

CREDIT OPINION

14 June 2016

Update

Rate this Research



RATINGS

Credit du Maroc

Domicile	Morocco
Long Term Rating	Ba2
Туре	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

Olivier Panis	9714-237-9533
VP-Senior Credit	
Officer	
olivier.panis@moodys.com	

Constantinos 357-2569-3009 Kypreos

VP-Sr Credit Officer

constantinos.kypreos@moodys.com

Alexios Philippides 357-2569-3031 AVP–Analyst

alexios.philippides@moodys.com

Jean-Francois 44-20-7772-5653 Tremblay

Associate Managing

jean-francois.tremblay@moodys.com

Sean Marion 44-20-7772-1056

Managing Director -Financial Institutions sean.marion@moodys.com

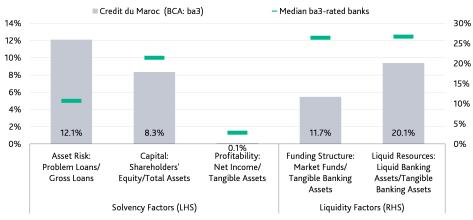
Credit du Maroc

Summary Rating Rationale

The Ba1/NP local deposit ratings of Crédit du Maroc (CdM) currently incorporate two notches of uplift from the bank's ba3 baseline credit assessment (BCA), based on our assessment of a high likelihood of affiliate support in the event of need, from its French parent bank – Crédit Agricole S.A. (CASA, deposits A2 positive, BCA ba1). Although we also assume a very high probability of government support, CdM's ratings do not receive any further uplift. Furthermore, Moody's has assigned a Counterparty Risk Assessment (CR Assessment) of Baa3(cr)/P-3(cr).

CdM's standalone ba3 BCA is driven by (1) weak profitability metrics in recent years, although we expect pressures to ease after the bank reorganized its commercial activities and increased its provisioning effort; (2) our expectation that CdM's asset quality will improve in the medium term, despite the recent deterioration; (3) the bank's moderate capital buffer; and (4) its stable deposit base that supports its funding profile.





Source: Moody's Financial Metrics

Credit Strengths

- » Moderate- Macro Profile supports the bank's rating
- » Moderate capitalisation in light of relatively modest provisioning coverage and high albeit decreasing credit concentrations
- » Funding profile underpinned by a stable deposit base
- » High likelihood of parental support (in case of need)

Credit Challenges

Weak profitability metrics, but pressures expected to ease

Weak asset quality metrics, but we expect an improvement over the next 12-18 months

Rating Outlook

CdM's ratings carry a stable outlook in line with the stable operating conditions and outlook on the sovereign rating.

Factors that Could Lead to an Upgrade

Upwards pressure on CdM's ratings could develop following (1) a significant strengthening of CdM's capital buffers; (2) a reduction in single-name concentrations; and (3) material improvements in the domestic operating environment, notably existing competitiveness challenges that constrain economic growth potential.

Factors that Could Lead to a Downgrade

Downward pressure on CdM's ratings could develop following (1) a deterioration in the operating environment, leading to an acceleration in non-performing loan (NPL) formation, which would erode the bank's profitability and capital; (2) intensifying liquidity pressures; or (3) a weakening in the capacity of CdM's parent bank to provide support.

Key Indicators

Exhibit 2
Credit du Maroc (Consolidated Financials) [1]

12-15 ²	12-14 ²	12-13 ²	12-12 ²	12-11 ²	Avg.
51383.6	49061.9	50247.6	47799.5	46876.4	2.3 ³
5181.8	5413.4	6156.2	5650.2	5469.0	-1.3 ³
4110.1	4164.5	4044.9	3453.6	3173.5	6.7 ³
414.5	459.5	495.6	408.2	370.2	2.9 ³
12.1	12.3	10.3	8.4	8.3	10.34
63.7	63.5	59.2	53.7	57.4	59.5 ⁴
3.3	3.3	3.3	3.6	3.8	3.5 ⁴
0.1	0.5	0.6	0.7	0.7	0.54
58.8	54.5	54.2	50.9	49.6	53.6 ⁴
11.7	10.7	13.5	16.4	15.8	13.6 ⁴
20.1	22.7	22.8	21.8	21.2	21.7 ⁴
105.7	103.5	107.9	112.6	111.3	108.24
	51383.6 5181.8 4110.1 414.5 12.1 63.7 3.3 0.1 58.8 11.7 20.1	51383.6 49061.9 5181.8 5413.4 4110.1 4164.5 414.5 459.5 12.1 12.3 63.7 63.5 3.3 3.3 0.1 0.5 58.8 54.5 11.7 10.7 20.1 22.7	51383.6 49061.9 50247.6 5181.8 5413.4 6156.2 4110.1 4164.5 4044.9 414.5 459.5 495.6 12.1 12.3 10.3 63.7 63.5 59.2 3.3 3.3 3.3 0.1 0.5 0.6 58.8 54.5 54.2 11.7 10.7 13.5 20.1 22.7 22.8	51383.6 49061.9 50247.6 47799.5 5181.8 5413.4 6156.2 5650.2 4110.1 4164.5 4044.9 3453.6 414.5 459.5 495.6 408.2 12.1 12.3 10.3 8.4 63.7 63.5 59.2 53.7 3.3 3.3 3.3 3.6 0.1 0.5 0.6 0.7 58.8 54.5 54.2 50.9 11.7 10.7 13.5 16.4 20.1 22.7 22.8 21.8	51383.6 49061.9 50247.6 47799.5 46876.4 5181.8 5413.4 6156.2 5650.2 5469.0 4110.1 4164.5 4044.9 3453.6 3173.5 414.5 459.5 495.6 408.2 370.2 12.1 12.3 10.3 8.4 8.3 63.7 63.5 59.2 53.7 57.4 3.3 3.3 3.3 3.6 3.8 0.1 0.5 0.6 0.7 0.7 58.8 54.5 54.2 50.9 49.6 11.7 10.7 13.5 16.4 15.8 20.1 22.7 22.8 21.8 21.2

[1] All figures and ratios are adjusted using Moody's standard adjustments [2] Basel II; IFRS [3] Compound Annual Growth Rate based on IFRS reporting periods [4] IFRS reporting periods have been used for average calculation

Source: Moody's Financial Metrics

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.

Detailed Rating Considerations

CdM's RATINGS ARE SUPPORTED BY ITS MODERATE- MACRO PROFILE

CdM operates in Morocco and benefits from the country's relatively strong and sustained growth over the past several years; its industrial policy agenda that supports the development of higher-value-added exporting sectors; the coherent and sound economic policies and a high degree of political stability and the country's limited susceptibility to external risks. Nonetheless, operating conditions are also impacted by Morocco's significant structural rigidities in terms of purchasing power, unemployment and competitiveness.

Our view of Moroccan banks' operating environment also incorporates (1) the historical volatility of credit growth in the country, underpinned by volatile agricultural output and the dependence of exporting industries on European economic growth, and (2) banks' increasing exposure to higher risk Sub-Saharan Africa regions. These risks are somewhat mitigated by the gradual strengthening of bank supervision and macroprudential regulation in Morocco under the recently adopted banking law in 2014. Moroccan banks benefit from relatively stable funding, consisting primarily of customer deposits.

WEAK PROFITABILITY METRICS BUT PRESSURES EXPECTED TO EASE

CdM's profitability metrics have deteriorated in recent years. As of December 2015, the pre-provision income-to-average total assets ratio stood at 1.8%, with the net income-to-average assets ratio at 0.15% (December 2011: 2.3% and 0.7%, respectively). In 2015, net income amounted to MAD 81.8 million (\$ 8.5 million), a yearly decline of 65.5% which follows a 15% and 20% profit reduction in 2014 and 2013, respectively.

Whilst prior to 2014 the pressure on the bank's profitability was underpinned by the impact of higher interest rates and the relative increase in term deposits on the cost of resources, since 2014 the bank maintained a stable net interest margin at around 3.3%, supported by the focus on relatively low-cost sources of funding such as savings and current accounts although the bank increased the level of term deposits in 2015. However, the profitability of the bank in 2014 and 2015 was impacted by a slow-down of the lending activity (gross loans reduced by 3.5% in 2014) in a context of a complete reorganization of the sales and product teams, designed to improve the commercial efficiency and the customer service. Although the bank reinitiated gradually lending growth in 2015 (+5.5%), positive associated effects on profitability are expected in 2016. Despite the stabilization of the operating environment, the bank continued to maintain a relatively high provisioning effort (loan loss provisions consumed 70% and 60% of pre-provision income in 2015 and 2014 respectively). Finally, the reduction in the bank's profits also reflected (1) a 27% drop in market activity revenues in line with the rest of the market in a context of unchanged interest rates in 2015 and (2) a one-off tax adjustment that we don't expect to see recurring.

Over the next 12 to 18 months, we expect profitability to remain weak but pressures to ease as we estimate that (1) the reorganization exercise will provide the bank with higher and more stable revenue generation, benefiting profitability metrics (net income to tangible assets is estimated at 0.5% as of March 2016; (2) the cost efficiency of the bank (cost-income ratio of 58% as of 2015) to improve with a number of identified strategic actions aiming at reducing cost of operations; (3) the cost of risk has likely reached a peak in 2015 with provisioning having increased at a higher pace (+7%) than problem loans (+5.1%) during 2014-2015 and (4) the falling interest rates in 2016 will boost market activity revenues.

CdM's earnings generating capacity is, however, supported by its well-established domestic franchise, both in corporate and retail banking. CdM is Morocco's sixth-largest bank, with approximately 5% of total banking assets in a concentrated banking system, where the three largest banks account for around two thirds of system loans. In recent years, CdM has focused on growing its retail franchise – particularly mortgages – and invested in its branch network and staff. The bank leverages its network of 346 branches to source inexpensive current and savings deposits resulting in strong net interest margin. As of December 2015, current and saving accounts represented 82% of total client deposits (at the same level as of December 2014).

CdM also benefits from CASA's strong brand name and customer referrals, including the use of CASA's network in France to attract business from Morocco's expatriate community. From an operating perspective, the French group is also making available its experience in specialised business lines such as investment banking, consumer finance, insurance, factoring and more sophisticated

treasury products. We also view positively the integration of CdM's risk and financing governance within CASA's framework, which provides a solid control framework in line with the development of international norms.

WEAK ASSET QUALITY METRICS, BUT WE EXPECT AN IMPROVEMENT OVER THE NEXT 12 TO 18 MONTHS

CdM's asset-quality metrics have steadily deteriorated over recent years. As of December 2015, NPLs accounted for 12.2% of total loans (December 2014: 12.3%), well above the estimated system average of 7.2% in 2015. In line with previous year, the year-on-year growth in the volume of NPLs was mainly driven by an increase in the volume of corporate NPLs due to the classification of some large legacy corporate loans in the agriculture and real estate sectors in particular.

A strong agricultural season in 2015 boosted Morocco's real GDP growth to 4.4%. For 2016, the expected below average agricultural season due to droughts will lead to a reversal in the primary growth contribution and thus expect overall real GDP growth to slowdown at 2.5% in 2016 before picking back-up to 4.5% in 2017. Morocco's economy will continue to be affected by volatile primary sector's output and the weak, albeit improving, European growth (the EU attracts 60% of Morocco's exports). However solid FDI inflows and the encouraging results of the National Industrial Growth Plan on the country's industrial growth should be supporting, among other factors, a higher economic expansion. Our macro-economic forecasts, combined with the conservative provisioning approach applied by the bank in the last two years on the corporate and SME portfolios (NPL coverage at 74% as of December 2015 is among the highest in the market and in line with global peers with a ba3 BCA), and the increasing focus on retail lending activities (around 40% of gross loans as of December 2015) should stabilise CdM's asset quality metrics in the medium term (next 12 to 18 months).

MODERATE CAPITALISATION IN LIGHT OF RELATIVELY MODEST PROVISIONING COVERAGE AND HIGH - ALBEIT DECREASING - CREDIT CONCENTRATIONS

As at December 2015, CdM's reported Tier 1 and Capital Adequacy ratios increased respectively to 10.7% and 13.6% (December 2013: 9.3% and 13.2%) mainly resulting from the capital increases that occurred in 2013 and 2014, the majority of which through conversion of share dividends, and bringing the Tier 1 capital on a consolidated basis to MAD 4.1 billion as of December2015 (year-end 2012: MAD 3.5 billion). In light of the low profitability performance of the bank in 2015 constrained by high provisioning efforts, capital increase was modest. However we still believe the bank's main shareholder (Credit Agricole S.A. ba1 BCA/ A2 long term rating) will continue supporting its growth and increase in market share. The bank's reported Tier 1 ratio (in accordance with central bank requirements which allow for 0% risk weighting of Moroccan government bonds) stood well above the 9% regulatory minimum implemented in 2013 and compared well with the estimated system average of 11.6% as of December 2014. We consider these levels to be moderate, in light of the 12.1% median Tier 1 ratio for global peers with a BCA of ba3, and the high single-name client concentrations (2.6x Tier 1 capital), which – although decreasing - render the bank vulnerable to event risk in case a large borrower defaults. The bank increased in recent years its provisioning efforts with loan loss reserves reaching 74% of NPLs as of December 2015 (68.9% in 2014), exceeding the 65% Moroccan system average and now in line with global peers with a BCA of ba3. However the bank's problem loans continue to represent a very high, albeit decreasing, proportion of its loss absorption buffers, at around 62% of its shareholders' equity and loan loss reserves as of December2015, which is partly mitigated by a high level of collateralization of corporate NPLs which reduces the loss expectations on the loan portfolio.

We expect the bank's capital ratios to remain broadly stable over the next 12 to 18 months as credit growth will be marginal in a context of low Moroccan credit growth. Whilst persisting pressure on asset quality and profitability represent a downside risk to capitalisation, we also note the bank's consistent efforts to reduce its risk concentration, with top 10 credits representing around 19% of total credits in 2015 versus 35% in 2010, which, combined with the active provisioning of the large corporate segment in 2013-2015, should mitigate that risk.

FUNDING PROFILE UNDERPINNED BY A STABLE DEPOSIT BASE

CdM is predominantly deposit funded, with customer deposits accounting for 75% of assets as of December 2015. The bank maintains a relatively solid and stable funding structure, with current and saving accounts representing around 82% of total deposits as of December 2015 (versus 67% on average in Morocco) and the top 20 depositors representing only 6.1% of total deposits during the same period. Despite tightening liquidity in the Moroccan banking system, CdM grew its current account and savings account deposit

base by 4% in 2015 (2.5% in 2014), primarily from retail depositors, although increasing its higher cost term deposits by 1.3% during the same period.

With the pick up in lending activity of 6.1% in 2015 (-3.5% in 2014) growing faster than the capture of new deposits (+4% in H1 2015) the gross loans-to-deposit ratio to increased to 105.7% as of December 2015 (December 2014: 103.5%). Market funding remained limited, and accounted for 11.7% of tangible banking assets (10.7% as of December 2014). We expect the bank's funding profile to remain broadly stable over the next 12-18 months, despite the intensifying competition for deposits in the Moroccan market.

CdM's liquidity buffers remain robust, with the liquid assets-to-total assets ratio at 20.1% as of December 2015 (December 2014: 22.7%). As a result of its integration within the CASA group, CdM's Basel III Liquidity Coverage Ratio is already in line with the group definition and exceeds (by a significant margin) the 100% ratio that will be required in Morocco by 2019.

SOURCE OF FACTS AND FIGURES CITED IN THIS REPORT

Unless noted otherwise, we have sourced data relating to system-wide trends and market shares from the central bank. Bank specific figures originate from banks' reports and Moody's Banking Financial Metrics. All figures are based on our own chart of account and may be adjusted for analytical purposes. Please refer to the document: "Financial Statement Adjustments in the Analysis of Financial Institutions" (https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_187419) published on 12 February 2016.

Notching Considerations

AFFILIATE SUPPORT

CdM's deposit ratings incorporate two notches of parental support uplift, reflecting CASA's long track record of operational support to CdM, its 78.7% controlling stake and continued reinvestment in the bank.

GOVERNMENT SUPPORT

We assess the probability of systemic support to CdM to be very high. This assessment is based on the bank's importance to the economy and the payment system as the sixth-largest bank in Morocco with a deposit market share of around 5% and a key lender to domestic businesses. Nevertheless, since the systemic support provider is at Ba1 rating level, CdM's deposit ratings do not receive any additional government support uplift.

CR ASSESSMENT

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 suffered in the event of default 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 (e.g., swaps), letters of credit, guarantees and liquidity facilities.

The CR Assessment is positioned at Baa3(cr). The CR Assessment, prior to government support, is positioned one notch above the Adjusted BCA of ba1 and therefore above deposit ratings, reflecting our view that its probability of default is lower than that of deposits. We believe senior obligations represented by the CRA will be more likely preserved in order to limit contagion, minimize losses and avoid disruption of critical functions.

About Moody's Bank 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 that 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 3

Credit du Maroc

Macro Factors						
Weighted Macro Profile	Moderate -	100%				
Financial Profile						
Factor	Historic Ratio	Macro Adjusted Score	Credit Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	12.1%	b3	$\leftarrow \rightarrow$	b3	Single name concentration	Expected trend
Capital						
TCE / RWA				ba3		
Profitability						
Net Income / Tangible Assets	0.1%	b3	$\uparrow \uparrow$	b1	Expected trend	Loan loss charge coverage
Combined Solvency Score		b2		b1		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking	11.7%	baa3	$\leftarrow \rightarrow$	baa3	Deposit quality	Expected trend
Assets			, ,			
Liquid Resources						
Liquid Banking Assets / Tangible	20.1%	ba2	\leftarrow \rightarrow	ba2	Expected trend	
Banking Assets						
Combined Liquidity Score		ba1		ba1		
Financial Profile				ba3		_
Business Diversification				0		_
Opacity and Complexity				0		_
Corporate Behavior				0		_
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint:				Ba1		
Scorecard Calculated BCA range	<u> </u>	<u> </u>	·	ba2-b1	<u> </u>	
Assigned BCA				ba3		
Affiliate Support notching				2		
Adjusted BCA				ba1		

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency rating	Foreign Currency rating
Counterparty Risk Assessment	1	0	baa3 (cr)	0	Baa3 (cr)	
Deposits	0	0	ba1	0	Ba1	Ba2

Source: Moody's Financial Metrics

Ratings

Exhibit 4

Category	Moody's Rating		
CREDIT DU MAROC			
Outlook	Stable		
Bank Deposits -Fgn Curr	Ba2/NP		
Bank Deposits -Dom Curr	Ba1/NP		
Baseline Credit Assessment	ba3		
Adjusted Baseline Credit Assessment	ba1		
Counterparty Risk Assessment	Baa3(cr)/P-3(cr)		
Source: Moody's Investors Service			

© 2016 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 OR DEBT-LIKE SECURITIES, AND CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("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 PUBLICATIONS AND MOODY'S PUBLICATIONS AND MOODY'S PUBLICATIONS AND MOODY'S PUBLICATIONS AND ONOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS AND NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

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

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

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

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

 $MJKK\ and\ MSFJ\ also\ maintain\ policies\ and\ procedures\ to\ address\ Japanese\ regulatory\ requirements.$

REPORT NUMBER 1030977

