

Rating Action: Moody's upgrades the senior unsecured debt or issuer ratings of AIB, PTSB, UBIDAC and affirmed that of BOI. The holding company debt ratings of AIB, BOI and PTSB and the deposit ratings of BOIUK are also upgraded.

04 Dec 2019

The standalone assessments of AIB, BOI, BOIUK, PTSB are upgraded and UBI DAC's affirmed

London, 04 December 2019 -- Moody's Investors Service ("Moody's") today upgraded the Baseline Credit Assessments (BCAs) of Allied Irish Banks, p.l.c. (AIB), Bank of Ireland (BOI), Bank of Ireland (UK) plc (BOIUK) and Permanent tsb p.l.c (PTSB) and affirmed the BCA of Ulster Bank Ireland DAC (UBIDAC). The action reflects the strong operating environment and significant further improvements in the credit profiles of the Irish banks following material reduction in their legacy problem loans, strengthened capital and stabilised funding profiles while recognising ongoing margin pressures and weak demand for credit partly due to Brexit-related uncertainties.

For BOIUK, PTSB and UBIDAC, the rating agency upgraded the long-term deposit ratings and for AIB and BOI the deposit ratings were affirmed. Furthermore, for AIB, PTSB and UBIDAC the rating agency upgraded the long-term senior unsecured debt or issuer ratings (where applicable) while affirming the long-term senior unsecured ratings for BOI. The outlook remains stable on the long-term deposit and senior unsecured debt ratings of BOI, and has been changed to stable from positive on the long-term deposit ratings of BOIUK and PTSB and on the long-term senior unsecured debt ratings of PTSB and AIB. The outlook has been changed to positive from stable on the long-term deposit ratings of AIB and remains positive on the long-term deposit and issuer ratings of UBIDAC.

Also as part of this action, Moody's upgraded the long-term senior unsecured debt ratings of AIB Group plc (AIB Group), Bank of Ireland Group plc (BOI Group) and Permanent TSB Group Holdings plc (PTSB Group), the holding companies of AIB, BOI and PTSB, respectively. The outlook on the long-term debt ratings of Bank of Ireland Group plc and Permanent TSB Group Holdings plc were changed to stable from positive while the outlook on the long-term debt rating of AIB Group plc remains positive.

A full list of affected ratings can be found at the end of this press release.

RATINGS RATIONALE

The action reflects significant improvement in the solvency of the Irish banks due to the supportive operating environment and material reduction in their legacy impairments resulting from ongoing work-outs and asset sales on a capital accretive or neutral basis. Moody's expects further improvement in the risk profiles of all the Irish banks and that they will maintain good buffers above regulatory requirements despite plans to increase their earnings distribution to shareholders over the next few years.

Irish banks' funding profiles have stabilised with deposits being the primary funding source and now make little use of central bank funding. All the rated Irish banks have now re-established a track record of capital market access to support their future funding plans including further issuance of bail-in-able debt from their holding companies providing increased protection to senior unsecured creditors. This will entail a rise in market funding from their current low levels.

Nevertheless, Moody's believes that the banks will face profitability pressure due to sizable balances of low-yielding tracker mortgages, weak demand for credit, increased use of more expensive debt, and cost demands related to digitalisation, regulation and potential fines. However, these factors will be partly offset by modest new lending growth at higher margins and expense reduction initiatives.

Today's rating action also takes into account social risk considerations. The Irish banks have incurred or are currently incurring substantial provisions to compensate customers related to the Tracker Mortgage Examination Review conducted by the Central Bank of Ireland. This sector-wide review aims to compensate borrowers who could have received the benefit of a lower mortgage rate by having their rate track the lower European Central Bank benchmark interest rate.

Moody's does not have any particular governance concern for all the issuers impacted by today's rating action. Moody's does not apply any corporate behaviour adjustment to these banks and views their risk management frameworks as consistent and commensurate with their risk appetite.

Additionally, the rating action reflects the results of Moody's affiliate support assumptions, where applicable, and Moody's Advanced Loss Given Failure (LGF) analysis. This takes into account increased protection for senior creditors from the issuance of more junior debt. Furthermore, Moody's incorporates an assumption of the potential for a low or medium level of support from the Government of Ireland (A2 stable) in the senior ratings of the banks' operating companies, depending on Moody's view of their systemic importance. For holding company instruments, which are meant to absorb losses in resolution, Moody's believes that the potential for government support is therefore low and hence these ratings do not include any related uplift.

SPECIFIC ANALYTICAL FACTORS FOR THE AFFECTED BANKS

Allied Irish Banks, p.l.c. (AIB)

The upgrade of the long-term senior unsecured debt ratings reflects the upgrade of AIB's BCA and unchanged uplift under Moody's Advanced LGF analysis. Moody's expectation of a moderate probability of government support results in an additional notch of uplift in AIB's senior unsecured debt ratings. AIB's long-term deposit ratings, Counterparty Risk (CR) Ratings and CR Assessment were affirmed since the government support assumption no longer results in an additional notch uplift given they are positioned at the same level as Irish Government's rating. The upgrade of EBS d.a.c.'s (EBS) BCA and affirmation of deposit ratings follows that of AIB's and reflects Moody's credit view of EBS's status as a Highly Integrated and Harmonized (HIH) affiliate of AIB.

The upgrade of the BCA reflects AIB's (1) much improved asset risk with problem to gross loans (PL) ratio at 7.3% as of H1 2019, down from 9.2% at end-2018; (2) solid capitalisation and leverage, with Moody's tangible common equity (TCE) to risk-weighted assets (RWA) and TCE to tangible banking assets at 20.8% and 11.9% respectively; (3) strong core profitability, with reported net income over tangible assets (NI/TA) at 0.76% and a very strong net interest margin (NIM) of 2.33%; and (4) its strong liquidity profile with low market funding reliance. As of H1 2019, AIB had provisioned €35 million for the potential cost of regulatory fines over in relation to the Tracker Mortgage Review (TMR).

The positive outlook on AIB's long-term deposit ratings and AIB Group's senior unsecured debt ratings reflects potential upside to the BCA, due to further expected improvements in the bank's asset risk. Furthermore, AIB's strong profitability and capital, despite some expected decline, continue to provide a strong loss absorption cushion. The outlook on AIB's senior unsecured debt rating is stable since a notch upgrade of the BCA would likely be offset by a loss of the current one notch uplift from government support, as the rating is already in line with that of Ireland itself.

AIB's deposit and AIB Group's debt ratings could be upgraded as a result of an upgrade in the bank's BCA; the long-term debt could be upgraded as a result of a BCA upgrade and further increase in the amount of the bank's bail-in-able debt. The bank's BCA could be upgraded because of (1) a further reduction in NPLs while preserving the strong capital base; (2) an improvement in stressed-capital resilience; or (3) sustained improvement in its core profitability.

AIB's and AIB Group's ratings could be downgraded, although unlikely given the positive outlook, as a result of a downgrade in its standalone BCA; or (2) redemption of maturing subordinated instruments without their replacement. AIB's BCA could be downgraded because of (1) a significant deterioration in the bank's solvency or liquidity profile.

Bank of Ireland (BOI)

The upgrade of BOI's subordinated, junior subordinated debt and "low trigger" additional tier 1 (AT1) and all BOI Group's debt ratings reflects the upgrade of BOI's BCA and unchanged uplift under Moody's Advanced LGF analysis. The affirmation of BOI's long-term deposits, senior unsecured debt and CR Ratings and CR Assessments reflects the loss of government support uplift that was incorporated in the ratings, given they are already the same as that of Ireland itself, following the BCA upgrade.

The upgrade of the BCA reflects BOI's (1) much improved asset risk with a 4.9% PL ratio as of H1 2019, down from 5.9% at end-2018, and which the agency expects to improve further to close to 3.5% by year-end 2019; (2) strong capitalisation and leverage with Moody's TCE/RWA and TCE/TBA at 15.7% and 7.4% respectively;

(3) moderate core profitability with reported NI/TA at 0.36% and a NIM of 1.78%; and (4) its sound funding and liquidity profile with low market funding reliance. As of H1 2019, BOI had provisioned €55 million towards potential costs of customer redress and regulatory fines associated with the TMR.

The outlook on BOI's and BOI Group's ratings is stable reflecting the agency's expectation that the bank will reduce legacy problem loans further while maintaining its strong capitalisation and continue to report moderate profitability, which remains structurally weaker, due to a higher share of tracker mortgages, lower share of SMEs and higher operational costs, than that of its main Irish peer.

BOI's debt and deposits and BOI Group's debt ratings could be upgraded as a result of an upgrade in the bank's BCA. The bank's BCA could be upgraded because of (1) a significant improvement in its core profitability; and (2) an improvement in stressed-capital resilience.

BOI's and BOI Group's ratings could be downgraded as a result of a downgrade in its BCA; or (2) redemption of maturing subordinated instruments without their replacement. BOI's BCA could be downgraded because of a significant deterioration in the bank's solvency or liquidity profile.

Bank of Ireland (UK) plc (BOIUK)

The upgrade of the long-term ratings and assessments reflects the upgrade of BOIUK's BCA and unchanged uplift under Moody's Advanced LGF analysis. Moody's expectation of a low probability of government support results in no additional notch of uplift in the ratings.

The upgrade of the BCA reflects the upgrade of its parent's (BOI's) BCA, as the weaker credit fundamentals of BOI previously acted as a constraint on BOIUK's own BCA. The BCA of BOIUK is one notch higher than that of its parent BOI, given the subsidiary's stronger credit fundamentals, but limited by the operational interlinkages between BOI and BOIUK. BOIUK's BCA is supported by its (1) strong asset risk with low volatility, with a 1.8% PL ratio as of end-2018; (2) strong capital position with Moody's TCE/RWA at 15.6%; (3) stable profit generation with reported NI/TA at 0.57%; and (4) a solid domestic retail deposit funding profile. Additionally, BOIUK's BCA reflects its monoline business model which elevates its earnings sensitivity to a stress primarily in the UK residential mortgage market.

The outlook on BOIUK's deposit ratings is stable, reflecting the agency's expectation that despite a weakening operating environment in the UK, BOIUK will maintain a steady performance due to a relatively low risk loan book and stable and granular deposit funding base.

BOIUK's debt and deposits could be upgraded as a result of a significant increase in the bank's bail-in-able debt or an upgrade in the BCAs of both BOIUK and its parent. The bank's BCA could be upgraded because of a significant improvement in (1) its loan book diversification; or in (2) its solvency, in particular capital and core profitability.

BOIUK's ratings could be downgraded as a result of a downgrade in its or BOI's standalone BCA.

Permanent tsb p.l.c. (PTSB)

The upgrade of all long-term deposit and debt ratings of PTSB and PTSB Group -- where applicable - reflects (1) the upgrade of PTSB's BCA; and (2) unchanged uplift for PTSB's Junior Subordinate MTN, Subordinate MTN and all of PTSB Group's ratings and the one notch increase in the uplift to two notches for PTSB's deposits and senior unsecured debt ratings, under Moody's Advanced LGF analysis. Moody's revised its expectation in relation to the probability of government support for PTSB, to low from moderate, resulting in no additional notch of uplift in its ratings. The lower assumption of government support reflects the bank's much-improved performance, completion of the European Commission restructuring plan in 2018, the successful inaugural MREL bond issuance in September 2019, and the bank's reduced systemic importance. The long-term CR Ratings and CR Assessment were affirmed, since the one notch upgrade of the BCA was offset by the removal of government support uplift.

The upgrade of the BCA reflects (1) much improved asset risk, reflected in the PL ratio of 7.2% following the recent €506 million problem loan sale, versus 10% reported as of H1 2019, but also constrained by the 16% stock of negative equity mortgages reported as of year-end 2018; (2) strong capitalisation, with Moody's TCE/RWA and TCE/TBA at 15.9% and 8.4%, respectively; (3) the bank's structurally weak core profitability given its focus on the Irish mortgage market with reported NI/TA at 0.21% and a moderate net interest margin (NIM) of 1.69% as of H1 2019; and (4) its strong funding and liquidity profile with low market funding reliance. Additionally, PTSB's BCA reflects its monoline business model which elevates its earnings sensitivity to a

stress in Ireland's residential mortgage market. As of H1 2019, PTSB paid a €21 million fine in relation to the outcome of the tracker mortgage review.

The outlook on PTSB's and PTSB Group's ratings is stable reflecting the agency's expectation that the bank will reduce legacy problem loan further while maintaining its strong capitalisation but continue to report low profitability due to the limited diversification of the loan book.

PTSB's and PTSB Group's debt ratings could be upgraded as a result of an upgrade in its standalone BCA and further increase in the bank's bail-in-able debt. The bank's BCA could be upgraded because of a significant improvement in its stressed-capital resilience, in particular a further improvement in core profitability and reduction in asset risk.

PTSB's and PTSB Group's ratings could be downgraded as a result of a downgrade in the BCA; or (2) redemption of maturing subordinated instruments without their replacement. PTSB's BCA could be downgraded because of a significant deterioration in the bank's solvency or liquidity profile.

Ulster Bank Ireland DAC (UBIDAC)

The upgrade of UBIDAC's long-term deposits and issuer ratings reflects the (1) affirmation of UBIDAC's BCA; and (2) higher loss absorption provided by the substantial volume of deposits, which has proven to be a stable source of funding, leading to a one-notch increase in the uplift (to two notches) under Moody's Advanced LGF analysis. The CR Ratings and CR Assessment were affirmed, since they already benefit from the maximum three notches per Moody's Advanced LGF analysis.

UBIDAC's ratings additionally benefit from an unchanged two-notches of uplift under Moody's assessment of a very high probability of affiliate support to UBIDAC from its UK ring-fenced sister companies National Westminster Bank Plc (A1 positive, baa1) and The Royal Bank of Scotland plc (RBS, A1 positive, baa1). Moody's expectation of a low probability of government support results in no additional notch of uplift in the ratings.

The affirmation of UBIDAC's BCA reflects (1) a declining but still elevated PL ratio, which the agency projects all things being equal will reduce to around 8.5% following the sale of €800 million of problem loans in first half of 2020, versus 11.3% reported as of year-end 2018; (2) weak profitability prone to volatility due to the bank's evolving strategy and restructuring with reported NI/TA at 0.29%, and the possibility of conduct charges relating to TMR, for which the bank has not yet provisioned; and (3) very strong capitalisation with Moody's TCE/RWA and TCE/TBA at 30.2% and 16.6%, respectively. UBIDAC has a strong funding and liquidity profile with low market funding reliance.

UBIDAC's long-term deposits and issuer ratings carry a positive outlook, reflecting the potential for a higher BCA due to expected improvement in bank's asset risk and operational efficiency as well as the positive outlook on UBIDAC's UK ring-fenced sister companies.

UBIDAC's ratings could be upgraded as a result of an upgrade in its or UK ring-fenced sister companies' standalone BCAs or a further increase in the bank's bail-in-able liabilities. The bank's BCA could be upgraded because of (1) a sustained improvement in its core profitability; or (2) a further reduction in NPLs while preserving a strong capital base.

UBIDAC's ratings could be downgraded, although unlikely given the positive outlook, as a result of a downgrade in its or its UK ring-fenced sister companies' BCAs or a decrease in the bank's bail-in-able liabilities. UBIDAC's BCA could be downgraded because of a significant deterioration in the bank's solvency or liquidity profile.

LIST OF AFFECTED RATINGS

Issuer: AIB Group plc

..Upgrades:

....Senior Unsecured Regular Bond/Debenture, upgraded to Baa2 from Baa3, outlook remains Positive

....Senior Unsecured Medium-Term Note Program, upgraded to (P)Baa2 from (P)Baa3

....Subordinate Regular Bond/Debenture, upgraded to Baa3 from Ba1

...Subordinate Medium-Term Note Program, upgraded to (P)Baa3 from (P)Ba1

...Preferred Stock Non-cumulative, upgraded to Ba2(hyb) from Ba3(hyb)

..Outlook Action:

...Outlook remains Positive

Issuer: Allied Irish Banks, p.l.c.

..Upgrades:

...Baseline Credit Assessment, upgraded to baa2 from baa3

...Adjusted Baseline Credit Assessment, upgraded to baa2 from baa3

...Senior Unsecured Regular Bond/Debenture, upgraded to A2 from A3, outlook changed to Stable from Positive

...Senior Unsecured Medium-Term Note Program, upgraded to (P)A2 from (P)A3

...Subordinate Regular Bond/Debenture, upgraded to Baa3 from Ba1

...Subordinate Medium-Term Note Program, upgraded to (P)Baa3 from (P)Ba1

...Junior Subordinate Medium-Term Note Program, upgraded to (P)Ba1 from (P)Ba2

...Preferred Stock Non-cumulative, upgraded to Ba2(hyb) from Ba3(hyb)

...Other Short Term, upgraded to (P)P-1 from (P)P-2

..Affirmations:

...Long-term Counterparty Risk Ratings, affirmed A2

...Short-term Counterparty Risk Ratings, affirmed P-1

...Long-term Bank Deposits, affirmed A2, outlook changed to Positive from Stable

...Short-term Bank Deposits, affirmed P-1

...Long-term Counterparty Risk Assessment, affirmed A2(cr)

...Short-term Counterparty Risk Assessment, affirmed P-1(cr)

..Outlook Action:

...Outlook changed to Stable(m) from Positive(m)

Issuer: EBS d.a.c.

..Upgrades:

...Baseline Credit Assessment, upgraded to baa2 from baa3

...Adjusted Baseline Credit Assessment, upgraded to baa2 from baa3

..Affirmations:

...Long-term Counterparty Risk Ratings, affirmed A2

...Short-term Counterparty Risk Ratings, affirmed P-1

...Long-term Bank Deposits, affirmed A2, outlook changed to Positive from Stable

...Short-term Bank Deposits, affirmed P-1

....Long-term Counterparty Risk Assessment, affirmed A2(cr)

....Short-term Counterparty Risk Assessment, affirmed P-1(cr)

..Outlook Action:

....Outlook changed to Positive from Stable

Issuer: Bank of Ireland Group plc

..Upgrades:

....Long-term Issuer Ratings, upgraded to Baa2 from Baa3, outlook changed to Stable from Positive

....Senior Unsecured Regular Bond/Debenture, upgraded to Baa2 from Baa3, outlook changed to Stable from Positive

....Senior Unsecured Medium-Term Note Program, upgraded to (P)Baa2 from (P)Baa3

....Subordinate Regular Bond/Debenture, upgraded to Baa3 from Ba1

....Subordinate Medium-Term Note Program, upgraded to (P)Baa3 from (P)Ba1

..Outlook Action:

....Outlook changed to Stable from Positive

Issuer: Bank of Ireland

..Upgrades:

....Baseline Credit Assessment, upgraded to baa2 from baa3

....Adjusted Baseline Credit Assessment, upgraded to baa2 from baa3

....Subordinate Regular Bond/Debenture, upgraded to Baa3 from Ba1

....Subordinate Medium-Term Note Program, upgraded to (P)Baa3 from (P)Ba1

....Junior Subordinated Regular Bond/Debenture, upgraded to Ba1(hyb) from Ba2(hyb)

....Preferred Stock, upgraded to Ba2(hyb) from Ba3(hyb)

....Preferred Stock Non-cumulative, upgraded to Ba2(hyb) from Ba3(hyb)

..Affirmations:

....Long-term Counterparty Risk Ratings, affirmed A2

....Short-term Counterparty Risk Ratings, affirmed P-1

....Long-term Bank Deposits, affirmed A2, outlook remains Stable

....Short-term Bank Deposits, affirmed P-1

....Short-term Deposit Note/CD Program, affirmed P-1

....Long-term Counterparty Risk Assessment, affirmed A2(cr)

....Short-term Counterparty Risk Assessment, affirmed P-1(cr)

....Long-term Issuer Rating, affirmed A2, outlook remains Stable

....Senior Unsecured Regular Bond/Debenture, affirmed A2, outlook remains Stable

....Senior Unsecured Medium-Term Note Program, affirmed (P)A2

....Commercial Paper, affirmed P-1

....Other Short Term, affirmed (P)P-1

..Outlook Action:

....Outlook remains Stable

Issuer: Bank of Ireland (UK) plc

..Upgrades:

....Long-term Counterparty Risk Ratings, upgraded to A2 from A3

....Short-term Counterparty Risk Ratings, upgraded to P-1 from P-2

....Long-term Bank Deposits, upgraded to Baa1 from Baa2, outlook changed to Stable from Positive

....Long-term Counterparty Risk Assessment, upgraded to A1(cr) from A2(cr)

....Baseline Credit Assessment, upgraded to baa1 from baa2

....Adjusted Baseline Credit Assessment, upgraded to baa1 from baa2

..Affirmations:

....Short-term Bank Deposits, affirmed P-2

....Short-term Counterparty Risk Assessment, affirmed P-1(cr)

..Outlook Action:

....Outlook changed to Stable from Positive

Issuer: Permanent TSB Group Holdings plc

..Upgrades:

....Long-term Issuer Rating, upgraded to Ba1 from Ba3, outlook changed to Stable from Positive

....Senior Unsecured Regular Bond/Debenture, upgraded to Ba1 from Ba3, outlook changed to Stable from Positive

....Senior Unsecured Medium-Term Note Program, upgraded to (P)Ba1 from (P)Ba3

..Affirmation:

....Other Short Term, affirmed (P)NP

..Outlook Action:

....Outlook changed to Stable from Positive

Issuer: Permanent tsb p.l.c.

..Upgrades:

....Long-term Bank Deposits, upgraded to Baa2 from Baa3, outlook changed to Stable from Positive

....Short-term Bank Deposits, upgraded to P-2 from P-3

....Baseline Credit Assessment, upgraded to ba1 from ba2

....Adjusted Baseline Credit Assessment, upgraded to ba1 from ba2

....Senior Unsecured Regular Bond/Debenture, upgraded to Baa2 from Baa3, outlook changed to Stable from

Positive

...Senior Unsecured Medium-Term Note Program, upgraded to (P)Baa2 from (P)Baa3

...Subordinate Medium-Term Note Program, upgraded to (P)Ba2 from (P)Ba3

...Junior Subordinate Medium-Term Note Program, upgraded to (P)Ba3 from (P)B1

...Other Short Term, upgraded to (P)P-2 from (P)P-3

..Affirmations:

...Long-term Counterparty Risk Ratings, affirmed Baa1

...Long-term Counterparty Risk Assessment, affirmed Baa1(cr)

...Short-term Counterparty Risk Ratings, affirmed P-2

...Short-term Counterparty Risk Assessment, affirmed P-2(cr)

..Outlook Action:

...Outlook changed to Stable from Positive

Issuer: Ulster Bank Ireland DAC

..Upgrades:

...Long-term Bank Deposits, upgraded to A3 from Baa1, outlook remains Positive

...Long-term Issuer Rating, upgraded to Baa1 from Baa2, outlook remains Positive

..Affirmations:

...Long-term Counterparty Risk Ratings, affirmed A2

...Short-term Counterparty Risk Ratings, affirmed P-1

...Short-term Bank Deposits, affirmed P-2

...Long-term Counterparty Risk Assessment, affirmed A2(cr)

...Short-term Counterparty Risk Assessment, affirmed P-1(cr)

...Short-term Issuer Rating, affirmed P-2

...Baseline Credit Assessment, affirmed ba1

...Adjusted Baseline Credit Assessment, affirmed baa2

..Outlook Action:

...Outlook remains Positive

PRINCIPAL METHODOLOGY

The principal methodology used in these ratings was Banks Methodology published in November 2019. Please see the Rating Methodologies page on www.moody.com for a copy of this methodology.

REGULATORY DISCLOSURES

For ratings issued on a program, series, category/class of debt or security this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series, category/class of debt, security or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support

provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

For any affected securities or rated entities receiving direct credit support from the primary entity(ies) of this credit rating action, and whose ratings may change as a result of this credit rating action, the associated regulatory disclosures will be those of the guarantor entity. Exceptions to this approach exist for the following disclosures, if applicable to jurisdiction: Ancillary Services, Disclosure to rated entity, Disclosure from rated entity.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Please see www.moodys.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moodys.com for additional regulatory disclosures for each credit rating.

Arif Bekiroglu
VP-Senior Analyst
Financial Institutions Group
Moody's Investors Service Ltd.
One Canada Square
Canary Wharf
London E14 5FA
United Kingdom
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

Nicholas Hill
MD - Banking
Financial Institutions Group
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

Releasing Office:
Moody's Investors Service Ltd.
One Canada Square
Canary Wharf
London E14 5FA
United Kingdom
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454



© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND 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 OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. 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 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 CREDIT 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 ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. 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.

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 ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

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