Credit Risk 2019

Sydbank Group

Sydbank

Contents

Introduction

Credit risk is the risk of loss as a result of the non-performance by clients and other counterparties of their payment obligations to the Group. Credit risk concerns loans and advances, credit commitments and guarantees as well as market values of derivatives and any holdings.

The most significant credit risks in the Group relate to the Group's loans and advances and guarantees issued to retail and corporate clients. The main focus of this report is a description of the lending and guarantee portfolio which may be compared with loans and advances and guarantees in the 2019 Annual Report.

The correlation between the gross exposure, as shown in "Appendix 1 – Supplementary tables", and loans and advances and guarantees in the 2019 Annual Report is shown in the table below.

Appendix 2 explains some of the terms used in this report.

Gross exposure – credit risk

DKKm	2019	2018
Loans and advances at fair value	12,602	6,510
Loans and advances at amortised cost	60,554	60,983
Loans and advances according to financial statements	**73,156**	**67,493**
Loans and advances to municipalities	(270)	(315)
Undrawn credit commitments	41,271	40,367
Derivatives	1,239	1,416
Repo (deposits)	2,435	1,075
Contingent liabilities etc	21,295	15,677
Gross exposure to retail and corporate clients	**139,126**	**125,713**
Governments incl municipalities	7,910	12,292
Credit institutions	8,865	10,291
Gross exposure – credit risk	**155,901**	**148,296**

Credit and client policy

The Group's overall credit risk is managed according to policies and limits determined and adopted by the Board of Directors.

The Board of Directors lays down the general framework for credit granting and the largest exposures are submitted on a regular basis to the Board of Directors for approval or information.

Employees with a lending authority may grant approvals. Such authority is adjusted to the employee's client portfolio. The lending authority is risk-based, ie a higher risk means reduced lending authority.

Retail clients

Credit granting to retail clients is based on the client's disposable amount, wealth and leverage (defined as total household debt divided by household personal income) as well as knowledge of the client.

The objective is that the majority of retail client exposures are approved by the client's branch and that the remaining client exposures are approved by specially appointed heads of credit. Consequently exposures where the client has negative assets of more than DKK 100,000 are approved by heads of credit. Major exposures and exposures with an increased risk are reviewed centrally by Credits.

Corporate clients

As a rule corporate clients are served by the regional head office or by special corporate departments. The Group's largest and most complex exposures are handled by Corporate & Institutional Banking. The objective is that all small corporate exposures with satisfactory credit quality are approved at regional level. Medium-size and major exposures are approved centrally by Credits, the Group Executive Management or the Board of Directors.

The Group's credit-related decisions are based on a systematic and structured review of the client's circumstances and industry affiliation. The review is based on all accessible information, including industry analyses and financial analyses, and also comprises an assessment of the client's forward-looking business plan and its risk and feasibility.

Credit activities

Credit activities are conducted partly in the retail and corporate departments and partly centrally in Credits. As described below, the Group has developed rating models to assess risks to retail clients, corporate clients and investment clients.

The Group's credit activities are an active element in the Group's efforts to increase its earnings by:

- maintaining and increasing the portfolio of profitable and promising retail, corporate and investment clients
- maintaining and increasing clients' business volume with the Group through a balanced composition of:
  - loans and advances and guarantees
  - deposits
  - payment services transactions
  - trading in securities etc
  - financial instruments
- avoiding/reducing risk of loss by implementing action plans for weak exposures. These action plans involve reducing the Group's exposure as well as hedging risks by securing additional collateral.

Risks in connection with lending must be precalculated on an informed and well-founded basis.

The Group's credit exposure is in particular to clients in Denmark and Northern Germany.

Particular focus is given to weak exposures. The objective is to ensure that the Group's action plans for these exposures are evaluated and adjusted on an ongoing basis to reduce the risk of loss.

Moreover Credits has a department which is assigned to exposures with a significant risk of loss. These exposures are closely monitored and Credits is actively involved in preparing solutions to mitigate the Group's credit risk.

On the basis of a risk-based approach Credit Control ensures that procedures and lending authorities are complied with as well as checks the Bank's systems and business procedures in the credit area. Moreover Credit Control, which is a separate department, follows up that any errors detected are corrected and reports to the Bank's management about its activities.

Risk Follow-up

Risk Follow-up is part of the division Risk.

By means of analyses and random sampling Risk Follow-up monitors the credit quality of exposures, registrations, impairment charge calculations as well as the compliance with policies and business procedures in general.

This process involves research and analyses using information from the Group's database of all exposures.

Moreover Risk Follow-up conducts regular credit quality analyses of the Group's new exposures as well as regular random sampling of the retail and corporate client portfolios.

Finally Risk Follow-up evaluates on the basis of a credit expert assessment whether the Group's rating models rank clients correctly.

Rating

The Group has developed rating models to manage credit risks to retail, corporate and investment clients. The overriding objective is to constantly monitor the financial circumstances of a client and to identify as early as possible any financial difficulties in order to work out a plan of action in cooperation with the client.

Model development is based on the recommendations submitted by the Basel Committee. Through dialogue with other interested parties in the market (credit institutions, supervisory authorities, rating agencies etc) the Group has ensured that the models comply with market standards.

In connection with the calculation of the Group's Pillar 1 capital requirements, the Group estimates on an ongoing basis the risk parameters PD, LGD and EAD as regards the Group's retail clients and PD as regards the Group's corporate clients.

PD represents the probability that the client will default on his obligations to the Group within the next 12 months.

LGD represents the proportion of a given exposure that is expected to be lost if the client defaults on his obligations within the next 12 months.

EAD represents the expected size of an exposure, ie how much a client is expected to have drawn on the granted credit facilities at the time of default. In order to calculate EAD a conversion factor (CF) is estimated for the purpose of converting undrawn credit commitments to expected EAD.

The risk parameters are included in the calculation of a number of important internal ratios and key figures concerning the Group's portfolio of exposures, including expected loss.

Expected loss is calculated as follows: EAD x PD x LGD.

Furthermore the ratings constitute a vital management tool in the Group's credit process in connection with eg:
- the targeting of sales activities, including pricing
- the assessment and determination of lending authority
- the treatment and follow-up of the risk of loans and credit commitments
- the calculation of impairment charges as regards facilities without objective evidence of credit impairment.

Sydbank applies the advanced IRB approach to calculate the capital requirement as regards retail exposures and the foundation IRB approach to calculate the capital requirement as regards corporate exposures.

Sydbank is working on a project with the purpose of gaining approval to apply the advanced IRB approach to calculate the capital requirement as regards corporate exposures. The objective is to gain approval in 2020/21.

On the basis of the rating models, clients are assigned to rating categories 1-10 where rating category 1 represents the best credit quality and rating category 10 represents the category of clients who have defaulted on their obligations to the Group.

Clients are rated in the 3 partially independent models described below and all models are based on statistical processing of client data for the purpose of classifying clients according to their probability of default within the next 12 months.

Retail
The retail client model is based primarily on account behaviour. On the basis of this data and inherent statistical correlations, clients are rated according to their probability of default vis-à-vis the Group within the next 12 months.

Corporate
The corporate client model is based partly on accounting data and partly on financial conduct and is supplemented by appraisals made by the credit officer and/or account manager of the client's current strength profile as well as an industry analysis. It is possible on the basis of a specific assessment to override a rating. All overrides must be approved by the Bank's Credit Committee. As regards the largest clients, ie exposures exceeding 1% of the Group's total capital, calculated ratings are assessed by Credits at least twice a year.

Investment
The investment client model is based on the following:
- Excess cover within the client's investment exposure
- Approved stop loss
- Volatility of the investment portfolio
- Strength profile of the client.

Exposures outside the rating models
The Group has no internal rating model to assess risk as regards credit institutions and public authorities (governments, regions and municipalities). The Danish FSA has approved the Group's use of the Standardised Approach to calculate the risk exposure amount concerning this asset class.

Loans/advances and guarantees by rating category

DKKm	Corporate			Retail			Total		2019
	Loans/ advances	Guarantees	%	Loans/ advances	Guarantees	%	Loans/ advances	Guarantees	%
1	608	128	1.4	4,987	8,173	46.4	5,595	8,301	16.8
2	11,208	1,360	23.1	2,544	2,644	18.3	13,752	4,004	21.5
3	17,472	1,733	35.4	2,538	1,884	15.6	20,010	3,617	28.6
4	7,414	783	15.1	912	796	6.0	8,326	1,579	12 .0
5	4,537	670	9.6	568	389	3.4	5,105	1,059	7.5
6	2,799	295	5.7	206	99	1.1	3,005	394	4.1
7	674	127	1.5	73	18	0.3	747	145	1.1
8	419	42	0.8	50	24	0.3	469	66	0.6
9	2,420	190	4.8	782	156	3.3	3,202	346	4.3
Default	850	53	1.6	175	23	0.6	1,025	76	1.3
STD/NR	306	221	1.0	1,074	252	4.7	1,380	473	2.2
Total	**48,707**	**5,602**	**100.0**	**13,909**	**14,458**	**100.0**	**62,616**	**20,060**	**100.0**
Impairment of loans and advances	1,631			431			2,062		
Total	**47,076**	**5,602**		**13,478**	**14,458**		**60,554**	**20,060**	
% of total	78	28		22	72		100	100	

The table above shows that corporate loans and advances (including to public authorities) account for 78% (2018: 74%) of total loans and advances, and retail loans and advances constitute 22% (2018: 26%).

75% (2018: 71%) of the Group's corporate loans and advances and guarantees are rated in categories 1-4 and 86% (2018: 83%) of the Group's retail loans and advances are rated in categories 1-4.

Default

According to the Group's rating system, a client is in default if at least one of the following events has occurred:

- A write-off has been recorded as regards the client.
- The client has at least one non-accrual credit facility.
- An impairment charge/provision has been registered in connection with the client and a loss must be regarded as unavoidable.
- The exposure has been transferred to the Group's central department for non-performing exposures.

Moreover the Group has a procedure in place whereby all exposures in arrears for more than 90 days are either approved or transferred to the department for non-performing exposures.

Rating

Validation

The risk parameters are monitored and validated on an ongoing basis in compliance with the Group's business procedures which reflect Danish FSA requirements, the supplementary guidelines issued by the Committee of European Banking Supervisors (CEBS) as well as internal requirements.

The validation process includes an assessment of:
- model ability to rank clients by default risk
- realised values compared with expected values (backtesting)
- data quality
- model application.

The backtest of the retail client rating model for the period from 1 January 2019 to 31 December 2019 shows the following:

Rating	Number	Number of realised defaults	Number of estimated defaults
1	47,417	8	14
2	16,798	7	6
3	17,253	19	37
4	6,098	22	32
5	5,640	31	54
6	1,756	16	37
7	912	19	34
8	4,236	69	226
9	5,783	250	489
Total	**105,893**	**441**	**929**

The total number of retail client defaults is 53% (2018: 58%) below the estimated number. The primary reason is found in rating categories 8 and 9 where the Group's PD estimates were very prudent during the period compared to the realised default rates.

It is expected that the estimates are prudent. The current degree of prudence is considered to be sufficient.

Apart from rating categories 8 and 9 the backtest is believed to reflect a satisfactory correlation between the number of estimated and realised defaults in each rating category.

The backtest of the corporate client rating model for the same period shows the following:

Rating	Number	Number of realised defaults	Number of estimated defaults
1	399	0	0
2	2,470	1	1
3	2,488	7	3
4	1,636	4	6
5	1,505	14	13
6	636	6	12
7	142	2	5
8	86	5	6
9	807	85	133
Total	**10,169**	**124**	**179**

The number of corporate client defaults is in line with the estimated number. However it can be noted that during the period the number of realised defaults in rating category 3 exceeds the number estimated by the model. Such variations may occur from time to time.

The table below shows the average PD for solvency purposes used to calculate the Group's risk exposure amount at the end of the year as well as the realised annual default rates for 2014 to 2019.

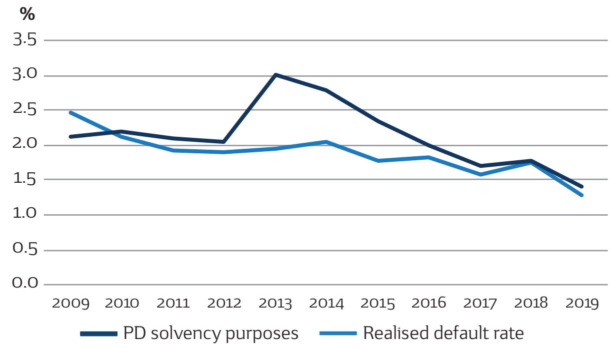
%	Corporate		Retail	
Year	PD solvency 31 Dec	Realised default rate	PD solvency 31 Dec	Realised default rate
2019	1.40	1.27	0.92	0.42
2018	1.78	1.79	1.10	0.53
2017	1.71	1.58	1.18	0.50
2016	2.01	1.83	1.12	0.47
2015	2.35	1.78	1.16	0.55
2014	2.79	2.04	1.03	0.55

As regards retail clients the realised default rates as well as the PD estimate for solvency purposes were stable during the period.

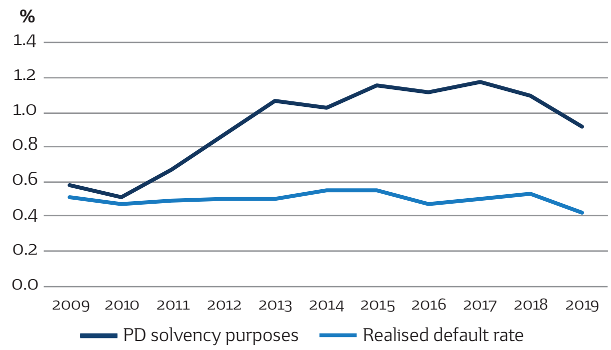
Consequently the Group anticipates that under normal economic conditions the PD estimates for solvency purposes are prudent compared to the realised default rates.

The following 2 figures show PD for solvency purposes and the realised default rate since 2009. As can be seen, PD for solvency purposes is typically higher than the realised default rate.

Probability of default – corporate clients



Probability of default – retail clients



Rating

Loss given default (LGD)

LGD is defined as the proportion of a given exposure that is expected to be lost if the client defaults within the next 12 months.

The size of LGD will vary depending on the category of the borrower as well as the realisable value of any collateral or other type of hedging.

As regards retail clients the Group uses its own estimates of the realisable value of collateral and of the loss on the unsecured part of the exposure.

The realisable value reflects the market value of collateral net of:

- the expected state of assets provided that the exposure is non-performing
- the expected decline in asset values during a recession
- the transferability of the collateral
- model uncertainty.

As regards corporate clients the Group applies supervisory parameters of its collateral and of the loss on the unsecured part of the exposure in accordance with the foundation IRB approach. This approach sets a number of limitations as to eligible forms of collateral.

As a consequence of these limitations, the Group cannot deduct a number of assets held as collateral when determining the Pillar 1 capital requirement.

The table below shows the average estimated and realised LGD of retail clients in default from 2015 to 2019.

Loss given default – retail clients %

Year	Estimated	Realised
2019	72	59
2018	70	56
2017	71	63
2016	71	60
2015	71	70

Comparing estimated and realised LGD rates is difficult as the estimated values reflect the percentage of the loss of the original exposure when the loss has been finally determined and repayments on the exposure can no longer occur. As regards virtually all exposures in default, this period lasts several years and quite often substantial payments are recorded several years after the exposure was in default.

The difference between estimated and realised losses in recent years is attributable to the fact that in recent years the ability to pay has been influenced by the positive market trends.

Conversion factor (CF)

As regards exposures with undrawn credit commitments, a conversion factor is estimated indicating the expected utilisation of an undrawn credit commitment at the time of default. EAD is then calculated as the amount already drawn plus expected additional drawings until default.

The Group uses its own conversion factor estimates for retail clients whereas the conversion factor for corporate clients is determined in accordance with the Danish FSA's rules on the foundation IRB approach.

The table below shows the average estimated and realised conversion factors for undrawn credit commitments of retail clients in default from 2015 to 2019.

Conversion factor – retail clients %

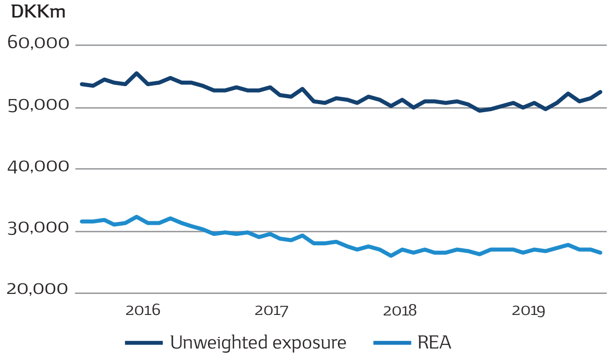
Year	Estimated	Realised
2019	99	32
2018	99	26
2017	100	21
2016	99	7
2015	99	26

As can be seen from the table, the Group's CF estimates as regards retail clients were around 100% throughout the period, corresponding to full recognition of undrawn credit commitments. The realised conversion factors were significantly below this level.

Risk exposure amount (REA)

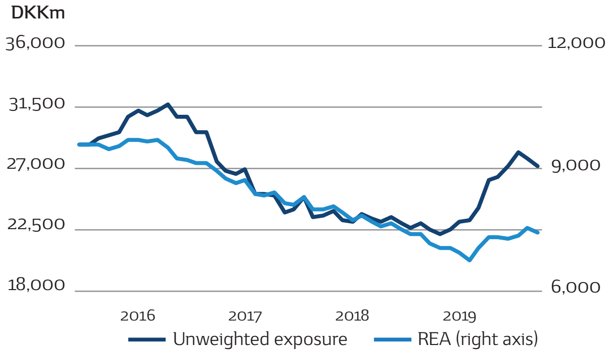
REA is a function of PD, LGD and EAD. REA appears from "Appendix 1 – Supplementary tables". The figures below show the correlation between unweighted exposure and REA of corporate clients and retail clients respectively.

REA and unweighted exposure – corporate clients



The positive development in the composition of the Group's exposures to corporate clients by way of growth in exposures to the Group's best clients (rating categories 1-4) as well as the improvement in the ratings of some of the Group's other corporate clients is reflected in the development in the risk weight as regards corporate clients.

REA and unweighted exposure – retail clients



The decline in 2017 in unweighted exposure in relation to retail clients is due to the change in the Group's agreement with Totalkredit on joint funding of mortgage-like loans effective 1 January 2017. The agreement was changed from an offsetting model according to which the Bank covers losses as regards the entire loan to a guarantee model according to which the Bank provides a guarantee for the part of the loan in the LTV range of 60-80%. The Group no longer has a credit risk as regards the part of the loan in the LTV range of 0-60%. As a consequence of the amendment of the agreement, funded mortgage-like loans are only recognised in the unweighted exposure at the guarantee amount for the LTV range of 60-80%.

The increase in 2019 in the unweighted exposure as regards retail clients is attributable to the provision of guarantees in connection with the refinancing of mortgage loans.

Industry breakdown

The Group's credit exposure to corporate clients takes into account individual industry prospects. Due to special risk assessments, the Group may deliberately underweight its exposure to a few industries. The table below shows the exposure by way of loans and advances and guarantees to 10 primary industries as well as to retail clients and public authorities. After impairment charges, total loans and advances represent DKK 60,554m. In addition the table shows loans and advances by stage according to IFRS 9 and the related accumulated impairment charges as well as impairment charges for loans and advances etc for the year by industry etc.

2019 DKKm	Loans/advances before impairment charges	Loans/advances after impairment charges	Guarantees	Loans/advances – stage 1	Loans/advances – stage 2	Loans/advances – stage 3
Agriculture, hunting, forestry and fisheries	3,480	2,849	800	2,158	640	682
Manufacturing and extraction of raw materials	9,650	9,426	733	8,606	846	198
Energy supply etc	2,314	2,309	318	2,284	29	1
Building and construction	3,097	3,020	1,081	2,810	200	87
Trade	12,716	12,387	919	11,645	712	359
Transportation, hotels and restaurants	3,129	3,069	226	2,825	233	71
Information and communication	428	418	18	396	21	11
Finance and insurance	5,475	5,410	636	5,265	107	103
Real property	4,686	4,542	502	4,156	184	346
Other industries	3,449	3,364	365	3,042	326	81
Total corporate	**48,424**	**46,794**	**5,598**	**43,187**	**3,298**	**1,939**
Public authorities	283	282	4	283	0	0
Retail	13,909	13,478	14,458	12,485	1,172	252
Total	**62,616**	**60,554**	**20,060**	**55,955**	**4,470**	**2,191**
Agriculture, hunting, forestry and fisheries						
Pig farming	693	588	197	478	150	65
Cattle farming	814	626	198	442	176	196
Crop production	937	827	261	600	195	142
Other agriculture	1,036	808	144	638	119	279
Total	**3,480**	**2,849**	**800**	**2,158**	**640**	**682**
Manufacturing and extraction of raw materials						
Iron and metal	2,131	2,033	113	1,810	309	12
Food, beverage and tobacco	2,585	2,570	127	2,478	99	8
Clothing	1,251	1,235	23	1,133	105	13
Other manufacturing and extraction of raw materials	3,683	3,588	470	3,185	333	165
Total	**9,650**	**9,426**	**733**	**8,606**	**846**	**198**
Trade						
Wholesale	9,143	8,873	511	8,310	543	290
Retail	2,132	2,089	304	1,966	115	51
Car dealers and garages	1,441	1,425	104	1,369	54	18
Total	**12,716**	**12,387**	**919**	**11,645**	**712**	**359**
Finance and insurance						
Holding companies	2,034	2,007	119	1,964	36	34
Financing companies	3,441	3,403	517	3,301	71	69
Total	**5,475**	**5,410**	**636**	**5,265**	**107**	**103**
Real property						
Leasing of commercial property	1,857	1,769	209	1,563	87	207
Leasing of residential property	1,027	992	157	924	33	70
Housing associations and cooperative associations	499	498	7	499	0	-
Purchase, development and sale on own account	1,248	1,230	126	1,121	61	66
Other related to real property	55	53	3	49	3	3
Total	**4,686**	**4,542**	**502**	**4,156**	**184**	**346**

As shown below, the accumulated impairment ratio as regards loans and advances constitutes 3.3% (2018: 4.3%) and credit impaired loans and advances in stage 3 represent 3.5% (2018: 4.6%) of the total volume of lending. The table shows that 19.6% (2018: 13.6%) of loans and advances to agriculture are regarded as credit impaired and that the impairment charges constitute 55.6% (2018: 59.3%). The impairment ratio for agriculture totals 18.1% (2018: 16.9%). The Group's risk on the exposure to agriculture is described in a separate paragraph.

Impairment charges for loans/advances – stage 1	Impairment charges for loans/advances – stage 2	Impairment charges for loans/advances – stage 3	Impairment charges for loans/advances etc for the year	Losses reported for the year	Loans/advances in stage 3 as % of loans/advances	Impairment charges in stage 3 as % of loans/advances in stage 3	Impairment charges as % of loans/advances
10	242	379	78	145	19.6	55.6	18.1
15	128	81	3	49	2.1	40.9	2.3
3	1	1	(5)	0	0.0	100.0	0.2
5	24	48	3	32	2.8	55.2	2.5
26	76	227	102	129	2.8	63.2	2.6
5	22	33	(1)	5	2.3	46.5	1.9
1	4	5	3	0	2.6	45.5	2.3
17	2	46	(3)	40	1.9	44.7	1.2
6	15	123	(66)	38	7.4	35.5	3.1
7	35	43	(33)	9	2.3	53.8	2.5
95	**549**	**986**	**81**	**447**	**4.0**	**50.9**	**3.4**
1	0	0	0	-	0.3	0.0	0.3
8	241	182	(178)	151	1.8	72.2	3.1
104	**790**	**1,168**	**(97)**	**598**	**3.5**	**53.3**	**3.3**
2	63	40	(67)	50	9.4	61.5	15.2
4	58	126	44	55	24.1	64.3	23.1
2	52	56	1	8	15.2	39.4	11.7
2	69	157	100	32	26.9	56.3	22.0
10	**242**	**379**	**78**	**145**	**19.6**	**55.6**	**18.1**
3	85	10	2	4	0.6	83.3	4.6
4	7	4	1	1	0.3	50.0	0.6
2	9	5	(9)	3	1.0	38.5	1.3
6	27	62	9	41	4.5	37.6	2.6
15	**128**	**81**	**3**	**49**	**2.1**	**40.9**	**2.3**
19	58	193	99	101	3.2	66.6	3.0
4	13	26	2	19	2.4	51.0	2.0
3	5	8	1	9	1.2	44.4	1.1
26	**76**	**227**	**102**	**129**	**2.8**	**63.2**	**2.6**
3	1	23	(19)	13	1.7	67.6	1.3
14	1	23	16	27	2.0	33.3	1.1
17	**2**	**46**	**(3)**	**40**	**1.9**	**44.7**	**1.2**
2	6	80	(26)	9	11.1	38.6	4.7
1	5	29	(12)	2	6.8	41.4	3.4
1	0	-	1	0	-	-	0.2
2	4	12	(22)	27	5.3	18.2	1.4
0	0	2	(7)	0	5.5	66.7	3.6
6	**15**	**123**	**(66)**	**38**	**7.4**	**35.5**	**3.1**

Industry breakdown

The table below shows the Group's loans and advances to industries by rating category. 78.6% (2018: 76.7%) of rated loans and advances after impairment charges are rated in categories 1-4 whereas the percentage for agriculture is 38.5 (2018: 35.5).

Loans and advances by rating category

DKKm							2019
Industry	1-2	3-4	5-6	7-9	Default	STD/NR	Total
Agriculture, hunting, forestry and fisheries	156	942	956	1,160	264	2	3,480
Manufacturing and extraction of raw materials	2,487	5,086	1,406	549	121	1	9,650
Energy supply etc	1,373	846	68	26	-	1	2,314
Building and construction	494	1,854	512	207	29	1	3,097
Trade	2,714	6,889	2,349	654	109	1	12,716
Transportation, hotels and restaurants	461	1,718	696	240	11	3	3,129
Information and communication	85	186	129	28	-	-	428
Finance and insurance	2,087	2,951	225	92	91	29	5,475
Real property	1,279	2,492	441	271	203	-	4,686
Other industries	675	1,915	553	283	22	1	3,449
Public authorities	5	7	1	3	-	267	283
Retail	7,531	3,450	774	905	175	1,074	13,909
Total	**19,347**	**28,336**	**8,110**	**4,418**	**1,025**	**1,380**	**62,616**
Impairment of loans and advances	27	44	68	1,349	554	20	2,062
Total loans and advances	**19,320**	**28,292**	**8,042**	**3,069**	**471**	**1,360**	**60,554**
%	31.9	46.7	13.3	5.1	0.8	2.2	100.0

Focus on agriculture

Agriculture – loans and advances by rating category

DKKm							2019
Sub-industry	1-2	3-4	5-6	7-9	Default	STD/NR	Total
Pig farming	3	183	256	212	38	1	693
Cattle farming	4	120	230	372	88	-	814
Crop production	93	274	242	258	70	-	937
Other agriculture	56	365	228	318	68	1	1,036
Total	**156**	**942**	**956**	**1,160**	**264**	**2**	**3,480**
Impairment of loans and advances	0	2	7	455	166	1	631
Total loans and advances	**156**	**940**	**949**	**705**	**98**	**1**	**2,849**
%	5.5	33.0	33.3	24.7	3.5	-	100.0

Agriculture is divided into the following sub-industries:
- Pig farming
- Cattle farming (beef cattle and dairy cattle)
- Crop production
- Other agriculture (primarily forestry, mink farming and leisure farmers).

Outlook for agriculture

At year-end 2019 Sydbank's total loans and advances to agriculture constituted DKK 3.5bn – a decline of DKK 491m compared with a year ago.

The share of loans and advances in the weakest rating categories (7-9 and default) represents 40.9% (2018: 39.2%) before impairment charges. After impairment charges this share constitutes 28.2% (2018: 27.1%). The increase in the share of loans and advances in the weakest rating categories is primarily attributable to milk producers who due to poor efficiency will not achieve satisfactory operating profits for 2019. In addition their liquidity is under pressure as a result of the drought in 2018.

As shown in the table on pp 12-13, 19.6% (2018: 13.6%) of loans and advances to agriculture are credit impaired and classified as stage 3. 9.4% (2018: 15.0%) of loans and advances to pig farming are classified as stage 3 and 24.1% (2018: 13.9%) of loans and advances to cattle farming are classified as stage 3.

At year-end 2019 an impairment charge totalling DKK 631m (2018: DKK 670m) was recorded, equivalent to 18.1% (2018: 16.9%) of loans and advances.

DKK 379m (2018: DKK 320m) of the impairment charges for loans and advances of DKK 631m concern credit impaired exposures. Impairment charges include management estimates of DKK 100m.

Total earnings for the agricultural sector in 2019 are expected to be high, which is predominantly attributable to a sharp increase in the quotation for pork in 2H 2019.

In 2019 the agricultural sector was impacted in terms of liquidity due to the drought in 2018 in that there was a greater need to buy feed to make up for the losses of crops in 2018. Growth conditions were significantly better in 2019 and crop yields were above average. However a very wet autumn posed challenges in terms of harvesting rough feed and establishing winter crops.

Pork producers have seen a substantial increase in the quotation from DKK 8.30 per kg at the beginning of the year to DKK 13.30 per kg at the end of the year. For the year as a whole the quotation was DKK 12.16 per kg, incl supplementary payments, which means that pork producers will end 2019 with satisfactory earnings.

In December 2019 the forecast for 2020 was revised up to DKK 14.56 per kg, incl supplementary payments, which means that pork producers' earnings will reach an all-time high. The reason is the massive spread of swine fever in Asia. Although this is the reason for the very positive development in the economy of Danish pork production it also constitutes a significant risk if the swine fever spreads from Poland to Germany and at worst to Denmark.

Milk producers have seen stable prices of around DKK 2.60 per kg milk and the forecast for 2020 continues to show stable settlement prices for milk. The level of prices is sufficient to achieve a profit for most milk producers.

Following significant price increases of grain in 2018 prices returned to a more normal level in 2019.
Despite a drop in grain prices crop producers' earnings in 2019 exceed that of the 2018 drought year due to higher crop yields. For 2020 crop producers expect earnings at the level of 2019 however depending on growth conditions in 2020.

Mink producers had yet a poor year in 2019 and after 4 years of low prices there is now a serious need for a rise in pelt prices. At Kopenhagen Fur's latest auction in September 2019 there was a slight drop in pelt prices and uncertainty surrounding pelt price developments in 2020 is still significant. The production of mink pelts dropped by 25% in 2019 and Kopenhagen Fur projects another decline of 5-7% in 2020, which will result in the lowest level since 2000.

Given recent years' poor earnings in the agricultural sector most farms have only made the necessary reinvestments to maintain their day-to-day operations. Consequently there is a severe backlog of investments, which will be a problem for some farms in the coming years as their farms, given their current production resources, will not be profitable. Therefore it is expected that some pork producers and milk producers will not succeed in obtaining finance for the necessary investments and as a result will be forced to sell their farms.

To hedge the risk of continued low mink pelt prices as well as insufficient financing options as regards investment backlogs a management estimate of DKK 100m has been provided for as at 31 December 2019.

Focus on retail clients

At 31 December 2019 loans and advances to retail clients represent DKK 13,909m (2018: DKK 16,253m) – a decline of DKK 2,344m.

Other loans and advances than mortgage-like loans to retail clients constitute DKK 10,655m at 31 December 2019 (2018: DKK 11,606m) – a decline of 8.2% in 12 months.

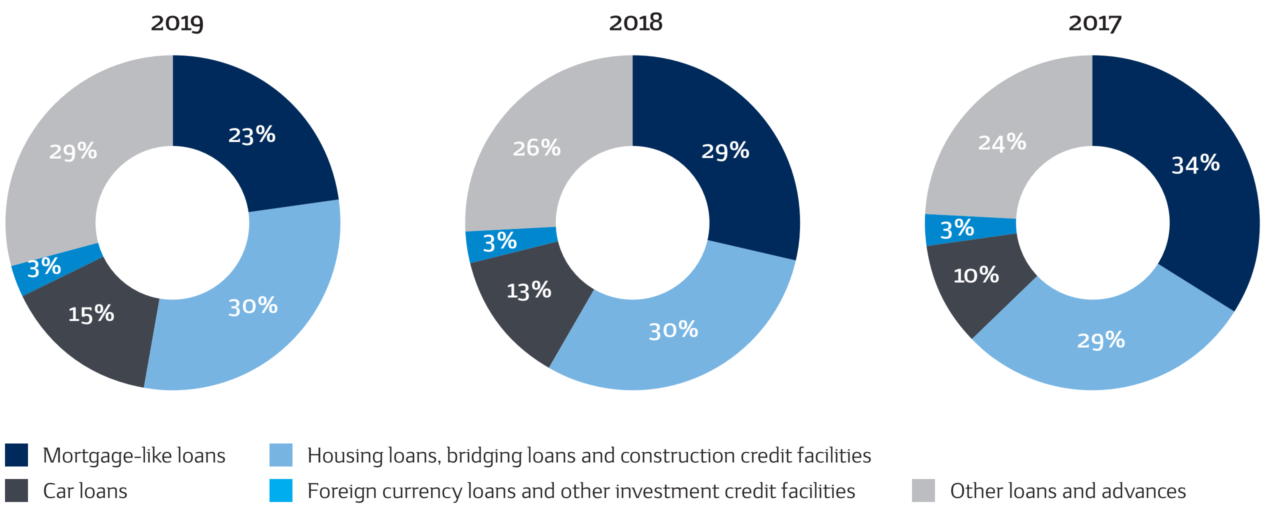
At 31 December 2019 mortgage-like loans make up 23.4% (2018: 28.6%) of total loans and advances to retail clients.

Funded mortgage-like loans are not recognised in the Group's balance sheet. The Bank provides a guarantee for the part of the loan in the LTV range of 60-80%.

Total credit intermediation to retail clients by product type

DKKm Product type	2019	2018	2017
Mortgage-like loans	3,254	4,647	6,267
Housing loans, bridging loans and construction credit facilities	4,185	4,908	5,407
Car loans	2,085	2,051	1,946
Foreign currency loans and other investment credit facilities	356	410	526
Other loans and advances	4,029	4,237	4,573
Total loans and advances	**13,909**	**16,253**	**18,719**
Funded loans and advances - off-balance sheet	8,338	9,862	9,974
Arranged mortgage loans - Totalkredit	64,733	59,694	58,008
Total credit intermediation	**86,980**	**85,809**	**86,701**

Total loans and advances to retail clients – by product type



The tables below show that a substantial part of the decline in loans and advances to retail clients was in rating categories with low risk. At 31 December 2019 loans and advances before impairment charges to clients in the 4 best rating categories represent DKK 10,981m (2018: DKK 12,980m) – a decline of DKK 1,999m, primarily attributable to a decrease in mortgage-like loans and housing loans.

At 31 December 2019 the share of loans and advances to clients in the 4 best rating categories constitutes 81.4% (2018: 82.6%). The decline in this share is attributable to a decrease in mortgage-like loans primarily granted to clients in rating categories 1-4 as well as an increase in car loans that are not rated (NR).

Outlook for retail clients

Low unemployment combined with a rise in property prices and extremely low interest rates contribute to a low credit risk as regards retail clients.

Based on these fundamental factors low impairment charges as regards retail clients are expected in the year ahead.

Net impairment charges as regards retail clients in 2019 totalled an income of DKK 178m (2018: income of DKK 121m).

Loans and advances to retail clients – by product type and rating category

DKKm								2019
Product type	1-2	3-4	5-6	7-9	Default	STD/NR	Total	%
Mortgage-like loans	2,549	424	145	129	7	-	3,254	23.4
Housing loans, bridging loans and construction credit facilities	2,055	1,455	272	374	24	5	4,185	30.1
Car loans	668	274	54	31	6	1,052	2,085	15.0
Foreign currency loans and other investment credit facilities	206	81	28	24	-	17	356	2.5
Other loans and advances	2,053	1,216	275	347	138	-	4,029	29 .0
Total	**7,531**	**3,450**	**774**	**905**	**175**	**1,074**	**13,909**	**100 .0**
Impairment of loans and advances	1	7	11	267	131	14	431	
Total loans and advances	**7,530**	**3,443**	**763**	**638**	**44**	**1,060**	**13,478**	
%	55.9	25.5	5.7	4.7	0.3	7.9	100 .0	

DKKm								2018
Mortgage-like loans	3,624	689	174	152	8	-	4,647	28.6
Housing loans, bridging loans and construction credit facilities	3,031	1,089	269	482	31	6	4,908	30.2
Car loans	803	204	48	39	3	954	2,051	12.6
Foreign currency loans and other investment credit facilities	230	97	47	34	2	-	410	2.5
Other loans and advances	2,109	1,104	418	444	162	-	4,237	26.1
Total	**9,797**	**3,183**	**956**	**1,151**	**206**	**960**	**16,253**	**100.0**
Impairment of loans and advances	1	9	13	356	164	18	561	
Total loans and advances	**9,796**	**3,174**	**943**	**795**	**42**	**942**	**15,692**	
%	62.4	20.2	6.0	5.1	0.3	6.0	100.0	

Concentration

Under the EU's Capital Requirements Regulation (CRR), exposures to a client or a group of connected clients, after the deduction of particularly secure claims, may not exceed 25% of total capital. The compliance with these rules is reported to the Danish FSA on a quarterly basis.

The table below shows the exposures which after the deduction of particularly secure claims constitute 10% or more of total capital.

DKKm	2019	2018
Exposure > 20% of total capital	-	-
Exposure10-20% of total capital	1,282	-
Total	**1,282**	**-**
% of total capital	10.2	-

At year-end 2019 a single exposure after the deduction of particularly secure claims constitutes 10% or more of total capital.

According to CRR the 20 largest exposures may not exceed 150% of the Group's CET1 capital. The limit is thus fixed under the Supervisory Diamond's threshold of 175% (applicable from 1 January 2018) of CET1 capital.

At year-end 2019 the 20 largest exposures – according to CRR – represent 143% (2018: 147%) of CET1 capital.

In addition to calculating exposures according to CRR, Sydbank uses an internal exposure concept – BIS group – that consolidates clients that are interdependent as a result of any knock-on effect. Consequently one CRR group may consist of several BIS groups but one BIS group cannot form part of several CRR groups.

Credit policy

In accordance with its credit policy, the Group does not wish to be dependent on or have exposures to large single clients. This implies among other factors that the following must be observed as the exposures are always calculated according to the principles for BIS groups:

- The 10 largest exposures may, as a rule, not exceed 10% of the Group's total portfolio of exposures (however excluding exposures to credit institutions, investment funds and public enterprises).
- After deduction of the loan value of any collateral, the 10 largest exposures may not exceed 5% of the total portfolio of exposures (however excluding exposures to credit institutions, investment funds and public enterprises).
- The 20 largest exposures may not exceed 125% of the Group's total capital.

At year-end 2019 the 10 largest exposures represent 5.2% (2018: 5.1%) of the Group's total portfolio of exposures.

After deduction of the loan value of any collateral, the 10 largest BIS exposures constitute 4.6% (2018: 4.6%) of the total portfolio of exposures.

At year-end 2019 the 20 largest BIS exposures represent 96% (2018: 91%) of the Group's total capital.

No exposures (however excluding exposures to credit institutions, investment funds and public enterprises) represent more than 10% of the Group's total capital.

Loans and advances to corporate clients by amount/rating category

DKKm								2019
Amount	1-2	3-4	5-6	7-9	Default	STD/NR	Total	%
0-1	342	715	296	210	37	-	1,600	3.3
1-5	959	3,085	1,361	834	182	-	6,421	13.2
5-10	625	2,143	1,096	503	197	-	4,564	9.4
10-20	1,333	2,948	1,363	723	135	-	6,502	13.3
20-50	1,721	4,054	1,642	635	299	-	8,351	17.1
50-100	2,436	4,187	898	401	-	-	7,922	16.3
100-200	1,807	3,525	471	-	-	-	5,803	11.9
200-500	1,831	4,229	209	207	-	-	6,476	13.3
500-	762	-	-	-	-	-	762	1.6
STD/NR	-	-	-	-	-	306	306	0.6
Total	**11,816**	**24,886**	**7,336**	**3,513**	**850**	**306**	**48,707**	**100.0**
%	24.3	51.1	15.1	7.2	1.7	0.6	100.0	

The table below shows loans and advances to the Group's 100 largest BIS groups by industry and rating category. Since a BIS group often comprises several industries, the loans and advances to some industries in some rating categories may be modest.

The 100 largest BIS groups represent a total of 30.7% (2018: 29.0%) of the Group's total loans and advances. 89.6% (2018: 83.9%) of these loans and advances are rated in categories 1-4. Moreover loans and advances to agriculture as regards these 100 largest clients represent 1.3% (2018: 2.3%).

Loans and advances to 100 largest BIS groups by industry/rating category

DKKm								2019
Industry/rating category	1-2	3-4	5-6	7-9	Default	STD/NR	Total	%
Agricuture, hunting, forestry and fisheries	-	151	-	97	-	-	248	1.3
Manufacturing and extraction of raw materials	1,006	2,488	125	254	-	-	3,873	20.1
Energy supply etc	588	324	-	-	-	252	1,164	6.0
Building and construction	94	919	-	5	-	-	1,018	5.3
Trade	1,863	3,147	752	-	-	-	5,762	29.9
Transportation, hotels and restaurants	110	544	182	-	-	-	836	4.4
Information and communication	54	1	108	-	-	-	163	0.8
Finance and insurance	1,471	1,455	9	-	-	-	2,935	15.3
Real property	496	1,256	-	-	-	-	1,752	9.1
Other industries	94	1,050	107	102	-	-	1,353	7.0
Public authorities	-	-	-	-	-	-	-	-
Retail	103	37	-	3	-	-	143	0.8
Total	**5,879**	**11,372**	**1,283**	**461**	**-**	**252**	**19,247**	**100.0**
%	30.5	59.1	6.7	2.4	-	1.3	100.0	

Corporate clients by size of enterprise/rating category, excluding default

%						2019
Rating category Net turnover/assets (DKKm)	1-2	3-4	5-6	7-9	Total	Loans/advances and guarantees
0-25	15	49	21	15	100	18
25-50	26	47	18	9	100	8
50-100	17	47	26	10	100	9
100-200	21	54	18	7	100	12
200-400	30	53	11	6	100	11
400-	31	54	11	4	100	37
NA	37	47	11	5	100	5
Total	**25**	**52**	**16**	**7**	**100**	**100**

Collateral

The Group aims to mitigate the risk on individual exposures by way of charges on assets, netting agreements and guarantees.

The most frequent types of charges include mortgages and charges on financial assets (shares, bonds and units).

The Group receives different kinds of guarantees for exposures. Many of these are provided by companies or individuals who have a group relationship with the debtor.

The Group assesses on an ongoing basis the value of collateral provided. The value is determined as the expected net proceeds on realisation.

The 2 tables below illustrate the breakdown of collateral by type and rating category respectively.

Collateral received and types of collateral

DKKm	2019	2018
Loans and advances at fair value	12,602	6,510
Loans and advances at amortised cost	60,554	60,983
Guarantees	20,060	13,881
Credit exposure for accounting purposes	**93,216**	**81,374**
Collateral value	56,179	45,342
Total unsecured	**37,037**	**36,032**
Types of collateral		
Real property	8,386	10,065
Financial collateral	17,776	12,536
Lease assets, mortgages etc	7,038	6,519
Floating charges, operating equipment etc	7,402	6,546
Guarantees	985	1,245
Other items of collateral	446	229
Total collateral used	**42,033**	**37,140**
Particularly secured transactions (mortgage guarantees)	14,146	8,202
Total	**56,179**	**45,342**

In the event that the Group uses collateral that is not immediately convertible into liquid holdings, it is the Group's policy to dispose of such assets as quickly as possible. In 2019 repossessed equipment as well as real property taken over in connection with non-performing exposures amounted to DKK 24m (2018: DKK 12m). Lease assets are assessed and depreciated on an ongoing basis. As a result the calculated collateral as regards the Group's leasing activities will decline during periods of lower lease asset prices.

Mortgages on real property have fallen by DKK 1,679m from DKK 10,065m in 2018 to DKK 8,386m in 2019.
The decrease is primarily attributable to the decline in mortgage-like loans to retail clients.

Financial collateral has increased by DKK 5,240m from DKK 12,536m in 2018 to DKK 17,776m in 2019, which is primarily attributable to the rise in loans and advances at fair value which have gone up by DKK 6,092m.
Loans and advances at fair value are repo loans and advances with financial collateral.

The table below shows the size of loans and advances, guarantees as well as collateral according to rating category. The value of collateral is assessed relative to loans and advances and guarantees. Excess collateral is not included in the calculation of collateral. 60.3% (2018: 55.7%) of the Group's loans and advances and guarantees after impairment charges is covered via collateral.

Collateral by rating category

DKKm				2019
Rating category	Loans/advances	Guarantees	Collateral value	Unsecured
1	6,783	8,301	13,083	2,001
2	18,804	4,004	13,287	9,521
3	21,155	3,617	11,328	13,444
4	13,482	1,579	10,122	4,939
5	5,105	1,059	3,186	2,978
6	3,066	394	1,877	1,583
7	747	145	448	444
8	469	66	191	344
9	3,202	346	1,498	2,050
Default	1,025	76	403	698
STD/NR	1,380	473	756	1,097
Total	**75,218**	**20,060**	**56,179**	**39,099**
Impairment of loans and advances	2,062			2,062
Total	**73,156**	**20,060**	**56,179**	**37,037**

Impairment charges

Impairment charges are recorded for expected credit losses as regards all financial assets measured at amortised cost and similar provisions are made for expected credit losses as regards undrawn credit commitments and financial guarantees.

Impairment charges for expected credit losses depend on whether the credit risk of a financial asset has increased significantly since initial recognition and follow a 3-stage model:

- **Stage 1** – facilities with no significant increase in credit risk. The asset is written down by an amount equal to the expected credit loss as a result of the probability of default over the coming 12 months
- **Stage 2** – facilities with a significant increase in credit risk. The asset is transferred to stage 2 and is written down by an amount equal to the expected credit loss over the life of the asset
- **Stage 3** – facilities where the financial asset is in default or is otherwise credit impaired.

The Group's loans and advances and impairment charges at 31 December 2019 allocated to these 3 stages are shown in the table below.

Loans and advances and impairment charges

DKKm	Stage 1	Stage 2	Stage 3	Total
Loans and advances before impairment charges	55,955	4,470	2,191	62,616
Impairment charges	104	790	1,168	2,062
Total loans and advances	**55,851**	**3,680**	**1,023**	**60,554**

%	Stage 1	Stage 2	Stage 3	Total
Impairment charges as % of bank loans and advances	0.2	17.7	53.3	3.3
Share of bank loans and advances before impairment charges	89.4	7.1	3.5	100.0
Share of bank loans and advances after impairment charges	92.2	6.1	1.7	100.0

Impairment charges include a management estimate of DKK 100m (2018: DKK 100m) concerning agricultural exposures.

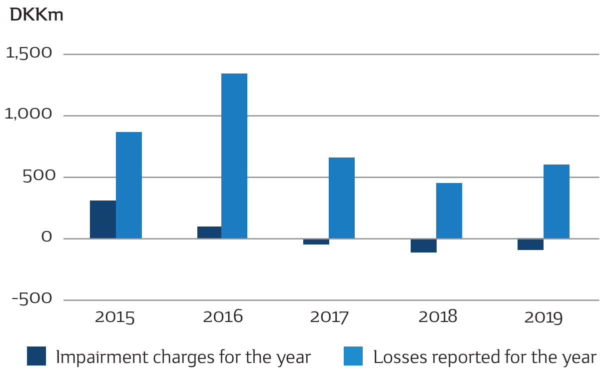
Impairment calculation is effected quarterly in a process managed by the centralised credit organisation.

Impairment charges for bank loans and advances etc represent minus DKK 97m in 2019 compared with minus DKK 122m in 2018.

Reported losses in 2019 total DKK 598m compared with DKK 452m in 2018.

The figure below shows the development in impairment charges for bank loans and advances from 2015 to 2019 as well as reported losses.

Impairment charges etc and reported losses



Credit impaired loans and advances

DKKm					2019
	Credit impaired loans and advances	Impairment charges	Carrying amount	Value of collateral	Unsecured part of carrying amount
Corporate	1,939	986	953	776	177
Retail	252	182	70	99	(29)
Total	**2,191**	**1,168**	**1,023**	**875**	**148**

Credit impaired loans and advances are equal to loans and advances in stage 3. The table above shows that the unsecured part of credit impaired loans and advances represents DKK 148m, equivalent to 6.8% (2018: 12.3%) of total credit impaired loans and advances.

Financial counterparties

Trading in securities, currencies and derivatives, as well as payment services etc involve exposure to financial counterparties in the form of delivery risk or credit risk.

Delivery risk is the risk that the Group does not receive payments or securities in connection with the settlement of securities or currency transactions equalling the securities or payments delivered by the Group.

Management grants delivery risk lines and credit risk lines to financial counterparties based on the risk profile of the individual counterparty which is assessed in terms of rating, earnings, capital position as well as the size of the financial counterparty. Risks and lines to financial counterparties are monitored continuously.

The Group participates in an international foreign exchange settlement system, CLS®, which aims to reduce delivery risk. In CLS® payment is made on the net position for each currency and only one amount for each currency is paid or received. In addition this net exposure is only to one counterparty, who is the Group's partner in the system.

The Group aims to mitigate credit risk to financial counterparties in many ways, eg by concluding netting agreements (ISDA agreements). Moreover the Group has entered into agreements (CSA agreements) with all significant counterparties to ensure credit risk mitigation of derivatives. Exposures are calculated on a daily basis after which the parties settle collateral. Consequently exposures are reset in all material respects on a daily basis. The agreements are managed by Global Transaction Services.

Appendix 1 – Supplementary tables

The Group's credit exposure

DKKm Exposure category	Approach	Gross exposure	Credit risk mitigation	Effect of conversion factors	Exposure (un-weighted)	REA	2019 Average exposure for the year
Corporate clients	STD	384	0	(122)	263	262	457
	IRB	104,979	(18,327)	(34,257)	52,395	26,352	100,759
Retail clients	STD	1,205	0	(3)	1,203	904	1,218
	IRB	32,558	(5,377)	(68)	27,113	7,425	30,411
Total corporate and retail clients		**139,126**	**(23,704)**	**(34,450)**	**80,974**	**34,943**	**132,845**
Governments incl municipalities	STD	7,910	0	(63)	7,847	0	13,175
Credit institutions	STD	8,865	(5,461)	(323)	3,081	804	13,462
Total		**155,901**	**(29,165)**	**(34,836)**	**91,902**	**35,747**	**159,482**
Share IRB (%)		88	81	99	87	94	82
Share STD (%)		12	19	1	13	6	18

							2018
Corporate clients	STD	471	0	(158)	313	312	518
	IRB	95,643	(11,812)	(33,375)	50,456	26,586	96,593
Retail clients	STD	1,156	0	(2)	1,154	865	1,089
	IRB	28,443	(5,402)	(72)	22,969	7,371	28,868
Total corporate and retail clients		**125,713**	**(17,214)**	**(33,607)**	**74,892**	**35,134**	**127,068**
Governments incl municipalities	STD	12,292	0	(457)	11,835	10	10,907
Credit institutions	STD	10,291	(5,484)	(1,104)	3,703	888	11,843
Total		**148,296**	**(22,698)**	**(35,168)**	**90,430**	**36,032**	**149,818**
Share IRB (%)		84	76	95	81	94	84
Share STD (%)		16	24	5	19	6	16

Appendix 1 – Supplementary tables

Credit exposure by industry

DKKm					2019
Industry/exposure category	Corporate clients	Retail clients	Other	Total	%
Agriculture, hunting, forestry and fisheries	6,230	128		6,358	4.6
Manufacturing and extraction of raw materials	15,402	47		15,449	11.1
Energy supply etc	4,966	14		4,980	3.6
Building and construction	7,663	79		7,742	5.6
Trade	23,359	388		23,747	17.1
Transportation, hotels and restaurants	5,800	36		5,836	4.2
Information and communication	773	52		825	0.6
Finance and insurance	9,153	362		9,515	6.8
Repo/reverse	14,957	0		14,957	10.7
Real property	9,068	221		9,289	6.7
Other industries	4,900	713		5,613	4.0
Sector guarantees	194	0		194	0.1
Retail	2,898	31,723		34,621	24.9
Total corporate and retail clients	**105,363**	**33,763**		**139,126**	**100.0**
Governments incl municipalities			7,910	7,910	
Credit institutions, repo/reverse			5,292	5,292	
Credit institutions, other			3,536	3,536	
Sector guarantees			37	37	
Total	**105,363**	**33,763**	**16,775**	**155,901**	

Credit exposure by industry

DKKm Industry/exposure category	Corporate clients	Retail clients	Other	Total	2018 %
Agriculture, hunting, forestry and fisheries	6,484	50		6,534	5.2
Manufacturing and extraction of raw materials	14,568	32		14,600	11.6
Energy supply etc	4,917	2		4,919	3.9
Building and construction	6,906	65		6,971	5.5
Trade	21,193	76		21,269	17.0
Transportation, hotels and restaurants	6,158	61		6,219	5.0
Information and communication	1,102	14		1,116	0.9
Finance and insurance	9,325	134		9,459	7.5
Repo/reverse	7,561	0		7,561	6.0
Real property	9,304	145		9,449	7.5
Other industries	5,241	156		5,397	4.3
Sector guarantees	280	0		280	0.2
Retail	3,075	28,864		31,939	25.4
Total corporate and retail clients	**96,114**	**29,599**		**125,713**	**100.0**
Governments incl municipalities			12,292	12,292	
Credit institutions, repo/reverse			5,112	5,112	
Credit institutions, other			5,142	5,142	
Sector guarantees			37	37	
Total	**96,114**	**29,599**	**22,583**	**148,296**	

Appendix 1 – Supplementary tables

Credit exposure to corporate clients by rating category (IRB)

DKKm			Exposure-weighted, average			2019
Rating category	Gross exposure	Exposure after effect of conversion factors	PD (%)	LGD (%)	Risk weight (%)	REA
1	4,130	3,160	0.03	10.0	3.2	101
2	31,500	18,836	0.04	27.7	10.2	1,912
3	33,252	21,448	0.13	40.4	29.2	6,265
4	18,763	13,952	0.40	27.3	34.6	4,832
5	7,480	5,405	0.90	43.4	75.6	4,087
6	4,302	3,220	1.91	43.6	97.0	3,125
7	1,005	802	3.75	43.9	113.2	908
8	599	456	6.42	43.9	150.3	686
9	3,007	2,557	13.17	44.1	173.5	4,437
Default	941	886	100.00	44.4	0.0	-
Total	**104,979**	**70,722**				**26,353**
						2018
1	3,024	1,406	0.03	17.9	5.8	81
2	30,466	17,287	0.04	31.0	11.4	1,973
3	28,771	18,433	0.13	35.7	25.4	4,676
4	14,907	10,443	0.40	41.5	52.8	5,509
5	7,510	5,447	0.90	44.1	76.6	4,173
6	3,723	2,994	1.91	43.7	96.6	2,894
7	1,046	818	3.76	44.2	115.6	945
8	721	578	6.32	44.6	152.9	883
9	3,409	2,948	16.47	43.7	184.9	5,452
Default	2,066	1,914	100.00	44.6	0.0	-
Total	**95,643**	**62,268**				**26,586**

The table above shows the breakdown by rating category of the gross exposure to corporate clients after the deduction of the conversion factor as well as exposure-weighted LGD, PD and average risk weight. The average risk weight is determined according to the Danish executive order on capital adequacy as a function of LGD and PD. REA is calculated as the exposure after the conversion factor multiplied by the risk weight.

Credit exposure to retail clients by rating category (IRB)

DKKm						2019
			Exposure-weighted, average			
Rating category	Gross exposure	Exposure after effect of conversion factors	PD (%)	LGD (%)	Risk weight (%)	REA
1	17,317	17,273	0.03	65.0	6.6	1,146
2	6,296	6,286	0.04	60.6	7.5	469
3	4,828	4,817	0.18	65.4	24.9	1,201
4	1,577	1,576	0.42	64.8	43.5	685
5	939	938	0.92	59.8	65.4	614
6	305	305	1.88	40.1	63.2	193
7	82	82	3.71	63.6	118.6	97
8	83	83	5.56	64.2	156.9	130
9	964	964	10.70	63.1	214.0	2,062
Default	167	166	100.00	49.2	498.2	828
Total	**32,558**	**32,490**				**7,425**

						2018
1	13,705	13,667	0.03	60.8	6.2	842
2	7,077	7,067	0.04	57.0	7.0	494
3	3,486	3,470	0.14	58.9	18.8	653
4	1,236	1,232	0.40	62.2	41.0	505
5	851	850	1.16	53.8	68.9	585
6	489	488	1.85	59.7	85.4	417
7	82	82	4.01	55.3	100.9	83
8	82	80	6.93	57.6	139.4	112
9	1,233	1,233	16.56	59.9	230.9	2,846
Default	202	202	100.00	58.5	413.4	834
Total	**28,443**	**28,371**				**7,371**

Appendix 1 – Supplementary tables

Credit exposure by client's country of domicile

DKKm					2019
	Denmark	Germany	Sweden	Other	Total
Corporate clients	94,833	5,696	242	4,592	105,363
Retail clients	32,630	455	16	662	33,763
Total corporate and retail clients	**127,463**	**6,151**	**258**	**5,254**	**139,126**
Governments incl municipalities	6,311	1,599	0	0	7,910
Credit institutions	3,265	507	3,372	1,721	8,865
Total	**137,039**	**8,257**	**3,630**	**6,975**	**155,901**

					2018
Corporate clients	86,706	5,501	216	3,691	96,114
Retail clients	28,626	435	15	523	29,599
Total corporate and retail clients	**115,332**	**5,936**	**231**	**4,214**	**125,713**
Governments incl municipalities	9,531	2,679	0	82	12,292
Credit institutions	3,239	1,434	3,851	1,767	10,291
Total	**128,102**	**10,049**	**4,082**	**6,063**	**148,296**

Credit exposure by exposure category and maturity

DKKm						2019
	Non-allocated	3 months or less	Over 3 months not exceeding 1 year	Over 1 year not exceeding 5 years	Over 5 years	Total
Corporate clients	-	64,389	27,197	8,960	4,817	105,363
Retail clients	-	9,704	11,248	2,349	10,462	33,763
Total corporate and retail clients	**-**	**74,093**	**38,445**	**11,309**	**15,279**	**139,126**
Governments incl municipalities	367	6,816	680	14	33	7,910
Credit institutions	-	8,620	245	0	0	8,865
Total	**367**	**89,529**	**39,370**	**11,323**	**15,312**	**155,901**

						2018
Corporate clients	-	55,500	26,782	8,853	4,979	96,114
Retail clients	-	9,244	3,021	2,492	14,842	29,599
Total corporate and retail clients	**-**	**64,744**	**29,803**	**11,345**	**19,821**	**125,713**
Governments incl municipalities	428	11,236	594	19	15	12,292
Credit institutions	-	10,101	190	0	0	10,291
Total	**428**	**86,081**	**30,587**	**11,364**	**19,836**	**148,296**

The table shows the maturity of the Group's exposures broken down into different segments. According to the Group's documents, the majority of corporate exposures can be terminated at very short notice and retail exposures can normally be terminated at a notice of 3 months.

Appendix 1 – Supplementary tables

Credit exposure by credit quality

DKKm	Corporate clients	Retail clients	Other	2019 Total
Neither past due nor credit impaired	103,170	33,435	16,775	153,380
Past due but not credit impaired	108	40	-	148
Credit impaired	2,085	288	-	2,373
Total	**105,363**	**33,763**	**16,775**	**155,901**
				2018
Neither past due nor credit impaired	93,208	29,211	22,583	145,002
Past due but not credit impaired	77	42	-	119
Credit impaired	2,829	346	-	3,175
Total	**96,114**	**29,599**	**22,583**	**148,296**

Credit impaired receivables represent receivables in stage 3. Past due amounts consist of loans and advances from a client's first day of arrears where there is no objective evidence of credit impairment. A very limited share of past due amounts concerns high credit risk clients.

Past due amounts

DKKm			2019			2018
	Corporate clients	Retail clients	Total	Corporate clients	Retail clients	Total
0-30 days	107	38	145	75	41	116
31-60 days	1	2	3	2	1	3
61-90 days	-	-	-	-	-	-
Total	**108**	**40**	**148**	**77**	**42**	**119**

Impairment charges for bank loans and advances etc recognised in the income statement

DKKm	2019	2018
Impairment and provisions	(117)	(181)
Write-offs	134	165
Recovered from debt previously written off	114	106
Total	**(97)**	**(122)**

Credit impaired loans/advances and guarantees as well as impairment charges and provisions by client's country of domicile

DKKm			2019			2018
	Credit impaired loans/advances and guarantees	Impairment charges and provisions	Credit impaired loans/advances and guarantees after impairment charges	Credit impaired loans/advances and guarantees	Impairment charges and provisions	Credit impaired loans/advances and guarantees after impairment charges
Denmark	2,201	1,170	1,031	2,899	1,598	1,301
Germany	115	67	48	122	52	70
Other	57	22	35	154	46	108
Total	**2,373**	**1,259**	**1,114**	**3,175**	**1,696**	**1,479**

Appendix 2 – Glossary

CEBS	Committee of European Banking Supervisors.
CF	Conversion Factor, ie the proportion of the undrawn credit commitment that the client is expected to have drawn at default.
CLS®	Continuous Linked Settlement. A settlement system operating on the principle of "payment on delivery", which minimises the settlement risk of currency transactions concluded between CLS® participants.
CSA	Credit Support Annex. The part of an ISDA agreement that concerns collateral.
Default	When a client has not honoured all of his payment obligations.
EAD	Exposure At Default. EAD represents the expected size of an exposure, ie how much a client is expected to owe at the time of default.
Gross exposure	Loans and advances, undrawn credit commitments, interest receivable, repo/reverse transactions and guarantees as well as counterparty risk on derivatives. The exposure is determined after impairment charges and provisions.
IRB	Internal Ratings Based approach to manage credit risk and calculate the capital requirement as regards credit risk.
ISDA agreement	Agreement where the mutual rights and obligations of 2 or more parties are netted. Credit risk is mitigated by means of netting agreements.
LGD	Loss Given Default. LGD represents the proportion of a given exposure that is expected to be lost if the client defaults within the next 12 months.
Net exposure	Gross exposure after inclusion of the conversion factor and after deduction of collateral.
PD	Probability of Default. Probability that a client will default on his obligations within the next 12 months.
REA	Risk exposure amount calculated in accordance with prevailing capital adequacy rules.
STD	Standardised approach to calculate credit risk.
Unsecured portion	Following a cautious assessment of collateral provided, the portion of an exposure for which collateral does not exist.

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