

CREDIT OPINION

24 May 2017

Update

Rate this Research



RATINGS

ABN AMRO Bank N.V.

Domicile	Amsterdam, Netherlands
Long Term Debt	A1
Туре	Senior Unsecured - Fgn Curr
Outlook	Stable
Long Term Deposit	A1
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

Yasuko Nakamura 33-1-5330-1030 VP-Senior Credit

Officer

yasuko.nakamura@moodys.com

Guillaume Lucien- 33-1-5330-3350

Baugas

VP-Senior Analyst

guillaume.lucien-baugas@moodys.com

Claudia Silva 44-20-7772-1714 Associate Analyst

claudia.silva@moodys.com

Alain Laurin 33-1-5330-1059

Associate Managing

Director

alain.laurin@moodys.com

Nick Hill 33-1-5330-1029

Managing Director -

Banking

nick.hill@moodys.com

ABN AMRO Bank N.V.

Semiannual update

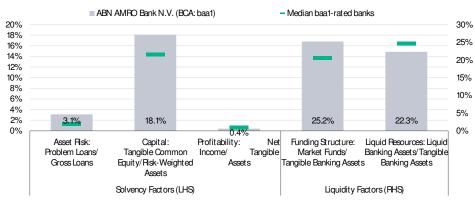
Summary Rating Rationale

ABN AMRO's baseline credit assessment of baa1 reflects the bank's overall good financial fundamentals including sound profitability and asset quality, solid capitalization and a robust liquidity position. It further captures the bank's strong footprint in the Dutch market, its balanced business mix between retail and commercial banking, and its private banking activity undertaken across Europe.

The A1/Prime-1 deposit and senior unsecured ratings reflect (1) the bank's standalone credit strength; (2) the application of our Advanced Loss Given Failure (LGF) analysis, resulting in a two-notch uplift – for both senior debt and deposits – from the adjusted BCA of baa1 given the significant volumes of senior debt and junior deposits, resulting in very low loss-given-failure for these instruments; and (3) government support uplift of one notch, reflecting a moderate probability of government support in view of its status of systemic bank.

The CR Assessment of Aa3(cr)/Prime-1(cr) assigned to ABN AMRO is four notches above the BCA, reflecting the substantial volume of bail-in-able liabilities protecting operating obligations as well as a moderate probability of government support.

Exhibit 1
Rating Scorecard - Key Financial Ratios



Source: Moody's Financial Metrics

Credit Strengths

- » Strong position in the domestic market and selected countries
- » Moderate risk profile due to retail and commercial banking business focus

- » Sound liquidity
- » High risk-weighted capitalisation
- » Sound profitability commensurate with the bank's moderate risk profile
- » Large volume of deposits and senior unsecured debt resulting in very low loss-given-failure rate for these instruments
- » Moderate probability of government support resulting in one-notch uplift for debt and deposits

Credit Challenges

- » Pressure on earnings stemming from the low interest-rate environment
- » Relatively high nominal leverage

Rating Outlook

Given the generally benign operating environment in the Netherlands and the bank's reinforced solvency and liquidity, Moody's believes that ABN AMRO's creditworthiness will remain steady over the medium term. The agency assigns a stable outlook to both long-term deposit and senior unsecured ratings, which also assumes that the liability structure and probability of government support will remain broadly unchanged.

Factors that Could Lead to an Upgrade

An upgrade of ABN AMRO's long-term ratings could occur if (1) the bank achieves a longer track-record of stable and sustainable profit evidencing the effectiveness of its low risk profile; (2) the bank's leverage ratio, which is currently just below the 4% threshold recommended by the Dutch Ministry of Finance, materially improves; or (3) if the amount of subordinated debt and hybrid capital significantly increases, adding sustainable subordination to the bank's senior creditors and hence reducing their loss-given-failure.

Factors that Could Lead to a Downgrade

The bank's BCA could be downgraded as a result of (1) a significant deterioration in the bank's asset quality and profitability; or (2) a negative development in its liquidity and/or capitalisation. A downward movement in ABN AMRO's BCA would likely result in downgrades to all ratings.

ABN AMRO's deposit and senior unsecured debt ratings could also be downgraded as a result of an increase in loss-given-failure, should for example these instruments account for a significantly smaller share of the bank's overall liability structure, or benefit from lower subordination than is currently the case.

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
ABN AMRO Bank N.V. (Consolidated Financials) [1]

12-16 ²	12-15 ²	12-14 ²	12-13 ³	12-12 ³	Avg.
394,482	407,373	386,867	372,022	392,779	0.14
416,081	442,527	468,130	512,625	517,836	-5.3 ⁴
18,853	17,799	15,433	14,701	12,972	9.84
19,885	19,335	18,674	20,257	17,102	3.84
3.1	3.1	2.7	2.9	3.0	3.0 ⁵
18.1	16.5	14.1	13.5	10.7	16.2 ⁶
39.6	40.8	37.6	39.6	46.4	40.8 ⁵
1.6	1.5	1.6	1.4	1.3	1.5 ⁵
2.4	2.9	2.6	2.2	2.3	2.6 ⁶
0.5	0.5	0.3	0.1	0.6	0.4 ⁵
69.2	62.0	62.6	65.6	61.5	64.2 ⁵
25.2	25.8	30.4	30.7	34.3	29.3 ⁵
22.3	22.4	20.0	21.8	21.8	21.7 ⁵
119.5	114.9	123.5	126.7	130.3	123.0 ⁵
	394,482 416,081 18,853 19,885 3.1 18.1 39.6 1.6 2.4 0.5 69.2 25.2 22.3	394,482 407,373 416,081 442,527 18,853 17,799 19,885 19,335 3.1 3.1 18.1 16.5 39.6 40.8 1.6 1.5 2.4 2.9 0.5 0.5 69.2 62.0 25.2 25.8 22.3 22.4	394,482 407,373 386,867 416,081 442,527 468,130 18,853 17,799 15,433 19,885 19,335 18,674 3.1 3.1 2.7 18.1 16.5 14.1 39.6 40.8 37.6 1.6 1.5 1.6 2.4 2.9 2.6 0.5 0.5 0.3 69.2 62.0 62.6 25.2 25.8 30.4 22.3 22.4 20.0	394,482 407,373 386,867 372,022 416,081 442,527 468,130 512,625 18,853 17,799 15,433 14,701 19,885 19,335 18,674 20,257 3.1 3.1 2.7 2.9 18.1 16.5 14.1 13.5 39.6 40.8 37.6 39.6 1.6 1.5 1.6 1.4 2.4 2.9 2.6 2.2 0.5 0.5 0.3 0.1 69.2 62.0 62.6 65.6 25.2 25.8 30.4 30.7 22.3 22.4 20.0 21.8	394,482 407,373 386,867 372,022 392,779 416,081 442,527 468,130 512,625 517,836 18,853 17,799 15,433 14,701 12,972 19,885 19,335 18,674 20,257 17,102 3.1 3.1 2.7 2.9 3.0 18.1 16.5 14.1 13.5 10.7 39.6 40.8 37.6 39.6 46.4 1.6 1.5 1.6 1.4 1.3 2.4 2.9 2.6 2.2 2.3 0.5 0.5 0.3 0.1 0.6 69.2 62.0 62.6 65.6 61.5 25.2 25.8 30.4 30.7 34.3 22.3 22.4 20.0 21.8 21.8

^[1] All figures and ratios are adjusted using Moody's standard adjustments [2] Basel III - fully-loaded or transitional phase-in; IFRS [3] Basel II; IFRS [4] Compound Annual Growth Rate (%).

Any interim period amounts presented are assumed to be fiscal year end amounts for calculation purposes [5] Simple average of periods presented [6] Simple average of Basel III periods presented

Source: Moody's Financial Metrics

Detailed Rating Considerations

A STRONG POSITION IN THE DOMESTIC MARKET AND IN SELECTED COUNTRIES

ABN AMRO has a strong franchise in the highly concentrated Dutch market, where it is the second largest player in retail banking, enjoying 20% to 25% market share in key products, including mortgages, savings and consumer lending. Outside The Netherlands, its franchise is more limited, although it benefits from good brand recognition in selected countries and for certain activities, such as private banking in France and Germany. Around 80% of the bank's operating income is derived from domestic operations.

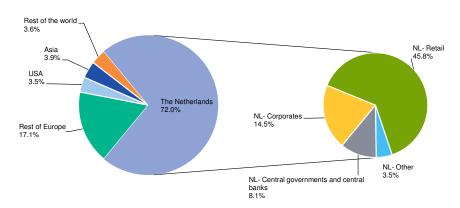
In private banking, ABN AMRO is ranked as the leader in its home market and has significant activities across Europe. At end-December 2016, private banking's client assets totaled EUR205 billion.

The bank has also maintained a strong position in commercial banking where its domestic market share ranges from 25% to 30%. In international activities run through its Corporate and Institutional Banking segment, ABN AMRO is an important player in some global specialist markets such as Energy, Commodities and Transportation (ECT), asset based finance and Clearing.

MODERATE RISK PROFILE DUE TO RETAIL AND COMMERCIAL BANKING BUSINESS FOCUS

As reflected in the assigned asset risk score of a3, we consider ABN AMRO's risk profile as moderate overall, reflecting its operations that are primarily traditional retail and commercial banking in the domestic market. At end-December 2016, more than 60% of the bank's loan portfolio was composed of exposure to individuals (primarily residential mortgages). As we expect the Dutch economy to continue to perform well over the coming months, we believe that ABN AMRO will fully benefit from its focus on the domestic market. The bank's cost of risk was at a very low 4 basis points of gross loans in 2016, an improvement from the already low 19 basis points in 2015.

Exhibit 3
Exposures are concentrated on the Dutch economy
Breakdown of exposures at year-end 2016



Source: Company data, Moody's Investors Service

We note that ABN AMRO's ECT business has an on-balance sheet exposure of EUR30.8 billion at end-December 2016 (or 11% of the bank's total loan and receivables). While this portfolio performed well until the end of 2015, it has generated the largest part of the bank's impairment losses within the corporate loan portfolio since the beginning of 2016 due to its exposures to the oil and gas sector and the shipping sector. ABN AMRO has a long track-record of providing finance and we recognize the bank's expertise in this area. We nevertheless believe that, despite the generally short-dated and collateralized nature of the exposures, this activity's performance, at least in certain sub-areas, could prove less predictable and stable than traditional banking, as is currently the case. As we believe this type of business generally incurs relatively high single borrower exposures, we remain cautious on its development.

The bank has limited market risk exposure, and related RWAs accounted for around 4% of total RWAs at end-December 2016. ABN AMRO discontinued its proprietary trading activities in 2010; however, it still undertakes some market-making activities, which are relatively small and driven by its corporate clients.

SOUND LIQUIDITY

We view ABN AMRO's liquidity position as sound, and we expect that it will remain so over the coming months. At end-December 2016, the bank disclosed a loan-to-deposit (LTD) ratio of 112.7%, which ranks favorably among Dutch banks and is good in the context of the Dutch market which has a structural deficit of customer deposits. This relatively favorable funding structure can partly be attributed to ABN AMRO's strong position in private banking, which brings substantial deposits yet generates relatively limited lending. Although private banking deposits could prove less sticky than retail deposits, we believe they will remain an important source of funding for ABN AMRO.

The customer funding gap (around EUR 29 billion at end-December 2016) is funded by wholesale borrowing. Risks stemming from the reliance on confidence-sensitive funding are mitigated by an adequate management of liquidity and of the term structure of the outstanding debt as well as the constitution of a comfortable liquidity buffer. At end-December 2016, the EUR 79 billion liquidity buffer represented almost three times all wholesale debt securities maturing within one year, which we consider as more than adequate to cover liquidity risk under our central scenario. At end-December 2016, the bank's Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio were above 100%.

All these factors are reflected in our combined Liquidity Score of baa2.

HIGH RISK-WEIGHTED CAPITALISATION ALBEIT WITH HIGHER-THAN-AVERAGE NOMINAL LEVERAGE

At end-December 2016, ABN AMRO reported a fully-loaded Common Equity Tier 1 ratio of 17%, which we view as very trong in comparison to its main domestic and European peers. However, the fully-loaded leverage ratio at end-December 2016 was 3.9%, still slightly below the 4% minimum level recommended by the Dutch Ministry of Finance.

Following the Supervisory Review and Evaluation Process (SREP) for 2017, the minimum CET1 regulatory requirement is set at 9%¹). As of 2019, other things being equal, the fully-loaded CET1 requirement is expected to be 11.75% which factors in 100% of the buffers (systemic and conservation) while ABN AMRO targets a CET1 ratio of 13.5%.

The contrast between the strong CET1 ratio and the low leverage ratio reflects the relatively low risk-weight of assets, a common feature to all Dutch retail banks, in particular the relatively low risk-weight of the Dutch mortgages (11.6% at ABN AMRO at end-December 2016) in the calculation of risk-weighted assets (RWA). Although reflective of the good historical performance of this asset class, the high loan-to-values (LTV) of Dutch mortgages expose the domestic banks to the risk of a significant increase in required capital if the Basel Committee and subsequently the European Union were to implement the currently proposed calculation of RWAs on mortgages based on LTVs. Specifically for institutions and large corporate exposures, the recent proposal to incorporate floors to the existing internal models and to revise the standardized approach will, if implemented, also increase their capital requirements, although this is not specific to Dutch banks.

The assigned capital score is a1, two notches below the macro-adjusted score. This negative adjustment is due to the fact that the leverage ratio is below 5%.

SOUND PROFITABILITY COMMENSURATE WITH THE BANK'S MODERATE RISK PROFILE

Although increasing regulatory costs exert pressure on profits, we believe that ABN AMRO's profitability is sound and commensurate with the bank's moderate risk profile.

The 2016 full-year underlying net profit, which exceeds the good performance of 2015, continues to be supported by resilient net interest income and low impairment charges. ABN AMRO has managed to offset negative pressure on revenues from the low interest rate environment through the re-pricing of its loan portfolio, although the positive effect of re-pricing is expected to level off going forward. Savings rates paid to clients were further lowered during 2016 and there is still some room for further cuts. The bank's net interest margin was 152 basis points in 2016, up from 146 basis points in 2015. Slight increase in lending volumes (estimated at around +0.4% year-on-year on the mortgage book and +5.6% in the corporate and SME loan portfolios) also underpinned the resilience of the bank's net interest income at EUR6.3 billion (versus EUR6.1 billion in 2015).

We view positively the bank's efforts to upgrade its IT infrastructure, which we consider an essential investment to improve the cost efficiency of a retail-focused bank like ABN AMRO. However, given the increasing weight of regulatory levies as well as the planned investments to further develop digitalisation, we view further improvement in the bank's cost base as challenging. In H2 2016, ABN AMRO announced further restructuring measures, involving staff reduction, to offset the expected increase in costs stemming from regulatory levies and investment needs by 2020. The bank's cost-to-income ratio was 61.8% on an underlying basis.²

The assigned score of ba1 reflects the level of profitability achieved by the bank over the last two years, and which we believe will continue to be supported in 2017 by the benign domestic economic environment and expected recovery in loan volumes.

Notching Considerations

LOSS GIVEN FAILURE AND ADDITIONAL NOTCHING

ABN AMRO is subject to the EU Bank Recovery and Resolution Directive (BRRD), which we consider to be an Operational Resolution Regime. In calculating loss-given-failure, we assume residual tangible common equity of 3% and losses post-failure of 8% of tangible banking assets, a proportion of deposits considered junior of 26%, a 25% run-off in "junior" wholesale deposits, a 5% run-off in preferred deposits, and assign a 25% probability to deposits being preferred to senior unsecured debt. These are in line with our standard assumptions.

ABN AMRO's deposits are likely to face very low loss-given-failure, due to the loss absorption provided by the combination of substantial deposit volume and subordination. This results in a two-notch uplift from the adjusted BCA.

ABN AMRO's senior unsecured debt is also likely to face very low loss-given-failure. This is supported by the combination of senior debt's own volume and the amount of subordination. This results in a two-notch uplift from the adjusted BCA.

For subordinated and junior securities, our LGF analysis indicates high loss-given-failure, given the small volume of debt and limited protection from more subordinated instruments and residual equity. We also incorporate additional notching for junior subordinated and preference share instruments reflecting the coupon features.

GOVERNMENT SUPPORT

As we consider ABN AMRO to be a systemically important bank in the Netherlands we believe there is a moderate probability of government support, resulting in a one-notch uplift for both the long-term deposit and senior unsecured debt issued by the bank.

For subordinated and other junior securities, we continue to believe that the likelihood of government support is low and these ratings do not include any uplift. Junior securities also include additional downward notching from the BCA reflecting coupon suspension risk ahead of a potential failure.

COUNTERPARTY RISK ASSESSMENT

The CR Assessment is positioned at Aa3(cr). Prior to government support, the CR Assessment is positioned three notches above the adjusted BCA of baa1, based on the cushion against default provided to the senior obligations represented by the CR Assessment by subordinated instruments amounting to 25.8% of Tangible Banking Assets. 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.

The CR Assessment also benefits from one notch of government support, in line with our support assumptions on deposits and senior unsecured debt. This reflects our view that any support provided by governmental authorities to a bank which benefits senior unsecured debt or deposits is very likely to benefit operating activities and obligations reflected by the CR Assessment as well, consistent with our belief that governments are likely to maintain such operations as a going-concern in order to reduce contagion and preserve a bank's 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 4

ABN AMRO Bank N.V.

Macro Factors					
Weighted Macro Profile	Strong +	100%			

Factor	Historic Ratio	Macro Adjusted Score	Credit Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	3.1%	a3	$\leftarrow \rightarrow$	a3	Sector concentration	
Capital						
TCE / RWA	18.1%	aa2	$\leftarrow \rightarrow$	a1	Nominal leverage	
Profitability						
Net Income / Tangible Assets	0.4%	ba1	$\leftarrow \rightarrow$	ba1	Expected trend	
Combined Solvency Score		a2		a3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	25.2%	baa2	$\leftarrow \rightarrow$	baa2	Term structure	Extent of market funding reliance
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	22.3%	baa1	$\leftarrow \rightarrow$	baa1	Quality of liquid assets	
Combined Liquidity Score		baa2		baa2		
Financial Profile				baa1		
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint:				Aaa		
Scorecard Calculated BCA range				a3-baa2		
Assigned BCA				baa1		
Affiliate Support notching				0		
Adjusted BCA				baa1	<u> </u>	

Balance Sheet	in-scope	% in-scope	at-failure	% at-failure
	(EUR million)	•	(EUR million)	
Other liabilities	104,727	26.9%	128,066	32.9%
Deposits	228,809	58.8%	205,471	52.8%
Preferred deposits	169,319	43.5%	160,853	41.3%
Junior Deposits	59,490	15.3%	44,618	11.5%
Senior unsecured bank debt	32,815	8.4%	32,815	8.4%
Dated subordinated bank debt	11,171	2.9%	11,171	2.9%
Equity	11,676	3.0%	11,676	3.0%
Total Tangible Banking Assets	389,198	100%	389,198	100%

Debt class	De jure v	/aterfall	terfall De facto waterfall		Not	Notching LGF		Assigned	Additiona	l Preliminary
	Instrument volume + o Subordinatio	ordinatio	Instrument on volume + o Subordinatio	ordination	De jure	De facto	notching guidance versus BCA	LGF notching	notching	Rating Assessment
Counterparty Risk Assessment	25.8%	25.8%	25.8%	25.8%	3	3	3	3	0	a1 (cr)
Deposits	25.8%	5.9%	25.8%	14.3%	2	3	2	2	0	a2
Senior unsecured bank debt	25.8%	5.9%	14.3%	5.9%	2	1	2	2	0	a2
Dated subordinated bank debt	5.9%	3.0%	5.9%	3.0%	-1	-1	-1	-1	0	baa2
Non-cumulative bank preference shares	3.0%	3.0%	3.0%	3.0%	-1	-1	-1	-1	-2	ba1 (hyb)

Instrument class	Loss Given	Additional	Preliminary Rating	Government	Local Currency	Foreign	
	Failure notching	Notching	Assessment	Support notching	Rating	Currency Rating	
Counterparty Risk Assessment	3	0	a1 (cr)	1	Aa3 (cr)		
Deposits	2	0	a2	1	A1	A1	
Senior unsecured bank debt	2	0	a2	1	A1	A1	
Dated subordinated bank debt	-1	0	baa2	0	Baa2	Baa2	
Non-cumulative bank preference shares	-1	-2	ba1 (hyb)	0	Ba1 (hyb)		

Source: Moody's Financial Metrics

Ratings

- v	hι	bit	-
-^		DIL	J

Category	Moody's Rating
ABN AMRO BANK N.V.	
Outlook	Stable
Bank Deposits	A1/P-1
Baseline Credit Assessment	baa1
Adjusted Baseline Credit Assessment	baa1
Counterparty Risk Assessment	Aa3(cr)/P-1(cr)
Issuer Rating	A1
Senior Unsecured	A1
Subordinate	Baa2
Pref. Stock Non-cumulative -Dom Curr	Ba1 (hyb)
Commercial Paper -Dom Curr	P-1
Other Short Term	(P)P-1

Source: Moody's Investors Service

Endnotes

- 1 Subject to change and regulatory approval, ABN AMRO will be required to fulfill in 2017 a CET1 ratio of 9% (4.50% of Pillar 1, 1.75% of Pillar 2 requirement, 1.25% of phased-in Capital Conversation Buffer and 1.50% of phased-in Systemic Risk Buffer). This amount differs from the 10.25% requirement previously imposed to ABN AMRO, due to the new approach adopted by the ECB to determine the SREP level, in particular the distinction between Pillar II requirement (disclosed) and Pillar II guidance (undisclosed
- 2 Including one-off items (EUR 271million net of tax provision for SME interest rate derivatives, accounted for as "special item", and EUR 348 million restructuring provisions related to cost saving initiatives), the cost-to-income was 68.8% in 2016.

© 2017 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 TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS AND 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

1069890

