

CREDIT OPINION

12 June 2018

Update



Rate this Research

RATINGS

Domicile	Switzerland
Long Term CRR	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	Aa2
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.

Analyst Contacts

Carola Schuler +49.69.70730.766
MD-Banking

carola.schuler@moodys.com

Alexander Hendricks, +49.69.70730.779

Associate Managing Director alexander.hendricks@moodys.com

Andrea Wehmeier +49.69.70730.782

VP-Senior Analyst

andrea.wehmeier@moodys.com

CLIENT SERVICES

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

Banque Cantonale Vaudoise

Update to credit analysis

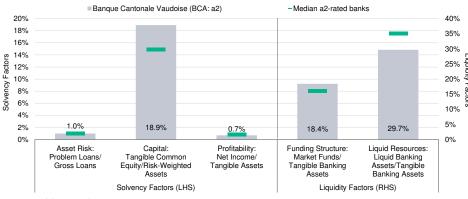
Summary

We assign Aa2 Stable/P-1 deposit ratings to <u>Banque Cantonale Vaudoise</u> (BCV). We also assign an a2 Baseline Credit Assessment (BCA), an a2 Adjusted BCA and an Aa3(cr)/P-1(cr) Counterparty Risk (CR) Assessment.

The Aa2 deposit rating reflects (1) the bank's a2 BCA and Adjusted BCA; (2) the result of our advanced Loss Given Failure (LGF) analysis, which takes into account the severity of loss faced by different liability classes in resolution and results in two notches of rating uplift for BCV's deposit rating; and (3) the high probability of BCV receiving (local) government support, which provides one notch of rating uplift to the bank's long-term ratings. The third point above takes into account the majority ownership of the bank by the Canton of Vaud and the bank's strong market position in the region.

The a2 BCA reflects BCV's (1) relatively low on-balance-sheet risks, despite its high concentration in the dynamic Canton of Vaud region, including relatively large exposures to the region's real estate markets; (2) strong capitalisation; (3) strong profitability; and (4) sound liquidity profile. The BCA further reflects the banks market-funding dependence, with a high volume of liquid assets available mitigating potential funding risks.

Exhibit 1
Rating Scorecard - Key financial ratios



Source: Moody's Financial Metrics

Credit strengths

- » BCV has strong capital adequacy ratios, providing a substantial buffer for downside risks.
- » The bank displays sustainable above-average profitability and efficiency metrics despite a challenging market environment.
- » A stable deposit base and low market sensitivity safeguard BCV's sound funding and liquidity profiles.

Credit challenges

- » The bank's real estate loan book growth has slowed down, however, the mortgage loan book remains a key asset risk in a real estate market with elevated price levels.
- » BCV's capital generation capacity is limited by its close to complete payout of profits.

Rating outlook

The outlook for BCV's ratings is stable, as we do not expect any material change regarding the bank's credit fundamentals, a downturn in the Swiss real-estate market nor a change in the bank's ownership over the next 12-18 months.

Factors that could lead to an upgrade

- » BCV's deposit ratings could be upgraded if (1) stronger fundamentals justify an upgrade of the bank; or (2) the volume of senior unsecured or further subordinated instrument increases, which could lead to an additional rating uplift, as assessed in our Advanced LGF analysis, provided our government support assumptions remain unchanged. The latest takes into account the Canton of Vaud's long-standing majority ownership, although without an explicit statutory guarantee, and the canton's creditworthiness.
- » Upward pressure on the bank's BCA could result from a combination of the bank (1) further continuing to improve its profitability, as well as its efficiency metrics; (2) improving its sound capital adequacy metrics to provide better creditor protection; and (3) providing stronger liquidity and funding profiles.

Factors that could lead to a downgrade

- » BCV's long-term deposit ratings could be downgraded if (1) weaker fundamentals justify a downgrade of the bank; or (2) the volume of deposits decreases, which could lead to a lower rating uplift, as assessed in our Advanced LGF analysis, provided our government support assumptions remain unchanged. The latest takes into account the Canton of Vaud's long-standing majority ownership, although without an explicit statutory guarantee, and the canton's creditworthiness.
- » A substantial deterioration in the credit profile of the Canton of Vaud or an increased likelihood that the canton's stake in BCV (currently 67%) will fall below the 50.1% legal threshold could also lead to a downgrade of BCV's long-term deposit ratings.
- » Negative pressure on BCV's BCA could result from (1) a sustained or an unexpected weakening of its recurring earnings-generation power and levels of operating efficiency; (2) a material deterioration in asset quality, especially if following a marked slowdown in the domestic real estate market; and (3) a deterioration in the current strong funding situation that is illustrated by liquid resources significantly exceeding confidence-sensitive market funding.

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
Banque Cantonale Vaudoise (Consolidated Financials) [1]

	12-17 ²	12-16 ²	12-15 ²	12-14 ²	12-13 ²	CAGR/Avg.3
Total Assets (CHF billion)	45	44	43	42	40	3.04
Total Assets (EUR billion)	39	41	40	35	33	4.24
Total Assets (USD billion)	47	43	43	42	45	0.74
Tangible Common Equity (CHF billion)	3.4	3.4	3.4	3.3	3.3	1.24
Tangible Common Equity (EUR billion)	2.9	3.2	3.1	2.8	2.7	2.34
Tangible Common Equity (USD billion)	3.5	3.3	3.4	3.3	3.7	-1.1 ⁴
Problem Loans / Gross Loans (%)	0.8	1.0	1.2	1.4	1.5	1.2 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	18.9	19.3	20.3	19.7	20.1	19.7 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	6.5	9.0	9.8	12.1	13.0	10.1 ⁵
Net Interest Margin (%)	1.1	1.1	1.2	1.3	1.3	1.2 ⁵
PPI / Average RWA (%)	2.2	2.2	2.5	2.4	2.3	2.3 ⁶
Net Income / Tangible Assets (%)	0.7	0.7	0.7	0.7	0.7	0.75
Cost / Income Ratio (%)	59.0	60.1	58.4	60.3	61.7	59.9 ⁵
Market Funds / Tangible Banking Assets (%)	18.4	18.9	18.7	16.7	14.5	17.4 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	29.7	28.5	27.9	24.2	25.2	27.1 ⁵
Gross Loans / Due to Customers (%)	99.4	102.3	102.1	104.2	101.7	101.9 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments [2] Basel III - fully-loaded or transitional phase-in; LOCAL GAAP [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

BCV is Switzerland's second-largest cantonal bank, with total assets of CHF45.4 billion as of year-end 2017. The bank was established in 1845 by the Vaud Cantonal Parliament as a corporation organised under public law.

BCV has a corporate mandate of contributing to the economic development of its home region, the Canton of Vaud, and also of providing mortgage financing there. Other than operating in its traditional areas of business, including retail banking (deposit-taking and lending) and wealth management, the bank is also engaged in corporate banking and select trade-financing operations in commodities. Through these activities, the bank is also exposed to other cantons in Switzerland and, to a limited extent, overseas markets.

As of end-December 2017, the Canton of Vaud held a 67% stake in the bank. In contrast to most Swiss cantonal banks, BCV does not benefit from an explicit guarantee of the canton.

Detailed credit considerations

Improving asset quality, though regional concentrations remain

We assign an Asset Risk score of a2 to BCV, three notches below the macro adjusted historic score of aa2. The negative adjustment reflects the bank's geographical concentrations and the tail risks relating to the mortgage book.

BCV's asset quality improved strongly in recent years, reflecting the bank's strong focus on credit risk and its conservative credit risk management. The problem loan ratio declined further to a level of 0.8% (according to Moody's definitions) as of year-end 2017, continuing the positive trend for declining NPLs in place since 2010. The average loan/value of BCV's real estate loan exposures remained at around 50%, at the lower end compared with those of its closest peers among Swiss cantonal banks. We do not expect BCV to be immediately affected by the moderate negative price movements in the Vaud real estate market.

BCV's loan book remains concentrated in the dynamic Vaud region, a region supported by strong demographic factors, however, constrained by a still elevated level of house prices. While we take account of the recent slowdown in real estate prices and lower transaction volume, the bank remains susceptible to shocks potentially emanating from the domestic real estate market or during a prolonged period of weaker economic growth in Switzerland, despite the modest growth in BCV's mortgage loan book since 2013.

BCV is predominantly active in its Swiss home canton, aligning its Macro Profile with that of Switzerland at Very Strong. The very high degree of economic, institutional and government financial strength, and the very low susceptibility to event risk thus support the bank's BCA. The positioning further reflects Switzerland's relatively high and rising private sector debt that is well covered by private sector assets, as well as funding conditions benefitting from a strong domestic deposit base and liquid covered bond and interbank markets.

Solid capital adequacy ratios a strong mitigant

We assign an aa2 Capital Score to BCV, one notch below the macro adjusted historic score of aa1. The one notch negative adjustment reflects our expectations on slightly declining capital ratios, given the banks high dividend payouts to its majority owner and shareholders that amounted to around 90% of net profits in recent years.

During 2017 and beyond, we expect BCV to maintain its strong capital adequacy ratios, including strong leverage, and thus a meaningful buffer over and above its announced 13.7% long-term minimum CET1 ratio target.

As a Category 3 institution according to the Swiss Financial Market Supervisory Authority (FINMA) definition, BCV must maintain an adequacy target with a (total) capital ratio of at least 12.7%. Since January 2016 and owing to the low-yield environment, FINMA has temporarily increased the minimum capital target of BCV to 13.7% to take into account the bank's interest rate risk exposure. As of year-end 2017, BCV reported CET1 and total capital ratios of 17.1% and 17.3%, slightly down from 17.5% and 17.6%, respectively, as of year-end 2016. The decrease in capital ratios is due to an increase in risk-weighted assets, as derived from the bank's models.

Although the bank uses an internal ratings-based approach, in contrast to its peers among the regional and cantonal banks in Switzerland, the leverage ratio indicates that the chosen model approach is conservative, not pushing risk weights to an excessively low level. BCV's leverage ratio slightly decreased to a still solid 6.5% as of year-end 2017 from 6.6% as of year-end 2016.

Above-average profitability and efficiency metrics continue despite a challenging market environment

BCV's assigned Profitability score of baa2 is in line with the macro adjusted historic score, reflecting its stronger profitability compared with that of its regional peers in Switzerland. In our view, this profitability provides BCV with a substantial buffer against losses potentially arising from adverse developments. As of year-end 2017, BCV realised net income/tangible assets of 0.71%, in line with previous year.

BCV's profitability metrics will continue to display sound underlying performance, thanks to the bank's comparatively diverse earnings split, thereby better protecting BCV's revenue base against adverse developments resulting from the low interest rate environment compared with that of its Swiss peers. We further expect risk costs to stay low, supported by a continued benign credit environment.

BCV's net income (Swiss GAAP) in 2017 increased to CHF320 million from CHF310 million in 2017. The increase is mainly explained by a higher net interest result of CHF498 million (up from CHF483 million), as interest expenses declined to CHF113 million in 2017 from CHF157 million in 2016. Good cost management further contributed to the bank's efficiency indicators. The bank's cost/income of 59% in 2017 still compares very favourably with that of its peers.

BCV's assets under management stabilized in 2017. The absolute size of assets under management was CHF86.5 billion as of the year-end 2017, up from CHF85.4 billion as of year-end 2016. Net new money remained a positive balance, with strong domestic inflows (CHF2.5bn) more than offsetting offshore outflows (CHF0.3bn).

Stable deposit base and strong liquidity safeguard BCV's sound funding and liquidity profiles

We assign an a2 Funding Structure score to BCV, in line with the macro adjusted historic score. The assigned score takes into account BCV's stable base of customer deposits, which rose to CHF30.5 billion as of year-end 2017 (67% of total assets). The bank's loan/deposit of was stable around 100% in recent years. Further, the bank complements its funding with CHF5.6 billion in covered bonds and around CHF1.0 billion in senior unsecured bonds and CHF0.9 billion in structured bonds.

The assigned a2 Liquid Resources score (also in line with the macro adjusted historic score) is reflectings the bank's sound liquidity management, and liquid assets, that clearly exceed confidence sensitive market funding resources. CHF8.0 billion of cash as of year-end 2017 (up from CHF7.5 billion as of year-end 2016) and CHF3.6 billion of repo-eligible financial investments and CHF1.0 billion of interbank assets, mitigate potential funding risks.

Support and structural considerations

Loss Given Failure (LGF) analysis

BCV is subject to Swiss banking regulation, which we consider an operational resolution regime. We, therefore, apply our Advanced LGF analysis, considering the risks faced by the different debt and deposit classes across the liability structure at failure. We assume residual tangible common equity of 3% and losses post-failure of 8% of tangible banking assets, a 25% run-off in junior wholesale deposits and a 5% run-off in preferred deposits, and assign a 100% probability to deposits being preferred to senior unsecured debt, thereby reflecting depositor preference by law in Switzerland.

Our Advanced LGF analysis indicates a very low loss given failure for BCV's junior deposits, leading to two notches of rating uplift from the bank's a2 Adjusted BCA.

Government support considerations

BCV's long-term deposit ratings benefit from one notch of government support uplift, taking into account (1) a high probability of regional and local government support from the Canton of Vaud as the majority owner of the bank; and (2) its strong local market position in retail and commercial (largely small and medium-sized enterprise) banking.

Counterparty Risk (CR) Assessment

A CR Assessment is an opinion 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 (for example, swaps), letters of credit, guarantees and liquidity facilities.

BCVs' CR Assessment is positioned at Aa3(cr)/P-1(cr).

The bank's CR Assessment is positioned two notches above the bank's a2 Adjusted BCA. The CR Assessment's positioning reflects the depositor preference in Switzerland, the resulting rank ordering of Counterparty Risk exposures below deposits, and the volume of instruments ranking below Counterparty Risk exposures, such as senior debt and equity. The CR Assessment further continues to benefit from one notch of government support uplift.

Methodology and scorecard

Methodology

The principal methodology we used in rating BCV was the Banks methodology, published in June 2018.

About Moody's Bank Scorecard

Our Bank 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

Banque (Cantonale	Vaudoise
----------	-----------	----------

Macro Factors				
Weighted Macro Profile	Very	100%		
	Strong -			

Factor	Historic Ratio	Macro Adjusted Score	Credit Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	1.0%	aa2	$\leftarrow \rightarrow$	a2	Geographical concentration	Quality of assets
Capital						
TCE / RWA	18.9%	aa1	$\leftarrow \rightarrow$	aa2	Risk-weighted capitalisation	Capital retention
Profitability						
Net Income / Tangible Assets	0.7%	baa2	$\leftarrow \rightarrow$	baa2	Return on assets	Expected trend
Combined Solvency Score		aa3		a2		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	18.4%	a2	$\leftarrow \rightarrow$	a2	Extent of market funding reliance	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	29.7%	a2	$\leftarrow \rightarrow$	a2	Stock of liquid assets	Quality of liquid assets
Combined Liquidity Score		a2		a2		
Financial Profile				a2		
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint:				Aaa		
Scorecard Calculated BCA range				a1-a3	<u> </u>	
Assigned BCA		<u> </u>		a2	·	
Affiliate Support notching				0		
Adjusted BCA				a2		

Balance Sheet	in-scope	% in-scope	at-failure	% at-failure
	(CHF million)	•	(CHF million)	
Other liabilities	12,073	26.6%	15,187	33.4%
Deposits	30,527	67.2%	27,413	60.4%
Preferred deposits	22,590	49.8%	21,461	47.3%
Junior Deposits	7,937	17.5%	5,953	13.1%
Senior unsecured bank debt	1,440	3.2%	1,440	3.2%
Equity	1,362	3.0%	1,362	3.0%
Total Tangible Banking Assets	45,402	100%	45,402	100%

Debt class	De Jure wa	waterfall De Facto waterfall		Not	Notching		Assigned	ned Additional Preliminary		
	Instrument volume + or subordination	dinatio	Instrument on volume + o subordination	rdination	•	De Facto	Notching Guidance vs. Adjusted BCA	LGF notching	notching	Rating Assessment
Counterparty Risk Assessment	6.2%	6.2%	6.2%	6.2%	1	1	1	1	0	a1 (cr)
Deposits	19.3%	6.2%	19.3%	6.2%	2	2	2	2	0	aa3

Instrument class	Loss Given Failure notching		Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Assessment	1	0	a1 (cr)		Aa3 (cr)	
Deposits	2	0	aa3		Aa2	Aa2

Source: Moody's Financial Metrics

Ratings

Exhibit 4

EXTIIDIT 4	
Category	Moody's Rating
BANQUE CANTONALE VAUDOISE	
Outlook	Stable
Bank Deposits	Aa2/P-1
Baseline Credit Assessment	a2
Adjusted Baseline Credit Assessment	a2
Counterparty Risk Assessment	Aa3(cr)/P-1(cr)

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 ON OT CONSTITUTE OR 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, 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.

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 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

1129224

Contributors

Anatolii Dzeman Associate Analyst

