dlrkredit

February 2021 Risk and Capital Management



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Disclosure requirements and introduction

Disclosure requirements

This Risk and Capital Management Report report is being published in compliance with DLR's disclosure requirements under the CRR rules. Quantitative disclosures pursuant to the EBA guidelines etc. are set out in a separate Pillar III appendix (in Excel format), which is published on the DLR website at https://dlr.dk/en/investor/financial-statements/ together with this report.

All information will be regularly updated to the extent deemed necessary, but at least once a year in connection with the release of DLR's Annual Report. Certain disclosures in the Pillar III appendix are updated quarterly or half-yearly.

It is the view of DLR that the information stated here complies with both the Pillar III information requirements as prescribed in both the CRR regulation (CRR articles 431-455) and the EBA's guidelines on disclosure requirements under the Pillar III requirements.

The Risk and Capital Management Report was published on 11 February 2021.

Introduction

DLR Kredit A/S ("DLR") is a Danish mortgage credit institution owned primarily by 50 local and national banks that collaborate with DLR.

DLR grants loans against mortgages on real property in Denmark for the financing of agricultural property – including residential farms – and other commercial properties and private cooperative housing. DLR also grants loans, on a limited scale, in Greenland and the Faroe Islands, primarily for owner-occupied homes and residential rental properties and, on a smaller scale, office and retail properties. At the end of 2020, DLR's loan portfolio in terms of nominal outstanding bond debt amounted to DKK 164.3bn, of which loans granted in Greenland and the Faroe Islands amounted to a total of DKK 3.0bn. or 1.8% of the loan portfolio.

In 2020, DLR had on average 210 FTE employees and 24 fee-based agricultural expert appraisers. DLR has no branch offices, as loans are distributed through the branch networks of DLR's shareholder banks.

DLR's loan portfolio grew by DKK 9.3bn in 2020. Lending for agricultural properties accounted for 55.0% of the portfolio, while lending for residential farms and owneroccupied homes made up 5.5% of the portfolio at end-2020. The remaining 39.5% was accounted for by loans for commercial property, mainly office and retail property, private residential rental property and cooperative housing.

DLR generated a satisfactory pre-tax profit of DKK 960m in 2020. With total own funds after deductions of DKK 14.9bn and a total risk exposure of DKK 79.5bn, DLR's total capital ratio was 18.8% at year-end 2020.

DLR's overriding risk is credit risk, i.e. the risk that borrowers default on their loans with DLR. Credit risk is limited by collateral in the form of DLR's mortgages on the properties and also by the guarantee and loss-mitigating agreements DLR has signed with its loan-distributing shareholder banks.

DLR is committed to taking part in the green transition. Failure to take part in the green transition entails a variety of long-term risks, and DLR has therefore set new sustainability goals in 2020 to be achieved by offering borrowers green loans and green bonds.

The first steps were taken in January 2021, when DLR launched green loans and also announced the conditions for its green funding initiative, see <u>https://dlr.dk/wp-con-tent/uploads/2021/01/DLR-Kredit-Groent-rammevaerk-2.pdf</u>

Management statements

The Risk and Capital Management Report was approved by the Board of Directors of DLR Kredit A/S on 11 February 2021.

In the opinion of the Board of Directors, DLR's risk management is adequate and ensures that the risk management systems implemented meet all requirements under DLR's profile and strategy.

Furthermore, the Board of Directors believes the below description of DLR's general risk profile gives a true and fair view of DLR's risk management and risk appetite.

The Board of Directors' assessment is based on the Board-approved business model and strategy and reports submitted to the Board of Directors by the Executive Board, Internal Audit, the Chief Risk Officer and the Chief Compliance Officer.

A review of the business model and policies shows that the general requirements of the business model for each risk area are fully and comprehensively reflected in the specific limits of the individual policies. A review of the Board of Directors' instructions to the Executive Board and the authorities delegated indicates that the limits stipulated in individual policies are fully and comprehensively reflected in the underlying instructions to the Executive Board and the authorities delegated, and that real risks are within the limits stipulated in individual policies and authorities. On this basis, the Board of Directors considers the business model, policies and instructions to be consistent with the real risks in the individual areas.

DLR's business strategy is based on its goal of being the preferred collaboration partner for the shareholders within its market area. DLR aims to achieve profitable operations based on product pricing that reflects its risks and capital commitments together with an overall assessment of the scope of its business with customers and counterparties. DLR aims to have an adequate and robust capital base that supports its business model and the rating of issued bonds.

The maximum risk tolerance accepted by the Board of Directors is managed via defined limits in individual policies and guidelines, etc. These include the following three areas of control:

- DLR has defined a target for its capital ratio for 2021 of 17.5%, while the targets for the tier 1 capital ratio and the common equity tier 1 capital ratio are 15.5% and 14.0%, respectively.
- DLR's Board of Directors has defined a leverage ratio threshold of 5%, which is above the statutory requirement of 3%. DLR's leverage ratio was 7.1% at the end of 2020
- With regards to activities on the financial markets, DLR aims for a maximum interest rate risk of 2.5%, which is below the statutory requirement of 8%. DLR's interest rate risk on the bond portfolio was 1.0% at the end of 2020

The Board of Directors also takes into account other statutory limits in laying down DLR's risk management policies.

Copenhagen, 11 February 2021

Executive Board

Jens Kr. A. Møller	Pernille Lohmann
Managing Director & CEO	Managing Director

Board of Directors

Vagn Hansen	Lars Møller
Chairman	Vice Chairman

Claus Andersen	Lars Faber	Randi Franke
Jakob G. Hald	Kim Hansen	Søren Jensen
Bjarne Larsen	Frank Mortensen	Lars Petersson

Risk governance and management

DLR is exposed to various types of risk, notably credit risk. Other types of risk include market risk, liquidity risk, operational risk and IT risk, including cyber security risk, all of which are explained in greater detail in the following sections. DLR's business model and the types of risk to which DLR is exposed are closely linked.

Board of Directors and Board committees

DLR's Board of Directors has overall responsibility for defining and monitoring DLR's risk exposures. Based on DLR's business model and risk assessments, etc., the Board of Directors has defined policies and guidelines and, by extension, limits for the risks that DLR is prepared to assume. Delegation of responsibility throughout the organisation is based on these policies, guidelines and limits. DLR's organisation comprises an Executive Board and a number of function heads who all report to the Executive Board.

The Board of Directors and the Executive Board have overall responsibility for DLR's risk management, internal controls, compliance with relevant legislation and other regulations in relation to DLR's choice of risk exposure. The Board of Directors and the Executive Board set and approve general policies, guidelines, procedures and controls in key risk management areas.

Pursuant to statutory requirements, the Board of Directors has also established an internal audit function that reports to the Board of Directors and which, in accordance with a Board-approved audit strategy, audits processes and internal controls in areas of importance and material risk.

At the end of 2020, DLR's Board of Directors consisted of 11 members, six of whom were elected at the Annual General Meeting. Of the shareholder-elected Board members, three were elected from among the members of the Association of Local Banks, Savings Banks and Cooperative Banks in Denmark, and three from among the members of National Banks in Denmark. The remaining five members of the Board of Directors were elected by DLR's employees.

The composition of the Board of Directors at end-2020 and information about other directorships held by the members of the Board of Directors is set out in DLR's 2020 Annual Report.

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Four committees have been set up under DLR's Board of Directors to monitor specific areas or prepare matters to be discussed by the Board as a whole.

- The Audit Committee is charged with supervising the financial reporting process and monitoring that DLR's internal control, security, internal audit and risk management systems function effectively. The Committee's meetings are attended by DLR's internal and external auditors.
- The Risk Committee is charged with ensuring that DLR's Board of Directors is adequately equipped to address, manage, monitor and mitigate the risks that DLR is or may be exposed to. As such, the Risk Committee must maintain a comprehensive view of the risks associated with DLR's activities. All Risk Committee meetings are attended by DLR's Chief Risk Officer.
- The Nomination Committee is charged with ensuring that DLR's Board of Directors has the necessary level of knowledge and experience. The Committee nominates new board members, evaluates the competencies represented on the Board, etc.
- The Remuneration Committee undertakes preparatory work in relation to the Board of Directors' decisions, knowledge and controls with respect to remuneration. In addition, the Committee maintains a list of DLR's material risk takers.

Committee members are drawn from DLR's Board of Directors, including the members elected at the Annual General Meeting and employee representatives. Information about the composition of board committees and their duties is also provided in DLR's 2020 Annual Report.

Members of DLR's Board of Directors are elected by the shareholders at the Annual General Meeting. Auditors are eligible for re-appointment.

DLR will continually ensure that the members of DLR's Board of Directors have the collective knowledge, professional skills and experience required to execute DLR's business model and strategy. The Nomination Committee set up under the Board of Directors prepares the full Board's review of issues associated with the knowledge and experience possessed by DLR's board members.

One of the responsibilities of the Nomination Committee is to nominate candidates for DLR's Board of Directors and to prepare a description of the functions and qualifications required to participate in the work of the Board of Directors.

When nominating candidates for the Board of Directors, the Nomination Committee takes into account considerations related to the underrepresented gender and diversity. DLR's Board of Directors has adopted a policy on board diversity for DLR Kredit A/S. The Board of Directors' aim with the policy is to promote the diversity that is relevant and necessary for its Board of Directors. The composition of the Board should be based on a diversity of skills and backgrounds. Emphasis has been placed on the need for diversity with respect to factors such as professional skills, work experience, gender and age. DLR's reports on the underrepresented gender and its diversity policy are described in further detail in DLR's report on corporate social responsibility for 2020.

DLR's Board of Directors has adopted a remuneration policy for DLR Kredit A/S which has been approved at the Annual General Meeting. The remuneration policy may be found at DLR's website (https://dlr.dk/om-os/). Quantitative data on the remuneration of staff affecting the risk profile is provided in note 7 in DLR's 2020 Annual Report.

Risk management at DLR - the three lines of defence

DLR's Executive Board ensures that risks are managed and mitigated as directed by the Board of Directors. Risk management at DLR is shaped around the three lines of defence model:

- First line of defence: Functions that own and manage risks. Individual department heads at DLR are responsible for identifying, measuring, managing and reporting risks and for ensuring that adequate controls are in place. Department heads are also responsible for preparing/updating business procedures (including for compliance with new laws and industry regulations).
- Second line of defence: Risk Management and Compliance, which are independent advisory and control functions reporting directly to the Executive Board. The primary focus of the Compliance function is to oversee that the first line of defence complies with the law. The primary focus of the Risk Management function is to address future threats by defining how the first line of defence should identify, measure, manage and report risk.
- Third line of defence: Internal Audit, which is independent of the Executive Board and of the performance of tasks in the first and second lines of defence. The Internal Audit function reports directly to the Board of Directors and the Board's Audit Committee.



Figure 1. Risk management at DLR - the three lines of defence

Risk Management must maintain a comprehensive view of DLR and DLR's risks for purposes of assessing whether adequate risk management is in place. The Risk Management function is responsible for establishing the framework for appropriate identification, measurement, management and reporting of all material risks. Risk Management is an independent advisory, control and reporting function which does not own individual risks but owns the framework for managing risk across DLR. The Risk Management Officer reports directly to DLR's Executive Board.

DLR has also established a Compliance function, which reports to the Executive Board. The Chief Compliance Officer is in charge of assessing and checking whether DLR complies with relevant legislation, market standards and internal rules. The Chief Compliance Officer also serves as Data Protection Officer (DPO).

Internal risk committees

With a view to maintaining ongoing focus on proper risk management across the DLR organisation, the Executive Board has set up three internal risk committees:

- The Credit Risk Committee manages cross-organisational credit risks. This includes monitoring developments in credit portfolio risk exposures, monitoring IRB models and internal ratings, LTV monitoring, etc. The committee does not monitor individual provided credit.
- **The Liquidity and Market Risk Committee** manages DLR's liquidity and market risks. This includes monitoring interest rate risk, credit spread risk, investor distribution, market conditions for bonds, funding plans, refinancing auctions, etc.
- The IOC Risk Committee manages cross-organisational IT, operational and compliance risks (cross-organisational non-financial risks). Specific operational and compliance risks pertaining to the credit area or the securities area are managed by the Credit Risk Committee or the Liquidity and Market Risk Committee.

The Executive Board is represented on all three internal risk committees. Risk Management is also represented on all three internal risk committees, while Compliance is represented on the IOC Risk Committee.

Risk taxonomy

The following risk taxonomy is applied across the DLR organisation. The risk categories cover both financial and non-financial risks.

Risk type	Risk category	Definition
	Credit risk	Loss arising as a result of borrowers defaulting on payment obligations (incl. counterparty risk)
Financial risks	Market risk	Loss arising as a result of movements in finan- cial markets, i.e. interest rate, share price and exchange rate risk (incl. credit spread and convexity risk)
	Liquidity risk	Loss arising as a result of inability to meet fi- nancial obligations falling due in the short or medium term (incl. funding risk)
	Operational risk	Loss arising as a result of inappropriate or in- adequate internal procedures, human or sys- tem error or error caused by external events (excl. compliance and IT risk)
Non-financial risks	Compliance risk	Loss arising as a result of non-compliance with applicable regulations, market stand- ards or internal rules
	IT risk	Loss arising as a result of system error or non- compliance with IT security protocols (incl. cyber security risk)

DLR's risk management processes within the above risk categories are described in more detail in the following sections.

Risk reporting

DLR has a comprehensive risk register covering all types of risk. Annually, DLR performs a risk and control assessment, the result of which is documented in DLR's risk register. Significant risks in the risk register are updated at least quarterly. The risk register provides a basis for DLR's risk reporting process.

Once every quarter, three overviews of the most significant risks are prepared in the risk register:

- Risk overview Lending at DLR (included in the quarterly lending report)
- Risk overview Securities trading at DLR (included in the quarterly securities report)
- Risk overview DLR's other areas (reported to the Board of Directors on a quarterly basis)

Furthermore, a comprehensive internal risk report is prepared annually for the Board of Directors, who determines whether risk levels are acceptable. In addition, a number of reports and overviews are prepared with respect to risk and regulatory requirements, etc. The necessity and extent of reporting is regularly adjusted in line with regulations, etc. In addition, the Board of Directors is briefed on a more general level at board meetings, which are held at least four times a year in connection with the financial reporting process. Table 1 provides an overview of the risk reports presented to the Executive Board and the Board of Directors on a regular basis.

Table 1. Risk reporting overview

Reporting	Recipient	Frequency
Credit risk reporting		
Monthly statistics (lending portfolio, market share and rating)	BOD	Monthly
Lending report (incl. Risk overview of lending area)	BOD	Quarterly
Quarterly report on losses, arrears, etc.	BOD	Quarterly
Distributed loans by bank	BOD	Quarterly
Briefings – Ioan offers	BOD	Quarterly
Credit rating and financial counterparty monitoring	BOD	Semi-annu- ally
Review of assets (S. 78)	BOD	Annually
IRB validation report	BOD	Annually
Validation of approaches to measuring expected losses (im- pairment)	BOD	Annually
Market and liquidity risk reporting		
Market risk on securities portfolio	EB	Every two weeks
Securities report (incl. Risk overview of the securities trading area)	BOD	Quarterly
Liquidity report (ILAAP)	BOD	Annually
Cross-organisational risk reporting (incl. non-financial risks)		
DLR's internal risk report	BOD	Annually
Risk and capital management (Pillar III report)	BOD	Annually
Compliance report	BOD	Annually
DPO report (personal data compliance reporting)	BOD	Annually
Money laundering and terrorist financing reporting	BOD	Annually
Capital management reporting		
Capital position – individual solvency need (ICAAP)	BOD	Quarterly
Quarterly capital requirements compliance report	BOD	Quarterly
Quarterly recovery indicator report	BOD	Quarterly
Quarterly cover pool report	BOD	Quarterly
Recovery plan	BOD	Annually
Capital position – contingency plan	BOD	Annually

Capital position

DLR's capital management efforts are governed by the Danish Financial Business Act, the Danish Executive Order on Calculation of Risk Exposures, Own Funds and Solvency Need, and Regulation (EU) no. 575/2013 of the European Parliament and of the Council of 26 June 2013. The Board of Directors and the Executive Board are responsible for ensuring that DLR's capital structure is appropriate and complies with regulatory requirements.

Capital management

DLR's capital structure should ensure capital adequacy and thus create a longterm foundation for running a sound mortgage credit business, involving bonds issued on competitive terms. Moreover, the capital structure should be based on a high level of equity, having regard to the cost of other capital components such as additional tier 1 capital and tier 2 capital. DLR must also have adequate capital resources to ensure continual LTV compliance with respect to issued covered bond (SDO) loans and to meet rating agency OC requirements and debt buffer requirements.

Capital targets

DLR is focused on both existing and potential future requirements for credit institutions' composition of capital. The purpose of DLR's capital targets is to ensure that DLR has adequate own funds to ensure a sound business operation, even during economic slowdowns.

DLR's capital requirement is made up of the basic 8% requirement plus the combined capital buffer requirements and possible pillar 2 requirements. The combined capital buffer requirement was reduced in 2020 because the countercyclical capital buffer was lowered to 0 as a result of the COVID-19 pandemic. DLR aims to have additional excess coverage relative to the regulatory capital requirements.

DLR's 2021 target for the capital ratio, given the regulatory requirements currently known, is 17.5%. The targets for the tier 1 capital ratio and the common equity tier 1 capital ratio have been set at 15.5% and 14.0%.

Long-term capital plan

DLR's capital management is based on a long-term capital plan designed to meet regulatory requirements and ensure adequate capital for commercial initiatives. The capital plan is adjusted on an ongoing basis to take into account lending growth, capital initiatives, earnings, regulatory changes, etc.

DLR's capital plan going towards 2025 centres on the following:

- Consolidation of future financial profits.
- Use of the IRB approach for the calculation of risk exposure on the full-time agriculture property portfolio. DLR is working to expand the use of the IRB models to other parts of the portfolio, but any effects hereof are not reflected in the capital plan.
- Continual compliance with LTV requirements and rating agency OC requirements.
- Compliance with current debt buffer requirements.
- Gradual implementation of DLR's universal guarantee concept.
- Inclusion of other potential operational factors, such as expected developments in losses and impairment charges, lending growth, etc.
- Considerations with respect to the impact of future regulatory measures.

DLR's capital structure is regularly evaluated against the capital plan.

Own funds and capital ratio

DLR's own funds are mainly based on equity. Tier 2 capital makes up a minor proportion of DLR's own funds. The individual components of DLR's own funds at 31 December 2020 are shown in tables 2 and 3.

DLR's own funds increased by DKK 972m in 2020. The increase was driven by DLR's 2020 profit of DKK 749m. In addition, shares for DKK 110m have been sold from DLR's proprietary portfolio, while deductions from own funds due to the difference between the expected loss and the impairment for accounting purposes has been reduced by DKK 99m.

The risk exposure amount has been reduced from DKK 81.8bn to DKK 79.5bn. A number of factors have affected the calculation of the risk exposure in 2020, where there was a higher discount on the risk exposure towards small and medium-sized enterprises and a changed approach by the Danish FSA for loans to agricultural properties. Also, the risk weight on DLR's loans for the agricultural sector and comprised by the IRB portfolio has been reduced.

At year-end 2020, DLR's own funds were composed entirely of common equity tier 1 and tier 2 capital. Tier 2 capital accounted for DKK 1.3bn of total own funds after deductions of DKK 14.9bn.

(DKKm)	2020	2019
Share capital	570	570
Share premium	0	0
Reserves (locked-up capital)	2,338	2,338
Retained earnings	10,513	9,557
Profit for the year	749	846
Tier 1 primary deductions:	-564	-664
Tier 1 capital less primary deductions (CET 1 capital)	13,618	12,647
Additional tier 1 capital	0	0
Common equity tier 1 capital	13,618	12,647
Other deductions	0	0
Tier 1 capital incl. additional tier 1 capital	13,618	12,647
Tier 2 capital	1,300	1,300
Included tier 2 capital	1,300	1,300
Own funds before deductions	14,918	13,947
Deductions from own funds	0	0
Own funds after deductions	14,918	13,947

Table 3. DLR's capital ratio

(DKKm)	2020	2019
Equity:		
- Distributable reserves	11,845	10,973
– Non-distributable reserves	2,338	2,338
Total equity	14,183	13,311
Own funds after deductions	14,918	13,947
Weighted risk exposure	79,467	81,784
Adequate own funds (preliminary)	7,296	7,529
DLR's total capital ratio	18.8%	17.1%

Total capital ratio

DLR's total capital ratio was 18.8% at 31 December 2020. DLR has calculated the risk exposure on its full-time agriculture portfolio using the IRB approach, while the standard method was used for the rest of the portfolio.

The common equity tier 1 (CET 1) capital ratio was 17.1% at end-December 2020.



Figure 2. DLR's total and CET 1 capital ratios

Both the CET 1 capital ratio and the total capital ratio have been on an upward trend for quite some time. Based on the current level of own funds and expected earnings, DLR expects to be favourably positioned to comply with gradually increasing capital requirements.

Capital requirements

The statutory capital requirement for DLR was 12.7% at 31 December 2020. The capital requirement is based on the classic 8% requirement plus the SIFI requirement, which for DLR is 1.0%, a capital conservation buffer of 2.5% and a solvency requirement (pillar II requirement) of about 1.2%. The countercyclical capital buffer was set at 0%.

Solvency requirement, adequate own funds and solvency need

DLR's Board of Directors discusses and approves DLR's adequate own funds and solvency need at least once every quarter based on a recommendation from the Executive Board. DLR's Risk Committee reviews the calculation prior to submission to the Board of Directors. In addition, at least once a year, the Board of Directors determines the methods to be used for the calculation of DLR's solvency need, including which risk areas, stress tests and benchmarks should be considered.

In this calculation, DLR follows the guidelines set out in the Executive Order on Risk Exposures, Own Funds and Solvency Need and the Danish FSA's guidelines, etc. DLR's calculation of the adequate own funds is made on the basis of the credit reservation approach ("8+ approach"), which is the official method of the Danish FSA. Using this approach, the individual risk areas are reviewed, and it is assessed whether special risks exist in individual areas. These are credit risks, market risks, operational risks and IT risks. The assessment is based on DLR's risk profile, capital position and any significant forward-looking factors, including budgets.

DLR's resilience is assessed by means of, among other things, stress tests covering several different scenarios as defined in the Danish FSA's macroeconomic stress

test. Also included are scenarios developed by DLR in-house. On the basis of these scenarios, an assessment is made of the adequacy of DLR's earnings and own funds.

The calculation is further supported by management estimates. DLR's risks are assessed in the following main areas. Within each main area, relevant risks are assessed in a number of sub-areas. An estimation is also made as to whether other factors require an add-on to own funds.

- Credit risk
- Earnings and growth
- Credit risk for large customers
- Model uncertainty
- Other credit risks
- Counterparty risk (financial counterparties)
- Credit risk concentration
- Market risk, including
 - Interest rate risk
 - Share price risk
 - Exchange rate risk
- Liquidity risk
- Operational risk
- Risks associated with information and communications technology (ICT)
- Leverage

The risk factors comprise areas that management is required to take into account in determining DLR's capital adequacy requirement and solvency need. Relevant departments are also involved in determining DLR's adequate own funds and solvency need and in preliminary and subsequent discussions of stress tests etc. for the various business areas.

Credit risk is DLR's largest risk area and the area accounting for the major proportion of the solvency need. See table 4. DLR therefore has considerable focus on this area. DLR applies the IRB approach for the calculation of the risk exposure of its fulltime agriculture property portfolio. For the rest of the portfolio, DLR uses the standard method for the calculation of credit risk exposure. See the section on Credit risk for further details.

Market risk is another important category for DLR. DLR sets aside capital equivalent to 8% of the risk exposure amount for market risk. Moreover, DLR also assesses whether it is exposed to additional risk that requires a capital allocation above the 8%. DLR's market risk is estimated to be limited due to the balance principle, just as DLR has set narrow limits for interest rate risk. **Operational risk** is defined as the risk of direct or indirect loss caused by inadequate or faulty processes, systems, etc. Given DLR's single-pronged business model, its focus on internal processes, etc., this risk is considered to be limited. DLR employs the Basic Indicator Approach (BIA) for the calculation of the capital requirement for operational risk.

ICT risk is defined by DLR as the risk of loss caused by system error or non-compliance with IT security protocols. A risk assessment is carried out on this basis.

As well as the above-mentioned factors, management regularly assesses if additional factors should be included in the calculation of adequate own funds and solvency need.

DLR thus allocates the statutory 8% capital requirement for each risk area and then assesses whether further capital should be set aside; for example due to large exposures, the general credit quality of the portfolio or elevated market risk. In determining whether additional capital is required, DLR relies on either the stress tests prescribed by the Danish FSA's guidelines, DLR's proprietary stress tests or an assessment made on the basis of management estimates as to whether individual business areas require additional capital.

DLR's adequate own funds were calculated at DKK 7,296m at year-end 2020. See table 4. As DLR's total risk exposure amount (REA) was DKK 79,467m, this equates to a solvency need of 9.18%.

In accordance with CRR article 92, DLR has calculated its excess capital relative to the individual solvency need at 6.1 percentage points or DKK 4.8bn at year-end 2020. See table 5. DLR considers this to be a satisfactory level.

Table 4. DLR's adequate capital base and solvency need at 31 December 2020(preliminary)

Risk area	Adequate own funds (DKKm) (DKKm)	Solvency need
Credit risk	6,493	8.17%
Market risk	611	0.77%
Operational risk	192	0.24%
Other factors	0	0
Internally calculated solvency need	7,296	9.18%
Add-ons (special risks)	0	0
Total	7,296	9.18%

Source: Calculation of adequate own funds and solvency need at https://dlr.dk/en/investor/financial-statements/

Table 5. DLR's own funds and excess coverage at 31 December 2020

Key figures and financial ratios	Amount (DKKm)
Own funds after deductions	14,918
Adequate own funds	7,296
SIFI buffer	795
Capital conservation buffer	1,987
Countercyclical capital buffer	0
Systemic buffer Faroe Islands	10
Excess capital	4,831
Total capital ratio	18.8%
Individual solvency need, %	9.2%
SIFI buffer	1.0%
Capital conservation buffer	2.5%
Countercyclical capital buffer	0.0%
Systemic buffer Faroe Islands	0,0%
Excess capital, percentage points	6.1%

Additional collateral, OC and debt buffer

For loans based on the issuance of covered bonds (SDOs), DLR must provide additional collateral if the LTV is exceeded due to, for example, a fall in the value of the property provided as collateral. DLR continually monitors for compliance with this obligation. The amount of additional collateral has declined in recent years. Besides the costs of overcollateralisation, the risk and cost of LTV compliance is linked to credit risk, as losses on the loan portfolio will be correlated with falling property prices.

To cover an LTV overrun, DLR may use both own funds and any proceeds from other debt issues placed in Capital Centre B and, to a certain extent, claims against banks.

DLR has issued DKK 3bn in senior secured bonds (SSB) that can be used both for LTV compliance and as overcollateralisation (OC) to support bond ratings. DLR has also issued DKK 3bn in Senior Non-Preferred Notes (SRN) and DKK1bn in Senior Resolution Notes (SRN) to comply with the debt buffer requirement. The proceeds from these issues can also be used as additional collateral.

Leverage

In the course of the past ten years, DLR's leverage ratio (calculated as lending relative to equity) has dropped sharply from about 19 in 2010 to 12 at 31 December 2020. See figure 3. The slight increase in the leverage ratio since 2015 is a reflection of several factors, including DLR's buyback of equities from Finansiel Stabilitet and Danmarks Nationalbank in 2016 and from the loan-distributing banks in 2019 and lending growth since 2016.

The current low leverage ratio is very positive for DLR's aggregate risk.



Figure 3. DLR's leverage ratio (ratio of lending to equity)

Applying the current CRR definition of leverage ratio, according to which leverage is calculated as the total risk exposure amount (REA) relative to tier 1 capital, DLR's leverage ratio was 7.1% at year-end 2020. See figure 4 and table 7.

DLR's Board of Directors has defined a leverage ratio threshold of 5% in accordance with the CRR definition. DLR's current leverage ratio of 7.1% thus provides a significant excess coverage relative to both the 5% requirement defined by the Board of Directors and the regulatory requirement of 3%. Reference is made to the Pillar III appendix for further information on DLR's leverage ratio.





Table 7. DLR's leverage ratio under CRR, end-2020 (DKKm)

	2020	2019
Total assets according to financial state- ments	181,083	173,444
Total balance sheet exposures as per CRR	181,719	174,001
Off-balance sheet items, loan offers, etc.	9,490	10,118
Deductions from tier 1 capital	-564	-664
Adjustment for derivative financial instru- ments	2	1
Total exposure for leverage ratio calculation	190,647	183,456
Tier 1 capital	13,618	12,647
Leverage ratio	7.1%	6.9%

Debt buffer

All mortgage credit institutions must maintain a debt buffer of 2% of their total unweighted lending. For DLR, this means a debt buffer of DKK 3.3bn.

The debt buffer may consist of equity, additional tier 1 capital, tier 2 capital and unsecured senior debt – all capital/debt should be issued by the General Capital Centre. In addition, issued capital/debt should have a maturity of at least two years at issuance.

In mid-2018, a supplementary debt buffer requirement was adopted. According to this requirement, the institution's required own funds and debt buffer combined must represent at least 8% of its total liabilities. This requirement must be met by 1 January 2022.

DLR has issued a total of DKK 4bn in Senior Non-Preferred Notes (SNPs) and Senior Resolution Notes (SRNs) in order to meet the debt buffer requirement. SNPs and SRNs are both unsecured debt that can be written down or converted into shares in case of resolution. SNPs and SRNs rank equally for payment in case of resolution. Both types of senior debt are eligible for inclusion in S&P's calculation of an institution's Additional Loss-Absorbing Capacity (ALAC) and can thus provide an uplift to the issuer rating.

Rating

DLR was first rated by S&P in May 2012. At that time, DLR was assigned an issuer rating of BBB+ (Long-Term Credit Rating) with a stable outlook. Since May 2017, however, DLR has held an issuer rating (Issuer Credit Rating – "ICR") of A-. The rating is supported by an ALAC support uplift of +1, which is added to DLR's Stand-Alone Credit Profile (SACP) of bbb+. DLR's covered bonds (SDOs) and mortgage bonds (ROs) have been assigned the highest rating of AAA. Under S&P's Covered Bond rating method, it is possible to obtain a bond rating that is up to nine notches above the ICR. S&P deducts one notch for DLR not committing to a particular OC level (voluntary OC). With an ICR of A-, DLR only needs to advance by six of the eight remaining notches to achieve AAA rating and thus has two unused uplifts in its bond rating. This contributes to lowering the OC requirement on DLR's capital centres.

Table 8. DLR's S&P ratings, end-2020

Bond rating	
Capital Centre B (SDO)	AAA (stable)
General Capital Centre (RO)	AAA (stable)
General Capital Centre (SRN)	BBB (stable)
Other ratings	
lssuer (Long-Term)	A- (stable)
Issuer (Short-Term)	A-2 (stable)

SACP	bbb+		+ Support	+1	+	Additional Factors
Anchor	bbb+		ALAC			Issuer Credit Rat- ing
Business Position	Moderate	-1	Support	+1		
Capital and Earnings	Strong	+1	GRE	0		
Risk Position	Ade- quate	0	Support			A-/Stable/A-2
Funding	Average	0	Group Support	0		
Liquidity	Ade- quate	0	Sovereign Support	0		

Figure 5. Rating composition overview

Table 9. DLR's covered bond rating with S&P

Issuer Credit Rating (ICR)	A-
Sovereign support	0
Adjusted ICR	A-
BRRD uplift	+2
Reference Rating Level (RRL)	A+
Jurisdiction support	+3
Jurisdiction Rating Level (JRL)	AA+
Collateral support	+4
Max achievable CB rating	AAA
Used collateral support notches	-1
Voluntary OC	-1
Unused uplift	2

S&P's OC requirements compatible with the AAA rating have most recently been set at 10.08% for Capital Centre B and 2.50% for the General Capital Centre. The OC requirements are met for the nominal bond amount in the capital centre and covered by surplus capital in the capital centres. This is achieved using assets acquired for own capital together with funds obtained by issuing senior debt.

While DLR has not made any commitment to S&P about maintaining a certain level of overcollateralisation in its capital centres, it has a clear ambition of maintaining its current AAA rating. As S&P's OC requirement is dynamic and changes with, for example, changes in asset levels, composition and quality, or due to a change in S&P's criteria or models, the need for additional collateral may change going forward. For this reason, DLR maintains a buffer of extra OC to accommodate any changes. In Q4 2020, the current OC was thus 14.1% in Capital Centre B and 12.1% in the General Capital Centre, which is 4%-points and 9.6%-points, respectively, higher than S&P's OC requirements.

Senior secured bonds (SSBs) are generally assigned a rating by S&P two notches above the issuer rating. DLR has decided not to have its current SSB issues rated. Both the SRN and the SNP issues from 2017 are rated BBB, which is one notch below DLR's SACP.

Credit risk

Due to the selected business model, DLR's credit risk is concentrated around agricultural and commercial property, and to a limited extent owner-occupied homes, including residential farms. DLR also grants loans for properties on the Faroe Islands and in Greenland based on bilateral agreements with individual banks. As a key element of its business model, DLR has made loss-mitigating agreements with its loandistributing banks.

DLR's Board of Directors has defined DLR's credit policies and guidelines for the granting of credit – including limits for the Executive Board's lending authorities – in order to achieve the desired level of risk. Within these set limits, internal business procedures and instructions further delegate lending authorities to the various sections/persons in DLR's organisation.

Credit scoring

To identify credit risk, a detailed assessment is made of the mortgageable property and the borrower's finances.

The starting point for assessing the mortgageable property is determining its market value. This is done by DLR's own appraisal experts, who have significant local knowledge. The condition and marketability of the property, etc. are also taken into account in the valuation, as are the status of the property and opportunities in respect of sustainable development.

Credit scoring is the responsibility of DLR's loan department in Copenhagen. Assessing the customer's finances normally involves several years of financial statements. Credit scoring models are used for the most important customer segments. Whether additional or more detailed information about the borrower is required varies from case to case and depends on the borrower's financial circumstances. The more complex and risky the case, the more detailed the investigations to ensure an adequate basis for decision-making.

DLR's organisational set-up ensures a separation of functions between the property valuation and the credit assessment.

IRB models

The capital adequacy rules allow for the use of either the standard method or the internal ratings based approach (IRB approach) to calculate risk exposure for credit risk purposes.

DLR's lending to full-time farms uses the IRB method, while the rest of the portfolio follows the standard method. The full-time farm portfolio amounts to DKK 77bn, or 47% of DLR's total loan portfolio.

Similar, advanced statistical models are used for internal risk management for significant parts of the business portfolio, equal to an additional DKK58bn.

Credit risk models

The models DLR uses to estimate portfolio risk (behavioural score) comprise PD (Probability of Default) and LGD (Loss Given Default). PD is calculated at customer level, while LGD is calculated for the all properties in the collateral pool. The same structure is involved in a loan application situation, though additional components relevant to the application situation are also included.

PD is defined as the probability of a customer defaulting on payments and being more than 45 days in arrears within the next 12 months or of an impairment provision being made against the customer's exposure. As a result of new international guidelines and technical standards from the European Banking Authority (EBA), DLR is currently redefining the default definition in order to meet the new requirements. A high PD reflects a high risk of a customer defaulting, whereas a low PD reflects a low risk of default.

DLR regularly monitors the portfolio rating and the customer rating is re-calculated every month.

The distribution of DLR's rating classes by PD band is shown in table 10. Customers with OEI (objective evidence of impairment) where no impairment loss has been identified are always placed in rating class 7 irrespective of whether the model rating is better.

Rating class	Profile	PD band (%)
1	Extremely good	[0; 0.2]
2	Very good]0.2; 0.4]
3	Good]0.4; 0.8]
4	Acceptable]0.8; 2]
5	Certain signs of weakness]2; 9[
6	Poor]9; 25]
7	Very poor]25; 100[
8	Default	100

Table 10. DLR's PD rating classes

Figure 6 shows the distribution (in %) of DLR's full-time agriculture portfolio by PD rating class. At the end of 2020, 16% of the portfolio was placed in rating classes 7 and 8 compared to 23% one year earlier. The lower share was primarily due to a continued favourable financial development for customers with full-time farms. Around 90% of the customers in class 7 are only placed in class 7 because they have OEI (overrides). The decline in lending in rating class 1 is due to a technical model change where two expert-based add-ons to the statistical model were removed, which resulted in a migration from the highest and lowest rating classes towards the mid-classes.





LGD indicates DLR's financial loss relative to exposure when a customer defaults. The model is based on DLR's experience of impairment and distressed properties.

The overall LGD model consists of a PR (probability of realisation) element, which indicates the likelihood that a default will lead to a realisation of the mortgage collateral, and an LGR element (loss given realisation), which indicates how great a loss realisation would result in for DLR.

The LGR model incorporates the value of the mortgage collateral and the size of the exposure. Defined haircuts (deductions) for a property's individual asset subcomponents provide an estimate of the value of the customer's property in the event of a realisation (forced sale or the like), while exposure is calculated as the loan's current position plus an estimate for interest, costs (such as sales costs), etc. for the period until the realisation is completed. The exposure includes selling costs etc.

A positive LGR equates to an expected loss for DLR, while a negative LGR means DLR has a safety margin and can expect to avoid a loss.

If DLR is aware of particular factors in individual cases that render the model's result misleading, an override (correction) is performed on the model's output.

Table 11 below shows that the observed rate of default at the end of 2020 was 0.9%. Hence, less than 1 out of 100 customers in the full-time farm portfolio was in default. The observed rates of default were unchanged from 2019 to 2020, as shown in table 11.

The observed PD level at end-2020 was thus considerably below the regulatory PD level of 7.2%.

Table 11. PD estimates for full-time farms (IRB portfolio)

	2020	2019
PD (excl. customers in default)	7.2%	8.5%
PD obs.	0.9%	0.9%

Note: PD is re-calculated for regulatory purposes. PD obs. is the observed level at end-2020. Figures are weighted for exposure.

Table 12 below shows expected losses for DLR's portfolio of full-time farm customers assuming the customer has defaulted (LGD). As can be seen from the table, the observed level of LGD was low. The level has declined steadily in recent years. Since 2010, the realised LGD level has fluctuated between 0.06% and 0.81%.

Regulations require the use a conservative LGD value that reflects a loss level during an economic slump. At the end of 2020, DLR set its LGD for regulatory purposes at 10.6%.

Table 12. DLR's LGD estimates for full-time farms (IRB portfolio), end-2020

	2020	2019
LGD (excl. customers in default)	10.6%	11.4%
LGD obs.	0.06%	0.03%

Note: LGD is re-calculated for regulatory purposes.

LGD obs. is calculated for the most recent full year (2017) when most of the realised losses were recorded and calculated. If LGD obs. was calculated at a later date, some default cases would not have been finalised and the resulting figure would be too low. Figures are weighted for exposure.

As a result of new international guidelines and technical standards from the European Banking Authority (EBA), DLR is currently carrying out a major revamp of the approved IRB model. The changes will include both PD and LGD models.

Validation of IRB models

Risk Management in DLR carries out tasks as an independent validation unit that prepares a comprehensive annual validation report. In addition, the unit also prepares shorter quarterly validation reports. Reviews of the validation reports are carried out by DLR's internal Credit Risk Committee, which consists of representatives from the Executive Board, risk management, model development and credit. Validation reports are subsequently sent to the Risk Committee, the Board of Directors and internal audit.

Business use of the IRB approach at DLR

DLR uses models when calculating risk exposures. The models have also been used for some time in connection with loan approvals, monitoring and risk management.

Models and ratings systems are fully implemented components of DLR's standard loan application and loan approval process. Both behavioural score models and application score models are actively employed in loan application processing. The use of ratings in the loan approval process has for many years been an important element in assessing the risk on both loans to new customers and when extending existing exposures. A customer's rating also influences the organisational processing of the loan application.



The models are also used to identify risk exposures in connection with the calculation of impairment. The rating system is also used for portfolio monitoring and in several management reports.

Monitoring credit risk

DLR's loan portfolio is screened every quarter and based on established risk signals – such as arrears, registration in RKI-Experian (credit information register) and financial reports – customers are selected for a manual check to ascertain whether there is any objective evidence of impairment (OEI). For customers with OEI, a calculation is made of whether DLR can expect to incur a loss if the asset has to be realised. Based on this, an impairment provision may be made. DLR's loan portfolio is divided into impairment stages (Stage 1, 2 and 3), in accordance with the requirements of the Danish Executive Order on the Presentation of Financial Statements.

Individual manual impairment charges (Stage 3) are made for customers with weak credit quality and where DLR at the same time estimates that its exposure is not fully secured by the mortgaged property or the guarantees provided, etc.

In addition, DLR calculates the need for model-based impairment for stages 1, 2 and 3, respectively, based on the use of scenario calculations. If it is found that the model-based impairment charges and the individual manual impairment charges do not adequately reflect the overall risk, they will be supplemented by a management-estimated add-on (Stage 1, 2 and 3).

Regular reports are prepared on DLR's lending, including lending developments by sector/property type, loan type, etc. These reports are sent to employees in the credit area, the Executive Board and the Board of Directors, depending on the relevance of the report for the particular recipient group.

Guarantee schemes

On top of collateral in the mortgaged property and a detailed credit assessment, DLR has reduced its credit risk on individual loans and its risk at portfolio level through various guarantee agreements made with DLR's loan-distributing banks (DLR's shareholders).

DLR has applied a universal guarantee concept since the start of 2015, covering loans granted on agricultural property, commercial property and cooperative housing. Under the universal guarantee concept, the risk on each individual bank's loan portfolio at DLR is borne in the following order.

1. Risk cover – 6% guarantee provision

The loan-distributing bank generally provides a direct individual guarantee on disbursement that covers the individual loan for its entire term and covers the least secure part of the loan. The guarantee covers 6% of the loan's outstanding debt. In some cases, for example when certain loans that have an earlier commercial property guarantee are remortgaged, DLR will require a supplementary guarantee to be posted. The guarantee is reduced proportionally as the loan is paid down.

2. Risk cover – Loss-offset scheme

DLR's universal guarantee concept also encompasses the possibility of offsetting losses in the commission payments made to the bank, whereby all losses incurred by DLR beyond those covered by the 6% guarantee provided at the loan level are offset. Only losses on loans distributed by the particular bank are offset in commission payments.

3. Risk cover – portfolio level

If losses to be offset exceed the current year's and the following nine years' commissions, such losses can be covered by drawing on all the direct 6% guarantees provided by the bank in question. At the end of 2020, 80% of DLR's loan portfolio was covered by the universal guarantee concept.



Figure 7. DLR lending covered by the universal guarantee concept

Loans granted up to 31 December 2014

DLR's loan portfolio was covered by two different guarantee concepts up to 2014. Guarantees provided under these concepts still apply, but the extent of the guarantees is being reduced as the loans covered are redeemed or paid down, etc.

Table 13. Overview of DLR's guarantee concepts

Outstanding bond debt covered by guarantee concept (DKKbn), year-end

	2020	2019
Cooperation agreement – agriculture (until end-2014)	17.6	22.6
Corporate guarantee (until end-2014)	10.8	14.4
Universal guarantee concept – agriculture (from start-2015)	73.0	65.8
Universal guarantee concept – corporate (from start 2015)	58.6	46.5
Government guarantee – YJ Ioan	0.2	0.2
Covered by guarantee schemes	160.2	149.6
Total outstanding bond debt	164.3	154.6
Covered by guarantee schemes	97.5%	96.8%

Credit risk developments

As DLR continues to experience growth in lending to urban trade, especially for private residential rental properties, its share of agricultural loans continues to decline. See the loan portfolio composition descriptions below. However, DLR maintains a large concentration of loans to agricultural customers and is the largest lender for full-time agricultural properties. Exposures of up to DKK 15m account for more than 50% of DLR's lending volume, and DLR's portfolio primarily consists of a large proportion of small and medium-sized exposures.

Full-time farms

DLR's total lending to actual full-time farms encompasses loans for nearly DKK 80bn. For the portfolio, the past few years have seen a migration towards the better rating categories, reflecting the relatively good cyclical trends in the main production areas and a reduction of loans with the highest LTV ratios through ordinary mortgage payments.

A little less than 81% of loans for full-time farms are placed within an LTV ratio of 50, and only a little more than 2% above the 70% lending limit. DLR's loan portfolio is thus generally well covered by the value of the mortgage.

Other customers

DLR's total lending for urban commercial customers, for which a significant part of the earnings is linked to the operation or letting of the mortgaged properties, amounts to just under DKK 60bn.

The remaining part of DLR's lending is principally to customers with small exposures for which the commercial utilisation of the mortgaged property is not of decisive importance to the financial circumstances, as well as loans in Greenland and the Faroe Islands and for horticultural properties.

For total lending to the group of other customers, around 80% of the loans are placed within an LTV of 50%, and only about 0.7% have an LTV of more than 80%. Also, for this portfolio, DLR's loans are generally well covered by the value of the mortgage.

Arrears and impairment charges

The arrears ratio on the December 2020 mortgage payment has fallen by 0.8%point relative to the year before, and considering the COVID-19 pandemic this is considered highly satisfactory. However, the situation should also be seen in the context of the extensive relief packages, and despite the fact that no increase in arrears has been registered at portfolio level, some customers and customer groups are expected to be challenged by the long-term implications of the COVID-19 lockdowns. Against this background, DLR has made substantial COVID-19-related management add-ons to the impairment charges, primarily in relation to urban trade. Despite reversals of impairment charges on the agricultural portfolio owing to the favourable trends within the main production areas, DLR's total impairment account at end-2020 has, against this background, been increased by nearly DKK 56m (13%) compared with the end of 2019.

Loan portfolio developments

DLR experienced an increase in lending activity in 2020 relative to 2019, except for remortgaging activity. While remaining at a high level, the extent of remortgaging was lower in 2020 than in 2019.

Strong lending growth

DLR experienced the strongest lending growth in nominal terms for many years in 2020, although the year as a whole was characterised by uncertainty prompted by the COVID-19 pandemic. The high level of lending growth was in part due to the low interest rate environment, though the increased competitive strength of the loan-distributing banks also played a role. Total lending increased by DKK 9.3bn – in cash value – in 2020, against DKK 7.7bn in 2019, as shown in figure 8.

Lending growth in 2020 was attributable to growth in all DLR's principal lending segments. However, DLR experienced lending growth especially in the market for commercial real estate – as was also the case in 2019. A little more than half of the lending growth in 2020 was attributable to an increase in lending to private residential rental properties. It is worth noting that the absolute increase in lending to private rental properties was at the same level as in 2019. On the other hand, the increase in loans for office and retail properties and owner-occupied homes (incl. residential farms) was significantly higher in 2020, while growth in loans for the agricultural sector was more or less unchanged.

Growth in loans for commercial property, in particular private residential rental properties, resulted in added risk diversification of the loan portfolio in several lending segments, which bond investors and rating agencies also consider to be an advantage.



Figure 8. Development in DLR's net lending (DKKbn)

Loan remortgaging

Many DLR borrowers remortgaged their loans in 2020, although the level of remortgaging activity was lower than in 2019. The high level of remortgaging activity was due in particular to the fall in interest rates, which has generally made it more attractive for borrowers to remortgage into loans with lower interest rates and longer interest-reset intervals. In addition, when interest rates briefly and temporarily rose in March 2020 some borrowers opted to remortgage to a higher coupon on their loan, thereby reducing their outstanding debt. Borrowers who remortgaged to a higher coupon have subsequently been able to remortgage once more to a lower-coupon loan. Combined with top-up loans and new lending, the persistently high level of remortgaging activity in 2020 was the principal reason why DLR recorded gross lending amounting to DKK 36.8bn in 2020. By way of comparison, DLR's gross lending amounted to DKK 43.1bn in 2019, see figure 9.



Figure 9. DLR's gross lending by property category

Composition of loan portfolio

Property categories

At the end of 2020, DLR's loan portfolio (measured as outstanding bond debt) amounted to DKK 164.3bn. Loans on agricultural properties accounted for 55.0% and loans on owner-occupied homes, including residential farms, for 5.5% of the portfolio, while loans on commercial property and private cooperative housing properties etc. accounted for 39.5%. See figure 10.



Figure 10. DLR's loan portfolio by property category



Figure 11. DLR's lending portfolio by loan types

Loan types

The composition of lending by loan type has also become more diversified over the years, which has resulted in greater interest rate security, see figure 11. A greater share of fixed-rate mortgages, in particular, has contributed to increasing the interest rate security of DLR's loan portfolio in recent years. The share of fixed-rate mortgages has risen by 5%-points to 32%. The share of ARM loans (interest reset loans) has been reduced by 4%-points over the same period to account for 31% of total lending.

The increased share of fixed-rate mortgages should be seen as an extension of DLR's customers generally opting for a longer refinancing interval on their loans since 2014. 1Y ARM (F1) loan were previously the most popular loan type among DLR's customers. However, 1-year ARM loans have gradually been replaced by ARM loans with a longer refinancing interval and ARM Short loans (variable rate loans), which are now the most common loan type. At the end of 2020, 1Y ARM and ARM Short loans together accounted for 38% of DLR's total lending, whereas 1Y ARMs accounted for almost 60% of total lending at the end of 2013. Moreover, 80% of DLR's ARM loans have a refinancing interval of five years, while the term of the new bonds behind ARM Short loans is five years.

Repayment profile

In 2020, the share of total gross lending with an initial interest-only period was 36.6% compared to 35.8% at the end of 2019. Interest-only loans are particularly popular in the agricultural area, as 57.2% of gross lending to the agricultural sector had an initial interest-only period in 2020. The share of gross lending with initial interest-only periods for other property segments is shown in table 14

Of DLR's total loan portfolio, the share of loans with an initial interest-only period was 36.8% at the end of 2020, which was slightly lower than in 2019, when the share was 37.3%. Interest-only loans accounted for 50.0% of lending to the agricultural sector at year-end 2020, which was marginally higher than the year before. The share of outstanding loans with an interest-only period in the other segments is shown in table 15

	2019	2020	Changes (percentage point)
Agriculture	52.6%	57.2%	4.60%
Residential farms	15.5%	16.2%	0.70%
Office & retail	6.9%	9.4%	2.50%
Residential rental	32.7%	33.1%	0.40%
Cooperative housing	35.9%	24.6%	-11.30%
Other	3.1%	0.2%	-2.90%
Total	35.8%	36.6%	0.80%

Table 14. Share of gross lending with an initial interest-only period

Table 15. Share of outstanding loans with interest-only payments, year-end

	2019	2020	Changes (percentage point)
Agriculture	49.1%	50.0%	0.93%
Residential farms	15.4%	13.8%	-1.56%
Office & retail	11.0%	10.0%	-0.99%
Residential rental	32.6%	32.3%	-0.32%
Cooperative housing	38.7%	36.7%	-2.05%
Other	7.9%	1.5%	-6.43%
Total	37.3%	36.8%	-0.53%

Geographical distribution

As a result of its business model, DLR's loan portfolio is limited to agricultural, residential farm, commercial and cooperative housing properties. Geographically, DLR's lending is spread across Denmark and reflects the coverage of the loan distributing banks' (DLR's shareholders) branch networks. DLR also has lending in Greenland and on the Faroe Islands totalling DKK 3.0bn, corresponding to 1.8% of the loan portfolio.



Loan portfolio LTV

DLR grants loans against a mortgage on real property within the statutory lending limits for the various property categories. To determine DLR's position in the order of mortgage priorities and whether this constitutes a significant risk, DLR continually calculates LTV (Loan-To-Value) values for the individual loans across all property categories.

At the end of 2020, 91.9% of loans granted on agricultural properties were in the <60% LTV band based on DLR's latest valuations, including valuations made in connection with continual covered bond (SDO) monitoring, while 89.0% of the lending on commercial properties was in the <60% LTV band – not taking into account the guarantees provided. Residential properties, including residential rental property and cooperative housing properties, have an LTV limit of 80%, which is why the proportion placed under 60% is naturally lower for these property categories.


Figure 13. DLR's lending by LTV band

To ensure the statutory overcollateralisation (OC) of DLR's Capital Centre B (cover pool), a valuation is carried out at least annually on commercial property and every three years on residential property. This can be done without a physical inspection (market valuation), but if a physical inspection has been carried out, this valuation is prioritised.

The continual monitoring of LTV values is partly based on these current market valuations and is a permanent feature of DLR's management reporting. DLR has currently provided DKK 9.9bn in supplementary collateral and has, in addition, an overcollateralisation of DKK 21.7bn consisting of collateral in particularly secure assets plus the option of applying claims against banks (bank guarantees) in case of falling property prices. Overall, it is estimated that the current overcollateralisation enables DLR to withstand a general property price fall of about 15-20% without having to provide further collateral.

Unweighted exposure for credit risk

DLR adheres to the Danish Executive Order on Financial Reports for Credit Institutions and Investment Firms, etc. Please refer to this and to the significant accounting policies in DLR's Annual Report (note 50) for definitions of non-performing and impaired loans for accounting purposes as well as a description of methods used to determine value adjustments and impairment charges.

The total value of DLR's unweighted exposure for credit risk was DKK 155.8bn at 31 December 2020, calculated after guarantees and conversion factor.

Arrears, impairment and losses

The number of borrowers unable to meet their payment obligations towards DLR showed a declining tendency during the second half of 2020 (see figures 14 and 15), and at mid-January 2021 it was at a slightly lower level than the year before. However, the level of arrears rose temporarily in Q2 2020 due to uncertainty caused by the COVID-19-related lockdown of the economy.

Overall, the arrears ratio – measured as the percentage of mortgage payments in arrears 3½ months after the due date – was 0.38% in mid-January 2021, against 0.43% in January 2020. The arrears ratios were 0.46% for dairy farmers and 0.49% for pig farmers, respectively, in mid-January 2021. For pig farmers, the arrears ratios have moved slightly higher over the past 12 months.

The change should be seen in the light of pork prices falling by nearly 30% from DKK 13.3 per kilo at the beginning of 2020 to DKK 9.5 per kilo at end-2020. The relatively good starting point enabled Danish pig farmers to obtain acceptable earnings for the year as a whole. The price fall was driven by factors such as restrictions on exports to China because of COVID-19-infections among abattoir workers, but settlement prices were also affected by changes to the pork market prompted by the outbreak of African swine fever (ASF) in wild boars in Germany, which means that German pork must be sold within the EU.

The price of milk, which is generally the most important factor for dairy farmer earnings, was stable and at a satisfactory level in 2020. Dairy farmers have achieved solid financial results on the back of the realised milk prices, fair growth in milk production and increased efficiencies as well as satisfactory roughage production.



Figure 14. 3¹/₂ months' arrears by property category



Figure 15. 3¹/₂ months' arrears – agriculture

As mentioned, DLR regularly monitors its loan portfolio to identify potential loan impairment. An individual assessment is also made of a number of large exposures and certain exposures showing signs of financial distress, etc. If an assessment identifies OEI, a stage 3 impairment provision is made against the exposure equivalent to the loss DLR estimates it could potentially incur.

Total individual impairment losses (stage 3) amounted to DKK 180m at the end of 2020 compared to DKK 215m at the end of 2019. On top of this comes stage 1, 2 and 3 modelled impairment losses of DKK 101m and a management estimate of DKK 210m, which equates to total impairment losses of DKK 491m at the end of 2020. The management-estimated impairment losses at end-2020 includes DKK 130m attributable to the COVID-19 pandemic.

The management-estimated add-on is set to cover the excess risk on high lending growth to residential rental property, COVID-19, the mink farming industry and model uncertainty.

Figure 16 shows DLR's individual impairment losses by property segment and the model-calculated and management-estimated impairment losses. Impairment losses on loans to agricultural customers and for owner-occupied homes, including residential farms, accounted for 74% of individual impairment losses (stage 3) at end-2020.



Figure 16. Accumulated impairment losses by property segment

The impairment percentage, denoting he accumulated impairment losses in percent of total lending, represented 0.29% – calculated using the Danish FSA's guidelines – at end-2020, against 0.28% at end-2019.

Losses and impairment had a DKK 62m negative impact on the financial statements for 2020, equal to 0.04% of the loan portfolio.





For 2020, realised losses on loans calculated after payments under guarantee agreements but before offsetting losses, and including losses realised during the period, after prior-year adjustments and recovered debts previously written off, amounted to DKK 12.7m, which is a decrease relative to 2019, when realised losses were DKK 42.4m. Relative to the total loan portfolio, DLR's loss ratio was still very low at 0.01%.



Figure 18. Realised losses (DKKm)

Note: Calculation shows realised losses prior to loss offsetting and the offsetting of recovered debts previously written off

The agricultural segment accounted for 56.3% of realised losses in 2020, which was 17.4%-points lower than in 2019. A further DKK 3.9m loss was realised on owner-occupied dwellings, including residential farms, while losses stemming from office and retail property and private residential rental properties were DKK 1.5m.

With respect to the previously described loss-offsetting schemes, DLR set off losses of about DKK 5.0m in 2020 against commissions paid to the banks.

DLR's stock of repossessed properties at year-end 2020 totalled two; one mink farm property and one horticultural property as well as three undeveloped sites.



Figure 19. Portfolio of repossessed properties, year-end

The number of completed forced sales of properties in which DLR held a mortgage was 49 in 2020, down from 66 in 2019. The increase in 2020 shown in figure 20 is due to the shutdown of courts in the spring because of the COVID-19 pandemic, which pushed scheduled forced sales to later in the year.





Encumbered assets

DLR's business model is based on match-funded mortgage loans offered against mortgages on real property. DLR issues bonds to fund mortgage loans to its customers. The loans are recognised in DLR's balance sheet until maturity and are reserved to ensure timely payment to the bond investors if DLR should become distressed. The reservation of certain assets for creditors/investors is referred to as asset encumbrance. Hence, asset encumbrance is a natural part of DLR's business model.

Assets used to comply with requirements for supplementary collateral (LTV requirements) and "balancing funds" (i.e. prepaid funds from repayment, fixed-price agreements, etc.) are also considered to be encumbered as the bondholders have a preferential claim in case of a bankruptcy.

DLR's securities portfolio consists primarily of DLR's equity. Only the parts of DLR's securities portfolio relating to meeting requirements for supplementary collateral or balancing funds are encumbered. The remaining part of DLR's securities portfolio is considered unencumbered and available in terms of DLR's LCR calculation.

DLR publishes asset encumbrance data in the Pillar III appendix.

Use of external credit assessment institutions

Article 138 of CRR allows a credit institution to appoint one or more External Credit Assessment Institutions (ECAI) to determine credit quality steps and risk weightings for financial assets.

DLR has appointed S&P Global Ratings for the purpose of credit assessment/risk weighting of exposures to credit institutions, including guarantees. S&P was a natural choice given that S&P is the only ratings agency that provides both issuer and bond ratings on DLR.

The credit quality step is based on the counterparty's rating. If the counterparty is not rated by the appointed rating agency, the country rating is used for the country the counterparty is domiciled in.

Table 16 shows the conversion of S&P's rating classes to credit quality steps for exposures to corporates, institutions, sovereigns and central banks.

Credit quality step	S&P's rating clas- ses	Exposure to cor- porates	Exposure to institutions (> 3M)	Exposure to central gov. or central banks
1	AAA to AA-	20%	20%	0%
2	A+ to A-	50%	50%	20%
3	BBB+ to BBB-	50%	50%	50%
4	BB+ to BB-	100%	100%	100%
5	B+ to B-	150%	100%	100%
6	CCC+ and under	150%	150%	150%

Table 16. Rating classes and credit quality steps

The CRR Delegated Act, article 129(1)(c), states that exposures to credit institutions (for example, guarantees) that qualify for quality step 1 can comprise up to 15% of the collateral for an institution's outstanding (mortgage) covered bonds (SDRO/SDO). Due to concentration in the Danish mortgage credit system, Denmark has also been permitted to use exposures to counterparties on credit quality step 2 for up to 10% of the collateral, though the aggregate exposure to credit institutions may not exceed 15% of the collateral.

Market and liquidity risk

Market risk is the risk that the value of financial instruments and derivative financial instruments fluctuate due to changes in market prices. DLR includes the following types of risk under the market risk area: interest rate risk, including credit spread risk, exchange rate risk, equity market risk and other price risks. DLR's interest rate risk comprises interest rate risk on all financial instruments, both on- and off-balance sheet, including lending and issued bonds.

As DLR adheres to the specific balance principle, the market risk deriving from funding in mortgage (RO) and covered bonds (SDO) will reflect the terms and conditions of the mortgage debtors. The market risk DLR assumes should be viewed in relation to DLR's business model and is solely attributable to an investment need for DLR's own funds, proceeds from issued senior debt, senior secured bonds, additional tier 1 capital and tier 2 capital, etc., profits/earnings and prepaid funds.

DLR actively manages its interest rate risk. In addition to the statutory framework, DLR has determined a policy for investing its securities portfolio and specific limits for the extent and volatility of each type of risk.

Essentially, DLR's overall market risk should be low, which means that:

- Interest rate risk calculated in accordance with the Executive Order on the Issue of Bonds, the Balance Principle and Risk Management should lie within the range 0-2.5% of the own funds. The interest rate risk on DLR's trading book (securities portfolio/assets) should be in the 0-2.5% range of the own funds, and the securities portfolio should mainly consist of bonds with a remaining term to maturity of up to five years. Interest rate risk on issued debt instruments (liabilities) should be in the 0-2.5% range of the own funds.
- Exchange rate risk on DLR's assets, liabilities and off-balance sheet items must be at most 0.1% of the own funds as calculated according to exchange rate indicator 2; see the rules in the Executive Order on the Issue of Bonds, the Balance Principle and Risk Management.
- DLR does not assume equity market risk except in connection with policy/strategic positions deemed necessary for DLR's operations (for example, equities in sector-owned companies)
- Other price risks should be avoided. Hence, DLR does not wish to take positions in foreign currencies apart from EUR, or in equities, commodities, options

or derivative financial instruments unless these positions are for risk hedging or liquidity management purposes

• DLR also aims to have a responsible leverage ratio in the markets area.

The stipulated risk levels are specified in the Board of Director's instructions to the Executive Board and in its delegated authorities.

Regular risk reports on the securities portfolio ensure DLR's management can track prevailing risk levels and decide on which measures to take, if appropriate.

Interest rate risk

Interest rate risk is defined as the amount of the loss caused by a positive or negative parallel shift in the interest rate structure of one percentage point, i.e. the value adjustments triggered by a change in the market rate of one percentage point. DLR's financial risk attaches particularly to the interest rate risk on the securities portfolio and the interest rate risk on issued debt instruments, which (typically) correlates negatively with the interest rate risk on the securities portfolio. Moreover, DLR is exposed to e.g. credit spread risk.

DLR has set limits for interest rate exposure in connection with its securities portfolio and issued debt instruments to keep interest rate risk at a low level overall.

DLR's interest rate risk complies with the Board of Directors' guidelines for overall market risk, whereby the interest rate risk on the securities portfolio should be in the range 0-2.5% of DLR's own funds, which equates to between DKK 0 and 351m.

At the end of 2020, DLR's relative interest rate risk on its securities portfolio was 1.0%, see figure 21. This equates to a value adjustment of the securities portfolio of DKK 153m in case of a one percentage point change in the market interest rate. In addition, the convexity impact on DLR's bond portfolio is DKK 0.4m. In this way, DLR complies with the guidelines that the interest rate risk incl. the convexity impact must be within 2.5%.





As mentioned above, the interest rate risk on issued debt instruments "correlates negatively" with the interest rate risk on the securities portfolio. The issued debt instruments represent a loan raised outside the specific balance principle in connection with lending activities. The interest rate risk on these debt instruments, which amounts to DKK minus 33m, means that DLR's total interest rate exposure including convexity effects is reduced to 0.8% of own funds, equal to DKK 120m at end-2020.

DLR holds a significant portfolio of bonds. The portfolio mainly consists of AAA-rated Danish listed mortgage bonds (mortgage credit bonds/RO, covered bonds/SDO and mortgage covered bonds/SDRO), plus a small volume of government bonds.

The interest rate risk on the bond holdings with a duration of up to one year accounts for 77% of the total interest rate risk, up to two years the interest rate risk accounts for 82%, and up to five years the interest rate risk accounts for 98% of the total interest rate risk. The interest rate risk on bond holdings with a duration of more than five years accounts for 2% of the total interest rate risk.

Credit spread risk

Credit spread risk is defined as the risk of price losses due to lower creditworthiness of a counterparty or on exposures to the institution itself. Lower counterparty creditworthiness may occur due to higher risk of default, for example. The credit spread is calculated as the spread to a risk-free yield curve.

DLR's Board of Directors has determined a maximum credit spread risk for DLR of 2.5%, corresponding to DKK 373m at end-2020. At end-2020, the credit spread risk on DLR's bond portfolio was DKK 197m.

Exchange rate risk

Exchange rate risk is the risk of loss from fluctuations in foreign exchange rates. Due to the specific balance principle, DLR assumes no actual exchange rate risk.

According to Danish law, exchange rate risk calculated according to the Danish FSA's indicator 2 may not exceed 0.1% of the own funds.

DLR's exchange rate risk amounted to 0.002% of the own funds at the end of 2020.

Equity risk

DLR generally does not place funds in equities apart from "sector equities". At the end of 2020, DLR's equity holdings consisted of unlisted shares in e-nettet A/S and Landbrugets Finansieringsinstitut A/S. In 2020, DLR sold its ownership interest in VP Securities A/S in connection with the sale of that company to Euronext

As equity risk is defined as 10% of the market value, and DLR's equity portfolio amounted to DKK 34m at year-end 2020, the equity risk after tax was DKK 3m at end-2020.

Equities are also entered at fair value. Where the fair value cannot be measured reliably, unlisted shares are measured at cost less any impairment.

Table 17. DLR's exposures in equities not included in the trading portfolio (enettet)

Type (DKKm)	Exposure, 31.12.2020	Operational impact in 2020
Sector equities	33.8	6.8
Other equities and equity invest- ments	-	-
Total	33.8	6.8

Counterparty risk

To manage and mitigate DLR's risk of loss due to counterparties failing to meet their payment obligations to DLR, financial counterparties' ability to pay is monitored quarterly pursuant to a policy and guidelines for DLR's exposure to banks, which are defined by DLR's Board of Directors.

DLR's risk of loss on financial counterparties is limited, as counterparty risk essentially comprises the borrower guarantees provided. These guarantees are secondary to the borrower's personal debt obligations and the mortgage on the property.

Moreover, other than a limited threshold of DKK 50m, DLR only places liquidity in banks which hold a minimum rating of BBB/A-2 by S&P, and the maximum duration for term deposits is 30 days. In Denmark, only four banks hold such a rating: Nordea, Danske Bank, Jyske Bank and Nykredit Bank.

Exposure calculations are regularly made for the individual banks to estimate DLR's financial counterparty risk, in accordance with the Board of Directors' guidelines.

Liquidity risk

Liquidity risk at DLR includes the risk that DLR may not be able to meet its payment obligations and the risk of insufficient funding or compliance with applicable statuary requirements. DLR's liquidity policy and associated guidelines laying down the specific limits for liquidity management are determined by DLR's Board of Directors. Based on this, DLR's Executive Board has communicated the broad framework for managing liquidity in DLR's organisation. The policy makes clear that DLR's risk profile in the liquidity area should be low, which should be seen against DLR's compliance with the balance principle.

The risk of loss due to current liquid assets being insufficient to cover current payment obligations is extremely limited for DLR. This is because DLR adheres to the specific balance principle whereby loan payments match the payments on issued bonds (match funding). Hence, there is a 1:1 correlation between the loan granted to the borrower and the bonds issued by DLR to fund the loan. In general, the balance principle means DLR essentially only assumes a credit risk in connection with its lending activities.

In accordance with DLR's guidelines in the liquidity area, the Board of Directors has defined the framework for liquidity management. The guidelines state, for example, that the vast bulk of DLR's securities holding should be placed in Danish government or mortgage bonds, and that the holding should be diversified across issuers and ISIN codes. Furthermore, DLR should have sufficient credit facilities at banks and be a monetary policy counterparty in Danmarks Nationalbank. In addition, DLR's Board of Directors has determined that liquid funds must be placed in financial institutions that are subject to Danish law. The maximum deposit at any one bank may be 25% of DLR's own funds, though deposits must not exceed 35% of the bank's own funds.

DLR's liquidity and liquidity requirements are continually monitored, and given DLR's special business model as a mortgage credit institution are primarily concentrated around the end of each quarter, when a separate report is prepared. DLR also prepares an annual ILAAP report (Internal Liquidity Adequacy Assessment Process). The ILAAP is approved by DLR's Board of Directors prior to submission to the Danish FSA.

More specifically, DLR's liquidity risk primarily concerns the risk that DLR cannot provide liquidity to cover the business's ongoing liquidity needs, such as the payment of interest and redemptions to bond owners, the disbursement of loans and the operational running of DLR.

DLR has determined a number of indicators for a potential liquidity crisis situation:

- Diminished selling opportunities for DLR's bonds
- Large increases in arrears
- Large increases in losses and impairment charges

LCR

According to the LCR requirement, the proportion of high quality liquid assets (HQLA) must at all times exceed the net liquidity outflow for the next 30 days. Due to its SIFI (systemically important financial institution) status, DLR has been subject to the full LCR requirement from 1 October 2015. DLR has set an internal minimum requirement of complying 110% with LCR.

Like other Danish mortgage credit institutions, DLR is authorised to exempt certain mortgage bond-related cash flows from its LCR calculation. In order to apply the exemption, DLR must meet an LCR floor requirement such that DLR holds at all times liquid assets equivalent to 2.5% of its total mortgage loan portfolio.

At the end of 2020, DLR had an LCR of 311% excluding the floor requirement and an LCR of 232% including the floor requirement.

Due to new EU rules on covered bonds, mortgage credit institutions will going forward also have to have assets to cover the overcollateralisation (OC) requirement. The OC requirement comes into force in mid-2022. In connection with this, the Danish FSA has prepared a new model for the liquidity add-on for mortgage credit institutions that is expected to eventually replace the institutions' LCR floor requirement with a more individual and risk-based Pillar II liquidity add-on. The Pillar II liquidity add-on must be reported during the observation period from 31 December 2019 and onward until the coming into force of the new EU rules on covered bonds, including the OC requirement.

NSFR

The EU Commission's proposal for an NSFR requirement (Net Stable Funding Ratio) as one of several elements in the CRDV/CRR2 package was finally approved in May 2019. NSFR is set to come into force in mid-2021.

NSFR requires that so-called available stable funding must be equal to or higher than (minimum 100%) the required stable funding. Available Stable Funding ("ASF") is calculated on the basis of an institution's liabilities. The shorter the term to maturity of a liability, the less ASF value it is considered to contribute. Required Stable Fund-ing ("ASF") is calculated on the basis of an institution's assets. The more liquid an asset, the less stable funding an institute is required to have to fund it and the lower the RSF factor.

The NSFR requirement includes a possible exception for mutually dependent assets and liabilities that meet a number of specific conditions, including having the same maturity, such as, say, Danish mortgage loans and underlying mortgage bonds with the same maturity. This implies that mortgage bonds and mortgage loans are accorded an ASF factor and an RSF factor, respectively, of 0%, and in practice that exempts mortgage loans and issued mortgage bonds from an NSFR calculation. In addition, NSFR recognises Danish refinancing legislation (section 6 of the Danish Mortgage Credit Loans and Mortgage Credit Bonds, etc. Act), to the effect that exemption also applies to short-term mortgage bonds used to fund longer-term loans and meeting the requirements of Danish refinancing legislation.

DLR regularly calculates NSFR, where the requirement for available stable funding is at least 100% of the required stable funding. DLR has set an internal minimum requirement of complying 110% with NSFR. At year-end 2020, DLR had an NSFR of 181%.

Non-financial risks

In a policy and guidelines for non-financial risks, DLR's Board of Directors has defined the following risk taxonomy for non-financial risks:

- Operational risk: Loss arising as a result of inappropriate or inadequate internal procedures, human or system error or error caused by external events (excl. compliance and IT risk)
- **Compliance risk:** Loss arising as a result of non-compliance with applicable regulations, market standards or internal rules
- IT risk: Loss arising as a result of system error or non-compliance with IT security protocols, incl. cyber security risk.

Operational risk

DLR constantly strives to minimise operational risk by, for example, establishing control procedures, authorisations, emergency procedures, back-ups, business procedures, automatic updates, contingency plans, etc. Moreover, process descriptions have been produced in relevant areas to provide instructions for procedures and to define an area's allocated responsibilities. These measures help ensure DLR complies with both external and internal requirements.

As DLR is considered a relatively "simple" business with few products and business areas, DLR's operational risk is estimated to be limited overall.

DLR calculates its capital requirement with respect to operational risk using the basic indicator method. The risk exposure in connection with operational risks has been calculated at DKK 2.4bn, equal to an 8% capital requirement of DKK 192m at 31 December 2020.

DLR has established business procedures concerning regular follow-up and handling of operational incidents. All operational incidents that have or could have entailed costs exceeding a pre-defined limit are reported to DLR's Executive Board and the Risk Monitor, and DLR's Risk Committee is informed hereof. Any major losses are reported to DLR's Board of Directors at the next meeting. Overall, DLR experiences a relatively low number of operational incidents taking into account the number of loan cases handled each year.

Another focus area in terms of managing operational risk, etc. is the options for insuring DLR against events that might threaten the company's independence in connection with claims, actual damage, or actions or omissions that could be liable to compensation. DLR prefers to assume responsibility for minor loss risks itself. Minor loss risks are risks where the insurance premium and administration costs are assumed not to be commensurate with the potential loss.

IT and cyber security risk

DLR's business is heavily dependent on IT systems, including both DLR's own IT systems and interfaces with other external systems, such as the electronic land registry, e-nettet, VP Securities (securities registration and administration) and bank payment systems.

DLR's IT strategy

The Executive Board determines DLR's IT strategy, which is approved at least once a year by the Board of Directors. DLR's business model assumes that necessary adjustments can be regularly made to DLR's IT systems.

DLR's IT strategy is based on the use of well-known and proven digital solutions. DLR develops strategic systems for mortgage lending in-house, while peripheral systems are based on acquired standard systems running on a Windows-based platform. DLR has outsourced its mainframe operations to DXC.

IT risks

DLR draws up an annual risk assessment of the IT area that identifies and calculates a number of IT risks. A number of protective measures have been established to prevent operational disruptions, various disaster situations and cyber threats.

Operational disruptions are addressed through preventative measures, including procedures for quality assurance, change management and document maintenance together with fault management and procedures for damage repair, switchover, etc. Furthermore, DLR has twin operational centres so that a serious incident at the one centre of operations does not have a knock-on effect on the other.

Disaster situations caused by fire or water damage, for example, are mainly sought to be avoided through well-planned physical safety measures and the surveillance of DLR's buildings, technical installations and IT equipment.

Disasters caused by digital incidents are sought to be avoided through system and data protection via access controls, protection from virus and other malware, the monitoring of network traffic and other control procedures related to user ID and user behaviour.

DLR has also prepared contingency plans and procedures for emergency situations that comprise damage-limitation measures, workarounds and the re-establishment of permanent solutions.

Hence, contingency plans are in place should DLR's IT systems experience a serious incident that results in the digital systems being unavailable for shorter or longer periods of time. The goal of DLR's contingency planning is that key business functions can be re-established and run from alternative centres of operations within 48 hours of deciding to put the IT contingency plan into action. Business contingency plans have also been established.

Overall, DLR's IT security and contingency plans contribute to a level of risk for DLR's business applications of IT that may be characterised as low, while the risk of loss due to IT risk may be estimated as limited.

Cyber security threats

The annual IT risk assessment addresses and evaluates prevailing threats from various types of cyber attack, where criminals use IT equipment to cause disruptions or to destroy or gain unauthorised access to data, systems, digital networks or digital services. DLR gathers information on cyber threats from, among other sources, the Centre for Cyber Security, Nordic Financial CERT, Danmarks Nationalbank's annual "Generic Threat Landscape report" as well as information from Europol communicated through Finance Denmark.

The threat from cyber crime against the Danish financial sector is generally assessed to be high. Although DLR has registered no specific incidents that had an impact on the accessibility of IT systems or data confidentiality, DLR generally believes that cyber attacks must be considered likely and are a risk that should be given proper attention and continually mitigated through necessary security measures and resources. DLR takes the threat of cyber attacks seriously and continually enhances security measures in this area using a risk-based approach.



Outsourcing

DLR uses outsourcing in connection with IT operations. Outsourcing is closely supervised in accordance with the Danish FSA's executive order on this, while separate guidelines have also been established for outsourcing. Hence, risk is assessed to be limited here.

Compliance – increasing regulatory requirements

There was an increase in regulatory requirements again 2020. DLR dedicates many resources to comply with new regulations and practice, including compliance with the rules on combating money laundering and terrorist financing and GDPR compliance. The growing volume of new regulations means higher requirements for effective controls, and DLR's management emphasises the continual roll-out of effective control systems to ensure compliance with the rules applicable to DLR's business.

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