



Risk and Capital Management **2019**

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. 2019 IN BRIEF

Growth in lending

2019 was a year of continued growth 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 2019.

The Danish economy was underpinned by the continuing very low interest rate levels. Combined with economic growth, this triggered a high level of activity in Nykredit and a resulting appreciable increase in lending. In terms of credit policy, Nykredit has a sustained focus on maintaining a strong customer base and forging robust and long-term customer relationships of high credit quality.

Nykredit's customer portfolio remains characterised by high creditworthiness as well as low impairments, write-offs and arrears. At the same time, the level of properties acquired by foreclosure is historically low.

Increasing regulatory requirements

Compliance requirements increased in 2019. Generally, compliance with new regulation and practices ties up a substantial amount of resources. Again in 2019, Nykredit allocated substantial resources to complying with anti-money laundering and data protection rules, to the benefit of customers and society. The growing regulatory requirements increase the need for effective controls. At all organisational levels, management's focus remains on integrating the new regulatory requirements as a natural element of Nykredit's culture.

Increased efforts against cybercrime

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, which have strengthened the efforts against cybercrime. Nykredit's defence against cyberattacks is frequently tested by new attacks, and the attacks are rising in number. No significant losses were recorded in 2019 as a result of cybercrime.

Nykredit's S&P rating upgraded

In November 2019 the credit rating agency S&P Global Ratings upgraded Nykredit's rating to A+, outlook stable. Nykredit's covered bonds continue to hold the highest possible rating of AAA.

Capital requirement

The Board of Directors has set the Common Equity Tier 1 (CET1) capital requirement at 15.5-16.5% of REA. Furthermore, Nykredit has reserved CET1 capital already now to meet the upcoming Basel requirements amounting to around DKK 14 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-2019.

1.1 • FINANCIAL HIGHLIGHTS

Nykredit Realkredit Group

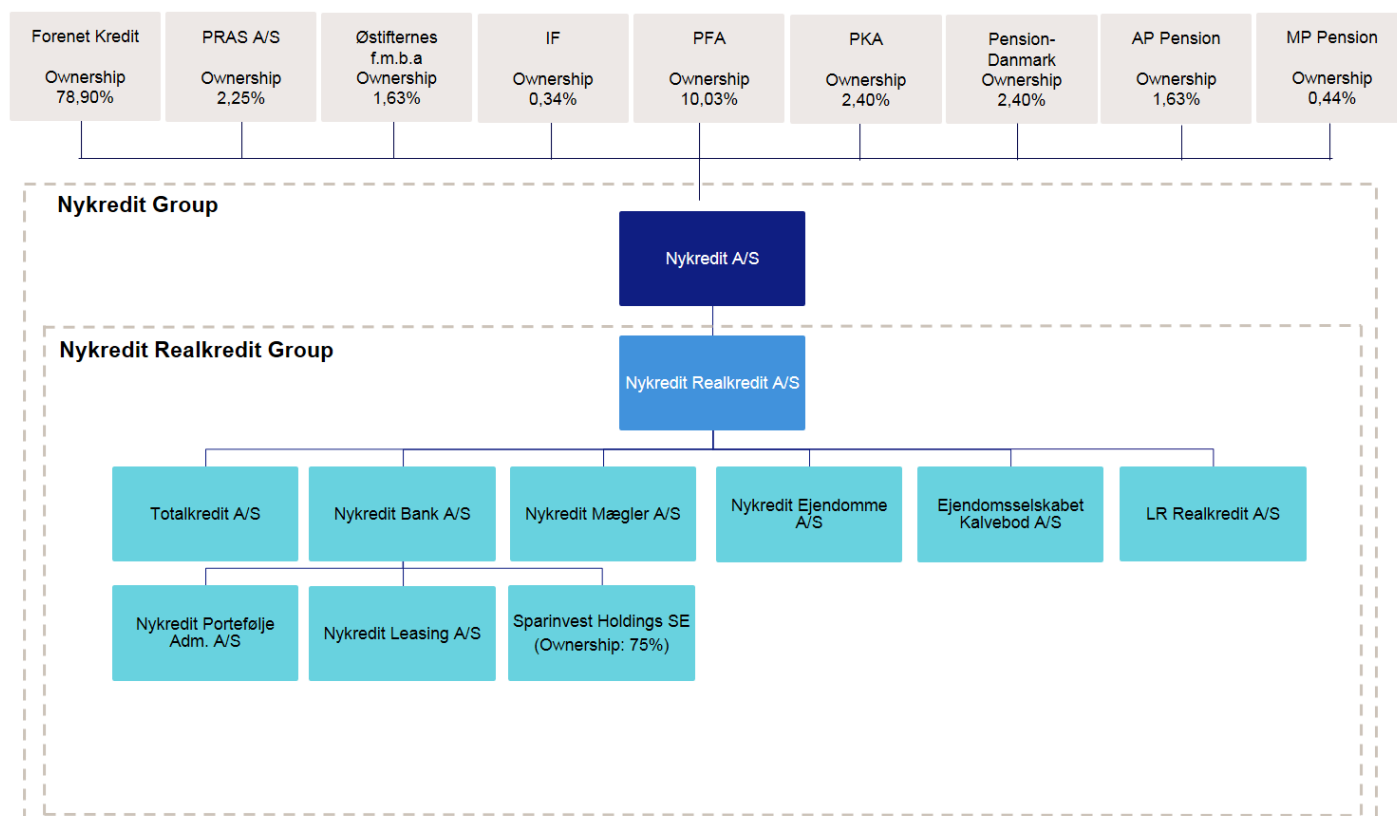
Year-end DKK billion/%	2019	2018	2017
Capital adequacy and capital			
Common Equity Tier 1 capital ratio, %	19.5	21.0	20.6
Total capital ratio, %	23.7	25.4	25.3
Leverage ratio, %	4.5	4.9	4.7
Internal capital adequacy requirement, %	10.9	10.0	10.2
Total assets, DKK billion	1,610	1,448	1,427
Funding and liquidity			
Liquidity Coverage Ratio (LCR), % ¹	955	660	383
S&P long-term Issuer Credit Rating/outlook	A+/stable	A/positive	A/stable
Fitch long-term Issuer Credit Rating/outlook	A/stable	A/stable	A/stable
Key figures and ratios			
Total risk exposure amount, DKK billion	379	345	337
Total provisions for loan impairment and guarantees, DKK billion	8,061	7,929	7,915
Impairment charges for the year, %	0.04	0.03	0.03
Credit exposures, DKK billion	1,608	1,451	1,430
Credit exposures in default ² , DKK billion	24	21	26

¹The determination of the liquid assets of Nykredit Realkredit and Totalkredit has been adjusted implying that the portfolio of liquid assets has a lower value than previously calculated; this has affected the liquidity coverage ratio (LCR) as at 31 December 2018 by 92%. The new figures have been included here, which may result in differences when compared with previous reports.

² 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 2020 approved this report.

- 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 86% 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-2019, DKK 8 billion had been provided for loan losses, corresponding to 0.5% of total lending. Loan impairment charges for the year totalled DKK 1.0 billion. The credit risk exposure does not exceed the Group's risk appetite.
- Market risk mainly relates to the activities of Nykredit Markets and the Group's investment function 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-2019, the LCR was 955%.
- Operational risk is managed in accordance with the policy for operational risk and the pertaining guidelines. Operational risk represents approximately 7% of total REA.
- Nykredit's total risk is reflected in the internal capital adequacy requirement, which represents 10.9% 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 represented 19.5% of REA at end-2019. The total capital ratio was 23.7% at end-2019.

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 <i>Group Chief Executive</i>	Tonny Thierry Andersen <i>Group Managing Director</i>	David Hellemann <i>Group Managing Director</i>	Anders Jensen <i>Group Managing Director</i>
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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 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 mortgage lending to business customers is provided through both Totalkredit A/S and Nykredit Realkredit A/S. In 2019 Nykredit also acquired LR Realkredit, a small mortgage provider.

Mortgage lending in Totalkredit is based on a strategic alliance with 52 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-2019 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'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 by providing customer advisory and loan arrangement services for a large part of the mortgage business. Also, Nykredit Bank undertakes 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, including management of the investment portfolio, involve exposure to credit risk, market risk, liquidity risk and 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 incurs low market and liquidity risk on its 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 of the Group's risk management activities are based on four elements:

- Risk governance, and risk and compliance culture
- Risk policy
- Risk monitoring
- Risk communication and reporting

For each of these elements, a number of principles guide the risk management practices across the organisation. This ensures a uniform and holistic approach to risk management and a close link between strategy and risk taking.

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 Board Risk Committee and the Board Audit Committee. 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. 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 division 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.

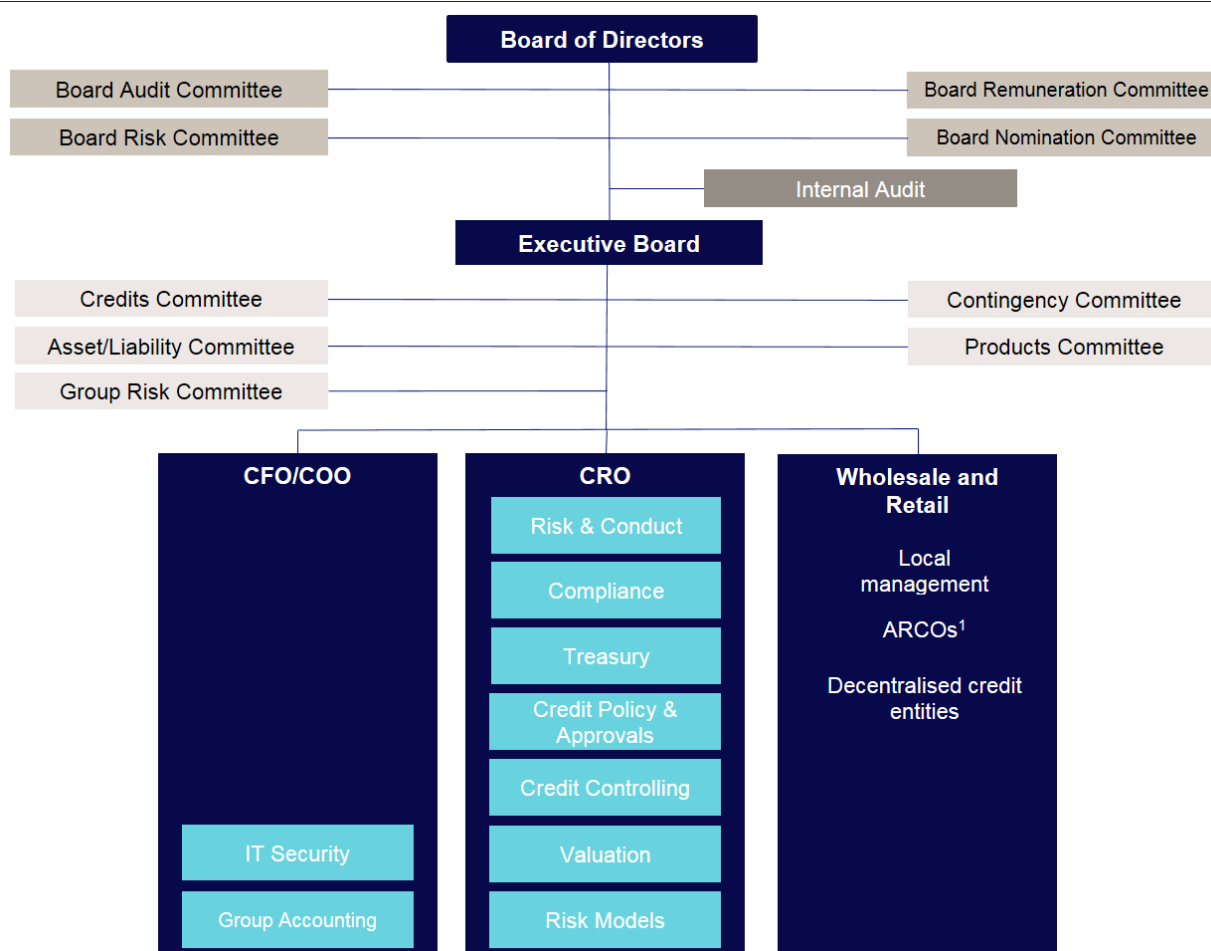
Further, the first line of defence is to ensure that risk management is performed in compliance with current legislation and the Group's business model, policies, guidelines and business procedures, and that it meets the overall principles of risk management.

Second line of defence: the risk control function, the compliance function and a number of control units, for instance credit controlling, IT Security and parts of the finance function. Together, these units are responsible for the monitoring, controlling and reporting of risks to the Board of Directors and for assessing 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.

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 Board Audit Committee. 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.

Nykredit Group: Risk management and governance



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

Conduct management

Nykredit's risk management activities include ongoing assessment of the culture, propositions, products, advisory services and the like in the organisation to ensure that Nykredit's conduct can be explained and defended. This is known as conduct management.

Nykredit wants a corporate culture where staff can openly discuss and act on the risks and dilemmas that may arise when operating a financial business. This also involves establishing a trusting environment where staff can feel comfortable discussing the dilemmas they are facing in their everyday work. Conduct management provides a structured framework for identifying dilemmas, combined with a management focus that supports an open and trusting culture. Conduct management is also integrated into Nykredit's management training programmes, ensuring that all managers are equipped to discuss conduct and dilemmas with their staff.

Conduct management should foster a healthy, open culture, ensuring that all parts of the company act in alignment with Nykredit's corporate responsibility – as a financial institution and as a company owned by a customer association with a special responsibility to society 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 13 members, of whom eight 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 four members and tasked with implementing the Group strategy. 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 committees at Group level charged with various tasks. These committees report to the Group Executive Board, which means that the Group Executive Board is briefed about committee decisions.

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 in risk-related matters.

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 Chief Compliance Officer assists Nykredit's Management in identifying, assessing, advising on, controlling, monitoring and reporting on Nykredit's compliance risks. The head of Nykredit's compliance function has been appointed Chief Compliance Officer.

Compliance assesses whether Nykredit meets the compliance rules applicable to the individual risk areas and oversees and determines whether the methods and procedures introduced by Nykredit for the purpose of identifying and mitigating compliance risks in these areas are adequate and efficient.

Responsible for anti-money laundering

The Group Executive Board and the Executive Boards of the Group companies have each appointed a Chief AML Officer at the executive level charged with delegating and ensuring managerial responsibility and focus on measures to prevent financial crime throughout the Group.

Moreover, an AML Responsible Officer has been appointed who is tasked with approving Nykredit's anti-money laundering policies, procedures and controls and to approve business relationships with PEPs and correspondent relationships.

2.4.1 ■ Committees

The Board of Directors of Nykredit Realkredit A/S has appointed a Board Risk Committee, a Board Audit Committee, a Board Remuneration Committee and a Board Nomination Committee. These board committees 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.

Board Risk Committee

The function of the Board Risk Committee 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 Board Risk Committee assists the Board of Directors in overseeing that the risk appetite defined by the Board of Directors is implemented correctly in the organisation.

Board Audit Committee

The principal tasks of the Board Audit Committee 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 Board Audit Committee oversees the effectiveness of Nykredit's internal control systems, internal audit and risk management and various other audit matters.

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"> Overall risk policy 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 Compliance policy IT security policy Insurance cover policy Property valuation policy Policy for the prevention of money laundering, terrorist financing and breach of financial sanctions Product policy Personal data 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

Board Remuneration Committee

The principal tasks of the Board Remuneration Committee are to qualify proposals for Nykredit's remuneration policy and guidelines for incentive pay and to assist in overseeing 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 Board Risk Committee as required.

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

Board Nomination Committee

The Board Nomination Committee 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 Board Nomination Committee is overall responsible for defining the skills profiles of the Board of Directors and the Executive Board and for the continuous evaluation of their work and performance.

Group 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, the Chief Risk Officer is a permanent member of the Group Risk Committee and serves as an observer on the Products Committee. Similarly, the Chief Compliance Officer serves as an observer on the Group Risk Committee and the Products Committee.

The *Group 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 Group Risk Committee receives relevant material on the current risk scenario from the other Group 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 Board and Group 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 3.5.3.
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 3.5% 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 dictating that losses on the trading book may not exceed 75% of budgeted 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:	Based on its business model and risk policy, Nykredit has defined a set of principles and attitudes aimed at preventing any misuse of Nykredit for financial crime purposes.
Other:	Nykredit's risk appetite for other risks is continuously reviewed and monitored through various forums. The Board of Directors also regularly assesses such other risks.

Risk policy and risk appetite



¹⁾ Strategic risk, property valuation risk, insurance risk, IT security risk, model risk and processing of personal data.

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 must be in place 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

The Board of Directors receives a report covering all relevant risks at least quarterly. 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 areas of credit risk, market risk, liquidity risk and operational risk, including reputation risk, conduct risk, money laundering 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 2020

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3.1 CAPITAL TARGETS 2020

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 its business model, Nykredit aims to have stable earnings, a strong capital structure and competitive credit ratings. Based on a structured capital management framework, the Group aims to be able to maintain its business activities independently of 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 Common Equity Tier 1 (CET1) capital requirement at 15.5-16.5% of the total risk exposure amount (REA). Furthermore, Nykredit has reserved CET1 capital already now to meet the upcoming Basel requirements amounting to around DKK 14 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. Based on the capital resources inherent in the ownership structure, Nykredit is expected to have a capital requirement corresponding to that of a listed SIFI when the new Basel requirements have been implemented.

Nykredit's CET1 capital represented 19.5% of REA at end-2019.

3.2 - DETERMINATION OF CAPITAL

Nykredit's own funds totalled DKK 90.1 billion at end-2019 against DKK 87.7 billion at end-2018.

Nykredit's Tier 1 capital consists mainly of CET1 capital. As shown in the table, Tier 1 capital totalled DKK 78 billion at end-2019. CET1 capital totalled DKK 74.3 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 2019 Nykredit issued bail-inable senior debt of approximately DKK 17 billion, bringing total bail-inable senior debt in issue to DKK 30.3 billion at year-end. This does not count towards own funds, but is 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. Bail-inable senior debt serves to protect unsecured creditors in case of the issuer's resolution or bankruptcy.

Nykredit Realkredit Group

REA and own funds

Year-end DKK million	2019	2018
REA		
Credit risk	324,627	291,637
Market risk	29,336	27,390
Operational risk	25,499	25,709
Total REA	379,462	344,736
Equity (including AT1 capital)	84,378	79,878
AT1 capital etc	(3,834)	(3,772)
Proposed dividend	(3,660)	(2,800)
Other CET1 capital additions/deductions	(2,539)	(605)
CET1 capital	74,344	72,701
AT1 capital	3,741	3,729
AT1 capital deductions	(48)	(28)
Total Tier 1 capital	78,036	76,403
Tier 2 capital	10,823	10,828
Other Tier 2 capital additions/deductions	1,224	453
Own funds	90,083	87,683
CET1 capital ratio, %	19.5	21.0
Tier 1 capital ratio, %	20.5	22.1
Total capital ratio, %	23.7	25.4

Nykredit Realkredit Group

Capital

% of REA	Ratio end-2019	Total regulatory requirement ¹ 2020
Nykredit Realkredit Group		
CET1 capital	19.5	12.6
Tier 1 capital	20.5	14.7
Own funds	23.7	17.4
Nykredit Realkredit A/S		
CET1 capital	16.0	11.9
Tier 1 capital	16.7	13.7
Own funds	19.1	16.1
Nykredit Bank Group		
CET1 capital	18.9	12.9
Tier 1 capital	18.9	15.0
Own funds	20.8	17.8
Totalkredit A/S		
CET1 capital	22.0	12.9
Tier 1 capital	25.3	15.0
Own funds	27.3	17.9

¹ Total regulatory requirement 2020 includes the current internal capital adequacy requirement, SIFI buffer, capital conservation buffer and countercyclical buffer.

Nykredit Realkredit Group

Loan capital, end-2019

	Interest rate	Call date	Maturity	Capital
Nykredit Realkredit A/S				
AT1 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	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

3.2.1 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 total 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 74.1 billion in the Nykredit Group and DKK 74.3 billion in the Nykredit Realkredit Group at end-2019. 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.

Determination of own funds and total REA

End-2019 DKK billion	Nykredit Realkredit Group	Nykredit Group
CET1 capital before deductions	80.5	80.5
Proposed dividend	(3.7)	(3.6)
Goodwill from acquisition of Sparinvest	(1.7)	(1.7)
Other intangible assets and tax liabilities	(0.4)	(0.4)
Other deductions	(0.4)	(0.7)
CET1 capital	74.3	74.1
AT1 capital	3.7	2.3
Tier 1 capital	78.0	76.4
Tier 2 capital	12.0	8.4
Own funds	90.1	84.8
REA		
Credit risk	324.6	323.5
Market risk	29.3	29.3
Operational risk	25.5	25.4
Total REA	379.5	378.3
Financial ratios		
CET1 capital ratio, %	19.5	19.5
Tier 1 capital ratio, %	20.5	20.1
Total capital ratio, %	23.7	22.4

3.3 ■ DETERMINATION METHODS

3.3.1 ■ 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
- LR Realkredit A/S
- Nykredit Bank A/S
- Nykredit Leasing A/S
- Sparinvest Group
- Nykredit Portefølje Administration A/S
- Nykredit Ejendomme A/S
- Ejendomsselskabet Kalvebod Brygge A/S

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.

3.3.2 ■ 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. 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.

3.3.3 ■ 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.

3.3.4 ■ 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 calculate the general risk related to:

- equities
- debt instruments
- foreign exchange.

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

- debt instruments
- foreign exchange.

For market risk in the remaining companies 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.

3.3.5 ■ 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.

3.4 ■ RISK EXPOSURE AMOUNT

At end-2019 Nykredit's risk exposure amount (REA) totalled DKK 379.5 billion. With own funds at DKK 90.1 billion, this corresponded to a total capital ratio of 23.7% against 25.4% at end-2018. CET1 capital came to DKK 74.3 billion, corresponding to a CET1 capital ratio of 19.5% against 21.0% at end-2018.

REA increased from DKK 344.7 billion at end-2018 to DKK 379.5 billion at end-2019. The rise mainly stems from higher REA for credit risk, in part due to the acquisition of LR Realkredit A/S, while market risk has increased slightly and operational risks are unchanged.

The total capital requirement including capital buffers will be 17.4% at end-2020, of which the countercyclical buffer is set at 2.0% and the CET1 capital requirement is about 12.6%, including Pillar II.

Nykredit Realkredit Group

REA overview

DKK million	REA		Minimum capital requirement (8%)
	Q4/2019	Q4/2018	Q4/2019
Credit risk (excluding counterparty credit risk)	297,415	268,894	23,793
Of which the standardised approach	21,788	12,465	1,743
Of which the advanced IRB (AIRB) approach	262,375	243,714	20,990
Of which equity IRB under the simple risk-weighted approach	9,980	10,601	798
Of which assets with no counterparty	3,272	2,113	262
Counterparty risk	19,506	16,129	1,560
Of which market value	18,245	15,244	1,460
Of which risk exposure amount for contributions to the default fund of a CCP	281	66	22
Of which CVA	981	819	78
Settlement risk	0	2	0
Market risk	29,336	27,388	2,347
Of which the standardised approach	12,398	9,421	992
Of which IMA	16,937	17,966	1,355
Operational risk	25,499	25,709	2,040
Of which basic indicator approach	25,499	25,709	2,040
Amounts below the thresholds for deduction (subject to 250% risk weight)	7,706	6,614	616
Total	379,462	344,736	30,357
Own funds	90,083	87,683	-

3.5 ■ REQUIRED OWN FUNDS

Pursuant to the Danish Financial Business Act, it is the responsibility of the Board of Directors and the Executive Board to determine the required 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 41.3 billion at end-2019, equal to an internal capital adequacy requirement of 10.9%.

3.5.1 ■ Pillar I

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

3.5.2 ■ Pillar II

Pillar II comprises Nykredit's assessment of various risks not covered by the Pillar I capital requirement.

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 assessing Pillar II, Nykredit factors in a slightly weaker economic climate and changed customer credit quality. In deciding the capital policy, Nykredit also takes the effects of a severe recession into account.

In case of 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, model risk, operational risks, IT risks, validation and backtest results, data quality, documentation requirements, concentration risk, control risk, strategic risk, external risk, interest rate risk, credit valuation adjustment (CVA), etc.

Management buffer

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 that serves as a management buffer, as the calculations depend on statistical methods, choice of model, model properties, unforeseen events, etc.

Nykredit Realkredit Group

Total capital requirement

DKK billion	2020	2019
Credit risk	30.7	23.3
Market risk	3.6	2.2
Operational risk	2.1	2.1
Total Pillar I	36.4	27.6
Credit risk	4.7	3.5
Market risk	1.3	0.8
Operational risk	0.1	0.3
Other risks ¹	4.9	2.3
Total Pillar II	11.0	6.8
Total required own funds	47.4	34.4
Internal capital adequacy requirement	10.9%	10.0%
SIFI buffer requirement	2.0%	2.0%
Capital conservation buffer	2.5%	2.5%
Countercyclical buffer ²	2.0%	1.0%
Total capital requirement	17.4%	15.5%

¹ Other risks include assessment of control risk, strategic risk, external risk, concentration risk, liquidity risk, etc.

² The countercyclical buffer will be raised to 1.5% at end-Q2/2020 and further to 2.0% at end-2020.

3.5.3 - CET1 capital requirements

Nykredit is subject to a capital requirement in the form of a SIFI buffer requirement, which is 2.0% of CET1 capital and reflects the systemic importance of the Group. The SIFI buffer requirement must be met using CET1 capital.

Nykredit is also subject to a capital conservation buffer requirement of 2.5% (CET1).

The Danish authorities have decided to set the countercyclical buffer rate at 1.5% as of end-Q2/2020 and to increase it to 2.0% (CET1) at end-2020. In Q1/2020 the Systemic Risk Council is furthermore expected to recommend an increase of the buffer rate to the maximum level, which is 2.5%, with effect from 2021.

In addition to this, around half of the Pillar II capital requirement must be met with CET1 capital and 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.

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 2020*, allows for the capital requirements, combined with a deteriorating economic climate corresponding to the severe recession scenario in the Danish FSA stress test.

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.

Nykredit has reserved CET1 capital already now to meet the upcoming Basel requirements.

3.6 - LEVERAGE RATIO

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

In the capital policy the Board of Directors has set an internal leverage target, which is to be reviewed annually. Determination of this target is based on a stressed scenario and also takes into account other impacts on earnings and own funds as well as balance sheet movements, which may ultimately affect the leverage ratio.

Nykredit's balance sheet mainly consists of match-funded mortgage loans. Match funding ensures a match between the interest and principal payments, and maturities, of a loan and the underlying funding. Because of Nykredit's balance sheet composition, the risk of excessive leverage is therefore limited. The balance sheet and consequently the leverage ratio remain largely unaffected in a stressed scenario.

Nykredit continuously monitors the development in the leverage ratio, which is a central element of Nykredit's capital and liquidity policy. The leverage ratio is determined on a quarterly basis and projected based on the expected balance sheet and Tier 1 capital development. The results are submitted to the Asset/Liability Committee, which considers any required action.

The quarterly risk reports to the Board of Directors include the current leverage ratio as well as a stressed leverage ratio. Both are measured against the internal leverage target. Leverage ratios are also included in recovery plans and the ICAAP documentation, which are also submitted to the Board of Directors.

At end-2019 Nykredit's leverage ratio was 4.5%. The leverage ratio declined by 0.4 percentage point in the course of 2019, from 4.9% at end-2018. The decline is mainly due to the growth in mortgage lending for the year, and consequently in total assets, and the acquisition of Sparinvest, which caused a decrease in Tier 1 capital through deductions for goodwill.

Nykredit Realkredit Group

Minimum CET1 capital requirement

% of REA	2020	2019
Pillar I	4.5	4.5
Pillar II	1.6	1.1
SIFI buffer requirement	2.0	2.0
Capital conservation buffer	2.5	2.5
Countercyclical buffer ¹	2.0	1.0
Total	12.6	11.1

¹ The countercyclical buffer will be raised to 1.5% at end-Q2/2020 and further to 2.0% at end-2020.

Nykredit Realkredit Group

Leverage ratio

DKK million	2019	2018
Tier 1 capital	78,036	76,403
Leverage ratio exposures	1,722,422	1,536,475
Leverage ratio	4.5%	4.9%

3.7 ■ 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 Tokredit, 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. Nykredit considers two scenarios: one with rising interest rates and one with falling interest rates. 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

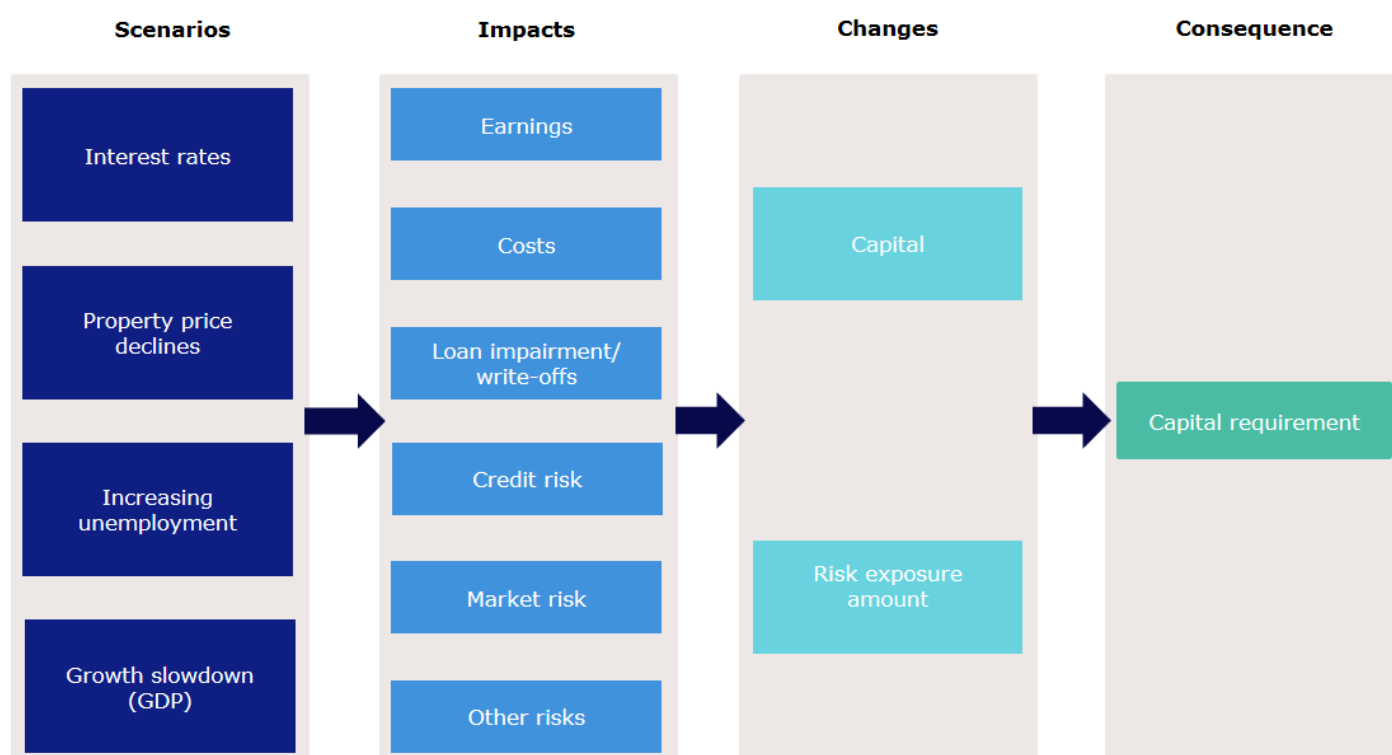
A central element of Nykredit's capital policy is to have sufficient own funds, also in the long term and in a severe recession. Nykredit continually calculates the impact of severe recession combined with declining interest rates. The stress scenario reflects an unusual, but not unlikely, situation.

The calculations are factored into the quarterly assessments of the future capital requirement and in the annual determination of the capital policy.

The results reflect the increased capital requirement in case of plunging housing prices, falling or rising 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 EU-wide stress test exercises of the EBA, which will be conducted again in 2020. The results of the stress tests conducted in recent years have shown that Nykredit's CET1 capital ratio will drop by approximately 4 percentage points in a severe recession when stress tested based on the current capital need. The decrease is within the scope set out in Nykredit's capital policy, thus indicating that Nykredit is sufficiently resilient to withstand a severe macroeconomic stress.

Internal process

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

The Boards of Directors will reassess the capital needs if any major unexpected events occur.

The determination by the Boards of Directors of the capital needs of the individual Group companies 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 Board Risk Committee and the Group Risk Committee closely monitor the development in the capital needs 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 capital needs

%	2020	2021	2022
Baseline scenario			
Interest rates ¹	(0.3)	(0.3)	(0.3)
Property prices, growth	3.8	3.1	3.2
GDP growth	2.0	1.9	1.2
Unemployment	5.2	5.1	5.1
Weaker economic climate (scenario applied under Pillar II)			
Interest rates ¹	(0.6)	(0.4)	(0.4)
Property prices, growth	(3.0)	(3.0)	(2.0)
GDP growth	1.0	0.5	0.1
Unemployment	5.9	6.5	7.1
Severe recession			
Interest rates ¹	(0.6)	(0.4)	(0.4)
Property prices, growth	(12.0)	(10.0)	(5.0)
GDP growth	(3.0)	(2.0)	0.0
Unemployment	7.1	8.7	9.4

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

3.8 ■ FSA SUPERVISORY DIAMONDS

3.8.1 ■ 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 should be less than 125% of own funds.
- Lending growth should 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 should be less than 25% of total lending.
- The funding ratio should 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 should 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 8.1%. The ratios related to funding and liquidity are also satisfactory relative to 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	2019	2018
Large exposures (limit value <175%)	109.9%	91.7%
Lending growth (limit value <20%)	8.1%	8.9%
Property exposure (limit value <25%)	10.2%	10.7%
Funding ratio (limit value <1.0)	0.57	0.60
Liquidity benchmark (limit value >100%)	194.9%	183.8%

3.8.2 ■ 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 not exceed 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 homes with an LTV ratio 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 re-financed must be below 12.5% per quarter and 25% per year.

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

Nykredit Realkredit Group

Supervisory Diamond for mortgage lenders

Benchmark	2019	2018
Lending growth in segment:		
Personal customers (limit value <15%)	7.4%	3.9%
Commercial residential property (limit value <15%)	5.3%	5.7%
Agriculture (limit value <15%)	(0.9)%	3.6%
Other business (limit value <15%)	3.7%	0.5%
Borrower's interest rate risk		
Loans to private individuals and for residential rental (limit value <25%)	12.6%	14.2%
Interest-only loans		
Personal customers (limit value <10%)	7.7%	8.8%
Loans with short-term funding:		
Refinancing (annually) (limit value <25%)	12.5%	13.3%
Refinancing (quarterly) (limit value <12.5%)	2.6%	2.1%
Large exposures		
Loans and advances:equity (limit value <100%)	36.7%	35.3%

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
- 4.3.2 Impairments

4.4 CURRENT RISK PROFILE AND DEVELOPMENT

- 4.4.1 Concentration risk
- 4.4.2 Write-offs, impairment and arrears
- 4.4.3 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 development

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 customers' financial position and risk appetite. This approach serves to contain Nykredit's overall credit risk.

Nykredit's credit risk mainly stems from bank and mortgage lending, but also from financial products. The majority of the credit exposures consist of mortgage loans secured by real estate, which also serves to keep credit risk low.

The positive development in Nykredit's credit portfolio in recent years continued in 2019, 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, including employment, have developed favourably, and businesses and households are financially robust.

Nykredit actively manages its credit portfolio. This includes adjusting portfolio targets in the credit policy and managing individual exposures.

4.1 ■ CREDIT POLICY

Nykredit has a nationwide presence across Denmark 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, which defines the risk appetite. 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 relationships with financially sound customers is an integral part of Nykredit's strategy. 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 a customer's financial circumstances and other risk elements against Nykredit's total exposure to the customer. The assessment of a customer's creditworthiness is the key element. The overall assessment includes any security provided, for instance mortgages on real estate.

Nykredit wants to maintain close relationships with its customers to be able to prevent potential payment difficulties from arising. Prompt action benefits both the customer and Nykredit and limits arrears etc, making it more likely that the customer will recover. Alternatively, losses will be minimised to the advantage of both Nykredit and the customer, who will typically be liable for any unpaid debt.

Totalkredit's mortgage lending is based on a strategic alliance with 52 Danish local and regional banks undertaking the distribution of Totalkredit loans, customer advisory services, credit assessments and origination. 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 to 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. The authority comes with a requirement of credit policy and business procedure certification every three years, in addition to the statutory certification. It is Nykredit's aim that most credit decisions should be made locally.

Which level of Nykredit's credit approval hierarchy determines business customers' credit applications 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 Nykredit's 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 the credit applications of personal customers of Nykredit 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 the mortgage loan applications of personal customers of Totalkredit depends on the value of the property serving as security for the loan. As regards credit applications of business customers of Totalkredit, the level is determined by the size of the exposure, in the same way as for customers of Nykredit.

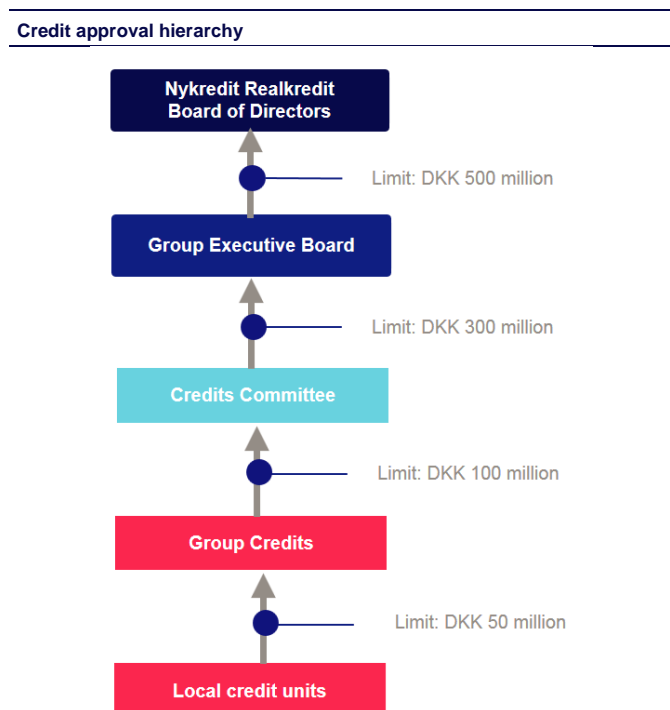
The Groups' largest exposures are presented to the Boards of Directors of the Group companies on a current basis. They are also briefed quarterly about the largest write-offs and impairment provisions.

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 resilience as well as other relevant characteristics, such as businesses' managerial strength. This assessment is based on credit policy rules and guidelines. The assessment also includes 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 provided etc.



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.

Totalkredit's customer assessments are also based on 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 collaboration agreement with the partner banks. The partner banks provide security to Totalkredit by way of a right of set-off and/or 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 prompts the partner banks to carry out a thorough and comprehensive assessment of a customer's creditworthiness and the mortgageability of the property, thereby minimising losses on customers in general. In case of high-risk loans where the ordinary business procedures are derogated from, the partner banks 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. Furthermore, individual exposures are reviewed 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 Boards 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.

In addition to the above, a number of other elements are part of day-to-day credit management based on, for instance, the limits applying to large exposures and portfolio distribution. This is supplemented with central credit instructions with respect to individual portfolios and industries, which advisers should allow for in their 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

As part of the monitoring of credit exposures, the largest business exposures are reviewed by the account manager at least annually. The review is based on financial statements, ratings and customer data and 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.

The Group's credit control function is responsible for central credit controlling 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. Credit controlling is aimed at detecting, for instance, 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. Moreover, thematic controls are performed within special risk areas, and selected customer centres are reviewed.

Review of weak exposures

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 statutory indicators of credit-impaired exposures. If Nykredit identifies objective evidence of credit impairment, the exposure will be assigned the lowest possible rating, 0.

Specifically, Nykredit's account managers review weak exposures in their portfolios at least once a year. Business bank 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 mortgage loans are designated as weak exposures if there is reasonable doubt that they are able and/or willing to honour their obligations to Totalkredit. For customers with Totalkredit business loans and customers with Totalkredit personal mortgage loans arranged by the Nykredit Group, ratings are also used to identify weak exposures.

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

For the purposes of both financial reporting and capital determination, Nykredit applies IFRS 9 to determine general and specific credit risk adjustments. The calculations are divided into four parts:

- A statistical model is used for impairment of exposures without objective evidence of credit impairment
- A mechanical model is used for impairment of personal exposures with objective evidence of credit impairment and business exposures below DKK 5 million
- Expert judgement is used for impairment of large business exposures, based on a customer's financial position
- Management judgement is used for impairment based on factors not reflected in the above impairment calculations.

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 2 is subdivided into stage 2 (strong) and stage 2 (weak).

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 transferred to stage 3 or stage 2 (weak).

The size of the exposure and the customer segment determine whether impairments are calculated using a calculation model or by individual assessment, see above.

Management judgement in relation to model-based impairment is supplemented with an assessment of an improved/worsened macro scenario for the long-term probability of default (PD).

Impairments are made for all exposures with objective evidence of impairment and all exposures in default. For a small number of customers with mortgage facilities, this will not give rise to impairment, the reason being that the collateral provided (less a safety margin) exceeds the exposure.

For a more detailed description and definitions of model parameters relating to credit risk, including default, see *4.6 Models for determination of credit risk*.

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 DEVELOPMENT

Nykredit's loan portfolio mainly consists of mortgage lending, which represents 77% of the total credit exposure. The rest of the loan portfolio consists of bank loans and financial instruments.

Nykredit Realkredit accounts for 34% of the Group's lending and guarantees, concerning mainly business customers, while Totalkredit's lending, mainly to personal customers, accounts for 54%. At end-2019 Nykredit Bank's lending represented 12% of Nykredit's total lending and guarantees.

The customer portfolio is characterised by historically low loan-to-value (LTV) ratios (currently 62%) and a low proportion of loans in default (currently 2%). Customers' internal ratings are predominantly at the high end of the scale. The calculated ratings are based on customers' financial positions and payment behaviour (see 4.6 Models for determination of credit risk).

Brexit and the trade war between the US and China generated uncertainty in 2019, putting downward pressure on investments and international trading. The growth slowdown has affected the global picture, and while the effects on the Danish economy have been limited so far, Denmark is a small, open economy that is dependent on global economic trends. Nykredit is also aware of structural features and trends, such as urbanisation and digitisation, and allows for these in its risk management. A particular focus in 2019 was on credit management of loans in areas that are sensitive to a deteriorating economic climate.

Moreover, Nykredit increased its focus on market conditions in relation to individual customers, including aspects such as sustainability and changed consumer preferences.

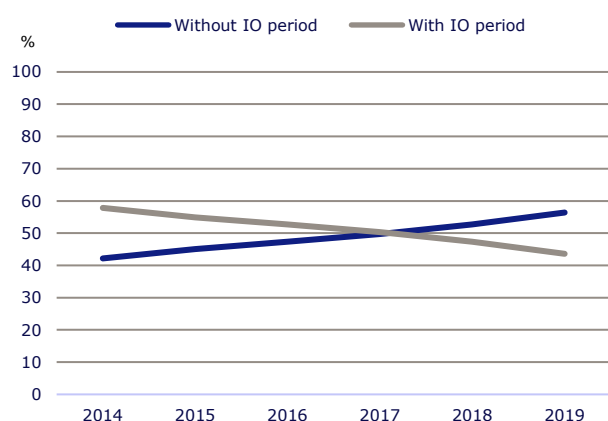
Growth in the market for single-family houses continued in 2019 in most of Denmark, while the prices of owner-occupied flats, especially in the large cities, levelled out following several years with high growth rates. In general, housing prices, and thus also the values of the collateral backing lending to personal customers, have risen over the past year. Denmark is still enjoying an economic upswing, employment and real incomes have increased, and unemployment is low. Households save up a larger proportion of their incomes than usual during an economic upswing and have continuously reduced their debts. This makes households resilient to economic shocks or shifts in economic trends.

Nykredit's exposure to personal customers grew in 2019 as a result of high net new lending and now amounts to 50% of the Group's total credit exposures. The creditworthiness of personal customers is generally good, and the share of customers with high LTVs has reduced. Also, there has been a shift towards repayment loans and loans with longer interest periods.

Over the past few years, Nykredit has launched a number of credit initiatives, at its own and the Danish FSA's initiative, in order to increase the financial robustness of its customers. More personal customers are amortising their mortgage loans. In 2016 most private residential

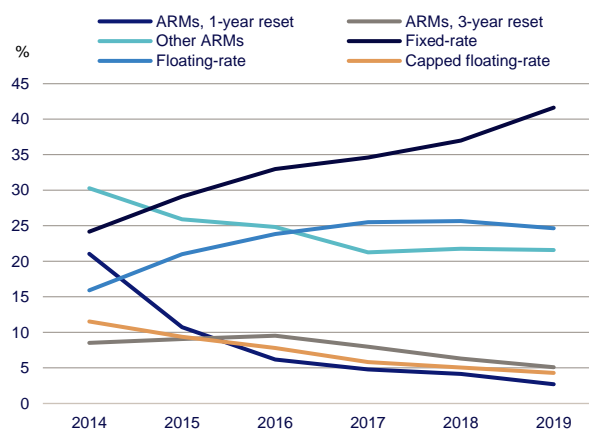
Nykredit Realkredit Group

Private residential lending with/without IO periods, EAD-weighted



Nykredit Realkredit Group

Private residential lending by loan type, EAD-weighted



Note: Other ARMs includes capped floating-rate loans and ARMs with interest periods longer than 5 years.

Nykredit Realkredit Group

Geographical distribution of exposures

31.12.2019 DKK billion	Denmark	Sweden	Germany	Norway	Spain	France	United Kingdom	Other countries ¹	Total
Businesses	502.5	38.4	15.4	1.2	1.8	1.7	1.9	9.3	572.1
Retail	880.6	0.1	0.1	0.0	4.3	3.3	0.0	0.1	888.5
Equities	5.4	0.4	0.0	0.0	0.0	0.0	0.2	0.2	6.2
Other exposures	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Total IRB approach	1,391.8	38.9	15.5	1.2	6.1	4.9	1.9	9.8	1,470.0
Standardised approach	120.5	5.7	1.5	1.5	0.0	2.1	4.2	2.6	138.1
Total	1,512.2	44.6	17.0	2.7	6.1	7.0	6.1	12.5	1,608.1

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

mortgage loans included an interest-only (IO) period, while this was the case for 44% at end-2019. This development is supported by economic trends, which have provided the financial leeway for customers to amortise their housing debt.

The interest rate sensitivity of personal customers has diminished with the rising number of customers opting for fixed-rate loans. The share of adjustable-rate mortgages (ARMs) relative to total private residential lending has dropped substantially since 2017 when it made up more than half. At end-2019 31% of all private residential mortgage loans had variable interest rate. This is due to a combination of declining interest rates, making it attractive to lock in loan rates for a longer period, changed loan terms and stricter loan rules.

The portfolio of business loans is generally 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 industries, with properties representing a large exposure category due to Nykredit's business model.

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 low risk of loss. In 2019 residential as well as commercial property markets were characterised by price rises, low interest rates and high sales activity. The return requirement has fallen to low levels, increasing customers' sensitivity to price declines and interest rate rises. Against that background, credit policy requirements for customers in the property rental sector have been continuously tightened, and a requirement has been introduced for the calculation of sensitivity to an interest rate rise or a property price decline in connection with facilities approved by regional credit units or centrally by Group Credits. This area is still being monitored closely.

Limited industry-specific risks exist. Especially the agricultural loan portfolio has a relatively high share of weak exposures, and the agricultural sector is sensitive to price declines, interest rate increases, failing crop yields etc. In 2019 agricultural trends improved, however, due to soaring pork prices and above-average crop yields. There are several uncertainties, for instance regarding exports to the UK after Brexit and the agricultural impact of future climate and environmental

requirements. Extraordinary impairment provisions have been made for agricultural lending based on this. 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 generally has low LTVs. In 2019 Nykredit made credit policy adjustments so as to aim loans at agricultural customers with the lowest leverage ratios relative to the entire market.

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-2019 94% of Nykredit's total credit exposures were in Denmark, most of them consisting of mortgage loans. 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%.

A majority of the loans (58%) were granted to homeowners and 36% to business customers, and the remaining 6% are mortgage loans financing properties abroad. Private residential lending is broadly diversified across loan type, age, region, maturity and size of debt outstanding.

Within business mortgage lending, Nykredit's lending to the business rental, residential rental and cooperative housing segments amounted to 41% at end-2019. The loan portfolio is diversified across different property types, and property uses are diversified across industries. Agricultural lending amounted to 20% of business mortgage lending, while Nykredit's lending to the public housing segment accounted for 16%.

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 must not exceed 25% of eligible capital in the three Nykredit Group companies Nykredit Bank A/S, Nykredit Realkredit A/S and Totalkredit A/S, see the rules on large exposures. Nykredit had no exposures exceeding this limit in 2019.

Nykredit Bank's largest single exposure to a non-financial counterparty amounted to 18% of the Bank's eligible capital at end-2019, equal to DKK 4.5 billion. Nykredit Realkredit's largest exposure amounted to 7.2% of eligible capital, and Totalkredit's largest exposure amounted to 0.5% at end-2019.

Nykredit Realkredit Group Exposure by sector

DKK billion	31.12.2019	31.12.2018
Personal customers	711.2	672.5
Public housing	75.4	66.3
Other residential rental	14.0	12.0
Other services	34.5	35.3
Construction	21.3	19.4
Retail and wholesale	31.0	29.0
Finance and insurance	48.8	23.0
Manufacturing	52.1	42.6
Public administration, institutions and education	17.5	16.7
Professionals	74.8	76.0
Agriculture	92.6	92.9
Transport and goods handling	13.0	10.8
Private housing cooperatives	44.6	43.9
Rental	231.0	217.9
Other	146.2	93.0
Total	1,608.1	1,451.1

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

4.4.2 ■ Write-offs, impairment and arrears

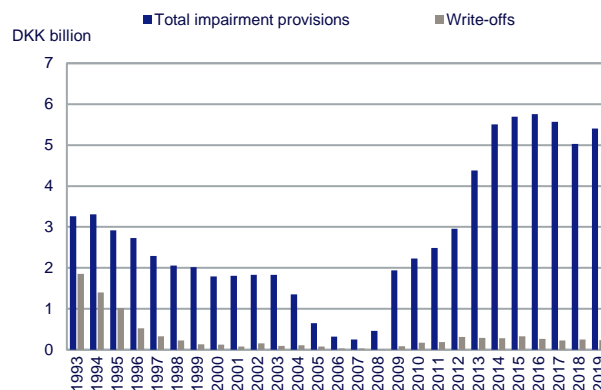
Nykredit's impairment provisions for potential future losses on mortgage and bank lending totalled DKK 8.0 billion at end-2019, equivalent to 0.6% of total lending. Provisions for mortgage loan impairment totalled DKK 5.4 billion (0.4% of mortgage lending). Provisions for bank loan impairment totalled DKK 2.5 billion (3.7% of bank lending). About 21% of exposures in default have been provided for, equivalent to DKK 4.9 billion. The proportion of exposures provided for relative to exposures in default was lower for Nykredit Realkredit and Totalkredit than for Nykredit Bank, as the mortgage exposures are secured by mortgages on real estate, which may be enforced in the event of default.

Total write-offs on the Group's exposures in 2019 were DKK 0.9 billion, equal to a loss ratio of 0.1%. Of total write-offs, mortgage activities represented DKK 0.6 billion and bank activities DKK 0.3 billion. About 58% of write-offs concerned private residential lending, while 42% concerned business lending.

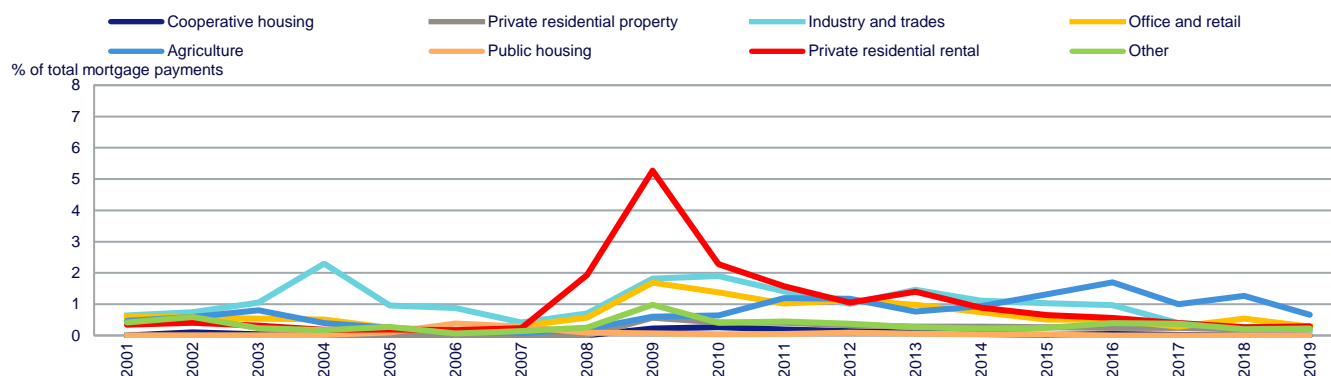
An equally favourable trend is seen in arrears. The average arrears ratio is still low, at 0.3%. The fairly low levels of write-offs and arrears in 2019 were underpinned by the current economic upturn and growth. The combination of low interest rates and low unemployment particularly supports personal customers' ability to pay.

The property portfolio counted 20 properties at end-2019. 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
Impairment provisions and write-offs, mortgage lending



Nykredit Realkredit Group
Arrears ratio, 75 days past due



4.4.3 Customer ratings

The credit quality of 85% of Nykredit's exposures was in the range of ordinary to high (ratings 6-10) at end-2019. These customers typically have robust finances and make timely payments.

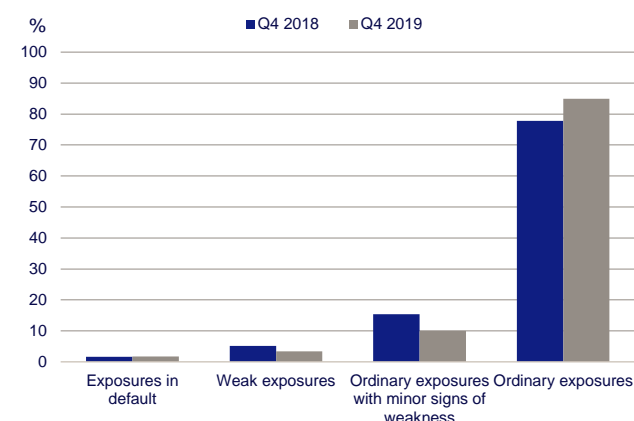
This type of customer made up 90% of Nykredit's personal customers, and for business customers, excluding Corporates & Institutions (C&I), the percentage was 64%. In the C&I segment, the credit quality of 93% of customers was in the range of ordinary to high.

At end-2019 10% 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 7% of personal customers, and for business customers, excluding C&I, the percentage was 24%. The percentage for C&I was 3%.

The rest of Nykredit's customers were weak exposures (ratings 0-2, 3%) and exposures in default (2%). This category primarily consists of customers that have defaulted on their 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. 2% of Nykredit's customers showed objective evidence of credit impairment at end-2019.

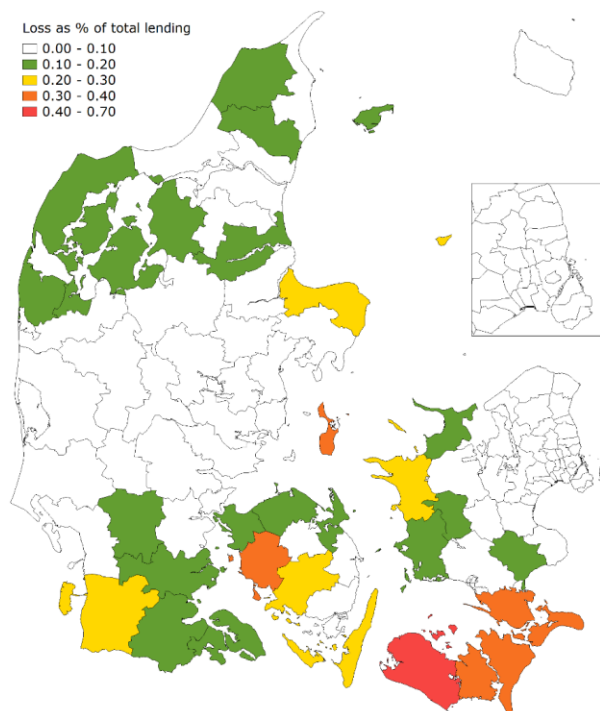
Customer ratings generally improved in 2019 relative to 2018. The share of exposures in default remained stable.

Nykredit Realkredit Group
Rating distribution, EAD-weighted



Nykredit Realkredit Group

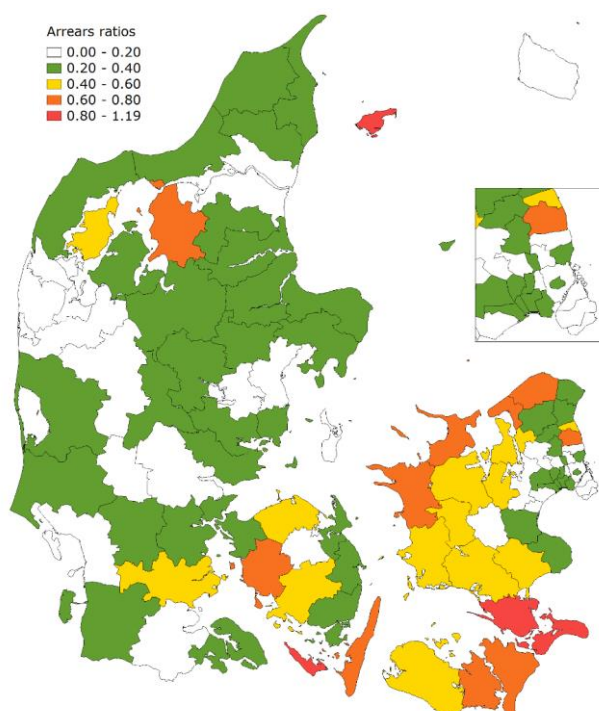
Private residential property – write-offs relative to total lending 2019



Note: The loss ratio for private residential property was 0.06% at national level at end-2019.

Nykredit Realkredit Group

Private residential property – arrears 2019



Note: The 75-day arrears ratio for private residential property was 0.28% at national level at end-2019.

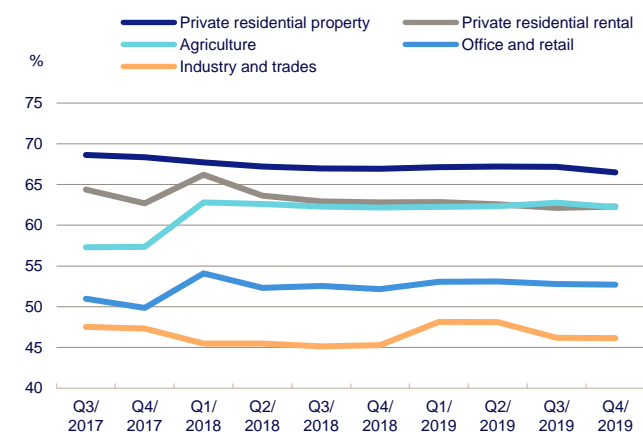
4.5 ■ SECURITY

The approval of loan applications is based on the customer's credit-worthiness but supported by the security provided. The greater part of Nykredit 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 initially at the time of loan granting. Valuations are based on the marketability, price volatility, alternative use, letting potential etc of the property. As a general rule, properties are valued by a valuation officer based on a physical inspection. In addition, a statistical model is used for the valuation of detached and terraced houses and owner-occupied flats where statistical valuation is particularly reliable and where the Danish FSA has approved the use of a property value model. Such valuations are subject to approval by the valuer in the relevant geographical area and are monitored centrally.

Nykredit Realkredit Group
LTVs – property segments



Note: The change in LTVs of commercial properties in Q1/2018 is due to two factors:
The property prices are now determined solely on the basis of internal assessments and are no longer projected using data from Statistics Denmark. Also, the method for determining LTVs of properties under a blanket mortgage has been changed.

In 2019 a shared valuation unit was set up by Totalkredit in collaboration with a number of partner banks. As part of this collaboration, Totalkredit handles all valuations of private properties through the shared valuation unit. The shared valuation unit also values properties, including commercial properties, for purposes other than Totalkredit loans. This could be, for instance, bank loans. Overall, the shared valuation unit makes for more uniform and consistent valuations.

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.

Nykredit has set up a subcommittee to monitor market trends and the quality of statistical valuations and identify areas and property types to be monitored separately.

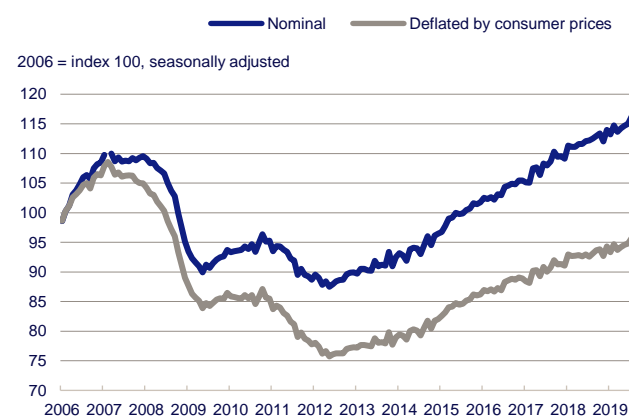
The LTV ratio denotes the debt outstanding relative to the property value. LTV ratios play a significant role in several contexts and are used for:

- 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
- Calculating IFRS stages 1 and 2
- Calculating returns on individual customer exposures.

At end-2019 the average LTV level of the Group's total loan portfolio was 62% compared with 62% at end-2018. At end-2019 the LTV level of the Group's private residential lending was 67%, the same level as at end-2018. The LTV levels of sectors comprised in total business lending were in the range of 46-62% at end-2019, compared with a range of 45-63% in 2018.

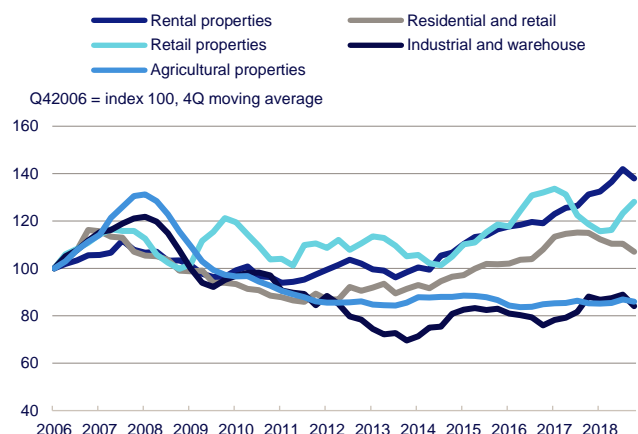
LTVs have trended down over the past years as a result of rising property prices and favourable economic trends and are still low.

Detached and terraced house prices



Source: Macrobond, Statistics Denmark

Commercial property prices



Source: Macrobond, Statistics Denmark

Property market trends

2019 was yet another good year in the housing market. Interest rate declines have driven up house sales to the highest level since the mid-2000s. At the same time, the downtrend seen in the market for owner-occupied flats since summer has been replaced by an uptrend. The housing market therefore enters 2020 in decent shape.

Housing prices have increased over a number of years. But whereas the development was previously driven by the largest cities and especially the flat market, single-family houses have been the driver for the past couple of years. Flat prices, on the other hand, were largely unchanged from 2018 until summer 2019 when interest rate declines and increased sales activity caused renewed price growth.

The postponement of new property tax rules until 2024 is expected to give the flat market a breather in 2020 after off-plan property purchases were characterised by uncertainty and lower activity. The first new public land assessments are expected in H2/2020. The new assessments may cause ripples in the housing market, but it is important to bear in mind that they may have a favourable or adverse impact on sales activity and prices depending on the geographical location of the property. According to Nykredit's forecasts, a national price decline would require an actual economic downturn, including a drop in employment.

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, restricts the access to highest-risk loan types for households with debt-to-income ratios above 4 and LTVs above 60%. The measures have had the desired effect, and the pressure on the Copenhagen housing market has been more moderate in the past couple of years.

The commercial property market has been characterised by uncertainty about the upcoming statutory intervention against housing renovations under section 5(2) of the Danish housing regulation act. That has made domestic and foreign investors more reluctant to invest in old residential rental properties. Conversely, interest rate declines have underpinned demand, which is still high, driven by a global search for returns.

4.5.2 ■ **Guarantees and financial collateral**

Nykredit mainly receives guarantees from public authorities and other banks. Guarantees issued by public authorities sometimes mitigate credit risk; for instance the Danish government guarantees mortgage lending for public housing.

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 supports group companies with insufficient capital.

Totalkredit's business concept is based on the distribution of mortgage loans through its partner banks. The partner banks are responsible for customer services. 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 ensures that the partner banks carry out a thorough and comprehensive assessment of customer creditworthiness and the mortgageability of a property. In case of high-risk loans where the ordinary business procedures are derogated from, the partner banks 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 the risk exposure amount (REA), Nykredit assigns internal collateral values to the financial collateral received 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 internal historical default and loss data.

4.6.1 ■ Modelling principles

According to the CRR, PDs must be estimated on the basis of historical 1-year default rates 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 risk 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, during an economic upswing, 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 etc.

Expected LGDs vary with economic trends. During economic upswings, 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 (CF).

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 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 provide 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 contains significant inaccuracies, a capital charge will be provided under Pillar II until the model has been readjusted to reflect the actual risk.

A subcommittee of the Group Risk Committee monitors and manages Nykredit's model risks. This includes assessing all models, model changes and results of model validation. The overall conclusions on model risks and validation are reported to the Group Risk Committee and 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, migration etc.

Annual validation includes more in-depth analysis of the functioning of a model, including its accuracy, the data applied, follow-up on the quarterly monitoring and a qualitative review of the model and its elements, documentation etc.

Monitoring and validation of rating models 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.

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 task is performed by 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 Board Risk Committee 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.

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.

4.7.2 • Methods

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.

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

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

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 ratings of sovereigns, counterparties and issues. These external credit ratings are used as an integrated part of Nykredit's data flows and are updated daily. If the external providers assign different ratings to a counterparty, Nykredit will use the lower rating.

Nykredit Realkredit Group

Long-term credit 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 credit 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%

Nykredit Realkredit Group

Exposure using ECAI credit assessments – institutions

DKK million	2019	2018
Exposures	85,741	76,520
REA	7,434	6,302

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

Value adjustment of derivatives in financial statements

Nykredit makes fair value adjustment of derivatives in accordance with the International Financial Reporting Standards (IFRS), which provide for CVA and FVA for accounting purposes. 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.

4.7.3 ■ Current risk profile and development

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-2019 the negative market value of derivatives relating to customer exposures was about DKK 14 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-2019 total provisions amounted to DKK 3.1 billion, of which credit value adjustments represented DKK 2.6 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.

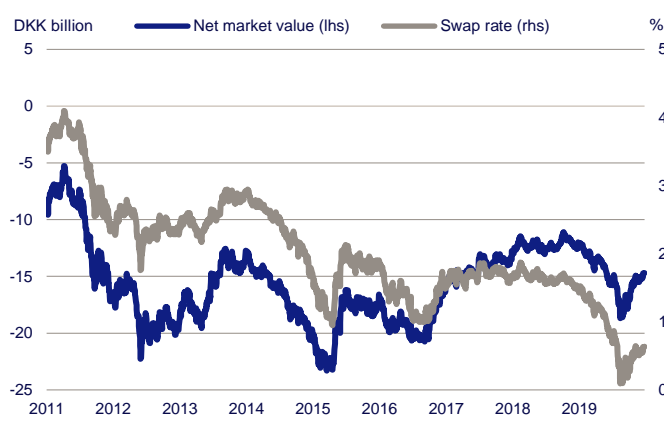
At end-2019 legacy swaps represented 49.1% of the total negative market value of derivatives relating to customer exposures. The market value has been value adjusted by 22%.

Exposure, netting and collateral

The gross exposure to all types of counterparties was DKK 79.9 billion at end-2019. Derivatives represented DKK 18.9 billion, while DKK 61.0 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 11.2 billion. Of this amount, DKK 10.2 billion related to derivatives and DKK 0.9 billion related to securities financing transactions.

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							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	FVA	Other	Total value adjustment		
31.12.2019									
Derivatives offered	107	306	22	435	111	145	691	7,097	10%
Legacy derivatives	160	1,378	595	2,133	150	113	2,396	6,835	35%
Total	266	1,684	617	2,568	261	259	3,087	13,932	22%

Nykredit Realkredit Group

Impact of netting and collateral held on exposure values

2019	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
DKK billion					
Derivatives	18.9	4.9	14.0	3.7	10.2
Securities financing transactions	61.0	-	61.0	60.1	0.9
Total	79.9	4.9	75.0	63.8	11.2

Note: Figures in the table are not directly comparable with accounting figures, as the capital adequacy rules provide for additional netting compared with 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 Conduct management

5.3.4 Model risk

5.3.5 Prevention of money laundering and terrorist financing

5.3.6 General Data Protection Regulation (GDPR)

5.4 REPORTING

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risks.

Operational risk also includes model risk and conduct risk. Model risk is the risk of loss resulting from decisions based mainly on internal model results or from errors in the development, implementation or use of such models. Conduct risk is the risk of loss resulting from improper business conduct, including customer, product and business practice as well as internal fraud.

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 risks 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.

Operational risks are assessed based on the probability that the risk materialises into an operational event and the consequences if the risk materialises. The risks are measured on a 4-point scale from low to very high. The operational risk policy stipulates that operational risks should be low relative to the other types of risk of the Group.

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 these may involve operational risks that are contrary to the policy laid down by the 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 Group Risk Committee, which regularly reviews material risks and considers specific action plans. The main risks are presented to the Board of Directors.

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 therefore decentralised and rests 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 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 areas' 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. Risk meetings are held with each business area at least annually. 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 identifies 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.

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.

An IT security policy has been laid down, stipulating the Nykredit Group's general IT security requirements. Nykredit strives to have a stable security level in line with international practice in the financial sector. In addition to the general security policy, Nykredit has pre-

pared 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.

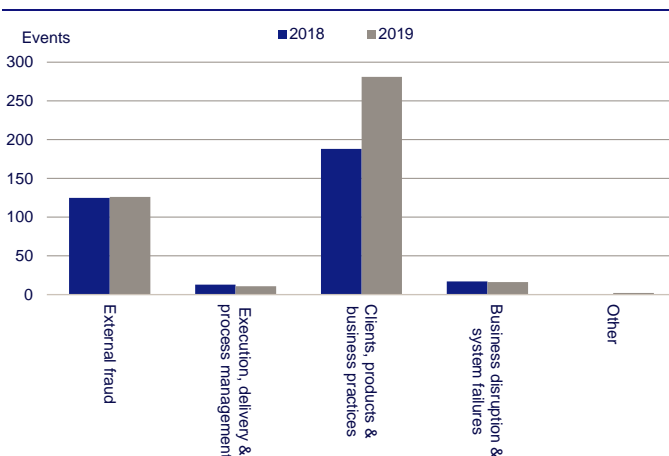
To identify existing and potential risks and ensure satisfactory management of these risks, Nykredit conducts regular IT risk assessments.

Security incidents are reported on an ongoing basis to the Executive Board and to Nykredit's Security Committee, consisting of the CIO, the CISO, the Head of IT Delivery and the Head of IT Infrastructure & Operations, which will actively assess the incidents. Moreover, the Contingency Committee will be kept informed of major incidents. Nykredit has also implemented incident processes, ensuring that incidents, including significant operational breakdowns and breaches of personal data security, are reported to the relevant authorities.

In recent years Nykredit has launched a range of measures, such as the implementation of advanced software, which have enhanced the security of workstations and servers. Overall, this has strengthened Nykredit's cyber defence against hackers, malware etc.

Nykredit Realkredit Group

Operational loss events by category (number)



Note: Other includes: Internal fraud, employment practices and workplace safety as well as damage to physical assets. The risk type external fraud mainly includes credit card misuse.

Furthermore, Nykredit has focused on strengthening security internally, including protection of customer data, higher data quality and the implementation of a new IT security policy and a new IT security handbook. This has resulted in enhanced internal processes with a positive impact on IT security and increased focus on protecting customer data and complying with personal data protection legislation.

Nykredit annually checks whether, in practice, Nykredit and relevant business partners comply with the IT security policy and guidelines. These checks are performed as reviews of selected security requirements from the IT security policy. In addition, efforts are made to identify weaknesses and risks to be resolved, thereby improving the overall security level.

To ensure that all Nykredit staff have satisfactory knowledge of IT security, all new staff members must complete an e-learning programme on IT security. The programme ends with a mandatory test which everyone must pass. Nykredit also conducts phishing tests aimed at its staff.

Nykredit performs technical tests of Nykredit's cyber defence at least once a year, including Nykredit's ability to handle security incidents. Any potential risks identified are subsequently reduced through mitigating measures. Further, Nykredit participates in large-scale emergency preparedness exercises at sector level.

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

5.3.2 • Compliance

Operational risk includes compliance risk. Compliance risk means the risk that legal or regulatory sanctions are imposed on Nykredit or that Nykredit suffers financial losses or reputational damage caused by non-compliance with legislation, market standards or internal rules applicable to Nykredit.

The Boards of Directors have adopted a separate compliance policy that defines risk tolerance in the compliance area as well as requirements for ongoing reporting of identified risks and ad-hoc reporting of critical events. Like operational risks, compliance risks should be low relative to other types of risk of the Group.

The compliance function is 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 regularly reviews identified compliance risks until mitigated and assesses and monitors whether any new risks are addressed adequately.

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

To strengthen efforts to manage and mitigate operational and compliance risks, one or more Assistant Risk and Compliance Officers (ARCOs) have been appointed in each business area. 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 the first line of defence and 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 • Conduct management

Nykredit's risk management activities include ongoing assessment of the culture, propositions, products, advisory services, etc in the organisation to ensure that Nykredit's conduct can be explained and defended. This is called conduct management.

Nykredit wants a corporate culture where staff can openly discuss and act on the risks and dilemmas that may arise when operating a financial business. This also involves establishing a trusting environment where staff can feel comfortable discussing the concrete dilemmas they are facing in their everyday work.

Conduct management provides a structured framework for identifying dilemmas, combined with a management focus that supports an open and trusting culture. Conduct management is also integrated into Nykredit's manager development programmes, ensuring that all managers are equipped to discuss conduct and dilemmas with their staff.

Nykredit's conduct management activities are governed by its operational risk policy. Based on this policy, Nykredit carries out a *Conduct Risk Self-Assessment*, providing the framework for working with ethical dilemmas in the business. Identified dilemmas are discussed across business units and regularly cause Nykredit to decline business that is not within Nykredit's defined business areas, or to change Nykredit's practices.

Also, all Nykredit's products and services must comply with Nykredit's product policy. The policy requires new as well as existing products and services to be assessed by Nykredit's Products Committee in terms of economic, social and environmental/climate sustainability at least once a year.

Overall, conduct management thus sustains a healthy, open culture, ensuring that all parts of the company act in alignment with Nykredit's corporate responsibility – as a financial institution and as a company owned by an association with a special responsibility to society to ensure affordable, secure loans throughout Denmark at all times.

5.3.4 • Model risk

Model risk is the risk of loss resulting from decisions based mainly on mathematical and statistical model results. Nykredit uses such models for the purpose of business decisions and to determine risk limits, capital, capital adequacy etc. Model risk can occur as a result of weaknesses in the development, input parameters, implementation or use of these models. Over the past few years, the focus of regulation and authorities on model risk as an independent risk area has increased significantly.

The Board of Directors has adopted a separate model risk policy in which it defines the risk tolerance in the area and lays down requirements for ongoing reporting and follow-up.

Nykredit has implemented several measures to ensure active management and monitoring of model risk and structured governance of models and model changes. Examples include a general model register clearly stating roles and responsibilities, strengthened governance in respect of approval, monitoring and reporting, as well as a model risk assessment method.

Model risk is monitored closely by a central Models Subcommittee, which is also responsible for governance in respect of model approval and model changes. This ensures that model risk is managed and assessed in a uniform way across the Group and that model risk becomes visible in Nykredit's overall risk landscape.

5.3.5 • Prevention of money laundering and terrorist financing

Nykredit has a strong focus on ensuring that the Group is not misused for money laundering, terrorist financing or breaches of financial sanctions, and that the relevant legislation is complied with.

Nykredit is continuously working to strengthen processes, monitoring and controls throughout the Group as an effective safeguard against misuse of the Group's products and services. Nykredit's set-up for preventing money laundering, terrorist financing and breaches of financial sanctions is laid down in a Group policy. The Group's business procedures, processes and controls are prepared within the framework of this policy.

The Nykredit Group has appointed a Group Managing Director charged with delegating and ensuring managerial responsibility and focus on measures to prevent money laundering, terrorist financing and breaches of financial sanctions throughout the Group. The Nykredit Group also has a Chief Compliance Officer and an AML Responsible Officer covering all relevant Group companies. The Executive Boards of the other Group companies have also each appointed a Chief AML Officer at the executive level.

In 2019 Nykredit increased its efforts to reduce the risk relating to money laundering, terrorist financing and breaches of financial sanctions. This included extra staff training, implementation of additional system support and implementation of new and improved processes as well as new business procedures in the area.

Staff awareness and vigilance are important parts of the defence against money laundering, terrorist financing and breaches of financial sanctions. To ensure that all Nykredit staff possess the requisite knowledge, a mandatory e-learning programme on preventing money laundering, terrorist financing and breach of financial sanctions has been introduced. All staff must complete the programme, and the programme ends with a test that must be passed every year. The number of staff working full-time with the prevention of money laundering, terrorist financing and breaches of financial sanctions grew rapidly in 2019.

Nykredit acknowledges the importance of integrating measures to prevent money laundering, terrorist financing and breaches of financial sanctions into all business activities. Nykredit wants to be known for its integrity and regulatory compliance, in accordance with the expectations of customers, society, authorities and other stakeholders.

5.3.6 • General Data Protection Regulation (GDPR)

Nykredit focuses strongly on ensuring that personal data are treated as confidential and processed in compliance with the General Data Protection Regulation (GDPR) and data protection legislation. Relevant policies and business procedures have been laid down, and processes have been established to ensure that personal data are processed in compliance with applicable law.

A central unit is responsible for measures regarding personal data processing. The unit prepares policies and business procedures and ensures that efficient procedures and controls are in place. Data breaches must be reported and treated in compliance with the guidelines of the Danish Data Protection Agency. Nykredit continuously monitors for personal data breaches in the Group. In 2019 Nykredit recorded 200 personal data breaches.

Nykredit's Compliance unit includes a Data Protection Officer (DPO) tasked with assessing, monitoring and reporting on the effectiveness of Nykredit's methods and procedures relating to personal data processing.

All Nykredit staff must complete an e-learning programme on the processing of personal data once a year. The programme ends with a test that must be passed.

5.4 • 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 to the Board of Directors without undue delay, ie when they have been described sufficiently to enable a decision 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 Group 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 DEVELOPMENT

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.

Nykredit's aggregate market risk is divided into risk in the trading book and in the banking book. 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.

Market risk in the trading book 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 the banking book, Nykredit holds a portfolio of business-related assets and private equity. These investments have a long-term purpose and include investments in a number of regional banks with which Nykredit has business relationships.

The main risks are yield spread risk on the portfolio of covered bonds in the trading book 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 covering the trading book as well as the banking book. The main principle is that the probability of losses on market risk exposures exceeding Nykredit's total expected quarterly results is low. This is monitored daily, for instance by measuring quarterly results 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 guidelines for market risk, divided between the trading and banking books, which are used in 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 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 breach.

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

The Boards of Directors monitor and evaluate 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 DEVELOPMENT

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

Basically, Nykredit's market risk is determined based on calculations of a number of traditional measures that may be regarded as portfolio sensitivity tests. They are used to 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 calculations are made on the trading book as well as the banking book.

Nykredit's main risks are interest rate, yield spread and equity price risk.

The traditional 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. To incorporate these probabilities in day-to-day risk measurement, Nykredit applies market risk models as well as stress and scenario tests.

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 in the trading book was DKK 318 million at end-2019, meaning that Nykredit would potentially lose DKK 318 million at a general interest rate rise of 1 percentage point. For more details on interest rate risk in the banking book, see 6.4.1. *Interest rate risk in the banking book*

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, spread widening of 1 percentage point is less frequent than a general interest rate rise of 1 percentage point.

In the Group's trading book, the yield spread risk on covered bonds was DKK 1.7 billion at end-2019, while the yield spread risk on the credit bond portfolio was DKK 39 million.

Compared with end-2018, the portfolio of covered bonds has reduced by about DKK 0.1 billion. In the banking book, the yield spread risk on covered bonds was DKK 0.8 billion at end-2019.

Equity price risk

Equity price risk is the risk of loss as a result of changes in equity prices, and it is expressed by the aggregate market value of the portfolios. The Group's equity price exposure in the trading book amounted to DKK 163 million at end-2019. For more details on equity price risk in the banking book, see 6.4.2. *Equity price risk in the banking book*

Value-at-Risk

In day-to-day risk management, Nykredit furthermore uses a market risk model for calculating one overall risk measure for an aggregate portfolio, comprising the main part of Nykredit's trading book. 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. *Models for determination of market risk*

Nykredit's VaR totalled DKK 14 million at end-2019. This means that Nykredit could, at a 99% probability, lose a maximum of DKK 14 million in one day on its current portfolio.

Since end-2018, VaR for day-to-day management has decreased by almost DKK 2 million, owing to, for instance, reduced portfolios of credit and covered bonds. For a detailed description, see 6.5. *Models for determination of market risk*

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 tests are used to assess the losses on portfolios if these 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.

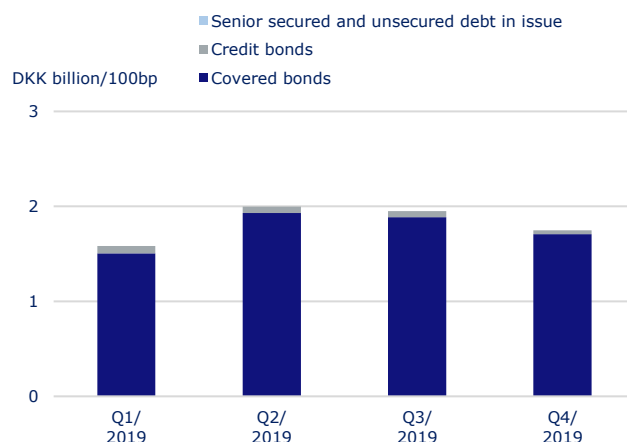
6.3.3 ▪ Other market risks

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

Nykredit hedges its foreign exchange risk and only has minor tactical foreign exchange positions held to achieve a gain. Therefore, the Group had only minor positions in currencies other than EUR in 2019.

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, trading book



6.4 ■ BANKING BOOK RISK

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

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 operations of Nykredit Realkredit and Totalkredit, as well as LR Realkredit and 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 the banking book was DKK 91 million at end-2019.

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 and national banks with which Nykredit has business relationships, equities in certain property companies and equities in VP Securities. The aggregate market value of these portfolios was DKK 5.7 billion at end-2019, up DKK 0.6 billion since last year.

Given the relatively large equity portfolio, equity price risk represents a substantial proportion of the Group's total market risk. For capital adequacy purposes, the risk associated with business-related equities is determined as credit risk exposure.

6.5 ■ MODELS FOR DETERMINATION OF MARKET RISK

In addition to the traditional risk 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 day-to-day internal risk management and in the determination of the regulatory capital requirement for positions involving market risk.

Use of the model to determine capital requirements is subject to the approval of the Danish Financial Supervisory Authority (FSA), which regularly reviews the models.

Nykredit Realkredit introduced significant improvements to the current VaR model in 2019, and in December 2019 the Danish FSA approved the revised model to calculate capital requirements. The model will be fully implemented in Q1/2020 and will form the basis for day-to-day risk management as well as for the continuous determination of the capital requirement for market risk.

The revised model is a historical simulation model, which significantly improves the current model in several respects. In particular, it provides for a new and more accurate modelling of, for instance, covered bonds and credit bonds, which was not precise enough under the previous model.

6.5.1 ■ VaR for day-to-day management

VaR model results are reported on a daily basis against prescribed limits and are determined as the 0.99 fractile of the distribution of daily returns over a rolling 1-year period. Daily VaR limits have been laid down at Group, company and organisational entity levels.

Nykredit Realkredit Group

Interest rate risk in the banking book by maturity

2019 DKK million	0-1 year	1-3 years	3-6 years	Over 6 years	Total
Nykredit Realkredit A/S	48	9	(16)	46	86
Totalkredit A/S	3	(8)	0	0	(4)
Nykredit Bank A/S	20	(10)	(1)	(1)	9
Total	71	(9)	(17)	46	91

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 the standardised approach, 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 applies the current VaR models for the regulatory determination of the capital requirement for general market risk. The models are applied to the trading books of Nykredit Realkredit A/S and Nykredit Bank A/S, while Totalkredit A/S and LR Realkredit A/S only apply the statutory standardised approach.

As for VaR for internal management, a 99% probability is applied to determine regulatory VaR, but the time horizon is 10 days instead of 1.

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 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 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.

Currently, the largest fluctuations have been observed in the period of the collapse of Lehman Brothers in September 2008. 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 29.3 billion at end-2019. Nykredit's total REA from VaR amounted to DKK 17 billion at end-2019, of which stressed VaR amounted to DKK 14.1 billion.

Thus, total REA is up on end-2018 when it amounted to DKK 27.4 billion. The rise is mainly due to an increase in REA calculated using the standardised approach, while REA calculated using VaR models reduces the rise.

Nykredit Realkredit Group

REA for market risk

			2019	2018
DKK million	Specific risk	General risk	Total REA	Total REA
Internal models (VaR):		17,966	16,937	17,966
Value-at-Risk (99%, 10 days)	-	2,855	2,859	2,855
Stressed Value-at-Risk (99%, 10 days)	-	15,112	14,078	15,112
Standardised approach:	7,355	1,627	12,398	9,421
Debt instruments	5,881	3,330	9,211	6,260
Equities	2,899	33	2,932	2,722
Collective investment schemes:			255	439
Settlement risk:			0	2
Total market risk			29,336	27,390

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.

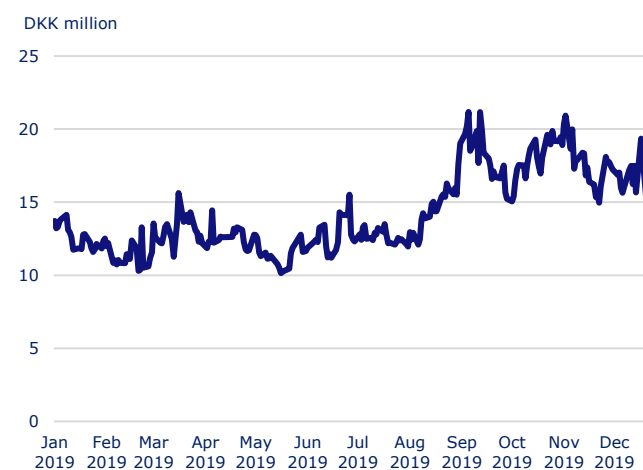
Due to the statistical properties of the models, the actual losses are expected to exceed the maximum loss predicted by the VaR model 2.5 times a year.

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 four backtest overshootings in 2019, and Nykredit Bank A/S recorded two. These overshootings had no impact on the Group's determination.

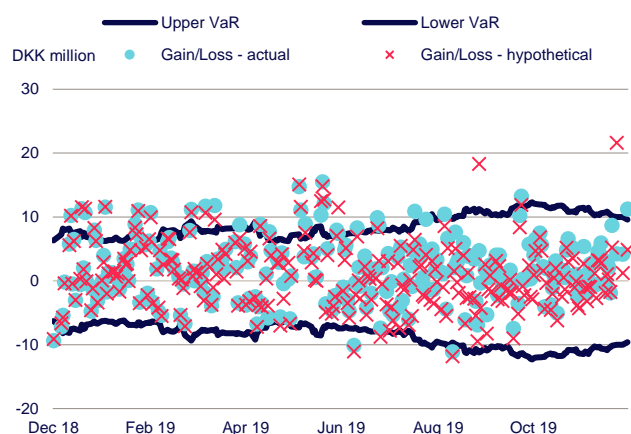
Nykredit Realkredit Group

Value-at-Risk



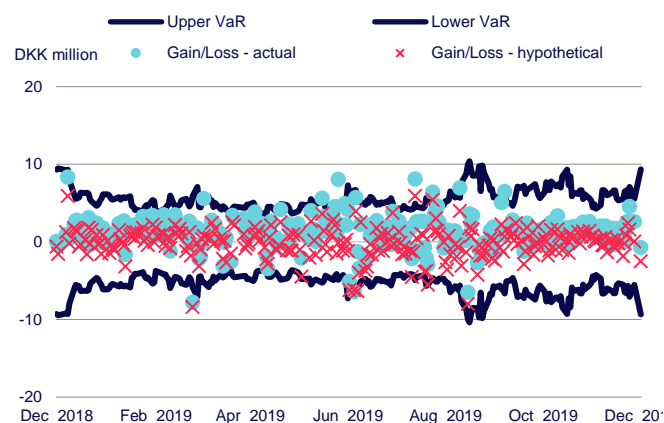
Nykredit Realkredit A/S

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 DEVELOPMENT

7.4 BALANCE PRINCIPLE AND MATCH FUNDING

7.5 REGULATORY REQUIREMENTS

- 7.5.1 Liquidity Coverage Ratio (LCR)
- 7.5.2 Liquidity and funding benchmarks
- 7.5.3 Intraday liquidity risk
- 7.5.4 Supplementary collateral
- 7.5.5 Debt buffer and MREL requirements
- 7.5.6 Net Stable Funding Ratio (NSFR)
- 7.5.7 New regulation of covered bonds
- 7.5.8 Stress testing

7.6 S&P GLOBAL RATINGS KEY RATIOS

- 7.6.1 Additional Loss-Absorbing Capacity (ALAC)
- 7.6.2 Overcollateralisation behind bond rating

7.7 FUNDING

- 7.7.1 Covered bonds
- 7.7.2 Green bonds
- 7.7.3 Issuance schedule
- 7.7.4 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 that Nykredit's funding costs become prohibitive.

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 Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR), Minimum Requirement for own funds and Eligible Liabilities (MREL), Additional Loss-Absorbing Capacity (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 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 credit 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 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 Group 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 Board Risk Committee and the Group Risk Committee.

7.3 - CURRENT RISK PROFILE AND DEVELOPMENT

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.

The funding margins on senior and subordinated debt decreased during 2019 in line with the general market development.

7.4 - BALANCE PRINCIPLE AND MATCH FUNDING

Nykredit's mortgage lending is governed by the balance principle, which provides limits to the financial risks Nykredit may assume in relation to lending and funding.

Nykredit operates according to the general balance principle, which allows the use of derivatives for risk hedging under certain conditions. In practice, Nykredit's mortgage lending is match funded. As a result, Nykredit's lending and related funding activities only incur negligible financial risks. Nykredit currently does not apply derivatives in connection with mortgage lending.

To eliminate interest rate risk and foreign exchange risk, the interest rate and foreign exchange terms of mortgage loans match those of the bonds funding the loans. Long-term fixed-rate loans maintain the same funding throughout the term of a loan. Adjustable-rate mortgages (ARMs) and variable-rate loans are funded by bonds with maturities that are shorter than the terms of the related loans, which are refinanced on maturity of the bonds. Customers' loan rates are adjusted upon refinancing at the yield-to-maturity of the bonds sold.

The outstanding funding is reduced with principal payments and loan redemptions. Borrowers cover Nykredit's costs of redemption.

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

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 on the basis of borrowers' debt outstanding. In addition, various fees may be charged.

7.5 - REGULATORY REQUIREMENTS

Legislation lays down a number of requirements for the composition and the amount of Nykredit's liquidity and funding in the short, medium and long term. At end-2019 all requirements had been met. Over the next few years, Nykredit will be faced with new regulation that will affect its funding requirement.

LR Realkredit is not included in the data on regulatory requirements. Data on LR Realkredit appear from LR Realkredit's annual report.

7.5.1 - Liquidity Coverage Ratio (LCR)

The regulatory requirement of LCR is used to assess Nykredit's short-term liquidity risk. The LCR reflects the proportion of liquid assets relative to net cash outflows over a 30-day period and must be at least 100%. Under this requirement, Nykredit must hold liquid assets adequate to withstand a liquidity stress for a period of at least 30 days.

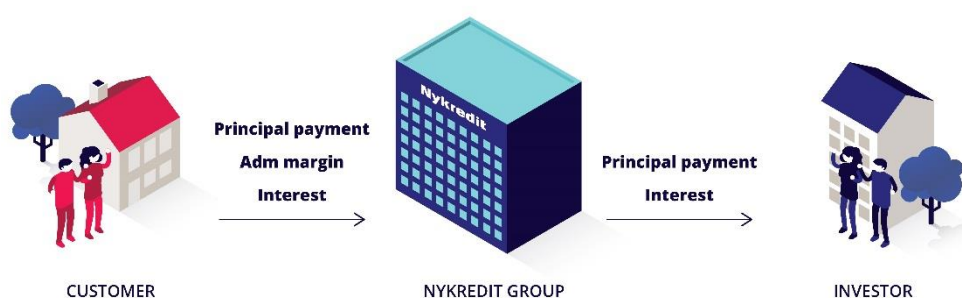
As appears from the table below, Nykredit's LCR was 955% and the excess liquidity coverage totalled DKK 104.0 billion at end-2019. The aggregate LCR of Nykredit's mortgage banks was 3,482%, while Nykredit Bank's LCR was 153%.

Liquidity Coverage Ratio

DKK billion	31.12.2019	31.12.2018
Nykredit Realkredit Group		
LCR (%) ¹	955	660
Excess LCR coverage (DKKbn) ¹	104.0	77.8
LCR EUR (%)	483	566
Nykredit Realkredit and Totalkredit		
LCR (%)	3,482	1,581
Excess LCR coverage (DKKbn)	26.3	31.6
Nykredit Bank		
LCR (%)	153	157
Excess LCR coverage (DKKbn)	20.9	17.7

¹ The determination of the liquid assets of Nykredit Realkredit and Totalkredit has been adjusted implying that the portfolio of liquid assets has a lower value than previously calculated, which has affected the liquidity coverage ratios (LCR) as at 31 December 2018 by 92%. Comparative figures have been restated.

Balance principle and match funding



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

The Danish FSA has granted Nykredit permission not to include mortgage lending and its funding in the calculation of LCR for Nykredit Realkredit and Totalkredit. The permission was motivated by the fact that match funding limits liquidity risk in relation to mortgage lending and its funding. 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-2019, liquid assets eligible for meeting the minimum requirement amounted to 3.9%, or DKK 49.1 billion, against a requirement of DKK 31.6 billion.

Over the next few years, the LCR minimum requirement will be replaced by an LCR Pillar II add-on. The add-on covers a potential liquidity requirement resulting partly from remortgaging cases where borrowers have terminated an existing loan for prepayment but have not raised a new loan, partly from the liquidity risk related to borrowers in arrears. The Danish FSA has developed a model for this, which is expected to enter into force in 2023. The existing LCR minimum requirement will therefore be maintained for now, and there will be an observation period from 31 December 2019 until commencement, during which the new Pillar II add-on must be reported to the Danish FSA.

The Danish FSA has introduced an additional liquidity requirement concerning foreign currencies. Under this requirement, Danish SIFIs must meet an LCR-like requirement in respect of significant currencies except for SEK and NOK. The currency 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 in foreign currencies must be 100% or more. At end-2019, Nykredit's LCR in EUR was 483%.

Nykredit is under a statutory obligation to disclose derivatives exposures and their effect on the LCR. Nykredit uses derivatives 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 and funding benchmarks

The Supervisory Diamond for banks includes two liquidity and funding risk benchmarks: the liquidity benchmark and the funding ratio.

The liquidity benchmark, which is based on the LCR, must be at least 100% and implies that Nykredit Bank must have sufficient liquidity to withstand a liquidity stress for a period of at least three months. At end-2019 Nykredit Bank's liquidity benchmark was 195%.

The purpose of the funding ratio, which must be below 1, is to ensure that the funding of Nykredit Bank's lending is sufficiently stable. The funding ratio indicates the relationship between lending and stable funding, which includes deposits, bonds in issue as well as subordinated debt with a time-to-maturity of more than one year, and equity. At end-2019 Nykredit Bank's funding ratio was 0.51.

7.5.3 • Intraday liquidity risk

Nykredit Bank's intraday liquidity risk is the risk that the Bank will not be able to meet its intraday financial obligations. 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 the Capital Centres E and H to maintain their SDO status, Nykredit must provide supplementary collateral for loans in case of property price declines where the LTV ratios exceed the statutory LTV limits.

Supplementary collateral is not required for public housing loans issued through SDO Capital Centre J, as these loans and bonds are 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 12.5 billion at end-2019 against DKK 13.8 billion at end-2018.

It is Nykredit's policy to have a collateral buffer in case of declining property prices. The minimum buffer is determined by means of stress testing.

Thanks to the buffer, Nykredit would have been able at end-2019 to absorb an immediate property price decline of about 16% without additional funding. The funding of the debt buffer requirement and the minimum requirement for own funds and eligible liabilities (MREL) raises Nykredit's ability to absorb a property price decline.

7.5.5 • Debt buffer and MREL requirements

The purpose of the MREL requirement is to ensure that in the event that the Nykredit Group fails, it can be recapitalised and restructured through a writedown or conversion of capital and debt instruments. The aggregate MREL and debt buffer requirement applies to Nykredit A/S at a consolidated level for the whole Group. As mortgage banks, Nykredit Realkredit and Totalkredit are exempt from the MREL requirement and are not included in the consolidation. The MREL requirement is therefore determined on the basis of the Group's banking activities.

The MREL requirement became effective on 1 July 2019. At end-2019 the requirement was DKK 39.4 billion. Nykredit currently 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.

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 regulatory requirement of a debt buffer of at least 2% of mortgage lending will be fully phased in by 15 June 2020. Nykredit already fully meets the 2% debt buffer requirement. As from 2022 the debt buffer

will be adjusted so that, together with own funds and the MREL requirement, it amounts to at least 8% of the consolidated balance sheet.

The MREL and debt buffer requirements may be fulfilled using the Group's own funds and bail-inable senior debt.

7.5.6 • Net Stable Funding Ratio (NSFR)

The revised Capital Requirements Regulation (CRR2) has been adopted, introducing the new, long-term liquidity measure, the NSFR.

The NSFR is a balance sheet metric expressing the relationship between the maturities of an institution's lending and the stability of its 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 and maturity.

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.

7.5.7 • New regulation of covered bonds

The EU has adopted a Covered Bond Directive aimed at harmonising and strengthening existing covered bond regulation. The Covered Bond Directive enters into force on 8 July 2022.

The Danish covered bond legislation already to a large extent complies with the requirements of the Directive, and Nykredit therefore does not expect the Directive to imply significant changes to the Danish mortgage system. However, the Directive includes aspects which may be of significance to Nykredit's funding. For instance, a minimum overcollateralisation (OC) requirement of 5% is introduced. This requirement may be lowered (but not below 2%) at national level if the OC requirement is risk-based, as it is in Denmark today. The funding need in relation to OC is therefore expected to grow.

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.

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 • 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). An ALAC maintained at 8% of S&P RWA or higher will currently trigger a 2-notch uplift of Nykredit's Issuer Credit Rating/senior rating. At end-2019 Nykredit's ALAC was 8.9%. The raising of funding to meet the new debt buffer requirement is expected to make ALAC rise.

7.6.2 • 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 57.0 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 79.3 billion eligible for OC purposes at end-2019.

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 adjustable-rate mortgages (ARMs), floating-rate loans etc. Nykredit also issues capital market funding to comply with regulatory requirements and rating criteria.

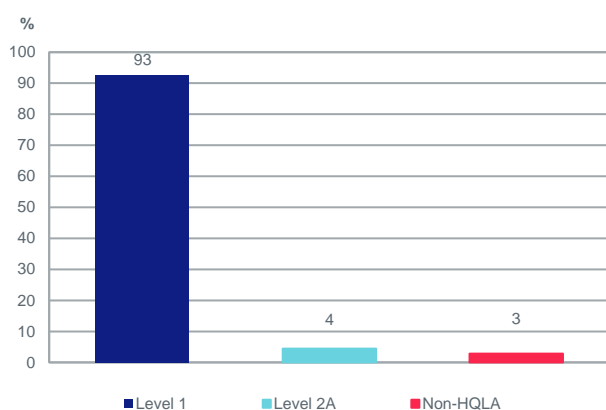
LR Realkredit is included in the data and charts in 7.7 Funding.

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)
- Tier 2 and Additional Tier 1 capital

Nykredit Realkredit Group

LCR classification of covered bonds funding loans at 31 December 2019



At end-2019 Nykredit had a nominal amount of DKK 1,263 billion of SDOs in issue and DKK 152 billion of ROs in issue. In compliance with the balance principle, the bond portfolio of the Group's mortgage banks up to a payment date includes a temporary portfolio relating to the refinancing of the covered bullet bonds used to fund Nykredit's ARMs, funds prepaid such as ordinary principal payments, prepayments and mortgage loans not yet paid out. Therefore, the value of bonds in issue exceeds the value of the mortgage loan portfolio up to a payment date.

7.7.1 ■ Covered bonds

Nykredit's balance sheet mainly consists of lending secured by mortgages on real estate funded through the issuance of mortgage covered bonds (SDOs and ROs). Mortgage covered bonds are issued through daily tap issuance coupled with refinancing auctions for ARMs, floating-rate loans etc.

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.

In 2019 Nykredit had primary dealer arrangements with a number of securities brokers for the purpose of underpinning liquidity and ensuring consistent market making in and efficient pricing of Nykredit's bonds.

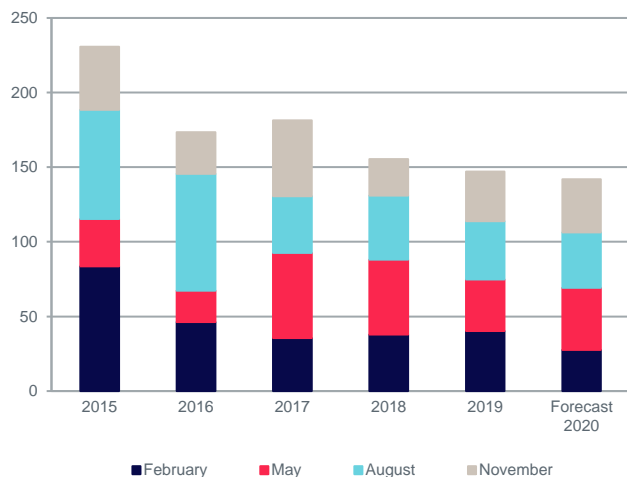
Due to the LCR, many banks prefer to invest in bonds with outstanding amounts of more than EUR 500 million and high credit ratings. As much as 93% of the outstanding amounts of Nykredit's active bond series are today classified in the top LCR category (Level 1), while 4% are in the second-best category (Level 2A).

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

Nykredit Realkredit Group

Refinancing auctions, SDOs and ROs

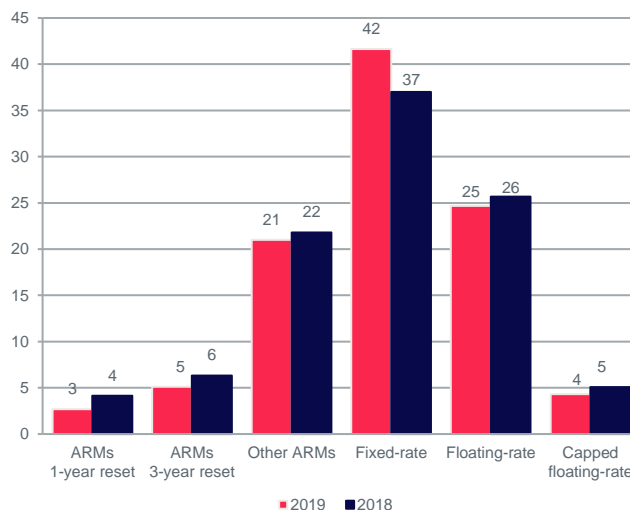
DKK billion



Nykredit Realkredit Group

Mortgage lending by loan type

%



To support the liquidity of bullet covered bonds, Nykredit is working towards a gradual phase-out of ARMs refinancing every 1 April and 1 October. Going forward, the refinancing of ARMs will be concentrated on the payment dates of 1 January and 1 July. Other products, such as Cita-linked loans, will continue to be refinanced on 1 April and 1 October, which serves to spread the aggregate amount of bonds maturing over the individual payment dates.

7.7.2 - Green bonds

Nykredit launched its first green bonds in H1/2019. Green mortgage loans are offered to finance energy-efficient buildings with energy label A or B or equivalent certification. The loans are currently offered to corporate clients. About DKK 6 billion-worth of green bonds had been issued at end-2019.

Nykredit's Green Bond Framework, which was established in compliance with ICMA's Green Bond Principles (GBP), describes the principles of green loans and determines which buildings are eligible for financing with green mortgage bonds.

7.7.3 - Issuance schedule

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

Nykredit expects to refinance bonds worth DKK 28 billion and DKK 42 billion at the auctions in February and May 2020, and DKK 37 billion and DKK 36 billion at the auctions in August and November 2020.

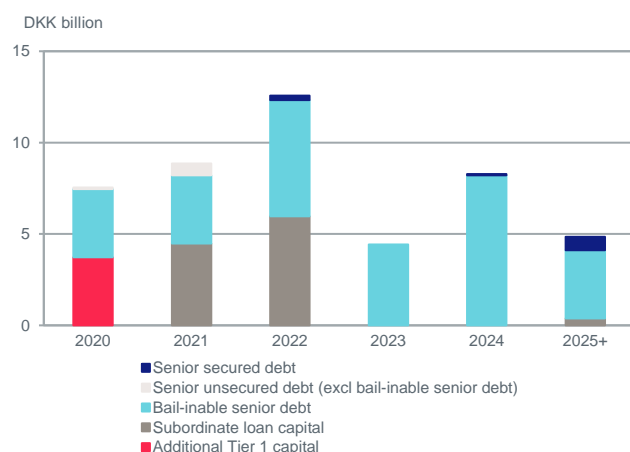
In light of the debt buffer/MREL requirement and S&P's ALAC criteria, Nykredit expects to issue about DKK 20 billion in 2020, primarily bail-inable senior debt. Nykredit has issued DKK 7.5 billion-worth of senior unsecured non-preferred debt in January 2020.

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. 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. ECP issuance will continue through 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.

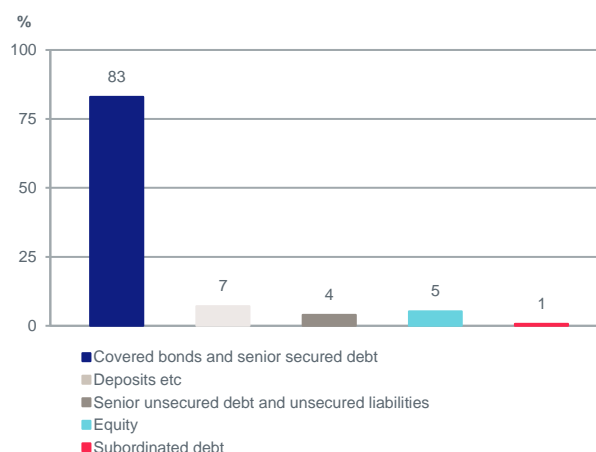
Nykredit Realkredit Group

Maturity profile of capital market funding



Nykredit Realkredit Group

Funding sources



7.7.4 - 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

On 5 November 2019 S&P upgraded the Issuer Credit Rating and the Resolution Counterparty Rating for Nykredit Realkredit and Nykredit Bank by one notch as a result of improved loss-absorbing capacity (ALAC).

Nykredit Realkredit and Nykredit Bank have subsequently been assigned long-term and short-term Issuer Credit Ratings of A+/A-1 with stable outlooks and long-term and short-term Resolution Counterparty Ratings of AA-/A-1+.

Senior unsecured non-preferred debt is rated BBB+ by 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 with stable outlooks and long-term and short-term senior unsecured preferred debt ratings of A+/F1.

Senior unsecured non-preferred debt is rated A by Fitch.

Nykredit Realkredit Group

Credit ratings

End-2019 DKK billion	Nominal	S&P	Fitch
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SDOs, ROs and senior secured debt

Nykredit Realkredit A/S

- Capital Centre C (covered bonds, RO)	0.6	AAA	
- Capital Centre D (covered bonds, RO)	22,5	AAA	
- Capital Centre E (covered bonds, SDO)	572,1	AAA	
- Capital Centre G (covered bonds, RO)	73,4	AAA	
- Capital Centre H (covered bonds, SDO)	662,6	AAA	
- Capital Centre H (senior secured debt, JCB)	0.9	AA-	
- Capital Centre I (covered bonds, RO)	8,0	AAA	
- Nykredit Realkredit In General (covered bonds, RO)	0.4	AAA	

Totalkredit A/S

- Capital Centre C (covered bonds, RO)	5,7	AAA	
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Other ratings

Nykredit Realkredit A/S

- Short-term Resolution Counterparty Rating	A-1+		
- Long-term Resolution Counterparty Rating	AA-		
- Short-term Issuer Credit Rating	A-1		F1
- Long-term Issuer Credit Rating	A+		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 Resolution Counterparty Rating	A-1+		
- Long-term Resolution Counterparty Rating	AA-		
- Short-term Issuer Credit Rating	A-1		F1
- Long-term Issuer Credit Rating	A+		A
- Short-term senior unsecured debt	A-1		F1
- Long-term senior unsecured debt	A+		A+
- Short-term Deposit Rating	A-1		F1
- Long-term Deposit Rating	A+		A+

¹ Bonds in issue at nominal value at 31 December 2019.

7.8 ■ ENCUMBERED ASSETS

Nykredit's main activity is to provide loans secured by mortgages on real estate. Nykredit's mortgage lending to customers is match 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, which is also considered to be encumbered. Liquid assets used to comply with the requirement of supplementary collateral are considered to be encumbered for the purpose of LCR determination.

Encumbered assets made up 83% of Nykredit's total assets at end-Q3/2019¹, the same as at end-2018. It is natural that Nykredit should have a relatively high asset encumbrance ratio. This 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.

¹ The Q4 level will not be known until after release of the Risk and Capital Management 2019 report, and the Q3 level is reported instead.

Nykredit

