the bank's assets, representing around 17.5% of total assets, slightly below the Italian banks' average of around 20% as of June 2023<sup>3</sup>.

### Moderate capitalisation

We assign a ba3 Capital score to Sella, one notch below the Macro-Adjusted score of ba2 to reflect expected risk-weighted assets (RWA) from the bank's growth strategy and some moderate weakening in borrowers creditworthiness in the high interest rates environment. Sella's Moody's-adjusted tangible common equity (TCE/RWA) as of June 2023 was 9.6%, which is materially lower than the bank's CET1 ratio because of the bank's exposure to the Italian government bond holdings, to which we apply a 50% risk weight according to our Banks methodology<sup>4</sup>.

As of December 2023, Sella's CET1 capital ratio stood at 13.36%, up 15 basis points (bps) from 13.21% as of December 2022. The CET1 still compares unfavourably with the Italian average as of June 2023 of 15.6% according to the Bank of Italy<sup>5</sup>.

The bank's capital ratio is well above the CET1 regulatory requirement of 7.65% including a 4.5% Pillar I requirement, a capital conservation buffer of 2.5% and a 0.65% Pillar II requirement based on the Supervisory Review and Evaluation Process (SREP).

### Moderate profitability

We assign a profitability score of ba3 to Sella, one notch below the initial Macro-Adjusted score, to reflect our expectation that Sella's profitability will be under moderate pressure from loan loss provisions and a relatively high operating cost structure.

Sella reported a net income of €149 million in 2023, corresponding to a return on assets of 0.68%, which however included approximately €16 million net non-recurring gain from the sale to Sesa group of the open finance services. Recurring net income for the period would therefore be €133 million, higher than €109.5 million reported a year earlier. This result was mainly driven by the hike in net interest income (+49% year-over-year, [YoY]) driven by the higher interest rates, and higher net fees and commission income (+6.5% YoY) mainly thanks to the increase in volumes in the payment business (+19.2% YoY). Compared with banks of similar size, Sella's revenue is well diversified; fee and commission income accounted for around 43% of its revenue in 2023 increasing to about €435 million from €408 million a year earlier.

Higher revenues were partially offset by higher operating costs (+11.7% YoY) due to inflationary pressure and increase in the workforce and higher loan loss provisions (+21.2% YoY) mainly following deteriorated macroeconomic assumptions for the computation of forward-looking provisions.

Moody's-calculated cost-to-income ratio in June 2023 improved to 70% from 73.9% as of June 2022, but still reflects a high administrative cost base, which also included large investment costs mainly on new technologies. The improvement in the ratio is primarily driven by an increase in revenues higher than the dynamic growth of costs.

Sella reported a cost of risk of 39 bps as of December 2023, well below the expected 70 bps implied in the 2023-2025 business plan. However, we expect the higher inflow of problem loans and NPL disposals to require higher provisioning in 2024. We expect in particular the volatile economic environment coupled with high inflation to weigh on Sella's SME loan book quality.

### Strong retail funding profile and large stock of liquid assets

We assign a Funding Structure score of a3, which is in line with the initial Macro-Adjusted score, reflecting the bank's strong retail deposit base, and strong liquidity, which has so far limited the need to issue bonds in the wholesale markets.

As of June 2023, Sella's wholesale funding represented around 11.4% of its funding needs, and was mainly made of the European Central Bank's (ECB) targeted longer-term refinancing operations (TLTRO III) borrowing. In the first half of 2023, after having repaid

€0.9 billion TLTRO III in 2022, the bank had €1.3 billion in ECB TLTRO III funding outstanding. In February 2023, Sella issued its first €100 million green bond in the market.

Sella's liquid resources score is baa2, two notches below the initial Macro-Adjusted score, to reflect some asset encumbrance. Sella's liquidity is a key strength, accounting for 38.3% of its tangible banking assets as of June 2023. The structural excess liquidity is mainly invested in highly liquid domestic sovereign debt. In addition, Sella has a portfolio of government bonds amounting to €3.4 billion as of June 2023, with a total of €2.8 billion classified at amortized cost.

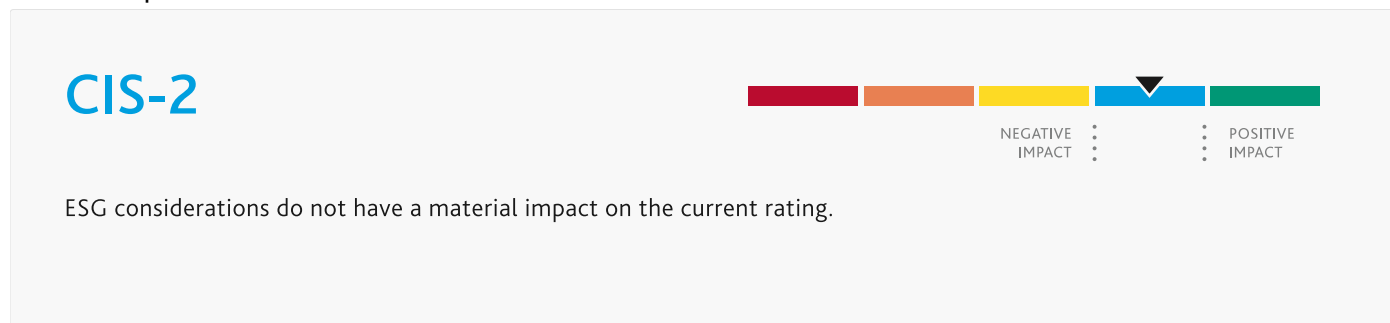
As of December 2023, the bank reported a liquidity coverage ratio (LCR) of 230.83% and a net stable funding ratio (NSFR) of 142.90%. We expect the LCR to be maintained at good levels even after the full repayment of TLTRO III.

## ESG considerations

### Banca Sella Holding S.p.A.'s ESG credit impact score is CIS-2

Exhibit 3

#### ESG credit impact score



Source: Moody's Ratings

ESG scores and narratives are aligned with those of Banca Sella S.p.A.. Banca Sella's **CIS-2** indicates that ESG considerations do not have a material impact on current ratings.

Exhibit 4

#### ESG issuer profile scores



Source: Moody's Ratings

### Environmental

ESG scores and narratives are aligned with those of Banca Sella S.p.A.. Banca Sella faces moderate exposure to environmental risks primarily because of its portfolio exposure to carbon transition risks as a diversified bank operating in Italy. In line with its peers, Banca Sella is facing mounting business risks and stakeholders' pressure to meet more demanding carbon transition targets. In response, Banca Sella has taken steps to further develop its comprehensive risk management and climate risk reporting frameworks.

### Social

ESG scores and narratives are aligned with those of Banca Sella S.p.A.. Banca Sella faces high industrywide social risks related to regulatory risk and litigation exposure, in particular in the area of customer relationships, and is required to meet high compliance

standards. These risks are mitigated by the bank's developed policies and procedures. High cyber and personal data risks are mitigated by a sound IT framework.

### Governance

ESG scores and narratives are aligned with those of Banca Sella S.p.A.. Banca Sella faces low governance risks, and its risk management, policies and procedures are in line with industry practices. Banca Sella is controlled by a single family, therefore exposed to potential excessive influence by the family over the board. This risk is mitigated by the high number of independent board members and Italy's developed institutional framework. Moreover, Sella family's interests are concentrated in banking activities hence the risk entailed with related party exposures is negligible.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.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

### Loss Given Failure (LGF) analysis

Sella is subject to the EU Bank Recovery and Resolution Directive, which is an operational resolution regime. Our analysis assumes a residual TCE of 3%, post-failure losses of 8% of tangible banking assets, a 25% runoff in junior wholesale deposits, a 5% runoff in preferred deposits and 26% of junior deposits over total deposits. These assumptions are in line with our standard assumptions. Furthermore, we take into account the full depositor preference, whereby junior deposits are preferred over senior debt creditors in accordance with a law decree introducing full depositor preference in Italy starting from 2019.

Our LGF analysis indicates that Sella and Sella Holdings's deposits are likely to face a very low loss given failure, leading to an uplift of two notches above the Adjusted BCA. This is because of the loss absorption provided by the residual equity that we expect in resolution, the subordinated and senior unsecured debt, and the volume of junior deposits.

### Government support considerations

There is a low likelihood of government support for Sella's debt and rated wholesale deposits in the event of its failure, which results in no uplift. This probability reflects the bank's position in the Italian market, with Sella being significantly smaller than the country's two largest banks.

### Counterparty Risk (CR) Assessment

#### Sella's CR Assessment is Baa2(cr)

The long-term CR Assessment of Baa2(cr) is three notches above the bank's standalone BCA, based on the substantial buffer against default provided by substantial subordinated instruments to the senior obligations represented by the CR Assessment. The low probability of government support does not result in any further uplift.

### Counterparty Risk Ratings (CRRs)

#### Sella's CRRs are Baa2

The long-term CRRs of Baa2 are three notches above the bank's standalone BCA. The uplift derives from the buffer against default provided to the operating obligations by substantial bail-in-able debt and deposits. The low probability of government support does not result in any further uplift.

## Rating methodology and scorecard factors

Exhibit 5

Banca Sella Holding S.p.A.

<b>Macro Factors</b>							
<b>Weighted Macro Profile</b>		<b>Strong - 100%</b>					
<b>Factor</b>	<b>Historic Ratio</b>	<b>Initial Score</b>	<b>Expected Trend</b>	<b>Assigned Score</b>	<b>Key driver #1</b>	<b>Key driver #2</b>	
Solvency							
Asset Risk							
Problem Loans / Gross Loans	4.2%	baa3	↔	ba3	Geographical concentration	Sector concentration	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	9.6%	ba2	↔	ba3	Expected trend	Nominal leverage	
Profitability							
Net Income / Tangible Assets	0.5%	ba2	↔	ba3	Expected trend	Earnings quality	
Combined Solvency Score		ba1		ba3			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	7.8%	a3	↔	a3			
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	35.3%	a3	↔	baa2	Stock of liquid assets	Asset encumbrance	
Combined Liquidity Score		a3		baa1			
Financial Profile				ba1			
Qualitative Adjustments				Adjustment			
Business Diversification				0			
Opacity and Complexity				0			
Corporate Behavior				0			
Total Qualitative Adjustments				0			
Sovereign or Affiliate constraint				Baa3			
BCA Scorecard-indicated Outcome - Range				baa3 - ba2			
Assigned BCA				ba2			
Affiliate Support notching				0			
Adjusted BCA				ba2			
<b>Balance Sheet</b>		<b>in-scope (EUR Million)</b>	<b>% in-scope</b>	<b>at-failure (EUR Million)</b>	<b>% at-failure</b>		
Other liabilities		4,454	21.1%	6,043	28.6%		
Deposits		15,582	73.6%	13,992	66.1%		
Preferred deposits		11,530	54.5%	10,954	51.8%		
Junior deposits		4,051	19.1%	3,038	14.4%		
Senior unsecured bank debt		308	1.5%	308	1.5%		
Dated subordinated bank debt		181	0.9%	181	0.9%		
Equity		635	3.0%	635	3.0%		
Total Tangible Banking Assets		21,159	100.0%	21,159	100.0%		

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF Notching Guidance vs. Adjusted BCA	Assigned LGF notching	Additional Notching	Preliminary Rating Assessment
	Instrument volume + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto				
Counterparty Risk Rating	19.7%	19.7%	19.7%	19.7%	3	3	3	3	0	baa2
Counterparty Risk Assessment	19.7%	19.7%	19.7%	19.7%	3	3	3	3	0	baa2 (cr)
Deposits	19.7%	3.9%	19.7%	5.3%	2	2	2	2	0	baa3

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Assessment	3	0	baa2 (cr)	0	Baa2(cr)	
Deposits	2	0	baa3	0	Baa3	Baa3

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

Source: Moody's Ratings

## Ratings

Exhibit 6

Category	Moody's Rating
<b>BANCA SELLA HOLDING S.P.A.</b>	
Outlook	Stable
Counterparty Risk Rating	Baa2/P-2
Bank Deposits	Baa3/P-3
Counterparty Risk Assessment	Baa2(cr)/P-2(cr)
<b>BANCA SELLA S.P.A.</b>	
Outlook	Stable
Counterparty Risk Rating	Baa2/P-2
Bank Deposits	Baa3/P-3
Baseline Credit Assessment	ba2
Adjusted Baseline Credit Assessment	ba2
Counterparty Risk Assessment	Baa2(cr)/P-2(cr)

Source: Moody's Ratings

## Endnotes

- [1 Financial Stability Report N.2, 2023 - Bank of Italy](#)
- [2 European Banking Authority - Risk Dashboard 3Q2023.](#)
- [3 European Banking Authority - Risk Dashboard 2Q2023.](#)
- See [Moody's Adjustment to Increase the Risk Weightings of Sovereign Debt Securities in the Analysis of Banks: Frequently Asked Questions](#), published in September 2013.
- [5 Financial Stability Report N.2, 2023 - Bank of Italy](#)



© 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.moody.com](http://www.moody.com) under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

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 Clasificadora 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.

## CLIENT SERVICES

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