

Nykredit Realkredit Group and Nykredit Group

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Disclosure requirements

This report has been prepared in accordance with the legal disclosure requirements laid down in the EU's Capital Requirements Regulation (CRR) and, combined with supplementary data material, it meets the requirements. The supplementary data material is available at nykredit.com/reports

Disclaimer

This document is an English translation of the original Danish text. In the event of discrepancies between the original Danish text and the English translation, the Danish text shall prevail.

1. 2018 IN BRIEF

2018 was a year of progress in the Danish economy, which is where Nykredit has the predominant part of its business. Employment and income levels rose, and many households have put the extra funds towards consolidating their finances. Housing prices increased in most parts of Denmark, thereby pushing up collateral values. The trend towards loan types with longer interest periods and repayment loans continued into 2018.

The Danish economy was underpinned by the continuing very low interest level. Combined with economic growth, this triggered a high level of activity in the sector. Nykredit's credit policy in 2018 focused on credit management that fosters long-lasting and sound customer relationships. Nykredit's customer portfolio remains characterised by low impairments and write-offs, and low arrears levels. At the same time, the level of properties acquired by foreclosure is the lowest since the financial crisis.

Drought in the agricultural sector and producer prices

The Danish summer of 2018 was record hot and dry. This resulted in lost income for farmers, who could only stand by and watch the yields on their crops decline and livestock feed prices go up. In these extraordinary circumstances, Nykredit has focused particularly on loss prevention measures in relation to farmers at risk of defaulting on their obligations. So far, no significantly higher losses or arrears have been observed in this area. Nykredit has made provisions for loan impairment for the segment.

Tightened regulation

The focus on compliance continued in 2018, when new regulatory measures relating to data protection and anti-money laundering entered into force. Nykredit has allocated substantial resources to comply with the rules, to the benefit of customers and society, and focus will remain on integrating the new regulatory requirements as a natural element of Nykredit's culture.

Cyberattacks

The risk of cyberattacks in the sector remains high. Nykredit is monitoring risks and events and introduced a number of new measures during the year to strengthen defences against cyberattacks. No significant losses were recorded in 2018 as a result of cyberattacks.

Nykredit's capital management

In accordance with our business model, we aim to have stable earnings, a strong capital structure and competitive ratings. Based on a structured capital management framework, the Group aims to be able to maintain its business activities independently of significant fluctuations in economic trends. This implies having adequate access to capital to withstand an economic downturn and losses and thus maintain active lending also during and after a crisis.

EBA 2018 stress test

Nykredit also participates in the stress test exercises of the European Banking Authority (EBA), most recently in 2018. The stress scenarios for Denmark were very severe. The results showed that Nykredit's Common Equity Tier 1 (CET1) capital ratio drops by approximately 4% when stress testing based on the current capital need. The decrease is within the framework set out in Nykredit's capital policy, thus indicating that Nykredit is sufficiently resilient to withstand a severe recession.

Capital requirement

The Board of Directors has set the CET1 capital requirement at 15.5-16.5% of the total risk exposure amount (REA). Furthermore, Nykredit has reserved CET1 capital to meet the upcoming Basel requirements, the estimated impact of which is still an increase in REA of around DKK 100 billion. Nykredit has access to new CET1 capital through Forenet Kredit's liquid assets and through investment commitments from a number of Danish pension companies.

Nykredit's CET1 capital represented 21.0% of REA at end-2018.

Increased capital requirements from the Basel Committee

The Basel IV recommendations include a so-called capital floor for credit institutions applying internal models. The capital floor means that institutions, across risk types (credit, market and operational risks), will be subject to a minimum capital requirement which makes up 72.5% of the capital requirement as calculated under the standardised approach. The floor will significantly increase Nykredit's REA compared with today's level. It will impact mortgage loans in particular, as they have a very low risk of loss, which will not be allowed for in the risk determination when the floor is introduced.

1.1 ■ FINANCIAL HIGHLIGHTS

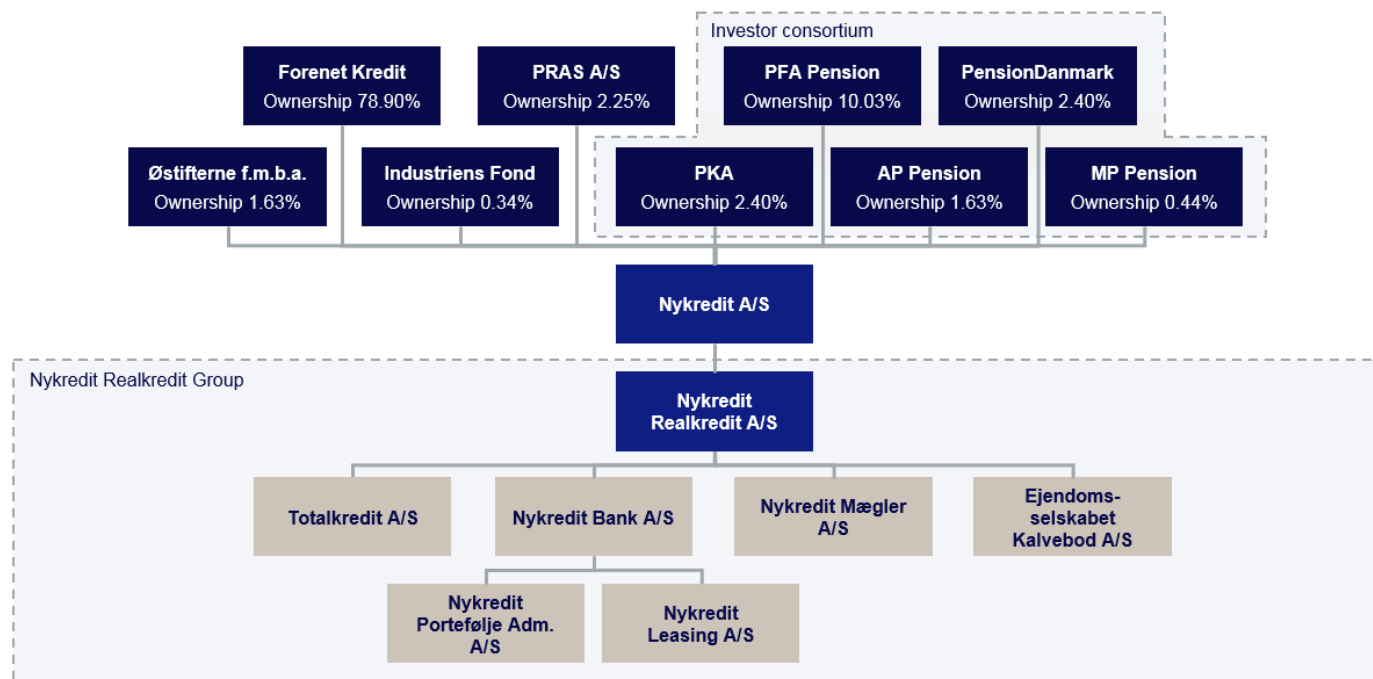
Nykredit Realkredit Group

Year-end DKK billion/%	2018	2017	2016
Capital adequacy and capital			
Common Equity Tier 1 capital ratio, %	21.0	20.6	18.8
Tier 1 capital ratio, %	22.1	21.7	19.9
Total capital ratio, %	25.4	25.3	23.0
Leverage ratio, %	4.9	4.7	4.6
Internal capital adequacy requirement, %	10.0	10.2	10.2
Total assets, DKK billion	1,448	1,427	1,401
Funding and liquidity			
Liquidity Coverage Ratio (LCR), %	752	383	321
S&P long-term issuer rating/outlook	A/positive	A/stable	A/stable
Fitch long-term issuer rating/outlook	A/stable	A/stable	A/stable
Key figures and ratios			
Total risk exposure amount, DKK billion	345	337	349
Total provisions for loan impairment and guarantees, DKK billion	7,929	7,915	8,341
Impairment charges for the year, %	0.03	0.03	0.06
Credit exposures, DKK billion	1,451	1,430	1,377
Credit exposures in default ¹ , DKK billion	21	26	30

¹ Credit exposures in default include exposures to customers who have defaulted on their payment obligations. The exposure includes loans and advances, but also off-balance sheet items. The exposure is stated before any impairment charges.

Nykredit

Group chart



1.2 - BOARD DECLARATION AND RISK STATEMENT

The Boards of Directors of Nykredit A/S and Nykredit Realkredit A/S have on 4 February 2019 approved Nykredit's report Risk and Capital Management 2018.

- It is the Boards' assessment that Nykredit has adequate and effective risk management arrangements and controls in place with regard to Nykredit's risk profile and strategy.
- It is furthermore the Boards' assessment that the description of Nykredit's risk profile and key figures and ratios gives a true and fair view of Nykredit, including Nykredit's overall risk appetite.

The Boards' assessment is based on the continuous risk reporting and the adopted strategy, Winning the Double, as reviewed and approved by the Boards of Directors, the Executive Boards and the Chief Risk Officer.

For information and key ratios concerning Nykredit's risk profile, reference is made to the relevant sections of this report.

Risk assessment

- Credit risk mainly relates to mortgage and bank lending, and represents approximately 84% of the Group's total REA. Credit risk is managed in accordance with the credit policy, including requirements for credit risk concentrations on single names, industries and geographical regions. At end-2018, DKK 7.9 billion had been provided for loan losses, corresponding to 0.6% of total lending. Loan impairment charges for the year totalled DKK 0.3 billion. The credit risk exposure does not exceed the Group's risk appetite.
- Market risk mainly relates to the activities of Nykredit Markets and Group Treasury, and represents approximately 8% of the Group's total REA. Market risk is managed in accordance with the market risk policy, including detailed limits and guidelines for various types of market risk prescribed by the Board of Directors. The market risk exposure falls within the Group's risk appetite.
- Liquidity risk is managed in accordance with the liquidity policy, including detailed limits and guidelines prescribed by the Board of Directors. At end-2018, the LCR was 752%.
- Operational risk is managed in accordance with the policy for operational risk and the pertaining guidelines. Operational risk represents approximately 8% of total REA.
- Nykredit's total risk is reflected in the internal capital adequacy requirement, which represents 10.0% of total REA.
- Based on the internal capital adequacy requirement as well as guidelines and expectations for the capital position, the Board of Directors has set the CET1 capital requirement at 15.5-16.5% of REA. In addition to this, Nykredit has set aside capital to meet the upcoming Basel IV requirements. Nykredit's CET1 capital ratio was 21.0% at end-2018. The total capital ratio was 25.4% at end-2018.

Board of Directors of Nykredit A/S

Steffen Kragh <i>Chairman</i>	Merete Eldrup <i>Deputy Chairman</i>	Nina Smith <i>Deputy Chairman</i>	Helge Leiro Baastad	Olav Bredgaard Brusen	Michael Demsitz
Per W. Hallgren	Marlene Holm	Hans-Ole Jochumsen	Vibeke Krag	Allan Kristiansen	Lasse Nyby
Claus E. Petersen	Inge Sand	Leif Vinther			

Board of Directors of Nykredit Realkredit A/S

Steffen Kragh <i>Chairman</i>	Merete Eldrup <i>Deputy Chairman</i>	Nina Smith <i>Deputy Chairman</i>	Helge Leiro Baastad	Olav Bredgaard Brusen	Michael Demsitz
Per W. Hallgren	Marlene Holm	Hans-Ole Jochumsen	Vibeke Krag	Allan Kristiansen	Inge Sand
Leif Vinther					

Executive Board of Nykredit A/S and Nykredit Realkredit A/S

Michael Rasmussen Group Chief Executive	Kim Duus Group Managing Director	David Hellemann Group Managing Director	Søren Holm Group Managing Director	Anders Jensen Group Managing Director
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2. GOVERNANCE AND MANAGEMENT OF RISK

2.1 NYKREDIT'S CHARACTERISTICS

2.2 RISK PROFILE

2.3 RISK GOVERNANCE AND CULTURE

2.4 MANAGEMENT

2.4.1 Boards and committees

2.5 RISK POLICY

2.5.1 Risk appetite

2.6 RISK MONITORING

2.6.1 Internal controls

2.7 REPORTING AND COMMUNICATION

2.1 ■ NYKREDIT'S CHARACTERISTICS

The Nykredit Realkredit Group is a Danish financial services group with business activities within banking and mortgage lending. The Group's activities also include estate agency services, administration and management of investment funds, leasing and insurance mediation.

The Nykredit Realkredit Group's core business is match-funded mortgage lending secured by mortgages on real estate. Mortgage lending is carried out under the Nykredit brand and through the subsidiary Totalkredit A/S, which is wholly owned by Nykredit Realkredit A/S. Mortgage lending to personal customers is provided only through Totalkredit A/S, while lending to business customers is provided through both Totalkredit A/S and Nykredit Realkredit A/S.

Mortgage lending in Totalkredit is based on a strategic alliance with 55 local and regional banks in Denmark. According to this business concept, the partner banks are responsible for serving customers, and Totalkredit A/S undertakes the funding of the mortgage loans. Totalkredit A/S and the individual partner bank share the credit risk on the loans, and the partner bank receives regular fees for providing customer services. At end-2018 mortgage lending to personal customers in Totalkredit A/S made up around half of the Nykredit Realkredit Group's total mortgage lending. This is described in more detail in *4.2.2 Totalkredit A/S's credit approval process*.

Nykredit Bank A/S is an important part of the Nykredit Realkredit Group and widely underpins the Group's mortgage business. For example, many mortgage customers are offered funding through Nykredit Bank. Also, Nykredit Bank offers market making in the Group's covered bonds and thus contributes to ensuring deep liquidity. Nykredit Bank's risk profile mainly relates to loans and credit facilities provided to personal and business customers.

2.2 ■ RISK PROFILE

Nykredit's business activities involve credit risk, market risk, liquidity risk, operational risk, including reputation risk, conduct risk, as well as IT and compliance risks. Moreover, regulatory and strategic risks are areas of special focus.

As Nykredit mainly provides match-funded mortgage loans against mortgages on real estate, Nykredit's primary risk is credit risk. Mortgage lending and the underlying funding are regulated by the balance principle, which means that Nykredit has a low exposure to market and liquidity risk on mortgage lending and the underlying funding. The principles behind the balance principle are described in detail in 7.4 *Balance principle and match funding*. Liquidity and market risk is further reduced by the Danish act regulating refinancing risk, which ensures mortgage loan refinancing even in adverse market conditions. This is described in more detail in 7. *Liquidity risk and funding*.

Credit risk, market risk and operational risk are mitigated by holding adequate capital, while liquidity risk is mitigated through a sufficient stock of liquid assets. Regulatory and strategic risks are monitored and assessed continuously, but are typically not directly measurable. The Board of Directors regularly considers the current risk levels and risk appetite.

Nykredit's risk management

For purposes of ensuring and managing a suitable risk profile, Nykredit applies a number of basic risk management principles. These principles make up the practice and culture that guide us in managing risks in relation to Nykredit's values, strategy and performance for the purpose of preserving, creating and realising value.

The principles of all risk management in the organisation are based on four elements:

- Risk governance and culture
- Risk policy
- Risk monitoring
- Risk communication and reporting.

2.3 ■ RISK GOVERNANCE AND CULTURE

The Board of Directors is the supreme management body of the Company, which makes decisions of a strategic and fundamental nature and lays down guidelines for the day-to-day management undertaken and implemented by the Group Executive Board. The Board of Directors oversees the establishment of risk management procedures and monitors risks through the Risk Board. All policies are reviewed and approved by the Board of Directors at least once a year, and the Board of Directors receives regular reports on compliance with limits and guidelines set out in the policies.

The Executive Board oversees that risks are managed and controlled as determined by the Board of Directors.

The Executive Board monitors risks through various committees and management bodies. The responsibility for the day-to-day control is based on three lines of defence:

First line of defence: The operational business units, which basically take, and are responsible for, the risk. The management of each business area is responsible for identifying, assessing and reporting the risks arising in connection with the performance of its duties and for ensuring that satisfactory internal controls are in place at all times in respect of the risks related to the handling of business operations.

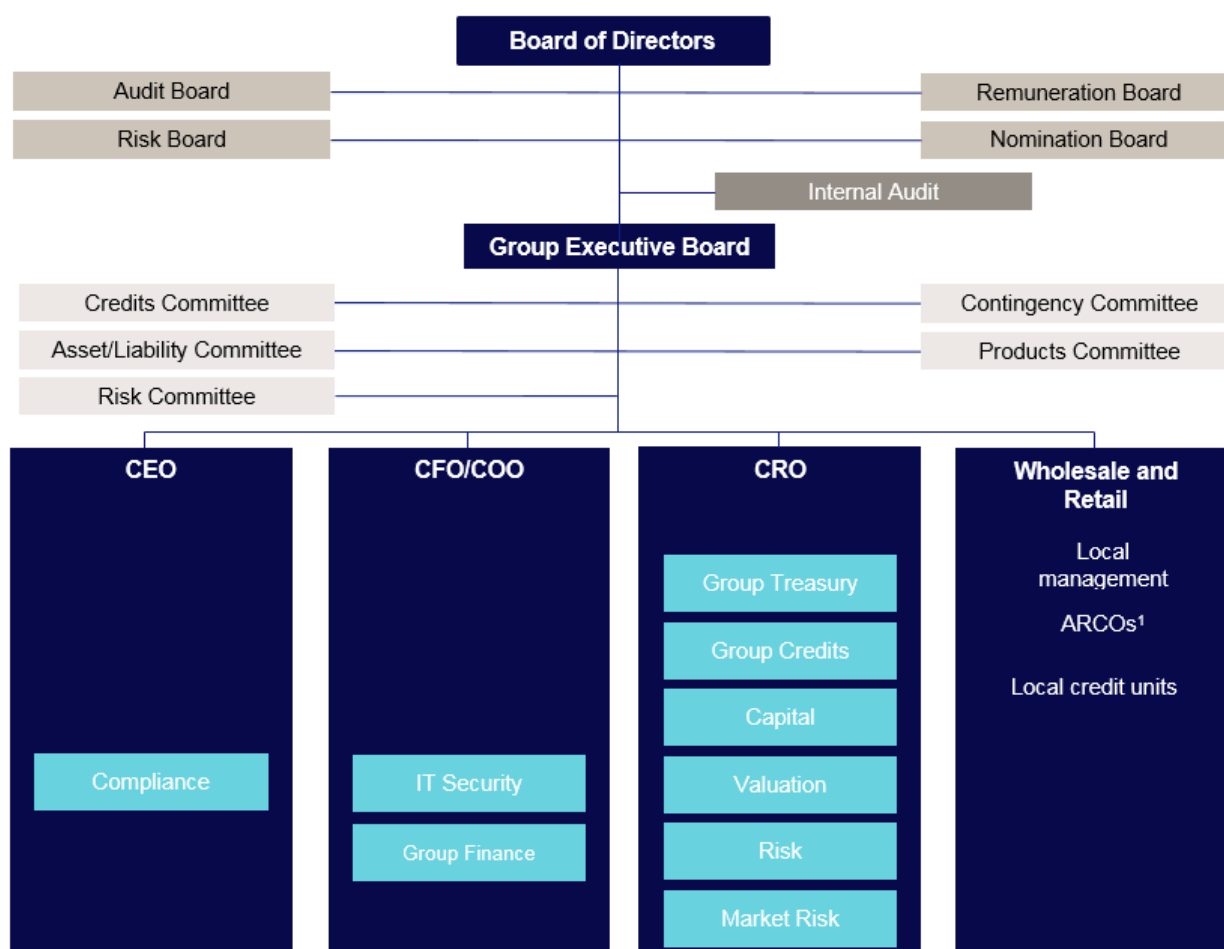
Further, the first line of defence is to ensure that risk management is performed in compliance with current legislation and the Group's business model, policies, guidelines and business procedures, and that it meets the overall principles of risk management.

Second line of defence: the risk control function, the compliance function and a number of control units, for instance in Nykredit's credits area and finance function. Together, these units are responsible for the monitoring, controlling and reporting of risks to the Board of Directors and for the effectiveness of first line activities.

To strengthen the organisation's efforts to address and mitigate risks, including operational and compliance risks, one or more Assistant Risk and Compliance Officers (ARCOs) have been appointed in the individual business divisions. Their primary duty is to assist the managements of the individual business divisions in executing compliance- and risk-related tasks and to embed the risk culture across Nykredit. ARCOs serve as links between on the one hand the first line of defence and on the other hand the compliance and risk control functions. ARCOs are also found in units in the second line of defence where they also assist in the performance of compliance- and risk-related tasks.

Nykredit Group

Risk management and governance



¹⁾ ARCOs (Assistant Risk and Compliance Officers) have been appointed in all business divisions to support local management.

Third line of defence: Internal Audit, which provides independent assurance over the overall management of risks and internal controls in the Group and reports on its work to the Board of Directors and the Audit Board. Internal Audit is responsible for testing and providing an opinion on whether Nykredit's overall risk management approach, risk management framework, business procedures and internal controls established in all material areas and risk areas have been organised and are working satisfactorily.

Conduct management

Nykredit has structured risk management practices in place aimed at identifying the risks associated with operating a financial business and ensuring that all parts of the business act responsibly, correctly and sustainably.

At the end of 2018 these risk management efforts were expanded to include the task of continuously addressing whether conduct, propositions, products, advisory services or similar exist in the organisation that cannot be explained or defended. This is called *conduct management*.

By focusing in a more structured way on conduct, the Group wants to support a culture in which staff and management in Nykredit are able to openly discuss dilemmas and act on them.

Conduct management is thus to sustain a healthy, open-minded culture, ensuring that all parts of the company act in sync with Nykredit's corporate responsibility – as a financial institution and as a company owned by an association with a special social commitment to ensure affordable, secure loans throughout Denmark at all times.

2.4 ■ MANAGEMENT

Board of Directors

The Board of Directors must be composed so that it possesses the mix of skills required to undertake the overall and strategic management of the business and to take any measures to ensure prudent business management. Furthermore, Board members must possess the knowledge and experience required to be able to critically assess and challenge the work of the Executive Board.

The Board of Directors reviews its skills profile on an ongoing basis and has decided in this respect that it should have special skills and knowledge as regards:

- Strategy
- Sector and real estate expertise
- Economics, finance and accounting
- Risk management and credit matters
- Capital markets, securities and funding
- Politics, public administration and associations
- Financial regulation
- Corporate governance
- Digitisation, IT and processes
- Market conditions, customer relations and sales
- Organisation/HR and processes.

The Board of Directors of Nykredit Realkredit A/S counts 15 members, of whom ten are elected by the General Meeting for a term of one year and five are elected by and among the staff for a term of four years.

Further details on the composition, size and diversity of the Board of Directors as well as the CVs of the individual Board members are available at nykredit.com/boardofdirectors

Executive Board

The Executive Board is composed of five members and tasked with implementing the Group strategy, Winning the Double. The Executive Board is responsible for the day-to-day management and for implementing policies and guidelines laid down by the Board of Directors. The Executive Board has set up a number of Group-wide committees charged with various tasks. These committees report to the Group Executive Board.

Chief Risk Officer

The Chief Risk Officer must have a general overview of the company and its risk exposures in order to assess whether risk management operations are satisfactory. The Chief Risk Officer also assesses whether the decision-making basis of the Executive Board and the Board of Directors is sufficient.

The head of Nykredit's risk control function has been appointed Chief Risk Officer. Nykredit's organisational structure ensures that the risk control function is segregated from all risk-taking entities and thus independent in relation to risk-related decisions. Nykredit's central risk control function performs Group-wide controls, monitors Group risks and prepares risk reports for the Boards of Directors on all risk areas.

Chief Compliance Officer

The head of Nykredit's compliance function has been appointed Chief Compliance Officer.

The Chief Compliance Officer assists Nykredit's Management in ensuring continuous regulatory compliance and is responsible for identifying, assessing, advising on, controlling, monitoring and reporting on Nykredit's compliance risks.

Anti-money laundering officer

The Group Executive Board has appointed a Group Managing Director as anti-money laundering officer, who is in charge of implementing and ensuring management focus on measures to prevent financial crime throughout the Group.

The Executive Boards of the Group companies have each appointed anti-money laundering officers at the executive level in charge of implementing and ensuring management focus on measures to prevent financial crime in their respective Group companies.

2.4.1 ▪ Boards and committees

The Board of Directors of Nykredit Realkredit A/S has appointed a Risk Board, an Audit Board, a Remuneration Board and a Nomination Board. These boards advise the Board of Directors on particular matters and prepare cases for review by the entire Board of Directors, each within their field of responsibility.

Risk Board

The function of the Risk Board is to oversee Nykredit's overall risk profile and strategy, including to assess the long-term capital requirement and the capital policy. It also assesses risks related to products, business model, remuneration structure and incentives as well as risk models and methodological basis. The Risk Board assists the Board of Directors in overseeing that the risk appetite defined by the Board of Directors is implemented correctly in the organisation. The Risk Board held four meetings in 2018.

Audit Board

The principal tasks of the Audit Board are to inform the Board of Directors of the results of the statutory audit and to oversee the financial reporting process. In addition to this, the Audit Board oversees the effectiveness of Nykredit's internal control systems, internal audit and risk management and various other audit matters.

Remuneration Board

The principal tasks of the Remuneration Board are to qualify proposals for Nykredit's remuneration policy and guidelines for incentive pay and to oversee compliance thereof. Furthermore, it reviews the criteria for appointing special risk takers and assesses the Group's risks relative to the remuneration structure, which is coordinated with the Risk Board as required.

Details on bonuses to risk takers as well as remuneration policy and practices are available at nykredit.com/remuneration

Nykredit Realkredit Group

Risk areas reviewed by the Board of Directors

Risk management	Frequency	
Risk policies	Annually	<ul style="list-style-type: none"> Review of risk policies, risk guidelines and risk appetite, including: <ul style="list-style-type: none"> Capital policy, including leverage Credit policy and guidelines for approval of loans and other credit facilities Market risk policy and guidelines Liquidity policy and liquidity risk guidelines Operational risk policy and guidelines IT security policy Insurance cover policy Property valuation policy Policy for the prevention of money laundering, terrorist financing and violation of financial sanctions Product policy Compliance policy
Internal Capital Adequacy Assessment Process (ICAAP)	Annually	<ul style="list-style-type: none"> Review of the Group's internal capital adequacy requirement Conclusions from stress tests containing the impact of different scenarios on the expected loss and capital requirement
Internal Liquidity Adequacy Assessment Process (ILAAP)	Annually	<ul style="list-style-type: none"> Evaluation of the Group's liquidity position and liquidity management, including its funding profile and funding schedule. The report includes liquidity risk calculations and assessments through liquidity stress tests etc

Risk reporting

Capital	Quarterly	<ul style="list-style-type: none"> Own funds, required own funds and internal capital adequacy requirement Stress testing of capital strength Leverage ratio
Credit risk	Quarterly	<ul style="list-style-type: none"> Development in credit risk and parameters, and ratings Concentration risk by industry, loan type and geographical region Housing prices and loan-to-value (LTV) ratios Review, assessment and approval of exposures above a certain limit Controlling results
Market risk	Monthly/ Quarterly	<ul style="list-style-type: none"> Yield spread, interest rate, foreign exchange and equity price risks (conventional measures and Value-at-Risk) Earnings and market trends Portfolio stress testing Model backtesting
Liquidity risk	Monthly/ Quarterly	<ul style="list-style-type: none"> Liquidity and excess liquidity coverage for the period under review Liquidity stress testing
Operational risk	Quarterly	<ul style="list-style-type: none"> Events and losses
Compliance risks	Quarterly	<ul style="list-style-type: none"> Update on compliance risks
IT risks	Quarterly	<ul style="list-style-type: none"> Update on IT risks
Regulatory risk	Quarterly	<ul style="list-style-type: none"> Update on new legislation
Strategic risk	Quarterly	<ul style="list-style-type: none"> Update on principal strategic risks
Valuation risk	Quarterly	<ul style="list-style-type: none"> Update on risks relating to property valuation

Nomination Board

The Nomination Board is tasked with making recommendations to the Board of Directors on the nomination of candidates for the Board of Directors and the Executive Board. Reporting to the Board of Directors, the Nomination Board is overall responsible for defining the skills profiles of the Board of Directors and the Executive Board and the continuous evaluation of their work and performance.

Committees

The Group Executive Board has set up five committees in Nykredit, which perform tasks within selected fields. Each committee must report to the Group Executive Board, and the individual members may at any time resolve to have the relevant Executive Board of a Group company decide on a case. The Chief Risk Officer and the Chief Compliance Officer attend committee meetings whenever issues of relevance to their respective fields are on the agenda. In addition, they are both permanent members of the Risk Committee and the Products Committee.

The *Risk Committee* is charged with overseeing Nykredit's overall risk profile and capital requirements as well as assisting the managements of the respective companies in ensuring compliance with current legislation and practices. The Risk Committee receives relevant material on the current risk scenario from the other committees.

The *Credits Committee* is charged with approving credit applications and loan impairments as well as overseeing the management of risks in Nykredit's credits area. The Committee monitors Nykredit's credit portfolio and submits recommendations on credit policies and related matters to the individual Executive Boards and Boards of Directors of Group companies.

The *Asset/Liability Committee* undertakes the day-to-day responsibilities and tasks of the Executive Boards in the areas of capital, funding, liquidity and market risk according to guidelines approved by the Boards of Directors. The Committee has a governance mandate in these areas, at Group as well as at company level.

The *Products Committee*'s overarching objective is to ensure that the development, maintenance and risk management of new products and services comply with the Group's business model and the guidelines approved by the Group Executive Board. Further, the Committee must monitor and evaluate the existing products.

The *Contingency Committee* has the overall responsibility for compliance with IT security policy rules in relation to contingencies (major accidents and catastrophes) and the Group's entire spectrum of contingency plans covering IT as well as business aspects.

For further information on Nykredit's Group-level boards and committees, please see Nykredit's Annual Report available at nykredit.com/reports

2.5 ■ RISK POLICY

The risk policy sets out the overall risk appetite for the Group as well as for the individual types of risk. Nykredit focuses on having a risk management framework that ensures agreement between risk profile, risk appetite and current legislation, and on having a robust capital structure. Risk management is to ensure that Nykredit is able to provide financial solutions that are viable in the short, medium and long term.

2.5.1 ■ Risk appetite

The overall risk appetite is determined on the basis of Nykredit's strategy, regulatory and credit rating agency capital requirements and the internal capital targets. The risk appetite is determined by the Board of Directors and reflects Nykredit's overall tolerance for assuming risks in the context of its business model and the Group strategy. In some areas, it is directly measurable, while in other areas the risk appetite is expressed through general objectives.

The tolerance limits for the individual risks vary according to risk type, customer exposure, product type, strategy, targets etc. These factors are described and incorporated in relevant policies and guidelines. The specific risks related to business unit activities are assessed in the context of the potential financial impact on the individual unit.

Nykredit manages its capital usage on an ongoing basis and by preparing a capital budget annually. The budget should be seen in the context of the overall capital and strategy plan. Capital is allocated and prioritised according to business returns and strategic considerations.

Nykredit's overall risk appetite

The objective is to be able to maintain active lending to core customer segments, including the Group's full-service customers and Totalkredit customers, also in a challenging economic climate.

Capital:	by holding CET1 capital at 15.5-16.5% of REA. To this will be added the further build-up of capital to meet the upcoming Basel requirements, see 3.2.
Leverage:	by limiting financial leverage so that Tier 1 capital after deductions relative to lending makes up at least the applicable regulatory requirement at any time, currently 3.25% minimum.
Credit:	by having a credit policy that regulates the level of large exposures, the composition of the loan portfolio as well as lending to personal customers and special lending segments. Nykredit manages credit risk according to a portfolio management approach whereby significant concentrations are avoided, supplemented with reviews of single-name concentration and weak exposures as well as continuous controls.
Market risk:	by having a market risk policy with the main principle that losses on exposures involving market risk must not significantly affect Nykredit's quarterly earnings. Market risk is managed by means of estimated losses in stress scenarios. Statistical as well as forward-looking stress scenarios are used to calculate estimated losses.
Liquidity:	by having a liquidity policy which ensures that Nykredit's funding and liquidity management supports the mortgage lending business and ensures competitive prices for customers and Nykredit, regardless of the market conditions. Furthermore, liquidity management must ensure that Nykredit can maintain high ratings and its position as issuer of covered bonds (SDOs).
Operational risk:	by ensuring that operational risks are low relative to other risks and are assessed on the basis of the probability of a given event and the loss resulting from such event.
Compliance:	Like operational risks, compliance risks should be low relative to other types of risk of the Group. Compliance risks are assessed on the basis of the probability of a given event occurring and the potential consequence of compliance risks in the Group.
Prevention of money laundering and terrorist financing:	Nykredit will use any necessary and proportional means to reduce risks relating to financial crime in order to minimise the risk that Nykredit may be misused for financial crime purposes.
Other:	Nykredit's risk appetite for other risks is continuously reviewed and monitored through various fora. The Board of Directors also regularly assesses such other risks.

Risk policy and risk appetite



1) Strategic risk, regulatory risk, property valuation risk, insurance risk, IT security risk and contingency plan.

2.6 ▪ RISK MONITORING

Risks are assessed and monitored centrally in the second line of defence on the basis of various quantitative and qualitative risk measurements prepared by specialists in the individual types of risk. Risk monitoring results are reported collectively to the relevant management levels, eg the Board of Directors, the Executive Board and the Chief Risk Officer.

2.6.1 ▪ *Internal controls*

Risk monitoring is based on internal controls, risk management systems and analyses, which together ensure that all relevant risks are addressed. The monitoring set-up is regularly reviewed and adjusted so as to reflect all relevant risk factors at any given time.

The purpose of Nykredit's controls is to ensure that policies and guidelines laid down by the Boards of Directors are observed, and to ensure timely prevention, detection and correction of any errors, deviations or omissions.

Controls have been established for all material areas and risk areas, and overall principles and requirements for the preparation of business procedures and a process for the approval of business procedures in material risk areas have been established at Group level. The controls comprise various automatic controls, control of transactions, spot checks and physical property valuation control, control of outsourced activities and IT controls.

2.7 ▪ REPORTING AND COMMUNICATION

Each quarter, the Board of Directors receives a report covering all relevant risks. The risk reporting complies with current legislation and uncovers the current risk scenario. The risk reporting describes the risk landscape through quantitative data and analysis of special focus areas.

At a minimum, the risk reporting covers the capital position and the areas of credit risk, market risk, liquidity risk, operational risk, including reputation risk, conduct risk, as well as IT and compliance risks. Moreover, regulatory and strategic risks are areas of special focus.

The implementation of the policies is regularly assessed together with the relevant business units to obtain a continuous assessment of the risk profile and the contents and messages of the reporting.

3. CAPITAL MANAGEMENT

3.1 CAPITAL TARGETS 2019

3.2 INCREASED CAPITAL REQUIREMENTS FROM THE BASEL COMMITTEE

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3.3.1 Capital adequacy differences between the Groups

3.4 DETERMINATION METHODS

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3.5 RISK EXPOSURE AMOUNT

3.6 REQUIRED OWN FUNDS

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3.7 LEVERAGE RATIO

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3.9.1 Banks

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3.1 ■ CAPITAL TARGETS 2019

Nykredit's capital policy is laid down annually by the Board of Directors and is to support the Group's strategy and objectives.

In accordance with our business model, we aim to have stable earnings, a strong capital structure and competitive ratings. Based on a structured capital management framework, the Group aims to be able to maintain its business activities independently of significant fluctuations in economic trends. This implies having adequate access to capital to withstand an economic downturn and losses and thus maintain active lending also during and after a crisis.

The Board of Directors has set the CET1 capital requirement at 15.5-16.5% of the total risk exposure amount (REA). Furthermore, Nykredit has reserved CET1 capital to meet the upcoming Basel requirements, the estimated impact of which is still an increase in REA of around DKK 100 billion. Nykredit has access to new CET1 capital through Forenet Kredit's liquid assets and through investment commitments from a number of Danish pension companies.

Nykredit's CET1 capital represented 21.0% of REA at end-2018.

3.2 ■ INCREASED CAPITAL REQUIREMENTS FROM THE BASEL COMMITTEE

The Basel IV recommendations include a so-called capital floor for credit institutions applying internal models. The capital floor means that institutions, across risk types (credit, market and operational risks), will be subject to a minimum capital requirement which makes up 72.5% of the capital requirement as calculated under the standardised approach. The floor will significantly increase Nykredit's REA compared with today's level. It will impact mortgage loans in particular as they have a very low risk of loss, which will not be allowed for in the risk determination when the floor is introduced.

The Basel Committee has also revised its recommendations on capital requirements for market risk. This will result in higher capital requirements for market risk and may have an adverse impact on covered bond markets as well.

Based on the recently adopted revised EU capital requirements, CRRII/CRDV, Nykredit expects the effect of the Basel IV recommendations and the revised recommendations on capital requirements for market risk to increase Nykredit's REA by about DKK 100 billion, of which approximately 80% can be ascribed to private residential mortgage lending and the residual amount to business mortgage lending, market risk etc.

Nykredit's CET1 capital represented 21.0% of REA at end-2018.

3.3 - DETERMINATION OF CAPITAL

Nykredit's own funds totalled DKK 87.7 billion at end-2018 against DKK 85.2 billion at end-2017.

Nykredit's Tier 1 capital consists mainly of Common Equity Tier 1 (CET1) capital. As shown in the table, Tier 1 capital totalled DKK 76 billion at end-2018. CET1 capital totalled DKK 73 billion and Additional Tier 1 (AT1) capital totalled DKK 4 billion. CET1 capital is the most important capital measure as this is the type of capital required to comply with most of the regulatory capital requirements.

In July 2018, Nykredit issued Senior Resolution Notes (SRN) in the amount of EUR 500 million. They do not count towards own funds, but are eligible for meeting the Danish minimum requirement for own funds and eligible liabilities (MREL) applying to the Group, the debt buffer requirement for mortgage banks as well as S&P's Additional Loss-Absorbing Capacity (ALAC) criterion for credit rating purposes. SRNs are bail-inable senior debt serving to protect unsecured creditors in case of the issuer's bankruptcy.

Nykredit Realkredit Group

Risk exposure amount and own funds

Year-end DKK million	2018	2017
Risk exposure amount		
Credit risk	291,637	290,643
Market risk	27,390	24,724
Operational risk	25,709	21,246
Total risk exposure amount	344,736	336,613
Equity (including AT1 capital)	79,878	78,847
AT1 capital etc	(3,772)	(5,411)
Proposed dividend	(2,800)	(4,100)
Other CET1 capital additions/deductions	(605)	304
CET1 capital	72,701	69,641
AT1 capital	3,729	3,860
AT1 capital deductions	(28)	(156)
Total Tier 1 capital	76,403	73,345
Tier 2 capital	10,828	11,519
Other Tier 2 capital additions/deductions	453	332
Own funds	87,683	85,196
CET1 capital ratio, %	21.0	20.6
Tier 1 capital ratio, %	22.1	21.7
Total capital ratio, %	25.4	25.3

Note: At 1 January 2018, the CET1 capital ratio was 20.5% after recognition of the net impact of IFRS as at 1 January 2018 in Nykredit Bank. Nykredit does not apply the transitional arrangements set out in Article 473a (4) of Regulation (EU) No 575/2013.

Nykredit Realkredit Group

Capital

% of REA	Ratio, end-2018	Total regulatory requirement ¹ , 2019
Nykredit Realkredit Group		
CET1 capital	21.0	11.1
Tier 1 capital	22.1	13.0
Own funds	25.4	15.5
Nykredit Realkredit A/S		
CET1 capital	17.5	10.5
Tier 1 capital	18.3	12.2
Own funds	20.9	14.4
Nykredit Bank Group		
CET1 capital	19.4	11.2
Tier 1 capital	19.4	13.1
Own funds	21.5	15.7
Totalkredit A/S		
CET1 capital	23.1	11.5
Tier 1 capital	26.9	13.5
Own funds	29.1	16.2

¹⁾ Total regulatory requirement 2019 includes the current internal capital adequacy requirement (10.0%) plus SIFI buffer (2%), capital conservation buffer (2.5%) and countercyclical buffer (1%). The last-mentioned will apply from September 2019.

Nykredit Realkredit Group

Loan capital, end-2018

	Interest rate	Call date	Maturity	Capital
Nykredit Realkredit A/S				
Additional Tier 1 capital	6.25%	26 October 2020	Perpetual	EUR 500 million
Tier 2 capital (CoCo)	4.00%	3 June 2021	3 June 2036	EUR 600 million
Tier 2 capital	4% until 28 October 2017, then 6M Euribor 1.71%	-	28 October 2030	EUR 50 million
Tier 2 capital	2.75%	17 November 2022	17 November 2027	EUR 800 million
Total				EUR 1,950 million

3.3.1 Capital adequacy differences between the Groups

Although the sole activity of Nykredit A/S is its ownership of Nykredit Realkredit A/S, the determination of own funds and the total risk exposure amount (REA) is not entirely identical for the Nykredit Group and the Nykredit Realkredit Group. The differences are due to four factors:

1. Common Equity Tier 1 (CET1) capital:

CET1 capital totalled DKK 72.4 billion in the Nykredit Group and DKK 72.7 billion in the Nykredit Realkredit Group at end-2018. The difference is caused by a deduction from the CET1 capital of the Nykredit Group for intercompany balances with PRAS A/S and its ownership interest in Nykredit A/S.

2. Additional Tier 1 (AT1) capital in subsidiaries:

AT1 capital was issued by Nykredit Realkredit A/S and therefore cannot be included 100% in the capital determination of the Nykredit Group. This is laid down in the rules on minority interests in the Capital Requirements Regulation (CRR), which stipulate that AT1 capital may only be included at an amount corresponding to the regulatory requirement for the group concerned, in this case the Nykredit Group.

3. Tier 2 capital in subsidiaries:

Tier 2 capital was also issued by Nykredit Realkredit A/S. It has the same consequences as described for AT1 capital in 2 above.

4. Risk exposure amount (REA) – credit risk:

As mentioned in 1 above for CET1 capital, intercompany balances and indirect ownership interests are eliminated in the Nykredit Group. This reduces total REA for credit risk in the Nykredit Group by about DKK 1 billion.

Determination of own funds and total REA

End-2018 DKK billion	Nykredit Realkredit Group	Nykredit Group
CET1 capital before deductions	76.1	76.1
Deduction for intercompany exposures	3.4	3.4
Other deductions	-	0.3
CET1 capital	72.7	72.4
Additional Tier 1 capital	3.7	1.8
Tier 1 capital	76.4	74.2
Tier 2 capital	11.3	6.7
Own funds	87.7	80.9
REA		
Credit risk	291,637	290,524
Market risk	27,390	27,390
Operational risk	25,709	25,709
Total REA	344,736	343,623
Financial ratios		
CET1 capital ratio, %	21.0	21.0
Tier 1 capital ratio, %	22.1	21.6
Total capital ratio, %	25.4	23.5

3.4 ■ DETERMINATION METHODS

3.4.1 ■ Consolidation methods

REA is determined according to the rules of the Danish Financial Business Act and the Capital Requirements Regulation (CRR). The determination comprises Nykredit Realkredit A/S (the Parent) and the enterprises in which Nykredit Realkredit A/S exercises direct or indirect control of the enterprises' financial and operational management.

The consolidated risk exposures include:

- Nykredit Realkredit A/S
- Totalkredit A/S
- Nykredit Bank A/S
- Nykredit Leasing A/S
- Nykredit Porteføljeadministration A/S
- Nykredit Ejendomme A/S
- Ejendomsselskabet Kalvebod Brygge

Together with other enterprises, Nykredit controls an enterprise which is not included in the Consolidated Financial Statements. This enterprise, JN Data, is recognised according to the equity method.

3.4.2 ■ Differences compared with Financial Statements

There are differences between the Financial Statements and determinations under the CRR. This means that the figures in this report are not directly comparable with the determination of exposures in the Annual Report of Nykredit Realkredit A/S. This report has been prepared in accordance with Part 8 of the CRR, which defines the disclosure requirements.

Unexercised loan offers and undrawn credit and loan commitments, as well as potential future credit exposures to financial instruments are included in exposures used for the determination of REA. The same applies to guarantees. REA for securities is calculated at ISIN level. Detailed disclosures are available at nykredit.com/reports

3.4.3 ■ Credit risk

Nykredit has obtained the approval of the Danish FSA to use the advanced IRB approach to determine REA for credit risk in relation to:

- retail and business exposures of Nykredit Realkredit A/S, Totalkredit A/S and Nykredit Bank A/S.

The standardised approach is applied to determine REA for credit risk in relation to:

- sovereign and credit institution exposures
- a few minor portfolios and remaining companies.

3.4.4 ■ Market risk

For the determination of REA for market risk, Nykredit Realkredit A/S has obtained FSA approval to apply a Value-at-Risk (VaR) model to estimate the general risk related to:

- equities
- debt instruments
- foreign exchange.

Nykredit Bank A/S has obtained FSA approval to apply a VaR model to estimate the general risk related to:

- debt instruments
- foreign exchange.

For market risk in Totalkredit A/S and the parts of the portfolio for which REA is not determined using VaR, the standardised approach is applied.

Nykredit has a number of procedures in place ensuring that the tradability of positions in the trading book is satisfactory. All positions in the trading and banking books are tested regularly for uncertainty related to applied prices against observed prices. These tests are applied in the prudent valuation calculations. A deduction is made from Nykredit's CET1 capital for prudent valuation.

3.4.5 ■ Operational risk

For all Group companies, REA for operational risk is determined using the basic indicator approach. This means that REA is calculated as 15% of average gross earnings of the past three years.

3.5 ■ RISK EXPOSURE AMOUNT

At end-2018 Nykredit's risk exposure amount (REA) totalled DKK 344.7 billion. With own funds at DKK 87.7 billion, this corresponded to a total capital ratio of 25.4% against 25.3% at end-2017. CET1 capital came to DKK 72.7 billion, corresponding to a CET1 capital ratio of 21.0% against 20.6% at end-2017.

REA increased from DKK 337 billion at end-2017 to DKK 344.7 billion at end-2018. The rise mainly stems from higher REA for market risk and operational risk, while credit risk is unchanged.

The total capital requirement including capital buffers is 15.5% in 2019, of which CET1 capital represents about 11.1% including Pillar II, see 3.6.3 *Increasing CET1 capital requirements*.

Nykredit Realkredit Group

REA overview

DKK million	REA		Minimum capital requirement (8%)
	Q4/2018	Q4/2017	Q4/2018
Credit risk (excluding counterparty credit risk (CCR))	268,894	267,997	21,511
Of which the standardised approach	12,465	11,983	997
Of which the advanced IRB (AIRB) approach	243,714	245,076	19,497
Of which equity IRB under the simple risk weight approach	10,601	8,695	848
Of which assets with no counterparty	2,113	2,243	169
CCR	16,129	15,427	1,290
Of which mark to market	15,244	14,820	1,219
Of which risk exposure amount for contributions to the default fund of a CCP	66	78	5
Of which CVA	819	530	66
Settlement risk	2	2	0
Market risk	27,388	24,722	2,191
Of which the standardised approach	9,421	9,472	754
Of which IMA	17,966	15,250	1,437
Operational risk	25,709	21,246	2,057
Of which the basic indicator approach	25,709	21,246	2,057
Amounts below the thresholds for deduction (subject to 250% risk weight)	6,614	7,219	529
Total	344,736	336,613	27,579
Own funds	87,683	85,196	

3.6 ■ REQUIRED OWN FUNDS

Pursuant to the Danish Financial Business Act, the Board of Directors and the Executive Board must ensure that Nykredit has sufficient capital and accordingly determine the required level of own funds. The required own funds are the minimum capital required, in Management's judgement, to cover all significant risks. The determination takes into account the business objectives and capital policy targets by allocating capital for all relevant risks, including calculation uncertainties.

Required own funds are determined as the sum of Pillar I and Pillar II capital.

Required own funds totalled DKK 34.4 billion at end-2018, equal to an internal capital adequacy requirement of 10.0%.

3.6.1 ■ Pillar I

Pillar I capital covers credit risk, market risk and operational risk. The Pillar I requirement is identical to the statutory capital requirement.

3.6.2 ■ Pillar II

Pillar II capital covers other risks as well as an increased capital requirement during a slight economic downturn. The capital requirement during a slight economic downturn is determined by means of stress tests, see 3.8 *Stress tests and capital projections*. No deductions are made from required own funds for any diversification effects between risk types, business areas or countries.

The determination of Pillar II capital involves a number of assessments. The calculation methods support the aim of maintaining a stable capital level even if the economic climate deteriorates. In its Pillar II assessment, Nykredit assumes that a slightly weaker economic climate will set in, which is compared with the economic forecasts from various recognised sources.

In a slightly weaker economic climate, the need for capital will grow concurrently with falling property prices and increasing arrears. The calculations also factor in any operating losses due to higher loan impairment charges etc.

Other risks

The determination of other risks includes assessments of effects of model updates, reputation risk, control risk, strategic risk, external risk, concentration risk, validation and backtest results, interest rate risk and credit valuation adjustment (CVA).

Model and calculation uncertainties

Nykredit applies various models to calculate the capital requirements under both Pillar I and Pillar II. The determination of the internal capital adequacy requirement includes a capital charge for uncertainties that serves as a buffer, as the calculations depend on statistical methods, choice of model, model properties etc.

Nykredit Realkredit Group

Total capital requirement

DKK billion	2019 ¹
Credit risk	23.3
Market risk	2.2
Operational risk	2.1
Total Pillar I	27.6
Credit risk	3.5
Market risk	0.8
Operational risk	0.3
Other risks ²	2.3
Total Pillar II	6.8
Total required own funds	34.4
Internal capital adequacy requirement	10.0%
SIFI buffer requirement (2019)	2.0%
Capital conservation buffer (2019)	2.5%
Countercyclical buffer (September 2019)	1.0%
Total capital requirement (2019)	15.5%

1) Total capital requirement 2019 includes the current internal capital adequacy requirement plus the buffers that are fully phased in by 2019. The countercyclical buffer will apply from September 2019.

2) Other risks include assessment of control risk, strategic risk, external risk, concentration risk, liquidity risk etc.

3.6.3 ▪ Increasing CET1 capital requirements

As a designated systemically important financial institution (SIFI), Nykredit is subject to a special SIFI buffer requirement to be met with CET1 capital. The SIFI buffer requirement was 1.6% in 2018 and increases to 2.0% in 2019 when fully phased in.

The phase-in of a capital conservation buffer, applicable to all financial institutions, began in 2016. This buffer increases the regulatory CET1 capital requirement. It will be phased in by about 0.6 percentage points per year and will be fully phased in by 2019. The capital conservation buffer requirement was 1.9% in 2018 and increases to 2.5% in 2019.

The Danish authorities have decided to increase the countercyclical buffer to 1% during 2019.

In addition to this, around half of the Pillar II capital requirement must be met with CET1 capital. Lastly, Nykredit must reserve CET1 capital for lending in countries where the countercyclical buffer has been implemented. However, lending in those countries (in the Nordic region) is very limited. The capital requirement regarding the countercyclical buffer in Sweden and Norway totals DKK 195 million.

Besides these requirements of a more technical nature, the results of the stress test exercises of the European Banking Authority (EBA) and the Danish FSA must be incorporated in Nykredit's capital planning.

Nykredit's capital policy, which is described in detail in *3.1 Capital targets 2019*, allows for the capital requirement on a fully loaded basis combined with a deteriorating economic climate corresponding to the severe recession scenario in the Danish FSA stress test.

3.7 ▪ LEVERAGE RATIO

The leverage ratio is defined as the relationship between Tier 1 capital and the balance sheet total (incl off-balance sheet items). The ratio does not factor in any collateral.

At end-2018 Nykredit's leverage ratio was 4.9%. Nykredit monitors developments with respect to the leverage ratio, which is a central element of Nykredit's capital and issuance policy.

Nykredit Realkredit Group

Minimum CET1 capital requirement

% of REA	2019
Pillar I	4.5%
Pillar II	~1.1%
SIFI buffer requirement (2019)	2.0%
Capital conservation buffer (2019)	2.5%
Countercyclical buffer in Denmark (September 2019)	1%
Total	11.1%

Nykredit Realkredit Group

Leverage ratio

DKK million	2018	2017
Tier 1 capital	76,403	73,345
Leverage ratio exposures	1,536,475	1,528,829
Leverage ratio	4.9%	4.7%

3.8 ■ STRESS TESTS AND CAPITAL PROJECTIONS

Nykredit applies a number of model-based stress tests and capital projections to assess the impacts of different macroeconomic scenarios. The results are applied at both Group and company level and are included in the annual assessments by the individual Boards of Directors of the internal capital adequacy requirement as well as in the continuous determination of the capital requirement.

The stress test calculations include the macroeconomic factors of greatest importance historically to Nykredit's customers.

The most important macroeconomic factors identified are:

- Property prices
- Interest rates
- Unemployment
- GDP growth.

Nykredit generally operates with three macroeconomic scenarios: a baseline scenario, a slightly weaker economic climate and a severe recession. The capital requirement for credit risk builds primarily on correlations between the macroeconomic factors, the Probability of Default (PD) and Loss Given Default (LGD). These correlations are an essential element of the capital projection model. Operating losses in a stress scenario increase the capital requirement, while operating profits are not included. The scenarios operate with the impacts of both rising and falling interest rates. The capital charge is calculated based on the most severe scenario.

Other stress scenarios are used as required for Nykredit Bank and To-talkredit, and/or the scenarios are supplemented with assessments of

factors that may have an adverse impact on the companies' risk exposures or capital.

Scenario: Baseline

This scenario is a neutral projection of the Danish economy based on Nykredit's assessment of the current economic climate.

Stress scenario: Slightly weaker economic climate

The stress scenario is designed to illustrate a slightly weaker economic climate relative to the baseline scenario. The capital charge is calculated on the basis of declining interest rates, which is the more severe of the two scenarios. The capital charge reflects how much Nykredit's capital requirement would increase if this scenario occurred. The results are included in the determination of the internal capital adequacy requirement.

Stress scenario: Severe recession

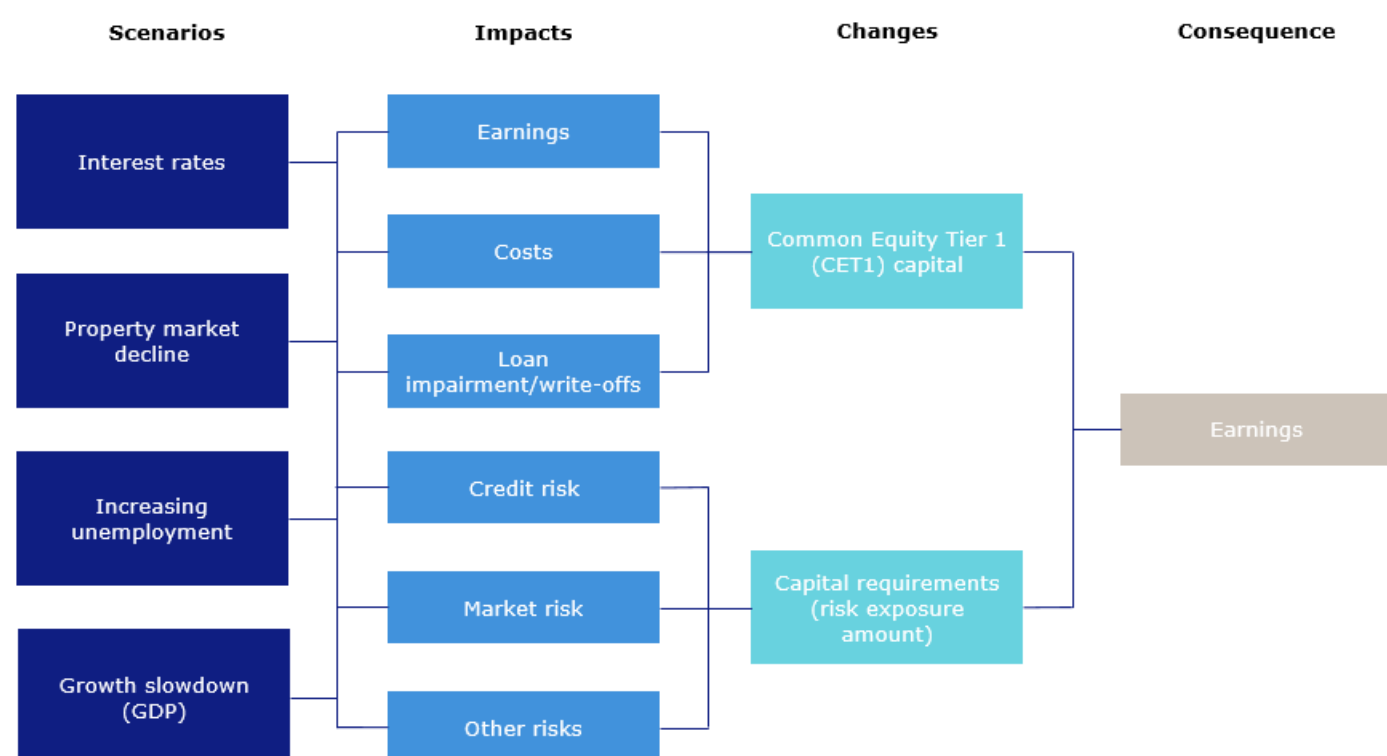
A central element of Nykredit's capital policy is to have sufficient own funds, also in the long term and in a severe recession. Nykredit continually calculates the impact of severe recession combined with declining interest rates. The stress scenario reflects an unusual, but not unlikely, situation.

The calculations are factored into the quarterly assessments of the future capital requirement.

The results reflect the increased capital requirement in case of plunging housing prices, falling interest rate levels and high unemployment.

Nykredit Realkredit Group

Structure of stress tests and capital projections



Other stress scenarios

As part of the Group's capital policy, in addition to calculating its own stress scenarios, Nykredit also assesses the stress scenarios prepared by the Danish FSA. The results are compared regularly.

Nykredit also participates in the stress test exercises of the EBA, most recently in 2018. The stress scenarios for Denmark were very severe. The results showed that Nykredit's CET1 capital ratio drops by approximately 4% when stress testing based on the current capital need. The decrease is within the framework set out in Nykredit's capital policy, thus indicating that Nykredit is sufficiently resilient to withstand a severe recession.

Internal process

The Boards of Directors of Nykredit's individual companies determine at least annually the required own funds and internal capital adequacy requirement (ICAAP result) of their respective companies.

The Boards of Directors will reassess the ICAAP results if any major unexpected events occur.

The determination of the internal capital adequacy requirements by the individual Boards of Directors is based on a number of stress tests as well as an assessment of the company's business model, risk profile and capital structure.

Furthermore, the Risk Board and the Risk Committee closely monitor the development in the internal capital adequacy requirements of the individual companies and are briefed quarterly. The Asset/Liability Committee monitors and coordinates the capital, funding and liquidity of the Group and the individual Group companies.

Nykredit Realkredit Group

Stress scenarios to determine the internal capital adequacy requirement

%	2019	2020	2021
Baseline			
Property prices, growth	2.2%	3.2%	2.1%
Interest rates ¹	0.0%	0.5%	0.5%
Unemployment	4.9%	4.8%	4.8%
GDP, growth	1.8%	1.7%	1.8%
Slightly weaker economic climate (applied under Pillar II)			
Property prices, growth	(3.0)%	(3.0)%	(2.0)%
Interest rates ¹	(0.1)%	(0.1)%	(0.1)%
Unemployment	5.9%	6.5%	7.1%
GDP, growth	1.5%	0.5%	0.1%
Severe recession			
Property prices, growth	(12.0)%	(10.0)%	(5.0)%
Interest rates ¹	(0.1)%	(0.1)%	(0.1)%
Unemployment	7.1%	8.7%	9.4%
GDP, growth	(3.0)%	(2.0)%	0.0%

¹⁾ Average of 3M money market rates and 10Y government bond yields.

3.9 ▪ FSA SUPERVISORY DIAMONDS

3.9.1 ▪ Banks

The Supervisory Diamond for banks applies to all Danish banks. It is a strictly Danish initiative and does not stem from EU legislation.

The Supervisory Diamond model sets out the following benchmarks for five key ratios that indicate when a bank is operating at an elevated risk:

- The sum of large exposures must be less than 125% of own funds.
- Lending growth must be less than 20% year-on-year. The limit value is determined exclusive of reverse repurchase lending and after impairments.
- Total exposure to the property segment must be less than 25% of total lending.
- The funding ratio must be less than 1.0. The ratio is calculated as loans and advances at amortised cost relative to working capital less bonds in issue with times-to-maturity of less than 1 year.
- The liquidity benchmark must be more than 100%. The liquidity benchmark indicates a bank's ability to withstand a liquidity stress for a period of at least three months.

The current limit values of the Supervisory Diamond model are shown in the table below. Nykredit Bank A/S operates comfortably within the limit values.

Lending exclusive of repo transactions and reverse repurchase lending showed growth of 8.9%. The funding and liquidity ratios are also well within the regulatory limits, as Nykredit Bank A/S's internal requirements are considerably stricter than the limit values of the Supervisory Diamond.

Nykredit Bank A/S

Supervisory Diamond for banks

Benchmark	2018	2017
Lending growth (limit value <20%)	8.9%	1.7%
Large exposures (limit value <125%)	91.7%	96.0%
Property exposure (limit value <25%)	11.7%	11.6%
Funding ratio (limit value <1.0)	0.6	0.5
Liquidity benchmark (limit value >100%)	183.8%	186.0%

3.9.2 ▪ Mortgage lenders

The Supervisory Diamond for mortgage lenders is a strictly Danish initiative and does not stem from EU legislation. In parallel to the Supervisory Diamond, bank loans resembling mortgage loans will be subject to special supervision.

The Supervisory Diamond model sets out the following benchmarks for five key ratios that indicate when a mortgage bank is operating at an elevated risk:

- Annual lending growth may not exceed 15% in each of the segments personal customers, commercial residential property, agriculture and other business.
- The sum of the 20 largest exposures must be less than equity.
- Borrower's interest rate risk relating to residential properties: The proportion of lending where the LTV ratio exceeds 75% of the LTV limit and where the loan rate is fixed for up to 2 years only may not exceed 25% of the total loan portfolio.
- Interest-only (IO) loans to personal customers: The proportion of IO loans for owner-occupied and holiday housing with an LTV above 75% of the statutory LTV limit may not exceed 10% of total lending.
- Limitation of short-term funding: The proportion of loans to be refinanced must be below 12.5% per quarter and 25% per year.

Repayment loans and loans with longer-dated funding have become more attractive than before. Furthermore, a significant share of personal customers started amortising their loans when the IO periods ended.

Nykredit Realkredit Group

Supervisory Diamond for mortgage lenders

Benchmark	2018	2017	Effective date
Lending growth in segment:			
Personal customers (limit value <15%)	3.9%	3.6%	2018
Commercial residential property (limit value <15%)	5.7%	3.6%	2018
Agricultural properties (limit value <15%)	3.6%	(6.9)%	2018
Other business (limit value <15%)	0.5%	2.3%	2018
Borrower's interest rate risk			
Loans to private individuals and for residential rental (limit value <25%)	14.2%	14.9%	2018
Interest-only loans			
Personal customers (limit value <10%)	8.8%	9.6%	2020
Loans with short-term funding:			
Refinancing (annually) (limit value <25%)	13.3%	15.3%	2020
Refinancing (quarterly) (limit value <12.5%)	2.1%	4.4%	2020
Large exposures			
Loans and advances:equity (limit value <100%)	35.3%	35.9%	2018

4. CREDIT RISK

4.1 CREDIT POLICY

4.2 LENDING GUIDELINES AND PROCESS

4.2.1 Nykredit's credit approval process

4.2.2 Totalkredit's credit approval process

4.3 CONTROL AND FOLLOW-UP

4.3.1 Portfolio management

4.3.2 Control of individual exposures

4.3.3 Impairments

4.4 CURRENT RISK PROFILE AND DEVELOPMENTS

4.4.1 Concentration risk

4.4.2 Focus areas

4.4.3 Write-offs, impairment and arrears

4.4.4 Customer ratings

4.5 SECURITY

4.5.1 Real estate

4.5.2 Guarantees and financial collateral

4.6 MODELS FOR DETERMINATION OF CREDIT RISK

4.6.1 Modelling principles

4.6.2 Probability of Default (PD)

4.6.3 Credit ratings

4.6.4 Loss Given Default (LGD)

4.6.5 Exposure at Default (EAD)

4.6.6 Other models

4.6.7 Approval, validation and reliability of credit risk models

4.7 COUNTERPARTY RISK

4.7.1 Risk management

4.7.2 Methods

4.7.3 Current risk profile and developments

Credit risk reflects the risk of loss resulting from Nykredit's customers and counterparties defaulting on their obligations.

It is Nykredit's policy to always offer responsible products and financial solutions that match the customer's financial position and risk appetite. This approach helps mitigate Nykredit's overall credit risk.

Nykredit's credit risk mainly stems from bank and mortgage lending as well as financial products. The vast majority of the credit exposures consist of mortgage loans secured by real estate, which serves in particular to keep credit risk low. Also, mortgage lending and the risks involved are characterised by stable development.

The positive development in Nykredit's credit portfolio in recent years continued in 2018, and credit risk is low by historical standards. Arrears ratios, impairment provisions and write-offs are at stable, low levels. Property prices have continued their upward trend all over Denmark, thereby increasing mortgage security. General macroeconomic conditions have developed favourably, and businesses and households are financially robust. Employment has also improved.

4.1 ■ CREDIT POLICY

Nykredit has a country-wide presence and a comprehensive distribution network, and customers are served by certified advisers at Nykredit's customer centres and the local Totalkredit partner banks.

Credit risk is managed in accordance with the credit policy. The credit policy is reviewed and adopted by the Boards of Directors and is based on the Nykredit Group's strategy and the aim that customers should perceive Nykredit as a reliable and qualified financial partner. Building long-term, financially sound customer relationships is an integral part of Nykredit's strategy. The credit policy lays down the Group's risk appetite. All credit applications are assessed against the credit policy by financially trained staff. Specifically, they assess the willingness and ability of customers to meet their obligations to Nykredit and Totalkredit. The assessment is based on an overall evaluation of the customer's financial circumstances and other risk elements against Nykredit's total exposure to the customer.

Nykredit aims to maintain close relationships with its customers. This allows Nykredit to be proactive and address any payment difficulties before they arise. Prompt action benefits both the customer and Nykredit. It helps limit arrears etc, making it more likely that the customer will recover or that losses will be minimised to the advantage of both Nykredit and the customer, who will typically be liable for any unpaid debt.

The assessment of a customer's creditworthiness is the core element, supported by any security provided, including mortgages on real estate.

Totalkredit's mortgage lending is based on a strategic alliance with 55 Danish local and regional banks undertaking the distribution of Totalkredit loans, customer advisory services, credit assessments and case processing. Totalkredit loans are subject always to final approval by Totalkredit.

The credit policy ensures that credit is granted in accordance with the risk appetite determined by the Board of Directors and with the Totalkredit concept, Danish mortgage legislation, the Danish Financial Business Act, good business practice and any other relevant rules and regulations. The aggregate credit granting by the Group companies is undertaken within the credit policy limits for large exposures as well as limits for portfolio distribution by industry, geography and other risk types.

4.2 ■ LENDING GUIDELINES AND PROCESS

Nykredit's customer centres have been authorised to process most credit applications independently, as it is Nykredit's aim that most credit decisions should be made locally by a financially trained, qualified customer adviser. The authority comes with a requirement of credit policy and business process certification every three years, in addition to the statutory certification.

Which level of Nykredit's credit approval hierarchy determines a business customer's credit application generally depends on the size of the exposure. Nykredit has five regional credit units that process business customers' credit applications that exceed the authority assigned to the customer centres. Applications exceeding the authority of the regional credit units are processed centrally by Group Credits, unless they involve exposures requiring escalation to the Credits Committee (see 2. *Governance and management of risk*), the Executive Boards or the Boards of Directors.

Which level of the credit approval hierarchy determines a personal customer's credit application depends on a combination of the size of the exposure and any credit circumstances requiring particular attention (policy rules). The level of the credit approval hierarchy determines whether credit applications are processed by the customer centres or centrally by Group Credits.

However, which level of the credit approval hierarchy determines a mortgage loan application in Totalkredit depends on the value of the property serving as security for the loan. As regards its business credit applications, the level is determined by the size of the exposure, in the same way as for customers of Nykredit.

The Boards of Directors of the Group companies are presented with the Group's largest exposures on a current basis. They are also briefed quarterly about the largest write-offs and impairment provisions.

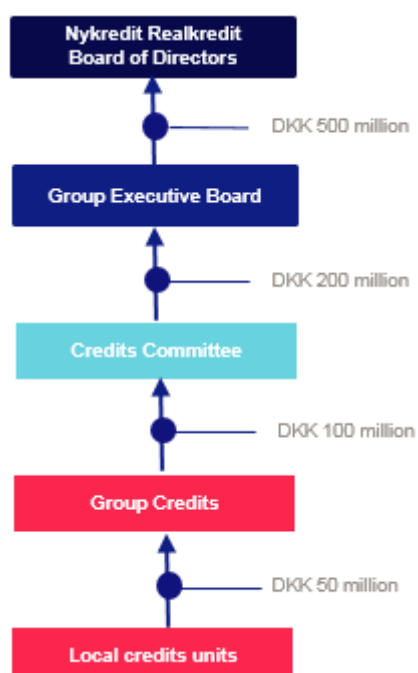
4.2.1 ■ Nykredit's credit approval process

Nykredit applies its own internally estimated ratings to the vast majority of its customers. A customer rating estimates the probability of the customer defaulting on its obligations. Customer ratings are used for a number of purposes, including credit assessment.

For the approval of loans, the customer rating is supplemented with a thorough assessment of the customer's current financial position and soundness as well as other relevant characteristics, such as managerial strength for businesses. This assessment is based on credit policy rules and guidelines. The assessment also considers the quality of any security provided. Security by way of mortgages on real estate is assessed by valuers or estate agents.

The approval of financial products is based on a customer's creditworthiness, the life of the product, the contractual basis and an assessment of the quality of the security etc.

Credit approval hierarchy



Note: Nykredit Bank and Totalkredit have similar credit approval structures.

4.2.2 ▪ **Totalkredit's credit approval process**

As regards Totalkredit loans, assessments of personal customers are mostly carried out by the regional and local banks, while the final approval of credit applications is undertaken by Totalkredit. Assessments and approval of business customers are carried out centrally by Totalkredit on the basis of an initial credit assessment by the partner bank.

These customer assessments are also centred around a rating determined by models developed by a central Nykredit unit. A specific model has been developed for personal customers of Totalkredit, who represent by far the greater part of the exposure.

Totalkredit and the individual partner bank share the risk relating to the loans according to the principles set out in the partnership agreement with the partner banks. The partner banks provide security to Totalkredit by way of a right of set-off and guarantees for the loans distributed by them. In return for the provision of security, Totalkredit passes on part of the administration margin payments from the customers to the partner banks. This provision of security ensures that the partner banks carry out a thorough and comprehensive assessment of the customer's creditworthiness and the mortgageability of the property, thereby minimising losses on customers in general. In case of particularly high-risk loans where the ordinary business procedures are derogated from, the partner bank must provide a guarantee exceeding the security provided for ordinary loans. Due to the security model, Totalkredit's credit risk is low.

4.3 ■ CONTROL AND FOLLOW-UP

Group Credits is responsible for managing and monitoring credit risk in accordance with the guidelines laid down by the Board of Directors and the Group Executive Board. The unit is also responsible for reviewing special individual exposures as well as credit policy limits for large exposures and limits for portfolio distribution at Nykredit and Totalkredit.

Credit risk follow-up is based on a portfolio management approach categorising customers according to industry and monitoring them against a number of key credit parameters. This is combined with control of individual exposures to assure the quality of lending. Approvals are reviewed regularly, as are weak exposures. The risk control function monitors the continuous follow-up and control.

Internal Audit is responsible for overseeing the internal control environment and for credit risk management.

4.3.1 ■ Portfolio management

The mix and trends of portfolios are monitored by means of portfolio reports, sector and thematic analyses as well as the regular risk exposure reporting to the Boards of Directors.

This enables the Board of Directors to evaluate the credit policy and make the required adjustments in relation to lending at single-name level (policy rules and guidelines) and portfolio level (portfolio limits and size requirements). The aim is to avoid any single-name risk or concentration of risk which may have a material impact on the Group in the event of default.

Group Credits applies a number of tools in its day-to-day credit risk management. Focus is on the limits for large exposures and for loan portfolio distribution. The unit also presents credit risk reports for the individual portfolios and industries, which may assist advisers for the purpose of customer assessments.

4.3.2 ■ Control of individual exposures

Individual exposures are controlled and reviewed at central and decentralised level in several areas.

Review of exposures

The largest business exposures are reviewed by the account manager at least once a year. This forms part of the monitoring of credit exposures and is based on financial statements, ratings and customer data, and it is a key element of the control environment. The central credit control function oversees the frequency and quality of reviews.

New approvals

The heads of Nykredit's customer centres have the day-to-day responsibility for local credit risk management, including local spot checks of new approvals. The same applies to Totalkredit's business exposures. Totalkredit's personal exposures approved by the individual Totalkredit partner banks are reviewed at decentralised level.

Group Credits performs a central controlling function in all the Group's companies, assessing new lending against the credit policy. As regards Nykredit and Totalkredit's business exposures, monthly spot checks are carried out for each approving entity. As regards Totalkredit's personal exposures, quarterly spot checks are carried out

for each partner bank. It is a requirement that the spot checks are sufficiently comprehensive so as to provide results that describe, at a high confidence level, the risk appetite of each approving entity and partner bank in relation to new approvals.

Group Credits records any processing errors and derogations from the policy rules and guidelines. It is assessed whether the overall level of approvals is within the credit risk appetite. Also, thematic analyses are undertaken, and customer centres are reviewed.

Review of weak exposures

Customers are divided into ordinary exposures and weak exposures. Nykredit wants to minimise the number of weak exposures as much as possible. Experience shows that prompt action when an exposure becomes weak benefits both Nykredit and the customer. Prompt action helps limit arrears etc, making it more likely that the customer will recover or losses be minimised to the advantage of both Nykredit and the customer, who will typically be liable for any unpaid debt.

At Nykredit, customers are designated as weak exposures if they are rated 0 to 2, with or without objective evidence of credit impairment. Objective evidence of credit impairment is determined on the basis of a number of regulatory indicators of credit-impaired exposures. If Nykredit identifies objective evidence of credit impairment, the exposure will be assigned a rating of 0.

Specifically, the account managers review weak exposures in their portfolios at least once a year. Banking exposures are reviewed quarterly. In that connection, the account managers are responsible for preparing an action plan for the purpose of implementing loss control measures and restoring the customer's financial strength. As a minimum, the review must assess whether the customer rating is appropriate and thus whether the exposure is still weak, and it must be checked that the action plan set out for the customer is adhered to.

Customers with Totalkredit personal mortgage loans distributed by partner banks are designated as weak exposures if there is reasonable doubt that they are able and/or willing to repay their debt. Customers with Totalkredit business mortgage loans, however, are identified as weak exposures on the basis of their ratings, or if there is reasonable doubt that they are able and/or willing to meet their obligations to Totalkredit. This also applies to Totalkredit personal mortgage loans arranged by Nykredit.

If supported by additional objective data, an override of the customer's rating may be performed. Customer exposures involving rating overrides are reviewed at least once a year. As a result, the customer rating may be adjusted or the override removed. The use of overrides is assessed in connection with the regular validation of rating models performed by Nykredit's independent validation unit.

As part of local credit risk management, the heads of Nykredit's customer centres must carry out spot checks of the quality of weak exposure reviews performed by the account managers. In addition, the central credit control function carries out monthly spot checks to establish whether the weak exposure reviews performed by the account managers comply with business procedures and process descriptions in the area. This credit control serves to monitor and manage the approving entities' handling of weak exposures through ongoing supervision and feedback.

4.3.3 ▪ Impairments

At the beginning of 2018 new principles were implemented for impairment of loans, advances and receivables as well as provisions for guarantees and unutilised credit commitments etc (IFRS 9). According to IFRS 9, impairments are divided into three stages:

Stage 1 covers loans and advances etc without significant increase in credit risk since initial recognition. For this category, impairment provisions are generally made corresponding to the expected credit losses over a 1-year period.

Stage 2 covers loans and advances etc with significant increase in credit risk since initial recognition. For this category, impairment provisions are made corresponding to the expected credit losses over the asset's time-to-maturity.

Stage 3 covers loans and advances that are credit impaired, and which have been subject to individual provisioning based on a specific assessment that the customers will default on their loans.

All mortgage and banking exposures above a certain limit as well as all weak exposures are reviewed individually on a regular basis for the purpose of identifying any objective evidence of credit impairment. If a customer is deemed to be in financial difficulties, impairment provisions will subsequently be made for the exposure in accordance with IFRS 9, and the exposure will be moved to stage 3 or stage 2 (weak).

Impairment provisions are determined either by a calculation model or by individual assessment, depending on the size of the exposure and the customer segment. Where objective evidence of credit impairment is identified for private residential mortgage loans, individual impairment provisions are always determined by a calculation model.

Model-based impairment is still subject to management judgement supplemented with an assessment of an improved/worsened macro scenario for the long-term probability of default (PD).

A detailed description of impairment rules is provided in the Nykredit Group's Annual Report available at nykredit.com/reports.

4.4 - CURRENT RISK PROFILE AND DEVELOPMENTS

Nykredit's loan portfolio mainly consists of mortgage lending, which represents 81% of the total credit exposure. The rest is bank lending (6%) and financial products.

Nykredit Realkredit accounts for 37% of the Group's lending and guarantees, concerning mainly business customers, while Totalkredit's lending, mainly to personal customers, accounts for 52%. At end-2018 Nykredit Bank's lending represented 11% of Nykredit's total lending and guarantees.

The customer portfolio is characterised by relatively low loan-to-value (LTV) ratios and a relatively low level of defaults. Customers' internal ratings are predominantly at the high end of the scale. Impairment provisions as well as write-offs have declined over the past year and are still low from a historical perspective.

The Danish economy is generally growing, and Nykredit accounts for by far the greater part of the credit exposure. Housing prices, and thus also collateral values, have risen over the past year. Growth potential in the Danish economy is solid, and continued moderate growth is likely. Households and businesses appear financially robust, and there is room for growth in private consumption and investments. Employment and the labour force have increased in recent years.

At end-2018 47% of all private residential mortgage loans had an interest-only (IO) period. Generally, growth in the share of repayment loans continued in 2018. The trends are partly due to the recent focus on limiting the risks relating to IO periods for certain groups, and to the economic development, which has provided the financial leeway for customers to amortise their housing debt. Also, the share of fixed-rate loans has grown. The measures to limit lending risks were a result of new statutory rules and tightening of Nykredit's credit policy.

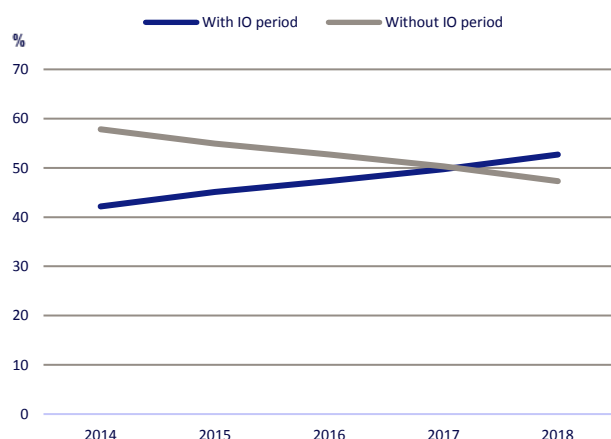
The portfolio of business loans is characterised by high credit quality and a low risk of loss. Nykredit's impairment provisions and write-offs are low. The loans are well-diversified across sectors, with properties representing a large exposure category due to Nykredit's business model.

4.4.1 - Concentration risk

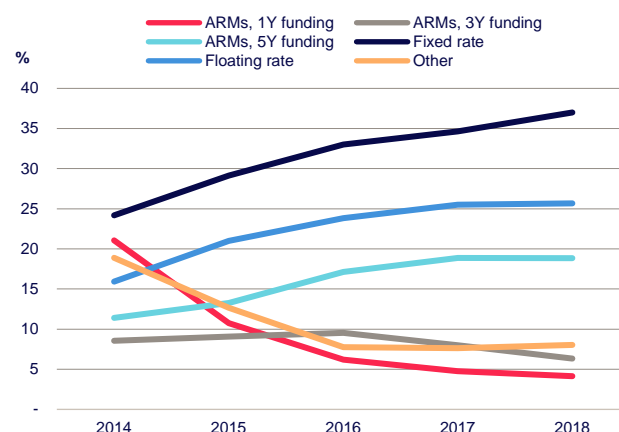
Concentration risk is the risk of being particularly exposed to groups of customers with identical or similar credit risks.

Nykredit's largest credit exposure consists of mortgage lending in Denmark. At end-2018 about 94% of Nykredit's total credit exposures were in Denmark, most of them consisting of mortgage loans. A majority of the mortgage loans (63%) were granted to homeowners. Historically, the Danish mortgage market has proved robust and stable, involving limited risk. In the years during the financial crisis, Nykredit's mortgage lending grew by 5-9% a year, and loss ratios were consistently low at levels not exceeding 1.9%.

Nykredit Realkredit Group
Private residential lending with/without IO periods,
Exposure-weighted



Nykredit Realkredit Group
Private residential lending by loan type
Exposure-weighted



Note: Other includes capped floating rate and ARM's with funding longer than 5 years.

Nykredit Realkredit Group
Geographical distribution of exposures

31.12.2018 DKK billion	Denmark	Sweden	Germany	Norway	Spain	France	United Kingdom	Other countries ¹	Total
Businesses	463.2	30.8	11.4	1.1	1.3	1.6	0.2	4.7	514.3
Retail	835.6	0.1	0.2	0.0	4.8	3.4	0.0	0.2	844.3
Equities	5.0	0.4	0.0	0.0	0.0	0.0	0.2	0.2	5.8
Other exposures	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Total IRB approach	1,305.9	31.3	11.6	1.1	6.1	5.0	0.2	5.4	1,366.6
Standardised approach	69.0	4.5	1.9	2.4	0.0	0.6	4.4	1.8	84.6
Total	1,374.8	35.8	13.5	3.5	6.1	5.6	4.6	7.2	1,451.1

¹ Exposures to other countries are mainly to the US and Switzerland.

Nykredit's mortgage loan portfolio is highly diversified across loan types, regions, loan terms and levels of debt outstanding.

Nykredit's mortgage lending to commercial and residential rental customers amounted to 46% at end-2018, while lending to agricultural customers accounted for 6%. Nykredit's lending to the cooperative and public housing segments amounted to 3% and 5%, respectively.

There is no concentration of exposures in foreign markets. The vast majority of foreign exposures are mortgage loans to property companies in Sweden and Germany, and mortgage loans have also been granted to personal customers in Scandinavia with homes in Spain and France.

Based on the above and a number of indicators, such as geography, property type and sector, Nykredit's business lending is not deemed to be concentrated in specific sectors. Nykredit has a high share of private residential lending, but considering the high geographical diversification across Denmark, Nykredit is not deemed to have any notable concentration risk.

Pursuant to the Capital Requirements Regulation (CRR), credit exposures to a single customer may not exceed 25% of eligible capital, see the rules on large exposures. Nykredit had no exposures exceeding this limit in 2018.

The largest single exposure to a non-financial counterparty was DKK 7.2 billion at end-2018, equivalent to 8% of eligible capital.

At end-2018 Nykredit's 20 largest exposures to non-financial counterparties totalled DKK 65.7 billion, equivalent to 75% of eligible capital.

Nykredit has no single exposures exceeding 10% of eligible capital.

Nykredit generally has a well-diversified credit portfolio. An amount has been allocated under Pillar II to cover concentration risk in accordance with the Danish FSA's guidelines.

4.4.2 ■ Focus areas

The high Danish economic growth combined with low interest rates increase the risk of the sector providing loans that are less resilient to a deteriorating economic climate. Nykredit and Totalkredit had a strong focus on this in their credit granting in 2018, and they have implemented a number of measures, both regulatory and at their own initiative. Nykredit is also aware of structural features and trends, such as urbanisation and digitisation, and allows for these in its risk management.

The Danish Executive Order on good practice for residential mortgage agreements entered into force in 2018, restricting the access of personal borrowers to highest-risk loan types if their debt-to-income ratio is over 4 and their LTV is over 60%. Previously, a down payment requirement of at least 5% of the purchase price had been introduced. Also, the Danish FSA has issued guidelines on prudent credit assessment when granting housing loans in growth areas, implying stricter housing loan rules in growth areas. Generally, customer ratings have improved for all customer categories since 2017. At the same time, there has been a distinct shift towards repayment loans and loans with longer interest periods.

Nykredit has introduced mandatory sensitivity calculations in connection with the approval of exposures involving property letting by regional credit units or centrally by Group Credits. They illustrate how an exposure will be affected by an interest rate rise or a decline in property prices. Nykredit's largest exposures in the business sector are to the residential rental and commercial rental segments, and they are characterised by robust financial ratios and a relatively low risk of loss. Moreover, new regulation was introduced in 2018 that further mitigates Nykredit's credit risk, including a new model for public housing financing and the agreement on more robust housing cooperatives.

Limited industry-specific risks exist, especially in relation to the agricultural portfolio where low crop yields and low pork quotations in 2018 are likely to result in more weak exposures and consequently higher credit risk. However, farms have been affected very differently by the drought, depending on geography, types of crops, irrigation possibilities etc. Provisions have been made for these exposures. However, Nykredit's risk of loss is low considering the size of its agricultural lending, as the loans are mainly mortgage loans and the portfolio is characterised by low LTVs. Also, the long-term food production outlook still indicates growth potential for Danish farms and the food cluster, ie the group of sectors based on agriculture, fisheries and food production.

Across industries, the market for buying and selling businesses is characterised by growth and a high number of transactions. Competition is strong, and the required rates of return are low, driven by investors' pursuit of returns in a continued low-rate environment. Nykredit's credit risk management in relation to acquisition finance is tight, and the business area only represents a small part of the Nykredit Group's aggregate exposure. Nykredit's main focus is on Denmark, which accounts for more than two thirds of the business. The transactions involve a high degree of self-financing.

Nykredit Realkredit Group Exposure by sector

DKK billion	31.12.2018	31.12.2017
Personal customers	672.5	681.2
Public housing	66.3	68.3
Other residential rental	12.0	10.2
Other services	35.3	26.5
Construction	19.4	14.0
Retail and wholesale	29.0	28.4
Finance and insurance	23.0	18.6
Manufacturing	42.6	41.6
Public administration, institutions and education	16.7	17.1
Professionals	76.0	62.4
Agriculture	92.9	93.4
Transport and goods handling	10.8	9.2
Private housing cooperatives	43.9	44.5
Rental	217.9	208.4
Other	93.0	106.2
Total	1,451.1	1,430.0

4.4.3 Write-offs, impairment and arrears

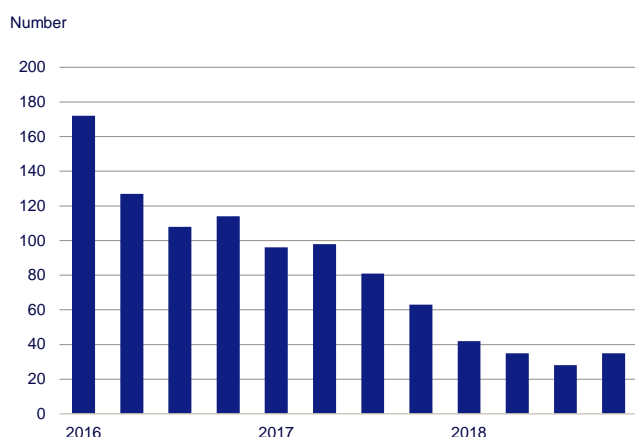
Impairment charges for Nykredit's loans and advances (earnings impact) came to DKK 0.1 billion in 2018 against DKK 0.4 billion in 2017. Impairment charges for loans and advances through profit or loss include changes for the year in impairment provisions as well as write-offs for the year.

Nykredit's impairment provisions for potential future losses on mortgage and bank lending totalled DKK 7.9 billion at end-2018, equivalent to 0.6% of total lending.

Provisions for mortgage loan impairment totalled DKK 5.0 billion (0.4% of mortgage lending). Provisions for bank loan impairment totalled DKK 2.8 billion (4.6% of bank lending).

For Nykredit as a whole, 1.7% of exposures were in default at end-2018 – about 1.5% concerned mortgage activities and about 3.5% banking activities. About 22% of exposures in default have been provided for, equivalent to DKK 4.8 billion.

Nykredit Realkredit Group Properties acquired by foreclosure



The proportion of exposures in default declined from 2017 to 2018. The proportion of exposures provided for relative to exposures in default was lower for Nykredit Realkredit and Totalkredit than for Nykredit Bank, as their exposures are fully secured by mortgages on real estate, which may be enforced in the event of default.

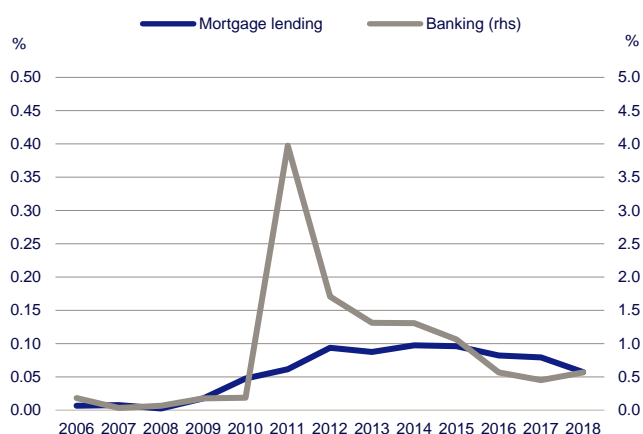
Total write-offs on the Group's exposures in 2018 were DKK 1.0 billion, equal to a loss ratio of 0.1%. This is a reduction of DKK 0.2 billion compared with 2017. Of total write-offs, mortgage activities represented DKK 0.7 billion and bank activities DKK 0.3 billion. Compared with 2017, write-offs on mortgage activities declined and write-offs on banking activities increased in 2018. About 64% of the write-offs were on private residential lending, while 36% were on business lending.

An equally favourable trend is seen in arrears. The average arrears ratio is still relatively low, at 0.4%. The fairly low levels of write-offs and arrears in 2018 were underpinned by the current economic upturn and growth. The combination of low interest rates and low unemployment particularly supports personal customers' ability to pay.

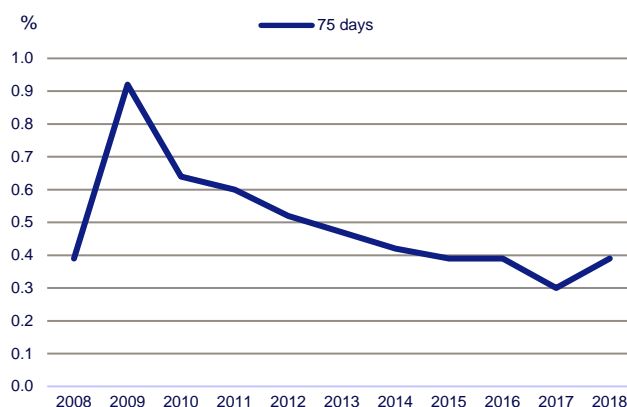
At end-2018 the loss ratio was 0.6% (excluding reverse repurchase lending). 80% of the Bank's losses were related to business lending.

The property portfolio counted 35 properties at end-2018. The portfolio of acquired properties has reduced considerably every year since 2012. At the beginning of the 1990s, the portfolio comprised about 1,500 acquired properties.

Nykredit Realkredit Group Write-offs, share of lending



Nykredit Realkredit Group Arrears ratio (75 days past due), mortgage lending



4.4.4 Customer ratings

The credit quality of 78% of Nykredit's exposures was in the range of ordinary to high (ratings 6-10) at end-2018. These customers typically have robust finances and make timely payments.

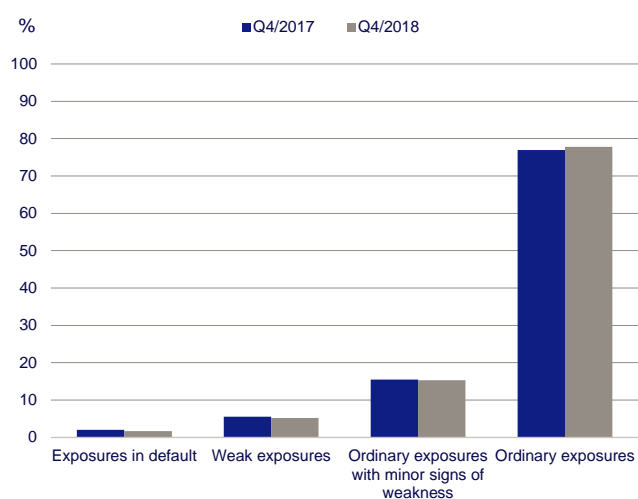
This type of customers made up 79% of Nykredit's personal customers, and for business customers, excluding Corporate & Institutional Banking (CIB), the percentage was 64%. In the CIB segment, the credit quality of 92% of customers was in the range of ordinary to high.

At end-2018 15% of Nykredit's customers were considered "ordinary exposures with minor signs of weakness" (ratings 3-5). These customers typically have less robust finances, but make timely payments. They made up 14% of personal customers, and for business customers, excluding CIB, the percentage was 27%. The ratio for CIB was 6%.

The rest of Nykredit's customers were weak exposures (ratings 0-2, 5%) and exposures in default (2%). This category primarily consists of customers that have not made timely payments, customers with a negative net worth or equity, and customers with low or negative earnings. Customers with objective evidence of credit impairment are also in this group. 3% of Nykredit's customers showed objective evidence of credit impairment at end-2018.

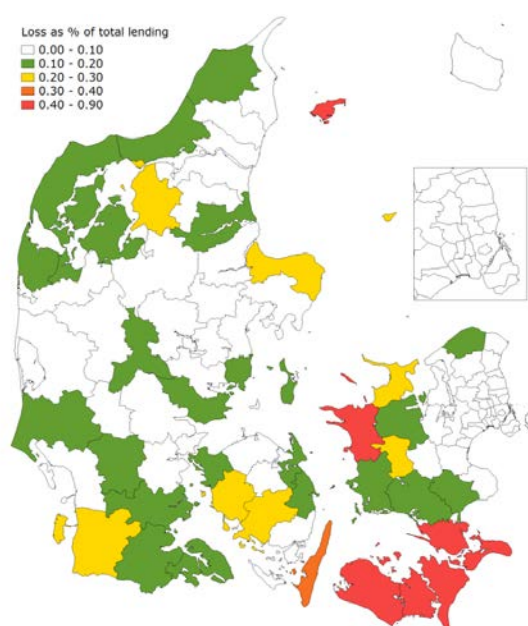
The distribution of customer ratings improved slightly in 2018 compared with 2017. A decline in exposures in default from 2.1% to 1.7% and a rise in the share of customers with improved ratings from 76.9% to 77.8% were observed.

Nykredit Realkredit Group
Ratings, EAD-weighted



Nykredit Realkredit Group

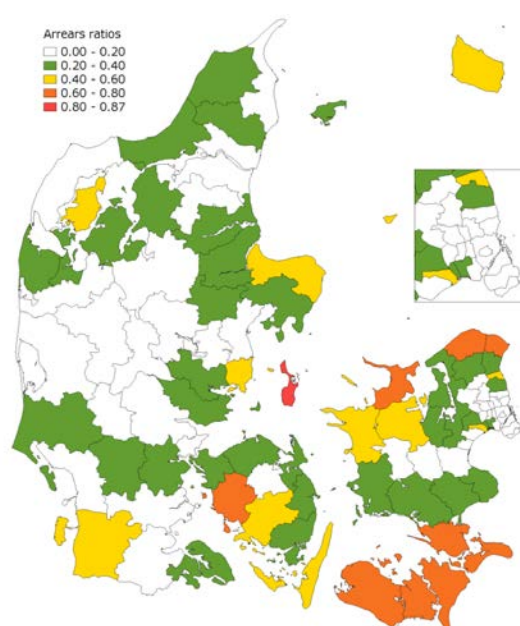
Private residential property – write-offs relative to total lending 2018



Note: The loss ratio for private residential property was 0.08% at national level at end-2018.

Nykredit Realkredit Group

Private residential property – arrears 2018



Note: The 75-day arrears ratio for private residential property was 0.23% at national level at end-2018.

4.5 ■ SECURITY

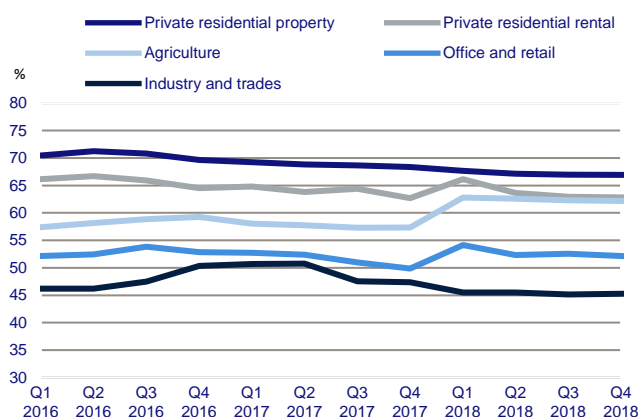
The approval of loan applications is based on the customer's credit-worthiness but supported by the security provided. The greater part of Nykredit's and Totalkredit's lending is secured by mortgages on real estate. Other types of security are guarantees and financial collateral.

4.5.1 ■ Real estate

Mortgages on real estate reduce credit risk substantially. The mortgageable value of a property is determined at the time of loan granting. Valuations are based on the marketability, stability of value, alternative use, letting potential etc of the property. Nykredit usually performs a manual valuation, but also applies a statistical model in connection with the processing of loans for detached and terraced houses and owner-occupied flats where statistical valuation is particularly accurate. Such valuations are subject to approval by the valuer in the relevant geographical area and are monitored centrally.

Nykredit Realkredit Group

LTVs – property segments



Following the initial valuation, the market value of a property is monitored regularly. The statistical valuations applied to detached and terraced houses, owner-occupied flats and holiday homes are performed centrally and supplemented with local valuations as required.

Nykredit has set up a board to monitor market conditions and the quality of statistical valuations and identify areas and property types which should be checked separately.

The LTV ratio denotes the debt outstanding relative to the property value. LTV ratios play a significant role in several contexts and are used for:

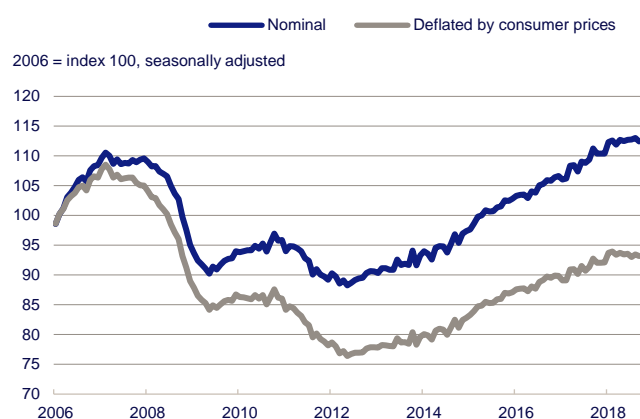
- Monitoring Nykredit's mortgage lending
- Calculating customers' credit risk for the purpose of, for instance, credit assessment and capital calculations
- Calculating supplementary collateral for properties with SDO-funded loans.

LTV ratios are determined quarterly. The LTV ratios referred to below are average LTVs.

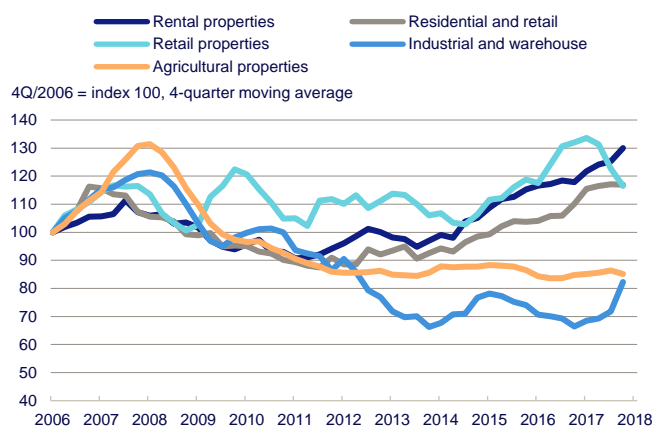
At end-2018 the LTV level of the Group's total loan portfolio was 62% compared with 63% at end-2017. The LTV level of the Group's private residential lending was 67% at end-2018 against 70% at end-2017. The LTV level of sectors comprised in total business lending was in the range of 45-63% at end-2018, compared with a range of 47-63% in 2017.

LTV levels are thus still low, and the security provided contributes to mitigating credit risk.

Detached and terraced house prices



Commercial property prices



Source: Macrobond, Statistics Denmark

Source: Macrobond, Statistics Denmark

Property market trends

Housing prices have seen an uptrend since 2012, albeit with considerable regional variation. Recent years' housing market improvement has been based in and around the cities but has gradually spread to a larger part of Denmark. As a result, prices are now rising in most municipalities of the country. Also, the trend has spread to parts of Denmark that have not previously seen price increases of that magnitude.

Regulatory intervention to restrict high-risk lending reduces the risk of overheating in the housing markets of growth areas and improves borrowers' resilience to interest rate increases and potential housing price declines. The Danish Executive Order on good practice for residential mortgage agreements, which entered into force at the beginning of 2018, restrict the access to highest-risk loan types for households with debt-to-income ratios above 4 and LTVs above 60. An immediate effect of the Order has been reduced activity in the market for owner-occupied flats, resulting in lower demand, a higher supply and lower price pressures. Viewed in isolation, this reduces the risk of overheating in the Copenhagen flat market. Recent statistics show minor price declines in the Copenhagen flat market.

The development in commercial and agricultural property prices shows larger fluctuations quarter on quarter than seen for private residential property. The reason is the lower sales activity and the fact that commercial and agricultural properties are far less homogeneous than residential properties. Focus should therefore be more on the long-term trends of these property types. The past few years have seen rising prices of rental properties and properties for residential and business purposes. At the same time, the trend in agricultural properties prices has been flat. Retail property prices have dropped recently, while factory and storage property prices have increased.

4.5.2 ■ **Guarantees and financial collateral**

Nykredit mainly receives guarantees from public authorities and other banks. Guarantees issued by public authorities mitigate credit risk – mainly relating to mortgage lending for public housing. A new model for the financing of public housing was introduced in 2018, under which the government assumes the credit risk of mortgage banks by way of guarantees.

The bank guarantees include land registration guarantees, guarantees for interim loans and loss guarantees.

Guarantees are widely applied in the day-to-day management of Nykredit's credit risk, particularly in customer relationships where a parent company contributes capital to group companies. The determination of Nykredit's risk exposure amount (REA) and required own funds includes guarantees whereby limited liability companies, large farming businesses and large privately owned enterprises assume primary liability. Guarantees provided by small privately owned enterprises and private individuals are not included.

Totalkredit's business concept is based on the distribution of mortgage loans through its partner banks. The partner banks are responsible for customer services and for hedging risk relating to the loan portfolio. Totalkredit and the individual partner bank share the risk relating to the loans according to the principles set out in the agreement with the partner banks. The partner banks provide security by way of a right of set-off and guarantees to Totalkredit for the loans distributed by them. This security ensures that the partner banks carry out a thorough and comprehensive assessment of customer creditworthiness and the mortgageability of the property. In case of particularly high-risk loans where the ordinary business procedures are derogated from, the partner bank must provide a guarantee exceeding the security provided for ordinary loans.

Financial collateral includes deposits in DKK or other currencies, positions in listed Danish government and covered bonds, other high-rated liquid Danish and foreign bonds, and listed equities.

Nykredit assigns an internal collateral value to the different types of financial collateral depending on the risk involved. For the purpose of calculating REA, Nykredit assigns its own collateral values based on internal estimates of the reduction in collateral value in case of enforcement.

4.6 ■ MODELS FOR DETERMINATION OF CREDIT RISK

The determination of credit risk using the advanced IRB approach is based on three key parameters: Probability of Default (PD), expected Loss Given Default (LGD) and expected Exposure at Default (EAD). These three key parameters are referred to as risk parameters. Nykredit estimates risk parameters on the basis of Nykredit's default and loss history.

4.6.1 ■ Modelling principles

According to the CRR, PDs must be estimated on the basis of historical 1-year PDs while at the same time reflecting a suitable weighting between the long-term average and the current level. For the purpose of determining capital requirements, LGD estimates must always reflect an economic downturn.

The above principles applied to estimate the risk parameters ensure that the Group's REA remains more stable throughout an economic cycle than if the calculations had exclusively reflected the current economic climate.

4.6.2 ■ Probability of Default (PD)

PD expresses the probability of a customer defaulting on an obligation to Nykredit within a period of one year. Nykredit calculates a PD for each individual customer.

PDs are calculated using statistical models. These models are based on, for instance, data on the customer's financial position and payment behaviour as well as any impairment. Corporate and institutional clients and farming businesses are also required to submit financial statements regularly, which will be applied in the determination of their ratings.

Elements of credit risk determination

PD	Probability of Default (PD) is the probability of a customer defaulting on an obligation to Nykredit.
LGD	Loss Given Default (LGD) is the expected loss rate of an exposure in case of the customer's default.
EAD	Exposure at Default (EAD) is the total estimated exposure to a customer in DKK at the time of default, including any drawn part of a credit commitment.
REA	Risk Exposure Amount (REA) is credit exposures factoring in the risk relating to the individual customer. REA is calculated by risk-weighting credit exposures. The risk weighting is calculated on the basis of, for instance, PD and LGD levels.
Default	An exposure is deemed to be in default where a significant amount has been in arrears for 75 days (mortgage loans) or at the time of sending the third reminder (bank loans). Exposures for which impairment provisions have been made under certain circumstances are also considered in default. This applies to customers classified in stage 3 and some customers classified in stage 2 in accordance with the rules of IFRS 9. Moreover, exposures for which a direct loss has been incurred are also considered in default.

4.6.3 ■ Credit ratings

The PDs of individual customers are converted into ratings from 0 to 10, 10 being the highest rating. Exposures in default are placed in a category of their own. The individual rating categories have been defined based on fixed PD ranges, which means that, in periods of high business activity, a high rating will be assigned to relatively more customers, while the opposite will apply during an economic downturn.

A rating reflects the customer's financial position and creditworthiness, and besides being included in the determination of capital requirements, the customer rating is also a key element of any customer assessment.

Manual correction of a customer's rating is possible if, due to objective data not already factored into the model, the calculated rating is not deemed to reflect the customer's real probability of default. Manual correction of the calculated rating is referred to as override.

4.6.4 ■ Loss Given Default (LGD)

For each customer exposure, Nykredit calculates an LGD, reflecting the percentage share of the exposure which is expected to be lost in case of customer default.

The LGD calculations factor in any security provided, including the type of security (typically mortgages on real estate), geography, the quality of the security and its ranking in the order of priority etc.

Expected LGDs vary with economic trends. In periods of high business activity, default will often not lead to any loss, as the value of the security will typically exceed the value of the loan. This applies in particular to loans secured by mortgages on real estate. Conversely, more and greater losses would be expected during an economic downturn.

For the determination of capital requirements, LGDs are calibrated to reflect losses during a severe economic downturn.

4.6.5 ■ Exposure at Default (EAD)

Nykredit estimates an EAD for all exposures relating to a customer, reflecting the total expected exposure to the customer at the time of default, including any additional drawn parts of approved credit commitments. The latter is factored in using conversion factors.

4.6.6 ■ Other models

Besides rating, loss and credit exposure models, Nykredit has a variety of other credit-related models.

The property value model calculates the value of properties serving as security for the Group's lending. The results are used to determine the need for supplementary security, as inputs in rating and loss models and as a substitute for physical inspections in relation to detached and terraced houses as well as owner-occupied flats that are subject to an exemption granted by the Danish FSA.

For the purpose of calculating impairments under the new accounting standard, IFRS 9, the Group uses internal models for determination of credit risk and methods developed particularly for impairment calculations.

4.6.7 ■ Approval, validation and reliability of credit risk models

Nykredit develops and improves its credit risk models on an ongoing basis. Focus is on achieving models that are accurate and yield consistent and stable parameters.

All changes to Nykredit's models are subject to an internal standard approval procedure. Also, major changes must be approved by, and minor changes notified to, the Danish FSA. The models are validated as part of the approval procedure.

The credit risk models are validated independently of Nykredit's risk modelling and credit approval units.

To ensure a good forecasting ability and consistent estimates, all credit risk models are validated at least once a year. Overall, model performance is satisfactory measured against the applicable requirements for internal models. The validation results are used in the ongoing internal capital adequacy assessment process (ICAAP). If validation shows that a model underestimates the risk, a capital charge will be provided under Pillar II until the model has been readjusted to reflect the actual risk.

A subcommittee of the Risk Committee approves the validation process and results on a current basis, and the overall validation conclusions are reported to the Risk Committee and the Risk Board of the Board of Directors.

Ongoing control and validation comprises quarterly monitoring and annual validation.

Quarterly monitoring includes the models' customer ranking, model estimates compared with actual observations, rating distributions and migration etc.

Annual validation includes in-depth analysis of the functioning of a model, including its accuracy, follow-up on the quarterly monitoring of model performance and a qualitative review of the model and its elements. The annual validations include model-based PDs as well as PDs adjusted by overrides. In addition, the use of overrides for manual ratings adjustment is subject to an annual general validation. The annual validations also include an assessment of data for the determination of risk parameters.

4.7 ■ COUNTERPARTY RISK

Nykredit applies financial instruments, such as interest rate derivatives and repurchase agreements (repo transactions), for serving customers. Liquidity and market risks are also managed internally by Nykredit using financial instruments.

The market value of a derivative changes according to the underlying market parameters, such as interest rates and exchange rates. This may lead to market values in favour of both Nykredit and its counterparties.

In some cases, a counterparty is unable to meet its payment obligations (default). This gives rise to counterparty risk.

Nykredit mitigates its counterparty risk through financial netting agreements as well as agreements on financial collateral. The contractual framework is based on market standards, such as ISDA or GMRA agreements. Nykredit uses central counterparties (CCPs) for professional derivatives clearing. Swaps and repo transactions are cleared.

The counterparty risk exposure is affected by the market value of the financial instruments and the probability of customer default. Thus, counterparty risk involves both market and credit risk.

Derivatives in financial statements are subject to value adjustment (xVA). The value adjustment is thus affected by several factors, including the level of long-term interest rates, credit spreads, funding spreads, the maturities of the contracts as well as customers' creditworthiness.

4.7.1 ■ Risk management

Monitoring and reporting

Nykredit monitors counterparty risk on a daily basis by means of capital market systems (market data, calculation of market values etc). This monitoring is the responsibility of Nykredit's risk control function together with the credit control function or the individual risk-taking unit. More specifically, it is checked whether the settlement and counterparty risks relating to the individual counterparties are within the approved limits.

The reporting submitted to the Risk Board of the Board of Directors includes quarterly counterparty risk reports.

Nykredit monitors xVA on a daily basis and reports on xVA sensitivity to interest rate movements, ie market risk. Furthermore, credit spreads and credit spread sensitivity are reported on in order to reflect market-implied credit risk, and funding spreads and funding spread sensitivity are reported on as well.

Nykredit Realkredit Group

Exposure using ECAI credit assessments

Institutions		
DKK million	2018	2017
Exposures	76,520	79,588
REA	6,302	6,497

Approval of credit lines

The use of derivative instruments is governed by the general credit approval rules and credit policies, supplemented with a number of restrictions and policy rules. Which level of the credit approval hierarchy determines an application thus depends on the amount of the credit line. In addition to limits to amounts and maturities, the use of derivatives is subject to requirements relating to the type, exposure and creditworthiness of the customer.

Collateral management

Nykredit is subject to the requirements relating to risk-mitigating techniques, see the Regulation on OTC Derivatives, Central Counterparties and Trade Repositories (EMIR). Nykredit prevents any inconsistencies with non-cleared OTC derivatives transactions by daily monitoring and the implemented controls.

Capital market system data

Market values, maturities etc are extracted from capital market systems, which are also used to calculate exposure profiles and PFE (potential future exposure) values.

According to Articles 111 to 134 of the CRR, counterparties whose capital requirements for default risk are determined using the standardised approach must be risk-weighted based on their credit quality step.

S&P Global Ratings and Moody's provide information to Nykredit about the credit assessments of sovereigns, counterparties and issues. This external rating information is used as an integrated part of Nykredit's data flows and is updated daily. If the external providers assign different ratings to a counterparty, Nykredit will use the lower rating.

The mapping of credit assessments to credit quality steps is based on the mapping table of the EBA and is shown below.

Nykredit Realkredit Group

Long-term ratings

Risk weight			
Credit quality step – rating	Institutions	Corporates	Sovereigns
1 - AAA to AA-	20%	20%	0%
2 - A+ to A-	50%	50%	20%
3 - BBB+ to BBB-	50%	100%	50%
4 - BB+ to BB-	100%	100%	100%
5 - B+ to B-	100%	150%	100%
6 - CCC+ and below	150%	150%	150%

Nykredit Realkredit Group

Short-term ratings

Risk weight		
Credit quality step – rating	Institutions	Corporates
1 - A-1+	20%	20%
2 - A-1	50%	50%
3 - A-2 to A-3	100%	100%
4 - Below A-3	150%	150%

4.7.2 ■ Methods

The use of models and significant changes to calculation methods and models are subject to approval by a subcommittee of the Risk Committee.

Determination of capital requirements

For the purpose of determining capital requirements, counterparty risk exposures are calculated according to the mark-to-market method, ie as any positive market value of the transaction plus the potential future credit exposure.

Both the IRB approach and the standardised approach are used to determine risk. The IRB approach is used for business counterparties, while the standardised approach is used for institutions and sovereigns.

The capital requirement for credit valuation adjustment (CVA) risk is determined using the standardised approach.

Value adjustment of derivatives in financial statements

Nykredit makes fair value adjustments of derivatives in accordance with the International Financial Reporting Standards (IFRS). This includes individual value adjustments of customers showing objective evidence of credit impairment, CVA based on customers' current credit quality as well as management judgement.

The Danish FSA has encouraged the adoption of a prudent approach to the assessment of customers with swap contracts. This means that swap contracts with customers showing objective evidence of credit impairment (rating 0 and exposures in default) are value adjusted in full, whether or not these customers still make timely payments to Nykredit.

Nykredit also allows for other factors. At end-2018 Nykredit had made funding valuation adjustments (FVA) where customers had not provided security for derivatives.

4.7.3 ■ Current risk profile and developments

Market value

A large part of Nykredit's swap portfolio was established in the period 2005-2008 when business customers hedged the risk of rising interest rates on their variable-rate mortgage loans using swap contracts. From the perspective of the customers, the interest rate declines in the ensuing years caused the market values of the individual swap contracts to become negative. In March 2015 the negative market value was DKK 23.3 billion, but since then the development in market values has generally been positive.

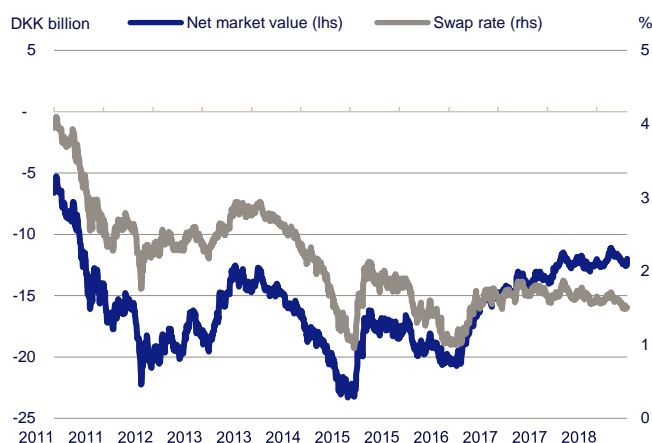
At end-2018 the negative market value of derivatives relating to customer exposures was about DKK 12 billion. Credit value adjustments were moderately affected by interest rate changes, while the widening of credit spreads had a positive impact. Portfolio run-offs had an adverse impact. At end-2018 total provisions amounted to DKK 3.1 billion, of which credit value adjustments represented DKK 2.7 billion.

Part of Nykredit's swap portfolio is designated as legacy swaps and is not included in Nykredit's core business. An example of legacy derivatives is long-term swaps with housing cooperatives. The portfolio of legacy derivatives is in run-off.

At end-2018 legacy swaps represented 50.2% of the total negative market value of derivatives relating to customer exposures. The market value of DKK 12 billion has been value adjusted by 26%, equivalent to DKK 3.1 billion.

Nykredit Realkredit Group

Net market value of derivatives contracts with business customers



Nykredit Realkredit Group

Value adjustment of portfolio of customer derivatives (swaps)

DKK million	CVA				FVA	Other	Total value adjustment	Market value	Value adjustment as % of market value
	Customers without objective evidence of credit impairment	Customers with objective evidence of credit impairment	Management judgement	Total CVA					
31.12.2018									
Derivatives offered	127	366	49	541	100	109	750	5,955	13%
Legacy derivatives	217	1,274	620	2,110	145	111	2,366	6,013	39%
Total	344	1,640	668	2,651	244	220	3,116	11,967	26%

Exposure, netting and collateral

The gross exposure to all types of counterparties was DKK 89.8 billion at end-2018. Derivatives represented DKK 28.2 billion, while DKK 61.7 billion related to securities financing transactions (repo transactions/reverse repurchase lending). After netting and collateral, but before potential future exposures, the counterparty risk exposure was DKK 9.9 billion. Of this amount, DKK 8.1 billion related to derivatives and DKK 1.8 billion related to securities financing transactions.

Nykredit Realkredit Group

Impact of netting and collateral held on exposure values

2018					
DKK billion	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	28.2	16.5	11.6	3.6	8.1
Securities financing transactions	61.7	0.0	61.7	59.9	1.8
Total	89.8	16.5	73.3	63.5	9.9

Note: The figures in the table are not directly comparable with accounting figures, as the capital adequacy rules allow further netting than the accounting rules.

5. OPERATIONAL RISK

5.1 OPERATIONAL RISK POLICY

5.2 OPERATIONAL RISK GUIDELINES

5.3 OPERATIONAL RISK MANAGEMENT

5.3.1 IT security

5.3.2 Compliance

5.3.3 Prevention of money laundering and terrorist financing

5.3.4 General Data Protection Regulation (GDPR)

5.3.5 Reporting

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk also includes legal, compliance, IT and model risks.

5.1 ■ OPERATIONAL RISK POLICY

The Board of Directors lays down the Group's policy and guidelines for operational risk as well as its risk appetite in this area.

It is Nykredit's policy to promote a culture where openness about and awareness of operational risk are natural elements of the everyday work of all staff members, and to ensure that the Executive Board and the Board of Directors are briefed regularly on key risk areas.

The operational risk policy stipulates that operational risks should be low relative to the other types of risk of the Group. Operational risks are assessed on the basis of the probability of a given event occurring and the potential loss resulting from such event.

5.2 ■ OPERATIONAL RISK GUIDELINES

The Board of Directors' guidelines to the Executive Board set out tasks and responsibilities for ensuring that the operational risks relating to running Nykredit's business are mitigated and managed in accordance with the principles and limits of the operational risk policy.

In connection with strategic and business decisions, it is assessed whether they may involve operational risks that are contrary to the policy laid down by Board of Directors. The same applies in connection with approval of new products.

The Executive Board has delegated the ongoing monitoring of operational risk to the Risk Committee, which regularly reviews principal risks and considers specific action plans for selected risk factors.

5.3 ■ OPERATIONAL RISK MANAGEMENT

Given its nature and characteristics, operational risk is best mitigated and managed in the first line of defence through the day-to-day business conduct. The responsibility for the day-to-day management of operational risks is decentralised and lies with the individual business areas. Operational risk management activities are coordinated centrally to ensure coherence and consistency across the Group.

As part of operational risk management, Nykredit is continuously working on identifying significant operational risks. Operational risks are mapped by each business area identifying and assessing its own significant risks on an ongoing basis. Nykredit's risk control function holds quarterly risk meetings with selected business areas for the purpose of reviewing the area's operational risk. The business areas are selected according to a risk-based approach so that areas with the most significant operational risks are reviewed more often than areas where operational risks are less significant. At least one risk meeting is held with each business area every year. At the risk meetings, the operational risks of the area are reviewed, and it is assessed whether the risks are adequately managed through controls and other risk-mitigating actions, or whether additional measures are required to reduce risk. Operational risk mapping provides a valuable overview of particularly risky processes/systems and therefore constitutes a general management tool.

In addition to the identification of operational risks, all operational risk events causing losses of over DKK 10,000 are systematically recorded, categorised and reported. Operational risk gain events, potential operational loss/gain events and events that did not lead to a loss/gain (near-miss events) are also recorded.

The recording of operational risk events must include information about the type of product, process and risk concerned as well as about any insurance cover and the time spent dealing with the event. In relation to events that are significant in terms of size or number, an assessment will be made of the need to implement new risk-mitigating measures.

Nykredit covers certain types of operational risk by taking out statutory and other insurance to ensure that any damage or claims for damages will not noticeably affect the Group's financial results or operating conditions. Overall, Nykredit ensures adequate insurance cover of risks, taking into account Nykredit's business activities, organisation and resources as well as the market conditions under which Nykredit operates.

5.3.1 ■ IT security

As a digital company, Nykredit is dependent on IT. This involves a number of significant operational risks, including the risk of cybercrime against Nykredit and Nykredit's customers.

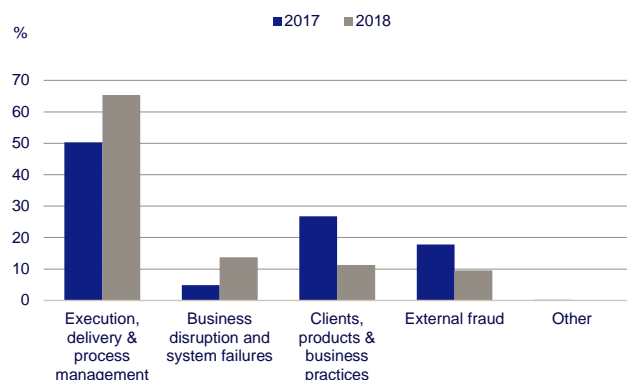
An IT security policy has been laid down, stipulating the Nykredit Group's general IT security requirements. Nykredit strives to have a security level in line with international practice in the financial sector. In addition to the general security policy, Nykredit has prepared a number of underlying policies and business procedures, including emergency response plans and business contingency plans, complying with the principles of the international ISO standard. Besides, Nykredit works closely together with authorities and participates actively in national and international IT security networks.

Nykredit's central IT security function is responsible for monitoring the Group's IT systems, ensuring that operational risks are adequately managed through controls and other risk-mitigating actions. Over the past few years, Nykredit has launched a wide range of measures to strengthen IT security. In 2018 more resources were allocated to IT security, and an IT risk assessment was conducted to ensure that efforts are prioritised according to a risk-based approach. A comprehensive IT security test was conducted in 2017 and followed up on in 2018. Also, an IT security e-learning programme has been introduced for all Nykredit staff. The programme ends with a mandatory test that must be passed.

The operation of Nykredit's IT systems has been outsourced to external providers. Close collaboration with the individual IT providers ensures that they comply with service agreements and maintain a satisfactory IT security level.

The current risk landscape is reported quarterly to the Executive Boards and Boards of Directors of the companies.

Nykredit Realkredit Group
Total operational risk event losses



Note: Other includes: Internal fraud, Employment practices and workplace safety and Damage to physical assets. The risk type External fraud mainly includes credit card misuse.

5.3.2 • Compliance

Operational risk includes compliance risk. The Board of Directors has adopted a separate compliance policy where it defines risk tolerance in the compliance area as well as requirements for ongoing reporting of identified risks and ad-hoc reporting of critical events.

Management has set up the compliance function charged with assessing, monitoring and reporting on the efficiency of Nykredit's methods and procedures to ensure legal compliance. Compliance performs an annual risk assessment, identifying the areas to be reviewed in the year to come. Compliance considers and reviews identified compliance risks on an ongoing basis, assessing and monitoring whether any new risks are addressed adequately.

Furthermore, Compliance has a continuous focus on strategic measures and new legislation that may alter the risk profile of the organisation, currently including anti-money laundering law, the General Data Protection Regulation (GDPR) and MiFID II.

To strengthen the efforts to manage and mitigate operational and compliance risks, one or more Assistant Risk and Compliance Officers (ARCOs) have been appointed in the individual business units. Their primary duty is to assist the managements of the individual business units in executing compliance and risk-related tasks and to embed the risk culture across Nykredit. ARCOs serve as links between on the one hand the first line of defence and on the other hand the compliance and risk control functions. ARCOs are also found in units in the second line of defence where they also assist in the performance of compliance and risk-related tasks.

5.3.3 • Prevention of money laundering and terrorist financing

Nykredit maintains a strong focus on ensuring that the Group is not used for money laundering or terrorist financing and that the relevant legislation is complied with. A central unit is responsible for the anti-money laundering and counter-terrorist financing activities. The unit prepares policies and business procedures and ensures that efficient procedures and controls are in place.

Customer transactions are monitored continuously. Suspicious transactions are investigated by central-unit staff specialised in anti-money laundering and counter-terrorist financing and are reported to the State Prosecutor for Serious Economic and International Crime pursuant to Danish legislation.

In addition to the continuous monitoring of transactions, the central unit also receives reports from individual customer advisers. The customer advisers have a duty to maintain a high level of customer knowledge, enabling them to identify suspicious transactions.

To ensure that all Nykredit Group staff are familiar with anti-money laundering procedures, a mandatory e-learning programme on anti-money laundering and counter-terrorist financing has been introduced. The programme ends with an annual mandatory test that must be passed.

Further, Nykredit participates in several cross-sectoral fora and collaborates actively with authorities, for instance providing input to the Danish FSA's anti-money laundering guidelines.

Nykredit's business model is centred around Danish mortgage lending, which is considered to reduce the risk of being misused for money laundering or terrorist financing purposes. Also, foreign loans have mainly been extended to customers in Scandinavia and Germany.

The Group Executive Board includes a Group Managing Director in charge of implementing and ensuring management focus on measures to prevent financial crime throughout the Group. The Group Managing Director is also anti-money laundering officer at the executive level in Nykredit Realkredit A/S.

The Executive Boards of the other Group companies have each appointed anti-money laundering officers at the executive level in charge of implementing and ensuring management focus on measures to prevent financial crime in their respective Group companies.

5.3.4 • General Data Protection Regulation (GDPR)

The new General Data Protection Regulation, which entered into force in May 2018, has tightened the requirements relating to the collection, recording and use of personal data by businesses. Comprehensive policies and business procedures have been established in the area, as have procedures for the continuous improvement of personal data processing in accordance with the tighter requirements.

Further, all Nykredit staff have been trained in compliance with the tighter rules.

5.3.5 • Reporting

Nykredit's overall operational risk and risk profile changes are reported quarterly to the Board of Directors and the Executive Board. Recorded events are also reported quarterly to the Board of Directors, the Executive Board and the business units.

Risk events causing losses greater than DKK 10 million must be reported to the Board of Directors at the next meeting, while operational risk events deemed to be a potential threat to the stability of the Group must be reported without undue delay, ie when they have been described sufficiently to decide on mitigation measures. This also applies to potential risk events that may threaten the stability of the Group. Risk events causing losses in the range of DKK 1-10 million must be reported to the Risk Committee at the earliest opportunity.

6. MARKET RISK

6.1 MARKET RISK POLICY AND GUIDELINES

6.2 CONTROL AND FOLLOW-UP

6.3 CURRENT RISK PROFILE AND DEVELOPMENTS

6.3.1 Main market risks

6.3.2 Daily stress tests

6.3.3 Other market risks

6.4 BANKING BOOK RISK

6.4.1 Interest rate risk in the banking book

6.4.2 Equity price risk in the banking book

6.5 MODELS FOR DETERMINATION OF MARKET RISK

6.5.1 VaR for day-to-day management

6.5.2 Regulatory VaR capital requirement

6.5.3 Backtest of market risk models

Market risk is the risk of loss as a result of movements in financial markets and includes interest rate, yield spread, foreign exchange, equity price and volatility risks etc.

Market risk can be divided into *general risk*, which means risk affecting the financial markets in general, and *specific risk*, which is the risk related to one individual issuer of securities. This distinction is applied in the day-to-day risk management as well as in the determination of risk exposures involving market risk used for capital adequacy purposes.

Nykredit's market risk relates mainly to the management of equity and liquidity reserves. In addition, Nykredit Bank A/S and Nykredit Realkredit A/S incur market risk when trading bonds, swaps and other financial products with customers.

Investments are mainly made in Danish and European covered bonds as well as government bonds. Moreover, investments are made in credit bonds issued by financial undertakings.

In addition to the above investments, Nykredit holds a portfolio of business-related assets as well as private equity. These investments, including for instance investments in a number of regional banks with which Nykredit has business relationships, have a long-term purpose.

The main risks are yield spread risk on the portfolio of covered bonds and equity price risk associated with business-related equities. Yield spread risk is the risk of movements in the spreads between yields of covered bonds/credit bonds and swap rates, which may lead to gains as well as losses. Equity price risk is the risk of changes in the value of the portfolio resulting from the development in equity prices, which may lead to gains as well as losses.

The market risk relating to Nykredit's largest business area, mortgage lending, is in practice negligible – regardless of movements in financial markets. This is because mortgage lending is governed by a statutory balance principle and match-funded, see the description in 7. *Liquidity risk and funding*.

6.1 ■ MARKET RISK POLICY AND GUIDELINES

The Board of Directors has adopted a market risk policy with the main principle that the probability of losses on market risk exposures exceeding Nykredit's total quarterly results is low. For this purpose, quarterly results are measured against losses estimated by a number of stress tests based on scenarios that may, with some probability, occur.

In addition to the market risk policy, Nykredit's Board of Directors has laid down market risk guidelines that are used in the day-to-day management. In accordance with the guidelines provided by the Board of Directors, the Executive Board delegates market risk limits to the Group companies through the Asset/Liability Committee (ALCO). The guidelines lay down measurable limits on the total portfolio risk and permit the use of, for example, financial instruments if the risk involved can be measured and managed sufficiently accurately. Financial instruments are included in the risk limit applying to the underlying asset.

6.2 ■ CONTROL AND FOLLOW-UP

On a daily basis, the risk control function checks that the market risk policy including guidelines are complied with. Also, the current utilisation of the limits set out in the guidelines is reported daily to the head of Nykredit's risk control function, the Chairman of the Asset/Liability Committee and to the heads and dealers of the acting entities. Any breaches of limits are reported to the Asset/Liability Committee, the Board of Directors of Nykredit Realkredit or other Boards of Directors depending on the nature of such breaches.

Moreover, the risk control function continuously reports on the Group's current market risk profile to the Board of Directors, the Asset/Liability Committee and the Risk Committee. The current utilisation is determined by Nykredit's risk control function and thus independently of the acting entities.

The Board of Directors oversees and evaluates the current market risk and its elements on a monthly basis, and this forms the basis for an annual adjustment and approval of the market risk policy including guidelines.

6.3 ■ CURRENT RISK PROFILE AND DEVELOPMENTS

Market risk is assessed on the basis of a range of different measures that express sensitivity to movements in financial markets combined with a market risk model for calculating one aggregate risk level.

Sensitivities and the market risk model are supplemented with a number of stress tests which, based on the current portfolios, quantify potential losses in the event of major, but likely, movements in financial markets.

6.3.1 ■ Main market risks

A number of portfolio sensitivity tests are used to determine Nykredit's market risk. They calculate the effect on the value of a portfolio in case of changing market conditions involving, for example a rise or fall in interest rates, equity prices or volatilities. The portfolio comprises trading as well as banking books.

The main risks are interest rate, yield spread and equity price risk.

The traditional risk measures do not indicate the probability of a particular event, but rather how much the occurrence of the event would affect the value of the portfolio.

Interest rate risk

Interest rate risk is the risk of loss as a result of interest rate changes. Nykredit's interest rate risk is measured as the change in market value caused by a general interest rate increase of 1 percentage point in respect of bonds and financial instruments.

Nykredit's interest rate exposure was DKK 323 million at end-2018, meaning that Nykredit would potentially lose DKK 323 million at a general interest rate rise of 1 percentage point. Compared with the same period last year, Nykredit's interest rate exposure has reduced marginally by DKK 7 million.

Yield spread risk

Yield spread risk is the risk of loss as a result of spreads between the individual bonds and general interest rate levels widening by 1 percentage point. In historical terms, spreads widening by 1 percentage point happens less frequently than a general interest rate rise of 1 percentage point.

At end-2018 the yield spread risk on the Group's portfolio of covered bonds was DKK 2.5 billion. The yield spread risk amounted to DKK 87 million on the portfolio of credit bonds and a negative DKK 72 million for issued senior secured debt and senior unsecured debt at end-2018.

Compared with end-2017, the portfolio of covered bonds has grown, increasing yield spread risk by DKK 0.2 billion.

Equity price risk

Equity price risk is the risk of loss as a result of changes in equity prices, and it is calculated as the loss in case of a general equity market decrease of 10%. The Group's equity price exposure amounted to DKK 543 million at end-2018. The aggregate equity price risk includes both the trading book and the banking book, the latter containing sizeable business-related equity positions. For more details on equity price risk in the banking book, see 6.4.2.

Given the Group's relatively large equity portfolio, equity price risk represents a substantial proportion of its total market risk.

Value-at-Risk

In the day-to-day management, Nykredit furthermore uses a market risk model for calculating one overall risk measure for the entire portfolio. The model is called Value-at-Risk (VaR), and it captures Nykredit's maximum potential losses in one day at a probability of 99%. The model is described in more detail in 6.5.

Nykredit's VaR for day-to-day management totalled DKK 86 million at end-2018. This means that Nykredit could, at a 99% probability, lose a maximum of DKK 86 million in one day on its current portfolio.

Since end-2017, VaR for day-to-day management has increased by DKK 29 million, due to, for instance, the acquisition of business-related equity positions and a larger bond portfolio.

6.3.2 ■ Daily stress tests

As a supplement to VaR, systematic stress tests are performed daily to measure the risk of loss during turbulent market conditions. The tests are based on significant, but likely, market movements and events. Stress testing is a means to assess the losses on portfolios if the events occur.

The losses estimated in the stress tests are applied in Nykredit's market risk policy and are measured against the determined market risk appetite.

6.3.3 ■ Other market risks

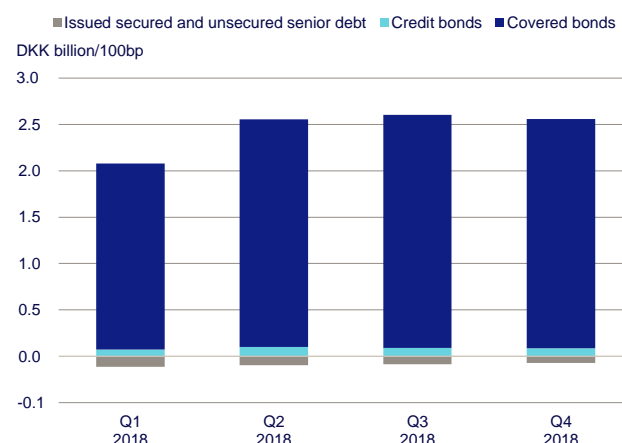
Besides the main market risks addressed above, Nykredit is exposed to foreign exchange risk and volatility risk, but these risks only make up a very limited amount of total market risk.

Nykredit hedges its foreign exchange risk except for some minor tactical foreign exchange positions held to achieve a gain. Therefore, the Group had only minor foreign exchange positions in currencies other than EUR in 2018.

Volatility risk mainly relates to Nykredit's investments in, for example, callable covered bonds, which capture expectations of future yields in terms of options. A change in these expectations will affect the market value and may in consequence lead to gains as well as losses. However, the risk is limited and stems mainly from the portfolio of Danish callable covered bonds, but also from other interest rate and equity derivatives.

Nykredit Realkredit Group

Yield spread risk



6.4 ■ BANKING BOOK RISK

Nykredit classifies the trading and banking books at portfolio level according to the purpose of the portfolio concerned.

Portfolios with positions held for trading are placed in the trading book. Positions forming part of Nykredit's lending business and business-related assets are placed in the banking book.

The mortgage lending business and the matching funding are regulated by the statutory balance principle. This ensures that the market risk related to these portfolios is limited.

6.4.1 ■ Interest rate risk in the banking book

Interest rate risk in the banking book is limited and derives mainly from the lending business of Nykredit Realkredit and Totalkredit as well as Nykredit Bank. As regards the mortgage banks, the interest rate risk is very limited due to the principles of legislation governing such issues.

The interest rate exposure on this portfolio was DKK 84 million at end-2018.

6.4.2 ■ Equity price risk in the banking book

Equities in the banking book comprise Nykredit's business-related equities and private equity.

Business-related equities comprise equities in regional banks with which Nykredit has business relationships, equities in certain property companies and equities in VP Securities.

For capital adequacy purposes, the risk associated with business-related equities is determined as credit risk exposure.

Equity exposure in the banking book amounted to DKK 4.3 billion at end-2018.

6.5 ■ MODELS FOR DETERMINATION OF MARKET RISK

In addition to the traditional measures of interest rate risk and equity price risk etc, Nykredit uses a market risk model as described above.

The VaR model is applied in the day-to-day internal risk management and in the determination of the regulatory capital requirement for positions involving market risk. The model set-up and choice of parameters depend on the purpose, and the amounts calculated for the two purposes are not comparable.

Use of the model to determine capital requirements is subject to the approval of the Danish FSA, which regularly reviews the models.

Nykredit Realkredit introduced significant improvements to the current VaR model in 2018 and at end-2018 applied to the Danish FSA for permission to use the revised model to calculate capital requirements. The revised model is a historical simulation model, which will significantly improve the current model in several respects. In particular, it will provide for new and more accurate credit bond modelling.

When approved by the Danish FSA, the adapted model will be used for the determination of capital requirements as well as for day-to-day internal risk management.

6.5.1 ■ VaR for day-to-day management

The VaR model has been incorporated into Nykredit's securities systems, which calculate and report VaR on a daily basis according to prescribed limits. VaR limits have been laid down at Group, company and organisational entity levels.

For the purpose of day-to-day management, VaR is calculated on both the trading book and the banking book.

Nykredit Realkredit Group

Interest rate risk in the banking book by maturity

	0-1 year	1-3 years	3-6 years	Over 6 years	Total
2018					
DKK million					
Nykredit Realkredit A/S	2	(3)	(0)	0	(1)
Totalkredit A/S	67	21	(30)	26	85
Nykredit Bank A/S	2	2	(4)	1	(0)
Total	72	19	(34)	27	84

Nykredit Realkredit Group

Equities in the banking book

2018	Market value
DKK million	
Business-related equities	2,450
Other equities	1,381
Private equity	512
Total	4,343

6.5.2 ▪ Regulatory VaR capital requirement

In determining the risk exposure amount (REA) for market risk, Nykredit uses a combination of internal models and standardised approaches, and the risk exposures are furthermore divided into general risk and specific risk. General risk means risk affecting financial markets in general, and specific risk is the risk related to one individual issuer of securities.

Nykredit has the approval of the Danish FSA to apply an internal (VaR) model for the regulatory determination of the capital requirement for general market risk. The approval extends to Nykredit Realkredit A/S and Nykredit Bank A/S. Totalkredit A/S applies only the standardised approach specified in legislation.

Regulatory VaR calculations are only made for the part of the total portfolio that contains trading books. A 99% probability is applied, as for VaR for internal management, but the time horizon is 10 days.

The daily calculations of regulatory VaR are based on the development in financial markets over the past 12 months.

During a financial crisis, however, the current conditions in financial markets will not always correspond to the historical conditions. The maximum expected daily loss calculated using a VaR model may therefore, during the first stages of a crisis, present an overly optimistic view of the risk of loss. To factor this in, a stressed VaR is calculated in addition to the current VaR.

The sum of stressed and current VaR denotes the basis of total REA calculated using internal models. Stressed VaR is determined according to the same principles as current VaR.

Stressed VaR must be calculated for the current portfolio of positions, but using volatilities and correlations (market data) from a period of significant stress. The period of stress is defined at least monthly in Nykredit Realkredit A/S and Nykredit Bank A/S.

The period of the collapse of Lehman Brothers in September 2008 presents the largest fluctuations. This period was characterised by significant yield spread widening, which has a large impact on covered bond portfolios.

Total REA for market risk came to DKK 27.4 billion at end-2018.

Nykredit's total REA from VaR amounted to DKK 18.0 billion at end-2018, of which stressed VaR amounted to DKK 15.1 billion.

Total REA increased compared with end-2017, mainly due to a rise in REA from stressed VaR.

Nykredit Realkredit Group

REA for market risk

			2018	2017
	Specific risk	General risk	Total REA	Total REA
DKK million				
Internal models (VaR):		17,966	17,966	15,250
Value-at-Risk (99%, 10 days)	-	2,855	2,855	2,560
Stressed Value-at-Risk (99%, 10 days)	-	15,112	15,112	12,690
Standardised approach:	7,355	1,627	9,421	9,472
Debt instruments	4,860	1,401	6,260	7,065
Equities	2,496	226	2,722	2,123
Collective investment schemes	-	-	439	284
Settlement risk:	-	-	2	2
Total market risk	7,355	19,593	27,390	24,724

6.5.3 ▪ Backtest of market risk models

To measure the reliability of VaR model performance, the model results are backtested against realised portfolio returns on a daily basis. In the backtests, the daily earnings (gains/losses) are compared with the models' estimates of the maximum loss.

Because of the statistical properties of the models, the actual losses are expected to exceed the maximum loss predicted by the VaR model 2.5 times a year.

If the actual losses exceed the model's estimates five or more times within one year, REA will be adjusted upwards. VaR backtests for Nykredit Realkredit A/S and Nykredit Bank A/S are shown in the charts below.

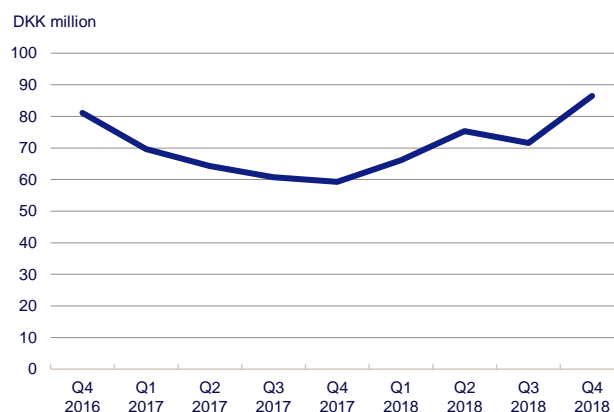
Nykredit Realkredit A/S recorded 18 backtest overshootings in 2018, and Nykredit Bank A/S recorded two.

Most of the overshootings in Nykredit Realkredit stemmed from particularly large yield spread widening on the portfolio of credit bonds in Q4/2018. As already mentioned, the modelling of credit bond risk is relatively simple under the current model, which means that Nykredit's losses were greater than predicted by the VaR model.

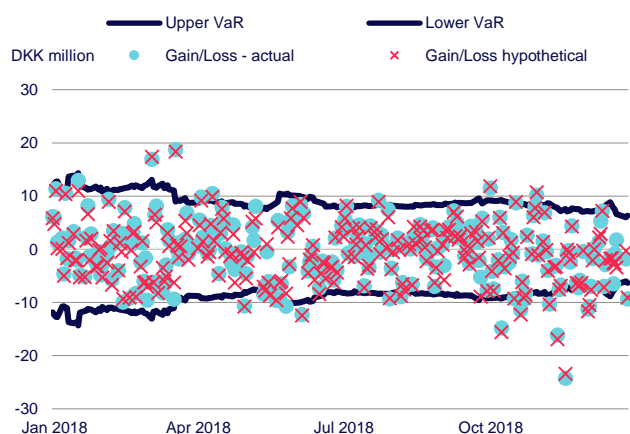
As mentioned above, Nykredit applied in Q4/2018 to the Danish FSA for approval of changes to the current VaR model that provide for a more accurate modelling of credit bond portfolio risk in accordance with market movements.

The overshootings recorded by Nykredit Realkredit A/S resulted in an increase in REA for market risk, and a comparison with the expected capital requirement under the improved model submitted for approval shows that the increased exposure covers the actual risk of Nykredit Realkredit A/S.

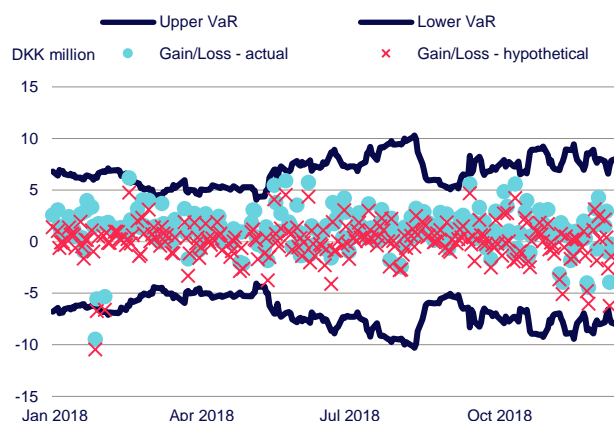
Nykredit Realkredit Group VaR for internal management



Nykredit Realkredit A/S VaR backtest



Nykredit Bank A/S VaR backtest



7. LIQUIDITY RISK AND FUNDING

7.1 LIQUIDITY POLICY AND LIQUIDITY MANAGEMENT

GUIDELINES

7.2 CONTROL AND FOLLOW-UP

7.3 CURRENT RISK PROFILE AND DEVELOPMENTS

7.4 BALANCE PRINCIPLE AND MATCH FUNDING

7.5 REGULATORY RATIOS

7.5.1 Liquidity Coverage Ratio (LCR)

7.5.2 Liquidity benchmark

7.5.3 Intraday liquidity risk

7.5.4 Supplementary collateral

7.5.5 Debt buffer

7.5.6 MREL requirement

7.5.7 Net Stable Funding Ratio (NSFR)

7.5.8 Stress testing

7.6 S&P GLOBAL RATINGS KEY RATIOS

7.6.1 Broad Liquid Assets/Short-Term Wholesale

Funding (BLAST) and Stable Funding Ratio (SFR)

7.6.2 Additional Loss-Absorbing Capacity (ALAC)

7.6.3 Overcollateralisation behind bond rating

7.7 FUNDING

7.7.1 Covered bonds

7.7.2 Issuance schedule

7.7.3 Credit ratings

7.8 ENCUMBERED ASSETS

Nykredit's liquidity risk is the risk that Nykredit is unable to fulfil its financial obligations and meet regulatory requirements and rating criteria in the short, medium and long term. Liquidity risk is also the risk of funding shortages, preventing Nykredit from pursuing the adopted business model, or the risk that Nykredit's costs of raising liquidity become prohibitive.

The current liquidity risk is limited, and measured against the Board of Directors' guidelines on liquidity management, the risk level is low.

The composition of liquidity and funding is much affected by regulatory requirements and rating criteria. Nykredit therefore has a strong focus on existing and future requirements, including the LCR, NSFR, MREL, ALAC, debt buffer and Supervisory Diamond benchmarks.

7.1 ■ LIQUIDITY POLICY AND LIQUIDITY MANAGEMENT GUIDELINES

The liquidity policy is laid down by the Board of Directors and defines Nykredit's overall risk appetite, liquidity risk profile and funding structure.

One aim of the liquidity policy is to ensure that Nykredit's funding and liquidity management supports the mortgage lending business and ensures competitive prices for customers and Nykredit, regardless of the market conditions. Furthermore, the liquidity management framework must sustain Nykredit's ability to maintain high ratings and its status as issuer of covered bonds (SDOs).

In addition to the liquidity policy, Nykredit's Board of Directors has laid down guidelines on the day-to-day liquidity management. In accordance with the guidelines provided by the Board of Directors, the Executive Board delegates limits for liquidity management to the Group companies through the Asset/Liability Committee (ALCO).

The guidelines provide limits for Nykredit's day-to-day liquidity management and for short-, medium- and long-term management. Limits have also been set for the composition of the stock of liquid assets, the LCR, Nykredit Bank's deposits, the use and diversification of funding sources, leverage, MREL, the debt buffer, rating criteria as well as future regulatory requirements.

Nykredit annually prepares a report on the Internal Liquidity Adequacy Assessment Process (ILAAP), which is submitted to the Boards of Directors of Nykredit Realkredit, Totalkredit and Nykredit Bank for their approval and to the Danish FSA for its assessment.

7.2 ■ CONTROL AND FOLLOW-UP

The risk control function checks, measures and monitors liquidity and funding risks by means of internal systems, and oversees daily compliance with the liquidity policy including guidelines. Also, the current utilisation of the limits set out in the guidelines is reported daily to the head of Nykredit's risk control function, the Chairman of the Asset/Liability Committee and to the heads and dealers of the acting entities. Any breaches of limits are reported to the Asset/Liability Committee, the Board of Directors of Nykredit Realkredit or other Boards of Directors depending on the nature of such breaches.

Moreover, the risk control function continuously reports on the Group's current liquidity and funding risk profile to the Board of Directors, the

Asset/Liability Committee and the Risk Committee. The current utilisation is determined by Nykredit's risk control function and thus independently of the acting entities.

The Board of Directors oversees and evaluates the liquidity and funding risks on a monthly basis, and this forms the basis for an annual adjustment and approval of the liquidity policy and guidelines. Reports are submitted quarterly to the Risk Board and the Risk Committee.

7.3 - CURRENT RISK PROFILE AND DEVELOPMENTS

Nykredit has a strong focus on future regulatory requirements and rating criteria that will affect the composition of liquidity and funding.

Rising property prices have reduced Nykredit's need to provide supplementary collateral for its covered bond issues in recent years.

Nykredit Bank has also reduced its use of short-term funding sources in recent years, thereby reducing its risk.

Funding costs of senior and subordinated debt grew during 2018 in line with the general market development.

7.4 - BALANCE PRINCIPLE AND MATCH FUNDING

Nykredit's mortgage lending is regulated by the balance principle, which limits the financial risk Nykredit may assume in relation to lending and funding. This means that Nykredit incurs generally low interest rate risk, foreign exchange risk and liquidity risk on its mortgage lending and the underlying funding. Liquidity risk is further mitigated by the Danish act regulating refinancing risk, under which the maturity of existing funding may be extended if refinancing is not possible.

Danish mortgage banks may apply either the specific balance principle or the general balance principle. Nykredit has chosen to operate under the general balance principle, which allows using derivatives for risk hedging under certain conditions. In practice, Nykredit's mortgage lending is match funded. Nykredit therefore uses derivatives for risk hedging only to a very limited extent and only in connection with niche mortgage lending. As a result, Nykredit assumes only limited financial risk on lending and the related funding.

It is Nykredit's policy that mortgage lending must generally be match-funded, unless special circumstances apply. This means that each loan is funded by bonds of matching terms. Nykredit issues new bonds on a daily basis to fund new loans.

In order to eliminate interest rate risk and foreign exchange risk, mortgage loans have the same interest rate and foreign exchange terms as the bonds funding the loans. Long-term fixed-rate loans have the same funding for the entire loan term. Adjustable-rate mortgages (ARMs) are funded by bonds with maturities that are shorter than the terms of the related loans, which are refinanced on maturity of the bonds. The loan rate is adjusted upon refinancing at the yield-to-maturity of the new bonds sold. The outstanding funding is reduced with principal payments and prepayment of loans. Borrowers cover Nykredit's costs of prepayments.

Borrowers' dates of payment of interest and principal are scheduled so that Nykredit, provided borrowers make timely payments, receives the funds on or before the dates when the payments to bondholders fall due.

Match funding ensures a match between the interest and principal payments of a loan and the underlying funding. Therefore, Nykredit's earnings margin consists of a separate so-called administration margin, which is most often calculated based on the debt outstanding.

7.5 - REGULATORY RATIOS

Nykredit must comply with a number of regulatory requirements for the short-, medium- and long-term composition of liquidity and funding sources. At end-2018 all requirements had been met.

7.5.1 - Liquidity Coverage Ratio (LCR)

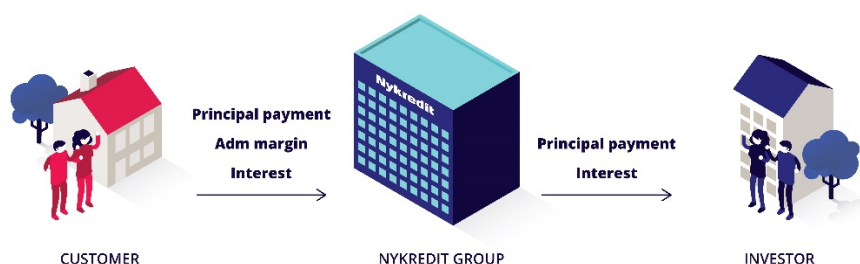
The LCR is used to assess Nykredit's short-term liquidity requirement. The LCR reflects the ratio of liquid assets to net cash outflows over a 30-day period.

Nykredit Realkredit Group

Key figures and ratios

DKK billion	2018	2017
Nykredit Realkredit Group		
LCR (%)	752	383
Excess LCR coverage	90.4	72.2
LCR EUR (%)	206	326
Nykredit Realkredit and Totalkredit		
LCR (%)	1,581	1,502
Excess LCR coverage	31.6	36.5
Nykredit Bank		
LCR (%)	157	148
Excess LCR coverage	17.7	14.0

Balance principle and match funding



Under the LCR rules, Nykredit must hold a large stock of liquid assets and, as a SIFI, Nykredit must have an LCR of over 100%. At end-2018 Nykredit's LCR was 752% and the excess liquidity coverage was DKK 90.4 billion. The aggregate LCR of Nykredit's mortgage banks was 1,581%, while Nykredit Bank's LCR was 157%.

Liquid assets used to comply with the requirement of supplementary collateral in Nykredit Realkredit and Totalkredit, see 7.5.4 *Supplementary collateral*, are considered to be encumbered and consequently ineligible for the purpose of LCR determination.

The Danish FSA has granted Nykredit permission not to include mortgage lending in the calculation of LCR for Nykredit Realkredit and Totalkredit. The permission was motivated by the fact that match funding eliminates liquidity risk in relation to mortgage lending. The condition for the permission is that Nykredit must comply with a minimum LCR requirement. This means that the stock of liquid assets must make up at least 2.5% of Nykredit Realkredit's and Totalkredit's total mortgage lending. At end-2018, liquid assets eligible for meeting the minimum requirement amounted to DKK 55.5 billion (4.6%) against a requirement of DKK 29.8 billion.

The Danish FSA has introduced a supplementary liquidity requirement stipulating that Danish SIFIs must fulfil the LCR requirement not only in DKK but also in significant currencies except for SEK and NOK. The requirement contributes to ensuring a suitable currency match between liquid assets and cash flows. This requirement, which for Nykredit only concerns EUR, applies to the Nykredit Realkredit Group. The LCR requirement in EUR is 100% or more. At end-2018 Nykredit's LCR in EUR was 206%.

Nykredit uses derivative financial instruments to hedge risks relating to the stock of liquid assets. The market value of the derivatives portfolio will vary over time, which will impact Nykredit's posting of collateral. Therefore, when calculating the LCR, an amount is allocated to cover any negative fluctuations in required collateral.

7.5.2 • Liquidity benchmark

The liquidity benchmark, forming part of the Supervisory Diamond for banks, is based on the LCR. The liquidity benchmark must be at least 100% and implies that Nykredit Bank must have liquidity to withstand a liquidity stress for a period of at least three months. At end-2018 Nykredit Bank's liquidity benchmark was 184%.

7.5.3 • Intraday liquidity risk

Nykredit Bank's intraday liquidity risk is the overall risk that the Bank will not be able to meet its financial obligations within the day. Nykredit Bank actively checks, manages and monitors its intraday liquidity risk.

The intraday liquidity risk of Nykredit Realkredit and Totalkredit is limited, as the mortgage lending model is designed so as to eliminate any structural intraday liquidity requirement.

7.5.4 • Supplementary collateral

In order for Nykredit's SDO Capital Centres E and H to maintain their SDO status, Nykredit must provide supplementary collateral for loans exceeding the LTV limit in case of falling property prices. Supplementary collateral is not required for public housing loans issued through SDO Capital Centre J, as these loans are fully government guaranteed.

As the prices of commercial and residential property have generally risen in recent years, the supplementary collateral requirement has decreased. The supplementary collateral requirement for Capital Centres E and H amounted to DKK 15.5 billion at end-2018 against DKK 19.3 billion at end-2017.

Nykredit maintains a collateral buffer in case property prices should fall. Thanks to the buffer, Nykredit would have been able at end-2018 to absorb a property price decline of about 19% without having to raise additional funding.

7.5.5 • Debt buffer

Being Danish mortgage banks, Nykredit Realkredit and Totalkredit must fulfil the regulatory debt buffer requirements, to be phased in by 2020. The debt buffer serves to bolster the loss-absorbing capacity of a failing mortgage bank without impairing its lending capacity. The fully phased-in debt buffer must equal at least 2% of total mortgage lending and may consist of excess capital or senior debt. The Nykredit Group already comfortably meets the requirement. At end-2018 the aggregate debt buffer of Nykredit Realkredit and Totalkredit was 3.3%.

In 2018 an act was adopted to revise the debt buffer requirement. From 2022 the level of the debt buffer must be such that the Group's own funds, bail-inable liabilities and the debt buffer together amount to at least 8% of the consolidated balance sheet. However, the debt buffer must still amount to at least 2% of mortgage lending. This will impose a higher requirement on Nykredit going forward.

7.5.6 • MREL requirement

The purpose of the minimum requirement for own funds and eligible liabilities (MREL) is to ensure that should the Nykredit Group fail, it can be recapitalised and restructured through a principal writedown or conversion of capital and debt instruments.

In 2018 the Nykredit Group received the Danish FSA's assessment and determination of the MREL requirement. As mortgage banks, Nykredit Realkredit and Totalkredit are exempt from the MREL requirement, but must meet the regulatory debt buffer requirements and are not included in the consolidation. Consequently, the MREL requirement is only based on the Group's banking activities through Nykredit Bank.

The requirement may be fulfilled using the Group's own funds and bail-inable senior debt. Issues by Nykredit Realkredit may be included for the purpose of meeting the requirement, but this will make them ineligible for the debt buffer requirement, see 7.5.5 *Debt buffer*.

The MREL requirement is applicable from 1 July 2019. At end-2018 the requirement would be DKK 32.2 billion. Nykredit already meets the requirement and expects to continue meeting it going forward, while at the same time complying with the debt buffer requirement for the mortgage banks.

7.5.7 • Net Stable Funding Ratio (NSFR)

In 2016 the European Commission submitted a proposal to revise the Capital Requirements Regulation (CRR), including the introduction of the new, long-term liquidity measure, the NSFR. A final compromise was reached by the EU in December 2018 and is expected to be formally adopted as part of CRR II in March 2019. The CRR II will enter

into force two years after its formal adoption. At present, the NSFR is only subject to a reporting requirement.

The NSFR is a balance sheet ratio expressing the relationship between the maturities of an institution's lending and funding. Funding with times-to-maturity of more than one year is considered to be more stable than other types of funding. The required level of stable funding is calculated by weighting lending and other assets according to their liquidity. The Danish FSA is expected to grant permission not to include mortgage lending and the underlying funding in the calculation of the NSFR. The permission may be granted on the ground that the Danish refinancing act has in effect eliminated the funding risk in relation to mortgage lending. Nykredit expects to be able to meet the NSFR requirement when it takes effect. However, a number of issues regarding the calculation of the NSFR are outstanding, including which assets to include as encumbered assets. Increased asset encumbrance will raise the funding requirement and lower the NSFR.

7.5.8 • Stress testing

To sustain Nykredit's business model and also to ensure that Nykredit has sufficient liquidity to meet regulatory requirements, liquidity stress tests are conducted for the short, medium and long term. They show the development in the excess liquidity coverage in an expected scenario and in stress scenarios, taking into account regulatory requirements and rating criteria.

The stress tests show the resilience of the liquidity position in a situation where Nykredit has no access to a significant part of its usual funding sources.

In 2018 the EBA published its Guidelines on institutions' stress testing. The Danish FSA will incorporate these EBA guidelines in its guidelines on liquidity risk management for banks and mortgage lenders to be published during H1/2019. Nykredit has already widely adapted its stress tests in accordance with the EBA guidelines.

7.6 • S&P GLOBAL RATINGS KEY RATIOS

In its criteria, S&P Global Ratings (S&P) has included a number of key ratios defined by S&P itself. These key ratios form part of S&P's overall credit rating of an institution.

7.6.1 • Broad Liquid Assets/Short-Term Wholesale Funding (BLAST) and Stable Funding Ratio (SFR)

S&P applies short-term and long-term liquidity metrics. The short-term metric, BLAST, denotes the ratio between broad liquid assets and short-term wholesale funding with maturities below one year. The long-term metric, SFR, denotes the ratio between lending and stable funding with maturities over one year.

7.6.2 • Additional Loss-Absorbing Capacity (ALAC)

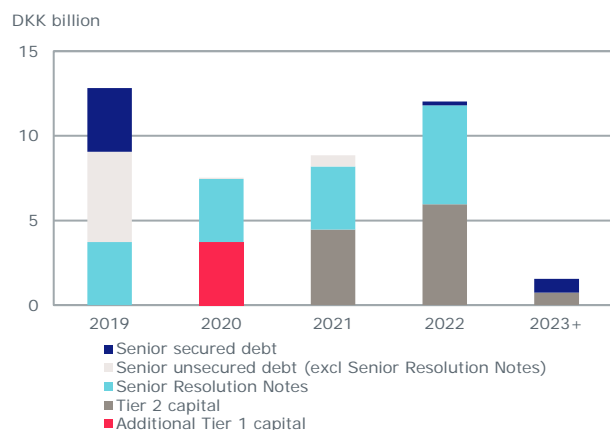
Nykredit has made use of S&P's option to obtain a higher rating by strengthening its capital position. This is achieved using ALAC, which consists of excess capital and of senior debt designated to absorb losses in case of recovery or resolution of an institution, thus protecting the ordinary senior debt.

ALAC is calculated as a percentage of risk-weighted assets determined according to S&P's calculation method (S&P RWA). ALAC of 5% of S&P RWA results in a senior rating uplift of one notch. Nykredit has indicated its commitment to maintaining this level permanently. At end-2018 Nykredit's ALAC was 5.3%. The raising of funding to meet the new debt buffer requirement is expected to make the ALAC ratio rise.

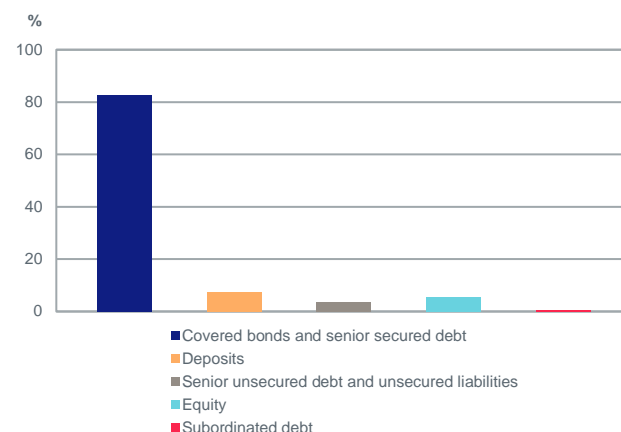
7.6.3 • Overcollateralisation behind bond rating

When rating the Danish covered bonds issued by Nykredit Realkredit and Totalkredit, S&P applies its criteria to assess the collateral posted in the capital centres. In addition to the security by way of mortgages on real estate, Nykredit posts additional collateral in the form of liquid securities (overcollateralisation – OC). A condition of obtaining the highest possible rating (AAA) is the posting of OC of at least DKK 53.4 billion. The required OC is determined as the sum of S&P's individual assessments of the OC requirement for each individual mortgage loan. Each assessment includes a large number of parameters, including property type, location, LTV ratio, loan type and payment history. In total, Nykredit Realkredit and Totalkredit had liquid assets of DKK 86.0 billion eligible for OC purposes at end-2018.

Nykredit Realkredit Group
Funding profile excl SDOs/ROs



Nykredit Realkredit Group
Funding structure



7.7 • FUNDING

Nykredit has a sizeable balance sheet and extensive market activities, including daily tap issuance to fund its mortgage lending. Moreover, Nykredit regularly refinances ARMs and floating-rate loans. Nykredit also issues capital market funding to comply with regulatory requirements and rating criteria.

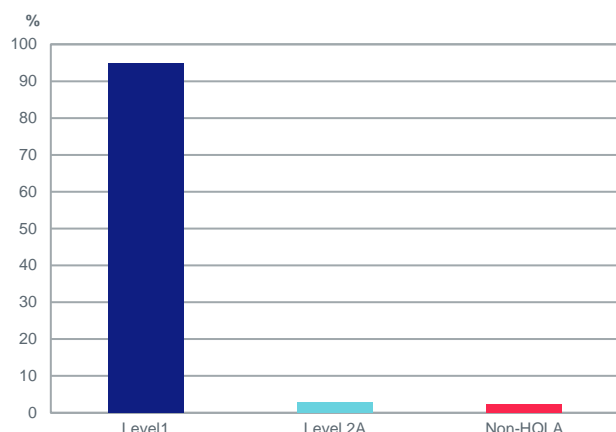
Nykredit raises funding in the following markets:

- Danish covered bonds (SDOs/ROs)
- Senior secured debt (currently not issued)
- Secured and unsecured bank loans
- Senior unsecured debt
- Bail-inable senior debt (SNP)
- Subordinated debt (Tier 2 and Additional Tier 1 capital).

More than 80% of Nykredit's funding consists of covered bonds, amounting to a nominal outstanding amount of DKK 1,241 billion at end-2018 against DKK 1,266 billion at end-2017.

Nykredit Realkredit Group

LCR classification of covered bonds funding loans at 31 December 2018



7.7.1 • Covered bonds

By far the greater part of Nykredit's lending consists of mortgage loans funded by covered bonds according to the balance principle. The balance principle limits the financial risk Nykredit Realkredit may assume in relation to lending and funding.

Nykredit strives to build large, liquid benchmark bond series to obtain an effective pricing of its bonds. Nykredit Realkredit and Totalkredit's joint bond issuance contributes to creating large volumes and deep liquidity in the Group's key bond series. Liquidity is also supported by Nykredit's large market share as well as the market making and primary dealer arrangements with members of Nasdaq Copenhagen.

With the introduction of the LCR, many banks prefer to invest in bonds with outstanding amounts of more than EUR 500 million (or equivalent amounts in other currencies) and high ratings. 95% of the outstanding amounts of Nykredit Realkredit's active bond series are today classified in the top LCR category (Level 1), while 3% are in the second-best category (Level 2A).

Nykredit strives to have a product range that best suits customers' needs and investors' increased preference for very liquid bond series.

Nykredit is still working towards having ARMs refinancing on 1 January and 1 July and continued refinancing of other products, such as Cita-linked loans, on 1 April and 1 October, which will serve to spread the aggregate amount of bonds maturing over the individual payment dates.

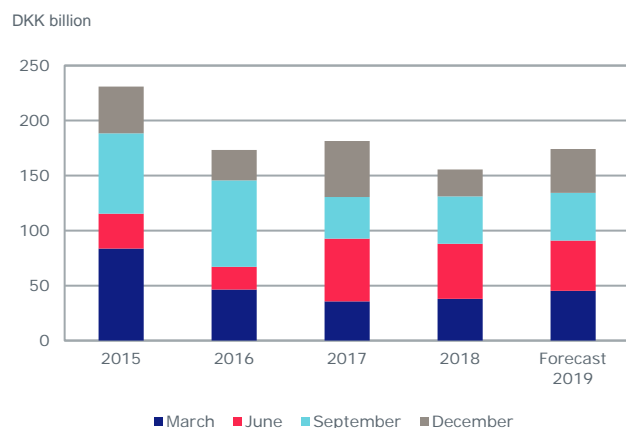
7.7.2 • Issuance schedule

Nykredit Realkredit will continue to issue covered bonds on tap and at refinancing auctions.

By 2022 Nykredit must comply with the revised regulatory debt buffer requirement (see 7.5.5 *Debt buffer*), which must, together with the MREL requirement, amount to at least 8% of the consolidated balance sheet. Nykredit consequently expects to issue DKK 7.5-15 billion of bail-inable senior debt in 2019. Nykredit does not expect to issue secured and unsecured senior debt in 2019.

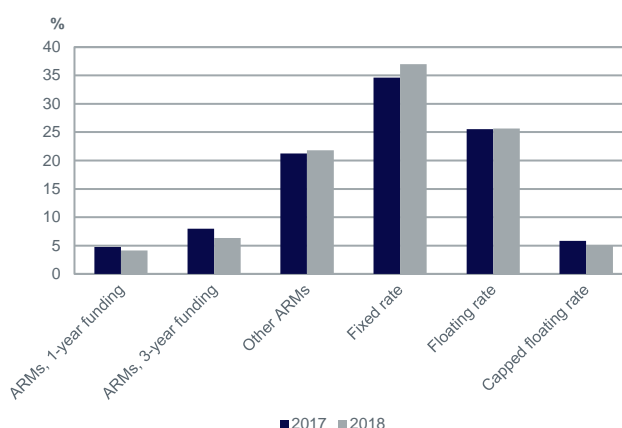
Nykredit Realkredit Group

SDOs/ROs sold at refinancing auctions



Nykredit Realkredit Group

Mortgage lending by loan type



In recent years, the scope of Nykredit Bank's wholesale funding has been reduced in the light of a growing surplus of deposits relative to lending. In future, senior debt to fund Nykredit Bank will be issued by Nykredit Realkredit and the proceeds will be transferred to Nykredit Bank by way of long-term intercompany funding. Euro commercial paper (ECP) issues will remain in Nykredit Bank. The total issuance requirement will depend on the development in customer deposits and lending as well as the Bank's other business activities.

7.7.3 - Credit ratings

Nykredit Realkredit and Nykredit Bank have rating relationships with the international credit rating agencies S&P Global Ratings (S&P) and Fitch Ratings regarding the credit rating of the companies and their funding.

S&P Global Ratings

Nykredit Realkredit and Nykredit Bank each have long-term and short-term issuer credit ratings of A/A-1 with S&P. From 13 July 2018, S&P changed its rating outlook from stable to positive.

On 29 June 2018 Nykredit Realkredit and Nykredit Bank were assigned long-term and short-term resolution counterparty ratings of A+/A-1.

Senior unsecured non-preferred debt has a BBB+ rating with S&P.

SDOs and ROs issued by Nykredit Realkredit and Totalkredit through rated capital centres are all rated AAA by S&P, which is the highest possible rating. The rating outlook is stable.

Fitch Ratings

Nykredit Realkredit and Nykredit Bank each have long-term and short-term issuer credit ratings of A/F1 with Fitch. The rating outlook is stable.

On 1 August 2018 Fitch upgraded Nykredit Realkredit's and Nykredit Bank's long-term senior unsecured preferred debt ratings by one notch to A+. Fitch also assigned Nykredit Bank a long-term and a short-term deposit rating of A+/F1.

Senior unsecured non-preferred debt has an A rating with Fitch Ratings.

7.8 - ENCUMBERED ASSETS

Nykredit's main activity is match-funded mortgage lending secured by mortgages on real estate. Nykredit's mortgage lending to customers is funded through the issuance of bonds. The loans remain on Nykredit's balance sheet until they mature, and they are ring-fenced to ensure timely payments to bond investors in the event that Nykredit should fail. Ring-fencing assets for creditors/investors is referred to as asset encumbrance. Moreover, Nykredit provides collateral in connection with derivatives trading and repo transactions.

Encumbered assets made up 86% of Nykredit's total assets at end-2018, the same as at end-2017. It is natural that Nykredit should have a relatively high asset encumbrance ratio. It follows from the Danish mortgage lending model, under which mortgage loans serve as collateral in favour of bondholders in the individual capital centres. The vast majority of the encumbered assets are in DKK. After netting for accounting purposes, encumbered assets in EUR are not significant.

Totalkredit's mortgage lending is also encumbered. The lending activities of Totalkredit and Nykredit Realkredit are jointly funded, which means that most of their mortgage lending is subject to intercompany encumbrance.

Nykredit's asset encumbrance is monitored and reported to the Danish FSA on a quarterly basis. The level of asset encumbrance is stable over time.

Nykredit Realkredit Group

Credit ratings

End-2018	Nominal DKK billion	S&P	Fitch
SDOs, ROs and senior secured debt			
Nykredit Realkredit A/S			
- Capital Centre C (covered bonds, RO)	0.8	AAA	
- Capital Centre D (covered bonds, RO)	43.9	AAA	
- Capital Centre D (senior secured debt, JCB)	3.9	AA-	
- Capital Centre E (covered bonds, SDO)	482.6	AAA	
- Capital Centre G (covered bonds, RO)	60.5	AAA	
- Capital Centre H (covered bond, SDO)	664.0	AAA	
- Capital Centre H (senior secured debt, JCB)	0.9	AA-	
- Capital Centre I (covered bonds, RO)	7.4	AAA	
- Nykredit Realkredit In General (covered bonds, RO)	0.5	AAA	
Totalkredit A/S			
- Capital Centre C (covered bonds, RO)	7.0	AAA	

Other ratings

Nykredit Realkredit A/S

- Short-term issuer rating	A-1	F1
- Long-term issuer rating	A	A
- Short-term resolution counterparty rating	A-1	
- Long-term resolution counterparty rating	A+	
- Short-term senior unsecured debt	A-1	F1
- Long-term senior unsecured debt	A	A+
- Senior non-preferred (SNP)/ senior resolution notes (SRN)	BBB+	A
- Tier 2 capital	BBB	A-
- Tier 2 capital (CoCo)	BBB	BBB
- Additional Tier 1 capital	BB+	BB+

Nykredit Bank A/S

- Short-term issuer rating	A-1	F1
- Long-term issuer rating	A	A
- Short-term resolution counterparty rating	A-1	
- Long-term resolution counterparty rating	A+	
- Short-term senior unsecured debt	A-1	F1
- Long-term senior unsecured debt	A	A+
- Short-term deposit rating		F1
- Long-term deposit rating		A+

¹ Bonds in issue at nominal value at 31 December 2018.

Nykredit

