

# MOODY'S

## INVESTORS SERVICE

### Credit Opinion: Sparebanken Hedmark

Global Credit Research - 30 May 2014

Hamar, Norway

#### Ratings

Category	Moody's Rating
Outlook	Negative(m)
Bank Deposits	A2/P-1
Bank Financial Strength	C-
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	baa1

#### Contacts

Analyst	Phone
Kim Bergoe/London	44.20.7772.5454
Jan Skogberg/London	
Simon Harris/London	

#### Key Indicators

##### Sparebanken Hedmark (Consolidated Financials)[1]

	[2]9-13	[2]12-12	[2]12-11	[2]12-10	[2]12-09	Avg.
Total Assets (NOK billion)	46.0	44.1	43.1	41.8	41.5	[3]2.6
Total Assets (EUR million)	5,644.8	6,012.3	5,568.8	5,354.4	5,006.0	[3]3.0
Total Assets (USD million)	7,641.2	7,926.5	7,229.1	7,183.1	7,182.4	[3]1.6
Tangible Common Equity (NOK billion)	5.9	5.5	5.1	4.8	4.3	[3]8.2
Tangible Common Equity (EUR million)	726.9	743.2	652.6	619.2	521.0	[3]8.7
Tangible Common Equity (USD million)	984.0	979.8	847.2	830.6	747.5	[3]7.1
Net Interest Margin (%)	2.3	2.3	2.4	2.3	2.1	[4]2.3
PPI / Average RWA (%)	1.9	2.3	1.7	2.6	3.1	[5]2.3
Net Income / Average RWA (%)	2.3	2.3	1.0	2.4	1.8	[5]1.9
(Market Funds - Liquid Assets) / Total Assets (%)	7.4	5.8	9.7	12.6	15.8	[4]10.3
Core Deposits / Average Gross Loans (%)	81.9	80.8	74.7	71.4	67.0	[4]75.2
Tier 1 Ratio (%)	15.3	16.9	15.2	15.1	14.1	[5]15.3
Tangible Common Equity / RWA (%)	18.7	22.2	20.6	19.3	17.4	[5]19.7
Cost / Income Ratio (%)	62.2	60.0	64.3	52.2	47.0	[4]57.1
Problem Loans / Gross Loans (%)	1.9	2.1	2.4	2.4	2.2	[4]2.2
Problem Loans / (Equity + Loan Loss Reserves) (%)	10.7	11.6	14.4	14.7	14.9	[4]13.3

Source: Moody's

[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 [5] Basel II & IFRS reporting periods have been used for average calculation

#### Opinion

##### SUMMARY RATING RATIONALE

Sparebanken Hedmark's C- standalone financial strength (BFSR), equivalent to a standalone credit assessment

of baa2, primarily reflects Sparebanken Hedmark's robust local franchise, sound capital levels and stable retail banking operations but is constrained by the bank's limited geographic reach and some borrower and industry lending concentrations.

Sparebanken Hedmark's current global local currency (GLC) deposit rating of A2 receives a three-notch uplift from its baa2 standalone credit assessment. This is based on our assessment of a high probability of systemic support for the bank if necessary and its importance to the Norwegian market. Furthermore, we continue to factor in a low probability of support from its membership of the SpareBank 1 Alliance.

On 2 July 2013, Moody's confirmed Sparebanken Hedmark's A2 long-term and Prime-1 short-term deposit ratings and lowered the bank's standalone credit assessment to baa2 from baa1 within the C- BFSR category. The lowering of the standalone credit assessment primarily reflected our view that the increased ownership stake in Bank 1 Oslo Akershus (unrated) increases Sparebanken Hedmark's risk profile, while the confirmation of the long-term and short term deposit ratings reflects Moody's expectation that Sparebanken Hedmark will benefit from support from the SpareBank 1 Alliance if needed.

### **Rating Drivers**

- The bank benefits from a robust local retail franchise in the Hedmark county in eastern Norway.
- Sparebanken Hedmark's increased stake in Bank 1 Oslo Akershus somewhat increases its standalone risk profile.
- The bank's asset quality metrics are still somewhat weaker than those of its Norwegian peers, although they have improved, but its capital levels are among the strongest in its peer group.
- The bank's funding profile is underpinned by a sizeable deposit base but exhibits some reliance on market funding.
- The bank's profitability is underpinned by resilient core banking operations.
- Its membership in the SpareBank 1 Alliance provides the bank with cross selling opportunities, benefits from shared operations and risk management practices as well as a low probability of support from other member banks.

### **Rating Outlook**

The negative outlook on supported ratings takes into account the recent adoption of the Bank Recovery and Resolution Directive (BRRD) and the Single Resolution Mechanism (SRM) regulation in the EU. In particular, this reflects that, with the legislation underlying the new resolution framework now in place and the explicit inclusion of burden-sharing with unsecured creditors as a means of reducing the public cost of bank resolutions, the balance of risk for banks' senior unsecured creditors has shifted to the downside. While not subject to the BRRD and SRM, we expect that Norway will look to introduce legislation or other tools that include mechanisms similar to those in the BRRD; our expectations are based on public comments as well as governments' track record of mirroring EU banking regulations. Although our support assumptions are unchanged for now, the probability has risen that they will be revised downwards to reflect the new framework. For further details, please refer to our Special Comment entitled "Reassessing Systemic Support for EU Banks," published on 29 May 2014.

### **What Could Change the Rating - Up**

Upward rating momentum could develop if Sparebanken Hedmark (1) reduces the downside risks to its asset quality, e.g. the high credit concentration and substantial exposure to the real-estate segment (which we view as typically more volatile); (2) strengthens its liquidity position with increased buffers and reduced asset-liability mismatches; and/or (3) demonstrates that it is able to manage the risks involved with its increased exposure to Bank 1 Oslo Akershus in a way that does not significantly impair its ability to generate stable earnings.

### **What Could Change the Rating - Down**

Whilst the current standalone credit assessment incorporates a degree of expected further deterioration, further downward pressure could arise from (1) deterioration in Sparebanken Hedmark's funding position, e.g. reduced ability to access capital markets or deposit outflows; and/or (2) higher-than-expected losses in its loan book, or losses stemming from its ownership interests. In addition, downwards pressure could be exerted on the ratings due to external factors, such as a less supportive macroeconomic environment and/or substantially adverse

developments in the Norwegian real-estate market.

## **DETAILED RATING CONSIDERATIONS**

### **FRANCHISE - WELL ESTABLISHED IN THE COUNTY OF HEDMARK**

With regional loan and deposit market shares of 34% and 49% respectively, Sparebanken Hedmark enjoys a sound local market position in the county of Hedmark in eastern Norway. The national market share is however notably smaller at roughly 0.9% in terms of loans and 1.6% in terms of deposits (based on total lending in the bank's counties of operation and in the whole country according to Statistics Norway). Sparebanken Hedmark's limited geographical diversification is the main constraint for the assessment of Sparebanken Hedmark's franchise value.

Whilst similar to other Norwegian savings banks, we do not deem Sparebanken Hedmark has pricing power against the two national market leaders, we view the competition in the county of Hedmark as slightly less fierce than in the rest of Norway. In addition, the bank benefits from its membership in the SpareBank 1 Alliance, consisting of 15 savings banks across Norway, together constituting one of the leading banking groups in Norway. The SpareBank 1 brand enjoys strong name recognition in a wide range of segments including life and non-life insurance and asset management.

### **SPAREBANKEN HEDMARK'S INCREASED STAKE IN BANK 1 OSLO AKERSHUS SOMEWHAT INCREASES ITS STANDALONE RISK PROFILE**

On 18 January 2013, Sparebanken Hedmark announced that it will increase its stake in Bank 1 Oslo Akershus (unrated) to 40.5% from 12.0%. The transaction was approved by the Ministry of Finance on 26 April 2013 and was reflected in the bank's Q2 2013 results.

We view Bank 1 Oslo Akershus's credit profile as generally weaker than that of Sparebanken Hedmark, in particular because of (1) the rapid growth in its loan book; (2) lack of efficiency of its operations; and (3) its substantial exposure to the real-estate sector through both its lending and brokerage activities.

In our view, the increased stake in Bank 1 Oslo Akershus renders Sparebanken Hedmark's revenue profile less stable, because it increases the portion of revenue stemming from ownership interests and exposes Sparebanken Hedmark to the volatility in Bank 1 Oslo Akershus's profitability. In addition, we believe that the downside risk may not be limited to Sparebanken Hedmark's direct ownership interest in the bank (NOK1 billion or around 15% of Sparebanken Hedmark's equity capital at end-September 2013). This is because we expect that as a strategic owner, Sparebanken Hedmark may have to provide support to Bank 1 Oslo Akershus if it encounters difficulties. Whilst the transaction also has a negative impact on capital ratios, we note that this is largely mitigated by Tier 2 issuance in second quarter 2013.

Whilst in our view the benefits to Sparebanken Hedmark's franchise are marginal as the increased involvement in Bank 1 Oslo Akershus is primarily regarded as an investment at this stage, we positively note that there could be some limited benefits in terms of cross-selling of products between the two banks which operate in neighbouring counties. We also note the potential challenges in exerting control on a partially-owned company, although the bank at this stage avoids the further integration of Bank 1 Oslo Akershus's operations, and the risks related to such integration.

### **LIQUIDITY - SUBSTANTIAL DEPOSIT BASE, SOME RELIANCE ON MARKET FUNDING BUT LESS THAN MANY PEERS**

Sparebanken Hedmark's deposit base, largely in the form of retail deposits (almost 65% at end-September 2013), accounted for almost 80% of on-balance-sheet funding. Whilst the bank is somewhat less reliant on market funds than some of its rated Norwegian peers, we view its sizeable usage of market funding as a source of risk because, in times of market stress, market funding can become more expensive or/and restricted.

Sparebanken Hedmark has increasingly used covered bond funding, which is done off-balance-sheet through specialised companies it jointly owns together with the other members of SpareBank 1 Alliance (SpareBank 1 Boligkreditt for residential mortgages and SpareBank 1 Næringskreditt for commercial mortgages). At end-September 2013 Sparebanken Hedmark had transferred retail mortgages worth NOK14 billion to SpareBank 1 Boligkreditt and NOK0.3 billion commercial mortgages to SpareBank 1 Næringskreditt i.e. equivalent to almost 28% of total loans. Whilst we positively view the diversification benefit of covered bond funding, we caution that extensive use of covered bond funding increases the amount of pledged assets unavailable for unsecured bondholders including depositors in a liquidation.

At end-September 2013 liquid assets accounted for just below 12% of total assets and comprised cash and deposits with the central bank and the securities portfolio (which includes senior bonds, covered bonds and limited equity investments). We note that holdings are concentrated on Norwegian securities, which could be a source of vulnerability from a concentration risk point of view.

#### ASSET QUALITY & CAPITAL - PROBLEM LOAN RATIO SOMEWHAT ABOVE THAT OF ITS PEERS, BUT CAPITAL LEVELS AMONG THE HIGHEST

Asset quality metrics have somewhat improved in 2010-12; problem loans (defined as defaulted and doubtful commitments) decreased to 1.9% of on-balance-sheet loans at end-September 2013 from 2.5% at year-end 2010. Nonetheless, this ratio remains relatively high compared to its Norwegian rated peers.

Sparebanken Hedmark's loan portfolio benefits from a substantial proportion of retail loans, mostly in the form of mortgages (close to 60% excluding loans transferred to SpareBank 1 Boligkreditt and almost 70% including them). While the performance in the bank's retail book has been particularly strong so far, we believe it could be undermined by less favourable interest rate and house price levels - especially given the high household indebtedness as the mortgage loans remaining on the bank's balance sheet have higher loan-to-values than those transferred to the Alliance's covered bond companies.

However, the property management and construction exposure, which we deem particularly vulnerable to a deterioration in the economy and increasing interest rates, is sizeable at 20% of on-balance-sheet loans. The rest of the portfolio is mainly to SMEs and diversified across industries. The bank also exhibits high borrower concentration, albeit somewhat lower than most of its Nordic rated peers.

Mitigating the somewhat weaker asset quality metrics relative to its Norwegian peers, Sparebanken Hedmark exhibits one of the strongest capital levels amongst its Norwegian rated peers. At end-September 2013, the Tier 1 ratio stood at 15.3% (calculated under Basel II rules, including the transitional floor). Sparebanken Hedmark's capital consists only of retained earnings and we note that, as an institution without owners, its access to "pure" equity capital is limited, therefore it has less flexibility to enhance its capital base in the event of a crisis.

While the impact of Sparebanken Hedmark's increased stake in Bank 1 Oslo Akershus on Tier 1 ratio (Basel II rules, including the transitional floor) has been largely mitigated by its June 2013 NOK500 million Tier 2 issuance, the effect is expected to be somewhat more pronounced under Basel III. Nevertheless, this level continues to compare well with those reported by most other rated Norwegian savings banks.

#### PROFITABILITY - UPWARD TREND ON LENDING MARGINS

Sparebanken Hedmark's main source of earnings is on net interest income, which represented around 70% of its 2012 operating income. Including commissions from SpareBank 1 Boligkreditt (which represent interest income on loans transferred to the covered bond company), this source of earning grew by 5% in 2012, as strong loan growth (+8% including loans transferred to covered bond companies) and improved lending margins (largely reflecting decreased NIBOR) more than offset downward pressure on deposit margins.

To some extent, the somewhat less intense competition in Hedmark has helped keeping net interest margins slightly higher than the national average. We expect further improvement in the bank's lending margins as there will likely be a general market effort to re-price loans upwards in light of expected increased regulatory capital requirements.

Cost efficiency is adequate; the bank's cost-to-income ratio (according to Moody's adjusted metrics) improved to 60% in 2012 compared to 64% a year earlier, as increased core banking earnings more than offset the negative impact of 2012 being the first full year of consolidation of Consis, a company providing accounting services (only seven month in 2011). Loan loss provisions have remained low in recent years and stood at NOK42 million in 2012, down from NOK50 million in 2011.

Sparebanken Hedmark reported NOK481 million profit for the first nine months of 2013, a 40% increase compared to the same period of 2012. The increase is attributable to improved margins on loans in bank's balance sheet and in mortgage companies, as well as increased higher earnings from ownership interests.

#### NOTE ON DATA

Unless noted otherwise, all figures shown in this report are sourced from the bank's latest annual and interim financial reports and our Banking Financial Metrics. These metrics are based on our own chart of account, and are

adjusted for analytical purposes. Please refer to the documents entitled "Moody's Approach to Global Standard Adjustments in the Analysis of the Financial Statements of Banks, Securities Firms and Finance Companies" and "Frequently Asked Questions: Moody's Approach to Global Standard Adjustments in the Analysis of the Financial Statements of Banks, Securities Firms and Finance Companies", both published on 19 July 2012.

### **Global Local Currency Deposit Rating (Joint Default Analysis)**

Moody's assigns a GLC deposit rating of A2 to Sparebanken Hedmark. Under Moody's Joint Default Analysis, the rating receives a three-notch uplift from its baa2 standalone credit assessment. Given the bank's importance to its region, and the region's importance to the national economy of Norway, Moody's assesses as high the probability of systemic support (underlying support provider: Norway, Aaa local currency deposit ceiling) in the event of a stress situation. We are however likely to gradually reduce such unusual support uplift as such support mechanisms are phased out, as banks' standalone profiles improve, and as regulators globally consider implementing bank resolution regimes. Furthermore, Sparebanken Hedmark also benefits from a low probability of support from SpareBank 1 Alliance.

### **Foreign Currency Deposit Rating**

Foreign currency deposit ratings are unconstrained given that Norway has a country ceiling of Aaa. Sparebanken Hedmark's foreign currency deposit rating is A2.

## **ABOUT MOODY'S BANK RATINGS**

### **Bank Financial Strength Rating**

Moody's Bank Financial Strength Ratings (BFSRs) represent Moody's opinion of a bank's intrinsic safety and soundness and, as such, exclude certain external credit risks and credit support elements that are addressed by Moody's Bank Deposit Ratings. BFSRs do not take into account the probability that the bank will receive such external support, nor do they address risks arising from sovereign actions that may interfere with a bank's ability to honour its domestic or foreign currency obligations. Factors considered in the assignment of BFSRs include bank-specific elements such as financial fundamentals, franchise value, and business and asset diversification. Although BFSRs exclude the external factors specified above, they do take into account other risk factors in the bank's operating environment, including the strength and prospective performance of the economy, as well as the structure and relative fragility of the financial system, and the quality of banking regulation and supervision.

### **Global Local Currency Deposit Rating**

A deposit rating, as an opinion of relative credit risk, incorporates the BFSR as well as Moody's opinion of any external support. Specifically, Moody's Bank Deposit Ratings are opinions of a bank's ability to repay punctually its deposit obligations. As such, they are intended to incorporate those aspects of credit risk relevant to the prospective payment performance of rated banks with respect to deposit obligations, which includes: intrinsic financial strength, sovereign transfer risk (in the case of foreign currency deposit ratings), and both implicit and explicit external support elements. Moody's Bank Deposit Ratings do not take into account the benefit of deposit insurance schemes which make payments to depositors, but they do recognize the potential support from schemes that may provide assistance to banks directly.

According to Moody's joint default analysis (JDA) methodology, the global local currency deposit rating of a bank is determined by the incorporation of external elements of support into the bank's Baseline Credit Assessment. In calculating the Global Local Currency Deposit rating for a bank, the JDA methodology also factors in the rating of the support provider, in the form of the local currency deposit ceiling for a country, Moody's assessment of the probability of systemic support for the bank in the event of a stress situation and the degree of dependence between the issuer rating and the Local Currency Deposit Ceiling.

### **National Scale Ratings**

National scale ratings are intended primarily for use by domestic investors and are not comparable to Moody's globally applicable ratings; rather they address relative credit risk within a given country. An Aaa rating on Moody's National Scale indicates an issuer or issue with the strongest creditworthiness and the lowest likelihood of credit loss relative to other domestic issuers. National Scale Ratings, therefore, rank domestic issuers relative to each other and not relative to absolute default risks. National ratings isolate systemic risks; they do not address loss expectation associated with systemic events that could affect all issuers, even those that receive the highest ratings on the National Scale.

## Foreign Currency Deposit Rating

Moody's ratings on foreign currency bank obligations derive from the bank's local currency rating for the same class of obligation. The implementation of JDA for banks can lead to high local currency ratings for certain banks, which could also produce high foreign currency ratings. Nevertheless, it should be noted that foreign currency deposit ratings are in all cases constrained by the country ceiling for foreign currency bank deposits. This may result in the assignment of a different, and typically lower, rating for the foreign currency deposits relative to the bank's rating for local currency obligations.

## Foreign Currency Debt Rating

Foreign currency debt ratings are derived from the bank's local currency debt rating. In a similar way to foreign currency deposit ratings, foreign currency debt ratings may also be constrained by the country ceiling for foreign currency bonds and notes; however, in some cases the ratings on foreign currency debt obligations may be allowed to pierce the foreign currency ceiling. A particular mix of rating factors are taken into consideration in order to assess whether a foreign currency bond rating pierces the country ceiling. They include the issuer's global local currency rating, the foreign currency government bond rating, the country ceiling for bonds and the debt's eligibility to pierce that ceiling.

## About Moody's Bank Financial Strength Scorecard

Moody's bank financial strength model (see scorecard below) is a strategic input in the assessment of the financial strength of a bank, used as a key tool by Moody's analysts to ensure consistency of approach across banks and regions. The model 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 Factors

### Sparebanken Hedmark

Rating Factors [1]	A	B	C	D	E	Total Score	Trend
<b>Qualitative Factors (50%)</b>						<b>C-</b>	
<b>Factor: Franchise Value</b>						<b>D+</b>	<b>Neutral</b>
Market share and sustainability			x				
Geographical diversification					x		
Earnings stability			x				
<b>Earnings Diversification [2]</b>							
<b>Factor: Risk Positioning</b>						<b>D+</b>	<b>Neutral</b>
<b>Corporate Governance [2]</b>	--	--	--	--	--		
- Ownership and Organizational Complexity	--	--	--	--	--		
- Key Man Risk	--	--	--	--	--		
- Insider and Related-Party Risks	--	--	--	--	--		
<b>Controls and Risk Management</b>		x					
- Risk Management			x				
- Controls	x						
<b>Financial Reporting Transparency</b>		x					
- Global Comparability	x						
- Frequency and Timeliness	x						
- Quality of Financial Information			x				
<b>Credit Risk Concentration</b>	--	--	--	--	--		
- Borrower Concentration	--	--	--	--	--		
- Industry Concentration	--	--	--	--	--		
<b>Liquidity Management</b>				x			
<b>Market Risk Appetite</b>		x					
<b>Factor: Operating Environment</b>						<b>A-</b>	<b>Neutral</b>
<b>Economic Stability</b>		x					

Integrity and Corruption	x						
Legal System	x						
Financial Factors (50%)						C+	
Factor: Profitability						C+	Neutral
PPI % Average RWA (Basel II)			2.03%				
Net Income % Average RWA (Basel II)		1.90%					
Factor: Liquidity						D+	Neutral
(Market Funds - Liquid Assets) % Total Assets			7.14%				
Liquidity Management				x			
Factor: Capital Adequacy						A	Improving
Tier 1 Ratio (%) (Basel II)	16.17%						
Tangible Common Equity % RWA (Basel II)	20.65%						
Factor: Efficiency						C	Neutral
Cost / Income Ratio			61.76%				
Factor: Asset Quality						C+	Weakening
Problem Loans % Gross Loans			2.04%				
Problem Loans % (Equity + LLR)		11.60%					
Lowest Combined Financial Factor Score (15%)						D+	
<i>Economic Insolvency Override</i>						Neutral	
Aggregate BFSR Score						C	
Aggregate BCA Score						a3	
Assigned BFSR						C-	
Assigned BCA						baa2	

[1] - Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.  
[2] - A blank score under Earnings Diversification or Corporate Governance indicates the risk is neutral.



© 2014 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. ("MIS") AND ITS AFFILIATES 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 PUBLICATION") 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 DO NOT 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 FOR RETAIL INVESTORS TO CONSIDER MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS IN MAKING ANY 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.

MIS, 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 MIS have, prior to assignment of any rating, agreed to pay to MIS 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](http://www.moodys.com) under the heading "Shareholder Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

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 clients. It would be dangerous for "retail clients" to make any investment decision based on MOODY'S credit rating. If in doubt you should contact your financial or other professional adviser.