

ISSUER IN-DEPTH

14 May 2018

[Rate this Research](#) >>

RATINGS

KommuneKredit

Long Term Debt	Aaa
Outlook	Stable

Municipality Finance Plc

Issuer Rating	Aa1
Outlook	Stable

Kommunalbanken AS

Long Term Debt	Aaa
Outlook	Stable

Kommuninvest i Sverige Aktiebolag

Long Term Debt	Aaa
Outlook	Stable

Source: Moody's Investors Service

Contacts

Effie Tsotsani +44.20.7772.1712
AVP-Analyst
effie.tsotsani@moody.com

Edward Demetry +44.20.7772.1720
Analyst
edward.demetry@moody.com

Malika Takhtayeva +44.20.7772.8662
Associate Analyst
malika.takhtayeva@moody.com

Jean-Francois Tremblay +44.20.7772.5653
Associate Managing Director
jean-francois.tremblay@moody.com

KommuneKredit, Municipality Finance Plc, Kommunalbanken AS, Kommuninvest

FAQ: Nordic specialist lenders' sovereign ties and low credit risk support their credit profile

Sweden's [Kommuninvest i Sverige Aktiebolag](#) (Kommuninvest), Norway's [Kommunalbanken AS](#), Denmark's [KommuneKredit](#) and Finland's [Municipality Finance Plc](#) (MuniFin) are specialist lenders that provide debt finance solely to regional and local governments (RLGs). All four share their respective sovereigns' Aaa/Aa1 credit ratings. This reflects a combination of their low risk lending, and the strong support we expect they would receive from their domestic governments in case of stress.

RLG lenders benefit from the stable operating environment of the Nordic countries. They are well capitalised and have stable albeit low profitability due to their not-for-profit mandate and low risk business activities as evident by their exceptional asset quality metrics of zero problem loans.

Their RLG borrowers pose limited risk, as they engage in low risk activities, are closely supervised by their central governments, and would likely receive central government support if they experienced financial difficulties. In addition, the debt issued by most of the lenders is explicitly guaranteed by the RLGs they lend to. Ultimately, we would also expect central governments to support the RLG lenders if required, even though their commitment to do so is less explicit and direct than their commitment to support the RLGs. Our view reflects the lenders' public policy mandate to provide low cost financing to the RLG sector, as well as their role as a key channel through which central governments enforce local government policy.

Below we address some frequently-asked questions (FAQs) about the four Nordic specialized lenders.

What is the role and business model of the specialist lenders?

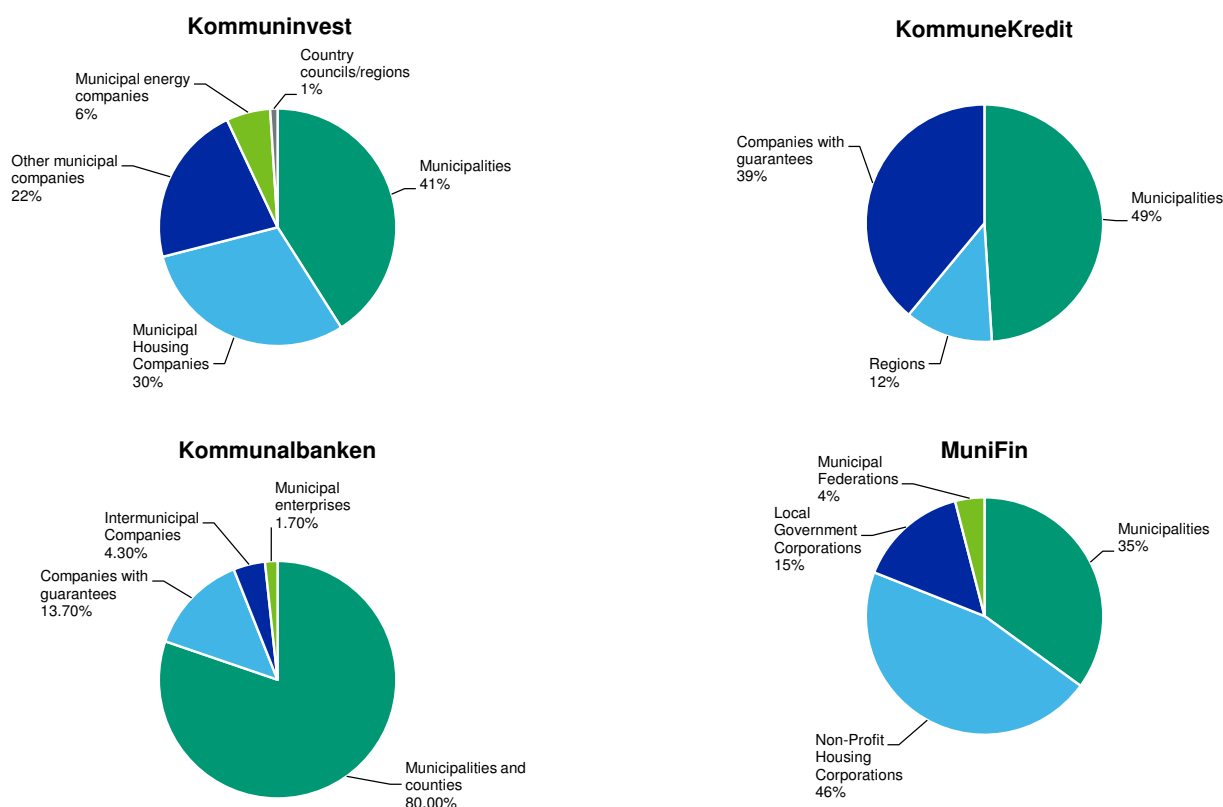
The four Nordic municipality lenders - Kommuninvest, Kommunalbanken, KommuneKredit and MuniFin - have a narrow not-for-profit public policy mandate. They issue debt in the capital markets, and lend the proceeds to municipalities and other regional and local government (RLG) bodies.

The RLG sector plays an important role in all four Nordic countries, where it is mandated by the central government to deliver a wide array of public services, including education and healthcare (see below). RLGs use their loans from the specialist lenders to fund investments in environmental projects, local infrastructure, education, healthcare and social housing (see Exhibit 1)

Exhibit 1

Municipality lenders exclusively fund public bodies backed by the central government

Loan book composition



Source: Kommuninvest, KommuneKredit, Kommunalbanken, MuniFin

The credit risk borne by the lenders is strictly limited. Their RLG borrowers are engaged in low risk activities, are under close central government supervision, and are financially backed by the central government. The lenders' only other credit exposure takes the form of investments in highly rated debt instruments (such as Aaa-rated sovereign debt and covered bonds) which they hold for liquidity and hedging purposes.

There are practically zero non-performing loans (NPLs) on the lenders' balance sheets, compared to the Nordic banking average of 2% (see highlight box), underlining the low risk nature of their RLG lending. All four institutions also have a very good track record of fulfilling their mandate to provide finance to RLGs at times of severe stress in debt capital markets.

The four institutions rank as the largest lenders to RLGs and related entities in their respective countries. Their dominant positions reflect their not-for-profit status, which allow them to lend more cheaply than commercial banks. We consider the specialist lenders to be particularly valuable to smaller local governments, which gain access to market funding on competitive terms and at favourable loan tenures.

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.moody's.com for the most updated credit rating action information and rating history.

Nordic specialized lenders financial fundamentals

The RLG lenders benefit from strong financial fundamentals. All four of them are well capitalised and have stable albeit low profitability compared to traditional banks due to their low risk appetite as evident by their exceptional asset quality metrics of zero problem loans. In addition, they benefit from efficient cost structures due to their efficient distribution (see Exhibit 2).

Exhibit 2

Nordic specialized lenders benefit from strong fundamentals

	Kommunalbanken	Kommuninvest	MuniFin	KommuneKredit
	Norway	Sweden	Finland	Denmark
TCE/ RWAs	18.8%	253.8%	55.7%	41.8%
Moody's Rated Banking Avg	18.0%	26.6%	19.1%	20.7%
Leverage Ratio	3.7%	1.8%	3.8%	3.3%
Moody's Rated Banking Avg	7.0%	5.1%	7.8%	5.2%
NPLs/ Loans	0.0%	0.0%	0.0%	0.0%
Moody's Rated Banking Avg	1.4%	1.1%	3.9%	1.8%
Net Income/ Avg Assets	0.5%	0.3%	0.5%	0.2%
Moody's Rated Banking Avg	0.9%	0.7%	0.7%	0.7%
Cost/Income	6.8%	19.3%	16.4%	16.4%
Moody's Rated Banking Avg	41.5%	47.6%	63.6%	50.9%

Source: Kommunalbanken, Kommuninvest I Sverige AB, KommuneKredit, Municipality Finance Plc, Moody's Investors Service

We consider the lenders to be adequately capitalised given their growth and risk appetite, however, calculations vary in-terms of risk weight assumptions across different countries. The Norwegian regulator requires institutions to apply a 20% risk-weight to loans issued to the country's regional and local governments, as opposed to zero in Sweden and Finland. As a result Kommunalbanken's tangible common equity to risk weighted assets ratio at 18.8% in 2017 is considerably lower than Kommuninvest's 253.8% or MuniFin's 55.7%, but well within the regulatory minimum of 15.4% as set by the Norwegian FSA. Kommunalbanken has nevertheless never recorded a loss on its lending during 90 years of operation similarly to its peers and we consider it to be adequately capitalised relative to its risks.

The Nordic lenders are large and frequent issuers in the debt capital markets, with total debt outstanding amounting almost EUR 120 billions as of end 2017. All four of them employ diversified funding strategies whereby they issue debt in several currencies, in several geographies using different funding instruments to different institutional investors. We view this strategy as prudent because it alleviates the burden of relying on a single source of funding, while the access to multiple markets also allows to optimise their cost of funding.

Nordic specialized lenders issue debt with option-like features which could suddenly shorten their liability profile. We understand the institutions issue callable bonds for their liquidity planning and assume that all such funding is called at first call date. Both MuniFin and Kommunalbanken have some contractual mismatches, resulting in somewhat higher level of refinancing risk, but both lenders are match-funded based on an anticipated average maturity of the assets based on historical data. We consider Kommuninvest and KommuneKredit to be match-funded since the maturity profile of their liabilities is aligned with that of their assets.

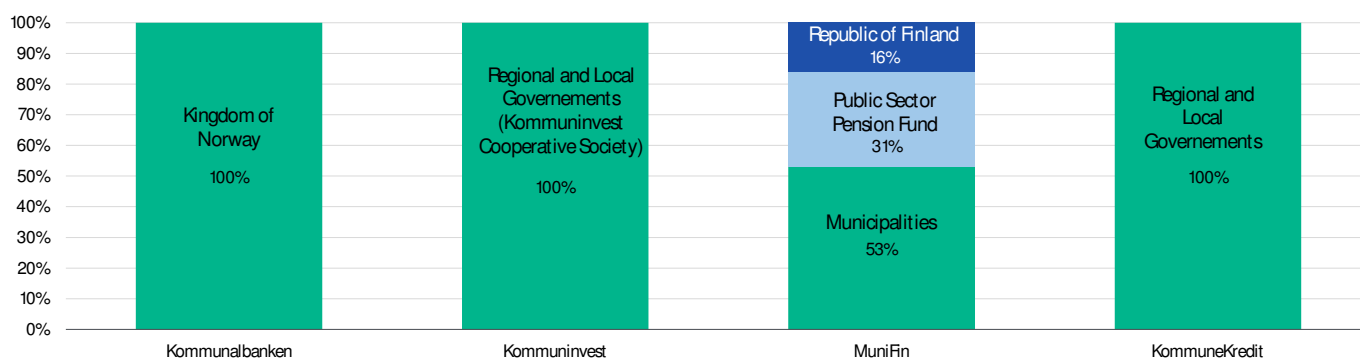
What is the ownership structure of the specialist lenders?

All four institutions are 100% owned by public sector bodies. For all four, this is a statutory requirement. Their ownership structures differ slightly, but all are highly stable (see Exhibit 3).

KommuneKredit and Kommuninvest are 100% owned by the regional and local governments they finance, while their Norwegian counterpart is fully owned by the Norwegian central government. Finland's Municipality Finance Plc has a more diverse ownership structure: Keava, a public-sector pension fund, holds 30.66% of its shares, while the Finnish central government and the City of Helsinki hold 16% and 10.41% respectively. The remaining shares are held by the municipal sector.

Exhibit 3

The specialized lenders have diverse ownership structures



Source: Kommunalbanken, Kommuninvest I Sverige AB, KommuneKredit, Municipality Finance Plc

What is the relationship between the specialist lenders and their central governments?

There is no explicit commitment from the Nordic central governments to support their specialist lenders in case of financial stress. However, the lenders benefit indirectly from the Nordic central governments' strong links with and close supervision of their RLG borrowers. This makes sovereign support for the RLGs in the event of financial distress likely, and safeguards the asset quality of the lenders in turn. In some cases, the central government also has a direct role in supervising the lenders (see below). These considerations support our expectation that the Nordic central governments would support their municipality lenders if required.

Nordic central governments maintain financial discipline within the wider public sector by imposing strict fiscal rules on municipalities, which are responsible for the bulk of RLG expenditure. These include a requirement that they balance their budgets, which makes the build-up of substantial municipal operating deficits unlikely. In addition, supervisory bodies monitor municipalities' decisions to make sure they do not exceed their legislative powers.

The supervisory bodies can question the municipalities' approach to revenue distribution, efficiency, allocation of resources, and expenditure. Municipalities may also be subject to borrowing restrictions, and may face additional requirements regarding their accounting systems and benchmarking standards. To promote accountability and transparency, they may also be required to respond to requests for information from citizens and the central government.

In all four countries, legislation prohibits local governments from declaring default, making government intervention in the event of an RLG facing severe financial difficulties very likely. Nordic RLGs have on occasion experienced financial distress. However, there have been no Nordic RLG defaults for over 100 years thanks to timely central government support (see Exhibit 4).

Exhibit 4

Nordic central governments have historically provided support to RLGs in financial distress

	DENMARK	FINLAND	SWEDEN	NORWAY
Local government under stress	Municipality of Farum, (2002)	Municipality of Karkkila, (1992)	City of Bjuv, (1995)	Municipality of Lebesby, (Late 1980s)
Background	Excessive spending and breaches of borrowing regulations. Several ambitious projects were carried out via opaque public-private partnerships using sale and leaseback loans.	Financial distress of a major state-owned company (Karkkila Industrial Village Ltd.) with domestic and foreign loans guaranteed by the municipality. A devaluation of the Finnish Markka exacerbated the situation, pushing guaranteed loans up to 250% of the municipality's tax revenue.	Financial distress due to the overindebtedness of its housing company. Bjuv was unable to raise taxes at the time due to national legislation that suspended municipalities' tax-raising powers.	The municipality guaranteed the liabilities of a fishing business that went bankrupt, and was forced to assume responsibility for NOK 50 million of its short-term debt.
State intervention	The central government assumed control of Farum and granted the municipality a subsidy of DKK 2 billion, a sum equivalent to its annual budget. This marked the first time the Danish central government had bailed out a local government, and was highly controversial in Denmark. Farum was forced to raise municipal taxes from 19.6% to 22.8%.	Karkkila took the liabilities on its balance sheet and the central government was given the right to veto the company board. The central government passed emergency legislation that enabled the payment of a state interest subsidy to the municipality, which had to be repaid. Karkkila raised municipal taxes to the highest level in the country.	The central government provided SEK 159 million out of the SEK200 million requested to resolve the crisis. It also took over the housing company until 31 May 2003 as a condition of allowing Bjuv to keep it thereafter. Bjuv took a larger management role in the housing company.	The central government provided financial support for number of years, and allowed the debt to be restructured as part of a wider rescue package that also imposed spending cuts and closer scrutiny on the municipality.

Source: Farum – Policy making in multilevel systems: Federalism, decentralisation and performance in OECD countries (2013); Karkkila – Finnish local government institutions and creditworthiness (2012); Bjuv – Fiscal Federalism in Unitary States (2004); Lebesby – Recovery of local and regional authorities in financial difficulties (2002)

All the Nordic specialist lenders' have exceptionally high asset quality. None of them have incurred any credit losses throughout their long history. This is because the safeguards outlined above have supported RLGs' long-term creditworthiness, allowing them to fulfil their mandate to deliver critical public services such as education and healthcare.

A planned reform in Finland will create a new subdivision of local government, the county, which will sit in between RLGs and the central government. The counties will take over responsibilities relating to health and social services currently performed by municipalities in an effort to improve efficiency.

This could adversely affect some Finnish municipalities, as the efficiency improvements may result in the loss of some real estate assets, potentially putting at risk the repayment of existing loans. However, we do not expect any change in MuniFin's credit costs, even if some of its loans become non-performing, thanks to the supportive mechanisms currently in place for Finnish RLGs.

In some cases, central governments have a role in supervising the specialised lenders. For example, Denmark's KommuneKredit is structured as a credit association, and hence is not subject to Danish banking law. As a result, it is directly supervised by the Ministry of Economic Affairs and the Interior, rather than Denmark's banking regulator.

Similarly, Kommunalbanken's status as a "state instrumentality" requires the Norwegian government to ensure the lender is able to meet its financial obligations. Moreover, Norway's Ministry of Finance is responsible for setting Kommunalbanken's return on equity target (currently 8%), while material changes to the lender's business model would require parliamentary consent. Kommunalbanken is also supervised by Norway's Financial Supervisory Authority (FSA), the country's bank regulator.

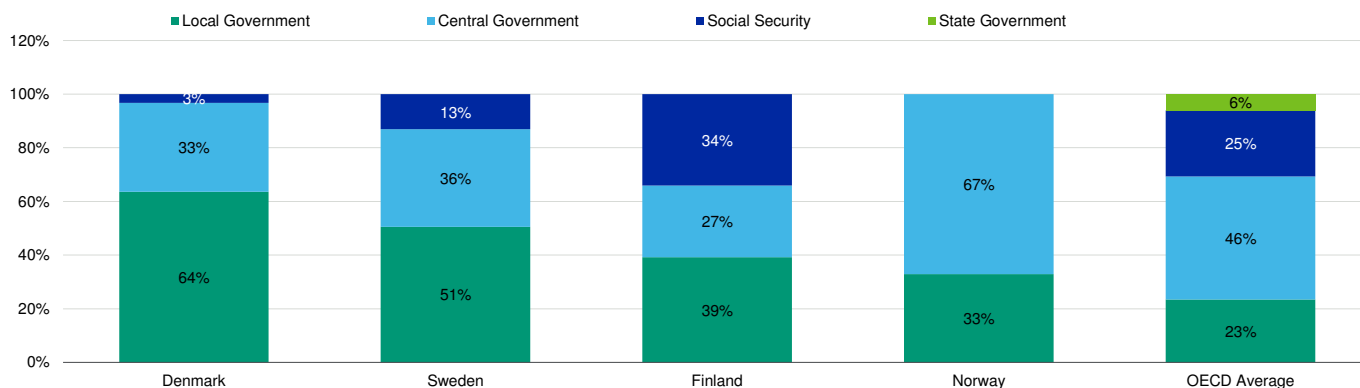
How economically significant are Nordic RLGs?

The Nordic countries' local government sectors are the largest in the world, accounting for 20% of total employment on average, and for an unusually high share of total public expenditure (see Exhibit 5). In Denmark, Sweden and Finland, local government spending exceeds that of the central government, in contrast to most other countries in the Organisation for Economic Co-operation and Development (OECD).

Exhibit 5

Nordic local governments account for a large share of public expenditure

Share of public expenditure spent by government level, 2016



Source: OECD: Government at a Glance 2017

This reflects the wide range of responsibilities that the Nordic countries devolve to local level, including the delivery of most public services (see Exhibit 6). Nordic local governments' role as public service providers makes them systemically important, reinforcing the probability that they would receive central government support if necessary. The bulk of public services are delivered by municipalities, in line with the principle that services are most effectively delivered at the local level. Local governments in Denmark, Sweden, Norway and Finland are regional or municipal.

Exhibit 6

Nordic regions and municipalities play a key role in public service delivery

TASKS	DENMARK	FINLAND	SWEDEN	NORWAY
Government Structure				
National Level	<ul style="list-style-type: none"> - Defense, police - Judicial system - Foreign and monetary policy - Major infrastructure - Higher education - Secondary schools (upper) 	<ul style="list-style-type: none"> - Defense, police - Judicial system - Foreign and monetary policy - Major infrastructure - Higher education 	<ul style="list-style-type: none"> - Defense, police - Judicial system - Foreign and monetary policy - Major infrastructure - Higher education 	<ul style="list-style-type: none"> - Defense, police - Judicial system - Foreign and monetary policy - Major infrastructure - Higher education - Healthcare (hospitals)
Regional Level	<ul style="list-style-type: none"> - Healthcare (hospitals) - Regional development - Environmental protection - Specialised social institutions 	<ul style="list-style-type: none"> - Regional development - Environmental protection 	<ul style="list-style-type: none"> - Healthcare - Regional development and transport infrastructure 	<ul style="list-style-type: none"> - Secondary schools (upper) - Regional development - Environmental protection - Culture
Municipal Level	<ul style="list-style-type: none"> - Child care - Elderly care - Social services - Healthcare (primary) - Primary schools - Secondary schools (lower) - Waste management, environmental protection - Local infrastructure - Culture 	<ul style="list-style-type: none"> - Child care - Elderly care - Social services - Healthcare - Primary schools - Secondary schools - Waste management, environmental protection - Local infrastructure - Culture 	<ul style="list-style-type: none"> - Child care - Elderly care - Social services - Primary schools - Secondary schools - Waste management, environmental protection - Culture 	<ul style="list-style-type: none"> - Child care - Elderly care - Social services - Healthcare (primary) - Primary schools - Secondary schools (lower) - Waste management, environmental protection - Local infrastructure - Culture

Note: Finland's RLG reform will see health care services become the responsibility of the newly formed county-level governments, so as to reduce cost pressures on municipalities. Source: Danish Ministry of Economic Affairs and the Interior, Association of Finnish Local and Regional Authorities, Swedish Ministry of Finance, Norwegian Ministry of Local Government and Modernisation, European University Institute Florence.

Nordic local governments also have wide tax-raising powers. Tax receipts account for the majority local government revenues, with central government grants, fees and financial income making up the balance. Income tax is by far the largest source of local government operating revenue. Other local taxes include corporate tax, land tax and property tax. Nordic RLGs have the autonomy to raise taxes as required (with the exception of those in Norway, where local taxes are subject to a central government ceiling). Equalization systems are in place to support financially weaker RLGs.

What kind of guarantees are in place for the debt issued by the lenders?

In most cases, the debt issued by Nordic specialist lenders is guaranteed by local governments. The exception is Norway's Kommunalbanken, whose debt carries no explicit guarantees even though the institution is 100% state-owned (see Exhibit 7).

Nevertheless, Kommunalbanken's status as a "state instrumentality" requires the Norwegian government to ensure the lender is able to meet its financial obligations, and to perform its mandate of providing finance to RLGs. We believe that in a failure scenario, which we currently regard as unlikely, the Norwegian government would have both the ability and the willingness to support Kommunalbanken.

Sweden's Kommuninvest and Denmark's KommuneKredit both benefit from joint and several guarantees from the RLGs they lend to. In the event of failure, creditors could therefore claim payment from any of the municipalities and regions without needing a court order.

MuniFin's liabilities are guaranteed by a separate entity, the [Municipal Guarantee Board](#) (MGB, Aa1, stable). All municipalities in Finland are members of the MGB, and they have a joint (but not several) obligation under the guarantee. We do not view the joint guarantee as materially weaker than a joint and several guarantee in this instance, because we do not believe that smaller municipalities would be able to cover the obligations of larger peers under a stress scenario.

Exhibit 7

Kommunalbanken debt is not guaranteed, in contrast to the other municipal lenders

	Kommunalbanken	Kommuninvest	MuniFin	KommuneKredit
Country (Sovereign Rating)	Norway (Aaa, Sta)	Sweden (Aaa, Sta)	Finland (Aa1, Sta)	Denmark (Aaa, Sta)
Guarantee	None	Joint and several guarantee from RLGs which are part of Kommuninvest Cooperative Society	Joint guarantee from RLGs through the Municipal Guarantee Board	Joint and several guarantee from RLGs
Ratings (LT Issuer)	Aaa	Aaa	Aa1	Aaa

Source: Kommunalbanken, Kommuninvest / Sverige AB, Kommunekredit, Municipality Finance Plc, Moody's Investors Service

Are the lenders subject to a resolution framework?

The four specialist lenders all operate in countries that have adopted the European Union's (EU) Bank Recovery and Resolution Directive (BRRD), designed to ensure that creditors rather than taxpayers bear the cost of bank failure.

However, we believe there is still a very high probability that the central government would provide Kommuninvest, MuniFin and Kommunalbanken with support if necessary. This reflects the lenders' strong links with government, and their importance to the smooth functioning of the local government sector. Denmark's KommuneKredit is exempt from the BRRD due to its non-bank status.

The business models of the specialist lenders differ from those of other banks, and we therefore expect them to be treated differently in the event of failure. However, we consider the probability of a Nordic specialist lender failing to be very low, given Nordic central governments' close supervision of both the RLG sector and individual lenders.

Moody's Related Research:

Credit opinions:

- » [Kommunalbanken AS: Regular Semiannual Update](#)
- » [KommuneKredit: Update to credit analysis](#)
- » [Kommuninvest i Sverige Aktiebolag: Update to credit analysis](#)
- » [Municipality Finance Plc: Semiannual Update](#)

Rating Methodologies:

- » [Banks](#)
- » [Government-Related Issuers](#)

Issuer in depth:

- » [AFL, BNG Bank, Kommuninvest, MuniFin, NWB Bank, SFIL: European lenders to local governments: adequate capitalisation despite expected relaxation in leverage requirements](#)
- » [Nordic Local Governments: Credit quality boosted by support expectation and inherent strengths](#)

© 2018 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT 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 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 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.moody's.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 61 003 399 657 AFSL 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. ("MJJK") 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 MJJK. 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. MJJK 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.

MJJK 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 MJJK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJJK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

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

REPORT NUMBER 1108502

CLIENT SERVICES

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