Nordea

Capital and Risk Management Report 2016

Provided by Nordea Bank AB on the basis
of its consolidated situation

Executive summary

2016 was probably the most eventful year in the history of Nordea. Continued negative interest rates, regulatory uncertainty and digital transformation were in focus for the banking sector, alongside with unexpected political events and geopolitical uncertainties. Sweden continued to show strong growth, Finland came back to a growth path, Denmark showed a better growth rate and Norway was experiencing a slowdown of growth.

Nordea has delivered robust results, with EUR 4.4bn operating profit, solid credit quality and return on equity of 11.5%, despite a challenging environment. Nordea is confident and well-prepared for the future in light of strong and stable profitability, solid quality in its well-diversified credit portfolio, a strong capital position and a diversified funding base.

Key ratios

Common equity Tier 1 (CET1) capital ratio

18.4%

CET1 capital ratio increased by 1.90 percentage points mainly due to strong profit generation.

Total capital ratio

24.7%

Issuance of Tier 2 instrument added EUR 1bn to own funds.

Net loan loss ratio

15bps

Net loan loss ratio remained largely stable through the period at 15bps

Credit risk exposure change

0.3%

Credit risk exposure stayed largely stable at EUR 499bn.

Liquidity coverage ratio

159%

Group LCR was solid at 159% in 2016.

Mergers of subsidiary banks into the parent company finalised 2 January 2017

On 2 January 2017, the cross border mergers between Nordea Bank AB (publ) and its subsidiary banks in Denmark, Finland and Norway were executed. As a result, all assets and liabilities of the subsidiary banks were transferred to Nordea Bank AB (publ). Nordea Bank Danmark A/S, Nordea Bank Finland Plc and Nordea Bank Norge ASA have been dissolved and the banking business in Denmark, Finland and Norway will, going forward, be carried out in branches of Nordea Bank AB (publ). The remaining local subsidiaries in Denmark, Finland and Norway (e.g. mortgage companies) are now subsidiaries to Nordea Bank AB (publ).

Further strengthened capital ratios – strong profit generation and issuance of Tier 2 instruments

The CET1 capital ratio was further strengthened in 2016 through strong profit generation of the Group in combination with a continued focus on capital management, reaching 18.4% by the end of 2016 (last year 16.5%). In September 2016, Nordea issued a CRD IV compliant Tier 2 instrument of EUR 1bn, strengthening the total capital ratio by 60bps. The Group's total capital ratio was 24.7% at year-end.

Continued solid credit quality with a net loan loss ratio of 15bps

Nordea's credit quality remained overall solid in 2016 with stable rating and scoring and a net loan loss ratio of 15bps, (last year 14bps) below Nordea's ten year average of 16bps. Continued stabilisation was seen in Denmark and a stable development is seen in Finland and overall in Norway, the risk level has remained elevated in oil and offshore exposures. Impaired loans ratio stayed at 1.6% while credit risk exposures remained stable at EUR 499bn. The Group's market risk, which is mainly driven by interest rate risk measured by VaR, was EUR 29m on average in 2016 in the trading book and EUR 77m on average in 2016 in the banking book.

Strong funding name maintained, high long-term funding activity and LCR compliant

In the funding and liquidity risk area, Nordea maintained its position as one of the strongest names. Nordea, by virtue of its well-recognised name and strong rating, was able to actively use all of its funding programmes during 2016. Approximately EUR 23bn was issued in long-term debt during 2016, excluding Danish covered bonds (last year EUR 25bn). Nordea had a solid liquidity coverage ratio (LCR), with an LCR at year-end on Group level of 159%, 334% in EUR and 221% in USD.

Figure 1.1 Development of key capital adequacy ratios

During the year REA both excluding and including Basel I Floor has decreased. The main drivers were a reduction of the REA for credit risk, mainly in the corporate portfolio, securitisation and a reduction of REA for market risk. Common Equity Tier 1 capital as well as the Tier 1 Capital increased during the year, mainly driven by continued profit generation. Total Own funds further increased due to the issuance of a new Tier 2 loan of EUR 1bn during 2016.

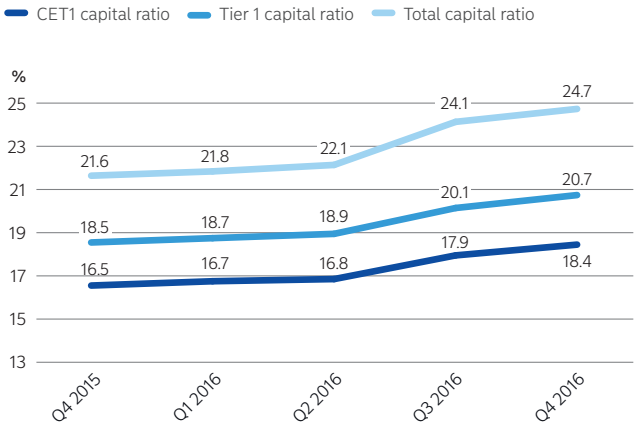
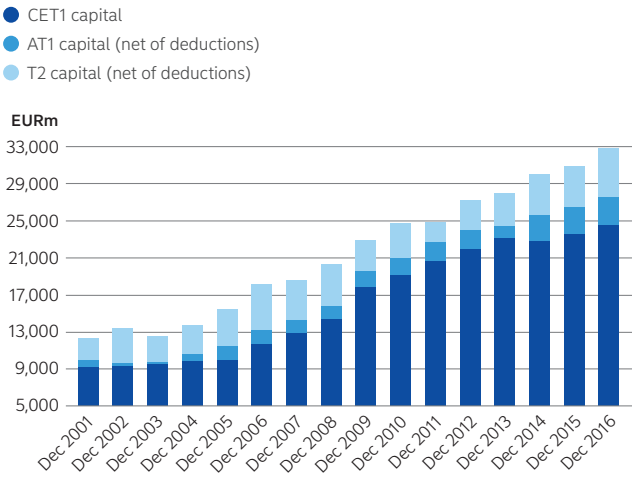


Figure 1.2 Development of own funds

During the period 2001 to 2016 the total own funds increased by EUR 20.5bn to EUR 33 bn. The increase was mainly driven by retained profit and the implementation of Basel II in 2007 and CRR/CRD IV in 2014 as well as implementation of capital buffer requirements which requires higher capital ratios. CET1 capital has increased by EUR 15.4bn, AT1 capital increased by EUR 2.2bn and T2 capital increased by EUR 2.9bn.



Nordea Bank AB (publ) with Swedish corporate registration number 516406-0120 provides these public disclosures according to Part Eight of Regulation (EU) No 575/2013, commonly referred to as the Capital Requirements Regulation (CRR), on the basis of its consolidated situation (hereinafter referred to as simply "Nordea").

This disclosure constitutes a comprehensive disclosure on risks, risk management and capital management. It includes disclosures, or references to other disclosures, required according to Part Eight of the CRR and tables especially encouraged by EBA guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013. An overview of information exempted from disclosure due to being non-material, proprietary or confidential can be found in Part 1, table 11.3. In addition, this disclosure also includes tables encouraged to be disclosed by the EBA guidelines, to the extent possible given the short time frame from finalisation of the EBA guidelines to this disclosure. The disclosures are made annually in conjunction with the date of publication of Nordea Group's financial statements. For items where Nordea has assessed that more frequent disclosures are needed, information is given in the interim financial reports or on the Investor Relations pages on www.nordea.com.

Accompanying this report are the required disclosures for the subsidiaries Nordea Bank Finland Plc ("NBF"), Nordea Bank Norge ASA ("NBN"), Nordea Kredit Realkreditaktieselskab, Nordea Hypotek AB ("Nordea Hypotek"), and Nordea Mortgage Bank Plc. The disclosure for Nordea Kredit Realkreditaktieselskab, Nordea Hypotek, and Nordea Mortgage Bank Plc are made on individual basis, while the others are made on a sub-consolidated basis. NBF, Nordea Kredit Realkreditaktieselskab, Nordea Mortgage Bank and Nordea Hypotek are required to provide disclosures according to Articles 437, 438, 440, 442, 450, 451 and 453, according to Article 13. NBN and the Norwegian subsidiaries Nordea Eiendomskreditt AS and Nordea Finans Norge AS are required to provide disclosures according to local Norwegian regulations ("Kapitalkravsforskriften"), implementing parts of the CRR. The subsidiaries' disclosures are included as appendices and will be released on www.nordea.com on the publication date of each subsidiary's Annual Report.

Nordea Bank AB and its subsidiaries have adopted a formal policy to assure compliance with the disclosure requirements and has established policies for assessing the appropriateness of these disclosures, including their verification and frequency.

Nordea is part of the Sampo conglomerate and falls under the same supervisory authority (the Finnish FSA) as the Sampo Group in accordance to the Act on the Supervision of Financial and Insurance Conglomerates (2004/699), based on Directive 2002/87/EC.

Nordea's Board of Directors, by attesting this report , approve of the formal statement of key risks in Part 1 section 1 and formally declare the adequacy of risk management arrangements given Nordea's risk profile. The statement and the declaration are made in accordance with CRR Article 435(1).

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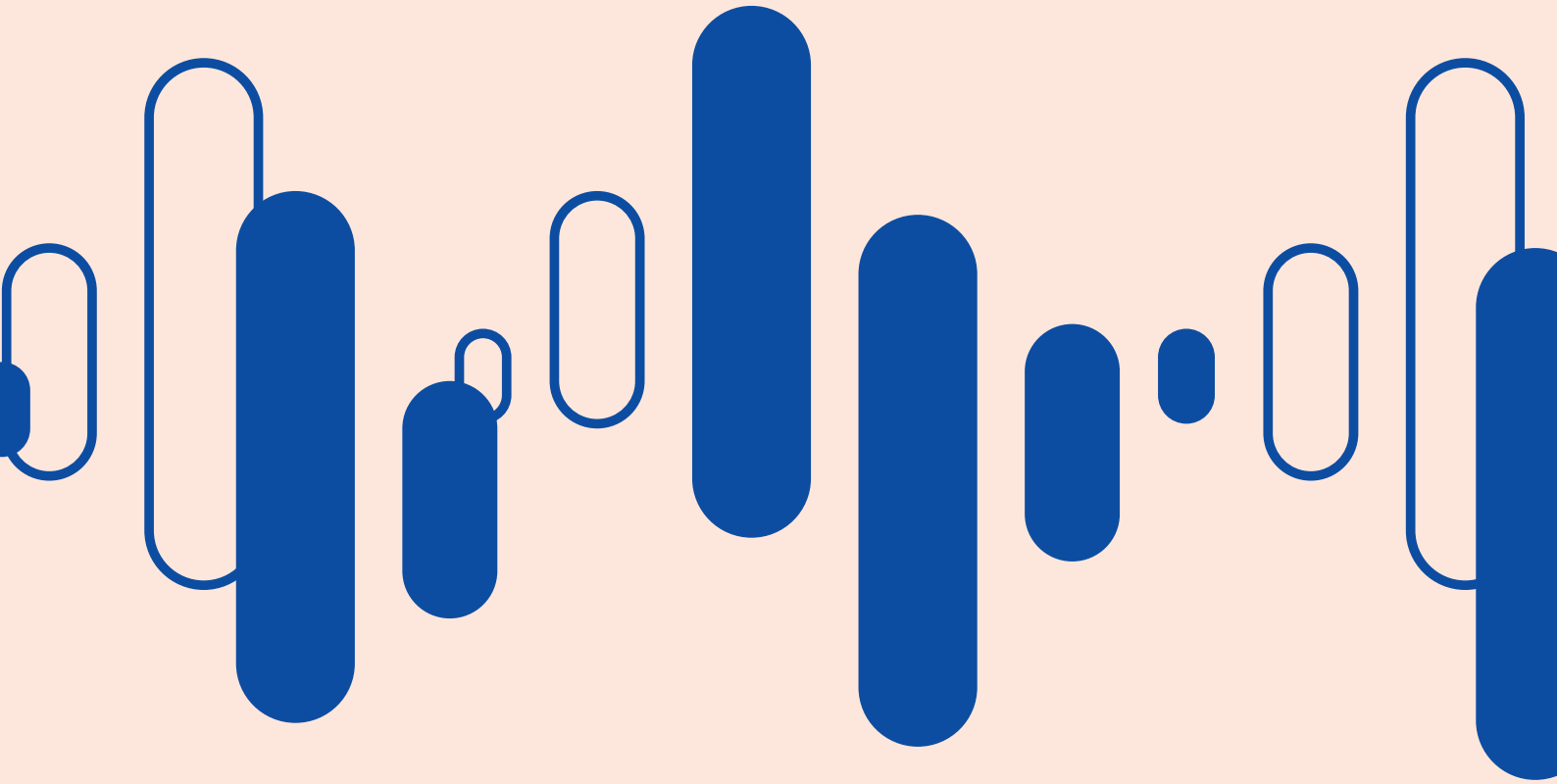
PART 1 Year end results and analysis

Quantitative information accompanied by qualitative analysis of the year end results of the Nordea Group



1. Risk profile

Nordea's business model is well diversified and Credit Risk represents the largest risk category in terms of 84% of REA.

1.1 Description of the Nordea Group

The Nordea Group is the largest financial services group in Northern Europe with a market capitalisation of approximately EUR 42.8bn, total assets of EUR 616bn and a CET1 capital ratio of 18.4%. The Group has leading positions within corporate and institutional banking as well as retail banking and private banking. It is also the leading provider of life and pension products in the Nordic countries.

With approximately 600 branch locations, call centres in all Nordic countries and highly competitive online and mobile banking platforms, the Nordea Group has the largest distribution network in the Nordic and Baltic Sea region. Nordea Group furthermore has the largest customer base of any financial services group in the Nordic region with approximately 10 million household customers and around 0.6 million corporate customers.

1.2 Key risks in Nordea's operations

Nordea has a well-diversified business model. Risks are spread over a number of countries, industries and customer types. Most of Nordea's risks originate from Wholesale Banking, Commercial & Business Banking and Personal Banking, representing approximately 85% of the total risk exposure amount (REA). The remainder originates mainly from Group Functions.

Credit risk (including Credit Value Adjustment) is Nordea's dominant risk category representing approximately 84% of REA. In the income statement, credit risk is capitalised by a net interest income 8 times higher than net loan losses. In the risk appetite framework credit risk is managed by limits on single-name, industry and geography concentration risk, expected loss and stressed loan losses.

Retail mortgages and corporate segments currently represent 9% and 48% respectively of Nordea's total REA. The housing markets as well as the general portfolio quality of the corporate segments are currently stable, and loan losses remained on a low level in all of Nordea's markets. Housing markets in Norway and Sweden are however sensitive to changes in market conditions and still exposed to regulatory initiatives. Within the corporate segment, the largest exposures in terms of REA are towards the real estate and shipping segments.

Operational risk is Nordea's second largest risk category representing 13% of REA. During 2016 losses due to operational risks were lower than expected and represented only a minor amount in comparison with profit and capital requirements for operational risk. In the risk appetite framework operational risk is managed by special attention to Chief Operational Risk Officer assessment, operational risk losses, reputational risk and top 10 risk assessment. The ten most important and emerging risks are identified in the "Top 10 risk process". Representatives for all Business Areas participate in the process to identify, discuss and agree on mitigants for the top 10 risks. All risk categories are considered in the process, both financial and non-financial risks.

Market risk is the third largest risk category within Nordea, representing 3% of REA. Income derived from market risk positions counterbalanced the risks taken by a wide margin in 2016. Market risks are governed in the risk appetite framework by limits on market risk losses, structural market risk and other market risk related regulatory requirements.

1.3 Risk tolerance

Nordea currently has the following capital ratios: CET1 capital ratio 18.4%, Tier 1 capital ratio 20.7% and total capital ratio 24.7%. These capital levels allow for growth according to the decided strategy as well as for risks developing within the limits set in the risk appetite framework, while leaving a comfortable margin to the risk tolerance defined in the capital target setting.

Table 1.1 Distribution of exposure, Risk Exposure Amount (REA), capital requirement and Economic Capital (EC)in Business Areas, 31 December 2016

	EURbn	Exposure	%	REA	CAR	%	EC	%
Total Nordea Group	Credit risk[1]	499.2	100%	111.8	8.9	84%	18.5	70%
	Market risk			4.5	0.4	3%	1.0	4%
	Operational risk			16.9	1.3	13%	2.9	11%
	Nordea Life & Pension						2.0	8%
	Other[2]						1.9	7%
	Total, % of Nordea Group	**499.2**	**100%**	**133.2**	**10.7**	**100%**	**26.3**	**100%**
Personal Banking	Credit risk[1]	179.8	100%	25.8	2.1	82%	4.6	64%
	Market risk						0.1	1%
	Operational risk			5.7	0.5	18%	1.1	15%
	Nordea Life & Pension						0.5	7%
	Other[2]						0.9	13%
	Total, % of Nordea Group	**179.8**	**36%**	**31.5**	**2.5**	**24%**	**7.2**	**27%**
Commercial & Business Banking	Credit risk[1]	99.3	100%	29.7	2.4	90%	4.5	76%
	Market risk						0.1	2%
	Operational risk			3.3	0.3	10%	0.6	10%
	Nordea Life & Pension						0.2	3%
	Other[2]						0.5	8%
	Total, % of Nordea Group	**99.3**	**20%**	**33.0**	**2.6**	**23%**	**5.9**	**22%**
Wholesale Banking	Credit risk[1]	107.1	100%	39.8	3.2	82%	6.1	73%
	Market risk			3.9	0.3	8%	0.6	7%
	Operational risk			4.8	0.4	10%	0.8	10%
	Nordea Life & Pension						0.1	1%
	Other[2]						0.7	8%
	Total, % of Nordea Group	**107.1**	**21%**	**48.6**	**3.9**	**36%**	**8.3**	**32%**
Wealth Management	Credit risk[1]	3.3	100%	4.3	0.3	72%	1.4	52%
	Market risk							
	Operational risk			1.7	0.1	28%	0.1	4%
	Nordea Life & Pension						1.1	41%
	Other[2]						0.1	4%
	Total, % of Nordea Group	**3.3**	**1%**	**6.0**	**0.5**	**4%**	**2.7**	**10%**
Group Corporate Center	Credit risk[1]	95.7	100%	4.0	0.3	70%	0.6	86%
	Market risk			0.6		11%	0.2	29%
	Operational risk			1.1	0.1	20%	0.2	29%
	Nordea Life & Pension							
	Other[2]						–0.3	–43%
	Total, % of Nordea Group	**95.7**	**19%**	**5.7**	**0.5**	**4%**	**0.7**	**3%**
Group Functions and Other	Credit risk[1]	13.9	100%	8.3	0.7	98%	1.3	108%
	Market risk							
	Operational risk			0.1		2%		
	Nordea Life & Pension							
	Other[2]						–0.1	–8%
	Total, % of Nordea Group	**13.9**	**3%**	**8.4**	**0.7**	**6%**	**1.2**	**5%**

[1] Includes CVA Risk.

[2] Capital deductions and internal allocations.

2. Capital position

Nordea's own funds increased during 2016 following profit generation and issuance of a Tier 2 instrument. CET1 capital, considered as capital of the highest quality, comprises 75% of Nordea's own funds.

Table 2.1 Minimum capital requirement & buffers, 31 December 2016

		Capital buffers					
Percent (%)	Minimum capital requirements	CCoB	CCyB	SII	SRB	Combined buffer requirement[1]	Total requirement
Common Equity Tier 1 capital	4.5	2.5	0.5	2.0	3.0	6.0	10.5
Tier 1 capital	6.0	2.5	0.5	2.0	3.0	6.0	12.0
Own funds	8.0	2.5	0.5	2.0	3.0	6.0	14.0

[1] Only the maximum of the SRB and SII is used in the calculation of the total capital buffers.

Table 2.2 Overview of REA incl. Basel I floor (OV1)

Table 2.2 provides an overview of total REA forming the denominator of the risk based capital requirements. Credit risk REA accounts for the largest risk type, where approximatly 87% is held under the IRB approach. Operational risk and counterparty credit risk account for the second and third largest risk types respectively. Total REA, incl. Basel I floor, decreased EUR 6.0bn year on year and EUR 2.3bn quarter on quarter. The decrease seen over the year mainly reflects improvements in credit quality, particularly in the corporate portfolio, as well as reduced market and operational risk. This was partly offset by an increase in the Article 3 CRR buffer.

EURm		REA 31 December 2016	REA 30 September 2016	REA 31 December 2015	Minimum capital requirements
1	Credit risk (excluding counterparty credit risk)	97,111	100,385	107,331	7,769
2	Of which standardised approach (SA)[1]	12,484	12,635	12,428	999
3	Of which internal rating-based IRB (FIRB) approach	14,144	14,663	16,200	1,131
4	Of which advanced IRB (AIRB) approach	70,484	73,088	78,703	5,639
4a	*- of which Corporate AIRB*	48,585	51,109	56,211	3,887
4b	*- of which Retail IRB*	21,899	21,979	22,492	1,752
5	Of which Equity IRB under the Simple risk-weight or the internal models approach				
6	Counterparty credit risk	11,287	11,855	11,261	903
7	Of which Market to market[2]	2,067	1,779	1,675	165
8	Of which Original exposure method				
9	Of which standardised approach				
10	Of which internal model method (IMM)	6,888	7,285	7,197	551
	Of which financial collateral simple method (for SFTs)	502	946	620	40
11	Of which exposure amounts to default fund of a CCP	32	17	18	3
12	Of which CVA	1,798	1,828	1,751	144
13	Settlement risk	0	0	1	0
14	Securitisation exposures in banking book (after cap)	828	823		66
16	Of which IRB Supervisory Formula Approach (SFA)	828	823		66
19	Market risk	4,474	4,758	6,533	358
20	Of which standardised approach (SA)	1,532	1,149	3,543	123
21	Of which internal model approaches (IMA)	2,942	3,609	2,990	235
22	Large exposures				
23	Operational risk	16,873	16,873	17,031	1,350
26	Of which Standardised approach	16,873	16,873	17,031	1,350
27	Amounts below the thresholds for deduction (subject to 250% risk weight)	84	496	137	7
	Article 3 CRR Buffer	2,500	1,000	1,000	200
24	Basel I floor adjustment	82,655	81,873	78,533	6,612
25	Total	215,812	218,064	221,827	17,265

[1] Excluding amounts below the thresholds for deduction (subject to 250% risk weight).
[2] Excluding exposure amount for contributions to the default fund of a CCP.

Table 2.3 Flow statement of REA excl. Basel I floor

From Q4 2015 to Q4 2016 REA has decreased EUR 10.1bn. Credit Risk factors decreased REA by EUR 7.9bn, the main drivers were credit quality, volumes and Securitisation. Book quality decreased REA by EUR 5.6bn. The improved quality was mainly due to improved rating and scoring, a decrease in defaulted customers and a decrease in average maturity. The book size decreased REA by EUR 3.4bn mostly due to decreased loan volumes in the corporate portfolio. The securitisation transaction decreased REA by EUR 2.7bn. The decrease was somewhat offset by an increase in the Article 3 Buffer and Model and Methodology changes which increased due to yearly validation of parameters. The market risk factors decreased REA by EUR 2.1bn mostly due to reduced foreign exchange risk in the banking book. In addition, the FSA approved update of the VaR-model accounted for a REA decrease of EUR 0.5bn. The Operational risk factors decreased REA by EUR 0.2bn due to income related changes.

EURm	
Total REA, 31 December 2015	**143,294**
Credit Risk factors	**–7,919**
Book size (including derivatives)	–3,357
Book quality	–5,566
Model & Methodology changes	1,283
Regulation	
Foreign currency translation effects	1,029
Securitisation	–2,693
Additional buffer, Article 3	1,500
Other	–116
Market Risk factors	**–2,060**
Model & Methodology changes	–480
Regulation	
Movement in risk levels	–1,580
Operational risk factors	**–158**
Changes in beta factors	
Income related changes	–158
Total REA, 31 December 2016	**133,157**

Figure 2.1 Drivers behind the development of the CET1 capital ratio

The CET1 ratio has increased to 18.4% in Q4 2016 from 16.5% in Q4 2015. The reduced average risk weight in credit risk increased the ratio with 0.7 percentage points mainly stemming from the corporate portfolio. The volume effect increased the ratio by 0.5 percentage points which was also mainly stemming from the corporate portfolio where loan volumes decreased. The FX effect decreased the ratio by 0.1 percentage point. Securitisation represent an increase of 0.3 percentage points while Other changes decreased the ratio by 0.1 percentage point. Profit net after dividend increased the ratio by 0.8 percentage points.

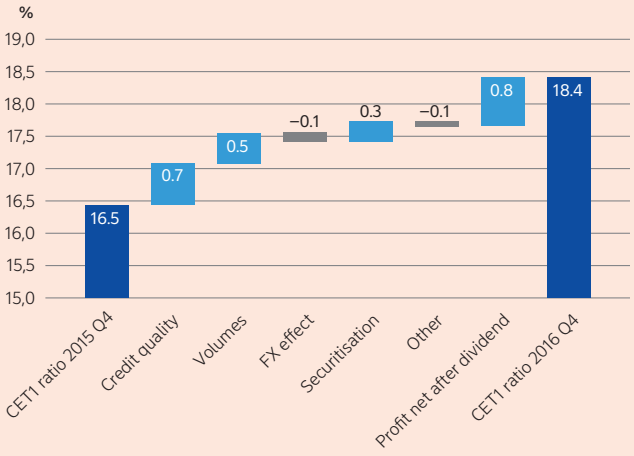


Table 2.4 Countercyclical capital buffer (CCyB), 31 December 2016

Table 2.4 details the institution specific countercyclical buffer as of 31 December 2016. During 2016, the countercyclical buffer rates were increased in both Sweden and Norway, from 1.0% to 1.5%. Additionally, a countercyclical buffer rate of 0.6% was introduced in Hong Kong. Following these changes, the institution specific countercyclical capital buffer rate for Nordea Group increased by 0.1 percentage points (from 0.4% to 0.5%); the Group's total institution specific countercyclical capital buffer requirement increased by 30.3% (from EUR 545m to EUR 711m). For the CCyB disclosure in the format specified by (EU) No 1555/2015, refer to Table 10.15.

Row		Column
EURm		010
010	Total risk exposure amount	133,157
020	Institution specific countercyclical capital buffer rate	0.5%
030	Institution specific countercyclical capital buffer requirement	711

Figure 2.2 CET1 requirement build-up, %

Nordea's Internal Capital Requirement (ICR) was EUR 14.6bn at the end of the year. The ICR should be compared to the own funds, which was EUR 32.9bn at the end of the year. The ICR is calculated based on a Pillar I plus Pillar II approach and also includes a buffer for economic stress.

In addition, supervisors require Nordea to hold capital for other risks which are identified and communicated as part of the Supervisory Review and Evaluation Process (SREP). The outcome of the 2016 SREP, which was communicated in October 2016, indicated that the CET1 requirement as of third quarter 2016 was 17.3%. The CET1 requirement is assessed to be 17.4% as of year-end 2016. The SFSA publish quarterly updates of the capital requirement in the "Capital requirements of the Swedish banks" on www.fi.se. The combined buffer requirement consists of a 3% systemic risk buffer, a 2.5% capital conservation buffer and a countercyclical buffer of approximately 0.5%. The countercyclical buffer is expected to increase to approximately 0.7% as of year-end 2017 after the planned increase in the countercyclical buffer rates in Sweden during Q1 2017 and in Norway in Q4 2017. The Pillar II other part consists of the SFSA standardised benchmark models for Pillar II risks as well as other Pillar II add-ons as a result of the SREP. The final capital requirement for 2017 will depend on the outcome of the 2017 SREP which Nordea expects in October 2017. Figure 2.2 explains the composition of the CET1 ratio requirement as of the year-end 2016.

The Pillar II add-ons, including risk weight floors, do not affect the maximum distributable amount (MDA) level at which automatic restrictions on distributions would come into effect unless a formal decision on Pillar II has been made. A formal decision on Pillar II has not been made. Currently the MDA level is approximately 10.5% and it is expected to increase to approximately 10.7% in 2017 when the countercyclical buffer rates in Sweden and Norway are increased.

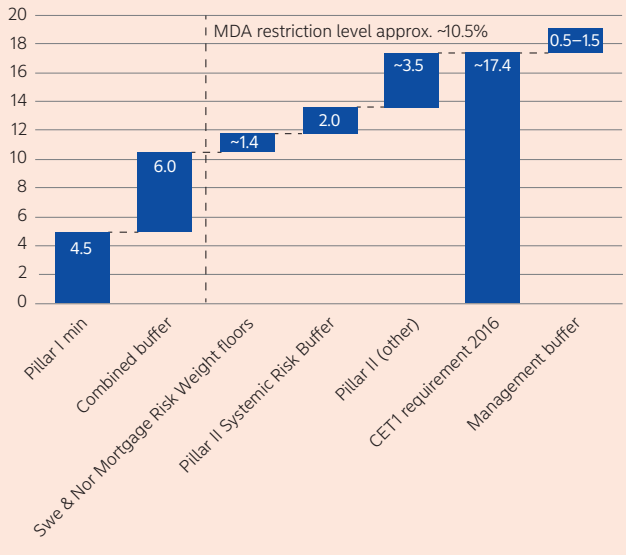


Table 2.5 Flow statement of movements in own funds

Own funds as of year-end 2016 was EUR 32.9bn (30.9bn in 2015), of which CET1 capital constituted EUR 24.5bn (23.6bn), Additional Tier 1 capital EUR 3.0bn (2.9bn) and Tier 2 capital EUR 5.3bn (4.4bn).

During 2016, Nordea's CET1 capital increased by EUR 1bn. The increase was due to profit generation and, to a lesser extent, a decrease in the IRB provision shortfall and pension deductions, included in "Other". The increase was partly offset by increased deductions of intangible assets and prudential filters.

There have been no redemptions of AT1 or T2 instruments during the year.

A new Tier 2 loan of EUR 1bn was issued by Nordea Bank AB during the period which mainly explains the increase of Tier 2 capital. This was partly offset by unfavourable FX-effects and amortisation of T2 instruments.

EURm	
Common Equity Tier 1, 31 December 2015	**23,575**
Profit attributable to owners of the parent	4,006
Dividend	–2,625
Change in goodwill and intangible assets	–569
Change in IRB provision shortfall deduction	85
Change in prudential filters	–166
Change in unrealised gains on AFS	
Other	232
Common Equity Tier 1, 31 December 2016	**24,538**
Additional Tier 1 capital, 31 December 2015	**2,941**
Issued AT1 instruments	
Redeemed AT1 instruments	
FX effect	77
Change in amounts that exceed the limit for AT1 grandfathering	
Other adjustments	–1
Additional Tier 1 capital, 31 December 2016	**3,017**
Tier 1 capital, 31 December 2016	**27,555**
Tier 2 capital, 31 December 2015	**4,384**
Issued T2 instruments	991
Redeemed T2 instruments	
FX effect	69
Change in Excess on the limit of AT1 grandfathered instruments	
Change in deduction due to significant investment	296
Change in IRB-provisions excess add-on	78
Other adjustments	–469
Tier 2 capital, 31 December 2016	**5,349**
Total own funds, 31 December 2016	**32,904**

Table 2.6 Bridge between IFRS equity and CET1 capital, 31 December 2016

A bridge between IFRS equity and CET1 capital is provided in Table 2.6. For the own funds disclosure in the format specified by (EU) No 1423/2013, refer to Table 10.2.

The full terms and conditions and the main features templates of Nordea's capital instruments can be found on www.nordea.com.

EURm	31 Dec 16	31 Dec 15
Balance sheet equity	**32,410**	**31,032**
Valuation adjustment for non-CRR companies[1)]	–877	–1,070
Subtotal	**31,533**	**29,962**
Dividend[2)]	–2,625	–2,584
Goodwill	–1,946	–1,869
Intangible assets	–1,489	–997
Shortfall deduction	–212	–297
Pension deduction	–240	–296
Prudential filters	–449	–284
Transitional adjustments		
Other deductions	–34	–59
Common Equity Tier 1 capital	**24,538**	**23,575**

[1)] See Table 10.14 for an overview of companies included in the non-CRR group.

[2)] Proposed dividend.

3. Credit risk

Credit risk exposures

Table 3.1 Specification of on-balance sheet and off-balance sheet items for the Nordea Group, 31 December 2016[1)]

Table 3.1 shows the link between the Annual Report and CRR credit risk exposure. Total Original exposure, including all exposure types, has decreased EUR 2.6bn from EUR 558.2bn in Q4 2015 to EUR 555.5bn in Q4 2016. The largest decrease is seen in On-balance sheet items, which have decreased EUR 3.1bn from EUR 415.7bn, primarily as a result of a decrease in cash and balances held with central banks.

EURm

On-balance sheet items	Balance sheet (accounting)	Items not according to CRR[2)]	Items related to market risk	Repos, derivatives, securities lending	Other	Original exposure	Exposure adjustment[3)]	Exposure
Cash and balances with central banks	32,099	93				32,192		32,192
Loans to central banks and credit institutions	20,261	–343	0	–2,755	16	17,178		17,178
Loans to the public	317,689	13,031	0	–26,590	–468	303,662	–936	302,727
Interest-bearing securities and pledged instruments	92,808	–21,308	–17,345			54,156		54,156
Derivatives	69,959	1,188		–71,147				
Intangible assets	3,792	–357			–3,435	0		0
Other assets and prepaid expenses	79,051	–49,428	–23,375		–808	5,440		5,440
Total	**615,659**	**–57,124**	**–40,720**	**–100,492**	**–4,696**	**412,627**		**411,692**

Off–balance sheet items in the Annual Report	Off-balance sheet (accounting)	Items not according to CRR[3)]	Included in derivatives & sec fin	Included in CRR off-balance
Assets pledged as security for own liabilities	189,332	–23,430	–165,903	
Other assets pledged	8,330	0	–8,330	
Contingent liabilities	23,089	–38		23,051
Commitments	79,435	–1,164		78,270
Total	**300,187**	**–24,632**	**–174,233**	**101,322**

Off-balance sheet items in the CRR	Included in CRR off-bal. (from AR)	Included in CRR (not in AR)[4)]	Original Exposure	Credit Conversion Factor, %	Exposure
Credit facilities	48,900	1,277	50,177	53%	26,365
Checking accounts	16,204	3,913	20,117	54%	10,883
Loan commitments	13,089	2,507	15,596	47%	7,291
Guarantees	21,566		21,566	41%	8,778
Other (leasing and documentary credits)	1,563	14	1,577	34%	532
Total	**101,322**	**7,711**	**109,032**		**53,849**

Derivatives and securities financing	Original Exposure	Exposure adjustment[3)]	Exposure
Derivatives	29,497	–257	29,240
Securities Financing Transactions & Long Settlement Transactions	4,388		4,388
Total credit risk (CRR definition)	**555,545**		**499,169**

1) Securitisation positions to an on-balance original exposure amount of 6 907 EURm and an off-balance original exposure amount of 2 769 EURm are included in the table

2) On-balance sheet items and Off-balance sheet items in accounting which is not handled according to CRR.

3) The on-balance exposures have a CCF of 100% but can still have lower EAD due to provisions in the standardised approach, financial collateral in the standardised approach and residual value for leasing in the IRB approach, that are deducted from the original exposure when calculating EAD.

4) Off-balance exposures included in the CRR but not included in the Annual Report (AR), such as exposures related to undrawn credit facilities which are unconditionally cancellable as well as exposures against Nordea Life Group.

Table 3.2 Minimum capital requirements for credit risk, split by exposure class, 31 December 2016

IRB exposures are the largest component of credit risk. Total credit risk, incl. counterparty credit risk, accounts for EUR 108bn of which EUR 94bn are under IRB approach. The average risk weight within the IRB approach was by the end of the year 24% and within the standardised portfolio 12%. Average risk weights in the standardised portfolio are lower due to a high proportion of sovereign exposure. Average risk weights under the IRB approach decreased approximately 2.3 percentage points year on year, from 27% to 24%, mainly seen in the corporate portfolio due to improved credit quality. In the standardised approach, average risk weights remained stable year on year.

EURm	Original exposure	Exposure	Average risk weight	REA	Minimum capital requirements
IRB exposure classes					
Institution	39,663	37,861	19%	7,144	572
Corporate	201,350	163,184	38%	62,212	4,977
– of which Advanced	167,635	133,378	36%	48,585	3,887
Retail	186,501	177,349	12%	21,933	1,755
– of which secured by immovable property	147,432	144,215	8%	12,229	978
– of which other retail	35,758	30,210	28%	8,527	682
– of which SME	3,311	2,925	40%	1,177	94
Other non-credit obligation assets	2,145	1,841	100%	1,841	147
Securitisation	9,676	8,400	10%	828	66
Total IRB approach	**439,335**	**388,636**	**24%**	**93,958**	**7,517**
Standardised exposure classes					
Central governments and central banks	73,682	76,701	0%	320	26
Regional governments and local authorities	11,629	8,511	3%	266	21
Institution	6,153	6,153	8%	498	40
Corporate	4,347	2,160	100%	2,159	173
Retail	7,398	4,393	73%	3,223	258
Exposures secured by real estate	5,059	4,948	58%	2,862	229
Other[1)]	7,942	7,668	55%	4,225	338
Total standardised approach	**116,210**	**110,533**	**12%**	**13,554**	**1,084**
Total	**555,545**	**499,169**	**22%**	**107,512**	**8,601**

1) Includes exposure classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 3.3 Original exposure, exposure, REA and minimum capital requirements for credit risk, split by exposure type,[1)] 31 December 2016

Table 3.3 illustrates exposures and average risk weights split by exposure type. The table shows that the vast majority of REA is held in on balance sheet items. This is followed by off balance sheet items and derivatives. Securities financing is the smallest exposure type, making up less than 1% of the total capital requirement. Over the year the largest changes were seen in on balance sheet items, primarily as a result of a decrease in IRB corporate exposures. Further, securities financing transactions decreased due to lower volumes.

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total 2016	Total 2015
Original exposure	412,627	109,032	4,388	29,497	555,545	558,159
Exposure	411,692	53,849	4,388	29,240	499,169	497,877
REA	80,384	17,638	502	8,987	107,512	116,978
Minimum capital requirements	6,431	1,411	40	719	8,601	9,358
Average risk weight	20%	33%	11%	31%	22%	23%

1) Securitisation positions to an original exposure amount of 9,676 EURm, exposure of 8,400 EURm, REA of 828 EURm and capital requirement of 66 EURm for 31 Dec 2016 are included in the table.

Table 3.4 Original exposure split by exposure class and exposure type, 31 December 2016

At year-end 2016, 79% of the total credit risk original exposures were calculated using the IRB approach. The total IRB exposures consists mainly of corporate and retail exposures. During 2016 original exposure, excluding securitised exposures in current period, decreased driven by exposure class IRB corporate. Further decrease in original exposure was seen in exposure class IRB Institution. The decrease was partially offset by the IRB retail portfolio.

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total
IRB exposure classes					
Institution	30,609	2,827	882	5,345	39,663
Corporate	116,990	69,819	1,275	13,266	201,350
– of which Advanced	102,656	64,979			167,635
Retail	165,038	21,378	2	83	186,501
– of which mortage	138,845	8,587			147,432
– of which other retail	23,891	11,809	1	57	35,758
– of which SME	2,302	982	0	26	3,311
Other non-credit obligation assets	2,118	28			2,145
Total IRB approach[1]	**314,755**	**94,052**	**2,159**	**18,694**	**429,659**
Standardised exposure classes					
Central governments and central banks	69,401	699	809	2,773	73,682
Regional governments and local authorities	4,365	5,070	0	2,194	11,629
Institution	92	2	1,132	4,928	6,153
Corporate	2,560	1,334		454	4,347
Retail	4,371	2,883		144	7,398
Exposures secured by real estate	3,258	1,801			5,059
Other[2]	6,920	424	288	310	7,942
Total standardised approach	**90,966**	**12,212**	**2,229**	**10,803**	**116,210**
Total	**405,721**	**106,263**	**4,388**	**29,497**	**545,869**

[1] Securitisation positions to an original exposure amount of 9,676 EURm for 31 Dec 2016 are not included in the table.

[2] Includes exposures classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 3.5 Average quarterly original exposure during 2016, split by exposure class and exposure type

Average exposures remain broadly in line with year-end amounts.

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total
IRB exposure classes					
Institution	30,893	2,909	1,734	5,533	41,070
Corporate	122,971	69,764	1,649	13,953	208,337
– of which Advanced	108,692	65,065			173,757
Retail	164,021	20,320	1	89	184,432
– of which mortage	137,422	7,239			144,661
– of which other retail	24,282	12,091	1	62	36,436
– of which SME	2,318	989	0	28	3,335
Other non-credit obligation assets	2,521	30		0	2,551
Total IRB approach[1]	**320,407**	**93,023**	**3,384**	**19,576**	**436,389**
Standardised exposure classes					
Central governments and central banks	78,351	733	1,270	2,876	83,230
Regional governments and local authorities	4,193	5,342	7	2,567	12,109
Institution	99	1	1,708	4,022	5,831
Corporate	2,387	2,360		385	5,132
Retail	4,365	2,987		44	7,396
Exposures secured by real estate	3,157	1,816			4,972
Other[2]	7,054	444	697	368	8,563
Total standardised approach	**99,605**	**13,683**	**3,683**	**10,261**	**127,233**
Total	**420,012**	**106,706**	**7,067**	**29,837**	**563,622**

[1] Securitisation positions to an average original exposure amount of 9 659 EURm for 31 Dec 2016 and 30 Sep 2016 are not included in the table.

[2] Includes exposures classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 3.6 Exposure split by industry group and by main exposure class

Table 3.6 shows exposure split by industry group and by the main exposure classes. The industry breakdown mainly follows the Global Industries Classification Standard (GICS) and is based on NACE codes (statistical classification codes of economic activities in the European community).

On an overall level, excluding securitised exposures in current period, exposures decreased by 1% of which the largest decrease occurred in corporate IRB exposures which decreased by approximately 6%. This was partially offset by an increase in retail IRB exposures which increased by 3%.

The corporate portfolio is well diversified between industry groups where the group "real estate management and investment" has the largest share of total corporate exposures. Together with the second largest corporate exposure industry group - other financial institutions - they account for 38% of total IRB corporate exposure. The retail portfolio consists mainly of residential mortgages classified under "other, public and organisations" industry group, which accounts for 98% of total retail IRB exposure.

Between 2015 and 2016 and excluding securitised exposures in current period, the industry group with the highest increase was "other, public and organisations" driven by IRB Retail and exposures towards governments and central banks. The largest decrease was seen in industry group "other financial institutions" driven by IRB Institution.

	IRB approach[1]					Standardised approach				
EURm	Institution	Corporate	– of which SME	Retail	Other non-credit obligation assets	Central governments and central banks	Regional government and local authorities	Other[2]	Total 2016	Total 2015
Construction and engineering		5,862	2,625	268				268	6,399	5,673
Consumer durables (cars, appliances, etc.)		3,115	683	39				31	3,184	4,543
Consumer staples (food, agriculture etc.)		11,740	7,929	179				352	12,271	13,685
Energy (oil, gas, etc.)		4,186	25	2				14	4,202	4,337
Health care and pharmaceuticals		1,517	510	72				33	1,623	2,010
Industrial capital goods		4,543	596	26				20	4,589	4,931
Industrial commercial services		13,646	2,804	353				343	14,342	16,154
IT software, hardware and services		1,704	505	68				39	1,811	1,856
Media and leisure		2,406	1,010	179				59	2,644	2,730
Metals and mining materials		1,133	177	8				19	1,160	1,081
Other financial institutions	37,861	17,523	3,550	59				9,616	65,060	67,167
Other materials (chemical, building materials, etc.)		6,030	1,621	72				201	6,303	8,213
Other, public and organisations		4,172	932	174,282	1,841	76,701	8,511	12,714	278,222	275,013
Paper and forest materials		2,465	391	36				41	2,542	2,467
Real estate management and investment		44,295	25,962	1,131				108	45,534	46,619
Retail trade		12,040	2,978	377				371	12,788	13,045
Shipping and offshore		12,570	825	10				15	12,595	13,065
Telecommunication equipment		249	24	1				5	255	283
Telecommunication operators		1,712	278	4				11	1,727	1,642
Transportation		3,980	1,239	161				442	4,583	4,626
Utilities (distribution and production)		8,297	1,568	20				619	8,935	8,737
Total exposure 2016	**37,861**	**163,184**	**56,231**	**177,349**	**1,841**	**76,701**	**8,511**	**25,321**	**490,769**	
Total exposure 2015	**43,787**	**172,702**	**58,726**	**172,406**	**2,300**	**73,499**	**9,326**	**23,858**		**497,877**

[1] Securitisation positions to an exposure amount of 8,400 EURm for 31 Dec 2016 are not included in the table.

[2] Includes exposures classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 3.7 Standardised exposure classes, distributed by credit quality step

Table 3.7 presents the exposures for which the S&P's ratings are used to derive the regulatory credit quality steps. Out of the total EUR 73.7bn in original exposure towards central governments and central banks, 99% was within the highest credit quality step. Additionally the table shows that 99% of the EUR 11.6bn in original exposure towards regional government or local authorities was within the highest credit quality step. The distribution among credit quality steps remained broadly stable over the period. Notables changes include an increase in sovereign exposure year on year as well as a decrease in original exposure towards corporates rated BBB+ to BB- and public sector entities.

			Original exposure		Exposure	
Credit quality step, EURm	Standard & Poor's rating	Risk weight	Dec 2016	Dec 2015	Dec 2016	Dec 2015
a) Central Governments or Central banks						
1	AAA to AA–	0%	72,647	69,223	76,164	72,934
2	A+ to A–	20%	295	198	287	180
3	BBB+ to BBB–	50%	0	0	0	0
4 to 6 or blank	BB+ and below, or without rating	100 – 250%	739	876	250	385
Total			**73,682**	**70,297**	**76,701**	**73,499**
b) Regional Governments or local authorities						
1	AAA to AA–[1)]	0% – 20%[1)]	11,606	12,024	8,488	9,302
2	A+ to A–	50%	5	0	5	0
3 to 6 or blank	BBB+ and below, or without rating	100 – 250%	18	24	18	24
Total			**11,629**	**12,048**	**8,511**	**9,326**
c) Public sector entities						
1	AAA to AA–[1)]	0% – 20%[1)]	1,552	1,700	1,357	1,444
2	A+ to A–	50%				
3 to 6 or blank	BBB+ and below, or without rating	100 – 250%				
Total			**1,552**	**1,700**	**1,357**	**1,444**
d) Multilateral Developments Banks						
1	AAA to AA–[2)]	0% – 20%[2)]	2,249	2,122	2,237	2,128
2	A+ to A–	50%				
3 to 6 or blank	BBB+ and below, or without rating	100 – 250%	33	34	26	0
Total			**2,282**	**2,156**	**2,263**	**2,128**
e) Institutions						
1	AAA to AA–	20%	66	61	66	68
2	A+ to A–	50%	0	0	0	0
3 to 6 or blank	BBB+ and below, or without rating	100 – 150%	28	26	28	26
Total			**94**	**87**	**94**	**94**
f) Corporates						
1	AAA to AA–	20%				
2	A+ to A–	50%		0		0
3 to 4	BBB+ to BB–	100%	4,215	6,045	2,157	2,109
5 to 6 or blank	B+ and below, or without rating	150%	133	2	3	2
Total			**4,347**	**6,047**	**2,160**	**2,111**

[1)] Includes exposures treated as exposures to the central government, regional government or local authority as provisioned by CRR and that receives a 0%-risk weight.

[2)] Includes exposures to specific entities and receives a 0%-risk weight as provisioned by CRR.

Table 3.8 Exposure split by residual maturity, 31 December 2016

The distribution of exposures, excluding securitised exposures in current period, remained stable during 2016 under both IRB and standardised approaches. The highest concentration is within >5 years bucket. In the IRB portfolio, this is as a result of a high proportion of retail exposures. 91% of IRB retail exposures have a residual maturity of greater than five years. In the standardised approach, the majority of exposures that have a residual maturity of greater than five years are towards central governments and central banks.

EURm	< 1 year	1–3 years	3–5 years	> 5 years	Total exposure
IRB exposure classes					
Institution	4,356	15,886	9,261	8,358	37,861
Corporate	45,849	33,199	30,498	53,638	163,184
– of which Advanced	43,383	29,960	27,149	32,887	133,378
Retail	5,016	4,144	6,074	162,115	177,349
– of which secured by immovable property	2,361	2,469	3,725	135,659	144,215
– of which other retail	2,191	1,306	1,920	24,792	30,210
– of which SME	463	369	429	1,664	2,925
Other non-credit obligation assets	207	1,480	89	66	1,841
Total IRB approach[1]	**55,428**	**54,709**	**45,922**	**224,177**	**380,236**
Standardised exposure classes					
Central government and central banks	19,145	8,460	6,808	42,288	76,701
Regional governments and local authorities	2,191	1,320	667	4,333	8,511
Institution	587	2,161	276	3,129	6,153
Corporate	163	518	813	666	2,160
Retail	385	1,010	1,239	1,759	4,393
Exposures secured by real estate	66	82	72	4,728	4,948
Other[2]	1,259	1,939	1,773	2,697	7,668
Total standardised approach	**23,797**	**15,490**	**11,647**	**59,599**	**110,533**
Total	**79,225**	**70,199**	**57,569**	**283,776**	**490,769**

[1] Securitisation positions to an exposure amount of 8,400 EURm for 31 Dec 2016 are not included in the table.

[2] Includes exposures classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 3.9 Credit risk mitigation techniques – Overview (EU CR3), 31 December 2016

Table 3.9 show the split of unsecured (not having any CRM mechanism) and secured exposures. Nordea's share of exposures which has at least one CRM mechanism (collateral, financial guarantees, credit derivatives) associated with them exceeds exposures which do not benefit from any CRM mechanism. Nordea's share of exposures having at least one CRM mechanism was 59% as of year-end 2016, with the largest part of exposures being secured by collaterals.

		a	b	c	d	e
EURm		Exposures unsecured: carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Loans	122,934	259,241	211,875	10,789	
2	Total debt securities	54,538				
3	**Total exposures**	**177,471**	**259,241**	**211,875**	**10,789**	
4	Of which defaulted	2,414	5,114	3,493	297	

Table 3.10 Exposure secured by collateral, guarantees and credit derivatives, split by exposure class, 31 December 2016

At the end of 2016 and excluding securitised exposures in current period, the share of total exposure secured by eligible collateral increased by 1% to 44% (43%). The corresponding figure for the IRB portfolio was 56% (53%). The increase is mainly driven by an increase in exposure secured by eligible collateral in the corporate and retail exposure classes. Approximately 3% (3%) of total exposure was secured by guarantees and credit derivatives.

EURm	Original exposure	Exposure	– of which secured by guarantees and credit derivatives	– of which secured by collateral	Average weighted LGD 2016	Average weighted LGD 2015
IRB exposure classes						
Institution	39,663	37,861	121	403	22.8%	23.7%
Corporate	201,350	163,184	10,969	68,066	30.8%	30.8%
– of which Advanced	167,635	133,378	10,122	62,223	27.9%	28.2%
Retail	186,501	177,349	1,787	143,174	17.3%	17.2%
– of which secured by immovable property	147,432	144,215		140,212	14.1%	13.8%
– of which other retail	35,758	30,210	1,487	1,468	31.5%	31.4%
– of which SME	3,311	2,925	300	1,494	28.1%	28.1%
Other non-credit obligation assets	2,145	1,841	5	59	n.a.	n.a.
Total IRB approach 2016[1)]	**429,659**	**380,236**	**12,883**	**211,701**		
Total IRB approach 2015	**444,496**	**391,195**	**13,706**	**205,962**		
Standardised exposure classes						
Central government and central banks	73,682	76,701	488			
Regional governments and local authorities	11,629	8,511	143	0		
Institution	6,153	6,153				
Corporate	4,347	2,160		953		
Retail	7,398	4,393	72	157		
Exposures secured by real estate	5,059	4,948		4,948		
Other[2)]	7,942	7,668	16	1		
Total standardised approach 2016	**116,210**	**110,533**	**718**	**6,058**		
Total standardised approach 2015	**113,662**	**106,683**	**647**	**5,816**		

[1)] Securitisation positions to an original exposure amount of 9,676 EURm and exposure amount of 8,400 EURm for 31 Dec 2016 are not included in the table.

[2)] Includes exposures classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 3.11 Total and average net amount of exposures (EU CRB-B), 31 December 2016

The size of total IRB assets is largely stable at the end of 2016 (EUR 415.9bn) compared to the 2016 annual average (EUR 415.6bn). An increase in retail exposures over the period was almost fully offset by a decrease in corporate exposures net of securitised exposures . In the standardised approach exposures are down 9% compared to their 2016 annual average, mainly driven by lower central government and central bank exposure at year end.

		a	b
		Net exposure	Average quarterly net exposure
1	Central governments or central banks		
2	Institutions	33,436	33,801
3	Corporates	184,752	190,664
4	Of Which: Specialised Lending	569	680
5	Of Which: SME	55,855	57,001
6	Retail	185,885	183,790
7	Secured by real estate property	148,594	145,834
8	SME	1,251	1,260
9	Non-SME	147,343	144,574
10	Qualifying Revolving		
11	Other Retail	37,292	37,956
12	SME	1,992	2,001
13	Non-SME	35,299	35,955
14	Equity		
	Securitisation	9,676	4,830
	Other	2,143	2,548
15	**Total IRB approach**	**415,891**	**415,633**
16	Central governments or central banks	70,099	79,083
17	Regional governments or local authorities	9,434	9,535
18	Public sector entities	1,531	1,618
19	Multilateral Development Banks	1,737	1,673
20	International Organisations	411	453
21	Institutions	94	101
22	Corporates	3,883	4,736
23	of which: SME	161	175
24	Retail	7,239	7,335
25	of which: SME	1,267	1,257
26	Secured by mortgages on immovable property	5,051	4,965
27	of which: SME	80	86
28	Exposures in default	111	116
29	Items associated with particularly high risk	467	462
30	Covered bonds	0	0
31	Claims on institutions and corporates with a short-term credit assessment	0	0
32	Collective investments undertakings (CIU)	0	0
33	Equity exposures	1,220	1,247
34	Other exposures	1,818	1,871
35	**Total SA approach**	**103,098**	**113,194**
36	**Total**	**524,170**	**534,079**

Table 3.12 Distribution of collateral

Real estate collateral is the main collateral type with a share of 72% of total eligible collateral. Real estate collateral in general is not concentrated in any particular region within the Nordic and Baltic countries. The proportion of each collateral category on total eligible collateral remained relatively stable in 2016, with a slight decrease of other physical collateral.

Percent (%)	31 Dec 2016	31 Dec 2015
Financial collateral	1.4%	1.3%
Receivables	1.0%	0.8%
Residential real estate	71.9%	71.8%
Commercial real estate	17.8%	17.4%
Other physical collateral	8.0%	8.7%
Total	**100.0%**	**100.0%**

Table 3.13 Loan-to-value distribution, retail mortgage exposure, on-balance

The loan-to-value (LTV) ratio is considered a useful measure to evaluate collateral's quality, i.e. the credit extended divided by the market value of the collateral pledged. In Table 3.13, retail mortgage exposures are distributed by LTV buckets based on the LTV ratio

	31 Dec 2016		31 Dec 2015	
EURm	Exposure	%	Exposure	%
<50%	110,343	79.5	105,314	78.4
50–70%	20,799	15.0	21,449	16.0
70–80%	4,916	3.5	5,078	3.8
80–90%	1,882	1.4	1,729	1.3
>90%	905	0.7	810	0.6
Total	**138,845**	**100**	**134,380**	**100**

The exposure is continuously distributed by LTV buckets. For example, an exposure of 540 with an LTV of 54% is distributed 500 to the <50% bucket and 40 to the 50-70% bucket

Table 3.14 REA flow statements of credit risk exposures under IRB (EU CR8), 31 December 2016

Table 3.14 shows the REA flow of credit risk exposures under IRB between Q4 2016 and Q3 2016. Over the period, REA decreased EUR 3.1bn, driven by improved asset quality and to a lesser extent a decrease in the asset size. The improved asset quality was most prominent in the IRB corporate portfolio which in turn was driven by reduced maturity and decreased volumes in defaulted exposures. The change in asset size further contributed to the REA decrease but was mostly offset by unfavourable foreign exchange movements, driven by EUR depreciation against USD.

		a	b
	EURm	REA amount	Capital requirement
1	**REA, 31 September 2016**	**88,574**	**7,086**
2	Asset size	–880	–70
3	Asset quality	–2,400	–192
4	Model updates		
5	Methodology and policy		
6	Acquisitions and disposals		
7	Foreign exchange movements	738	59
8	Other	–576	–46
9	**REA, 31 December 2016**	**85,455**	**6,836**

Loans

Table 3.15 Loans to the real estate management industry, split by geography

The real estate portfolio, shown in Table 3.15, predominantly consists of relatively large and financially strong companies, with 90% (83%) of the lending in rating grades 4- and higher. There is a higher level of collateral coverage for the real estate portfolio than for other corporate customers. 35% or EUR 14.4bn of lending to the real estate industry is to companies located in Sweden.

	31 December 2016		31 December 2015	
EURm	Loans	%	Loans	%
Denmark	9,206	22.4	8,581	20.5
Finland	7,742	18.8	8,038	19.2
Norway	9,085	22.1	8,346	20.0
Sweden	14,461	35.1	14,801	35.4
Baltic countries			1,300	3.1
Russia	648	1.6	721	1.7
Other			24	0.1
Total	**41,142**	**100%**	**41,811**	**100%**

Table 3.16 Loans to the shipping and offshore industry, split by segment

Nordea is a leading bank to the global shipping and offshore industry with strong brand recognition and a world leading loan syndication franchise. Nordea's shipping portfolio, shown in Table 3.16, is well diversified by type of vessel or offshore segment, and has focus on large and financially robust industrial players. Despite this, the portfolio credit quality deteriorated over the last year. The portfolio has an average rating of 4. Loans to shipping and offshore industry remained flat at EUR 10.5bn (EUR 10.5bn) during the year.

	31 December 2016		31 December 2015	
EURm	Loans	%	Loans	%
Bulk carriers	1,354	12.9	1,583	15.1
Product tankers	757	7.2	836	8.0
Crude tankers	1,443	13.8	1,296	12.3
Chemical tankers	605	5.8	623	5.9
Gas tankers	1,831	17.4	1,710	16.3
Other shipping	1,925	18.3	1,919	18.3
Offshore and oil services	2,579	24.6	2,544	24.1
Total	**10,494**	**100%**	**10,510**	**100%**

Table 3.17 Loans to corporate customers, split by size of loan

The distribution of loans to corporates by size of loans, shown in Table 3.17, shows a high degree of diversification. Approximately 69% (66%) of corporate lending represents loans up to EUR 50m per customer.

	31 December 2016		31 December 2015	
Loan size, EURm	Loans	%	Loans	%
0 – 10	68,263	44.6	74,836	42.2
10 – 50	37,309	24.4	42,019	23.7
50 – 100	19,892	13.0	20,114	11.3
100 – 250	17,655	11.5	23,444	13.2
250 – 500	4,727	3.1	8,291	4.7
500 –	5,116	3.3	8,838	5.0
Total	**152,964**	**100%**	**177,542**	**100%**

Table 3.18 Loans, impaired loans, allowances and provisioning ratios, split by customer type, 31 December 2016

Nordea's lending to the public decreased by 7% to EUR 318bn during 2016 (EUR 341bn), which excludes discontinued operations in Baltics. The change is attributable to a decrease of 16% in the corporate portfolio and an increase of 2% in the household portfolio. The portion of lending to corporate customers decreased to 48% (52%) while the share of total lending to household customers increased to 51% (46%) and public sector decreased to 1% (2%). Development of total lending is included further in Table 3.18. Lending to the public distributed by borrower domicile is geographically well diversified with no market accounting for more than 30% of lending. Lending to the shipping industry constitutes 3.3% (3.1%) of lending to the public. For a further breakdown of the loan portfolio by geography refer to the Annual Report.

Corporate lending decreased by 16% to EUR 153bn (EUR 178bn). The sector that increased the most in 2016 was Construction and engineering, while Financial institutions decreased the most. In terms of concentration, the three largest industries account for approximately 23% (20%) of total lending.

In 2016 lending to household customers increased by 2% to EUR 161bn (EUR 158bn). Mortgage loans increased to EUR 133bn (130bn) and consumer loans were stable at EUR 28bn. The proportion of mortgage loans of total household loans was unchanged at 83%.

Impaired loans

In Table 3.18-3.21 impaired loans, loan losses and allowances are distributed and stated according to the International Financial Reporting Standard (IFRS) as in the Annual Report,

Impaired loans gross decreased by 7% during the year to reach EUR 5,550m. This corresponds to 163bps (162bps) of total loans. 58% (62%) of impaired loans gross are servicing and 42% (38%) are non-servicing. The decrease in impaired loans was mainly related to the industries Other materials (chemical, building materials) and Real estate management and investment. The industries with the largest increases in impaired loans were Shipping and offshore and Energy.

Impaired loans net, after allowances for individually assessed impaired loans, decreased to EUR 3,637m (EUR 3,747m), corresponding to 108bps of total loans. Allowances for individually assessed loans decreased slightly to EUR 1913m (EUR 2,213m), and allowances for collectively assessed loans increased slightly to EUR 513m (EUR 451m). The ratio of individual allowances for impaired loans decreased to 34% (37%), while total allowances in relation to impaired loans was slightly higher at 44% (45%).

EURm	Loans after allowances 2015[1)]	Loans after allowances 2016	Impaired loans before allowances	Impaired loans in % of loans	Allowances for collectively assessed loans	Individual allowances	Total provisioning ratio
To central banks and credit institutions	**24,183**	**20,261**	**9**	**0.04**	**2**	**0**	**27%**
– of which central banks	13,224	11,235					
– of which credit institutions	10,959	9,026	9	0.09	2	0	27%
To the public	**340,920**	**317,689**	**5,541**	**1.73**	**511**	**1,913**	**44%**
– of which corporate	177,542	152,964	3,533	2.28	394	1,506	54%
Construction and engineering	4,613	5,158	160	3.05	8	77	54%
Consumer durables (cars, appliances, etc.)	2,272	1,611	123	7.27	20	62	67%
Consumer staples (food, agriculture, etc.)	11,515	10,796	909	8.20	46	255	33%
Energy (oil, gas, etc.)	3,035	2,678	116	4.17	23	77	86%
Financial institutions	17,013	13,600	284	2.03	0	162	57%
Health care and pharmaceuticals	1,781	1,393	18	1.30	1	6	41%
Industrial capital goods	1,932	1,959	34	1.70	22	21	125%
Industrial commercial services, etc.	12,517	11,738	392	3.29	14	180	49%
IT software, hardware and services	1,609	1,634	65	3.92	1	37	58%
Media and leisure	2,467	2,472	63	2.52	4	29	54%
Metals, and mining materials	836	856	63	7.07	1	36	58%
Other materials (chemical, building materials, etc.)	6,087	4,589	220	4.68	8	103	50%
Other, public and organisations	4,938	3,166	19	0.63	19	23	223%
Paper and forest materials	1,629	1,610	7	0.45	2	2	51%
Real estate management and investment	41,811	41,142	400	0.97	57	127	46%
Retail trade	9,584	9,003	331	3.61	14	151	50%
Reversed repurchase agreements to corporates	32,274	19,176					
Shipping and offshore	10,510	10,494	244	2.27	148	91	98%
Telecommunication equipment	79	76	1	1.44	0	1	79%
Telecommunication operators	1,242	1,044	16	1.47	1	26	167%
Transportation	3,601	3,659	45	1.22	4	24	60%
Utilities (distribution and production)	6,200	5,109	23	0.44	1	16	76%
– of which household	158,150	161,099	2,008	1.24	117	407	26%
Mortgage financing	130,232	133,341	1,126	0.84	23	60	7%
Consumer financing	27,919	27,759	882	3.13	94	348	50%
– of which public sector	5,228	3,626					
Total loans	**365,103**	**337,950**	**5,550**	**1.63**	**513**	**1,913**	**44%**
– of which in the life insurance operations	1,156	375					

Provisions for off-balance sheet items for 2016 were EUR 0m for credit institutions and EUR 71m for lending to the public.

[1)] Including discontinued operations in Baltics.

Table 3.19 Credit risk adjustments, split by customer type, 31 December 2016

Table 3.19 describes the distribution of new provisions and reversals for individual and collectively assessed. At the end of 2016 total new provisions was –1,057 EURm, of which the corporate portfolio amounted to –825 EURm and the household portfolio amounted to –231 EURm.

	Specific credit risk adjustments charges					
	Individually		Collectively		Total	
EURm	Provisions	Reversals	Provisions	Reversals	Provisions	Reversals
To central banks and credit institutions	**0**	**0**	**–1**	**1**	**–1**	**1**
- of which central banks						
- of which credit institutions	0	0	–1	1	–1	1
To the public	**–729**	**408**	**–327**	**231**	**–1,056**	**639**
- of which corporate	–543	251	–282	174	–825	425
Construction and engineering	–22	12	–7	5	–29	17
Consumer durables (cars, appliances, etc.)	–7	13	–20	15	–27	28
Consumer staples (food, agriculture, etc.)	–93	31	–9	8	–102	40
Energy (oil, gas, etc.)	–71	0	–20	1	–91	1
Financial institutions	–55	24	–5	7	–61	31
Health care and pharmaceuticals	–1	2	–1	1	–3	3
Industrial capital goods	–6	6	–6	3	–12	9
Industrial commercial services, etc.	–82	44	–11	16	–93	60
IT software, hardware and services	–6	8	–1	2	–7	10
Media and leisure	–12	5	–5	3	–17	8
Metals and mining materials	–1	1	–2	3	–4	4
Other materials (chemical, building materials, etc.)	–26	26	–6	12	–32	38
Other, public and organisations	–11	6	–13	12	–24	18
Paper and forest materials	–2	9	–1	1	–4	10
Real estate management and investment	–32	23	–43	39	–75	62
Retail trade	–43	29	–6	11	–49	40
Reversed repurchase agreements						
Shipping and offshore	–46	6	–117	26	–163	32
Telecommunication equipment	0	0	0	0	0	0
Telecommunication operators	–3	0	–2	2	–5	2
Transportation	–9	5	–4	5	–13	9
Utilities (distribution and production)	–14	1	–2	3	–16	4
- of which household	–187	157	–44	57	–231	213
Mortgage financing	–63	47	–10	12	–73	59
Consumer financing	–124	109	–35	45	–158	154
- of which public sector	0	0			0	0
Total	**–730**	**408**	**–327**	**232**	**–1,057**	**639**

Table 3.20 Loan losses, split by customer type, 31 December 2016

Tables 3.20 show the changes in the allowance accounts as well as the specification of loan losses per customer type. Total net loan losses increased to EUR 502m in 2016 (EUR 479m). The corresponding loan loss ratio, measured as a proportion of loans to the public, was 14bps.

EURm	New provisions and write-offs	Reversals and recoveries	Net loan losses	Loan loss ratio bps
To cental banks and credit institutions	**–1**	**1**	**0**	**0**
– of which central banks				
– of which credit institutions	–1	1	0	0
To the public	**–1,278**	**776**	**–501**	**15**
– of which corporate	–926	499	–427	27
Construction and engineering	–38	26	–12	22
Consumer durables (cars, appliances, etc.)	–29	28	–1	7
Consumer staples (food, agriculture, etc.)	–127	56	–71	65
Energy (oil, gas, etc.)	–92	1	–91	328
Financial institutions	–56	41	–15	10
Health care and pharmaceuticals	–3	3	0	
Industrial capital goods	–12	10	–2	12
Industrial commercial services, etc.	–105	66	–39	33
IT software, hardware and services	–9	11	2	
Media and leisure	–18	9	–8	32
Metals, and mining materials	–5	3	–2	21
Other materials (chemical, building materials, etc.)	–34	36	3	
Other, public and organisations	–40	34	–6	2
Paper and forest materials	–7	11	4	
Real estate management and investment	–90	65	–25	6
Retail trade	–67	48	–19	20
Reversed repurchase agreements				
Shipping and offshore	–162	35	–127	121
Telecommunication equipment	0	0	0	
Telecommunication operators	–5	2	–3	29
Transportation	–13	10	–3	7
Utilities (distribution and production)	–16	4	–12	23
– of which household	–352	277	–74	5
Mortgage financing	–86	58	–28	2
Consumer financing	–266	220	–47	17
– of which public sector	0	0	0	
Total	**–1,279**	**777**	**–502**	**14**

Table 3.21 Impaired loans gross and allowances to the public split by geography and industry, 31 December 2016

Danish consumers currently benefit from increased purchasing power as a result of low interest expenses, positive real wage growth and rising employment. It is expected that the uptrend in home prices will continue in coming years, although at a more moderate pace. Over the past few years global trade has been subdued, and moreover slower growth in two of Denmark's key export markets, Sweden and the UK, could dampen exports further. Agricultural products are still under pressure within milk and pig products.

In Sweden the Credit quality remains solid and household is still the key growth driver of the Swedish economy with good financial situation. Consumer confidence has increased during the fall. Domestic demands show a better growth while exports has slower trend. The forecast going forward may be affected by several global uncertainties.

The recovery of the Finnish economy have been stable during 2016. Exports to Russia increased 2% in August, first time since December 2013, but decreased again in September. Prices on the housing market have remained quite stable.

The Norwegian economy is slowing down, and it seems that the downturn in oil related business will last longer than previously believed.

EURm	Total 2015	Total 2016	Denmark	Finland	Norway	Sweden	Baltic countries	Russia	Allowances	Total provisioning ratio	Past due loans, not impaired
To the public											
– of which corporate	3,860	3,533	1,860	722	559	375		17	1,900	54%	700
Construction and engineering	194	160	111	23	23	3			86	54%	84
Consumer durables (cars, appliances, etc.)	149	123	29	14	60	19			82	67%	11
Consumer staples (food, agriculture, etc.)	906	909	825	56	27	1			301	33%	28
Energy (oil, gas, etc.)	2	116	0	1	54	60			100	86%	0
Financial institutions	334	284	156	27	58	42			163	57%	22
Health care and pharmaceuticals	23	18	12	6	0	0			7	41%	6
Industrial capital goods	77	34	12	16	0	7			43	125%	9
Industrial commercial services, etc.	394	392	120	98	62	112			193	49%	79
IT software, hardware and services	74	65	28	36	1	0			38	58%	13
Media and leisure	70	63	27	20	4	12			34	54%	19
Metals, and mining materials	60	63	1	30	30	2			37	58%	6
Other materials (chemical, building materials, etc.)	329	220	19	162	12	27			111	50%	21
Other, public and organisations	56	19	17	2	0	0			42	223%	32
Paper and forest materials	30	7	6	1	0	0			4	51%	12
Real estate management and investment	605	400	267	56	59	1		17	183	46%	230
Retail trade	362	331	162	80	8	81			165	50%	68
Reversed repurchase agreements to corporates											
Shipping and offshore	110	244	36	70	135	3			240	98%	10
Telecommunication equipment	1	1	0	1					1	79%	0
Telecommunication operators	8	16	1	11	4	0			26	167%	1
Transportation	71	45	27	11	5	2			27	60%	42
Utilities (distribution and production)	5	23	3	1	16	2			17	76%	6
– of which household	2,101	2,008	1,058	641	143	150					1,410
Mortgage financing	1,060	1,126	579	344	122	64			83	7%	797
Consumer financing	1,040	882	478	297	21	86			441	50%	613
– of which public sector	0										4
Total impaired loans	**5,960**	**5,541**	**2,917**	**1,363**	**701**	**525**		**17**			
Past due loans	2,582	2,114	442	675	780	195					2,114
Allowances	2,662	2,424	1,056	593	450	296		22	2,424		
Total provisioning ratio	**45%**	**1%**	**36%**	**44%**	**64%**	**56%**		**128%**			

Table 3.22 Reconciliation of allowance accounts for impaired loans

Tables 3.22 show the changes in the allowance accounts as well as the specification of loan losses per customer type. Total net loan losses increased to EUR 502m in 2016 (EUR 479m). The corresponding loan loss ratio, measured as a proportion of loans to the public, was 15bps. See table 3.19 for a detailed specification of new provisions and reversals.

	Specific credit risk adjustments		
EURm	Individually assessed	Collectively assessed	Total
Opening balance, 1 Jan 2016	**–2,213**	**–451**	**–2,664**
Changes through the income statement	–322	–96	–418
– of which Provisions	–730	–327	–1,057
– of which Reversals	408	232	639
Allowances used to cover write-offs	474		474
Reclassifications	151	42	192
Currency translation differences	–3	–8	–11
Closing balance, 31 Dec 2016	**–1,913**	**–513**	**–2,426**

For loan losses directly recognised through the income statement (not affecting the allowance accounts), refer to the note "Net loan losses" in the Annual Report.

Table 3.23 Changes in stock of general and specific credit risk (EU CR2-A), 31 December 2016

Accumulated Specific credit risk adjustment had a closing balance of 2.426 EURm at the end of 2016. Opening balance includes Baltics figures but is now reported as asset held for sale. Business combinations, including acquisitions and disposals of subsidiaries of 192 EURm intends Baltics. Nordea does not have general credit risk adjustment due to use of IFRS accounting.

		a
EURm		Accumulated Specific credit risk adjustment
1	**Opening balance**	**–2,664**
2	Increases due to amounts set aside for estimated loan losses during the period	–1,057
3	Decreases due to amounts reversed for estimated loan losses during the period	639
4	Decreases due to amounts taken against accumulated credit risk adjustments	474
5	Transfers betwen credit risk adjustments	
6	Impact of exchange rate differences	–11
7	Business combinations, including acquisitions and disposals of subsidiaries	192
8	Other adjustments	
9	**Closing balance**	**–2,426**
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	57
11	Specific credit risk adjustments recorded directly to the statement of profit or loss	–126

Table 3.24 Past due loans, not impaired

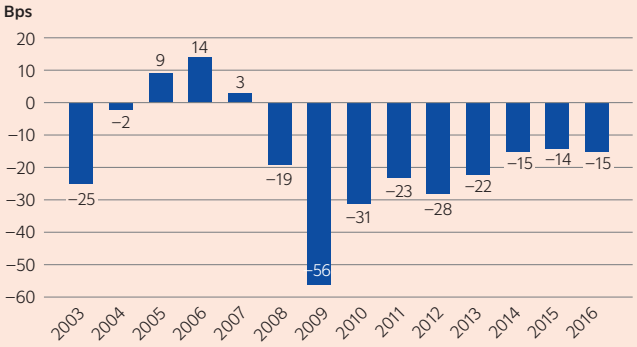
Table 3.24 shows loans past due 6 days or more that are not considered impaired, split by corporate and household customers. Past due is defined as a loan payment that has not been made as of its due date. Past due loans to corporate customers, not considered impaired, were at end of 2016 EUR 704m, down from EUR 962m one year ago, and past due loans for household customers decreased to EUR 1,410m (EUR 1,620m).

	31 December 2016		31 December 2015	
EURm	Corporate customers	Household customers	Corporate customers	Household customers
6 – 30 days	376	940	653	1,058
31 – 60 days	134	239	153	250
61 – 90 days	73	94	37	89
> 90 days	121	138	118	223
Total	**704**	**1,410**	**962**	**1,620**
Past due loans, not impaired, divided by loans to the public after allowances, %	0.46	0.88	0.54	1.02

Figure 3.1 Annualised net loan loss ratio

The development of loan losses over time is shown in Figure 3.1. EUR 427m (EUR 336m) of net loan losses related to corporate customers, EUR 74m (EUR 143m) related to household customers. Within corporates the main losses were in the industries Consumer durables, in Consumer staples and in Retail trade.

Total collective provisions 2016 were EUR 513m compared to EUR 451m in 2015.



Credit risk measurement

Table 3.25 Credit risk exposures by portfolio and PD scale (EU-CR6), 31 December 2016

Table 3.25 show the distribution of on-balance and off-balance credit risk exposures by probability of default (PD) buckets. For the institutions portfolio, the majority of exposures are located within the lowest PD bucket and primarily consist of on-balance sheet exposures.

The exposures in the corporate portfolio are primarily non-specialised lending and calculated using the AIRB approach. The three lowest PD buckets contain the vast majority of the exposures and constitute approximately 73% of the total corporate exposure in the AIRB approach. In terms of REA, this amounts to 50% of the total in the AIRB approach corporate portfolio excluding specialised lending.

Exposures secured by immovable property are the majority of the exposures in the retail portfolio, and amounts to approximately 80% of the total retail exposures. The average PD in the non-SME retail portfolio (secured by immovable property) is 1.41% and more than half of the exposures in the portfolio is assigned to the PD bucket associated with the lowest risk.

Intitutions - FIRB

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	25,349	1,412	38.32%	26,072	0.06%	732	14.67%	2.5	2,407	9.23%	2	
0.15 to < 0.25	4,930	566	21.06%	5,049	0.16%	217	41.32%	2.5	1,913	37.89%	3	
0.25 to < 0.50	70	133	19.15%	98	0.35%	134	44.28%	2.5	79	80.06%	0	
0.50 to < 0.75	79	201	24.04%	123	0.55%	99	43.28%	2.5	107	86.75%	0	
0.75 to < 2.50	109	328	35.61%	190	1.47%	169	45.00%	2.5	255	134.01%	1	
2.50 to < 10.00	71	183	22.61%	100	4.44%	133	41.66%	2.5	165	164.64%	2	
10.00 to < 100.00	0	3	38.51%	2	15.21%	14	45.00%	2.5	4	270.55%	0	
100.00 (Default)	0	1	20.00%	0	100.00%	2	45.00%	2.5			0	
Sub-total	**30,609**	**2,827**	**32.12%**	**31,634**	**0.10%**	**1,500**	**19.39%**	**2.5**	**4,929**	**15.58%**	**9**	**0**

Corporate - FIRB and Specialised Lending

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	18			18	0.10%	1	45.00%	2.5	6	32.16%	0	
0.15 to < 0.25												
0.25 to < 0.50	9			9	0.35%	1	45.00%	2.5	6	62.55%	0	
0.50 to < 0.75												
0.75 to < 2.50	19			19	0.81%	1	45.00%	2.5	17	90.53%	0	
2.50 to < 10.00												
10.00 to < 100.00												
100.00 (Default)												
Sub-total	**46**			**46**	**0.45%**	**3**	**45.00%**	**2.5**	**28**	**62.44%**	**0**	

Table 3.25, cont

Corporate - AIRB and Specialised Lending

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	97			97	0.04%	2	33.53%	1.1	7	7.36%	0	
0.15 to < 0.25	15	1	72.90%	18	0.22%	3	33.93%	2.4	5	28.44%	0	
0.25 to < 0.50	128			128	0.35%	6	33.43%	3.6	75	58.72%	0	
0.50 to < 0.75	147	1	53.90%	146	0.55%	10	36.39%	3.2	99	68.30%	0	
0.75 to < 2.50	43			43	1.42%	8	33.70%	2.3	28	64.51%	0	
2.50 to < 10.00	57			57	8.65%	3	36.08%	3.3	83	145.23%	2	
10.00 to < 100.00												
100.00 (Default)	39			39	100.00%	8	25.48%	2.2	83	211.51%	5	
Sub-total	**527**	**1**	**66.14%**	**528**	**8.70%**	**40**	**34.00%**	**2.7**	**381**	**72.06%**	**8**	**5**

Corporate - FIRB, Non-SME, Excluding Specialised Lending

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	3,664	836	27.20%	4,218	0.07%	1,769	42.15%	2.5	948	22.48%	1	
0.15 to < 0.25	2,692	1,128	28.44%	3,000	0.20%	1,894	41.16%	2.5	1,274	42.47%	2	
0.25 to < 0.50	1,123	529	21.48%	1,178	0.35%	1,190	42.94%	2.5	707	59.97%	2	
0.50 to < 0.75	1,268	295	18.73%	1,280	0.55%	1,032	40.59%	2.5	900	70.32%	3	
0.75 to < 2.50	1,126	645	15.79%	1,163	1.06%	1,372	42.63%	2.5	1,086	93.37%	5	
2.50 to < 10.00	793	267	4.82%	468	5.39%	353	41.72%	2.5	704	150.38%	11	
10.00 to < 100.00	23	2	8.11%	22	21.15%	61	40.31%	2.5	53	235.71%	2	
100.00 (Default)	406	32	19.42%	390	100.00%	176	40.81%	2.5			159	
Sub-total	**11,094**	**3,734**	**22.45%**	**11,720**	**3.86%**	**7,847**	**41.79%**	**2.5**	**5,672**	**48.40%**	**185**	**162**

Corporate - FIRB , SME, Excluding Specialised Lending

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	604	251	6.61%	736	0.08%	2,248	42.37%	2.5	148	20.10%	0	
0.15 to < 0.25	687	204	12.25%	781	0.21%	3,120	41.88%	2.5	269	34.42%	1	
0.25 to < 0.50	406	132	16.21%	492	0.35%	1,774	42.33%	2.5	233	47.29%	1	
0.50 to < 0.75	458	113	7.31%	462	0.55%	1,834	41.91%	2.5	252	54.59%	1	
0.75 to < 2.50	639	211	10.83%	642	1.35%	3,235	41.36%	2.5	451	70.13%	4	
2.50 to < 10.00	272	129	1.42%	256	5.88%	1,301	40.54%	2.5	268	104.60%	6	
10.00 to < 100.00	34	24	0.20%	33	19.85%	362	40.36%	2.5	53	158.45%	3	
100.00 (Default)	92	42	13.62%	96	100.00%	328	41.94%	2.5			40	
Sub-total	**3,194**	**1,106**	**9.22%**	**3,499**	**3.81%**	**14,202**	**41.84%**	**2.5**	**1,673**	**47.81%**	**55**	**33**

Table 3.25, cont

Corporate - AIRB, Non-SME, Excluding Specialised Lending

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	11,681	18,737	54.67%	20,521	0.07%	3,407	31.84%	2.6	3,818	18.60%	5	
0.15 to < 0.25	19,240	18,448	53.17%	28,040	0.21%	4,716	30.42%	2.7	9,124	32.54%	17	
0.25 to < 0.50	10,224	7,588	54.20%	13,120	0.35%	2,927	27.71%	2.7	5,224	39.82%	13	
0.50 to < 0.75	7,691	5,892	46.33%	9,736	0.55%	2,493	29.28%	2.6	5,007	51.43%	16	
0.75 to < 2.50	5,394	3,516	49.38%	6,588	1.21%	3,005	28.94%	2.6	4,383	66.53%	23	
2.50 to < 10.00	2,724	974	56.10%	2,889	6.31%	860	26.98%	3.1	3,101	107.33%	49	
10.00 to < 100.00	375	178	49.91%	380	16.13%	141	30.02%	2.9	632	166.53%	18	
100.00 (Default)	1,709	475	0.54%	1,673	100.00%	577	30.30%	2.6	2,723	162.81%	755	
Sub-total	**59,039**	**55,808**	**52.43%**	**82,946**	**2.62%**	**18,126**	**29.97%**	**2.7**	**34,012**	**41.01%**	**896**	**1,007**

Corporate - AIRB, SME, Excluding Specialised Lending

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	14,467	2,858	55.85%	16,702	0.06%	12,420	24.11%	2.5	1,529	9.16%	2	
0.15 to < 0.25	8,983	2,463	56.55%	11,465	0.21%	9,822	25.34%	2.5	2,459	21.45%	6	
0.25 to < 0.50	5,686	1,214	55.13%	6,618	0.35%	5,074	24.26%	2.6	1,849	27.93%	6	
0.50 to < 0.75	4,651	1,015	52.92%	5,262	0.55%	4,712	23.88%	2.5	1,741	33.08%	7	
0.75 to < 2.50	4,949	958	58.15%	5,378	1.34%	7,090	23.92%	2.5	2,261	42.05%	17	
2.50 to < 10.00	1,779	471	56.34%	2,057	6.31%	2,695	25.35%	2.4	1,459	70.95%	33	
10.00 to < 100.00	273	50	48.04%	279	18.71%	631	23.88%	2.5	261	93.68%	12	
100.00 (Default)	2,303	139	0.00%	2,143	100.00%	1,631	26.28%	2.5	2,633	122.83%	727	
Sub-total	**43,090**	**9,169**	**55.13%**	**49,904**	**4.98%**	**44,075**	**24.51%**	**2.5**	**14,192**	**28.44%**	**810**	**848**

Retail - RIRB - secured by immovable property, non SME

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	76,732	6,285	65.52%	80,850	0.1%	601,402	13.74%	2.5	2,525	3.12%	10	
0.15 to < 0.25	25,945	1,172	56.83%	26,611	0.2%	199,729	14.55%	2.5	1,543	5.80%	7	
0.25 to < 0.50	17,458	568	60.33%	17,801	0.3%	131,146	14.36%	2.5	1,611	9.05%	9	
0.50 to < 0.75	5,309	104	46.89%	5,358	0.6%	42,342	14.07%	2.5	705	13.15%	4	
0.75 to < 2.50	9,232	275	45.03%	9,356	1.3%	72,824	13.91%	2.5	1,989	21.26%	17	
2.50 to < 10.00	1,992	162	38.07%	2,054	4.9%	12,939	17.43%	2.5	1,222	59.52%	18	
10.00 to < 100.00	762	17	39.23%	769	23.0%	6,791	15.42%	2.5	693	90.06%	26	
100.00 (Default)	1,414	4	69.33%	1,416	100.0%	12,444	14.39%	2.5	1,941	137.07%	66	
Sub-total	**138,845**	**8,587**	**62.54%**	**144,215**	**1.4%**	**1,079,617**	**14.06%**	**2.5**	**12,229**	**8.48%**	**156**	**88**

Table 3.25, cont

Retail - RIRB - secured by immovable property, SME

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	7	10	51.39%	12	0.10%	918	20.97%	2.50	0	3.89%	0	
0.15 to < 0.25	362	24	49.65%	373	0.19%	6,672	21.43%	2.50	25	6.58%	0	
0.25 to < 0.50	118	24	67.59%	134	0.36%	2,243	19.38%	2.50	13	10.03%	0	
0.50 to < 0.75	87	14	68.52%	97	0.60%	1,361	18.77%	2.50	14	14.46%	0	
0.75 to < 2.50	405	95	59.37%	461	1.45%	8,976	20.53%	2.50	129	28.08%	1	
2.50 to < 10.00	55	13	69.51%	64	3.60%	1,223	20.91%	2.50	31	48.82%	0	
10.00 to < 100.00	14	1	62.42%	14	30.37%	276	21.36%	2.50	14	100.54%	1	
100.00 (Default)	26	2	76.65%	28	100.00%	642	21.97%	2.50	49	177.02%	4	
Sub-total	**1,074**	**181**	**60.33%**	**1,184**	**3.60%**	**22,311**	**20.61%**	**2.50**	**276**	**23.35%**	**7**	**5**

Retail - RIRB - other, non -SME

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	5,473	5,504	64.01%	8,880	0.09%	1,121,123	33.23%	2.50	718	8.09%	3	
0.15 to < 0.25	3,601	2,536	63.23%	5,044	0.19%	508,642	33.69%	2.50	695	13.78%	3	
0.25 to < 0.50	4,146	1,705	64.18%	5,011	0.35%	500,495	33.77%	2.50	1,043	20.82%	6	
0.50 to < 0.75	1,626	480	62.94%	1,789	0.60%	165,895	31.54%	2.50	474	26.51%	3	
0.75 to < 2.50	3,318	985	65.50%	3,578	1.34%	382,721	31.44%	2.50	1,309	36.59%	15	
2.50 to < 10.00	3,343	399	56.61%	3,448	4.95%	207,387	23.55%	2.50	1,268	36.77%	41	
10.00 to < 100.00	1,625	101	57.84%	1,605	19.81%	85,628	23.30%	2.50	861	53.63%	73	
100.00 (Default)	760	100	55.20%	797	100.00%	83,020	33.44%	2.50	2,137	268.10%	314	
Sub-total	**23,891**	**11,809**	**63.57%**	**30,152**	**4.58%**	**3,054,911**	**31.45%**	**2.50**	**8,506**	**28.21%**	**458**	**401**

Retail - RIRB - other, SME

EURm	a	b	c	d	e	f	g	h	i	j	k	l
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density	EL	Value adjust-ments and Provisions
0.00 to < 0.15	4	9	67.58%	10	0.09%	2,157	42.74%	2.5	1	8.77%	0	
0.15 to < 0.25	9	11	63.71%	16	0.19%	914	40.36%	2.5	2	13.58%	0	
0.25 to < 0.50	43	76	75.45%	99	0.39%	7,518	35.95%	2.5	21	20.80%	0	
0.50 to < 0.75	36	70	71.40%	85	0.60%	6,008	35.12%	2.5	22	25.76%	0	
0.75 to < 2.50	457	369	75.70%	701	1.50%	36,094	32.28%	2.5	242	34.55%	3	
2.50 to < 10.00	489	220	59.13%	593	4.80%	32,484	32.61%	2.5	265	44.73%	9	
10.00 to < 100.00	109	21	84.81%	119	19.27%	5,552	30.57%	2.5	72	60.70%	7	
100.00 (Default)	82	25	63.15%	92	100.00%	6,120	35.76%	2.5	263	284.49%	25	
Sub-total	**1,228**	**801**	**70.34%**	**1,715**	**9.05%**	**96,847**	**32.95%**	**2.5**	**888**	**51.79%**	**45**	**36**

Table 3.26 Exposure weighted average PD and LGD, IRB exposure classes (excl. defaulted exposures), 31 December 2016

Table 3.26 shows PD and LGD for different exposure classes under the IRB approach distributed on geographical dimension. Parameters are calculated excluding defaulted exposures. In the retail exposure class, average PD is lowest in Sweden (0.26%) and highest in the Baltic countries (2.88%). Similarly, average LGD is lowest in Sweden (13.3%) but highest in Russia (36.6%). In the Nordics, retail PD in the Norwegian portfolio improved from 0.64% to 0.52% compared to 2015, mainly as a result of favourable scoring migration. In the corporate portfolio, average PD improved in the Swedish and Finnish portfolios while PD increased in the Russian portfolio. In the institution, the average PD in the Finnish portfolio increased to 0.21% from 0.12% compared 2015. This mainly stems from rating downgrades in a limited amount of large counterparties

	Denmark		Finland		Norway		Sweden		Baltic countries		Russia		USA		Other	
Percent (%)	PD	LGD	PD	LGD	PD	LGD	PD	LGD	PD	LGD	PD	LGD	PD	LGD	PD	LGD
Institution	0.09%	11.9%	0.21%	26.9%	0.04%	13.8%	0.05%	16.5%	0.25%	45.0%	0.55%	45.0%	0.11%	45.0%	0.18%	41.6%
Corporate	0.59%	29.1%	0.64%	30.7%	0.71%	29.5%	0.35%	30.4%	0.38%	39.4%	0.50%	43.7%	0.38%	34.2%	1.05%	32.7%
– of which AIRB	0.62%	26.5%	0.63%	28.4%	0.71%	27.5%	0.34%	27.1%	0.27%	31.3%	0.41%	39.4%	0.38%	34.0%	1.11%	30.5%
Retail	0.70%	21.2%	1.58%	14.6%	0.52%	21.0%	0.26%	13.3%	2.88%	41.4%	2.61%	36.6%	2.02%	36.2%	2.24%	36.7%
– of which secured by immovable property	0.58%	16.9%	0.63%	10.8%	0.45%	19.5%	0.18%	10.6%								
– of which other retail	1.16%	40.0%	3.84%	22.4%	0.82%	30.1%	0.81%	34.5%								
– of which SME	2.14%	26.8%	3.19%	26.8%	2.59%	38.3%	1.96%	25.2%	2.88%	41.4%	2.61%	36.6%	2.02%	36.2%	2.24%	36.7%
Other non-credit obligation assets	2.18%	43.7%	2.27%	42.0%	1.97%	39.9%	2.36%	44.7%	2.50%	45.0%	2.50%	45.0%	2.50%	45.0%	2.50%	44.8%
Total exposure-weighted IRB 2016[1)]	**0.59%**	**23.2%**	**1.20%**	**21.2%**	**0.58%**	**24.3%**	**0.29%**	**19.6%**	**0.39%**	**39.5%**	**0.51%**	**43.7%**	**0.33%**	**36.7%**	**0.77%**	**35.6%**
Total exposure-weighted IRB 2015	**0.62%**	**22.6%**	**1.21%**	**20.8%**	**0.64%**	**25.3%**	**0.36%**	**20.4%**	**0.45%**	**40.6%**	**0.41%**	**42.0%**	**0.20%**	**38.7%**	**0.44%**	**36.6%**

[1)] Securitisation positions for 31 Dec 2016 are not included in the table.

Table 3.27 a) Obligor-weighted PD vs. ADF, 2016

Table3.27 a) shows the PD and actual default frequency ADF, calculated for the corporate and institution portfolio as the long term average. For the Retail portfolio the PD and ADF are based on the latest estimation year due to the PIT methodology used in the model calibration.

	Average PD	Average ADF
Retail	1.22%	0.96%
– of which SME	2.99%	2.37%
Corporate & Institution	1.41%	1.30%

Table 3.27 b) Exposure-weighted estimated vs. Realised LGD & EAD & CCF for the corporate and retail IRB portfolios, 2015[1)]

Table 3.27 b) shows estimated and realized LGD, CCF and EAD for IRB exposures based on the exposure in the reporting period. For retail the LGD estimation uses a 3 years' work out period. The sub-exposure class according to CRR is not directly comparable to LGD and CCF segmentation used for estimation and validation.

Realized LGD and CCF values are for both corporate and retail portfolio based on a minimum of 7 default years. The estimated values include a downturn add-on and a safety margin, hence the difference between estimated and realized values. The figures showed in the table are the same as in the last year's report, as the validations are yet to be finalized.

	Estimated	Realised average
Retail LGD	17.2%[2)]	9.8%
Retail CCF	55.8%	49.5%
Retail EAD[3)], EURm	253	182
Corporate LGD	31.1%[2)]	14.3%
Corporate CCF	60.4%	53.9%
Corporate EAD[3)], EURm	241	147

1) Figures provided for 2015. Updates for 2016 will be publicly available as soon as the validation process for 2016 is finalised.
2) Defaulted customers not included.
3) Only for exposures with an off-balance part.
N.B. Realised avg. EAD does not include post-default drawings.

Table 3.27 c) Comparison between EL and actual losses

Table 3.27 c) displays the comparison between EL and actual losses. Estimated EL follows the calculation rules defined in the CRR calculated using midyear data. Realized loss is net loss based on end of year data.

	Expected loss	
	Estimated	Realised
2016		
Retail	–245	–74
– of *which secured by immovable property*	–90	–28
– of *which other retail*	–155	–46
Corporate[1)]	–334	–427
Institution	–20	
Government		
2015		
Retail	–268	–144
– of *which secured by immovable property*	–100	–49
– of *which other retail*	–168	–95
Corporate[1)]	–295	–345
Institution	–20	10
Government		
2014		
Retail	–202	–194
– of *which secured by immovable property*	–98	–79
– of *which other retail*	–104	–115
Corporate[1)]	–322	–298
Institution	–37	–42
Government		

1) Includes Retail SME

Table 3.28 Standardised approach after application of CCF and CRM (EU CR5), 31 December 2016

Table 3.28 present a breakdown of exposures under the standardised approach by asset class and risk weight. Exposures shown are on and off balance sheet exposures post conversion factor and post risk mitigation techniques. As of year-end 2016, out of the total exposure amount of EUR 97.8bn, approximately 84% of exposures are risk weighted at a 0% risk weight. Remaining exposures are predominately held in the 100% and 75% risk weight bucket, mainly related corporate and retail exposures respectively. Sovereign exposure which receive a 250% risk weight are exclusively deferred tax assets (DTAs) which rely on future profitability and arise from temporary differences.

	Credit risk	Risk weight								
	EURm	0%	20%	35%	50%	75%	100%	150%	250%	Total
	Exposure classes									
1	Central governments or central banks	72,863	9		0		198	14	34	73,118
2	Regional government or local authorities	5,854	440		5		18			6,317
3	Public sector entities	1,146	190							1,337
4	Multilateral development banks	1,666	27				26			1,719
5	International organisations	411								411
6	Institutions		66		0		28			94
7	Corporates						1,931	3		1,935
8	Retail					4,277				4,277
9	Secured by mortgages on immovable property			3,183	22		1,744			4,948
10	Exposures in default						67	31		99
11	Higher-risk categories							467		467
12	Covered bonds									
13	Institutions and corporates with a short term credit assessment									
14	Collective investment undertakings									
15	Equity						192		1,027	1,220
16	Other items	648	513				656			1,817
17	**Total**	**82,588**	**1,245**	**3,183**	**27**	**4,277**	**4,861**	**516**	**1,061**	**97,758**

Table 3.29 IRB – Effect on REA of credit derivatives used as CRM techniques (EU-CR7), 31 December 2016

Table 3.29 illustrates the effect of credit derivatives for the IRB approach calculations on the risk exposure amount (REA). The total amount of pre-credit derivatives REA at the end of 2016 amounted to EUR 88.1bn compared to actual REA of EUR 84.6bn, corresponding to a gross REA relief of EUR 3.5bn (EUR 2.6bn net of REA held on securitised positions). Outside of the synthetic securitisation of certain corporate exposures, Nordea does not use credit derivatives as a credit risk mitigation technique in the banking book

		a	b
	EURm	pre-credit derivatives REA	Actual REA
1	**Exposures under Foundation IRB**		
2	Central governments and central banks		
3	Institutions	4,929	4,929
4	Corporates - SME	1,673	1,673
5	Corporates - Specialised Lending	28	28
6	Corporates - Other	5,672	5,672
7	**Exposures under Advanced IRB**		
8	Central governments and central banks		
9	Institutions		
10	Corporates - SME	15,025	14,192
11	Corporates - Specialised Lending	381	381
12	Corporates - Other	36,648	34,012
13	Retail - Secured by real estate SME	276	276
14	Retail - Secured by real estate non-SME	12,229	12,229
15	Retail - Qualifying revolving		
16	Retail - Other SME	888	888
17	Retail - Other non-SME	8,506	8,506
18	Equity IRB		
19	Other non credit-obligation assets	1,841	1,841
20	**Total**	**88,095**	**84,627**

Table 3.30 Standardised approach – credit risk exposure and Credit Risk Mitigation (CRM) effects (EU CR4), 31 December 2016

Table 3.30 illustrates the effect of all CRM techniques applied for on and off balance sheet exposures at year-end 2016. The table show that out of the total exposure amount pre CCF and CRM of EUR 103billion, approximately 88% of the exposure is on-balance exposure. The exposure is predominately within the sovereign asset class. In terms of REA, retail exposure is largest asset class which mainly stems from Nordea's finance companies in Denmark, Finland and Sweden.

	EURm	a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CRM		REA and REA density	
	Asset classes	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	REA	REA density
1	Central governments or central banks	69,401	699	72,759	359	261	0%
2	Regional government or local authorities	4,365	5,070	5,778	539	109	2%
3	Public sector entities	1,150	382	1,150	186	38	3%
4	Multilateral development banks	1,699	38	1,700	19	32	2%
5	International organisations	411		411			
6	Institutions	92	2	92	2	41	44%
7	Corporates	2,560	1,334	1,865	69	1,934	100%
8	Retail	4,371	2,883	4,174	103	3,137	73%
9	Secured by mortgages on immovable property	3,258	1,801	3,196	1,752	2,862	58%
10	Exposures in default	155	4	98	0	114	116%
11	Higher-risk categories	467		467		701	150%
12	Covered bonds						
13	Institutions and corporates with a short term credit assessment						
14	Collective investment undertakings						
15	Equity	1,220		1,220		2,760	226%
16	Other items	1,818		1,817		579	32%
17	**Total**	**90,966**	**12,212**	**94,728**	**3,030**	**12,568**	**13%**

4. Counterparty credit risk

Table 4.1 Counterparty credit risk exposures and REA split by exposure class

Table 4.1 illustrate the changes in exposures and REA in the counterparty credit risk portfolio. The table show that the majority of counterparty credit risk is held within the IRB portfolio, where corporate exposure is the largest exposure class. The standardised approach comprises of approximately 38% of total counterparty credit risk in terms of exposure and 10% in terms of REA.

Over the year, exposure related counterparty credit risk increase, most notably in exposures cleared through Central Counterparties (CCPs). The increase in CCPs is partially offset by a decrease in institutions exposure.

REA decreased on an overall level by EUR 0.02bn. The decrease was primarily driven by a decrease in the IRB corporate portfolio, partially offset by a slight increase in risk weights in the IRB institutions portfolio, primarily due to increased PD. The increase in exposure towards CPP's is mostly driven by changes in initial margin called by the CCP's, which can fluctuating quite a lot towards Nordea's largest CCP's when there are large market movement affecting the portfolio.

	31 December 2016		31 December 2015	
EURm	Exposure	REA	Exposure	REA
IRB Exposure classes				
Institution	6,227	2,215	7,336	2,355
Corporate	14,542	6,254	14,315	6,427
Retail	84	34	85	28
Other non-credit obligation assets			3	3
Total IRB approach	**20,853**	**8,503**	**21,735**	**8,813**
Standardised exposure classes				
Central government and central banks	3,582	59	2,945	71
Regional governments and local authorities	2,194	157	2,187	165
Other	6,998	770	5,591	460
– of which cleared through CCPs	6,059	457	4,550	242
Total standardised approach	**12,775**	**986**	**10,722**	**696**
Total	**33,628**	**9,489**	**32,457**	**9,510**

Exposures include derivatives as well as securities financing transactions.

Table 4.2 Analysis of counterparty credit risk by approach (EU CCR1), 31 December 2016

Nordea is using two methodologies when calculating the counterparty credit risk amounts. These methodologies are the mark to market and Internal Model Method (IMM). For Securities Financing Transactions (SFT) Nordea is using the financial collateral simple method. As shown in table 4.2, most of the derivatives exposures are calculated using the Internal Model (IMM)

		a	b	c	d	e	f	g
	EURm	Notional	Replacement cost/Current market value	Potential future value	EEPE	Multiplier	EAD post-CRM	REA
1	Mark to market		327	7,172			7,499	2,099
2	Original exposure method							
3	Standardised approach							
4	Internal Model Method (for derivatives and SFTs)			8,888	15,529	1.4	21,741	6,888
5	Of which securities financing transactions							
6	Of which derivatives & long settlement transactions			8,888	15,529	1.4	21,741	6,888
7	Of which from contractual cross product netting							
8	Financial collateral simple method (for SFTs)						4,388	502
9	Financial collateral comprehensive method (for SFTs)							
10	VaR for SFTs							
11	**Total**							**9,489**

Table 4.3 REA flow statements of Counterparty credit risk exposures under Internal Model Method (IMM) (EU CCR-7), 31 December 2016

The breakdown of REA movements into the components are presented for exposures calculated under IMM Approach. The credit quality represents REA change caused by movements in the risk weights. There has not been any model updates in Q4 so these components do not contribute to the change. Change in the asset size is based on new and maturing trades within Q4 causing the REA to decrease with EUR 130m. The REA change caused by Foreign exchange movements represents the exposure change for foreign exchange derivatives and similar the Interest rate movements represents the exposure change for interest rate derivatives. The exposure on foreign exchange derivatives has decreased mainly due to a strengthened USD causing REA to decrease by 106 mEUR. The exposure on interest rate derivatives har decreased by 708 mEUR due to increasing interest rates mainly in DKK and SEK.

		a	b
	EURm	REA	Capital requirements
1	**REA as at end of 2015**	**7,285**	**583**
2	Asset size	–130	–10
3	Credit quality of counterparties	350	28
4	Credit quality of counterparties		
5	Methodology and policy (IMM only)		
6	Acquisitions and disposals		
7	Foreign exchange movements	–106	–8
	Interest rate movements	–708	–57
8	Other	198	16
9	**REA as at end of current reporting period**	**6,888**	**551**

Table 4.4 Standardised approach – Counterparty credit risk exposures by regulatory portfolio and risk (EU CCR3), 31 December 2016

Table 4.4 provides a breakdown of counterparty credit risk (CCR) by exposure class and risk weight. The table shows that approximately 43% of counterparty credit risk exposure receives 0% risk weight under the standardised approach. Exposure with 2% risk weight consists exclusively of trade exposures with CCPs.

	Counterparty credit risk	Risk weight							
	EURm	0%	2%	20%	75%	100%	150%	Others	Total
	Exposure classes								
1	Central governments or central banks	3,301		277		4			3,582
2	Regional government or local authorities	1,409		786					2,194
3	Public sector entities	14		6					20
4	Multilateral development banks	544							544
5	International organisations	34							34
6	Institutions	232	3,965	1,730		0		132	6,059
7	Corporates					225	0		225
8	Retail				115				115
9	Institutions and corporates with a short term credit assessment								
10	Other items								
11	**Total**	**5,534**	**3,965**	**2,799**	**115**	**230**	**0**	**132**	**12,775**

Table 4.5 Counterparty credit risk exposures by portfolio and PD scale (EU-CCR4), 31 December 2016

Table 4.5 shows the distribution of institution and corporate counterparty credit risk by probability of default (PD) bucket. For the institution portfolio, the majority of exposure and REA is located within the lowest PD bucket, where 74% of the exposure and 61% of the REA is assigned. The average risk weight for this bucket was 29%. Only 3% of the exposure and 6% of the REA is assigned to buckets with PD higher than 0.5% for institution exposure.

In the corporate portfolio specialised lending account for 0.1% of the total corporate counterparty credit risk exposure and REA.

Low risk PD buckets account for the majority of the exposure and REA in corporate portfolio excluding specialised lending, where 68% of the total exposure and 46% of the total REA have PDs lower than 0.25%. Only 1% of the exposures were in default at the end of year 2016.

Institutions – FIRB

EURm	a	b	c	d	e	f	g
PD scale	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density
0.00 to < 0.15	4,628	0.1%	142	42.0%	2.2	1,361	29.4%
0.15 to < 0.25	834	0.2%	85	29.8%	2.4	286	34.3%
0.25 to < 0.50	592	0.4%	25	39.8%	2.4	426	71.8%
0.50 to < 0.75	139	0.6%	19	45.0%	0.9	102	73.4%
0.75 to < 2.50	15	0.9%	11	45.0%	2.1	16	105.9%
2.50 to < 10.00	18	2.9%	7	45.0%	1.2	24	134.2%
10.00 to < 100.00	0	20.7%	1	45.0%	2.5	0	254.3%
100.00 (Default)							
Sub-total	**6,227**	**0.1%**	**290**	**40.2%**	**2.2**	**2,215**	**35.6%**

Corporate– FIRB and Specialised Lending

EURm	a	b	c	d	e	f	g
PD scale	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density
0.00 to < 0.15							
0.15 to < 0.25	16	0.2%	1	45.0%	2.5	8	49.6%
0.25 to < 0.50	2	0.4%	3	45.0%	2.5	1	62.6%
0.50 to < 0.75	0	0.6%	1	45.0%	2.5	0	77.2%
0.75 to < 2.50							
2.50 to < 10.00							
10.00 to < 100.00							
100.00 (Default)	0	100.0%	1	45.0%	2.5		
Sub-total	**18**	**1.2%**	**6**	**45.0%**	**2.5**	**9**	**50.8%**

Corporate - FIRB, Non-SME, Excluding Specialised Lending

EURm	a	b	c	d	e	f	g
PD scale	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density
0.00 to < 0.15	5,117	0.1%	876	45.0%	2.2	1,048	20.5%
0.15 to < 0.25	3,323	0.2%	691	45.0%	2.4	1,533	46.1%
0.25 to < 0.50	1,554	0.4%	401	45.0%	2.5	967	62.2%
0.50 to < 0.75	1,213	0.6%	344	45.0%	2.4	924	76.2%
0.75 to < 2.50	570	1.4%	344	45.0%	2.2	574	100.8%
2.50 to < 10.00	96	7.8%	111	45.0%	2.5	176	184.7%
10.00 to < 100.00	19	15.9%	9	45.0%	2.5	46	236.7%
100.00 (Default)	70	100.0%	40	45.0%	2.5		
Sub-total	**11,961**	**0.9%**	**2,816**	**45.0%**	**2.3**	**5,269**	**44.1%**

Table 4.5, cont

Corporate - FIRB, SME, Excluding Specialised Lending

EURm	a	b	c	d	e	f	g
PD scale	EAD post CRM and post-CCF	Average PD	Number of obligors	Average LGD	Average maturity	REA	REA Density
0.00 to < 0.15	987	0.1%	1,096	45.0%	2.3	145	14.7%
0.15 to < 0.25	450	0.2%	1,042	45.0%	2.5	170	37.8%
0.25 to < 0.50	447	0.4%	666	45.0%	2.3	213	47.7%
0.50 to < 0.75	296	0.6%	645	45.0%	2.5	182	61.6%
0.75 to < 2.50	244	1.2%	912	45.0%	2.3	182	74.7%
2.50 to < 10.00	56	7.6%	416	45.0%	2.5	76	135.7%
10.00 to < 100.00	3	18.0%	68	45.0%	2.5	6	184.4%
100.00 (Default)	80	100.0%	179	45.0%	2.5		
Sub-total	**2,563**	**3.6%**	**5,024**	**45.0%**	**2.4**	**975**	**38.1%**

Table 4.6 Credit derivatives exposures (EU CCR6), 31 December 2016

	a	b
	Credit derivative hedges	
EURm	Protection bought	Protection sold
Notionals		
Single-name credit default swaps	8,093	7,326
Index credit default swaps	27,630	27,413
Total return swaps		
Credit options	400	350
Other credit derivatives	995	3,110
Total notionals	**37,118**	**38,199**
Fair values		
Positive fair value (asset)	64	1,535
Negative fair value (liability)	1,522	125

Table 4.7 Impact of netting and collateral held on exposure values (EU-CCR5-A), 31 December 2016

A decrease in Counterparty Credit Risk gross and net exposures over the second half of 2016 have by nature decreased the absolute value of Nordea's netting benefit and called collateral. The main driver of the decrease in exposure over the period is increasing interest rates towards the end of 2016.

Note that collateral held (d) is the residual between (c) and (d) why excess collateral received are not refelected. This is to reflect the actual risk mitigation coming from held collateral.

		a	b	c	d	e
	EURm	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives by underlying	221,599	201,869	19,730	6,689	13,041
2	SFTs	8,309		8,309	7,709	601
3	Cross-product netting					
4	**Total**	**229,908**	**201,869**	**28,039**	**14,398**	**13,641**

Table 4.8 Composition of collateral for exposures to counterparty credit risk (EU CCR5-B), 31 December 2016

Collateral used in derivative transactions reflect the total amounts of posted and received collateral on the day of reporting. For the SFT's the trade collateral (the counterparties obligation in the transaction) is included as collateral.

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral			
EURm	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Cash		7,576		11,721	37,485	42,665
Government bonds		575	443	2,432	25,466	28,098
Mortgage Bonds		356		880	14,126	7,172
Bonds		147	124	633	6,141	2,383
Equity					2,159	1,406
Total		**8,653**	**567**	**15,666**	**85,376**	**81,724**

Table 4.9 Exposures to central counterparties (EU-CCR8), 31 December 2016

The total risk exposure amount for the Nordea's year-end central counterparty exposures amounted for a total of 457 mEUR. There was a relatively large increase in central counterparty exposures when comparing with year-end 2015 which mainly stemmed from increased trade exposure in derivatives clearing (mainly affected by increased posting of initial margin due to raised interest rates). Most of the Nordea's current exposures cleared through central counterparties consist of OTC derivatives (72%) and the second largest share of central counterparty exposures is consisting of securities financing transactions (21%).

		a	b
	EURm	EAD (post-CRM)	REA
1	**Exposures to QCCPs (total)**		457
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	5,695	425
3	(i) OTC derivatives	4,088	393
4	(ii) Exchange-traded derivatives	387	8
5	(iii) Securities financing transactions	1,221	24
6	(iv) Netting sets where cross-products netting has been approved		
7	Segregated initial margin	567	
8	Non-segregated initial margin		
9	Pre-funded default fund contribution	363	22
10	Unfunded default fund contribution	1	9
11	**Exposures to non-QCCPs (total)**		
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which		
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) Securities financing transactions		
16	(iv) Netting sets where cross-products netting has been approved		
17	Segregated initial margin		
18	Non-segregated initial margin		
19	Pre-funded default fund contribution		
20	Unfunded default fund contribution		

Table 4.10 Credit valuation adjustment risk capital charge (EU CCR2), 31 December 2016

For credit valuation adjustment (CVA) capital charge, Nordea is using two different methodologies: advanced and standardised method. Around 71% of the CVA risk REA is calculated using the advanced method and the rest using the standardised method. The REA for advanced method comes from two components, where the VaR component counts for around 28% of the exposure and stressed VaR counts for the rest (72%).

		a	b
	EURm	Exposure value	REA
1	Total portfolios subject to the advanced method	5,017	1,278
2	(i) VaR component (including the 3×multiplier)		354
3	(ii) Stressed VaR component (including the 3×multiplier)		924
4	All portfolios subject to the standardised method	3,159	520
EU4	Based on original exposure method		
5	**Total subject to the CVA risk capital charge**	**8,176**	**1,798**

5. Market risk

The market risk taking activities of Nordea are primarily focused on the Nordic and European markets. The total market risk for the Nordea trading book, as measured by VaR, was EUR 29m on average in 2016, compared to EUR 32m in 2015 and EUR 16m at the end of 2016. The total market risk, measured by VaR, is primarily driven by interest rate risk.

Table 5.1 REA and minimum capital requirements for market risk, 31 December 2016

By the end of the year, REA and capital requirements for market risk were EUR 4,474m (EUR 6,534m) and EUR 358m (EUR 523m) respectively as shown in Table 5.1. The reduction in REA is mainly explained by decreased banking book risk using the standardised approach where foreign exchange risk is the main driver. Additional reduction in REA is explained by reduced trading book risk using the internal model approach where interest rate risk and equity risk were the main drivers.

	Trading book, IA		Trading book, SA		Banking book, SA		Total	
EURm	REA	Capital requirement	REA	Capital requirement	REA	Capital requirement	REA	Capital requirement
Interest rate risk and other[1]	884	71	780	62			1,664	133
Equity risk	239	19	119	10			358	29
Foreign exchange risk	266	21			605	48	871	70
Commodity risk			28	2			28	2
Settlement risk			0	0			0	0
Diversification effect	–557	–45					–557	–45
Stressed Value-at-Risk	950	76					950	76
Incremental Risk Measure	346	28					346	28
Comprehensive Risk Measure	814	65					814	65
Total	**2,942**	**235**	**928**	**74**	**605**	**48**	**4,474**	**358**

[1] Interest rate risk column Trading book IA includes both general and specific interest rate risk which is elsewhere referred to as interest rate VaR and credit spread VaR.

Table 5.2 Market risk for the banking book, 31 December 2016

The market risk for the Nordea banking book is presented in Table 5.2. Total banking book VaR was EUR 59m (EUR 77m) at the end of 2016. The total market risk in the banking book is primarily driven by interest rate risk. Interest rate VaR was EUR 58m (EUR 76m) as per December 2016.

EURm	Measure	31 Dec 2016	2016 high	2016 low	2016 avg	31 Dec 2015
Total risk	VaR	59	110	54	77	77
- Interest rate risk	VaR	58	104	48	70	76
- Equity risk	VaR	1	15	1	4	3
- Credit spread risk	VaR	2	6	1	3	3
- Foreign exchange risk	VaR	5	46	3	27	3
- Inflation risk	VaR	0	2	0	1	
Diversification effect	VaR	10.1%	38.1%	10.1%	31.9%	10.1%

Table 5.3 Equity holdings in the banking book, 31 December 2016

All equities in table 5.3 are carried at fair value. The portfolio of illiquid alternative investments is included with a fair value of EUR 517m (EUR 553m), of which private equity funds EUR 238m, hedge funds EUR 48m, credit funds EUR 168m and seedmoney investments EUR 63m. All four types of investments are spread over a number of funds.

EURm	Book value	Fair value	Unrealised gains/losses[3]	Realised gains/losses[3]	Capital requirement
Investment portfolio[1]	476	476	69	41	38
Other[2]	190	190	7	1	15
Total	**666**	**666**	**76**	**42**	**53**

[1] Of which listed equity holdings, Book value EUR 2m.
[2] Of which listed equity holdings, Book value EUR 147m.
[3] Result for 2016.

Table 5.4 Interest rate VaR sensitivities for the banking book, instantaneous interest rate movements, 31 December 2016

At the end of the year, interest rate VaR in the banking book was EUR 58m (EUR 76m). Table 5.4 shows the net effect on a parallel shift in rates of up to 100bps. The totals are netted and include currencies not specified. In accordance with an analysis of account holder behaviour, a portion of non-maturing deposit accounts are assumed to be fixed term.

EURm	+100bp	+50bp	–50bp	–100bp
DKK	–129	–63	61	117
EUR	81	39	–36	–71
SEK	–50	–25	25	51
NOK	–37	–18	18	37
CHF	6	3	–3	–6
USD	0	0	0	0
Total	**–132**	**–66**	**67**	**131**

Table 5.5 Net intrest income sensitivities for the banking book, instantaneous interest rate movements, 31 December 2016

At the end of the year, the Structural Interest Income Risk (SIIR) for increasing market rates was EUR 822m (EUR 384m) and the SIIR for decreasing market rates was EUR -762m (EUR 13m). Currency split for the SIIR figures is displayed in Table 5.5. Key driver behind the risk change is the removal of zero floor assumption on reference rates during 2016.

EURm	+100bp	-100bp
DKK	181	–215
EUR	437	–269
NOK	–19	–29
SEK	254	–251
USD	–29	11
OTH	–3	–8
Total	**822**	**–762**

The totals are netted and include currencies not specified. In accordance with an analysis of account holder behaviour, a portion of non-maturing deposit accounts are assumed to be fixed term.

Table 5.6 Market risk for the trading book, 31 December 2016

Table 5.6 shows the market risk in the trading book. Total VaR in trading book was EUR 16m (EUR 33m) at the end of 2016. The VaR reduction is primarily driven by the introduction of Local Scaling on the VaR calculation for interest rate risk. Interest rate VaR was EUR 12m (EUR 32m).

EURm	Measure	31 Dec 2016	2016 high	2016 low	2016 avg	31 Dec 2015
Total risk	VaR	16	56	12	29	33
- Interest rate risk	VaR	12	51	10	26	32
- Equity risk	VaR	5	11	2	5	7
- Credit spread risk	VaR	6	13	3	7	6
- Foreign exchange risk	VaR	4	16	3	7	4
Diversification effect		42.0%	57.0%	16.0%	36.0%	32.0%
Total stressed VaR	sVaR	21	42	14	25	21
Incremental Risk Measure		23	48	20	31	20
Comprehensive Risk Measure		65	108	9	43	25

Table 5.7 IMA values for trading portfolios (EU MR3), 31 December 2016

Table 5.7 shows the maximum, average, minimum, and period end values for the VaR, stressed VaR, incremental risk charge, and comprehensive risk charge respectively. The values have remained stable since the previous quarter apart from the comprehensive risk charge which increased at the end of the reporting period and was driven by expiring CDS contracts.

		a
	VaR (10 day 99%) –	
1	Maximum value	28
2	Average value	18
3	Minimum value	12
4	Period end	16
	Stressed VaR (10 day 99%)	
5	Maximum value	32
6	Average value	22
7	Minimum value	14
8	Period end	21
	Incremental Risk Charge (99.9%)	
9	Maximum value	42
10	Average value	28
11	Minimum value	20
12	Period end	23
	Comprehensive Risk capital charge (99.9%)	
13	Maximum value	92
14	Average value	38
15	Minimum value	9
16	Period end	65

Table 5.8 Market risk under standardised approach (EU MR1-B), 31 December 2016

Table 5.8 shows the market risk under the standardised approach where interest rate risk and foreign exchange risk comprises the vast majority of the total REA amount. Interest risk is primarily driven by exposures with maturities > 24 months while NOK, RUB, and DKK are the main drivers in the foreign exchange risk. The scenario approach has been deducted from equity and commodity risk and showed separately in the table.

		a	b
		REA	Capital requirements
	Outright products [1]		
1	**Interest rate risk (general and specific)**	**780**	**62**
2	Equity risk (general and specific)	74	6
3	Foreign exchange risk	605	48
4	Commodity risk	23	2
	Options		
5	Simplified approach		
6	Delta-plus method		
7	Scenario approach	50	4
8	Securitisation		
9	**Total**	**1,532**	**123**

[1] Outright products refer to positions in products that are not optional.

Table 5.9 Market risk under the internal models approach (EU MR2-A), 31 December 2016

VaR and sVaR are primarily driven by the interest rate risk and constitute more than half of the total REA under the internal model approach. REA for VaR and sVaR is determined by the maximum of previous days measure and the average of the preceding 60 business days scaled by a multiplication factor where the latter was the driver during the reporting period.

The most recent measure for the correlation trading portfolio was the primary driver behind the change in the comprehensive risk charge which in turn was driven by expiring CDS contracts.

		a	b
		REA	Capital requirements
1	VaR (higher of values a and b)	832	67
(a)	Previous day's VaR (Article 365 (1) (VaRt-1))	196	16
(b)	Average of daily VaR (article 365 (1)) on each of the preceding sixty business days (VaRavg) x multiplication factor ((mc) in accordance with article 366)	832	67
2	SVaR (higher of values a and b)	950	76
(a)	Latest SVaR (Article 365 (2) (sVARt-1)	265	21
(b)	Average of the SVaR (article 365 (2)) during the preceding 60 business days (sVaRavg) x multiplication factor (ms) (article 366)	950	76
3	Incremental risk charge - IRC (higher of values a and b)	346	28
(a)	Most recent IRC value (incremental default and migration risks section 3 calculated in accordance with Section 3 articles 370/371)	282	23
(b)	Average of the IRC number over the preceding 12 weeks	346	28
4	Comprehensive risk method (higher of values a, b and c)	814	65
(a)	Most recent risk number for the correlation trading portfolio (article 377)	814	65
(b)	Average of the risk numbers for the correlation trading portfolio over the preceding 12-weeks	501	40
(c)	8% of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338 (4))	474	38
5	**Total**	**2,942**	**235**

Table 5.10 REA flow statements of market risk exposures under an IMA (EU MR2-B), 31 December 2016

Total REA decreased EUR 0.7bn year on year and was driven by VaR and sVaR. The decrease in VaR and sVaR was due to a combination of movements in interest rate risk levels and a model enhancement, where the latter had the larger impact. The model enhancement provided a more accurate reflection of interest rate risk in a low rate environment. The Comprehensive Risk Measure (CRM) increased year-on-year as a result of normal business flow.

		a	b	c	d	e	f	g
	EURm	VaR	SVaR	IRM	CRM	Other	Total REA	Total capital requirements
1	REA as at end of previous reporting period	1,483	1,190	365	571		3,609	289
1a	Regulatory adjustment	1,483	1,190	365	571		3,609	289
1b	REA at end of day previous quarter							
2	Movement in risk levels	–171	–240	–19	242		–188	–15
3	Model updates/changes	–480					–480	–38
4	Methodology and policy							
5	Aquisitions and disposals							
6	Foreign exchange movements							
7	Other							
8a	REA at end of day previous quarter				814		814	65
8b	Regulatory adjustment	832	950	346			2,128	170
8	REA as at end of current reporting period	832	950	346	814		2,942	235

Table 5.11 Repricing gap analysis, scenario of a one percentage point increase in all interest rates, 31 December 2016

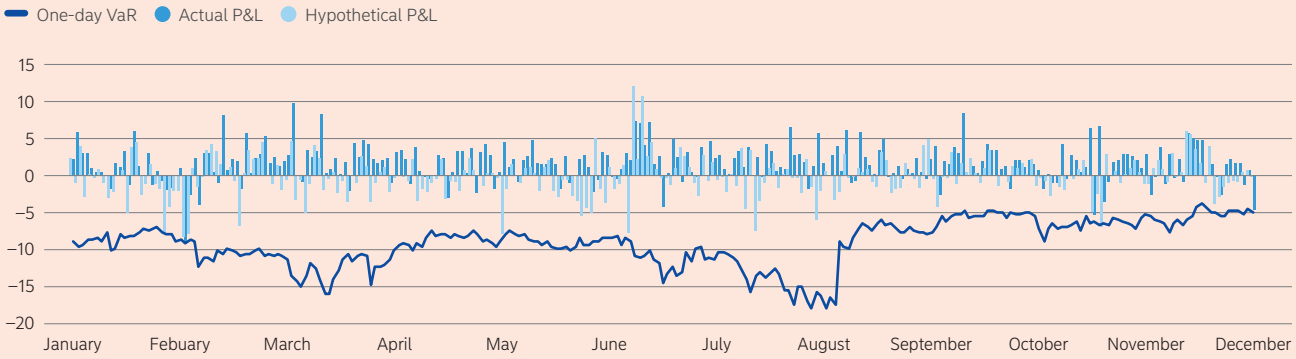
Nordea's SIIR is measured through dynamic simulations by calculating several net interest income scenarios and comparing the difference between these scenarios. Several interest rate scenarios are applied, but the basic measures for SIIR are the two scenarios (increasing rates and decreasing rates). These scenarios measure the effect on Nordea's net interest income for a 12 month period of a one percentage point change in all interest rates as shown in Table 5.11, which also covers repricing gaps over 12 months. The balance sheet is assumed to be constant over time, however main elements of customer behaviour and Nordea's decision-making process concerning own rates are taken into account. Key driver behind the risk change is the removal of zero floor assumption on reference rates during 2016.

		Interest rate fixing period							
EURm	Group balance sheet	Within 3 months	3–6 months	6–12 months	1–2 years	2–5 years	>5 years	Non-repricing	Total
Interest-bearing assets	418,927	285,346	22,015	23,663	29,002	37,733	21,167		418,927
Non-interest bearing assets	196,732							196,732	196,732
Total assets	615,659	285,346	22,015	23,663	29,002	37,733	21,167	196,732	615,659
Interest-bearing liabilities	320,407	181,953	15,760	11,884	21,001	54,175	35,633		320,407
Non-interest bearing liabilities	295,252							295,252	295,252
Total liabilities and equity	615,659	181,953	15,760	11,884	21,001	54,175	35,633	295,252	615,659
Off-balance sheet items, net		–4,459	–19,089	–5,723	–1,053	17,498	13,224		
Exposure		98,934	–12,834	6,055	6,948	1,056	–1,242	–98,520	
Cumulative exposure			86,100	92,155	99,103	100,160	98,918	398	
SIIR impact of increasing interest rates for the year 2016									
Impact[1)]		866	–59	15					
Cumulative SIIR impact		866	807	822					

[1)] Impact is calculated based on +100bps change on exposure.

Figure 5.1 Comparison of VaR estimates with gains/losses (EU MR4), EURm

Figure 5.1 shows the VaR back-test of the trading book for 2016. The VaR models are considered being of a satisfactory quality if less than five exceptions are recorded within the last 250 banking days. By the end of the year, both back-tests based on actual profit/loss and hypothetical profit/loss were in the green zone with only one exception during the last 250 days. The back-test deciding the capital multiplier is the one with the highest number of exceptions based on hypothetical profit/loss or actual profit/loss.

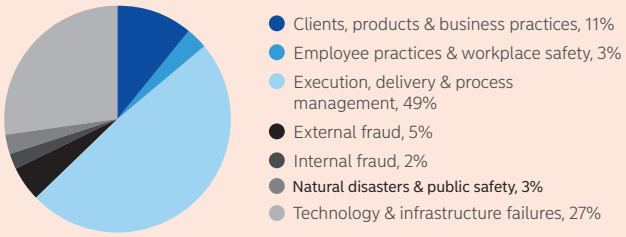


6. Operational risk

Operational risk is inherent in all activities performed in Nordea. Nordea's capital requirement for operational risk for 2016 amounted to EUR 1,350m (EUR 1,363m). The capital requirement for operational risk is calculated on a yearly basis.

Figure 6.1 Distribution of incidents reported, 2011-2016

Figure 6.1 shows incidents distributed according to Nordea's operational risk library. Overall, incidents increased 16.5% in the most recent five-year period of data compared to those captured in the 2010-2015 period. Most risk categories have remained relatively stable, but the greatest deviations occurred within the risk categories Clients Products & Business Practices and Execution Delivery & Process Management, where each category incurred increases of 56% (821 incidents) and 23% (1.874 incidents) respectively. The increase is partly due to increased awareness of operational risk reporting, a trend which is expected to continue.



7. Securitisation and credit derivatives

In 2016 Nordea entered into a synthetic securitisation as originator against a portfolio of corporate and SME loans in Sweden and Denmark.

Table 7.1 Summary of securitisation activities, 31 December 2016

The total exposure at default for securitisation activities is estimated to 8.5 EURbn by end 2016. Approximately 98,3% of the total exposure is stemming from the issuance of a synthetic transaction in late July 2016, amounting to 8.4 EURbn in exposure at default. The synthetic transaction is comprised of corporate exposures within Nordea's Wholesale Banking and Commercial and Business Banking divisions. The product types within this portfolio is characterized as loans, facilities or checking accounts. When it comes to securitisation transactions where Nordea acts as sponsor, Nordea's loans to Special Purpose Vehicles (SPEs) have increased by 142 EURm. These loans are stemming from the SPEs Viking ABCP Conduit and AR Finance 11 and represent an increase of approximately 14.7%.

	Banking book			
EURm	Traditional	Synthetic	Total banking book	Gain/loss on sale
Originator				
Loans to corporates or SMEs		8,400	8,400	
Total (Originator)		**8,400**	**8,400**	
Sponsor				
Loans to corporates or SMEs	142		142	
Total (Sponsor)	**142**			
Total	**142**	**8,400**	**8,542**	

Table 7.2 Total amount of outstanding exposures securitised where Nordea is originator – asset value and impairment charges, 31 December 2016

The total amount of outstanding securitisation exposures where Nordea stands as originator, measured as exposure at default after concentration adjustment, amounts to 8.4 EURbn as shown in table 7.2. Due to the fact that the transaction is newly established, none of the exposures in the transaction are characterized as past due and no losses have been recognized.

	Banking book					
EURm	Traditional	Synthetic	Total	of which past due	of which deducted from own funds or risk-weighted at 1250%	Recognised losses
Originator						
Loans to corporates or SMEs		8,400	8,400			
Total (Originator)		**8,400**	**8,400**			

Table 7.3 On-balance sheet securitisation positions retained or purchased, and off-balance sheet securitisation exposures, 31 December 2016

Nordea's entire securitisation position is on-balance, which also characterizes a synthetic securitisation transaction.

	Banking book
EURm	Originator
On-balance sheet	
Loans to corporates or SMEs	8,400
Total (On-balance sheet)	**8,400**
Off-balance sheet	
Loans to corporates or SMEs	
Total (Off-balance sheet)	
Total	**8,400**

Table 7.4 Securitisation positions retained or purchased - by capital approach, 31 December 2016

The REA of Nordea's securitisation position is fully calculated using the IRB approach, where a supervisory formula method is applied. Based on the estimated exposure value of 8.4 EURbn, the REA of the securitisation position is approximately 828 EURm.

	Banking book			
	Exposure values		REA	
EURm	Securitisation	Resecuritisation	Securitisation	Resecuritisation
IRB approach				
Supervisory formula method	8,400		828	
Total	**8,400**		**828**	

Table 7.5 Special purpose entities (SPEs) where Nordea is the sponsor, 31 December 2016

The Special purpose Vehicles (SPEs) in Table 7.5 are not consolidated for capital adequacy purposes. Instead, loans and loan commitments to the SPEs are included in the banking book and capital requirements are calculated in accordance with the rules described in Part 2 Section 2 of this document. Bonds and notes issued by the SPE and held by Nordea as well as credit derivative transactions between Nordea and the SPE are reported in the trading book. Nordea has been approved to calculate the general and specific market risk of these transactions under the VaR model. The counterparty credit risk of credit derivative transactions is calculated in accordance with the mark to market method.

EURm		Duration	Accounting treatment	Book	Nordea's loan to SPEs	Total Assets of SPEs
Viking ABCP Conduit	Receivables Securitisation	< 5 years	Consolidated	Banking	861	919
AR Finance 11	Receivables Securitisation	< 5 years	Consolidated	Banking	108	110
Total					**969**	**1,029**

[1] Includes all assets towards SPEs (such as bonds, subordinated loans and drawn credit facilities).

Table 7.6 Collateralised debt obligations (CDOs) – Exposure[1] (excl. NLP , 31 December 2016

Notionals EURm	Bought protection	Sold protection
CDOs, gross	842	2,190
Hedged exposures	806	805
CDOs, net[2]	25[3]	1,385[4]
Of which:		
– Equity	3	86
– Mezzanine	15	643
– Senior	18	656

[1] First-To-Default swaps are not classified as CDOs and are therefore not included in the table. Not bought protection amounts to EUR 7m (EUR 15m) and net sold protection to EUR 13m (EUR 64m).

[2] Net exposure disregards exposure where bought and sold tranches are completely identical in terms of reference pool attachment, detachment, maturity and currency.

[3] Of which investment grade EUR 0m (EUR 0m) and sub-investment grade EUR 36m (EUR 34m).

[4] Of which investment grade EUR 545m (EUR 538m), sub-investment grade EUR 840m (EUR 562m) and not rated EUR 0m (EUR 0m).

8. Liquidity risk and funding

Nordea's liquidity buffer is highly liquid, consisting only of securities eligible for pledging with the central bank.

Table 8.1 Funding sources, 31 December 2016

In Table 8.1 Nordea's funding sources are presented. At the end of the year, the total volume utilised under short-term programmes was EUR 36.9bn (EUR 49.3bn) with the average maturity being 0.3 (0.3) years. The total volume under long-term programmes was EUR 154.9bn (EUR 152.7bn) with the average maturity being 6.0 (6.0) years.

Liability type	Interest rate base	Average maturity (years)	EURm
Deposits by credit institutions			
– shorter than 3 months	Euribor, etc.	0.0	34,775
– longer than 3 months	Euribor, etc.	1.9	3,383
Deposits and borrowings from the public			
– Deposits on demand	Administrative	0.0	149,191
– Other deposits	Euribor, etc.	0.2	29,613
Debt securities in issue			
– Certificates of deposits	Euribor, etc.	0.3	19,089
– Commercial papers	Euribor, etc.	0.2	17,805
– Mortgage covered bond loans	Fixed rate, market-based	7.3	109,477
– Other bond loans	Fixed rate, market-based	2.9	45,379
Derivatives		n.a.	68,638
Other non-interest bearing items		n.a.	54,230
Subordinated debentures			
– Dated subordinated debenture loans	Fixed rate, market-based	6.1	7,085
– Undated and other subordinated debenture loans	Fixed rate, market-based	n.a.	3,374
Equity			32,411
Total			**574,449**
Liabilities to policyholders			41,210
Total, including life insurance operations			**615,659**

Table 8.2 Assets and liabilities split by currency, 31 December 2016

EURm	EUR	DKK	NOK	SEK	USD	Other	Not distributed	Total
Cash and balances with central banks	4,453	11,048	1,505	44	26,152	258		43,459
Loans to the public	84,723	81,157	49,384	86,229	21,294	3,233		326,020
Loans to credit institutions	3,319	146	375	1,009	541	3,640		9,030
Interest-bearing securities including treasury bills	15,909	18,584	7,460	16,433	13,888	360	20,232	92,866
Derivatives	39,727	5,225	2,815	5,303	14,485	2,407		69,962
Other assets							74,322	74,322
Total assets	**148,131**	**116,159**	**61,540**	**109,017**	**76,361**	**9,898**	**94,554**	**615,660**
Deposits and borrowings from the public	55,549	40,689	22,771	39,522	17,024	3,250		178,804
Deposits by credit institutions	7,414	3,393	2,228	4,018	17,583	3,522		38,158
Debt securities in issue	42,551	49,247	8,911	36,309	34,368	20,363		191,750
– of which CDs & CPs	4,933	47	31	671	19,860	11,353		36,894
– of which covered bonds	20,061	48,639	7,703	31,621	9	1,443		109,477
– of which other bonds	17,557	561	1,177	4,018	14,499	7,567		45,379
Subordinated liabilities	4,879		140	688	4,324	429		10,459
Derivatives	36,322	5,155	2,367	4,832	18,654	1,308		68,638
Other liabilities							95,451	95,451
Equity	14,829	6,088	7,141	3,722	25	596		32,401
Total liabilities and equity	**161,542**	**104,572**	**43,558**	**89,090**	**91,979**	**29,468**	**95,451**	**615,660**
Position not reported on the balance sheet	13,411	–11,350	–17,866	–19,928	15,456	19,924		
Net position, currencies		236.6	115.6	–0.1	–161.7	354.2		

Table 8.3 Maturity analysis for assets and liabilities, 31 December 2016

EURm	<1 month	1–3 months	3–12 months	1–2 years	2–5 years	5–10 years	>10 years	Not specified	Total
Cash and balances with central banks	43,417	42							43,459
Loans to the public	48,272	9,767	24,000	24,108	64,869	43,983	111,020		326,020
– of which repos	16,315	1,617	1,239	4					19,176
Loans to credit institutions	3,245	582	867	319	3,984	33			9,030
– of which repos	2,037	522	85						2,644
Interest-bearing securities including treasury bills	72,634							20,232	92,866
Derivatives								69,962	69,962
Other assets								74,322	74,322
Total assets	**167,568**	**10,391**	**24,868**	**24,427**	**68,853**	**44,017**	**111,020**	**164,516**	**615,660**
Deposits and borrowings from the public	15,656	6,207	6,758	677	268	9		149,229	178,804
– of which repos	2,244	1,104	649						3,998
Deposits by credit institutions	30,481	4,294	1,921	53	1,409				38,158
– of which repos	5,407	2,293	188						7,888
Debt securities in issue	9,204	20,920	30,966	29,619	60,941	16,806	23,294		191,750
– of which CDs & CPs	6,468	17,072	12,450	629	275				36,894
– of which covered bonds	2,525		11,792	21,697	40,684	9,631	23,147		109,477
– of which other bonds	211	3,849	6,724	7,292	19,983	7,174	146		45,379
Subordinated liabilities					3,002	4,085		3,373	10,459
Derivatives								68,638	68,638
Other liabilities								95,451	95,451
Equity								32,401	32,401
Total liabilities and equity	**55,342**	**31,421**	**39,645**	**30,348**	**65,620**	**20,899**	**23,294**	**349,091**	**615,660**

Maturity analysis is based on both contractual and behavioural information of remaining maturity of items.
Amortisation are included in time bucket corresponding the estimated cash flow date.
Time bucket "Not specified" includes items which are lacking specific timing of cash flows.

Table 8.4 Net balance of stable funding, (NBSF) 31 December 2016

The CEO in GEM has set as a target that the NBSF should always be positive, which means that stable assets must be funded by stable liabilities. NBSF is shown in Table 8.4. The target of maintaining a positive NBSF was comfortably achieved throughout 2016 with a yearly average of EUR 69.3bn (EUR 55.0bn).

Stable liabilities and equity	EURm
Tier 1 and Tier 2 capital	31,542
Secured/unsecured borrowing > 1Y	133,923
Stable retail deposits	30,093
Less stable retail deposits	51,030
Wholesale deposits < 1Y	77,681
Total stable liabilities	**324,270**
Stable assets	
Wholesale and retail loans >1Y	237,093
Long-term lending to banks and financial companies	3,833
Other illiquid assets	11,216
Total stable assets	**252,141**
Off-balance sheet items	**2,226**
Net balance of stable funding (NBSF)	**69,902**

Table 8.5 Liquidity buffer split by type of asset and currency, 31 December 2016

Nordea's liquidity buffer is highly liquid, consisting only of securities eligible for pledging with the central bank as shown in Table 8.5. The short-term liquidity risk remained at low/moderate levels throughout 2016. The average funding gap risk, i.e. the average expected need for raising liquidity in the course of the next 30 days, was EUR +21.6bn (EUR +20.4bn).

	Currency distribution, market values				
Type of asset, EURm	SEK	EUR	USD	Other CCY	Total
Cash and balances with central banks	44	4,453	26,152	12,811	43,459
Balances with other banks		1			1
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks[2]	1,575	5,133	10,832	3,831	21,371
Securities issued or guaranteed by municipalities or other public sector entities[2]	1,842	649	2,208	445	5,143
Covered bonds issued by other bank or financial institute[2]	7,075	3,162	1,018	11,469	22,724
Covered bonds issued by the own bank or related unit[2]		46		972	1,018
Securities issued by non-financial corporates[2]	2,827	204		2	3,032
Securities issued by financial corporates, excluding covered bonds[2]	79	101	81	25	287
All other eligible and unencumbered securities[3]					
Total liquidity buffer[1]	**13,441**	**13,749**	**40,292**	**29,554**	**97,036**
Adjustments to Nordeas official buffer: Eligible but encumbered securities (+), cash and balances with other banks/central banks (–), central banks haircuts (–)	–332	2,356	–26,645	–3,795	–28,416
Total liquidity buffer (Nordea definition)	**13,109**	**16,106**	**13,647**	**25,759**	**68,620**

[1] According to Swedish Bankers´ Association´s definition 2011-10-07.
[2] 0–20% risk weight.
[3] All other eligible and unencumbered securites held by Group Treasury.

Table 8.6 Historical quarterly development of the liquidity buffer

Table 8.6 shows the quarterly development of the liquidity buffer. Measured daily, the liquidity buffer ranged between EUR 54.4 – 68.6bn (EUR 54.6 – 82.3bn) throughout 2016, with an average buffer size of EUR 59.9bn (EUR 61.9bn).
Survival horizon was in the range of EUR 24.6 – 49.4bn (EUR 40.6 – 55.8bn) throughout the year with an average of EUR 32.3bn (EUR 48.4bn).

Type of asset, EURm	Q4/16	Q3/16	Q2/16	Q1/16	Q4/15	Q3/15
Cash and balances with central banks	43,459	60,249	56,941	59,761	48,723	58,816
Balances with other banks	1	22	25	44	100	38
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks[2]	21,371	19,329	21,628	21,180	20,846	18,863
Securities issued or guaranteed by municipalities or other public sector entities[2]	5,143	5,923	5,495	5,221	5,072	5,104
Covered bonds issued by other bank or financial institute[2]	22,724	21,386	23,685	25,256	25,617	27,262
Covered bonds issued by the own bank or related unit[2]	1,018	2,043	1,771	1,830	1,982	4,723
Securities issued by non-financial corporates[2]	3,032	1,734	1,814	1,849	199	200
Securities issued by financial corporates, excluding covered bonds[2]	287	364	442	2,403	1,664	2,804
All other eligible and unencumbered securities[3]						
Total liquidity buffer[1]	**97,036**	**111,049**	**111,800**	**117,543**	**104,203**	**117,808**
Adjustments to Nordeas official buffer: cash and balances with other banks/central banks (–), central banks haircuts (–)	–28,416	–46,384	–52,932	–58,056	–44,547	–53,182
Total liquidity buffer (Nordea definition)	**68,620**	**64,665**	**58,868**	**59,488**	**59,656**	**64,626**

[1] According to Swedish Bankers´ Association´s definition 2011-10-07.
[2] 0 – 20% risk weight.
[3] All other eligible and unencumbered securites held by Group Treasury.

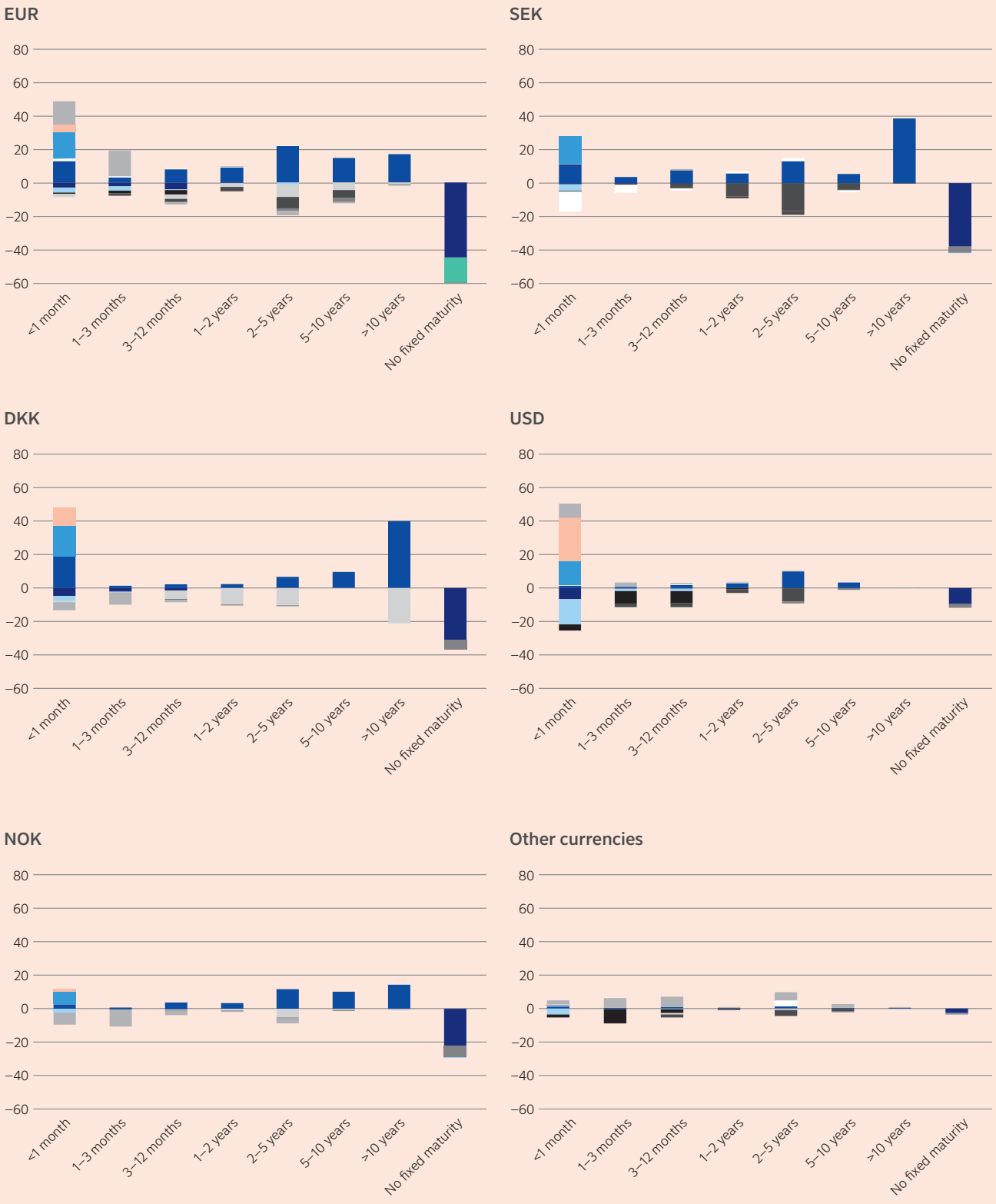
Table 8.7 LCR sub-components, 31 December 2016

Table 8.7 shows that liquid assets exceed the net cash outflows during 30 days in stressed conditions for all currencies combined as well as in EUR and USD separately. At the end of the year 2016 , the Liquidity Coverage Ratio (LCR) for Nordea according to Swedish rules was 159% (201%) with a yearly average of 158%. Corresponding LCR in EUR was 334% (303%) and in USD 221% (188%), with yearly averages of 209% and 224%, respectively. The LCR according to EBA Delegated Act was 165% at the end of the year.

	Combined		USD		EUR	
EURm	After factors	Before factors	After factors	Before factors	After factors	Before factors
Liquid assets level 1	74,321	74,321	38,124	38,124	10,598	10,598
Liquid assets level 2	28,231	33,213	1,162	1,367	3,205	3,771
Cap on level 2						
A. Liquid assets total	**102,552**	**107,534**	**39,286**	**39,491**	**13,803**	**14,369**
Customer deposits	41,814	169,070	8,793	15,849	10,120	49,869
Market borrowing[1)]	27,690	41,904	17,352	18,920	2,824	9,980
Other cash outflows[1)]	31,395	70,116	984	7,384	3,565	16,080
B. Cash outflows total	**100,898**	**281,090**	**27,129**	**42,153**	**16,509**	**75,929**
Lending to non-financial customers	7,456	14,912	721	1,443	2,444	4,887
Other cash inflows	29,052	56,473	8,599	8,695	15,724	23,953
Limit on inflows					–5,786	
C. Cash inflows total	**36,509**	**71,385**	**9,320**	**10,138**	**12,381**	**28,840**
Liquidity Coverage Ratio [A/(B – C)]	**159%**		**221%**		**334%**	

[1)] Corresponds to Chapter 4, Articles 10 – 13 in Swedish LCR regulation, containing e.g. portion of corporate deposits, market funding, repos and other secured funding.
[2)] Corresponds to Chapter 4, Articles 14 – 25, containing e.g. unutilised credit and liquidity facilities, collateral need for derivatives and derivative outflows.

Figure 8.1 Maturity of assets and liabilities, split by currency, 31 December 2016, EURbn



9. Risk and capital in the life and pensions operation

The nature of life insurance leads Nordea Life & Pensions (NLP) to take risks that are quite different to those faced in the banking operation. The main risks in Nordea Group's life and pensions operation are market risks and life insurance risks.

Table 9.1 Assets and liabilities of NLP

Table 9.1 shows NLP's assets and liabilities at 31 December 2016 on an IFRS basis. The development of assets and liabilities is determined predominantly by in- and outflows of insurance premiums, claims, investment returns and holding of capital in NLP.

Assets	31 Dec 2016 EURm	31 Dec 2015 EURm
Investment properties	3,104	3,085
Shares	16,350	14,016
Alternative investments	3,170	3,217
Debt securities - At fair value	17,511	17,381
Debt securities - Held to maturity	2,721	2,092
Bonds pledged as collateral	3,702	3,971
Deposits and treasury bills	1,869	2,445
Financial assets backing investment contracts without risk and guarantees	19,240	16,794
Other financial assets	3,918	3,740
Other assets	1,180	934
Total assets	**72,765**	**67,675**

Liabilities and equity	31 Dec 2016 EURm	31 Dec 2015 EURm
Traditional provisions	19,124	19,081
Collective bonus potential	3,606	3,229
Unit-linked provisions	14,239	12,236
Investment contracts with guarantees	3,527	3,516
Investment contracts without risk and guarantees	19,240	16,794
Other insurance provisions	714	645
Other financial liabilities	8,156	8,127
Other liabilities	879	739
Shareholders' equity	1,955	1,803
Subordinated loans	1,325	1,505
Total liabilities and equity	**72,765**	**67,675**

Assets backing Unit link investment contracts without insurance risk and without investment guarantees as well as Investment contracts without insurance risk and investment guarantees have in 2016 been reclassified to separate lines in the balance sheet. Comparison figures from 2015 have been revised accordingly

Table 9.2 Effect of market risk on NLP

Table 9.2 shows the sensitivity of the financial accounts from changes in market risks with the impact split between the effect on policyholders and Nordea Group's own account.

	31 Dec 2016		31 Dec 2015	
Sensitivites, EURm	Effect on policyholders	Effect on Nordea Group's account	Effect on policyholders	Effect on Nordea Group's account
50 bp increase in interest rates	–713	–3	–621	0
50 bp decrease in interest rates	702	3	676	–1
12% decrease in all share prices	–1,275	–3	–984	–3
8% decrease in property value	–205	–1	–229	–2
8% loss on counterparts	–8		–25	0

"+" means that policyholders' liabilities or Nordea Group's account (profit/equity) increase. "–" means that policyholders' liabilities or Nordea Group's account (profit/equity) decrease.

Unit link investment contracts without insurance risk and without investment guarantees as well as Investment contracts without insurance risk and investment guarantees have previously been included in the table. These contracts are not included in 2016 (comparison figures have been revised accordingly)

Table 9.3 Effect of life and health insurance risks

Table 9.3 shows the sensitivity of the financial accounts from changes in life insurance risk with the impact split between the effect on policyholders and Nordea Group's own account. Increases in mortality and disability rates have a small negative impact on Nordea Group's own account due to the contract type and buffer.

	31 Dec 2016		31 Dec 2015	
Sensitivites, EURm	Effect on policyholders	Effect on Nordea Group's account	Effect on policyholders	Effect on Nordea Group's account
Mortality – increased living with 1 year	28	–22	28	–21
Mortality – decreased living with 1 year	–6	5	–7	5
Disability – 10% increase	12	–10	14	–11
Disability – 10% decrease	–9	7	–9	7

"+" means that policyholders' liabilities or Nordea Group's account (profit/equity) increase. "–" means that policyholders' liabilities or Nordea Group's account (profit/equity) decrease.

Table 9.4 Investment return, traditional life insurance

Table 9.4 shows investment return of the traditional business for the consolidated life companies. The assets under management (AUM) are affected by the investment return and the in- and outflows of business. Total investment return for 2016 reached 5.4% for the traditional business mainly due to increased returns in interest-bearing securities and equities.

	31 Dec 2016		31 Dec 2015	
EURm	AUM	Investment return	AUM	Investment return
Interest-bearing securities and deposits	16,515	5.7%	15,915	0,1%
Shares	7,008	5.8%	7,091	2,1%
Alternative investments	2,272	1.7%	2,716	9,0%
Investment property	2,794	6.2%	2,757	5,1%
Total return	**28,589**	**5.4%**	**28,479**	**1,9%**

Table 9.5 Insurance provisions (technical provisions) and provision on investment contracts divided into guarantee levels (technical interest rates)

Table 9.5 shows the insurance provisions and provisions on investment contracts divided into guarantee levels. For policies with a guarantee, the average embedded guarantee for 2016 is relatively unchanged at 2.1% (2.2% in 2015). Continuous sales of market return products (no guarantees) in 2016 increased technical provisions with 'no guarantees'.

EURm	none	0%	0–2%	2–3%	3–4%	>4%	Total liabilities
31 Dec 2016							
Technical provision	14,341	2,373	8,966	3,518	4,041	3,653	36,892
Investment contracts without insurance risk and investment guarantees	18,993						18,993
Total							**55,885**
31 Dec 2015							
Technical provision	12,328	2,340	7,666	4,820	3,996	3,684	34,834
Investment contracts without insurance risk and investment guarantees	16,028						16,028
Total							**50,862**

Unit link investment contracts without insurance risk and without investment guarantees as well as Investment contracts without insurance risk and investment guarantees are disclosed in a separate table in 2016 (comparison figures have been reclassified)

Table 9.6 Financial buffers

Table 9.6 shows the development in the financial buffers for NLP.

	Financial buffers		% of guaranteed liabilities	
EURm	31 Dec 2016	31 Dec 2015	31 Dec 2016	31 Dec 2015
Denmark	1,327	1,142	10.7%	9.0%
Norway	275	235	5.5%	5.0%
Sweden	1,137	1,175	43.2%	42.7%
Finland	1,114	1,433	51.8%	66.1%
Total	**3,853**	**3,984**	**17.3%**	**17.9%**

Table 9.7 Solvency Position, 30 November 2016

Table 9.7 shows NLP's solvency position at the end of November 2016.

EURm	NLP
Required solvency	2,549
Actual Solvency	4,065
Solvency Buffer	1,516
Solvency in % of requirement	159%

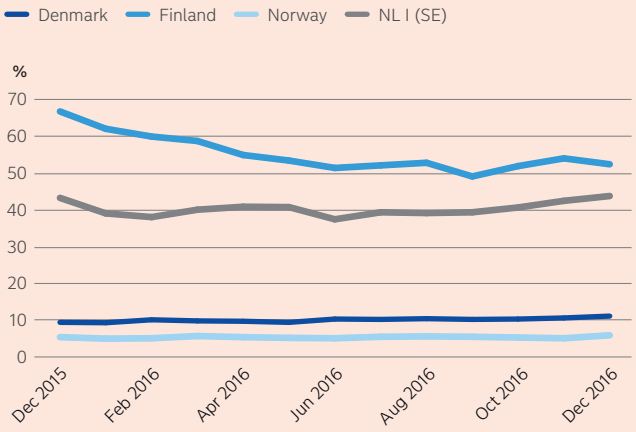
Table 9.8 Solvency Sensitivity, 30 November 2016

Table 9.8 shows the sensitivity of NLP's solvency position to the changes in market risks. NLP is most sensitive to interest rate movements due to the long term nature of the business.

Percentage	NLP
Solvency in % of requirement	159%
Equity drops 12%	164%
Interest rates down 50bp	164%
Interest rates up 50bp	162%

Figure 9.1 Financial buffers compared to insurance provisions, rolling 12 mths

Figure 9.1. shows the development of the financial buffers during 2016. The financial buffer in Finland have declined due to profit sharing during the year. For other units, there have been slight changes in the level of financial buffers.



10. Other tables

Table 10.1 Mapping of own funds to the balance sheet, 31 December 2016

The table shows the connection between the Balance sheet and Own Funds template.
Intangible assets in the banking group has increased by 569m during the year. Retirement benefit assets has decreased by 71m (of which net of tax 56m). A new Tier 2 loan of EUR 1bn was issued by Nordea Bank AB during the period.

EURm	Nordea Group[1]	Non-CRR companies	Nordea consolidated situation[2]	Row in disclosure template
Assets				
Intangible assets	**3,792**	**357**	**3,435**	
- of which: Goodwill and other intangible assets	–3,792	–357	–3,435	8
Deferred tax assets	**62**	**13**	**49**	
- of which: Deferred tax assets that rely on future profitability excluding those arising from temporary differences	12	12		10[3]
Retirement benefit assets	**306**		**306**	
- of which: Retirement benefit assets net of tax	–240		–240	15
Liabilities				
Deferred tax liabilities	**850**	**130**	**720**	
- of which: Deductible deferred tax liabilities associated with deferred tax assets that rely on future profitability and do not arise from temporary differences	21		21	10[3]
Subordinated liabilities	**10,459**	**119**	**10,340**	
- of which: AT1 Capital instruments and the related share premium accounts	2,304		2,304	30
- of which: Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1	743		743	33
- of which: Direct and indirect holdings by an institution of own AT1 Instruments	–30		–30	37
- of which: T2 Capital instruments and the related share premium accounts	6,467		6,467	46
- of which: Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2	81		81	47
- of which: Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	–72		–72	52
Equity				
Share capital	**4,050**	**0**	**4,050**	**1**
Share premium reserve	**1,080**	**0**	**1,080**	
- of which: Capital instruments and the related share premium accounts	1,080		1,080	1
- of which: Retained earnings	0	0	0	2
Other reserves	**–1,023**	**–15**	**–1,008**	
- of which: Retained earnings	–914	–2	–912	2
- of which: Accumulated other comprehensive income	–109	–13	–97	3
- of which: Fair value reserves related to gains or losses on cash flow hedges	–37		–37	11
Retained earnings net of proposed dividend	**25,681**	**891**	**24,790**	
- of which: Profit/loss for the year	1,140	–241	1,381	5a
- of which: Retained earnings	24,563	1,131	23,431	2
- of which: Direct holdings by an institution of own CET1 instruments (negative amount)	–22		–22	16

[1] Nordea Group is the accounting group as disclosed in the Annual Report
[2] Nordea consolidated situation in accortdance to CRR
[3] Deferred tax assets that rely on future profitability and do not arise from temporary differences net of associated tax liabilities.

Table 10.2 Transitional own funds as of 31 December 2016, EURm

Own funds as of end 2016 was EUR 32.9bn (30.9bn), of which CET1 capital constituted EUR 24.5bn (23.6bn), Additional Tier 1 capital EUR 3.0bn (2.9bn) and Tier 2 capital EUR 5.3bn (4.4bn). Nordea's CET1 capital increased by EUR 1,0bn during 2016. The increase was due to strong profit generation net dividend as well as a decrease of IRB provision shortfall deduction and decrease of pension deductions. The increase was partly offset by increased deductions of intangible assets and prudential filters. A new Tier 2 loan of EUR 1bn was issued by Nordea Bank AB during the period which mainly explains the increase of Tier 2 capital.

		(A) amount at disclosure date	(B) regulation (EU) no 575/2013 article reference	(C) amounts subject to pre-regulation (eu) no 575/2013 treatment or prescribed residual amount of regulation (eu) no 575/2013
Common Equity Tier 1 capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	5,130	26 (1), 27, 28, 29, EBA list 26 (3)	
	of which: Share capital	4,050	EBA list 26 (3)	
2	Retained earnings	22,519	26 (1) (c)	
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	–97	26 (1)	
3a	Funds for general banking risk		26 (1) (f)	
4	Amount of qualifying items referred to in article 484 (3) and the related share premium accounts subject to phase out from CET1		486 (2)	
	Public sector capital injections grandfathered until 1 January 2018		483 (2)	
5	Minority interests (amount allowed in colsolidated CET1)		84, 479, 480	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	1,381	26 (2)	
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**28,934**		
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	–316	34, 105	
8	Intangible assets (net of related tax liability) (negative amount)	–3,435	36 (1) (b), 37, 472 (4)	
9	Empty Set in the EU			
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in article 38 (3) are met) (negative amount)		36 (1) (c), 38, 472 (5)	
11	Fair value reserves related to gains or losses on cash flow hedges	–37	33 (a)	
12	Negative amounts resulting from the calculation of expected loss amounts	–212	36 (1) (d), 40, 159, 472 (6)	
13	Any increase in equity that result from securitised assets (negative amount)		32 (1)	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	–133	33 (b)	
15	Defined-benefit pension fund assets (negative amount)	–240	36 (1) (e), 41, 472 (7)	
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	–22	36 (1) (f), 42, 472 (8)	
17	Holdings of the CET1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to artificially inflate the own funds of the institution (negative amount)		36 (1) (g), 44, 472 (9)	
18	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)		36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (10)	
19	Direct, indirect and synthetic holdings of the CET1 instruments of financial sector entities where th institution has a significatn investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)		36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79, 470, 472 (11)	
20	Empty Set in the EU			
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative		36 (1) (k)	
20b	of which: qualifing holdings outside the financial sector (negative amount)		36 (1) (k) (i), 89 to 91	
20c	of which: securitisation positions (negative amounts)		36 (1) (k) (ii) 243 (1) (b) 244 (1) (b) 258	
20d	of which: free deliveries (negative amount)		36 (1) (k) (iii), 379 (3)	

Table 10.2, cont

		(A) amount at disclosure date	(B) regulation (EU) no 575/2013 article reference	(C) amounts subject to pre-regulation (eu) no 575/2013 treatment or prescribed residual amount of regulation (eu) no 575/2013
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in 38 (3) are met) (negative amount)		36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	
22	Amount exceeding the 15% threshold (negative amount)		48 (1)	
23	of which: direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities		36 (1) (i), 48 (1) (b), 470, 472 (11)	
24	Empty Set in the EU			
25	of which: deferred tax assets arising from temporary differences		36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	
25a	Losses for the current financial year (negative amount)		36 (1) (a), 472 (3)	
25b	Foreseeable tax charges relating to CET1 items (negative amount)		36 (1) (l)	
26	Regulatory adjustments applied to Common Equity Tier 1 in respect of amounts subject to pre-CRR treatment			
26a	Regulatory adjustments relating to unrealised gains and losses pursuant to articles 467 and 468		467	
	Of which: ...filter for unrealised loss 1		467	35
	Of which: ...filter for unrealised loss 2			
	Of which: ...filter for unrealised gain 1		468	256
	Of which: ...filter for unrealised gain 2			
26b	Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre-CRR		481	
	Of which: ...		481	
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)		36 (1) (j)	
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**–4,396**		
29	**Common Equity Tier 1 (CET1) capital**	**24,538**		
Additional Tier 1 (AT1) capital: instruments				
30	Capital instruments and the related share premium accounts	2,304	51, 52	
31	of which: classifies as equity under applicable accounting standards			
32	of which: classified as liabilities under applicable accounting standards	2,304		
33	Amount of qualifying items referred to in article 484 (4) and the related share premium accounts subject to phase out from AT1	743	486 (3)	
	Public sector capital injections grandfathered until 1 January 2018		486 (3)	
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties		85, 86, 480	
35	of which: instruments issued by subsidiaries subject to phase out		486 (3)	

Table 10.2, cont

		(A) amount at disclosure date	(B) regulation (EU) no 575/2013 article reference	(C) amounts subject to pre-regulation (eu) no 575/2013 treatment or prescribed residual amount of regulation (eu) no 575/2013
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**3,048**		
	Additional Tier 1 (AT1) capital: regulatory adjustments			
37	Direct and indirect holdings by an institution of own AT1 Instruments (negative amount)	–30	52 (1) (b), 56 (a), 57, 475 (2)	
38	Holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)		56 (b), 58, 475 (3)	
39	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)		56 (c), 59, 60, 79, 475 (4)	
40	Direct and indirect holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above the 10% threshold net of eligible short positions) (negative amount)		56 (d), 59, 79, 475 (4)	
41	Regulatory adjustments applied to additional Tier 1 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)			
41a	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013		472, 472(3)(a), 472 (4), 472 (6), 472 (8), 472 (9), 472 (10) (a), 472 (11) (a)	
	Of which items to be detailed line by line, e.g. Material net interim losses, intangibles, shortfall of provisions to expected losses etc			
41b	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Tier 2 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013		477,477 (3), 477 (4) (a)	
	Of which items to be detailed line by line, e.g. Reciprocal cross holdings in Tier 2 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc			
41c	Amount to be deducted from or added to Additional Tier 1 capital with regard to additional filters and deductions required pre- CRR		467, 468, 481	
	Of which: ...possible filter for unrealised losses		467	
	Of which: ...possible filter for unrealised gains		468	
	Of which: ...		481	
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)		56 (e)	
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**–30**		
44	**Additional Tier 1 (AT1) capital**	**3,017**		
45	**Tier 1 capital (T1 = CET1 + AT1)**	**27,555**		
	Tier 2 (T2) capital: instruments and provisions			
46	Capital instruments and the related share premium accounts	6,467		
47	Amount of qualifying items referred to in article 484 (5) and the related share premium accounts subject to phase out from T2	81	486 (4)	
	Public sector capital injections grandfathered until 1 January 2018		483 (4)	
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties		87, 88, 480	
49	of which: instruments issued by subsidiaries subject to phase out		486 (4)	
50	Credit risk adjustments	78	62 (c) & (d)	
51	**Tier 2 (T2) capital before regulatory adjustments**	**6,626**		
	Tier 2 (T2) capital: regulatory adjustments			
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	–72	63 (b) (i), 66 (a), 67, 477 (2)	

Table 10.2, cont

		(A) amount at disclosure date	(B) regulation (EU) no 575/2013 article reference	(C) amounts subject to pre-regulation (eu) no 575/2013 treatment or prescribed residual amount of regulation (eu) no 575/2013
53	Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)		66 (b), 68, 477 (3)	
54	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)		66 (c), 69, 70, 79, 477 (4)	
54a	Of which new holdings not subject to transitional arrangements			
54b	Of which holdings existing before 1 January 2013 and subject to transitional arrangements			
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	–1,205	66 (d), 69, 79, 477 (4)	
56	Regulatory adjustments applied to Tier 2 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)			
56a	Residual amounts deducted from Tier 2capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013		472, 472(3)(a), 472 (4), 472 (6), 472 (8), 472 (9), 472 (10) (a), 472 (11) (a)	
	Of which items to be detailed line by line, e.g. Material net interim losses, intangibles, shortfall of provisions to expected losses etc			
56b	Residual amounts deducted from Tier 2 capital with regard to deduction from Additional Tier 1 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013		475, 475 (2) (a), 475 (3), 475 (4) (a)	
	Of which items to be detailed line by line, e.g. reciprocal cross holdings in at1 instruments, direct holdings of non significant investments in the capital of other financial sector entities, etc			
56c	Amount to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre CRR		467, 468, 481	
	Of which: ...possible filter for unrealised losses		467	
	Of which: ...possible filter for unrealised gains		468	
	Of which: ...		481	
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**–1,277**		
58	**Tier 2 (T2) capital**	**5,349**		
59	**Total capital (TC = T1 + T2)**	**32,904**		
59a	Risk weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013(i.e. CRR residual amounts)			
	Of which: ...items not deducted from CET1 (Regulation (EU) No 575/2013residual amounts) (items to be detailed line by line, e.g. Deferred tax assets that rely on future profitability net of related tax liablity, indirect holdings of own CET1, etc)		472, 472 (5), 472 (8) (b), 472 (10) (b), 472 (11) (b)	
	Of which: ...items not deducted from AT1 items (Regulation (EU) No 575/2013residual amounts) (items to be detailed line by line, e.g. Reciprocal cross holdings in T2 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc)		475, 475 (2) (b), 475 (2) (c), 275 (4) (b)	
	Items not deducted from T2 items (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Indirect holdings of own t2 instruments, indirect holdings of non significant investments in the capital of other financial sector entities, indirect holdings of significant investments in the capital of other financial sector entities etc)		477, 477 (2) (b), 477 (2) (c), 477 (4) (b)	
60	**Total risk weighted assets**	**133,157**		

Table 10.2, cont

		(A) amount at disclosure date	(B) regulation (EU) no 575/2013 article reference	(C) amounts subject to pre-regulation (eu) no 575/2013 treatment or prescribed residual amount of regulation (eu) no 575/2013
Capital ratios and buffers				
61	**Common Equity Tier 1 (as a percentage of risk exposure amount)**	**18.4%**	**92 (2) (a), 465**	
62	**Tier 1 (as a percentage of risk exposure amount)**	**20.7%**	**92 (2) (b), 465**	
63	**Total capital (as a percentage of risk exposure amount)**	**24.7%**	**92 (2) (c)**	
64	**Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)**	**8.0%**	**CRD 128, 129, 130**	
65	of which: capital conservation buffer requirement	2.5%		
66	of which: countercyclical buffer requirement	0.5%		
67	of which: systemic risk buffer requirement	3.0%		
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	2.0%	CRD 131	
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	13.9%	CRD 128	
69	[non relevant in EU regulation]			
70	[non relevant in EU regulation]			
71	[non relevant in EU regulation]			
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	362	36 (1) (h), 45, 46, 472 (10) 56 (c), 59, 60, 475 (4) 66 (c), 69, 70, 477 (4)	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	1,027	36 (1) (i), 45, 48, 470, 472 (11)	
74	Empty Set in the EU			
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in article 38 (3) are met)		36 (1) (c), 38, 48, 470, 472 (5)	
Applicable caps on the inclusion of provisions in Tier 2				
76	Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)		62	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach		62	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	93,958	62	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	564	62	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)				
80	Current cap on CET1 instruments subject to phase out arrangements		484 (3), 486 (2) & (5)	
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)		484 (3), 486 (2) & (5)	
82	Current cap on AT1 instruments subject to phase out arrangements	1,182	484 (4), 486 (3) & (5)	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)		484 (4), 486 (3) & (5)	
84	Current cap on T2 instruments subject to phase out arrangements	573	484 (5), 486 (4) & (5)	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)		484 (5), 486 (4) & (5)	

Table 10.3 Leverage Ratio – Disclosure Template

Nordea has policies and processes in place for the identification, management and monitoring of the risk of excessive leverage. The leverage ratio is also part of Nordea's risk appetite framework.

The leverage ratio has increased from 4.6% in Q4 2015 to 5.0% in Q4 2016. During the period, the leverage ratio benefitted from a decrease in on balance exposures as well as decreased SFT exposures. An increase in Tier 1 capital, mainly driven by continued profit generation, further contributed to the improvement in the leverage ratio.

EURm		
LRSum: Summary reconciliation of accounting assets and leverage ratio exposures, applicable amounts		
1	Total assets as per published financial statements	615,659
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	–57,124
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013 "CRR")	
4	Adjustments for derivative financial instruments	–37,374
5	Adjustments for securities financing transactions "SFTs"	–3,217
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	42,188
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	
EU-6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)	
7	Other adjustments	–4,444
8	Total leverage ratio exposure	555,688
LRCom: Leverage ratio common disclosure, CRR leverage ratio exposures		
	On-balance sheet exposures (excluding derivatives and SFTs)	
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	458,025
2	(Asset amounts deducted in determining Tier 1 capital)	–4,426
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	453,599
	Derivative exposures	
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	13,441
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	26,737
EU-5a	Exposure determined under Original Exposure Method	
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	–10,531
8	(Exempted CCP leg of client-cleared trade exposures)	
9	Adjusted effective notional amount of written credit derivatives	35,676
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	–31,550
11	Total derivative exposures (sum of lines 4 to 10)	33,773
	Securities financing transaction exposures	
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	39,336
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	–13,599
14	Counterparty credit risk exposure for SFT assets	390
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	
15	Agent transaction exposures	
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	
16	Total securities financing transaction exposures (sum of lines 12 to 15a)	26,127
	Other off-balance sheet exposures	
17	Off-balance sheet exposures at gross notional amount	109,032
18	(Adjustments for conversion to credit equivalent amounts)	–66,844

Table 10.3, cont

EURm		
19	Other off-balance sheet exposures (sum of lines 17 to 18)	42,188
	Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)	
EU-19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	
EU-19b	(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	
	Capital and total exposures	
20	Tier 1 capital	27,555
21	Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	555,688
	Leverage ratio	
22	Leverage ratio	5.0%
	Choice on transitional arrangements and amount of derecognised fiduciary items	
EU-23	Choice on transitional arrangements for the definition of the capital measure	
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) NO 575/2013	
LRSpl: Split-up of on balance sheet exposures(excluding derivatives, SFTs and exempted exposures), CRR leverage ratio exposures		
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	458,025
EU-2	Trading book exposures	48,064
EU-3	Banking book exposures, of which:	409,961
EU-4	Covered bonds	24,816
EU-5	Exposures treated as sovereigns	68,785
EU-6	Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns	7,610
EU-7	Institutions	6,501
EU-8	Secured by mortgages of immovable properties	141,720
EU-9	Retail exposures	28,587
EU-10	Corporate	114,699
EU-11	Exposures in default	4,705
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	12,538

Table 10.4 Disclosure on asset encumbrance, as of 31 December 2016

Table 10.4 presents encumbered assets as well as received collateral. According to EBA definition, an asset shall be treated as encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise or credit enhance any transaction from which it cannot be freely withdrawn.

Template A-Assets

EURm		Carrying amount of encumbered assets 010	Fair value of encumbered assets 040	Carrying amount of unencumbered assets 060	Fair value of unencumbered assets 090
010	**Assets**	**153,332**		**405,203**	
030	Equity instruments	1,593	1,593	410	410
040	Debt securities	9,498	9,498	61,945	61,946
120	Other assets	28,888		82,406	

Template B-Collateral received

		Fair value of encumbered collateral received or own debt securities issued 010	Fair value of collateral received or own debt securities issued available for encumbrance 040
130	**Collateral received by the reporting institution**	**10,678**	**42,276**
150	Equity instruments		637
160	Debt securities	10,678	16,550
230	Other collateral received		7,600
240	**Own debt securities issued other than own covered bonds or ABSs**		**12**

Template C-Encumbered assets/collateral received and associated liabilities

		Matching liabilities, contingent liabilities or securities lent 010	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered 030
010	**Carrying amount of selected financial liabilities**	**158,597**	**162,489**

D – Information on importance of encumbrance

The main source of encumbrance for Nordea is covered bond issuance programs where the required overcollateralization levels are defined according to the relevant statutory regimes. Other contributors to encumbrance are derivatives and repos where the activity is concentrated to Finland. Historically, the evolution of asset encumbrance for Nordea has been stable over time which illustrates the fact that the asset encumbrance for Nordea is a reflection of a structural phenomenon of the Scandinavian financial markets and savings behavior. Major part of the unencumbered assets are loans and the rest are equity instruments, debt securities and other assets.

Table 10.5 IRB Exposure at Default, split by geography and industry, 31 December 2016

Table 10.5 provides Exposure at Default for each industry split by geographic regions. The table shows that "Real estate management and investment" was the largest industry type in the corporate IRB portfolio in terms of exposure, comprising approximately EUR 44bn or 12% of the total IRB portfolio. IRB retail exposures amount to approximately EUR 177bn or 47% of the total IRB portfolio and is well diversified among the Nordic regions. Over the year, the largest changes were seen in the "Other, public and organisations" and "Other Materials" which declined EUR 2.1bn and EUR 1.9bn respectively.

EURm	Denmark	Finland	Norway	Sweden	Baltic countries	Russia	United States	Other	Total 2016	Total 2015
IRB Corporate	**40,415**	**27,572**	**29,097**	**33,485**	**4,368**	**2,319**	**2,299**	**23,630**	**163,184**	**172 702**
Construction and engineering	688	855	2,904	1,055	265	1	19	76	5,862	5 155
Consumer durables (cars, appliances, etc.)	306	545	814	769	62		379	239	3,115	4 471
Consumer staples (food, agriculture etc.)	7,723	1,115	1,651	485	176	7	62	521	11,740	13 201
Energy (oil, gas, etc.)	365	122	543	46	41	543	164	2,363	4,186	4 334
Health care and pharmaceuticals	555	401	157	132	18	7	80	166	1,517	1 899
Industrial capital goods	928	1,253	229	923	27	2	486	696	4,543	4 885
Industrial commercial services	4,238	1,923	2,403	3,662	314	2	105	999	13,646	15 478
IT software, hardware and services	308	376	195	406	1	7	322	88	1,704	1 756
Media and leisure	562	540	437	681	41	2	31	113	2,406	2 492
Metals and mining materials	29	213	143	325	14	243	1	163	1,133	1 050
Other financial institutions	4,933	3,004	1,221	3,665	339		141	4,220	17,523	16 027
Other materials (chemical, building materials, etc.)	516	1,759	671	1,250	124	771	133	806	6,030	7 936
Other, public and organisations	2,207	799	350	299	45	24	3	71	3,798	5 918
Paper and forest materials	215	1,380	9	446	64		95	256	2,465	2 389
Real estate management and investment	10,234	7,343	9,773	14,448	1,411	69	45	971	44,295	45 389
Retail trade	3,413	2,161	1,255	2,431	579	58	160	1,983	12,040	12 292
Shipping and offshore	732	205	2,941	251	88		12	8,342	12,570	13 045
Telecommunication equipment	6	132	2	106			0	3	249	282
Telecommunication operators	147	275	512	392	8	32	42	304	1,712	1 633
Transportation	597	1,032	890	702	321	167	0	272	3,980	4 042
Utilities (distribution and production)	1,658	2,129	1,996	1,011	430	377	17	679	8,297	8 527
Other	56	10	1	0	0	7	0	300	375	502
IRB Institutions	**11,693**	**133**	**5,008**	**8,967**	**3**	**86**	**685**	**11,287**	**37,861**	**43 787**
Banks	9,018	48	559	3,922	2	86	524	9,734	23,893	27 947
Other	2,675	85	4,449	5,044	0		161	1,553	13,968	15 840
IRB Retail	**51,526**	**40,129**	**30,524**	**55,135**	**1**	**1**	**2**	**32**	**177,349**	**172 406**
SME	355	1,789	313	431	1	1	2	32	2,925	2 984
Secured by immovable property	41,522	27,724	26,279	48,689					144,215	138 642
Other Retail	9,649	10,615	3,932	6,014					30,210	30 780
IRB Other	**424**	**177**	**347**	**845**	**30**	**6**	**10**	**3**	**1,841**	**2 300**
Total 2016 - IRB approach[1]	**104,058**	**68,010**	**64,976**	**98,431**	**4,402**	**2,411**	**2,996**	**34,952**	**380,236**	**391 195**
- of which AIRB	35,008	23,107	25,491	26,873	263	559	2,265	19,811	133,378	142 810
Total 2015 - IRB approach	**110 505**	**67 615**	**61 574**	**102 615**	**4 452**	**4 369**	**4 405**	**35 658**		**391 195**
- of which AIRB	38 881	23 182	24 588	33 117	239	1 348	2 282	19 173		142 810

[1] Securitisation positions for 31 Dec 2016 are not included in the table.

Table 10.6 IRB REA, split by geography and industry, 31 December 2016

Table 10.6 represents the REA amount for each industry split by geographic regions. Different industries' capital consumption share remained stable to the total portfolio during 2016. Within the corporate portfolio under IRB approach, "Real estate management and investment" had the major proportion by 20% and followed by "Shipping and offshore" had the second largest proportion by 11%.

EURm	Denmark	Finland	Norway	Sweden	Baltic countries	Russia	United States	Other	Total 2016	Total 2015
IRB Corporate	**14,638**	**9,420**	**11,806**	**10,271**	**1,608**	**1,164**	**869**	**12,435**	**62,212**	**70 371**
Construction and engineering	372	431	1,111	467	103	1	9	46	2,541	2 338
Consumer durables (cars, appliances, etc.)	116	236	732	485	26		127	235	1,956	3 060
Consumer staples (food, agriculture etc.)	3,341	420	502	154	100	4	27	175	4,723	5 607
Energy (oil, gas, etc.)	93	30	439	26	26	196	65	2,022	2,898	2 079
Health care and pharmaceuticals	137	199	65	55	5	2	10	56	527	899
Industrial capital goods	270	489	124	353	16	1	167	349	1,769	1 959
Industrial commercial services	1,476	738	1,136	1,376	136	1	33	699	5,595	7 291
IT software, hardware and services	127	135	116	145	1	7	87	31	648	595
Media and leisure	210	178	165	240	15	1	22	50	881	962
Metals and mining materials	15	87	55	125	11	135	0	90	517	482
Other financial institutions	1,457	796	481	1,093	87		41	1,257	5,212	5 160
Other materials (chemical, building materials, etc.)	260	769	258	519	50	451	95	355	2,757	4 176
Other, public and organisations	767	334	212	72	4	32	2	13	1,436	3 210
Paper and forest materials	115	551	2	148	29		62	157	1,063	1 028
Real estate management and investment	3,362	1,958	3,013	3,028	461	78	26	628	12,553	13 007
Retail trade	1,379	953	549	1,066	264	43	53	991	5,298	5 750
Shipping and offshore	270	79	1,782	94	28		3	4,537	6,794	7 319
Telecommunication equipment	3	56	1	33			0	1	93	92
Telecommunication operators	57	71	227	108	6	17	38	134	658	596
Transportation	157	387	313	282	96	114	0	185	1,534	1 755
Utilities (distribution and production)	632	519	523	402	144	77	2	372	2,669	2 824
Other	25	3	1	0	0	8	0	52	89	180
IRB Institutions	**1,151**	**37**	**338**	**908**	**1**	**82**	**271**	**4,356**	**7,144**	**8 526**
Banks	853	20	67	356	1	82	207	3,940	5,526	6 391
Other	298	17	271	552	0		64	416	1,618	2 135
IRB Retail	**8,671**	**6,307**	**3,683**	**3,254**	**1**	**0**	**1**	**16**	**21,933**	**22 520**
SME	129	747	167	116	1	0	1	16	1,177	1 174
Secured by immovable property	5,266	2,459	2,808	1,696					12,229	12 421
Other Retail	3,276	3,101	707	1,442					8,527	8 925
IRB Other	**424**	**177**	**347**	**845**	**30**	**6**	**10**	**3**	**1,841**	**2 300**
Total 2016 - IRB approach[1]	**24,884**	**15,940**	**16,174**	**15,278**	**1,640**	**1,253**	**1,150**	**16,811**	**93,130**	**103 717**
- of which AIRB	12,617	7,523	9,938	7,326	88	265	850	9,977	48,585	56 211
Total 2015 - IRB approach	**28 426**	**16 218**	**17 626**	**19 845**	**1 923**	**2 121**	**1 496**	**16 060**		**103 717**
- of which AIRB	15 411	7 958	10 463	11 421	131	597	751	9 479		56 211

[1] Securitisation positions for 31 Dec 2016 are not included in the table.

Table 10.7 Probability of Default, split by geography and industry, 31 December 2016

Table 10.7 represents the PD for each industry split by geographic regions. Different industries' average PD remained fairly stable during 2016 except for "Energy (oil, gas, etc.)" which increased by 166 bps to reach 2,22% during 2016.

%	Denmark	Finland	Norway	Sweden	Baltic countries	Russia	United States	Other	Total 2016	Total 2015
IRB Corporate	**0.59**	**0.64**	**0.71**	**0.35**	**0.38**	**0.50**	**0.38**	**1.05**	**0.63**	**0.58**
Construction and engineering	0.66	1.34	0.59	0.54	0.33	0.28	0.51	0.32	0.68	0.72
Consumer durables (cars, appliances, etc.)	0.71	1.10	4.67	0.39	0.34		0.29	4.96	2.00	1.74
Consumer staples (food, agriculture etc.)	1.30	0.81	0.31	0.49	0.92	0.26	0.26	0.27	1.00	0.86
Energy (oil, gas, etc.)	0.07	0.12	0.57	0.33	0.61	0.28	0.17	3.74	2.22	0.57
Health care and pharmaceuticals	0.28	1.09	0.67	0.67	0.10	0.07	0.06	0.24	0.55	0.66
Industrial capital goods	0.46	0.61	0.67	0.36	0.89	0.17	0.31	0.31	0.45	0.39
Industrial commercial services	0.41	0.85	1.00	0.61	0.38	0.44	0.29	1.20	0.68	0.62
IT software, hardware and services	0.47	1.04	0.69	0.38	0.44	0.81	0.19	0.35	0.53	0.47
Media and leisure	0.49	1.03	0.53	0.46	0.27	0.25	0.55	0.43	0.60	0.77
Metals and mining materials	2.47	0.55	1.00	0.28	1.88	0.48	0.10	0.35	0.54	0.69
Other financial institutions	0.34	0.28	0.41	0.25	0.15		0.14	0.26	0.29	0.29
Other materials (chemical, building materials, etc.)	1.21	1.07	0.49	0.78	0.43	0.43	1.58	0.42	0.78	0.76
Other, public and organisations	0.37	0.43	0.43	0.39	0.05	2.50	0.55	0.53	0.33	0.72
Paper and forest materials	1.66	0.27	0.43	0.24	0.30		1.15	0.48	0.44	0.41
Real estate management and investment	0.41	0.59	0.58	0.21	0.51	6.66	0.52	1.16	0.44	0.44
Retail trade	0.61	1.09	0.89	0.65	0.33	0.48	0.26	0.41	0.68	0.77
Shipping and offshore	0.78	0.39	0.89	0.30	0.20		0.30	1.11	1.00	0.72
Telecommunication equipment	1.57	0.27	0.25	0.13			0.19	0.32	0.24	0.26
Telecommunication operators	0.25	0.19	0.88	0.14	0.63	0.24	1.16	0.34	0.44	0.35
Transportation	0.26	0.77	0.41	0.53	0.21	0.46	2.50	0.55	0.50	0.55
Utilities (distribution and production)	0.15	0.11	0.12	0.28	0.20	0.05	0.05	0.56	0.18	0.21
Other	1.14	0.80	0.62	2.18	2.50	2.08	2.50	0.05	0.26	0.49
IRB Institutions	**0.09**	**0.21**	**0.04**	**0.05**	**0.25**	**0.55**	**0.11**	**0.18**	**0.10**	**0.11**
Banks	0.08	0.18	0.10	0.05	0.26	0.55	0.11	0.19	0.12	0.12
Other	0.13	0.22	0.04	0.06	0.08		0.09	0.13	0.07	0.09
IRB Retail	**0.70**	**1.58**	**0.52**	**0.26**	**2.88**	**2.61**	**2.02**	**2.24**	**0.73**	**0.79**
SME	2.14	3.19	2.59	1.96	2.88	2.61	2.02	2.24	2.80	2.77
Secured by immovable property	0.58	0.63	0.45	0.18					0.43	0.47
Other Retail	1.16	3.84	0.82	0.81					1.98	2.07
IRB Other	**2.18**	**2.27**	**1.97**	**2.36**	**2.50**	**2.50**	**2.50**	**2.50**	**2.24**	**2.30**
Total 2016 - IRB approach[1]	**0.59**	**1.20**	**0.58**	**0.29**	**0.39**	**0.51**	**0.33**	**0.77**	**0.63**	**0.63**
Total 2016 - of which AIRB	0.62	0.63	0.71	0.34	0.27	0.41	0.38	1.11	0.65	
Total 2015 - IRB approach	**0.62**	**1.21**	**0.64**	**0.36**	**0.45**	**0.41**	**0.20**	**0.44**		**0.63**
Total 2015 - of which AIRB	0.61	0.71	0.71	0.43	0.32	0.55	0.30	0.63		0.60

[1] Securitisation positions for 31 Dec 2016 are not included in the table.

Table 10.8 Loss Given Default, split by geography and industry, 31 December 2016

Table 10.8 represents the LGD for each industry split by geographic regions. LGD on a total level remained broadly stable during 2016. Notable exceptions were the "Shipping and offshore" industry which saw average LGD improve from 33.5% in 2015 to 29%. "Telecommunication operators" on the other hand, saw average LGD increase from 30.4% in 2015 to 34.6% at year end 2016.

%	Denmark	Finland	Norway	Sweden	Baltic countries	Russia	United States	Other	Total 2016	Total 2015
IRB Corporate	**29.1**	**30.7**	**29.5**	**30.4**	**39.4**	**43.7**	**34.2**	**32.7**	**30.8**	**30.8**
Construction and engineering	30.2	33.9	29.5	37.9	40.5	44.7	40.6	40.3	32.4	32.4
Consumer durables (cars, appliances, etc.)	30.9	31.6	33.9	36.0	41.9		34.4	33.9	33.9	33.7
Consumer staples (food, agriculture etc.)	24.8	29.7	29.7	33.6	39.6	45.0	29.5	31.7	27.1	27.7
Energy (oil, gas, etc.)	43.2	41.2	39.3	41.2	42.1	43.5	41.3	32.3	36.5	36.6
Health care and pharmaceuticals	34.7	30.9	28.3	33.0	41.3	45.0	35.5	35.6	33.1	34.6
Industrial capital goods	30.5	31.7	32.8	35.2	42.2	36.5	33.1	36.4	33.2	34.5
Industrial commercial services	28.7	27.9	29.2	30.0	40.4	38.5	28.2	29.7	29.3	31.6
IT software, hardware and services	32.6	33.1	33.5	35.0	44.2	45.0	33.6	33.6	33.7	30.8
Media and leisure	25.4	27.9	29.6	32.4	36.9	45.0	33.8	34.0	29.4	27.6
Metals and mining materials	35.7	38.4	34.6	40.7	43.4	42.3	45.0	42.6	40.2	37.1
Other financial institutions	36.5	30.8	34.5	36.2	36.6		33.2	33.9	34.6	33.1
Other materials (chemical, building materials, etc.)	31.3	32.0	33.6	32.0	40.3	43.4	33.0	34.5	34.2	36.7
Other, public and organisations	29.7	38.7	40.7	35.1	44.9	45.0	45.0	43.4	33.6	34.1
Paper and forest materials	27.4	40.7	39.4	33.2	41.8		40.0	40.8	38.3	35.8
Real estate management and investment	24.9	23.9	24.6	25.7	37.3	41.9	32.9	35.8	25.5	24.5
Retail trade	31.7	30.5	31.2	31.9	42.3	41.2	33.0	37.6	33.0	32.4
Shipping and offshore	35.1	29.4	29.0	30.5	29.1		29.5	28.4	29.0	33.5
Telecommunication equipment	32.3	34.0	33.8	35.1			33.8	34.4	34.5	31.6
Telecommunication operators	37.3	30.0	33.5	35.4	42.9	42.8	33.8	37.5	34.6	30.4
Transportation	35.0	37.9	33.1	34.9	40.9	45.0	36.8	32.1	36.0	36.5
Utilities (distribution and production)	32.7	39.8	39.8	40.7	41.8	45.0	41.2	42.1	39.1	36.9
Other	26.5	34.4	43.0	38.5	45.0	45.0	35.0	45.0	42.1	40.6
IRB Institutions	**11.9**	**26.9**	**13.8**	**16.5**	**45.0**	**45.0**	**45.0**	**41.6**	**22.8**	**23.7**
Banks	11.8	45.0	18.3	17.0	45.0	45.0	45.0	42.8	26.4	27.3
Other	11.9	16.7	13.3	16.0	45.0		45.0	34.6	16.8	17.3
IRB Retail	**21.2**	**14.6**	**21.0**	**13.3**	**41.4**	**36.6**	**36.2**	**36.7**	**17.2**	**17.1**
SME	26.8	26.8	38.3	25.2	41.4	36.6	36.2	36.7	27.9	27.9
Secured by immovable property	16.9	10.8	19.5	10.6					14.1	13.8
Other Retail	40.0	22.4	30.1	34.5					31.4	31.3
IRB Other	**43.7**	**42.0**	**39.9**	**44.7**	**45.0**	**45.0**	**45.0**	**44.8**	**43.3**	**43.6**
Total 2016 - IRB approach[1]	**23.2**	**21.2**	**24.3**	**19.6**	**39.5**	**43.7**	**36.7**	**35.6**	**23.7**	**24.0**
- of which AIRB	26.5	28.4	27.5	27.1	31.3	39.4	34.0	30.5	27.9	
Total 2015 - IRB approach	**22.6**	**20.8**	**25.3**	**20.4**	**40.6**	**42.0**	**38.7**	**36.6**		**24.0**
- of which AIRB	26.8	27.7	28.1	27.2	34.7	35.8	32.8	32.0		28.2

[1] Securitisation positions for 31 Dec 2016 are not included in the table.

Table 10.9 Standardised exposure split by exposure class and by geography, 31 December 2016

Nordea is geographically well diversified with its standardised exposures, with the largest market being the US markets by a share of 32% of the total standardised exposures (mostly sovereign account exposures). The exposures in Denmark and Sweden represent 15% and 13% of the total standardised exposure in Nordea respectively, while Finland accounts for 11% and Norway 5%.

EURm	Nordic countries	of which Denmark	of which Finland	of which Norway	of which Sweden	Baltic countries	Russia	USA	Other[1]	Total	Total 2015
Central governments and central banks	32,789	13,672	9,179	3,240	6,698	178	138	35,292	8,303	76,701	73,499
Regional governments and local authorities	8,395	1,525	1,407	925	4,537	98	18			8,511	9,326
Institution	1,055		0	0	1,055	5	159	0	4,934	6,153	4,644
Corporate	176	69	50	6	50	1,039	21	2	922	2,160	2,111
Retail	3,223	875	1	1,006	1,342	960	11	2	197	4,393	4,288
Exposures secured by real estate	0				0	2,514	229		2,204	4,948	4,849
Other	3,559	625	1,178	669	1,087	147	85	136	3,742	7,668	7,965
Total standardised approach 2016	**49,196**	**16,765**	**11,815**	**5,846**	**14,769**	**4,941**	**661**	**35,431**	**20,303**	**110,533**	
Total standardised approach 2015	**47,025**	**13,358**	**13,308**	**4,516**	**15,843**	**4,749**	**669**	**34,163**	**20,077**		**106,683**

[1] Includes exposure classes public sector entities, multilateral development banks, international organisations, exposures in default, exposures associated with particularly high risk, equity and other items.

Table 10.10 Exposure towards IRB institution, distributed by rating grade

Table 10.10 shows the exposure towards IRB institutions distributed by the rating grades. The largest exposure increase is seen in rating grade 6 where the exposure increase is EUR 3bn. Whereas the largest decrease was seen in rating grade 5+ where the exposure decreased by EUR 4.9bn. The exposure-weighted PD decreased to 0.10% at end of year 2016.

	31 December 2016					31 December 2015				
EURm Rating grade	PD scale	Original exposure	Exposure	Exposure (%)	Average risk weight	PD scale	Original exposure	Exposure	Exposure (%)	Average risk weight
6+	0.03%	5,860	5,829	99.5	6%	0.03%	5,054	5,064	100.2	6%
6	0.03%	4,437	4,548	102.5	7%	0.03%	1,631	1,563	95.8	10%
6–	0.05%	4,264	4,067	95.4	12%	0.05%	7,729	7,691	99.5	12%
5+	0.07%	13,012	12,750	98.0	14%	0.07%	17,969	17,693	98.5	14%
5	0.10%	3,816	3,506	91.9	25%	0.10%	3,217	3,062	95.2	26%
5–	0.16%	5,312	5,179	97.5	38%	0.16%	6,657	6,537	98.2	36%
4+	0.25%	1,018	704	69.2	32%	0.25%	1,665	1,17	70.2	40%
4	0.35%	795	691	86.8	73%	0.35%	245	126	51.6	70%
4–	0.55%	419	261	62.4	80%	0.55%	594	429	72.2	93%
3+	0.81%	166	84	50.6	113%	0.81%	329	217	65.8	108%
3	1.25%	115	51	44.7	131%	1.25%	44	29	66.8	114%
3–	2.31%	171	70	40.9	156%	2.31%	75	45	59.7	131%
2+	6.40%	17	12	73.3	173%	6.40%	47	13	27.4	177%
2	8.38%	30	11	37.1	228%	7.06%	92	50	54.3	182%
2–	9.86%	37	12	32.3	239%	9.86%	42	6	15.1	204%
1+	14.79%	3	1	47.4	269%	14.79%	7	4	52.2	235%
1	20.71%	0	0	44.9	271%	20.71%	0	0	62.0	254%
1–	26.93%	0	0	20.0	294%	26.93%	1	0	44.7	293%
Defaulted	100.00%	1	0	20.0	0%[1]	100.00%	4	4	100.0	0%[1]
	0.10%[2]	**39,475**	**37,778**	**95.7**	**19%**	**0,11%[2]**	**45,403**	**43,704**	**96.3**	**19%**

[1] FIRB exposures are assigned a risk weight of zero when in default, in accordance with the CRR.

[2] Exposure-weighted PD.

Table 10.11 Exposure towards IRB corporate distributed by rating grade

Table 10.11 shows the Exposure and Average risk weight distributed by rating grade for Corporate portfolio. The exposure-weighted PD increased by 3bp to 3.42%. The change is mainly driven by decrease in share of exposure in rating grades 4, 3+ and 3 as well as slight increase in share of exposure allocated to better rating grades such as 6+ and 6-. The average risk weight decreased to 38% (40%).

	31 December 2016						31 December 2015					
EURm Rating grade	PD scale	Original exposure	Exposure	- of which AIRB	Exposure (%)	Average risk weight	PD scale	Original exposure	Exposure	- of which AIRB	Exposure (%)	Average risk weight
6+	0.03%	12,073	10,291	8,582	85.2	9%	0.03%	10,440	8,130	6,849	77.9	9%
6	0.03%	6,624	6,046	4,269	91.3	10%	0.03%	6,694	6,045	4,475	90.3	10%
6–	0.05%	8,104	6,487	4,039	80.0	14%	0.05%	6,118	5,107	3,575	83.5	13%
5+	0.07%	12,768	9,942	7,343	77.9	18%	0.07%	13,098	9,930	7,297	75.8	19%
5	0.10%	19,748	15,630	13,087	79.1	22%	0.10%	20,369	15,377	12,634	75.5	22%
5–	0.16%	26,338	20,982	17,576	79.7	28%	0.16%	28,816	21,931	18,014	76.1	29%
4+	0.25%	31,312	26,110	21,946	83.4	34%	0.25%	34,217	27,563	22,822	80.6	36%
4	0.35%	29,041	23,548	19,866	81.1	39%	0.35%	35,649	28,552	24,182	80.1	42%
4–	0.55%	23,040	18,395	15,144	79.8	50%	0.55%	23,633	19,740	17,339	83.5	49%
3+	0.81%	9,551	7,586	6,106	79.4	57%	0.81%	12,537	10,353	8,840	82.6	59%
3	1.25%	4,828	3,755	3,109	77.8	60%	1.25%	6,503	5,447	4,473	83.8	66%
3–	2.31%	3,936	3,306	2,794	84.0	72%	2.31%	3,834	3,158	2,716	82.4	70%
2+	6.40%	3,406	3,085	2,748	90.6	105%	6.40%	3,232	2,478	1,965	76.7	114%
2	8.38%	1,156	894	703	77.3	112%	7.06%	1,267	867	769	68.4	105%
2–	9.86%	787	668	590	84.9	113%	9.86%	593	489	420	82.4	115%
1+	14.79%	698	519	480	74.3	148%	14.79%	302	253	231	83.6	130%
1	20.71%	150	113	91	75.5	123%	20.71%	179	149	138	83.6	144%
1–	26.93%	135	105	88	77.5	138%	26.93%	105	70	52	66.5	125%
Defaulted	100.00%	5,387	4,491	3,855	83.4	121%	100.00%	5,615	4,760	4,115	84.8	124%
	3.37%[1)]	**199,083**	**161,952**	**132,416**	**81.3**	**38%**	**3.33%[1)]**	**213,201**	**170,398**	**140,907**	**79.9**	**40%**

[1)] Exposure-weighted PD.

Table 10.12 Exposure towards IRB Retail, distributed by risk grade

Table 10.12 shows the split of Exposure and Average risk weight per rating grade for Retail portfolio. The exposure-weighted PD decreased by 19bp to 2.04% mainly driven by increase in share of exposure in rating grade A+ and decrease in exposure in lower rating grade B-. Average risk weight decreased by 69bp to 12%.

	31 December 2016					31 December 2015				
EURm Risk grade	PD scale	Original exposure	Exposure	Exposure (%)	Average risk weight	PD scale	Original exposure	Exposure	Exposure (%)	Average risk weight
A+	0.08%	72,589	69,507	95.8	3%	0.08%	60,721	58,643	96.6	3%
A	0.11%	21,444	20,254	94.5	5%	0.11%	21,818	20,811	95.4	5%
A–	0.16%	18,907	17,971	95.1	6%	0.16%	19,887	19,164	96.4	6%
B+	0.22%	14,764	14,085	95.4	8%	0.22%	16,192	15,598	96.3	8%
B	0.31%	16,174	15,533	96.0	11%	0.31%	13,416	12,907	96.2	11%
B–	0.43%	7,985	7,533	94.3	13%	0.43%	11,183	10,748	96.1	13%
C+	0.60%	7,728	7,331	94.9	17%	0.60%	8,113	7,773	95.8	17%
C	0.84%	5,124	4,817	94.0	21%	0.84%	5,083	4,802	94.5	21%
C–	1.17%	4,863	4,560	93.8	25%	1.17%	5,271	4,99	94.7	25%
D+	1.64%	2,792	2,559	91.6	30%	1.64%	3,144	2,934	93.3	30%
D	2.30%	2,380	2,184	91.8	35%	2.30%	2,366	2,204	93.1	35%
D–	3.20%	2,148	1,977	92.1	37%	3.20%	2,112	1,963	92.9	38%
E+	4.47%	1,821	1,675	92.0	45%	4.47%	2,043	1,932	94.5	47%
E	6.30%	1,925	1,852	96.2	55%	6.30%	2,17	2,105	97.0	53%
E–	8.79%	564	524	92.9	42%	8.79%	561	526	93.8	44%
F+	12.29%	438	405	92.5	47%	12.28%	443	414	93.6	48%
F	17.20%	1,101	1,058	96.1	74%	17.19%	1,189	1,152	96.8	71%
F–	27.80%	1,112	1,046	94.0	64%	28.02%	1,127	1,069	94.8	65%
Defaulted	100.00%	2,414	2,335	96.7	188%	100.00%	2,574	2,491	96.8	179%
	2.04%[1)]	186,273	177,206	95.1	12%	2.23%[1)]	179,415	172,227	96.0	13%

[1)] Exposure-weighted PD.

Table 10.13 Exposure towards IRB Retail sub-exposure classes, distributed by risk grade

Table 10.13 shows the split of IRB retail sub exposure classes per risk grade. The share of exposure Secured by immovable property in total exposure increased by 89bp to 81% while the shares of Other retail and SME decreased by 81bp and 8bp respectively. The increase in Secured by immovable property mainly comes from an increase in share of exposure allocated to risk grade A+ by 4,81% to 36%.

	31 December 2016				31 December 2015			
EURm Risk grade	PD scale	Secured by immovable property	Other retail	SME	PD scale	Secured by immovable property	Other retail	SME
A+	0.08%	63,372	6,121	14	0.08%	53,306	5,321	15
A	0.11%	17,478	2,765	10	0.11%	18,089	2,666	56
A–	0.16%	15,106	2,654	211	0.16%	16,074	2,84	251
B+	0.22%	11,505	2,401	179	0.22%	12,74	2,743	115
B	0.31%	12,286	3,133	113	0.31%	10,096	2,728	83
B–	0.43%	5,515	1,893	125	0.43%	8,172	2,495	81
C+	0.60%	5,358	1,791	182	0.60%	5,697	1,886	190
C	0.84%	3,344	1,226	246	0.84%	3,19	1,262	350
C–	1.17%	3,182	1,021	357	1.17%	3,475	1,111	405
D+	1.64%	1,537	729	293	1.64%	1,792	827	315
D	2.30%	1,293	617	274	2.30%	1,313	651	240
D–	3.20%	585	1,168	224	3.20%	622	1,151	190
E+	4.47%	545	952	177	4.47%	697	1,076	159
E	6.30%	835	899	118	6.30%	946	1,039	120
E–	8.79%	62	378	84	8.79%	81	368	77
F+	12.29%	49	310	46	12.28%	57	309	49
F	17.20%	382	635	41	17.19%	390	719	43
F–	27.80%	338	661	46	24.04%	360	657	52
Defaulted	100.00%	1,416	799	120	100.00%	1,503	855	133
		144,188	**30,156**	**2,862**		**138,601**	**30,702**	**2,924**

Table 10.14 Specification of undertakings, 31 December 2016

Owner	Company name	Voting power of holding, %	Domicile	Consolidation method
Nordea Bank AB (publ)	**Nordea Bank Finland Plc**	**100**	**Finland**	**Purchase method**
Nordea Bank Finland Plc	Nordea Finance Finland Ltd	100	Finland	Purchase method
	Automatia Pankkiautomaatit Oy	33	Finland	Equity method
Nordea Finance Finland Ltd	Tukirahoitus Oy	100	Finland	Purchase method
	Nordea Finance Estonia Ltd	100	Estonia	Purchase method
	Nordea Finance Latvia Ltd	100	Latvia	Purchase method
	Nordea Finance Lithuania Ltd	100	Lithuania	Purchase method
	Kiinteistö Oy Tampereen Kirkkokatu 7	100	Finland	Purchase method
Nordea Finance Estonia Ltd	ALD Automotive Eesti AS	25	Estonia	Equity method
Nordea Finance Latvia Ltd	ALD Automotive SIA	25	Latvia	Equity method
Nordea Finance Lithuania Ltd	UAB ALD Automotive	25	Lithuania	Equity method
Nordea Bank AB (publ)	**Nordea Bank Norge ASA**	**100**	**Norway**	**Purchase method**
Nordea Bank Norge ASA	Nordea Eiendomskreditt AS	100	Norway	Purchase method
	Nordea Finans Norge AS	100	Norway	Purchase method
	Eksportfinans ASA	23	Norway	Equity method
	Nordea Utvikling AS	100	Norway	Purchase method
Nordea Utvikling AS	Tomteutvikling Norge AS	100	Norway	Purchase method
Nordea Bank AB (publ)	**Nordea Bank Danmark A/S**	**100**	**Denmark**	**Purchase method**
Nordea Bank Danmark A/S	Nordea Finans Danmark A/S	100	Denmark	Purchase method
	Nordea Kredit Realkreditaktieselskab	100	Denmark	Purchase method
	LR-Realkredit A/S	39	Denmark	Equity method
	Fionia Asset Company A/S	100	Denmark	Purchase method
Nordea Finans Danmark A/S	BH Finance K/S	100	Denmark	Purchase method
	LB12 K/S	100	Denmark	Purchase method
	NAMIT 10 K/S	100	Denmark	Purchase method
	UL Transfer Aps	100	Denmark	Purchase method
	UL International ApS	100	Denmark	Purchase method
	DT Finance K/S	100	Denmark	Purchase method
	Tide Leasing 2012 K/S	100	Denmark	Purchase method
	BAAS 2012 K/S	100	Denmark	Purchase method
Fiona Asset Company A/S	Ejendomsselskabet Vestre Stationsvej 7, Odense A/S	100	Denmark	Purchase method
Nordea Bank AB (publ)	**LLC Promyshlennaya Kompaniya Vestkon**	**100**	**Russia**	**Purchase method**
LLC Promyshlennaya Companiya Vestkon / Nordea Bank AB (publ)	Join Stock Company Nordea Bank	100	Russia	Purchase method
Join Stock Company Nordea Bank	Nordea Leasing LLC	100	Russia	Purchase method
Nordea Bank AB (publ)	**Nordea Hypotek AB (publ)**	**100**	**Sweden**	**Purchase method**

Table 10.14, cont.

Owner	Company name	Voting power of holding, %	Domicile	Consolidation method
	Nordea Finans Sverige AB (publ)	100	Sweden	Purchase method
	Nordea Investment Management AB	**100**	**Sweden**	**Purchase method**
	Bankomat AB	20	Sweden	Equity method
	Getswish AB	20	Sweden	Equity method
	Nordea Funds Ltd	100	**Finland**	**Purchase method**
	Nordea Mortgage Bank Plc	100	Finland	Purchase method
	Nordea Ejendomsinvestering A/S	100	Denmark	Purchase method
	SIA Promano Lat	100	Latvia	Purchase method
	Promano LIT, UAB	100	Lithuania	Purchase method
	Promano Est Oü	100	Estonia	Purchase method
	SIA Realm	100	Latvia	Purchase method
Nordea Investment Management AB	Nordea Investment Management North America Inc	100	USA	Purchase method
	Nordea Investment Management AG	100	Germany	Purchase method
Nordea Ejendomsinvestering A/S	Nordea Ejendomsforvaltning A/S	100	Denmark	Purchase method
Nordea Finans Sweden, Finland, Norway and Denmark	NF Techfleet AB	20	Sweden	Equity method
Nordea Bank AB (publ) / Nordea Investment Management AB	**Nordea Bank S.A.**	**100**	**Luxembourg**	**Purchase method**
Nordea Bank S.A.	Nordea Investment Funds S.A.	100	Luxembourg	Purchase method
Nordea Investment Funds S.A.	Nordea Funds Service Germany Gmbh	100	Germany	Purchase method

Entities not included in the consolidation

Nordea Life Holding AB including related subsidiaries and participations
Agro & Ferm A/S
Axcel IKU Invest A/S
Bankomatcentralen AB
Danbolig A/S
Ejendomsselskabet Axelborg I/S
E-nettet Holding A/S
First Card AS
Fleggaard Busleasing
Kiinteistö Oy Kaarenritva
Kiinteistö Oy Kellokosken Tehtaat
Koy Levytie 6
Koy Raahen Tiiranpesä
Koy Tulppatie 7
Lanvin
Matis
Myyrmäen Autopaikoitus Oy
NF Fleet AB
NF Fleet Oy
NF Fleet AS
NF Fleet A/S
Nordea Do Brasil Representações LTDA
Nordea Essendropsgate Eiendomsforvaltning AS
Nordea Funds Service Germany Gmbh
Nordea Global Trade Services Limited
Nordea Limited
Nordea Hästen Fastighetsförvaltning AB
Nordea Private Equity Holding A/S
Nordea Private Equity I A/S
Nordea Private Equity II - EU Mezz A/S
Nordea Private Equity II - EU MM Buyout A/S
Nordea Private Equity II - Global A/S
Nordea Private Equity III - GLOBAL A/S
Nordea Putten Fastighetsförvaltning AB
Nordea Vallila Fastighetsförvaltning Ab
Nordic Baltic Holding (NBH) AB
Porin Sokos Koy
Privatmegleren AS
PWM Global PE III ApS
Relacom Management AB
Securus Oy
SIA Baltik Īpašums
SIA Lidosta RE
SIA TRIOLETA
Siniheinä Kiinteistö Oy
Storfjordsambandet ASA
Structured Finance Servicer A/S
Suomen Luotto-osuuskunta
Suomen Sviittiasunnot Oy
Svenska e-fakturabolaget AB
Swipp Holding APS
Sysisara Kiinteistö Oy
UAB Recurso
Upplysningscentralen UC AB
Uus-Sadama 11 OÜ

Table 10.15 Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

Table 10.15 details the institution specific countercyclical buffer as of 31 December 2016. During 2016, the countercyclical buffer rates were increased in both Sweden and Norway, from 1.0% to 1.5%. Additionally, a countercyclical buffer rate of 0.6% was introduced in Hong Kong. Following these changes, the institution specific countercyclical capital buffer rate for Nordea Group increased by 0.1 percentage points (from 0.4% to 0.5%); the Group's total institution specific countercyclical capital buffer requirement increased by 30.3% (from 545 to 711).

	General credit exposures		Trading book exposures		Securitization exposures		Own Funds Requirements					
	Exposure value for SA	Exposure Value for IRB	Sum of long and short positions of trading book exposures for SA	Value of Trading book exposures for internal models	Exposure value SA	Exposure value IRB	of which: credit exposures	of which: trading book exposures	of which: securi-tization exposures	Total	Own funds require-ments weights, %	Counter-cyclical Capital Buffer rate, %
EURm	010	020	030	040	050	060	070	080	090	100	110	120
AD	0						0			0	0.0	
AE	0	68					3			3	0.0	
AL		0					0			0	0.0	
AN	0						0			0	0.0	
AO		0					0			0	0.0	
AR		0					0			0	0.0	
AT		86	279	281			3	0		3	0.0	
AU	0	28	1	3			1	1		2	0.0	
AZ												
BA		10					0			0	0.0	
BB	0						0			0	0.0	
BD		0					0			0	0.0	
BE	9	650	434	418			28	0		28	0.3	
BG	0	7					0			0	0.0	
BH												
BM	0	2,881		40			156	0		157	1.9	
BO												
BR		119	0	0			5	0		5	0.1	
BS	0	32					3			3	0.0	
BY		0					0			0	0.0	
CA	22	248	0	9			11	0		11	0.1	
CH	19	531	2	43			18	1		19	0.2	
CI												
CL	0	82					9			9	0.1	
CN	2	267	4				10	0		10	0.1	
CO	0	0					0			0	0.0	
CR	0	7					0			0	0.0	
CU												
CY	0	1,433					101			101	1.2	
CZ		26		0			2	0		2	0.0	
DE	8	2,004	1,533	1,691			81	4		85	1.0	
DJ		0					0			0	0.0	
DK	1,515	92,365	7,156	9,849			1,973	62		2,035	24.6	
DM		0					0			0	0.0	
DO		0					0			0	0.0	
DZ		0					0			0	0.0	
EC		0					0			0	0.0	
EE	1,853	1,917		12			139	0		139	1.7	
EG												

Table 10.15, cont.

	General credit exposures		Trading book exposures		Securitization exposures		Own Funds Requirements					
	Exposure value for SA	Exposure Value for IRB	Sum of long and short positions of trading book exposures for SA	Value of Trading book exposures for internal models	Exposure value SA	Exposure value IRB	of which: credit exposures	of which: trading book exposures	of which: securi-tization exposures	Total	Own funds require-ments weights, %	Counter-cyclical Capital Buffer rate, %
EURm	010	020	030	040	050	060	070	080	090	100	110	120
ER		0					0			0	0.0	
ES	0	41	5	21			1	2		3	0.0	
ET		0					0			0	0.0	
FI	618	67,877	1,501	1,815			1,291	8		1,298	15.7	
FO		101					2			2	0.0	
FR	2	365	1,506	1,519			14	2		16	0.2	
GA		0					0			0	0.0	
GB	95	2,308	7	101			82	53		135	1.6	
GG		0		1			0	0		0	0.0	
GH		0					0			0	0.0	
GI	0	0					0			0	0.0	
GL	0	4					0			0	0.0	
GM												
GN		0					0			0	0.0	
GR	5	165	0	0			5	0		6	0.1	
GT		0					0			0	0.0	
HK	2	191	1	8			8	0		9	0.1	0.6
HN		0					0			0	0.0	
HR	0	0					0			0	0.0	
HU		45					3			3	0.0	
ID	1	1					0			0	0.0	
IE	0	245	1	1			6	1		7	0.1	
IL	0	1					0			0	0.0	
IM		88					3			3	0.0	
IN	0	71	0	1			4	0		4	0.0	
IQ												
IR		0					0			0	0.0	
IS	0	71		29			1	1		2	0.0	
IT	1	99	3	23			3	1		4	0.0	
JE	67	2,149	0	0			49	0		49	0.6	
JO		0					0			0	0.0	
JP	1	6	3	12			0	0		1	0.0	
KE		0					0			0	0.0	
KP			1					0		0	0.0	
KR	1	16					0			0	0.0	
KW		0					0			0	0.0	
KY	48	554		1			24	0		24	0.3	
KZ		0					0			0	0.0	
LB		1					0			0	0.0	
LI		0					0			0	0.0	
LK		7					1			1	0.0	
LR		1,803					74			74	0.9	

Table 10.15, cont.

	General credit exposures		Trading book exposures		Securitization exposures		Own Funds Requirements					
EURm	Exposure value for SA 010	Exposure Value for IRB 020	Sum of long and short positions of trading book exposures for SA 030	Value of Trading book exposures for internal models 040	Exposure value SA 050	Exposure value IRB 060	of which: credit exposures 070	of which: trading book exposures 080	of which: securi-tization exposures 090	Total 100	Own funds require-ments weights, % 110	Counter-cyclical Capital Buffer rate, % 120
LT	1,465	894					102			102	1.2	
LU	1,617	967		345			135	1		136	1.6	
LV	1,307	1,589	1				107	0		107	1.3	
MA		0					0			0	0.0	
MC	0	0					0			0	0.0	
ME	0						0			0	0.0	
MH	0	2,325		23			101	0		101	1.2	
MN	0						0			0	0.0	
MO												
MT	0	36					1			1	0.0	
MU	0	33					1			1	0.0	
MV	0	0					0			0	0.0	
MX	0	79		0			5	0		5	0.1	
MY	1	1	0				0	0		0	0.0	
MZ												
NC		0					0			0	0.0	
NE		0					0			0	0.0	
NG		0					0			0	0.0	
NI		0					0			0	0.0	
NL	65	1,500	1,247	1,278			82	5		87	1.1	
NO	1,677	59,968	1,212	1,979			1,389	25		1,413	17.1	1.5
NP												
NZ	0	29					1			1	0.0	
OC			22									
OM												
PA	0	90					3			3	0.0	
PE		0					0			0	0.0	
PF		0					0			0	0.0	
PH		2					0			0	0.0	
PK		0					0			0	0.0	
PL	1,752	78	3				142	0		142	1.7	
PR		0					0			0	0.0	
PS												
PT	0	17	0	0			1	0		1	0.0	
PY		2					0			0	0.0	
QA		98					4			4	0.1	
RO	0	0					0			0	0.0	
RS		0					0			0	0.0	
RU	346	2,325	1	3			104	0		104	1.3	
SA	0	11					0			0	0.0	
SE	2,480	89,465	4,456	103,508		8,400	1,473	79	1,553	1,618	19.6	1.5

Table 10.15, cont.

	General credit exposures		Trading book exposures		Securitization exposures		Own Funds Requirements					
	Exposure value for SA	Exposure Value for IRB	Sum of long and short positions of trading book exposures for SA	Value of Trading book exposures for internal models	Exposure value SA	Exposure value IRB	of which: credit exposures	of which: trading book exposures	of which: securi-tization exposures	Total	Own funds require-ments weights, %	Counter-cyclical Capital Buffer rate, %
EURm	010	020	030	040	050	060	070	080	090	100	110	120
SG	3	1,197	0				62	0	0	62	0.8	
SI		15					1			1	0.0	
SK		22					1			1	0.0	
SL		0					0			0	0.0	
SV		0					0			0	0.0	
SY		0					0			0	0.0	
TC	0						0			0	0.0	
TF		0					0			0	0.0	
TH	0	1					0			0	0.0	
TN		0					0			0	0.0	
TR	1	4		0			0	0		0	0.0	
TT		1					0			0	0.0	
TW	0	6	0				0	0		0	0.0	
TZ		1					0			0	0.0	
UA		0					0			0	0.0	
UG												
US	118	2,311	98	276			84	10		94	1.1	
UY		11					1			1	0.0	
UZ		1					0			0	0.0	
VC		0					0			0	0.0	
VG	0	322					19			19	0.2	
VI		0										
VN	0	0					0			0	0.0	
XK		0					0			0	0.0	
ZA	0	3	0	0			0	0		0	0.0	
ZM		2					0			0	0.0	
Total	15,102	342,375	19,475	123,292		8,400	7,937	256	66	8,260	100.0	

11. Navigation

Table 11.1 Capital and risk information navigation guide

Reference	Capital and Risk Management report	Annual report	www.nordea.com
Quantification			
End of year results			
Minimum capital requirements	Part 1, table 2.2	Pages 54 and note G38	
Business area results	Part 1, table 1.1	Page 40-42	Nordea.com > Latest interim results > Factbook
Development of REA	Part 1, table 2.3	Page 54 and note G38	
Development of Own funds	Part 1, table 2.5	Page 55	
Capital ratios	Part 1, figure 2.1–2 and table 10.2	Page 136	
Leverage ratio	Part 1, table 10.3	Page 139	
Capital requirements parameters			
Credit Risk	Part 1, section 3	Pages 45-49, note G46	
Counterparty Credit Risk	Part 1, section 4	Page 49, note G46 page 170	
Market Risk	Part 1, section 5	Pages 50 and page 137	
Operational Risk	Part 1, section 6	Page 50 and note G38 page 137 and note G46-G47	
Liquidity Risk		Page 52–53	
Securitisation	Part 2, section 7	Page 54 and 137	
Frameworks			
Governance, measurement, management and mitigation of risks			**Nordea.com > About Nordea > Corporate Governance >**
Credit Risk	Part 2, section 2	Pages 45–49	
Counterparty Credit Risk	Part 2, section 2.6	Pages 49	
Market Risk	Part 2, section 3	Pages 50	
Operational Risk	Part 2, section 4	Page 50	
Liquidity Risk	Part 2, section 6	Page 52–53	
Compliance risk	Part 1, section 4	Page 51	
Securitisations	Part 2, section 7	Pages 39, 54 and note G47	
Life and pensions operation	Part 2 section 9	Page 51	
Capital	Part 2	Pages 53–55 and note G38	
Indicators of global systemic importance			Nordea.com > Investor relations > Reports and presentations > Other regulatory disclosures > G-SIB/G-SII
Capital instruments			Nordea.com > Investor relations > Reports and presentations > Capital instruments
New regulations	Part 2, section 10	Page 57	
Remuneration	Part 2, section 5	Pages 59–62 and 66-68	nordea.com > About Nordea > Corporate Governance > Remuneration > Nordea's Remuneration Policy

Table 11.2 CRR Reference table

CRR ref.	High level summary	Reference
Title I: General Principles		
Article 431	**Scope of disclosure requirement**	
(1)	General disclosure requirements.	This report and disclosures at nordea.com addresses the requirement.
(2)	Requirement to disclose operational risk information.	Part 1. Section 6 and part 2. section 4.
(3)	Requirement to have a formal policy to comply with the disclosure requirements.	Nordea Bank AB and its subsidiaries have adopted a formal policy to assure compliance with the disclosure requirements and has established policies for assessing the appropriateness of these disclosures, including their verification and frequency.
(4)	On request, an explanation of rating decisions to the loan applicants.	Could be provided upon request.
Article 432	**Non-material, proprietary or confidential information**	
(1) - (4)	Institutions may, under certain conditions, omit information that is not material, proprietary or confidential.	Part 1. Table 11.3
Article 433	**Frequency of disclosure**	
	Requirements on frequency of Pillar 3 disclosures.	The disclosures are made annually in conjunction with the date of publication of Nordea Group's financial statements. For items where more frequent disclosures are assessed needed, information is given in the interim financial reports or on the Investor Relations pages on www.nordea.com.
Article 434	**Means of disclosures**	
(1)	Medium for Pillar 3 disclosures and cross-reference for synonymous information.	This table, table 11.1 and throughout the text where applicable.
(2)	Indicate location of equivalent dislosures that could satisfy both CRR and accounting or similar requirements.	Table 11.1.
Title II: Technical criteria on transparency and disclosure		
Article 435	**Risk management objectives and policies**	
(1) (a)	Risk management strategies.	Part 2, sections 1.1, 2.1, 3.1, 4.1, 4.2, 6.1, 7.1 and 9.1
(1) (b)	Organisation and governance.	Part 2, Sections 1, 2.1.2, 3.1, 3.2 , 4, 6.1.3, 7 and figures 1.1, 1.2, 2.1
(1) (c)	Reporting systems.	Section 1.2.3, 1.4, 1.5, 2.1, 3.2, 4.1, 4.2, 4.3, 4.4, 6.1.4, 7.2 and 8
(1) (d)	Hedging policies	Section 2.1.5, 2.6.3, 3.1 and 3.3.9
(1) (e)	Management declaration on risk adequacy.	Part 1. Executive Summary, footer in the end.
(1) (f)	Risk profile.	Part 1, section 1
(2) (a) - (e)	Disclosures regarding governance arrangements.	Nordea.com > About Nordea > Corporate Governance >
Article 436	**Scope of application**	
(a)	Name of the institution.	Part 1. Executive Summary, footer in the end.
(b) (i)-(iv)	Outline of the differences in the basis of consolidation for accounting and prudential purposes.	Part 1, table 10.14
(c)	"Practical or legal impediments to transfer funds between parent and subsidiaries."	Part 2, section 8.1.1.1
(d)	Capital shortfalls in subsidiaries outside the scope of consolidation.	N/A
(e)	Making use of articles on derogations from a) prudential requirements (Article 7) and b) liquidity requirements for individual subsidiaries/entities (Article 9).	N/A
Article 437	**Own funds**	
(1) (a)	General disclosure requirements regarding own funds.	Part 1, table 10.1
(1) (b)		Nordea.com > Investor relations > Reports and presentations > Capital instruments
(1) (c)		Nordea.com > Investor relations > Reports and presentations > Capital instruments
(1) (d) (i)-(iii)		Part 1, table 10.2
(1) (e)		Part 1, table 10.2

Table 11.2, cont.

CRR ref.	High level summary	Reference
(1) (f)		N/A
Article 438	**Capital requirements**	
(a)	Summary of the approach to assessing adequacy of capital to its activities.	Part 2, section 8
(b)	Upon demand from the authorities, result of the ICAAP.	ICAAP results are presented on a voluntary basis in Part 1, figures 2.1 and 2.2
(c) - (f)	Own funds requirements for credit risk (Standardised and IRB approach), market and operational risk.	Part 1, table 2.2
Article 439	**Exposure to counterparty credit risk**	
(a)	Methodology for credit limits and internal capital allocation for counterparty credit risk.	Part 2, sections 2.6.4 and 8.2
(b)	Policies for securing collateral and establishing credit reserves.	Part 2, sections 2.4 and 2.6.3
(c)	Policies for wrong-way risk exposures.	Part 2, sections 2.6.1 and 2.6.4
(d)	Impact of any collateral postings upon credit rating downgrade.	Part 2, section 2.6.3
(e)	Net derivative credit exposure built-up.	Part 1, tables 4.2 and 4.7-4.10
(f)	Methods for exposure value measurement.	Part 1, tables 4.1 and 4.9-4.10
(g)	Notional value of credit derivatives hedges and distribution of current credit exposure by type of exposure.	Part 1, table 4.6
(h)	Notional amounts of credit derivatie transactions and distribution of credit derivatives products.	Part 1, table 4.6
(i)	Estimate of alfa if the institution has received permission of the competent authorities to estimate alfa.	N/A
Article 440	**Capital buffers**	
(1) - (2)	Geographical distribution and amount of institution-specific countercyclical capital buffer.	Part 1, table 2.4 and 10.15
Article 441	**Indicators of global systemic importance**	
(1) - (2)	Indicator values used for determing the score of the institution.	Nordea.com > Investor relations > Reports and presentations > Other regulatory disclosures > G-SIB/G-SII
Article 442	**Credit risk adjustments**	
(a)	Definitions of 'past due' and 'impaired'.	Part 2, section 2.7
(b)	Methodology used for determining specific and general credit risk adjustments.	Part 2, section 2.7
(c)	The total amount of original exposures and the average amount of the exposures over the period per exposure class.	Part 1, tables 3.4-3.5
(d)	Exposures distributed by exposure class and geography.	Part 1, table 3.25, 10.5 and 10.9
(e)	Distribution of exposures by industry broken down by exposure classes.	Part 1, table 3.6
(f)	The residual maturity breakdown of all the exposures, broken down by exposure classes.	Part 1, table 3.8
(g) (i) - (iii)	Breakdown of impaired exposures and past due exposures, specific and general credit risk adjustments, charges for the period, by significant in dustry or counterparty type.	Part 1, tables 3.18-3.24,
(h)	Impaired and past due exposures broken down by geographical areas.	Part 1, table 3.21
(i) (i) - (v)	Reconciliation of changes in the specific and general credit risk adjustments for impaired exposures covering description of the type of adjusments, the opening balances, the amounts taken against the credit risk adjustments and the amounts that have ben set aside for estimated probable losses on the exposures.	Part 1, table 3.22-3.23, Nordea has no general credit risk adjustments.
Article 443	**Unencumbered assets**	
	Disclosure on unencumbered assets according to EBA Guidelines EBA/GL/2014/03	Part 1, table 10.4
Article 444	**Use of ECAIs**	
(a)	Names of nominated ECAIs.	Part 2, section 2.3.2
(b)	The Exposure classes for which each ECAI is used.	Part 2, section 2.3.2
(c)	Description of the process for translating external ratings into credit quality steps.	Part 2, section 2.3.2

Table 11.2, cont.

CRR ref.	High level summary	Reference
(d)	Mapping of external ratings from each nominated ECAI to the credit quality steps.	Part 2, figure 2.2
(e)	The exposure values before and after credit risk mitigation associated with each credit quality step.	Part 1, tables 3.30 and 4.4
Article 445	**Exposure to market risk**	
	Own Funds requirements for market risk.	Part 1, table 2.2
Article 446	**Operational risk**	
	Approach used to calculate Own Funds requirements for operational risk.	Part 1, figure 6.1 and part 2, section 4
Article 447	**Exposures in equities not included in the trading book**	
(a)	Differentiation between exposures based on their objectives.	Part 1, table 5.3
(b)	The balance sheet value, the fair value and, for those exchange-traded, a comparison to the market price where it is materially different from the fair value.	Part 1, table 5.3
(c)	The types, nature and amounts of equity exposures.	Part 1, table 5.3
(d)	Cumulative realised gains or losses arising from sales and liquidations in the period.	Part 1, table 5.3
(e)	Total unrealised gains or losses.	Part 1, table 5.3
Article 448	**Exposure to interest rate risk on positions not included in the trading book**	
(a)	Nature, key assumptions and frequency of measurement of the interest rate risk.	Part 1, tables 5.1, 5.2, 5.4, 5.5, 5.11 and part 2, 3.3.8 and 3.3.10
(b)	The variation in earnings, economic value or other relevant measure used by the management for upward and downward rate shocks, broken down by currency.	Part 1 tables 5.4-5.5
Article 449	**Exposure to securitisation positions**	
(a)	Objectives in relation to securitisation activity.	Part 2, section 7
(b)	Nature of other risks including liquidity risk inherent in securitised assets.	Part 2, section 7
(c)	Type of risks in terms of seniority of underlying securitisation positions and in terms of assets underlying those latter securitisation positions assumed and retained with re- securitisation activity.	Part 1, tables 7.1-7.6
(d) -(e)	Different roles played by the institution in the securitisation process and the extent of its involvement	Part 1 tables 7.1-7.6 and part 2., section 7
(f)	Description of the processes in place to monitor changes in the credit and market risk of securitisation exposures.	Part 2, sections 1.2, 2, and 3.2
(g)	Description of the institution's policy governing the use of hedging and unfunded protection to mitigate the risks of retained securitisation and re-securitisation exposures.	N/A
(h)	Approaches used to calculate REA for its securitisation activities.	Part 2, section 7
(I)	Types of SSPE that the institution, as sponsor, uses to securitise third-party exposures.	Part 1 table 7.6 and part 2, section 7
(j) (i) - (vi)	Summary of the institutions accounting policies for securitisations activities.	Part 2, section 7
(k)	Names of ECAIs used for securitisations.	Part 2. section 2.3.2
(l)	Description of Internal Assessment Approach.	Part 2, section 7
(m)	Explanation of changes to any of the quantitative disclosures.	N/A
(n) (i) - (vi)	Information on banking and trading book securitisation exposures broken down by exposure type.	Part 1, tables 7.1-7.6, Nordea does not have any securitisation exposures in the trading book
(o) (i) - (ii)	Additional information on banking book and trading book securitisation exposures.	Part 1, tables 7.1-7.6, Nordea does not have any securitisation exposures in the trading book
(p)	Amount of impaired/past due assets securitised and the losses recognised related to banking book securitisations, by exposure type.	N/A
(q)	Outstanding exposures securitised by the institution and subject to a capital requirement for market risk, broken down into traditional/synthetic and by exposure type.	N/A
(r)	Whether the institution has provided support to securitisation vehicles and the impact on own funds.	N/A
Article 450	**Remuneration policy**	

Table 11.2, cont.

CRR ref.	High level summary	Reference
(1)	Remuneration policy and practices:	Part 2, section 5, Nordea annual report pages 59-62, 66-68 and note G7 and Nordea.com > About Nordea > Corporate Governance > Remuneration > Nordea's Remuneration Policy
(1) (a)	- decision making of remuneration committee	See references above
(1) (b)	- link between pay and performance	See references above
(1) (c) - (f)	- criteria for performance measurement, variable components parameters	See references above
(1) (g) - (i)	- aggregate quantitative information including necessary splits	See references above
(1) (j)	- total remuneration for each member of the management body, upon request	Annual report, note G7
(2)	- quantitative information per member of the management body for significant institutions	Annual report, note G7
Article 451	**Leverage**	
(1) (a) - (e)	Leverage ratio and its components	Part 2, table 10.3
Title III: Qualifying requirements for the use of particular instruments or methodologies		
Article 452	**Use of the IRB Approach to credit risk**	
(a)	Permission from the authority to use IRB approach.	Part 2, section 2
(b)	An explanation of:	
(b) (i)	Internal ratings and relation to external ratings.	Part 2, section 2.3.2
(b) (ii)	Use of internal ratings other than for calculating REA.	Part 2. section 2.1.5
(b) (iii)	The process for managing and recognising credit risk mitigation.	Part 2, section 2.1.5
(b) (iv)	Control mechanisms for rating systems.	Part 2. section 2.5
(c) (i) - (v)	Description of the internal ratings process, separately for each IRB exposure class.	Part 2, section 2.1.4
(d)	Exposure values, separately for each IRB exposure class.	Part 1, tables 3.2, 3.4-3.8, 3.10-3.11 and 3.25
(e) (i) - (iii)	For exposures towards IRB corporate and institutions, split of total exposure, 'Exposure-weighted average risk weight and Undrawn commitments per risk grade.	Part 1, table 3.25 and 10.11-10.13
(f)	Information on Retail exposures under the IRB approach.	Part 1, tables 3.25 and 10.12
(g)	Actual specific credit risk adjustments during the period.	Part 1, tables 3.22-3.23
(h)	The factors that impacted on the loan losses during the period.	Part 1, executive summary and table 3.21
(i)	Historical comparison of parameter estimates against the realised outcomes.	Part 1, tables 3.27.1-3
(j) (i) - (ii)	PD and LGD for all IRB exposure classes, split down on relevant geographical locations.	Part 1, table 3.26
Article 453	**Use of credit risk mitigation techniques**	
(a)	Policies and processes for the use of on- and off-balance sheet netting.	Part 2, section 2.1.5
(b)	Policies and processes for collateral valuation and management.	Part 2, section 2.4
(c)	Main types of collateral.	Part 1, tables 3.9, 3.12-3.13 and 4.8
(d)	Types of guarantor and credit derivative counterparty and their creditworthiness.	Part 2, section 2.4
(e)	Information about market or credit risk concentrations within the credit mitigation taken.	Part 2, section 2.4
(f)	The exposure value covered by eligible collateral for exposures under the Standardised or Foundation IRB approach.	Part 1, table 3.10
(g)	Exposures covered by guarantees or credit derivatives.	Part 1, tables 3.9-3.10
Article 454	**Use of the Advanced Measurement Approaches to operational risk**	
	Description of the use of risk transfer mechanisms for the purpose of mitigation of operational risk.	Part 2, section 4.1
Article 455	**Use of Internal Market Risk Models**	
(a) (i)	Characteristics of the models used.	Part 2, section 3.3
(a) (ii)	The methodologies used for the internal models for incremental default and migration risk and for correlation trading.	Part 2, section 3.3.4 and 3.3.5

Table 11.2, cont.

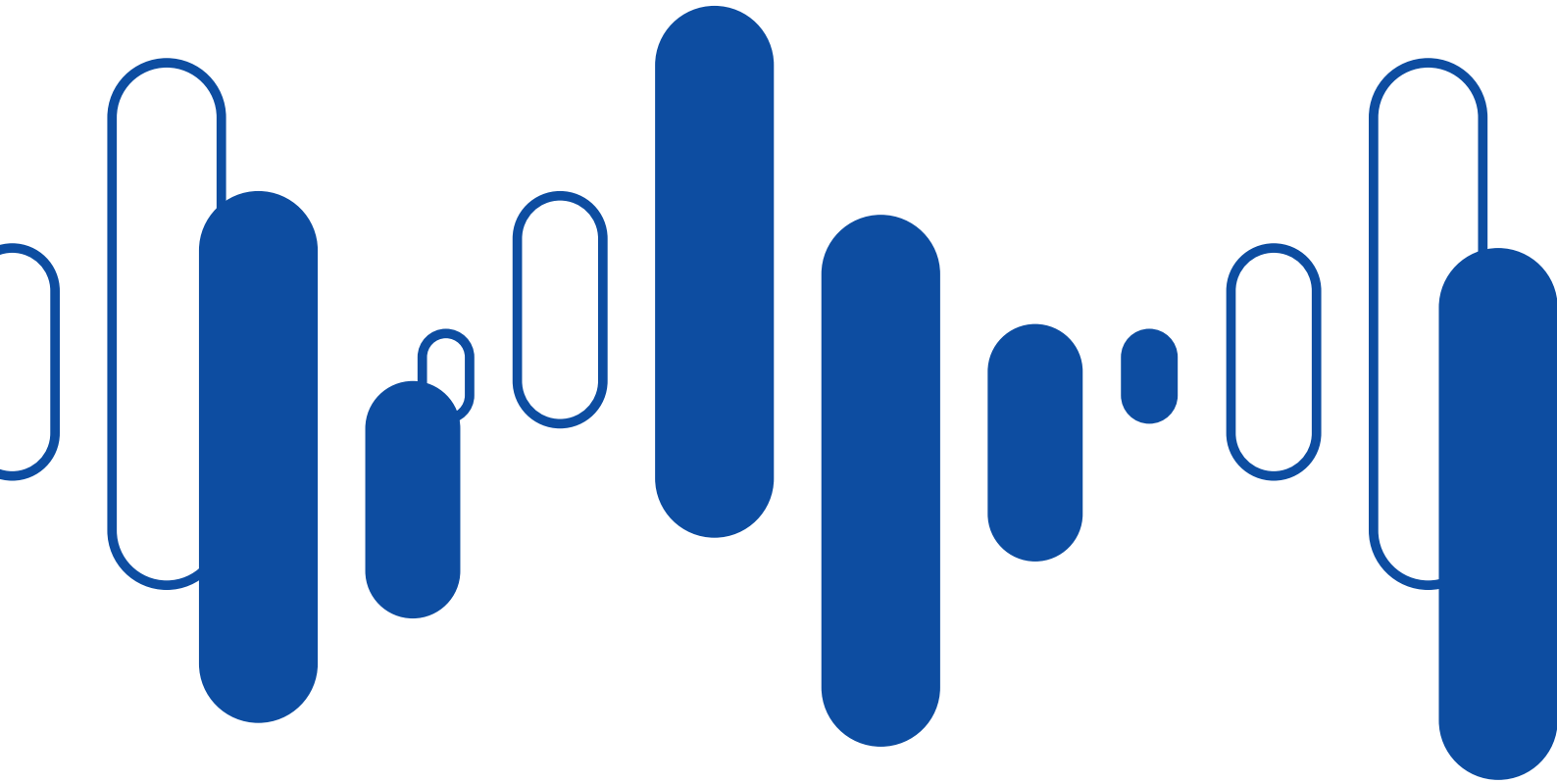
CRR ref.	High level summary	Reference
(a) (iii)	Description of stress testing applied to the sub-portfolio.	Part 2, section 3.3.6
(a) (iv)	Approaches used for back-testing and validating the accuracy and consistency of the internal models.	Part 2, section 3.3.7
(b)	Scope of permission by the competent authority.	Part 2, table 3.1
(c)	Description of the extent and methodologies for inclusion in the trading book, comply with prudential valuation requirements.	Part 2, section 3.4
(d) (i) - (iii)	The highest, lowest and average of VaR, sVaR, Incremental risk charge and Comprehensive Risk Charge.	Part 1, table 5.7
(e)	The elements of the own fund requirements for market risk.	Part 1, table 5.1
(f)	Weighted average liquidity horizon for each sub-portfolio covered by the internal models.	Part 1, section 3.3.4 and 3.3.5
(g)	Comparison of the daily end-of-day VaR measures to the one-day changes of the portfolio's value.	Figure 5.1

Table 11.3 Information not disclosed due to non-material-, proprietary- or confidential nature

Article reference	Reason for not including	Detailed reasons for not including	Reference to information provided as compliment to the information not included
EU GL OVA CRR 435 (1) (b) "The approved limits of risks to which the institutions is exposed to."	Risk Appetite limits are strictly confidential.	Thresholds for Risk Appetite limits are not disclosed, since the thresholds are of a confidential strategic nature. The relevant supervisory authorities have access to the full report including limits.	The metrics, to which Risk Appetite limits apply, are stated in the report.

PART 2 Risk Management, Methodologies and Governance

Information on common processes, methods and assumptions for assessing capital adequacy in the Nordea Group.



1. Governance of risk and capital management

This chapter gives an overview of Nordea's governance structure as defined by Nordea's internal rules contained within Nordea's Group Directives, approved by either the Board of Directors of Nordea Bank AB or the CEO in Group Executive Management (GEM). The Group Directives are reviewed at least annually and are applicable for the entire Nordea Group, including all subsidiaries under supervision, unless local regulations specify otherwise.

1.1 Risk and capital management

The key principle for the management of risk in Nordea is the three lines of defence (LoD), as illustrated in Figure 1.1. The 1st LoD is represented by Business Areas and Group Functions responsible for their own daily risk management and for operating their business within applicable limits and in accordance with the framework for internal control.

Group Risk Management & Control (GRMC) and Group Compliance (GC) represent the 2nd LoD responsible for activities such as independent monitoring, control and reporting of issues related to key risks, including compliance with internal and external regulations.

Group Internal Audit (GIA) is an independent and objective assurance function, which supports the Board of Directors and GEM in protecting the assets, reputation and sustainability of the organisation. GIA does this by assessing whether all significant risks are identified and appropriately reported by management and the risk functions to the Board of Directors, its committees and GEM. GIA assesses whether all significant risks are adequately controlled, and by challenging GEM to improve the effectiveness of governance, risk management and internal controls.

1.2 Risk and capital management principles and control

Risk and capital management in Nordea are governed by principles and procedures stated in charters, policies, instructions and guidelines in effect throughout the organisation. The Board of Director's and the Chief Executive Officer's (CEO's) principal policies and instructions that define authorities and key responsibilities for themselves and other units are outlined as Group Directives. The Group Directives form part of the internal control framework.

All legal entities within Nordea are subject to the same internal control and risk management environment throughout the organisation of the business.

Nordea monitors aggregated risks via specific committees, as well as through reporting to GEM, and the Board of Directors. More specifically, Nordea's risks and capital are monitored by the Risk Committee and the Asset and Liability Committee (ALCO) respectively.

1.2.1 Board of Directors and Board Risk Committee

The Board of Directors has ultimate responsibility for limiting and monitoring Nordea's risk exposures as well as for defining target capital ratios and deciding on the risk appetite. Risk is measured and reported according to common principles and policies approved by the Board of Directors. The Board of Directors also decide on Group Directives for credit risk, counterparty credit risk, market risk, liquidity risk, life insurance risk, operational risk, model risk and compliance risk as well as the Internal Capital Adequacy Assessment Process (ICAAP) and the Internal Liquidity Adequacy Assessment Process (ILAAP).

In defining credit instructions, the Board of Directors decide on powers-to-act for major credit committees at different levels within the Business Areas. These authorisations vary for different decision-making levels, mainly in terms of the size of limits but also depending on the internal risk categorisation of customers. The Board of Directors furthermore decides on the limits for market and liquidity risk within Nordea.

The Board Risk Committee (BRIC) assists the Board of Directors in fulfilling its oversight responsibilities concerning the management and control of risk, risk frameworks and controls and processes associated with Nordea's operations. BRIC met on 6 occasions during 2016.

Figure 1.1 Business Model and Internal Control Framework: Three Lines of Defence (LoD)

1st LoD	2nd LoD	3rd LoD
The Business Areas (BAs) and Group Functions (GFs) not in 2nd or 3rd Line of Defence (LoD) constitute the 1st LoD.	**Group Compliance** **Group Risk Management & Control**	**Group Internal Audit**
BAs and GFs are responsible for their own risk management and for operating their business in accordance with adopted framework for internal control and risk management and within the set limits for risk exposure. This covers identifying, assessing, performing quality assurance and reporting of issues related to all material financial and non-financial risks.	Group Compliance and Group Risk Management & Control are independent control and risk functions with the purpose and authority to support and challenge 1st LoD in identifying and managing risk and compliance. The internal control framework covers: • Control environment • Risk assessment • Control activity • Information and communication • Monitoring	Group Internal Audit (GIA) is an independent unit. GIA assesses the internal control framework, i.e. whether all significant risks are identified, appropriately reported and controlled. GIA supports the Group Board and GEM in protecting the assets, reputation and sustainability of the organisation.

1.2.2 Responsibility of CEO and GEM and its committees

The CEO has overall responsibility for developing and maintaining effective risk, liquidity and capital management principles and control of Nordea.

The CEO and GEM regularly review reports on risk exposure and have established a number of committees for risk, liquidity and capital management.

ALCO, chaired by the Chief Operating Officer (COO), prepares issues of major importance concerning Nordea's financial operations and balance sheet either for decision by the CEO in GEM or for recommendation by the CEO in GEM for decision by the Board of Directors. Within their given mandate, ALCO also decides on certain issuances and capital injections for all wholly-owned legal entities within Nordea. ALCO has established sub-committees for its work and decision-making within specific risk areas. ALCO met on 13 occasions during 2016.

The Risk Committee, chaired by the Chief Risk Officer (CRO), oversees the management and control of Nordea's risks on an aggregate level and evaluates the sufficiency of the frameworks, controls and processes associated with the various risks. The Risk Committee furthermore decides, within the scope of resolutions adopted by the Board of Directors, the allocation of credit risk limits, market risk limits as well as liquidity risk limits to the risk-taking units. Unit heads allocate respective limits within their units and may introduce more detailed limits and require other risk mitigation techniques, such as stop-loss rules. The Risk Committee has established sub-committees for its work and for decision-making within specific risk areas. The Risk Committee met on 16 occasions during 2016.

Figure 1.2 Risk, liquidity and capital management governance structure

GEM Credit Committee is chaired by the CEO. As of January 2017, the Executive Credit Committee is chaired by the Head of Group Credit Risk Management (GCRM), while the Group Credit Committee Commercial and Business Banking and the Group Credit Committee Wholesale Banking are chaired by the Chief Credit Officer (CCO). These credit committees approve major internal credit risk limits constituting the maximum credit risk appetite on the customer in question. Individual credit decisions within approved internal credit risk limits are taken within the customer responsible units. Internal credit risk limits are granted as individual limits for customers or consolidated customer groups as well as industry limits for certain defined industries.

1.2.3 Governance of Risk Management and Compliance

Group Risk Management & Control and Group Compliance are the 2nd LoD. The flow of risk related information from the Business Areas and the Group Functions to the Board of Directors passes through Risk Committee and BRIC. Reporting from Group Compliance is presented directly to the Board of Directors as well as discussed in the Board Audit Committee (BAC).

As of January 1st 2017, Group Risk Management & Control is organised in the following divisions: Group Credit Risk & Control, Group Market and Counterparty Credit Risk, Group Operational Risk, Balance Sheet Risk Controls, Chief Operating Officer Function, and the CRO Office. The flow of information starts with the divisions that monitor and analyse information on each respective risk type. Risks are presented to, and discussed in the Risk Committee and its sub committees. Information on risk is then brought to BRIC, where risk issues are discussed and prepared before being presented to the Board of Directors.

The other second line function, Group Compliance, consists of central units as well as business area specific divisions, facilitating and overseeing the effectiveness and integrity of the Group's compliance risk management. Group Compliance adds value to the Group and its stakeholders by providing an independent view on compliance with applicable rules and regulations, based to a great extent on monitoring activities conducted. Furthermore, Group Compliance advises and supports the 1st LoD on ways to effectively and efficiently manage compliance obligations.

Figure 1.2 illustrates Nordea's governance structure of risk management.

1.3 Subsidiary governance

At a legal entity level, subsidiary Boards of Directors are responsible for approving risk limits and capital injections, following proposals put forward by applicable committees in Nordea.

Each subsidiary's Board of Directors has oversight responsibilities concerning the management and control of risk, risk frameworks as well as the controls and processes associated with the subsidiary's operations. In addition, there are risk management functions responsible for the risk management framework and processes within the relevant subsidiaries.

The CEO in the Executive Management for each subsidiary is part of the decision-making process for the legal level and is responsible for the daily operations.

1.4 Risk appetite

The risk appetite within Nordea is defined as the level and nature of risk that the bank is willing to take in pursuit of its articulated strategy on behalf of the shareholders. Risk appe-

tite is defined by constraints reflecting the views of shareholders, debt holders, regulators and other stakeholders.

The Board of Directors is ultimately responsible for the overall risk appetite of Nordea and for deciding on principles for how risk appetite should be managed. BRIC assists the Board of Directors in fulfilling these responsibilities by reviewing the development of the risk profile in relation to the risk appetite and making recommendations for changes to Nordea's risk appetite.

Nordea's risk appetite framework is based on explicit top-down risk appetite statements covering all key risks faced by Nordea. These statements, approved by the Board of Directors, collectively define the boundaries for Nordea's risk-taking activities, help identify areas with scope for additional risk taking, and set the basis for the risk reporting structure. Moreover, the framework supports management decision processes such as planning and target setting. This is achieved through a limit scale with three levels:

- Green: Risk level is well within the defined risk appetite
- Amber: A threshold set as a trigger level for further monitoring, investigation, or analysis
- Red: The limit of the bank's risk appetite

The starting point for defining Nordea's Risk Appetite is available own funds and the overall business strategy. The risk appetite framework considers key risks relevant to Nordea's business activities and is on an aggregate level represented in terms of credit risk, market risk, liquidity risk, operational risk, solvency and compliance/non-negotiable risks. Figure 1.3 presents an overview of Nordea risk appetite measures.

Connected to each metric in the framework is a statement defining the threshold for the bank's risk appetite. Exposures and risk levels are monitored and reported to the Board of Directors on a quarterly basis. Credit concentration metrics cover industries and geographic regions of particular size or importance. Stress test metrics are applied for credit and market risk metrics to ensure a forward-looking approach to risk management. These metrics combine quantitave limits and qualitative assessments of the risk levels.

For each risk type, the overall group limit is cascaded and split to relevant Business Areas in terms of allocated risk level and operational risk limits, e.g. market risk is cascaded to Group Treasury and ALM, Wholesale Banking and Wealth Management. For both Nordea Group and each Business Area Risk Appetite limits are supported by sub-limits. These sub-limits ensure day-to-day management and control of the Risk Appetite; e.g. through limits on Value-at-Risk to ensure there is no breach of the market risk stress loss Risk Appetite.

The Risk Appetite Framework is reviewed and updated at least annually to ensure the adequacy and effectiveness of the risk management strategies.

Stress testing is an integral component within the framework. Stress tests ensure alignment of the scenarios used in the regulatory capital framework and the risk appetite framework, and thereby it also ensures alignment between the planning and target setting process.

During 2016, and prior to the mergers of subsidiary banks, separate risk appetite frameworks were in place for the subgroups in Nordea Bank Danmark (NBD), Nordea Bank Finland (NBF) and Nordea Bank Norge (NBN).

Risk appetite reporting is presented quarterly to the Risk Committee, GEM, BRIC and the Board of Directors.

Figure 1.3 Overview of the risk appetite measures

Risk type	Metric
Credit risk	Single customer concentration
	Industry concentration
	Geographic concentration
	Expected loss
	Stressed loan loss
Market risk	Market risk stress loss
	Structural market risk
	Regulatory market risk requirements
Liquidity risk	Liquidity balance post stress
Operational risk	Chief Operational Risk Officer Assessment
	Top Risk Development
	Operational risk loss
	Reputation, Non-Financial impact
Solvency	Common Equity Tier 1 capital ratio
	Leverage ratio
Compliance	Regulatory requirements
	Internal policy and external regulatory breaches

1.5 Monitoring and reporting

The "Policy for Internal Control in the Nordea Group" states the components of the internal control framework as: Control environment, risk assessment, control activities, information and communication, and monitoring (including reporting of finding and deficiencies). It creates the necessary preconditions for the whole organisation to contribute to the effectiveness and the high quality of internal control. It is based on clear definitions, assignments of roles and responsibilities, common tools and procedures and is expressed in a common language.

Management of risks includes all activities aiming at identifying, measuring, assessing, monitoring and controlling risks as well as measures to limit and mitigate the consequences of the risks. Management of risk is proactive, emphasising training and risk awareness. Nordea maintains a high standard of risk management by means of applying available techniques and methodologies to its needs. In order to support all employees in managing risks, Nordea has gathered relevant e-learnings, policies and guidelines – internally defined as Licence to work. Licence to Work is a set of stepwise requirements for learning about risk and compliance and is renewed every year.

The control environment is, among other things, based on the principles of segregation of duties and independence. Monitoring and reporting of risk is conducted on a daily basis for market risk, counterparty credit risk, liquidity risk and on a monthly and quarterly basis for credit risk, operational risk, IT risk and overall capital adequacy.

Detailed risk information, covering all risks as well as capital adequacy, is regularly reported to the Risk Committee, GEM and the Board of Directors. In addition to this Nordea's compliance with regulatory requirements is reported to GEM and Board of Directors. The Board of Directors and CEO in each legal entity regularly receives local risk reporting.

2. Credit risk

Credit risk is defined as the potential for loss due to failure of a borrower(s) to meet their obligations to clear a debt in accordance with agreed terms and conditions The potential for loss is lowered by credit risk mitigation techniques. It stems mainly from various forms of lending, but also from issued guarantees and documentary credits. Credit risk also includes counterparty credit risk, transfer risk and settlement risk. This chapter discusses the governance, management and measurement of credit risk in broad terms.

2.1 Management of credit risk

Credits granted within Nordea are conformed to established common principles. The fundamental principles are outlined in the Credit Policy and Strategy and the Credit Instructions for Nordea Group.

Nordea has specific Industry Credit Policies in place to monitor the distribution of the credit portfolio and to limit credit risk. Concentration risk in specific industries is monitored by industry monitoring groups. Industry Credit Policies are established for industries where at least two of the following criteria's are fulfilled:

- Significant weight in the Nordea loan portfolio
- High cyclicality and/or volatility of the industry
- Special skills and knowledge required

Nordea currently has implemented Industry Credit Policies for the following industries:

- Shipping, Oil and Offshore
- Energy
- Leveraged lending
- Financial institutions
- Commercial real estate

All Industry Credit Policies are approved annually by the Risk Committee and confirmed by BRIC.

Nordea integrates risk parameters in to the risk management and decision-making process, and in the credit approval, internal capital allocation and the corporate governance functions of the institution.

The internal rating, driven by the probability of default (PD), is used for a variety of credit and business processes:

- Provides an initial assessment of the risk, prior to the full individual credit assessment.
- Determines the level of decision making and necessary documentation needed for the decision.
- As an early warning factor, indicating required actions on high risk customers.
- In the present collective impairment model used in Nordea the loss event is identified as a rating downgrade compared to the original rating when entering the portfolio.
- In addition, the PD is the main driver of Economic Capital, which is used in the Risk Adjusted Return calculations to make business decisions at a customer and transaction level. Further, RAROCAR, return on capital at risk, is used to measure the performance of Customer Responsible Units (CRU).

Internal credit risk limits for customers and customer groups are approved by decision-making bodies at various levels within Nordea, constituting the maximum credit risk appetite on the customer in question. Individual credit decisions within approved internal credit risk limits are taken within CRUs.

From 1/1 2017 representatives from the 1st LoD credit organisation will independently approve the rating. The CRU continuously assesses customers' ability to fulfil their obligations and identifies deviations from agreed conditions and weaknesses in the customers' performance. In addition to building strong customer relationships and understanding each customer's financial position, monitoring of credit risk is based on available information about the customer and macroeconomic factors. Information such as late payments data, behavioural scoring and rating migration are important parameters in the internal monitoring process. If new information indicates the need, the CRU must assess whether the customer's repayment ability is threatened and reassess the rating. If it is considered unlikely that the customer will be able to repay their debt obligations in full and the situation cannot be satisfactorily remedied, the exposure must be tested for impairment.

If credit weakness is identified in relation to a customer exposure, the exposure is assigned special attention in terms of more frequent review. In addition to continuous monitoring, an action plan is established outlining as to how to minimise the potential credit loss. If necessary, a special work-out team is set up to support the CRU. Nordea has a project organisation approach for handling work-out credits for corporate customers and individual work-out teams are established for larger work-out cases. The credit organisation and other specialist units support CRUs in handling smaller work-out customers.

The follow-up of individual work-out cases forms part of the quarterly credit risk review process. In this process, the impairment of individual customers and the collective impairment of customer groups is also assessed and actions related to the handling of work-out customers are reviewed and followed up.

The environmental risks of corporate customers are taken into account in the overall risk assessment through the Environmental Risk Assessment Tool. Social and political risks are taken into account by the Social and Political Risk Assessment Tool. Environmental Social Governance (ESG) risk assessment tools are moving towards a risk based approach to identify and focus on potential higher risk cases. For larger project finance transactions, Nordea has adopted the Equator Principles, a financial industry benchmark for determining, assessing and managing social and environmental risk in project financing. The Equator Principles are based on the policies and guidelines of the World Bank and the International Finance Corporation.

2.1.1 Credit risk appetite

Nordea's risk appetite framework sets risk tolerances that enable the bank to fulfull strategic targets. It also forms the basis for a holistic risk reporting structure that supports key

decision processes such as strategy, planning and target setting.

Credit risk appetite statements are defined in terms of credit risk concentration (limits for single names, specific industries and geographies), long-term credit quality (expected loss) and short-term forward-looking credit quality (loan losses under plausible stress scenarios).

2.1.2 Governance of credit risk

The main principle of Credit Risk Management in Nordea is having a framework approved independent of business decision-making and financial performance. This framework is approved by senior management and aligns the risk appetite to the credit risk strategy of the bank.

Organisationally, this translates into the three lines of defense for credit risk management.

The 1st LoD is represented by the Business Areas and those Group Functions not included in the 2nd and 3rd LoD, and constitutes customer operational management of credit risk with the following responsibilities:

- Full customer responsibility, including maintaining the customer relationship and profitability, including any loan losses resulting from that relationship.
- Managing and monitoring granted customer credit limits by continuously assessing both quantitative and qualitative customer factors, as well as macroeconomic and market trends.
- Operational implementation of Group Directives , internal policies and guidelines through adequate management supervision, staff education and clearly understandable processes.
- As the ultimate risk owner, developing and maintaining a set of effective internal controls to ensure credit risks are managed prudently within the risk appetite, internal policies and guidelines and in accordance with the applicable laws and regulations.
- Implementing and maintaining system support that enables fulfillment of 1st line responsibilities.

The 2nd line of defense is an independent oversight and control function represented by Group Credit Risk and Control and has the following responsibilities:

- Develop and maintain the credit risk framework, including counterparty credit risk and Nordea's IRB approach, in compliance with external regulations.
- Continuously monitor, analyze and control the short and long term quality of the loan portfolio and ensure that these are properly managed by the relevant Business Areas and Group Functions.
- Monitor that 1st line of defense units adhere to the content of the credit assessment, credit approval and internal rating processes as defined through the credit risk framework.
- Implementing and maintaining IRB credit risk models according to external regulatory guidance.
- Assess independently and report on Nordea's overall credit risk profile, rule and process compliance and provide advice to support in implementing the credit risk framework or challenge if needed.

The 2nd line of defense shall not perform tasks they are to monitor and control and are, therefore, organisationally separate from 1st LoD units. The 2nd LoD shall not be measured on business performance or receive remuneration that could jeopardize the objectivity of the staff. However, the 2nd LoD actively communicate with the 1st LoD units to secure adequate business input into the structure and tolerances of the credit risk framework, as well as to ensure that the credit risk framework is adequately understood and implemented.

As the 3rd LoD, Group Internal Audit provide assurance on the 1st and 2nd line on behalf of the Board of Directors. Its main responsibilities include:

- Assessing whether all significant risks are identified and appropriately reported by management and the risk functions to the GEM, BAC, BRIC and Board of Directors.
- Assessing whether they are adequately controlled.
- Challenging GEM to improve the effectiveness of governance, risk management and internal controls.

Credit Risk Management in the 1st LoD is responsible for the credit process framework and Group Risk Management and Control (2nd LoD) is responsible for the credit risk management framework, consisting of policies, instructions and guidelines. Group Risk Management and Control is also responsible for controlling and monitoring the quality of the credit portfolio and the credit process, and ensuring that all incurred losses are covered by adequate allowances. Each division/unit is primarily responsible for managing credit risks in its operations within the applicable framework and limits, including identification, control and reporting.

Within the powers-to-act granted by the Board of Directors, internal credit risk limits are approved by credit decision-making bodies on different levels in the organisation constituting the maximum credit risk appetite on the customer in question. Individual credit decisions within approved internal credit risk limits are taken by the CRU. The internal risk categorisation and internal credit risk limit of the customer determine at which level the decision will be made. The Group Executive Management Credit Committee decides on proposals for the largest exposures and proposals related to major principle issues. Responsibility for credit risk lies within each CRU.

2.1.3 Measurement of credit risk

Credit risk is measured, monitored and segmented in several dimensions. On-balance sheet lending constitutes the major part of the credit portfolio and the basis for impaired loans and loan losses. Credit risk in lending is measured and presented as on-balance sheet loans as well as off-balance sheet potential claims on customers and counterparts net after allowances. Credit risk exposures also includes counterparty credit risk such as the risk related to derivative contracts and securities financing. Nordea's loan portfolio is broken down by customer segment, industry and geography.

One way of assessing credit quality is through analysis of the distribution across rating grades for rated corporate customers and institutions, as well as the distribution across risk grades for scored retail customers.

2.1.4 Credit risk in the capital adequacy framework

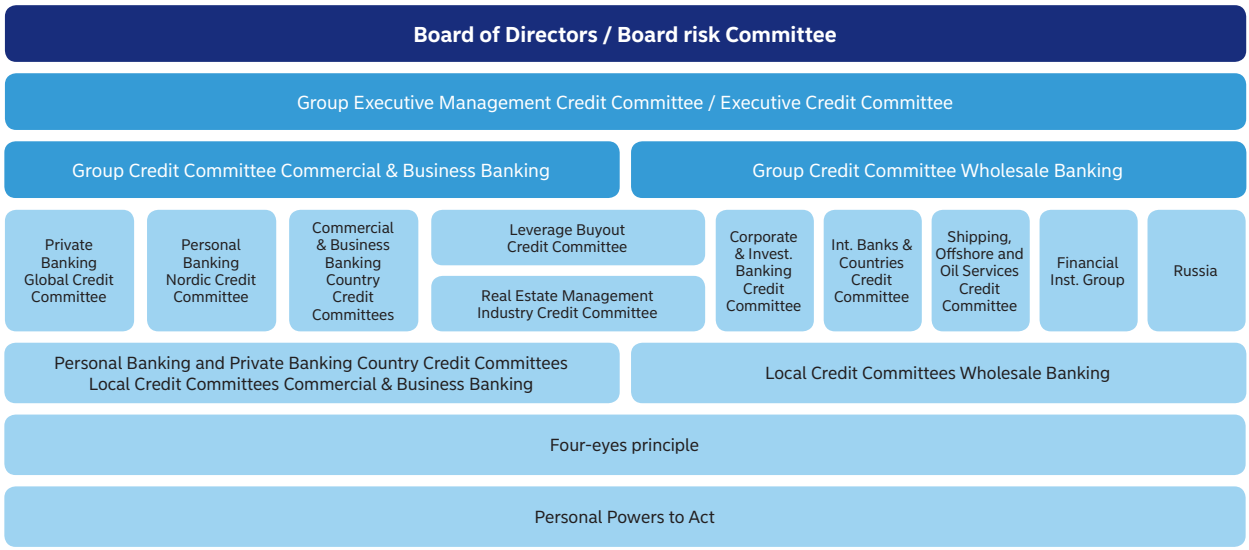
2.1.4.1 Central governments and central banks

Nordea uses the standardised approach to calculate risk-weighted exposure amounts (REA) for exposures to central governments and central banks.

2.1.4.2 Institutions

Nordea uses the Foundation IRB approach to estimate and validate PDs for exposures to institutional customers. The PD is based on internal data and validated annually. The validation includes both a quantitative and a qualitative assess-

Figure 2.1 Credit decision-making structure for main operations



ment. The quantitative validation includes statistical tests to ensure that estimates remain valid when new data is added. and a qualitative validation.

Estimates are based on the long term default experience and adjusted by adding a margin of conservatism between the average PD and the average default frequency (ADF). This margin consists of two parts, one that compensates for statistical uncertainty and one constituting a business cycle adjustment of the rating models.

2.1.4.3 Corporate

Nordea uses the Advanced IRB approach to estimate and validate PD, Loss Given Default (LGD) and Credit Conversion Factor (CCF) parameters for exposures corporate customers in the Nordic countries and in the International units. This includes exposures towards SMEs and specialised lending. The Foundation IRB approach is used to estimate and validate PD for exposures in the Nordic Finance companies, Nordea Bank Russia and the Baltic branches, as well as derivative and securities lending exposures.

The PD is based on internal data and validated annually. The validation includes both a quantitative and a qualitative assessment. The quantitative validation includes statistical tests to ensure that estimates still remain valid when new data is added.

Estimates are based on the long term default experience and adjusted by adding a margin of conservatism between the average PD and the average ADF. This margin consists of two parts, one that compensates for statistical uncertainty and one constituting a business cycle adjustment of the rating models.

LGD estimates are based on historical loss experiences, measuring the net present value of the nominal loss including costs incurred by a customer's default. CCF estimates are based on historical internal data regarding drawings prior to default.

2.1.4.4 Retail

Nordea uses the Retail IRB (RIRB) approach to estimate and validate PD, LGD and CCF parameters for exposures to retail customers for NBAB nordic customers and mortgage companies, as well as the Finnish finance company. Other entities use the standardised approach to calculate REA for retail exposures.

The PD is based on internal data and validated annually. The validation includes both a quantitative and a qualitative validation. The quantitative validation includes statistical tests to ensure that estimates remain valid when new data is added. The PD and ADF for the Retail portfolio is based on the last validation year only, due to the Point-in-Time (PIT) methodology used for model calibration.

LGD estimates are based on historical loss experience, measuring the net present value of the nominal loss including costs incurred by a customer's default. CCF estimates are based on historical internal data regarding drawings prior to default.

2.1.4.5 Equities

Nordea uses the standardised approach to calculate REA for exposures to equities in the banking book.

2.1.5 Credit risk mitigation

Credit risk mitigation is an inherent part of the credit decision process. In every credit decision and review, the valuation of collateral is considered as well as the adequacy of covenants and other risk mitigation.

Pledging of collateral is the main credit risk mitigation technique. For corporate exposures, the main collateral types are real estate mortgages, floating charges and leasing objects. Collateral coverage is higher for exposures to financially weaker customers than for those who are financially strong. Limit decisions are taken independently from collateral coverage.

With respect to large exposures, syndication of loans is the primary tool for managing concentration risk, while credit risk mitigation through the use of credit default swaps is applied to a limited extent.

Covenants in credit agreements are an important complement to both secured and unsecured exposures. Most exposures of substantial size and complexity include appropriate covenants. Financial covenants are designed to react to early warning signs and are carefully monitored.

With respect to regulatory defined credit risk mitigation tools, Nordea uses techniques related to real estate, vessels, financial collateral, cash collateral and floating charges. Nordea has permission to use the defined credit risk mitigation tools for AIRB and RIRB approaches that fulfil the minimum requirements at both the time of application and on an ongoing basis. Additional use of collateral within these approaches for capital adequacy purposes must be notified or applied for.

2.2 Link between the balance sheet and credit risk exposure

This section discloses the link between the loan portfolio as defined by accounting standards and exposure as defined in the Capital Requirement Regulation (CRR). The main differences are outlined in this section to illustrate the link between the different reporting methods.

Original exposure is the exposure before taking into account substitution effects stemming from credit risk mitigation, credit conversion factors (CCFs) for off-balance sheet exposure and allowances within the standardised approach, while exposure is defined as exposure at default (EAD) for IRB exposure and exposure value for standardised exposure (unless otherwise stated). In accordance with the CRR, credit risk exposure is divided into exposure classes where each exposure class is divided into exposure types as follows:

- On-balance sheet items.
- Off-balance sheet items (e.g. guarantees, credit commitments and unutilised lines of credit).
- Securities financing (e.g. reversed repurchase agreements and securities lending).
- Derivatives.

Items presented in the Annual Report are divided as follows (in accordance with accounting standards):

- On-balance sheet items (e.g. loans to central banks and credit institutions, loans to the public, reversed repurchase agreements, positive fair value for derivatives and interest-bearing securities).
- Off-balance sheet items (e.g. guarantees and unutilised lines of credit).

2.2.1 On-balance sheet items

The following items are excluded from the balance sheet, when on-balance sheet exposure is calculated in accordance with the CRR:

- Non CRR related items. Items not part of consolidated situation of CRR such as Life insurance operations (due to solvency regulation).
- Market risk related items in the trading book, such as certain interest-bearing securities and pledged instruments.
- Repos, derivatives and securities lending. These transactions are either included in the calculation of market risk in the trading book or reported as separate exposure types (derivatives or securities financing).
- Other, mainly allowances and intangible assets.

2.2.2 Off-balance sheet items

The following off-balance sheet items specified in the Annual Report are excluded when off-balance sheet exposure is calculated in accordance with the CRR:

- Non CRR related items. Items not part of consolidated situation of CRR such as Life insurance operations (due to solvency regulation).
- Assets pledged as security for own liabilities and Other assets pledged (apart from leasing). These transactions are reported as securities financing (i.e. a separate exposure type).
- Derivatives.

2.2.3 Derivatives and securities financing

The fair value of derivatives is recognised on the balance sheet, while the nominal amount on derivatives are reported off-balance sheet in accordance with accounting standards. However, in the CRR, derivatives and securities financing are reported as separate exposure types. Also, repurchase agreements and securities lending/borrowing transactions are included in the balance sheet calculated based on nominal value. In the CRR, calculation of these exposure types are performed net of collateral.

2.3 Rating and scoring

2.3.1 Rating and scoring definition

The common denominator of rating and scoring is the aim to predict defaults and rank customers according to their default risk. Rating and scoring are used as integrated parts of the credit risk management and decision-making process, including (but not limited to):

- The credit approval process.
- Calculation of REA.
- Calculation of Economic Capital (EC) and expected loss (EL).
- Monitoring and reporting of credit risk.
- Performance measurement using the economic profit (EP) framework.
- Collective impairment assessment.

While rating is used for corporate and institution exposure, scoring is used for retail exposure.

2.3.2 Rating

A rating is an estimate that reflects the risk of customer default. The rating scale in Nordea consists of 18 grades; from 6+ to 1– for non-defaulted customers and three grades from 0+ to 0– for defaulted customers. The default risk of each rating grade is quantified as a one-year PD. Rating grades 4– and better are comparable to investment grade as defined by rating agencies such as Moody's and Standard & Poor's (S&P). Rating grades 2+ and lower are considered as weak or critical, and require special attention.

The mapping of internal ratings to S&P's rating scale is based on a predefined set of criteria, such as comparison of default and risk definitions. The mapping does not intend to indicate a fixed relationship between Nordea's internal rating grades and S&P's rating grades since the rating approaches differ.

Figure 2.2 Indicative mapping between internal ratings and the S&P rating scale

Rating

Internal	Standard & Poor's
6+, 6, 6–	AAA to AA–
5+, 5, 5–	A+ to A–
4+, 4, 4–	BBB+ to BBB–
3+, 3, 3–	BB+ to BB–
2+, 2, 2–,1+	B+ to B–
1, 1–	CCC
0+, 0, 0–	D

Ratings are assigned in conjunction with credit proposals, reviews and the annual review of customers, and are from 1/1 2017 approved independently by Credit Risk Management representatives . However, a customer is down-graded as soon as new information indicates this is needed. The consistency and transparency of the ratings are ensured by the use of rating models. A rating model is a set of specified and distinct rating criteria which, given a set of customer characteristics, produces a rating. It is based on the predictability of customers' future performance based on their characteristics. The set of characteristics used in a rating model are called input factors, which together with the criteria for assigning a customer to a rating model, i.e. the rating model segmentation, are the fundamental parts of a rating model. Calculated rating is always based on the complete set of input factors required by the rating model. Typical input factors are:

- Financial factors
- Customer factors, and
- Qualitative factors.

If the calculated rating is assessed as failing to predict the risk of default, specified override arguments or exception rules can be used within the model to adjust the calculated rating.

Nordea has different rating models for different customer types to better reflect risk. Rating models have therefore been developed for several general as well as specific segments, such as real estate management, shipping, financial institutions and hedge funds. There are also risk rating frameworks for countries and project finance. Different methods ranging from statistical to purely expert-based, depending on the segment in question, have been used when developing rating models. The models are largely based on an overall framework, in which financial factors are combined with qualitative factors and customer factors.

2.3.3 Rating and scoring migration

The rating and risk grade distribution changes mainly due to three factors:

- Changes in rating/risk grade for existing customers (pure migration).
- Different rating/risk grade distribution of new customers and customers leaving Nordea, compared to the rating/risk grade distribution of existing customers during the comparison period.
- Increased or decreased exposure per rating/risk grade to existing customers.

Rating migration is affected by macroeconomic developments, industry sector developments, changes in business opportunities and changes to customers' financial situation and other company-specific factors. Risk grade migration is among other things affected by macroeconomic development and the customers' repayment capacity.

The REA changes due to rating/risk grade migration reflect the impact of pro-cyclicality in the Pillar I capital requirement calculations of the IRB approaches.

2.3.4 Scoring

Models used in the Household portfolio and in the Retail SME (Retail SMEs as defined by the capital requirements regulation, CRR.) portfolio are based on scoring, which is a statistical technique used to predict the probability of customer default. In order to represent the scores, the risk grade scale used for scored customers in the retail portfolio consists of 18 grades; A+ to F– for non-defaulted customers and three grades from 0+ to 0– for defaulted customers.

Credit scoring models are based on statistical analyses of internal Nordea data. To predict the future performance of customers, certain characteristics are defined on the basis of the customer's previous performance, the products held as well as behavioural information. The models also take, for example policy requirements and credit processes into account. The customers' credit risk behaviour scores and Risk Grades are recalculated on a monthly basis using the most recent data and customer information.

The models are used to support business processes, the credit approval process and the risk management process, including monitoring of various portfolio risks. As a supplement to the scoring models, e.g. credit bureau information is used in the credit process.

The Nordea business approach towards customers is a customer level approach as opposed to a product-oriented approach. Thus the customer's behaviour on all accounts/products – including potential joint commitments – is taken into consideration in a credit approval assessment or in risk management. In Nordea the prediction of default results in a Risk Grade assigned at customer level. Thus only one score covers all the Nordea Group exposure with the customer, ensuring that the resulting Risk Grade is assigned across all of the customer's facilities in Nordea.

This scoring method ensures that the customer level design supports the business process and risk management practise in Nordea.

Scorecards are tailored to country specific variations, reflecting that product features, customer behaviour, country specific macro-economic development, debt collection process and national legislation all influence credit risk and thus the prediction of default. Different scorecards are used to score the Household and SME portfolios.

The split between Household and SME is based on differences in predictors, reflecting that these portfolios have different payment and behaviour patterns.To strengthen model performance further the Household portfolio is segmented into smaller sub-populations and a scorecard is developed for each segment. Selection of the sub-populations is based on the likelihood that the resulting sub-populations will be best served by different scorecards.

The common approach in Nordea for segmentation into sub-populations is based upon product combinations (products held by the customer). For each product certain charac-

teristics are defined on the basis of the customer's previous performance, the products held, and behavioural information. The characteristics also take e.g. policy requirements and credit processes into account.

Nordea scorecards for customers in the retail portfolio are segmented according to below:

- Country
- Household / SME customers
- Product combination (mortgage, revolving credits, other retail exposure)
- Delinquency (depending on volumes)
- Delinquency concerns the customers that are not compliant with the product specific terms and conditions.

2.4 Collateral

Collateral management principles are governed through the Collateral Guideline owned by Group Credit Risk Management. There is a strong relationship between the data used for collateral management and the data used in calculating capital requirements. The resulting parameters combined with certain qualitative aspects reflect the level of risk as assessed by Nordea.

2.4.1 Valuation principles of collateral

A conservative approach, using long-term market values and taking volatility into account is used as the valuation principle for collateral when defining the maximum collateral ratio.

Valuation, and hence eligibility, of collaterals is based on the following principles:

- Market value is assessed; markets must be liquid, public prices must be available and the collateral is expected to be liquidated within a reasonable time frame.
- A reduction of the collateral value is to be considered if the type, location or character (such as deterioration and obsolescence) of the asset indicates uncertainty regarding the sustainability of the market value. Assessment of the collateral value also reflects previously experienced volatility in the market.
- Forced sale principle: assessment of market value or collateral value must reflect the realisation of collaterals in a distressed situation is initiated by Nordea.
- No collateral value is to be assigned if a pledge is not legally enforceable and/or if the underlying asset is not adequately insured against damage.

A common way to analyse the value of the collateral is to measure the loan-to-value (LTV) ratio, i.e. the credit extended, divided by the market value of the collateral pledged.

2.4.2 Collateral in the capital requirements calculation

2.4.2.1 Guarantees and credit derivatives

Guarantees used as credit risk mitigation are to a large extent issued by central and regional governments in the Nordic countries. Banks and insurance companies are also important guarantors of credit risk.

Only eligible providers of guarantees and credit derivatives can be recognised in the standardised and IRB approaches for credit risk. All central governments, regional governments and institutions are eligible as well as some multinational development banks and international organisations. Corporate guarantees that have a credit assessment by an external credit assessment institution, or cases where institutions calculate REA and EL under the IRB approach and are internally rated by the institutions are eligible.

2.5 Credit risk models validation and parameter estimation

Nordea's validation process aims at ensuring the performance of models, procedures and systems and the accuracy of the parameters.

Rating and scoring models are validated annually and the validation includes both a quantitative and a qualitative validation. The quantitative validation includes statistical tests of the models' discriminatory power, i.e. the models' ability to distinguish default risk on a relative basis, and absolute accuracy, i.e. the ability to predict default levels. The rating models Nordea uses for the Corporate and Institution exposure classes exhibits characteristics of both through-the-cycle (TTC) and point-in-time (PIT) rating philosophies, whereas the retail portfolio scoring models are closer to PIT. A PIT rating system uses all currently available obligor-specific and aggregate information to assign obligors to risk buckets. All obligors within a risk grade share roughly the same unstressed PD, and an obligor's rating is expected to change rapidly as its economic prospects change. A TTC rating system uses static and dynamic obligor characteristics but tends not to adjust ratings in response to changes in macroeconomic conditions. The distribution of ratings across obligors will not change significantly over the business cycle, and an obligor's rating is expected to change only when its own dynamic characteristics change.

The estimation process is linked to the validation since the estimates used for the PD scale are based on Nordea's actual default frequency (ADF). The PD estimation, and hence the validation, takes into account that the rating models used for corporate and institution customers have a higher degree of TTC than the scoring models used for retail customers.

PD, LGD and CCF parameters are validated annually and the validation includes both a quantitative and a qualitative assessment. Quantitative validation includes statistical tests to ensure that estimates remain valid when new data is added.

PD estimates are based on long-term default experience and adjusted by adding a margin of conservatism between average PD and average ADF. This margin consists of two parts, one that compensates for statistical uncertainty whereas the other constitutes a business cycle adjustment of the rating and scoring models.

Regarding LGD, the estimates are based on historical loss experience. LGD measures the net present value of the nominal loss including costs caused by a customer's default.

CCF is a statistical multiplier used to predict the Exposure at Default (EAD) by predicting the drawdown of the off-balance exposure. Nordea's CCF estimates are based on internal data regarding drawings prior to default. For corporate exposure class drawings after default are also taken into account in the CCF estimation.

2.6 Counterparty Credit risk

Counterparty credit risk is the risk that Nordea's counterpart in an FX, interest, equity, credit or commodity derivative contract defaults prior to maturity of the contract and that Nordea at that time has a claim on the counterpart. Counterparty credit risk also appears in repurchasing agreements and other securities financing contracts.

Derivative contracts are financial instruments, such as futures, forwards, swaps or options that derive their value from underlying interest rates, currencies, equities, credit spreads or commodity prices. Derivative contracts are often traded Over The Counter (OTC), which means the terms connected to a specific contract are individually defined and agreed on with the counterpart.

Nordea enters into derivative contracts based on customer demand, both directly and in order to hedge positions that arise through such activities. Interest rate swaps and other derivatives are used in hedging activities of asset and liability mismatches in the balance sheet. Furthermore, Nordea may, within clearly defined risk limits, use derivatives to take open positions in its operations. Derivatives affect counterparty credit risk, market risk as well as operational and liquidity risk.

Counterparty credit risk, including that towards Central Counterparties (CCPs), is subject to credit limits like other credit exposures and is treated accordingly. To assess the counterparty credit risk to CCP's, clearing limits are based on the potential size of the clearing related exposure on each CCP, taking regulatory requirements and the market development into account.

2.6.1 Capital Adequacy method Pillar 1 method for counterparty credit risk

Nordea has approval from the Financial Supervisory Authorities (FSAs) in Sweden and Finland to use the Internal Model Method (IMM) to calculate the regulatory counterparty credit risk exposures in accordance with the credit risk framework in the Capital Requirements Regulation (CRR). The method is used for standard FX and interest rate products which constitute the predominant share of the exposure.

The expected exposure is calculated for IMM approved contracts by simulating a large set of future scenarios for underlying price factors and then revaluing the contracts in each scenario at different time horizons. In these calculations, netting is done of the exposure on contracts within the same legally enforceable netting agreement. Nordea uses a stressed calibration of the IMM for calculation of the CCR exposures.

Moreover, automatic identification procedures are in place to identify potential specific wrong-way risk (SWWR) (i.e. situations where the future exposure to a specific counterparty is positively correlated with the counterparty's PD due to the nature of the contracts with the counterparty). Under the IMM approach, simulated exposure is subject to a regulatory multiplier of 1.4 to reflect the potential for correlation in risk across the portfolio.

For the non-IMM approved part of the portfolio, Nordea uses the Current Exposure Method (CEM) for calculating the regulatory exposure, which is essentially the sum of current net exposure and potential future exposure. The potential future exposure is an estimate reflecting possible changes in the future market value of the individual contract during the remaining life of the contract and is measured as the notional principal amount multiplied by an add-on factor. The size of the add-on factor, stipulated by the FSA, depends on contracts' underlying asset and time to maturity.

2.6.2 Credit Value Adjustment (CVA)

Credit Value Adjustment (CVA) represents the market cost of hedging counterparty credit risk and the capital requirement, CVA risk charge, reflects the variability in CVA. Calculation of the CVA risk charge is based on either IMM exposure amounts that are used in the advanced CVA risk charge calculation or CEM exposure amounts that are used in the standardised CVA risk charge calculation.

2.6.3 Mitigation of counterparty credit risk exposure

To reduce exposures towards single counterparties, Nordea employs risk mitigation techniques. The most significant is the use of legally enforceable closeout netting agreements, which allows Nordea to net positive and negative market values on contracts within the same agreement in the event of default of the counterparty. It is Nordea's policy to have legally enforceable closeout netting agreements in place with all trading counterparties, and thereby being able to fully account for netting.

Secondly, Nordea mitigates the exposure towards, primarily, banks, institutional counterparties and hedge funds through the use of financial collateral agreements, where collateral is ported or received to cover current net exposure. Collateral is mainly cash (EUR, USD, DKK, SEK and NOK), but also government bonds and to a lesser extent mortgage bonds. Separate credit guidelines are in place for handling financial collateral agreements.

Nordea's financial collateral agreements do not normally contain trigger dependent features, e.g. rating triggers. Some agreements though, still contain clauses that may require collateral postings in case of a Nordea downgrading; however, these would not impose any material impact on Nordea's liquidity and collateral preparedness. A three notch downgrade of Nordea would trigger a collateral increase equivalent to less than 2%.

In order to reduce bilateral counterparty credit risk, central counterparties (CCPs) are increasingly used for clearing of OTC derivatives. By the end of 2016 CCPs were mainly used by Nordea to clear interest rate derivatives and repo transactions. Nordea continues to assess the possibility to clear more derivative volumes through CCPs in order to further reduce bilateral counterparty credit risk and to comply with the clearing obligation. Also, in line with the Nordea CCP business strategy if there is a choice to be made between clearing or not Nordea will go for the clearing alternative.

As well as exposure risk mitigation methods described above, Nordea employs credit default swap protection to hedge CVA risk. Hedges that are deemed as eligible hedges under the Capital Requirements Regulation are used to offset exposure at default in the Standardized CVA method charge.

2.6.4 Counterparty credit risk for internal credit limit purposes

Counterparty credit risk for internal credit limit purposes is, for the main part of the portfolio calculated by using a simulation model, which is based on the IMM. Model parameters are based on data from a specific three-year period, including a one-year period identified to have the most significant increase in credit spreads in recent times.

The exposures included in IMM are subject to daily and periodic stress tests with the aim to identify adverse scenarios affecting exposures on counterparty, industry and country level. Thereby also general wrong way risk (GWWR) is taken into account in the counterparty credit risk management, and identified cases of GWWR are reported to senior management. The significance of the specific wrong way risk (SWWR) is determined through a number of checks assessing correlation and presence of mitigating parameters. Legal connection is decided based upon principles for Customer consolidation as defined in the Credit Guideline issued by Group Credit Risk Management. Transactions, that are assessed to have 1) significant degree of SWWR and 2) legal connection, are named 'Eligible SWWR transactions' and are subject to tightened monitoring and increased capital requirements as defined under the CRR.

2.6.5 Settlement risk

Settlement risk is a type of risk arising during the process of settling a contract or executing a payment.

The risk amount is the principal of the transaction, and a loss could occur if a counterpart were to default after Nordea has given irrevocable instructions for a transfer of a principal amount or security, but before receipt of the corresponding payment or security.

The settlement risk on individual counterparts is restricted by settlement risk limits. Each counterpart is assessed in the credit process and clearing agents, correspondent banks and custodians are selected with a view to minimise settlement risk.

Nordea is a shareholder of, and participant in, the global FX clearing system CLS (Continuous Linked Settlement), which eliminates the settlement risk of FX trades in those currencies and with those counterparts (mainly banks) that are eligible for CLS clearing.

For those counterparts and FX trades that are not eligible for CLS clearing, it is Nordea's policy to settle via in-house accounts. Only with specific credit approval from appropriate credit committee external settlement is allowed, and in those situations Nordea make use of bilateral payment netting in order to reduce the exchanged amounts to the greatest extent possible.

2.7 Impairments

2.7.1 Definition and methodology of impairment

Throughout the process of identifying and mitigating credit impairments, Nordea continuously reviews the quality of credit exposures. Weak and impaired exposures are closely monitored and reviewed at least on a quarterly basis in terms of current performance, business outlook, future debt service capacity, and the possible need for provisions. A need for provisioning is recognised if there is objective evidence that a negative impact is likely on the customer's expected future cash flow to the extent that full repayment is unlikely (pledged collaterals taken into account) based on loss events and observable data. Non-significant customers can be treated as groups with a reserve belonging to a group of individually identified customers.

Exposures with individual provisions are considered as impaired. The size of the provision is equal to the estimated loss, which is the difference between the book value of the outstanding exposure and the discounted value of the expected future cash flow, including the value of pledged collateral. Nordea recognises only specific credit risk adjustments (SCRA). SCRA comprise individually and collectively assessed provisions. SCRA during the year is referred to as loan losses, while SCRA in the balance sheet is referred to as allowances. Impaired exposures can be either servicing or non-servicing.

Exposures that are past due more than 90 days is automatically regarded as defaulted, and reported as non-servicing and impaired or not impaired depending on the deemed loss potential. If a customer recovers from being in default, the customer is seen as cured. Typically this situation occurs if the customer succeeds in creating a balance in financials. In order to be cured it is decisive that the recovery includes the customer's total liabilities in Nordea and elsewhere, that a satisfactory repayment plan is established and that the recovery is assessed as maintaining.

Forbearance is negotiated terms or restructuring due to the borrower experiencing or about to experience financial difficulties. The intention with granting forbearance for a limited period of time is to ensure full repayment of the outstanding debt. Examples of negotiated terms are changes in amortisation profile, repayment schedule, customer margin as well as ease of financial covenants. Forbearance is undertaken on a selective and individual basis and followed by impairment testing. Loan loss provisions are recognised if necessary. Forborne rated customers without impairment charges are fully covered by either collateral and/or the net present value of future cash flows.

The definition of a restructured exposure used for the implementation of CRR Article 178 in terms of default is considered as relating to distressed restructuring and debt forgiveness while the definition of forbearance can be related to both defaulted and non-defaulted customers "experiencing or about to experiencing financial difficulties".

Nordea's impairment testing is based on a two-step procedure with both individual and collective assessment to ensure that all incurred losses are accounted for up to and including each balance sheet day. Impairment losses recognised for a group of loans represent an interim step pending the identification of impairment losses for an individual customer.

Collective impairment testing is performed for groups of customers not identified individually as impaired. The purpose of collective loan loss reserves is to account for value reductions in the performing credit portfolio due to loss events that have occurred. Nordea's model for collective provisions uses a statistical model as a baseline for assessing the amount of provisions needed for the parts of Nordea's portfolios that are not individually assessed. The collective provisioning model is based on migration of rated and scored customers in the credit portfolio. The assessment of collective impairment is built on an incurred loss concept, where the credit quality of each exposure is related to its initial credit quality. If the credit quality has deteriorated, collective provisions corresponding to a true and fair assessment of the expected loss is calculated by the model. Moreover, defaulted customers without individual provisions are also collectively assessed. The output of the model is complemented with an expert based analysis process to ensure adequate provisioning. The model is executed quarterly and the output is a result of a bottom up calculation from sub-exposure level, taking the latest portfolio development into account. Collective impairments are assessed quarterly for each legal unit.

3. Market risk

Market risk is defined as the risk of value loss in Nordea's holdings and transactions as a result of changes in market rates and parameters that affect market value (i.e. changes to interest rates, credit spreads, FX rates, equity prices, commodity prices and option volatilities).

3.1 Management of market risk

Nordea's market risk management operates under the three lines of defence principle as follows:

- The business areas are responsible for adhering to the market risk framework as set out by the 2nd LoD.
- Group Market and Counterparty Credit Risk (GMCCR) is responsible for setting out the market risk framework and measuring, monitoring, controlling and reporting the risk as the 2nd LoD.
- Group Internal Audit performs audits and provides additional assurances to stakeholders on the adequacy of internal controls and risk management processes, constituting the 3rd LoD.

Nordea Markets together with Group Treasury and ALM (TALM) are the key contributors to market risk in Nordea. Nordea Markets is responsible for customer-driven trading activities; TALM is responsible for long and short-term wholesale funding activities and investments for Nordea's own account, for asset and liability management, liquidity portfolios pledge/collateral account portfolios as well as all other banking activities. These Business Areas are responsible for managing the risk under the framework (principally through limits) as set by the Board of Directors and cascaded to the various Business Areas by Group Risk Management and Control (GRMC) through the Group Risk Committee.

GMCCR, a division of GRMC, is an independent unit which is responsible for the measurement, monitoring, control and reporting of market risk in Nordea. It ensures that only approved products are traded within set limits.

Nordea derives parts of its earnings by taking and managing market risks, and the aim is to adequately manage and control the market risk exposures in adherence with the market risk appetite of Nordea. To appropriately manage market risk in Nordea the following policies, processes and strategies are employed:

- There is a comprehensive policy framework, in which responsibilities and objectives are explicitly outlined and in which the risk appetite is clearly defined.
- There are clearly defined risk mandates, in terms of limits and restrictions on which instruments may be traded and by whom.
- There is a strategy to hedge risks (or use alternative methods of mitigation) as limit utilisation approaches a certain elevated level. All hedges are monitored within the market risk framework.
- There is a framework for approval of traded financial instruments and valuation methods that require an elaborate analysis and documentation of the instruments' features and risk factors.
- There is a proactive approach to information sharing between trading and risk control.
- There is a framework for timely reporting to senior management on market risk. The CRO receives reporting on Nordea's consolidated market risk daily, whereas GEM, the Board of Directors and associated risk committees receive reports monthly. In addition, the Board of Directors in each legal entity regularly receives local risk reporting.

3.1.1 Market risk appetite

The market risk appetite in Nordea is expressed through risk appetite statements issued by the Board of Directors. The market risk appetite statements are defined in terms of market risk share of ECl, maximum reported market risk loss per quarter and maximum economic market risk loss per quarter.

3.2 Governance of market risk

GMCCR has the responsibility for the development and maintenance of the Group-wide market risk framework. The framework defines common management principles and policies for market risk management within Nordea. These principles and policies are approved by the Board of Directors and have been approved by the Boards of Directors of the separate legal entities. The same reporting and control processes are applied for market risk exposures in both the trading and banking books, on Group level as well as in the separate legal entities.

On at least an annual basis, the market risk framework is reviewed from a top down and bottom up perspective. This review includes all governance documentation, the risk appetite framework and all risk management strategies for market risk. In addition, the framework is reviewed ad hoc as new regulation and business strategies require.

3.2.1 Capital requirement calculation for market risk

Market risk in a CRR context contains two categories: general risk and specific risk. General risk is related to changes in overall market prices and specific risk is related to price changes for specific issuers. When calculating capital requirements for market risk, using the internal model approach; general risk is based on Value-at-Risk (VaR) with an additional capital charge for stressed VaR; whereas specific risk is based on equity VaR and credit spread VaR, with an additional capital charge for incremental risk and comprehensive risk for interest rate risk-bearing positions.

Nordea uses the internal model approach to calculate market risk capital requirements for the predominant part of the trading book. However, for specific interest rate risk relating mainly to mortgage bonds, equity risk relating to structured equity derivatives, fund-linked derivatives and for commodity risk, market risk capital requirements are calculated using the standardised approach.

3.3 Measurement and reporting of market risk

As there is no single risk measure that captures all aspects of market risk, Nordea uses several risk measures including VaR, stressed VaR, stress testing, sensitivities, scenario simulation and other non-statistical risk measures such as basis point values, net open FX positions and option key risk sensitivities. In addition, simulation-based models are used to capture the

default and migration risks from corporate debt, credit derivatives, and correlation products in the trading book. These models are the Incremental Risk Measure (IRM) and the Comprehensive Risk Measure. VaR and stressed VaR are reported to senior management on a daily basis while IRM and Comprehensive Risk Measure are reported weekly. Monthly reports of these figures along with stress test results are reported to the Board of Directors. In addition, the Board of Directors in each legal entity regularly receives local risk reporting.

Market risk reporting is provided by an in-house built central market risk system which calculates the Group's official market risk figures based on the position data delivered from middle and back office systems. The aim of market risk reporting is to quantify total market risk for the whole Nordea group, including individual business areas and legal entities.

Market risk systems serve as a tool to control processes in market risk management, with position and risk figures presented for validation and approval by the first and second lines of defence and followed by calculation of aggregated risk figures. The risk figures calculated by the market risk system are subject to limits set in market risk framework, daily and ad-hoc analysis and reporting of market risk KPIs, including sensitivities, VaR, stressed VaR, IRM and Comprehensive Risk Measurement.

Table 3.1 Methods for calculating minimum capital requirements for market risk (prior to merger of Nordea Bank Danmark, Nordea Bank Finland and Nordea Bank Norge Into NBAB)

	Interest rate risk		Equity risk		
	General	Specific	General	Specific	FX risk
Nordea Group	IA	IA[1)]	IA	IA[1)]	IA
Nordea Bank Danmark	IA	SA	IA	SA	IA
Nordea Bank Finland	IA	IA[1)]	IA	IA[1)]	IA
Nordea Bank Norge	IA	SA	IA	SA	IA

IA:internal model approach, SA: standardised approach

1) For specific interest rate risk relating mainly to bonds, equity risk relating to structured equity derivatives and fund-linked derivatives and for commodity risk, the market risk capital requirements are calculated using the standardised approach.

3.3.2 Value-at-Risk

Nordea calculates VaR using historical simulation. The current portfolio is revaluated using daily changes in market prices and parameters observed during the last 500 trading days, thus generating a distribution of 499 returns based on empirical data. From this distribution, the expected shortfall method is used to calculate a VaR figure, meaning that the VaR figure is based on the average of the worst outcomes from the distribution. The historical observation period assumes equally weighted market prices. The one-day VaR figure is subsequently scaled to a 10-day figure. The 10-day VaR figure is used to limit and measure market risk both in the trading book and in the banking book.

Since customer-driven trading and treasury operations are the key contributors to market price risk in the Nordea Group, separate VaR figures are calculated for interest rate, credit spread, foreign exchange rate, equity and inflation risks. The total VaR includes all these risk categories and allows for diversification among them. The VaR figures include a combination of full revaluation and both linear positions and options. Linear products are calculated via a linear approach whereas options are calculated via full revaluation. When simulating potential movements in risk factors Nordea uses relative, absolute and mixed approaches depending on the risk factor. The model has been calibrated to generate a 99% VaR figure. This means that the 10-day VaR figure can be interpreted as the loss that will be exceeded in one of a hundred 10-day trading periods.

It is important to note that while every effort is made to make the VaR model as realistic as possible, all VaR models are based on assumptions and approximations that have a significant effect on the risk figures produced. While historical simulation has the advantage of not being dependent on a specific assumption regarding the distribution of returns, it should be noted that historical observations of the market variables that are used as input may not give an adequate description of the behaviour of these variables in the future. The choice of the time period used is also important. While using a longer time period may enhance the model's predictive properties and lead to reduced cyclicality, using a shorter time period increases the model's responsiveness to sudden changes in the volatility of financial markets. Nordea's choice to use the last 500 days of historical data has thus been made with the aim to strike a balance between the pros and cons of using longer or shorter time series in the calculation of VaR.

Nordea has instituted an internal VaR measurement, Management VaR. The Management VaR includes risk factors which are scheduled for use in the Regulatory VaR upon FSA approval. In all other ways, the models are identical. Approval has been granted for the Nordea Group. Before the mergers on January 2nd 2017, approvals were granted to the subsidiaries Nordea Bank Finland Plc ("NBF"), Nordea Bank Norge ASA ("NBN"), Nordea Bank Danmark A/S ("NBD"), these approvals are not applicable after the merger.

3.3.3 Stressed VaR

Stressed VaR is calculated using a similar methodology as used for the calculation of the ordinary VaR measure. However, whereas the ordinary VaR model is based on data from the last 500 days, stressed VaR is based on a specific 250 day period with considerable stress in financial markets. In addition, stressed VaR is calculated as the average of the worst returns of the empirical distribution of market value changes. Since the relevant period with stressed markets will depend on the positions currently held in the portfolio, the level of stressed VaR in relation to the ordinary VaR is monitored continuously. Further analysis will be conducted if deemed necessary and could lead to a change in the period. The specific period to be used is, at least, evaluated once every year.

3.3.4 Incremental Risk Measure (IRM)

IRM measures the risk of losses due to credit migration or default of issuers of tradable corporate debt or credit derivatives held in the trading book. This measure captures credit risk for two separate type of issuers, namely corporation credit risk, including Nordea's own debt exposure and sovereign credit risk. Nordea's model translates migrations into credit spread changes for each issuer by defining a matrix of multiplication factors, and for each possible rating migration by

multiplying this factor with the current level of the issuer's credit spread. A separate transition matrix is used for corporates and sovereigns respectively. The transition matrices contain the probabilities of migrations and default for each rating class where the rows state the current rating, and the columns state the new rating. This difference is crucial, since sovereign states tend to be more stable in credit ratings, the sovereign transition matrix is considerably more concentrated along the diagonal (which contains the probabilities of no rating migrations). The relation defining the value of the correlations is taken from the Internal Ratings Based Approach (IRB). Nordea's IRM model relies on Monte Carlo simulations and measures risk at a 99.9% probability level based on the predetermined regulatory one-year liquidity horizon. The validation of the model consists of a comparison of model outputs with historical data including crisis period default rates.

3.3.5 Comprehensive Risk Measure

The Comprehensive Risk Measurement model measures the total risk related to positions in credit correlation products, covering structured credit trading operations. This includes the risk of losses due to credit migration or default of issuers of tradable corporate debt and other risk factors specifically relevant for correlation products.

The Comprehensive Risk Measurement model considers single-name credit spreads as lognormal processes. Credit spread is positively correlated through a credit market factor, such that scenarios with many defaults tend to be associated with spread widenings.

The model also uses a stochastic ratio recovery rate/LGD which is correlated with the credit market factor driving the defaults. Nordea's Credit Risk Measurement model is also based on Monte Carlo simulations and measures risk at a 99.9% probability level based on the predetermined regulatory one-year liquidity horizon.

The one-year capital horizon is used in the calculation for each trade even though a trade may expire before this period. The validation of the model includes the re-assessment of key model assumptions and a review of the parameter estimation methodology. In addition, the validation includes a verification of the implementation of the standardised (floor) Credit Risk Measurement model.

3.3.6 Stress testing

Stress tests are important tools and are integrated into the market risk management framework. Stress tests are used to estimate the possible losses that may occur under extreme, but plausible, market conditions. The main types of stress tests utilised include:

- Subjective stress tests, where the portfolios are exposed to scenarios for financial developments that are deemed particularly relevant at a particular time. These scenarios are inspired by the financial, macroeconomic or geopolitical situation, or the current composition of the portfolio or a particular sub-portfolio.
- Sensitivity tests, where rates, spreads, prices, and/or volatilities are shifted markedly to emphasise exposure to situations where historical correlations fail to hold.
- A sensitivity measure, where the potential loss stemming from a sudden default of an issuer of a bond or the underlying in a credit default swap is measured.
- Reverse stress tests, which assess and try to identify the type of events that could lead to losses equal to or greater than a pre-defined level.
- Subjective stress tests and sensitivity tests are conducted monthly for the consolidated risk across the banking book and trading book across the different sub-portfolios. Reverse stress tests are conducted monthly for the trading book.

While these stress tests measure risk over a shorter time horizon, market risk is also a part of Nordea's comprehensive firm-wide ICAAP stress test, which measures risk over a three-year horizon.

3.3.7 Back-testing and validation of risk models

Back-testing of the VaR models is conducted daily. Back-tests are conducted using both hypothetical profit/loss and actual profit/loss (hypothetical profit/loss is the profit/loss that would have been realised if the positions in the portfolio had been held constant during the following trading day). The profit/loss is in the back-test compared to one-day VaR figures.

The models used in the calculation of the IRM and the Credit Risk Measurement are validated through an assessment of quantitative and qualitative reasonableness of the various data being modelled (distribution of defaults and credit migrations, dynamics of credit spreads, recovery rates and correlations, etc.). Input parameters are evaluated annually through a range of methods including sensitivity tests and scenario analysis.

3.3.8 Interest rate risk in the banking book

Interest rate risk in the banking book is monitored daily by measuring and monitoring VaR in the banking book and by controlling interest rate sensitivities, which measure the immediate effects of interest rate changes on the economic values of assets, liabilities and off-balance sheet items.

3.3.9 Structural market risks

Structural FX risk arises from translation risk on investments in subsidiaries and associated enterprises denominated in foreign currencies. Generally, Nordea hedges investments through matched funding, although exceptions may be made in markets where matched funding is impossible to obtain, or can be obtained only at an excessive cost.

Earnings and cost streams generated in foreign currencies or from foreign branches generate an FX exposure, which for individual Nordea legal entities is handled in each entity's FX position.

In addition to the immediate change in market value of Nordea's assets and liabilities that could be caused by a change in financial market variables, a change in interest rates could also affect net interest income over time. This is structural interest income risk (SIIR) discussed below.

3.3.10 Structural Interest Income Risk (SIIR)

SIIR is the amount by which Nordea's accumulated net interest income would change during the next 12 months if all interest rates were to change by one percentage point.

SIIR reflects mismatches in balance sheet items and off-balance sheet items when the interest rate repricing periods, volumes or reference rates of assets, liabilities and derivatives do not correspond exactly.

Nordea's SIIR management is based on policy statements resulting in different SIIR measures and organisational procedures. Policy statements focus on optimising financial structure, balanced risk taking and reliable earnings growth, identification of all significant sources of SIIR, measurement under stressful market conditions and adequate public information.

3.4 Compliance with requirements applicable to exposure in the trading book

Article 105 of the CRR outlines requirements for systems and controls to provide prudent and reliable valuations of financial instruments. Specific requirements for additional valuation adjustments (AVAs) to fair value assets have been further clarified in the Commission delegated regulation (EU) 2016/101. Nordea complies with these requirements and uses the core approach in order to calculate AVAs for market price uncertainty, close-out costs, model risk, unearned credit spreads, investing and funding costs, concentrated positions, future administrative costs, early termination costs and operational risk. In accordance with Article 34 of the CRR, AVAs are applied to all positions in Nordea accounted for at fair value, both in the trading book and banking book.

The CRR introduces requirements for clearly defined policies and procedures for determining which positions to include in the trading book for the purposes of calculating minimum capital requirements. With regards to article 104, Group Risk Executive Management has issued instructions on this topic which clearly define which positions to include in the trading book and specifies the monitoring and reporting principles for external capital adequacy purposes.

For further information on the valuation process, including the extent of mark-to-market and mark-to-model, a description of the independent price verification process and a description of valuation adjustments included in fair value see Note 40 of the annual report.

3.5 Other market risks in Nordea

Market risk on Nordea's account also arises partly from the Nordea-sponsored defined benefit pension plans for employees (pension risk) and from investment and insurance risks associated with Nordea Life & Pensions (NLP).

4. Operational and compliance risk

Group Compliance (GC) and Group Operational Risk (GOR) within Group Risk Management and Control (GRMC) jointly constitute the 2nd LoD with the independent control responsibility for managing compliance and operational risks. As these two risk types are closely linked, the two organisations work together in a collaborative manner to ensure that there are no gaps and minimal overlap. GOR and GC have recently established a set of delineation principles, which outlines an activity based approach. These delieations are based on a risk based delineation, and the establishement of primary and secondary control responsibilities.

Operational risk means the risk of direct or indirect loss, or damaged reputation, resulting from inadequate or failed internal processes, or from people, systems or external events. Regarding own funds requirements, operational risk also covers legal risk and compliance risk. Operational risk is inherent in all activities within the organisation, in outsourced activities and in all interactions with external parties.

GOR is responsible for developing and maintaining the framework for managing operational risks and for supporting, challenging and controlling the line organisation in their implementation of the framework. GOR establishes and maintains adequate policies and procedures for operational risk. On Group level, the unit also independently monitors, assesses and reports the risks as well as the adequacy and effectiveness of the operational risk management framework on a regular basis and at least once a year. Reporting is done to the GEM and the Board of Director of Nordea Bank Group Board or relevant Group Board committee.

Compliance risk may be described as the risk to fail to comply with laws, regulations, rules and prescribed practises and ethical standards, governing Nordea's activities in any jurisdiction, which could result in material financial or reputational loss to the Group, regulatory remarks or sanctions.

Group Compliance (GC) is responsible for developing and maintaining the framework for managing compliance risks, and for guiding and advising the business in their implementation to ensure continuous adherence to the framework. Group Compliance activities are presented in the form of an Annual Compliance Plan to the CEO and the Board of Directors for their approval. The Annual Compliance Plan represents a comprehensive approach to the compliance activities of the Group, combining Group Compliance's overall approach to key risk areas with the activities of each part of Group Compliance. The Annual Compliance Plan is supported by granular plans in each business area, legal entity and risk dimensions. Group Compliance will in 2017 focus on the top compliance risks in two main categories: financial crime and conduct risk.

Alongside the focus on compliance risk in the Business Areas and Group functions, Group Compliance has had significant internal development over the last year, supported by a central change programme. The programme led, amongst under things to the establishment of necessary capabilities in a number of areas, including capital adequacy, to address the widened scope for Group Compliance.

In order to align with best practice, initiatives are targeted both towards strengthening Group Compliance to be able to act in its 2nd LoD role in accordance with internal expectations and regulatory requirements, as well as towards enhancing regulatory implementation capabilities in the business.

On the journey from separate Business Area compliance organisations to one common Group Compliance function, Group Compliance has established an overall operating model, and launched a number of initiatives that aim for improvement and further professionalisation of the processes in Group Compliance.

4.1 Management and measurement of operational risk

Nordea's Operational Risk Policy forms part of the risk management and internal control framework and sets out general principles for operational risk management. Management of operational risks is proactive, emphasising training and risk awareness.

Operational risks are monitored through regular risk assessment procedures and a systematic, quality and risk focused change management. The development of new products, services, activities as well as processes and systems are risk assessed. Identified risk elements and consequences of risk events are mitigated with, inter alia, business continuity plans as well as Group Crisis Management and Communication plans ensuring good contingency preparedness in all business plans and crisis management structures.

Nordea uses external risk transfer in the form of insurance to cover certain aspects of crime risk and professional liability, including the liability of directors and officers. Nordea furthermore uses insurance for travel, property and general liability purposes.

The operational risk appetite is defined through risk appetite statements issued by the Board of Directors. Operational risk appetite statements are defined in terms of the chief operational risk officers assessment of top risks as well as financial and non-financial consequences. Non-negotiable risks are defined as regulatory requirements as well as breaches of internal policy and external regulations.

4.2 Management and measurement of compliance risk

The Group Compliance charter forms parts of the risk management and internal control framework, and sets out the general principles for compliance risk management. Management of compliance risks is proactive, emphasising training and risk awareness.

Group Compliance's input to the Risk and Control Self-Assessment (RCSA) process consists of two main components; firstly, GC makes a Compliance Independent Risk Assessment (CIRA), where the Compliance Officers (COs) assess compliance risks and the effectiveness of the 1st LoD's controls to mitigate these risks. Secondly, GC participates in the RCSA workshops led by the 1st LoD. GC provide input from previous monitoring activities and challenges 1st LoD's own assessment in the workshops, in order to create an objective and fact based assessment.

The methodology which the 1st LoD uses in the RCSA process is also applied for the CIRA performed by the COs. The main objective for the CIRA processes is to verify adherence to the regulatory requirements regarding the identification of compliance risks, to provide an independent view on the level of compliance risks, and to provide input to a number of the other GC core processes.

Compliance has identified and assessed compliance risks within each business area and group function, and analysed those by aggregating from several independent risk assessments in all business areas and units.

4.3 Key processes for operational and compliance risk

4.3.1 Operational Risk Assessment process

The Operational Risk Assessment process includes the RCSA and scenario analysis, and puts focus both on risks on a divisional and unit level, threatening its daily activities, and on risks which could cause extreme financial losses or other significant impacts to Nordea as well as ensuring fulfilment of requirements specified in Group Directives. The results are used as inputs to the annual Group Operational and Compliance Risk Map.

Risks are identified both through top-down division management involvement and through bottom-up analysis of results obtained from control questions as well as existing information from operational risk processes, such as incident reporting, scenario analysis, quality and risk analyses as well as product approvals. Upon identification of risks, the estimated impact of risk materialisation is assessed and mitigating actions are identified.

The RCSA aims to verify whether Nordea adequately fulfils the legal and regulatory requirements as specified in the Nordea Group directives and that a sufficient level of internal control exists within Nordea.

The Group-wide scenario analysis puts focus on extreme operational risks; so called tail events. The objective is to challenge and extend Nordea's present understanding of its operational risk landscape by focusing on risks which could cause extreme financial losses or other significant impacts to Nordea.

4.3.2 Incident reporting

Incidents and security weaknesses are immediately handled to minimise damage. Upon detection of an incident, handling of the incident has first priority. Unit managers are responsible for the proper handling, documentation and reporting of incidents. Incident reporting is a Group-wide process which is performed in the operational and compliance risk system by risk officers and compliance officers to ensure consistent quality in the process. Nordea's operational risk library is used for categorising all incidents and the taxonomy reflects the Operational Risk data eXchange Association's (ORX) reporting requirements.

Aggregated incident information is included in regular risk reports to the Risk Committee, GEM, the BRIC and the Board of Directors. Key observations are included in the Group Operational and Compliance Risk Map.

4.3.3 Other operational risk processes

Nordea has developed more task-specific risk management processes in some key areas, as for example business continuity and crisis management. Business continuity management covers the broad scope from the procedures for handling incidents via escalation procedures to crisis management on Group level. As most service chains are supported by IT, applications, disaster recovery plans for technical infrastructure and IT systems are an essential part of business continuity management in Nordea.

The Change Approval process captures all material changes in a unified and disciplined manner. It is applicable to new or materially altered products, services, markets, processes, IT systems and major changes to the operations and organisation.

The Quality and Risk Analysis (QRA) is used to analyse risk and quality aspects related to material changes on a case by case basis, for example new programmes, significant changes to organisations, processes and systems. The QRA is performed to limit new risks and ensure disciplined change management. It aims at documented decision-making regarding risk and quality aspects connected to changes, explicit responsibility for decisions and actions taken, and a systematic follow up. Conducting a QRA is mandatory as part of the product approval process and mandatory to use when a change/development is run within a programme or project.

The Third Party Risk Management (TPRM) framework was launched as of 1st of July, the purpose being to ensure risk management and monitoring of Nordea's third parties. Relevant activities, e.g. acquiring IT hardware, cloud solutions, outsourcing are subject to a risk assessment. The assessment is carried out based on questionnaires, including Business Continuity & Crisis management, information security, sustainability and compliance. Also financial health is considered

A new Reputational Risk Framework is currently being developed, and this framework will be partly based on elements in the Compliance and Operational Risk Management frameworks that are already addressing reputational impact assessments, and partly consist of new methods and tools to identify reputational risk in current and future activities. The framework will provide the Nordea Group with a set of guiding principles for handling and managing reputational risks, reporting dashboards, and will include substantial training and awareness for the business to implement considerations on reputational risk in their business activities.

To ensure risk and compliance awareness in Nordea there are mandatory Group wide programmes in place, which aim at enhancing awareness and setting a high standard for the risk and compliance culture. The awareness of operational and compliance risk-related threats and challenges will be assessed annually throughout the organisation, and ensure a common set of behaviours. The all staff programs, including Senior Management have been restructured to better ensure awareness and alignment and will be continuously followed up in the step-wise program Nordea calls "Licence to Work". Board of Directors' targeted programmes are treated separately and aim at outlining the requirements and expectations on Nordea on an overall basis.

4.3.4 Key processes for compliance risk

Risk Identification and Assessment is a key process for many of the core compliance activities in relation to training, advice and monitoring, and for the overall principle of having a risk based approach. Moreover, in 2016, GC introduced a more structured way to evaluate and report compliance risks and independently challenge risks identified in the 1st LoD and the controls in place to mitigate the risks.

The process and working methods are constantly developing and improving, and future focus is to improve found weaknesses, as an example better utilisation of monitoring results, bring system support to use, target training to align the use of taxonomy etc.

4.4 Key Report – The Group Operational and Compliance Risk Map

The results from the RCSA, including the identification of Top Risks, represent the main input to the Group Operational and Compliance Risk Map. The report presents Nordea's overall risk picture, trends and challenges for operational and compliance risks and risk management frameworks. The report gives a risk overview for each of the Business Areas in Nordea together with more detailed information on individual Top Risks areas. The report is used as an input into Nordea's annual planning process to ensure adequate resource allocation to the planned mitigating actions. Mitigating actions and the Top Risk are followed up on a quarterly basis within the risk appetite framework with descriptions of the current status. The Group Operational and Compliance Risk Map is submitted to the Risk Committee, GEM, the BRIC and the Board of Directors on an annual basis.

4.5 Minimum own funds requirements for operational risk

Nordea's own funds requirements for operational risk are calculated according to the standardised approach. In this approach, the institution's activities are divided into eight standardised business lines and the gross income based indicator for each business line is multiplied by a pre-defined beta coefficient. The consolidated own funds requirement for operational risk is calculated as the average over three years of own funds requirements.

5. Remuneration

The Board Remuneration Committee (BRC) is responsible for preparing and presenting proposals to the Board of Directors on remuneration issues. This includes proposals regarding the Nordea Remuneration Policy and supplementing instructions and guidelines for remuneration to the executive officers to be decided by the Annual General Meeting as well as the remuneration for the Group CEO, members of GEM, the Group Chief Audit Executive and Head of Group Credit & Financial Reporting Control. The BRC follows-up on the application of the Nordea Remuneration Policy and supplementing instructions, through an independent review by Group Internal Audit which is conducted at least annually.

5.1 Risk analysis

Nordea's remuneration components are evaluated annually to ensure compliance with both international and local remuneration regulations and guidelines. In addition to the evaluation of Nordea's remuneration components, the risk analysis addressing issues arising with respect to Nordea's Remuneration Policy was updated in March 2016. Key factors addressed include risks related to the governance and structure of the remuneration schemes, target-setting and measurement of results, as well as fraud and reputation. The main focus of the analysis is the variable components that potentially lead to total compensation that could be considered high. Remuneration risk in Nordea is managed within the operational risk framework.

Nordea mitigates these risks by regularly reviewing the structure of the remuneration components, including the participants and potential payout amounts, and by disclosing relevant information to the public. Furthermore, Nordea has established clear processes for target-setting, aligned with the Group's strategy, and predefined growth and development initiatives. The measurement of results is aligned with Nordea's overall performance measurement, and payout decisions are subject to separate processes and the Grandparent principle (approval by the manager's manager). Nordea also mitigates relevant risks by means of its internal control framework, which is based on the control environment and includes the following elements: Values and management culture, goal orientation and follow-up, a clear and transparent organisational structure, separation of duties, the four-eye principle, quality and efficiency of internal communication and an independent evaluation process.

The following principles are examples of what is further applied to ensure sound risk management:

- No employee in Nordea has a variable remuneration that exceeds 200% of the relevant person's fixed remuneration. The maximum ratio between the fixed and the variable remuneration for Identified Staff is currently 100%.
- Guaranteed variable remuneration can be offered only in exceptional cases and then only in the context of hiring new staff, limited to the first year of employment and where Nordea has a sound and strong capital base.
- Remuneration packages related to compensation for contracts in previous employments must be aligned with Nordea's Remuneration Policy.
- Payments related to the early termination of a contract should reflect performance achieved over time and should be designed in a way that does not reward failure or misconduct.
- Employees engaged in control functions are compensated independently of the performance of the business unit(s) they control.

Performance-related remuneration (excluding Profit Sharing) for employees in the risk analysis defined as Identified Staff is partially deferred in accordance with international guidelines and national regulations. This means that 40%-60% of variable remuneration is deferred for three to five years with pro rata disbursement during the deferral period. The first disbursement of deferred variable remuneration can take place one year into the deferral period at the earliest. 50% of the variable remuneration, 80% of EIP and GEM EIP, is indexed with Nordea's Total Shareholder Return.

Payment of variable remuneration to Identified Staff (excluding Profit Sharing), or to all employees if required according to national regulations, is conditional upon such payment is justified based on Nordea's, the relevant business unit's and the individuals results. An adjustment, partly or down to zero, can occur if the person in question e.g. has violated internal or external regulations, participated in or been responsible for an action that has caused Nordea significant losses, or in the event of a significant downturn in Nordea's or the relevant business unit's financial results.
Employees are required to undertake to not use personal hedging strategies to undermine or eliminate the effects of deferred variable remuneration being partly or fully removed

The Nordea Remuneration policy and other detail information on remuneration can be found at www.nordea.com.

6. Liquidity risk

Liquidity risk is the risk of being able to meet liquidity commitments only at increased cost or, ultimately, being unable to meet obligations as they fall due. Nordea is exposed to liquidity risk in its lending, investment, funding and other activities.

6.1 Management, governance and measurement of liquidity risk

Liquidity risk is the risk of being able to meet liquidity commitments only at increased cost or, ultimately, being unable to meet obligations as they fall due.

6.1.1 Management of liquidity risk

Nordea's liquidity management and strategy is based on policy statements resulting in various liquidity risk measures, limits and organisational procedures.

Policy statements stipulate that Nordea's liquidity management reflects a conservative stance towards liquidity risk. Nordea strives to diversify its sources of funding and seeks to establish and maintain relationships with investors in order to ensure market access. A broad and diversified funding structure is reflected by the strong presence in Nordea's domestic markets in the form of a strong and stable retail customer base and the variety of funding programmes. Funding programmes are both short-term (US commercial paper, European commercial paper, commercial paper, Certificates of Deposits) and long-term (covered bonds, European medium-term notes, medium-term notes) and cover a range of currencies. The stress testing framework also includes survival horizon metrics (see Part 2 Section 8.3), which represents a combined liquidity risk scenario (idiosyncratic and market-wide stress).

6.1.2 Liquidity risk appetite

The Board of Directors defines the liquidity risk appetite by setting limits for the liquidity risk measures applied by Nordea. The liquidity risk appetite is anchored to liquidity stress testing results over specified time horizons as well as regulatory requirements and has implications for nature and scope of activities undertaken by Nordea. In addition, the liquidity risk appetite wil determine the size of Nordea's liquidity buffers.

6.1.3 Governance of liquidity risk

TALM is responsible for pursuing Nordea's liquidity strategy, managing liquidity and for compliance with Groupwide liquidity risk limits set by the Board of Directors and the Risk Committee. TALM, as the 1st LoD, manages and executes liquidity risk management processes, which consist of policies, instructions and guidelines as well as defining the principles for pricing liquidity risk. Group Market and Counterparty Risk (GMCCR), as an independent 2nd LoD is responsible for the policies and frameworks and executes control over liquidity management.

6.1.4 Measurement of liquidity risk

Liquidity risk management focuses on both short-term liquidity risk and long-term structural liquidity risk. In order to manage short-term funding positions, Nordea measures funding gap risk, which expresses the expected maximum accumulated need for raising liquidity in the course of the next 30 days. Cash flows from both on-balance sheet and off-balance sheet items are included. Funding gap risk is measured and limited for each currency and as a figure for all currencies combined. The limit for all currencies combined is set by the Board of Directors.

To ensure funding in situations where Nordea is in urgent need of cash and normal funding sources do not suffice, Nordea holds a liquidity buffer. The buffer minimum level is set by the Board of Directors. The liquidity buffer consists of central bank eligible high-grade liquid securities that can be readily sold or used as collateral in funding operations.

Since 2011, the survival horizon metric is being used. The metric is composed of the liquidity buffer and funding gap risk cash flows, and includes expected behavioural cash flows from contingent liquidity drivers. Survival horizon defines the short-term liquidity risk appetite of Nordea and until March 2016, expressed the excess liquidity after a 30-day period without access to market funding. In April 2016 the period was prolonged to 90 days. The Board of Directors has set the limit for minimum survival without access to market funding to 90 days.

Since 2013 the Liquidity Coverage Ratio (LCR) according to Swedish FSA rules is being used. The Board of Directors has set the limit for minimum LCR level. Nordea is LCR compliant in all currencies combined and separately in USD and EUR according to Swedish rules. Nordea is also compliant with EBA Delegated Act LCR, which came into force in October 2015.

The structural liquidity risk of Nordea is measured and limited by the Board of Directors through the Net Balance of Stable Funding, which is defined as the difference between stable liabilities and stable assets. These liabilities primarily comprise retail deposits, bank deposits and bonds with a remaining term to maturity of more than 12 months, as well as shareholders' equity, while stable assets primarily comprise retail loans, other loans with a remaining term to maturity longer than 12 months and committed facilities.

7. Securitisation and credit derivatives

In Q3 2016 Nordea entered into a synthetic securitisation as originator of a portfolio with corporate and SME loans in Sweden and Denmark.

7.1 Introduction to securitisation and credit derivatives trading

The CRR defines securitisation as a transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is tranched, payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures and the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme. In a traditional securitisation, the ownership of the assets is transferred to a Special Purpose Entity (SPE), which in turn issues securities backed by these assets. In synthetic securitisation, ownership of these assets does not change, however the credit risk is still transferred to the investor through the use of credit derivatives or financial guarantees.

Banks can play several roles in securitisation. First, they can act as originators by having assets they themselves originated as underlying exposures. Second, they can act as sponsors in which role they establish and manage securitisations of assets from third party entities. Third, in their credit trading activity, banks can themselves invest in these securities or create these exposures in credit derivatives markets.

Nordea is also acting as an intermediary in the credit derivatives market, especially in Nordic names. In addition to becoming exposed to the credit risk of a single entity, credit derivatives trading often involves buying and selling protection for collateralised debt obligation (CDO) tranches. These can be characterised as credit risk-related financial products, the risk of which depends on the risk of a portfolio of single entities ('a reference portfolio') as well as the subordination. Subordination defines the level of defaults in the reference portfolio after which further defaults will create a credit loss for the investor. Because hedging always involves a view on how the correlation between the credit risk of single names evolves, it has been customary to talk about correlation trading in this context. The market risk created by Nordea's correlation trading is described in further detail in section 7.4.

7.2 Nordea as an originator

In 2016, Nordea Bank AB ("Nordea") entered into a synthetic risk transfer trade related to EUR 8.4bn of Nordea's loan portfolio. Under the transaction, investors have agreed to invest in credit linked notes (CLN), linked to the junior credit risk of the portfolio.

The risk transfer was performed through a collateralised CDS structure, and no assets will be derecognised from Nordea's balance sheet. The transaction was reported as a derivative as from the third quarter 2016 and improved Nordea's CET1 capital ratio by approximately 30bps. Under the agreement, the buyers of the notes are responsible for a pre-agreed amount of incurred credit losses of the reference portfolio. The size of this credit loss protection is sufficient to cover expected and unexpected losses, relieving Nordea from the associated risks and thus qualifying as achieving Significant Risk Transfer.

The selected reference portfolio consists of approximately EUR 8.4bn in corporate and SME loans from over 3,000 borrowers across Sweden and Denmark, spread across a wide range of industries and asset classes.

7.2.1 Relevant policies, regulation and associated risks

This section describes the risks associated with this transaction and the management of said risks. More broadly, Nordea's Significant Risk Transfer policy outlines the principles for the effective and robust assessment, monitoring and management of such transactions throughout the Nordea Group under relevant regulations. Furthermore, a risk mandate is articulated following discussions with the Swedish FSA (SFSA) outlining the Group's appetite in terms of associated REA in relation to the Group's total Credit Risk REA.

As defined in prudential regulations, the term securitisation refers to a transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is tranched, having the following characteristics:

- the transaction achieves Significant Risk Transfer, in case of origination;
- payments in the transaction or scheme are contingent on the performance of the exposure or pool of exposures;
- the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or risk transfer scheme.

Securitisation positions are subject to the regulatory accounting treatment defined in 3rd Part – Title 2 – Chapter 5 of the CRR. Such positions held in the regulatory banking book or trading book are currently given weightings ranging from 7% to 1,250% depending on their credit quality and subordination rank. In its role as originator, Nordea applies the Supervisory Formula Method when calculating the capital requirements for its positions. The securitisation regulation framework is evolving and Nordea follows this development continuously to ensure strict adherence to regulation and, as appropriate, guidance.

7.2.2 Accounting policies related to securitisation transactions

Financial assets are derecognised from the balance sheet when the contractual rights to the cash flows from the financial asset expire or are transferred to another party. The rights to the cash flows normally expire or are transferred when the counterparty has performed by e.g. repaying a loan to Nordea. Gains and losses are recognised when the assets are derecognised by comparing the carrying amount to the proceeds received.

Synthetic securitisations are generally defined as transactions where an institution buys protection using financial guarantees or credit derivatives where the exposures are not derecognised from the balance sheet. Nordea's general accounting policies for financial guarantees and derivatives applies in such cases.

Provisions are recognised when it is probable (more likely than not) that Nordea will be required to provide financial support for securitised assets.

7.2.3 Accounting methods

Synthetic securitisations in the form of Credit Default Swaps, as in the case of Nordea's Q3 2016 transaction, follow accounting recognition rules specific to trading derivatives. The securitisation transactions are derecognised when the contractual rights to the cash flows on the asset expire or when the Group has transferred the contractual rights to receive the cash flows and substantially all of the risks and rewards linked to the ownership of the asset. Where the Group has transferred the cash flows of a financial asset but has neither transferred nor retained substantially all the risks and rewards of its ownership and has effectively not retained control of the financial asset, the Group derecognises it and, where necessary, recognises a separate asset or liability to cover any rights and obligations created or retained as a result of the asset's transfer. If the Group has retained control of the asset, it continues to recognise it in the balance sheet to the extent of its continuing involvement in that asset.

When a financial asset is derecognised entirely, a gain or loss on disposal is recorded in the income statement for an amount equal to the difference between the carrying value of the asset and the payment received for it, adjusted where necessary for any unrealised profit or loss previously recognised directly in equity.

7.2.4 Monitoring of securitisation risks

Securitisation risks are monitored according to the overall framework rules established by the Nordea Group as per assets are recorded in the regulatory banking book (via credit risk and counterparty risk).

Structural risks and foreign exchange risk associated with securitisation activities are monitored in the same way as for other Group assets.

The associated liquidity risk linked to securitisation activities is reflected centrally through the measure of the impact of these activities on the Group's liquidity ratios, stress tests and liquidity gaps.

Securitisation operational risks follow-up are taken into account in the Group operational risks framework.

7.3 Traditional securitisations where Nordea acts as sponsor

Nordea sponsors a limited number of SPEs. These SPEs have been established to facilitate or secure customer transactions, either to enable investments in structured credit products or with the purpose of supporting trade receivable or account payable securitisation for Nordea corporate customers.

7.4 Credit derivatives trading

Nordea acts as an intermediary in the credit derivatives market, especially in Nordic names. Nordea also uses credit derivatives to hedge positions in corporate bonds and synthetic CDOs.

When Nordea sells protection in a CDO transaction, it carries the risk of losses in the reference portfolio if a credit event occurs. When Nordea buys protection in a CDO transaction, any losses in the reference portfolio triggered by a credit event are carried by the seller of protection.

It is Nordea's policy that CDO positions are held in the trading book and booked at fair value in accordance with IFRS 13, meaning that they are either marked to market or marked to model depending on the availability of external prices. Model prices are derived based on standard industry methods. Inputs are available market prices and assumptions primarily relates to correlation.

Credit derivative transactions create counterparty credit risk in a similar manner to other derivative transactions. Counterparties in these transactions are typically subject to a financial collateral agreement, where the exposure is covered daily by collateral placements.

8. ICAAP and internal capital requirement

The Internal Capital Adequacy Assessment Process (ICAAP) aims to ensure that Nordea keeps sufficient available capital to cover all risks, both Pillar I and Pillar II, taken over a foreseeable future, including during periods of stress. The level of capital needs to be adequate from an internal and a regulatory perspective, as well as for market participants.

8.1 ICAAP

The purpose of the ICAAP is to review the management, mitigation and measurement of material risks within the business environment in order to assess the adequacy of capitalisation and to determine an internal capital requirement reflecting the risks of the institution.

The ICAAP is a continuous process which increases awareness of capital requirements and exposure to material risks throughout the organisation, both in the Business Area and legal entity dimensions. Stress tests are important drivers of risk awareness, looking at capital and risk from a firm-wide perspective on a regular basis and on an ad hoc basis for specific areas or segments. The process includes a regular dialogue with supervisory authorities, rating agencies and other external stakeholders with respect to capital management, measurement and mitigation techniques used.

The capital ratios, capital forecasts and capital requirement for the Nordea Group and its legal entities are regularly monitored by TALM. The current capital position and forecasts are reported to ALCO, Risk Committee, GEM and the Board of Directors. Capital requirements and capital adequacy are thoroughly reviewed and documented annually in Nordea's ICAAP report, which is ultimately decided and signed off by the Board of Directors.

8.1.1 Capital planning and capital policy

The capital planning process is intended to ensure that Nordea and its legal entities have sufficient capital to meet minimum regulatory requirements, support its credit rating, growth and strategic options. The process includes forecasts of capital requirements, available capital as well as the impact of new regulations. Capital planning is based on key components of Nordea's Rolling Financial Forecast (RFF), which includes lending volume growth by customer segment and country as well as forecasts of net profit, including assumptions of future loan losses. The capital planning process also considers forecasts of the state of the economy to reflect the future impact of credit risk migration on the capital situation of the Nordea Group and its legal entities. An active capital planning process ensures that Nordea is prepared to make necessary capital arrangements regardless of the state of the economy, the introduction of new capital adequacy regulations and to accommodate strategic and business objectives.

Nordea's capital policy determines target capitalisation levels in Nordea. The current capital position and target capitalisation are described in Part 1 section 2.

The capital policy states that Nordea Group, under normal business conditions should have capital ratios for CET1, Tier 1 and total capital that exceed the capital requirement as communicated by the Swedish FSA. The policy states that Nordea will maintain a management buffer of 50–150bps above the CET1 requirement.

8.1.1.1 Capital transferability and restrictions

Nordea may transfer capital within its legal entities without material restrictions, subject to the general conditions for entities considered solvent with sufficient liquidity under local law and satisfying minimum capital adequacy requirements. International transfers of capital between legal entities are normally possible after approval by the local regulator and are of importance in governing the capital position of Nordea's entities.

8.1.2 Internal capital requirement (ICR) methodology

The internal capital requirement is calculated based on a Pillar I plus Pillar II approach. This methodology uses the Pillar I capital requirements for credit risk, CVA risk, market risk and operational risk as outlined in the CRR as the starting point for its risk assessment.

In Pillar II, risks not included in the CRR are considered, specifically concentration risk, interest rate risk in the banking book, market risk in internal defined benefit pension plans and real estate risk.

The following risk types are included under Pillar II:

- *Interest rate risk in the banking book* consists of exposures deriving from the balance sheet (mainly lending to public and deposits from public) and from TALM's investment and liquidity portfolios. Interest rate risk is measured and monitored in several ways on a daily basis and in accordance with the FSAs requirements. Monitoring is performed by controlling interest rate sensitivities, which measure the immediate effects of interest rate changes on the fair values of assets, liabilities and off-balance sheet items. The Pillar II charge for interest rate risk in the banking book is calculated based on daily VaR figures.
- *Pension risk* includes equity risk, interest rate risk and FX risk in the Nordea-sponsored defined benefit pension plans. The risk is incorporated into market risk by including both the asset and liability sides of the pension plans in the Group's VaR calculations and is reported separately within the Pillar II market risk.
- *Real estate risk* in Pillar II is market risk associated with Nordea's own real estate buildings.
- *Concentration risk* represents the credit risk related to the degree of diversification in the credit portfolio, i.e. the risk inherent in doing business with large customers or not being equally exposed across industries and regions. Pillar I credit risk calculations assume a well diversified international bank. Nordea's exposures are well diversified but not to the same extent as a benchmark fully diversified international bank. The purpose of the concentration risk capital requirement add-on is to capture this difference.
- Temporary capital add-ons: As part of the ICAAP Nordea identifies risks not previously captured in Pillar I or Pillar II on an ongoing basis. When new risks are identified a temporary capital buffer within Pillar II is included in the inter-

nal capital requirement. The temporary capital add-ons may later be incorporated into Pillar I, permanently into Pillar II or discontinued depending on nature of the risk.

In addition to calculating risk capital for its various risk types, Nordea conducts a comprehensive capital adequacy stress test to analyse the effects of a series of global and local shock scenarios. The results of the stress tests are considered in Nordea's internal capital requirement as buffers for economic stress. By considering the stress test results in the assessment of internal capital requirements, the procyclical effects inherent in the risk-adjusted capital calculations of the EC and IRB approaches are addressed.

The rationales for using the chosen Pillar I plus Pillar II approach are the following:

- The risk-based nature in the approach, with 80% of the Pillar I capital requirements calculated by internal models, capture the inherent risks within Nordea's different asset classes.
- The approach combines models specified in the regulation with Nordea specific parameters and data in internal models assessed and approved by the supervisors. Hence, it allows Nordea to use scrutinised models based on best regulatory practice yet tailored with the specific risk profiles known for the individual Nordea portfolios.
- In addition to the assessment of Pillar I risks Nordea assesses risks not captured by the Pillar I framework.
- In parallel to the risk based Pillar I plus Pillar II, approach, Nordea use other analysis measures such as Basel I floor, large exposures and leverage ratio to understand and compare the nature of the risks within Nordea.

8.1.3 FSA capital add-ons under Pillar II

In addition to the regulatory minimum capital requirements, the SFSA requires Nordea to hold capital under Pillar II to cover additional risks, not covered in Pillar I.

Included in Pillar II are the risk weight floors in Sweden and Norway. Nordea is required to hold CET1 capital under Pillar II amounting to approximately EUR 1.8bn for its Swedish and Norwegian mortgage portfolios. This corresponds to a CET1 capital ratio impact of approximately 1.4%.

Nordea furthermore is required to hold additional CET1 capital equivalent to 2% of REA due to systemic risk.

The capital requirement for the Pillar II risks covering concentration risk, interest rate risk in the banking book and risks in defined benefit pension plans is calculated according to the standardised models developed by the Swedish FSA. In addition, as part of the Supervisory Review and Evaluation Process (SREP), Nordea received increased requirements mainly related to inadequate 2nd LoD and its involvement in the governance of the IRB system and modelling including additional capital requirement for Nordea's PD estimates. During 2016 the Swedish FSA also communicated its new methods for banks' risk weights and capital requirement for exposures under the IRB approach. These methods require that banks should treat every fifth year as a downturn year when estimating PD and that a maturity floor of 2.5 years should be applied for corporate exposures. The maturity floor will be part of Pillar II while the metod to estimate PDs should be incorporated into the IRB models of banks. Until implemented in Pillar I also the method to estimate PDs is part of Pillar II.

The Swedish FSA has stated that, under normal circumstances, there will be no formal decision on Pillar II capital requirements. The Pillar II requirement will thus not affect the level where the automatic restrictions on distribution will come into effect (the MDA level).

8.2 Economic capital (EC)

Economic Capital (EC) is a method for allocating the cost of holding capital as a result of risk taking and is a central component in the Value Creation Framework (VCF). The VCF supports the operational decision making process in Nordea to enhance performance management and ensure shareholder value creation.

Nordea's EC model is based on the capital requirement as assessed and published by the SFSA. In addition the EC framework also includes the following items:

- Legal equity contribution of the insurance business (EC is thus calculated for the legal group whereas the regulatory minimum capital requirement covers only Nordea Bank AB on the basis of its consolidated situation).
- Certain capital deductions where allocation keys have been agreed upon.

For distribution of EC across risk types and business areas see table 1.1

Going forward, changes to EC will mainly be driven by changes to the risk types featured in the capital requirements and continuous efforts to reduce the gap between legal equity and EC, i.e. the inclusion of further capital deductions.

8.3 Stress testing

Stress testing governance and framework are important due to the vital role of capital for Nordea's management and profitability. Thus an adequate governance structure is required for the stress testing process. Key responsibilities include GEM and the legal entity boards' engagement in the ICAAP stress testing. In addition ALCO/Risk Committee review in details the stress test performed and potential implications for future capital.

Capital adequacy stress testing is carried out at least annually during the first quarter, using end-of-year data. Ad hoc stress testing can be carried out throughout the year when necessary. In order to determine the adequacy of capital for the Nordea Group throughout the scenarios, key financial targets, which are stated in Nordea's capital policy, are also considered.

The key measure for determining the stress test impact is the CET1 ratio and how it develops during the scenarios. The stress test capital impact is defined as the percentage drop in the CET1 ratio in the most stressed year. In addition, the stress test capital add-on, defined as the CET1 capital needed to compensate for the increase in REA and reduction in capital due to negative net profit in the stress scenarios, is included as a capital buffer in the bank's internal capital requirement. The impact is then analysed in relation to capital policy, regulatory buffers and internal capital requirements.

8.3.1 Stress tests performed

During 2016, Nordea performed internal stress tests to evaluate the general effects of an economic downturn scenario as well as effects for specifically identified segments or high risk areas. The Nordea Group has also been subject to stress tests and capital review exercises performed by financial supervi-

sors and central banks. In 2016, Nordea also participated in the EU-wide stress test led by the European Banking Authority (EBA). The results of these stress tests did not change the assessment of Nordea's strong position and capacity to withstand financial stress.

As part of the ICAAP and the capital planning process, firm-wide stress tests are used as an important risk management tool to determine how severe unexpected changes in the business and macro environment will affect the capital need. The stress tests reveal how the capital need varies during a stress scenario, where the income statements, balance sheet, regulatory capital requirements, and capital ratios are impacted.

Nordea carries out reverse stress tests of various recovery environments in relation to the development of the recovery and resolution plan. Several stand-alone stress tests for each risk type such as market risk and liquidity risk are also carried out (see Part 2 sections 3 and 6 for further details).

Nordea continuously refines its stress testing methodologies and practises to ensure a forward-looking element.

The general stress test process can be divided into the following three steps:

- Scenario development and translation,
- Calculation, and
- Analysis and reporting.

The capital adequacy stress test covers all credit exposures to corporates, retail, institutions and sovereigns. Credit exposures data is sourced on transaction level from the same database as used for the regular reporting of REA and capital adequacy. The calculation of stressed loan losses and stressed REA is carried out bottom up based on granular portfolio data from this data source.

8.3.2 Scenario development and translation

The annual ICAAP stress test is based on three-year macroeconomic scenarios for the Nordic and Baltic countries, Russia and other major economies. The scenarios are designed to replicate shocks that are particularly relevant in the current macroeconomic environment. Stress scenarios are designed by economists in the Nordea Economic Research division in each Nordic country. Nordea also uses its RFF for complementary assumptions of the baseline scenario.

While the annual stress test is based on comprehensive macroeconomic scenarios that involve estimates of several macroeconomic factors, the ad hoc stress tests are based on direct estimates of risk parameter changes or on changes of a few selected macroeconomic variables. This enables senior management to define scenarios and evaluate the effect of them in capital planning.

After a scenario is developed, the effects on risk drivers are translated and new financial parameters are simulated. Advanced models in combination with expert judgment from Business Areas are used to determine the effect of the scenario.

As an example, in the annual stress test, the scenario is translated into impacts on the parameters listed in Table 8.1.

Table 8.1 Parameters in the annual stress test

Parameter	Impact
Volumes	Lending volumes are dependent on lending growth specified in the scenario and on inflow to default and loss provisions. Deposit volumes are given directly by the RFF.
Margins	Corporate lending margins are country and rating specific and therefore sensitive to rating migrations. Retail margins are country specific and split by mortgage lending and other lending. Defaulted (but performing) customers are assigned a lower margin. Deposit margins are given by the RFF.
Net interest income	Net interest income figures are adjusted according to the change in volume and margins for deposits and lending, as well as increased funding cost (see below).
Funding cost	Changes in funding costs are derived from the assumption of Nordea being down-rated. The increases funding cost, due to a lower rating, reduces net interest income.
Net fee and commission income	Net fee and commission income is calculated according to product mix. Commission income is assumed to follow market movements and is adjusted according to changes in the stock index, whereas other items are adjusted according to changes in GDP.
Operating expenses	Operating expenses are assumed to be constant except for variable salary expenses, which are adjusted according to changes in net profit the previous year.
Loan losses	Loan losses are calculated based on a bottom-up, EL-based model. The EL-calculations are carried out on stressed rating distributions, stressed point in time PD curves and stressed LGD values (see below). The model covers both collective and specific provisions. The loan loss model consists of two components that cover losses related to (i) a general macroeconomic scenario and (ii) industry specific and idiosyncratic loss events.
P/L effect of Operational- and Market Risk	Stressed losses related to operational risk and market risk are calculated using assumed loss distributions and correlations between the risk types.
Rating/ Scoring migration	For corporate customers, rating migrations are calculated on customer level based on stressing their financial statements for each year and scenario. For retail and bank customers, rating/scoring migrations are calculated based on central macro-economic variables per year and scenario.
Probability of default	Stressed PD values are calculated on customer level based on the stressed rating/scoring migrations (see above). For loan loss calculations point in time PDs are used. The point in time PDs are dependent on the severity of the macroeconomic scenario. In addition the PDs contain an add-on factor to reflect industry specific and idiosyncratic risk.
Collateral values	The collateral coverage is stressed by moving parts of the exposure from secured to unsecured, resulting in an increase in average weighted LGD.
Risk exposure amount (REA)	Credit risk REA is calculated on customer/exposure level based on stressed PDs and LGDs. REA is also dependent on changes in volumes (EAD) which are a function of lending growth and inflow to default.

8.3.3 Calculation

The stressed figures and parameters from the scenario are used to calculate the effects on the regulatory capital requirements and the financial statements. Regulatory minimum capital requirement are calculated for the credit risk, market risk and operational risk according to the CRR with regards to the IRB approaches used. The calculations for each risk type are aggregated into total minimum capital requirement figures.

Stressed figures for loan losses are calculated bottom-up, based on stressed rating migrations and collateral values. Stressed point-in-time PDs that are functions of the downturn scenarios, are used in the calculation of loan losses. The loan loss calculation also covers idiosyncratic losses related to the exposure to single customers and industries. The loan loss model covers both specific and collective provisions. The stressed impact on other main items on the income statement, like net interest income and net fee and commission income, are also calculated. The resulting impact on net profit after dividend are used to calculate the effect on the own funds components. Own funds are set in relation to the stressed REA in order to calculate the effect on capital ratios during a stress scenario. Figure 8.1 shows the calculation process used in the stress test framework.

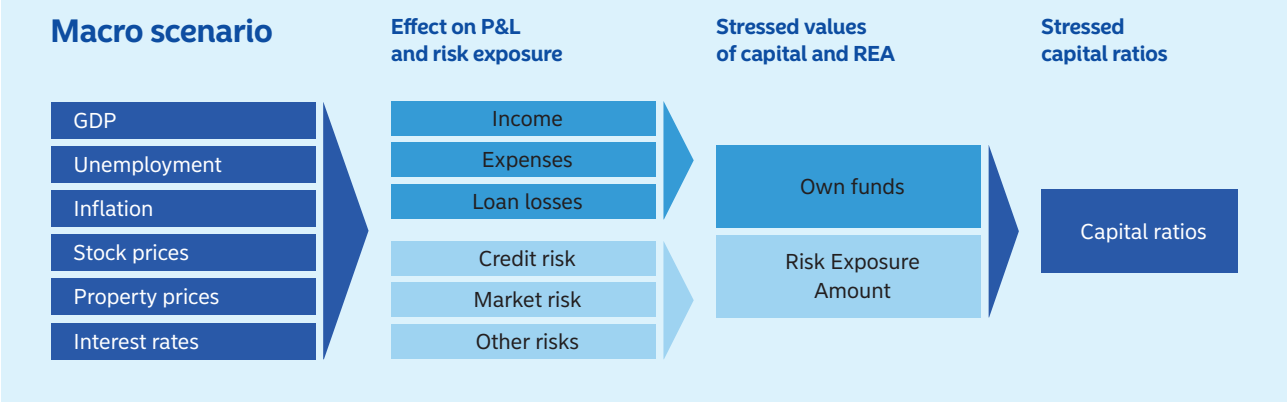
8.3.4 Analysis and reporting

The first level of reporting in Nordea is the ALCO and the Risk Committee, which review the details of the stress tests and implications on future capital need. The results, showing the implications of the stress tests on the adequacy of existing capital, are distributed to GEM and the Board of Directors. A similar governance process is used for subgroups and legal entities.

The results of the stress tests support senior management's understanding of the implications of the current capital strategy given potential market shocks. Based on this information senior management are able to ensure that Nordea holds enough capital against the impact of potential economic downturns and other stress events. Business Area involvement in defining and assessing the stress tests is seen as important to increase risk awareness throughout the organisation and the understanding of the relation between capital requirements and exposure to material risks.

The outcome of the stress tests demonstrates how Nordea's loan losses and capital ratios will change during a stress scenario. The outcomes are then analysed to decide the capital need during a downturn period in order to ensure that Nordea remains well capitalised.

Figure 8.1 Calculation process



9. Risk and capital in the life and pensions operation

The nature of life insurance leads Nordea Life & Pensions (NLP) to take risks that are quite different to those faced in the banking operation. The main risks in Nordea's life and pensions operations are market risks and life insurance risks.

9.1 Risk management system and governance

9.1.1 Risk management at NLP

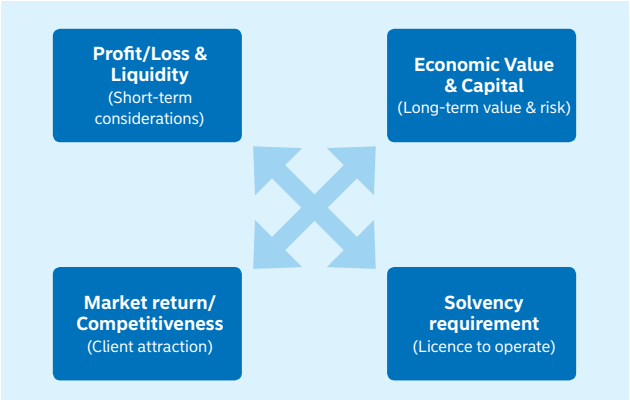
NLP's risk management function is responsible for developing a consistent and coherent risk management system and control framework across NLP comprising strategies, processes and reporting procedures necessary to consistently identify, measure, monitor, manage and report on risk and its capital implications at an individual and aggregate level in accordance with Group Directives. This is implemented through the following governing documents for the management of risk and capital at NLP:

- NLP Risk Management Strategy
- NLP Risk Appetite Framework
- NLP Framework for Policies and Charters

These governing documents are organisationally embedded through the key risk and capital processes, regular reports to key stakeholders and additional instructions and documentation.

The risk management function is headed by the NLP Group CRO and anchored in local entities through the local CROs. The NLP Group CRO is responsible for the risk management overall as well as capital management relating to modelling, assessments and monitoring at the NLP Group level. Local CROs, reporting to the local CEOs and Group CRO, are responsible overall for risk management as well as capital management relating to modelling, assessments and monitoring at local entity level.

Figure 9.1 The ALM square



9.1.2 Framework for strategic risk & capital decisions

The Asset Liability Management (ALM) square is central to the implementation of NLP's risk management strategy in the day-to-day business. The ALM square sets out the different considerations that should be balanced when making business decisions in NLP on a short-term as well as long-term perspective including competitiveness, legal requirements, profitability and capital requirements (including economic value and regulatory/ solvency requirements).

9.2 Key risks in the life and pensions operation

NLP takes on financial risk both through investments in products with embedded guarantees and investments in market return products where policyholders have been promised a benefit or an absolute return under these portfolios. NLP carries the risk of fulfilling these guarantees to policyholders. Financial risk also arises from investment of the shareholders' equity.

Financial risk includes market risks such as interest rate risk, equity risk and property risk as well as credit risk and liquidity risk. These risks are mainly measured by Solvency capital requirements, exposure measurement on investment assets, Value-at-Risk analysis and stress and sensitivity analysis. Financial risks are monitored against the risk appetite and existing limits.

The major risks that NLP is exposed to are market risk and life & health insurance risk.

9.2.1 Market risk

Market risk arises at NLP mainly due to the mismatch between assets and liabilities and the sensitivity of the values of these assets and liabilities to changes in the level or in the volatility of market prices or rates. In addition, NLP is exposed to market risk through the investment of the shareholders' equity. Market risk is mitigated through liability driven investment where appropriate, aiming at reducing the asset-liability mismatch, while at the same time creating an investment return enabling NLP to meet any guarantees offered and meet customer's expectations.

For Nordea Group, market risk is measured through the following methodologies:

- Market scenario-based risk method: Measures market risk under defined scenarios taking account the movements in assets and liabilities.
- VaR market risk method: measures market risk from the investment of equity capital and subordinated funding separated from policyholders' assets.

9.2.2 Life and health insurance risk

Life and health insurance risk is the risk of unexpected losses due to changes in the level, trend or volatility of mortality rates, longevity rates, disability rates and surrender/lapse risks. The risk is generally measured through exposure measurement, experience analysis of mortality, morbidity lapse and expense risks, together with sensitivity and stress tests.

Life & health insurance risks are primarily controlled using actuarial methods, i.e. through tariffs, rules for acceptance of customers, reinsurance contracts, stress testing and setting up adequate provisions for risks.

9.3 Capital management and solvency position

9.3.1 Solvency position

NLP is regulated under Solvency II and uses the standard formula for determining solvency capital requirements at the Group level taking into account double regulation for occupational pensions schemes applicable to the Swedish part of the business. NLP have applied, for and have had approval granted from local FSAs to use a volatility adjustment in Denmark and transitional measures for technical provisions in Norway.

NLP's Risk Appetite Framework and capital policy sets the solvency limit and solvency target range that NLP wish to operate within. The solvency position resulting from stress & scenario testing is reported to key stakeholders on a monthly basis including Group Risk Management & Control and GEM. The solvency position is further monitored on an on-going basis to ensure continuous compliance with the regulatory requirements including weekly reporting allowing time for business actions as appropriate.

9.3.2 Economic capital

NLP is included in the Nordea Group EC framework, described in section 8.2.

9.3.3 Financial buffers

For policyholders, financial buffers express the potential for receiving a bonus on top of the guarantees within the Traditional portfolio. For shareholders, financial buffers are important as they offer a P/L protection against insufficient investment returns. For NLP, a moderate financial buffer level is a prerequisite in order to achieve a stable P/L due to the mostly fee-based business models. At low financial buffer levels, risk increases and higher P/L volatility can be expected.

10. Regulatory development

The changes for financial institutions in the regulatory area related to capital and risk are extensive. In addition to the on-going regulatory updates of the capital adequacy framework, other related regulations are also emerging.

10.1 Current regulatory framework for capital adequacy

The Capital Requirements Directive IV (CRD IV) and Capital Requirements Regulation (CRR) for the European financial market entered into force 1 January 2014, followed by the Bank Recovery and Resolution Directive (BRRD) on 15 May 2014..The Regulation became applicable in all EU countries on 1 January 2014 while the Directive was implemented through national law within all EU member states during 2014, through national processes.

10.1.1 Regulatory minimum capital requirements

The CRR requires banks to comply with the following minimum capital requirements in relation to REA:

- CET1 capital ratio of 4.5%
- Tier 1 capital ratio of 6%
- Capital ratio of 8%.

10.1.2 Capital buffers

CRD IV introduced a number of capital buffer requirements. The capital buffer requirements are expressed in relation to REA to be covered by CET1 capital and represent additional capital to be held on top of minimum regulatory requirements. The levels and the phasing-in of the buffer requirements are subject to national discretion.

The mandatory buffers introduced are the capital conservation buffer (CCoB) of 2.5%, the countercyclical capital buffer (CCyB) and the buffer for globally systemically important institutions (G-SII) of 1-3.5%. The institution specific CCyB will, under normal circumstances, be in the range of 0-2.5%, depending on the buffer rate in the countries where the institution has their relevant exposures. In addition, CRD IV allows for a Systemic Risk Buffer (SRB) to be added as well as a buffer for other systemically important institutions (O-SIIs). These buffers should be seen in conjunction with the other buffers and should also be met with CET1 capital. The O-SII buffer can be set up to 2% and the SRB can be set up to 3% for a banks all exposures and up to 5% for a banks domestic exposures. These buffers are together to be seen as a combined buffer. The combined buffer requirement is the sum of the CCoB, CCyB and;

- where the SRB is applicable for all exposures, the highest of the SRB and the highest SII buffer,
- where the SRB is applicable only on domestic exposures, the sum of the highest SII buffer and the SRB.

Breaching the combined buffer requirement will restrict banks' capital distribution, such as the payment of dividends, in accordance with the regulations on Maximum Distributable Amount (MDA).

10.1.3 Risk exposure amount (REA)

For banks calculating REA according to the IRB approach, the transitional floor (Basel I floor) states that minimum own funds cannot be less than 80% of minimum own funds as calculated under Basel I. The CRR extends these transitional rules until 31 December 2017.

Table 10.1 Expected minimum requirements and combined buffer requirements

Percent (%)	2016	2017	2018	2019
Minimum capital requirment	**8.0**	**8.0**	**8.0**	**8.0**
- CET1	4.5	4.5	4.5	4.5
- T1	6.0	6.0	6.0	6.0
- Own funds	8.0	8.0	8.0	8.0
Combined buffer requirement	**6.1**	**6.2**	**6.2**	**6.2**
- of which CCoB	2.5	2.5	2.5	2.5
- of which CCyB	0.5	0.7	0.7	0.7
- of which SIFI/SRB	3.0	3.0	3.0	3.0
Total Own funds requirement excl. Pillar II	**14.1**	**14.2**	**14.2**	**14.2**

10.1.4 Basel I floor

For banks calculating REA according to the IRB approach, the transitional floor (Basel I floor) states that minimum own funds cannot be less than 80% of minimum own funds as calculated under Basel I. The CRR extends these transitional rules until 31 December 2017.

10.1.5 Nordic implementation

Some of the regulations in CRD IV/CRR are still being gradually phased-in. However, the CRR also allows local regulators to phase-in certain requirements faster.

10.1.5.1 Denmark

The CCoB will be phased-in from 2016 to 2019, where the buffer in 2016 was 0.625%. The CCyB is phased-in from 2015 to 2019, however the buffer has been set to 0%. In addition to this, the SRB requirement for systemically important institutions is phased-in between 2015 and 2019. Nordea Bank Danmark (together with five other institutions) has been identified as systemically important and is subject to a 2% SRB requirement when fully phased-in.

The buffer in 2016 was 0.8%. In addition, there is also a possible Pillar II requirement that is set on an individual basis. Finally a number of transitional rules are relevant for Nordea Bank Danmark. The shortfall deduction will in the period from 2014 to 2019 be changed step wise from a deduction 50/50 in Tier 1 and Tier 2 to a 100% deduction in CET1. Transitional rules regarding unrealised gains and losses and deduction for defined pension assets included in CET1 are also implemented.

As part of the implementation of BRRD in Denmark, mortgage institutions such as Nordea Kredit, have to fulfil a debt buffer requirement of 2%. The requirement is being phased-in starting 15 June 2016 with 0.6%, and fully implemented in June 2020. The debt buffer can be fulfilled using CET1 or Tier 2 capital instruments as well as senior debt instruments which fulfil certain criteria.

10.1.5.2 Finland

In Finland, the CCoB requirement is set to 2.5%. The O-SII buffer for credit institutions operating in Finland may be set to 0–2%. Nordea Bank Finland Plc has been defined as O-SII and the O-SII buffer was set to 2% from 7 January 2016. The Board of the Financial Supervisory Authority (FSA) has the power to impose binding macroprudential policy requirements. The CCyB is currently set to 0%. Discussions related to implementation of SRB in Finnish legislation are ongoing.

The Finnish FSA implemented Loan to Collateral (LTC) as a macroprudential instrument effective from 1 July 2016. The maximum loan-to-value(LTV) ratio is 95% for first-home purchases and 90% for the other residential mortgages granted by the Finnish credit institutions according to the Consumer Protection Act.

On June 2016, the Finnish FSA decided to introduce a risk weight floor of 10% for the residential mortgage portfolio according to article 458 of the CRR. The risk weight floor is expected to be implemented by 1 July 2017 at the latest.

10.1.5.3 Norway

In Norway, the CRD IV/CRR and associated regulatory standards are not yet incorporated into the EEA agreement. On 30 September 2016, the EEA Joint Committee in Brussel adopted nine decisions by a written procedure incorporating 31 legal acts into the EEA Agreement, all relating to the European financial supervisory framework. Incorporating the regulations establishing the European Financial Supervisory Authorities (ESAs) into the EEA Agreement allows for future incorporation of numerous acts aimed at rectifying flaws in the pre-crisis financial regulatory framework, and secure continued access for financial undertakings from the EEA EFTA States to the Internal Market. This is expected to entail that the Ministry of Finance in Norway in the future can incorporate CRD IV/CRR as well as other important EU regulatory frameworks.

The main provisions from CRD IV/CRR rules have been introduced into Norwegian regulation. A major deviation from CRD IV/CRR is that the Basel I floor related to REA is not removed and that the capital reduction applied to the SME segment is not implemented, as well as several other technical calculation rules. The minimum capital requirements are however harmonised with a minimum CET1 capital ratio of 4.5%, a minimum Tier 1 ratio of 6% and a minimum total capital ratio of 8%. In addition, a CCoB of 2.5% and a SRB of 3% apply. The current CCyB of 1.5% will be increased to 2% from 31 December 2017. Furthermore, Nordea Bank Norge is considered as a systemically important institution and must therefore hold an additional buffer which was increased from 1% to 2% from 1 July 2016 .

10.1.5.4 Sweden

As communicated by Swedish authorities already in 2011, the CET1 requirement for the four large Swedish banks are set to 12% from 2015. This has been achieved by setting the CCoB to 2.5% and by setting the SRB to 3% from 2015. Furthermore, there has been an additional SRB requirement of 2% included within Pillar II from September 2014. Moreover, on 14 March 2016 the Swedish FSA decided to increase the CCyB rate from 1,5% to 2% from 19 March 2017. Finally, there are also Pillar II add-ons for other risks and for the risk weight floor for residential mortgages, which is set to 25%. In 2015, the Swedish FSA announced that Nordea, at a Group level, was identified as a G-SII as well as an O-SII. However, neither the G-SII buffer (1%) nor the O-SII buffer (2%) will increase Nordea´s buffer requirement since Nordea is already obliged to hold a SRB of 3%.

On 24 May 2016 the Swedish FSA published two new methods intented to raise the capital requirements for exposures to corporates for banks that use the IRB approach. The increase is the result of a more conservative calculation of PD and the introduction of a maturity floor. The new methods require banks to include a financial down-turn period every fifth year in the estimation of PD, as well as introducing a maturity floor of 2.5 years under Pillar II for banks that use the advanced IRB approach.

10.1.6 Buffers in the new legal structure

The buffers applied to the mortgage companies in Denmark and Norway were previously based on the requirements for Nordea Bank Danmark and Nordea Bank Norway. As a result of the new legal structure, where the main banks in Denmark, Norway and Finland has been merged with NBAB, the buffers for systemic importance applied to the mortgage companies will now be changed. On 3 January 2017, Finanstilsyntet in Denmark announced that Nordea Kredit Realkreditaktieselskab will be subject to a 1.5% SRB requirement when fully phased-in. The buffer for 2017 is 0.9%. In Norway, the requirements for 2017 has not been announced on the O-SII buffer.

10.2 Proposal on amended CRR, CRD IV and BRRD

On 23 November 2016 the European Commission published a proposal amending the BRRD, and the CRD IV and the CRR by introducing the CRD V and CRR II. The proposals will now be discussed in the European Parliament and the Council before starting negotiations in the so called Trilogue where the European Commission, Parliament and Council need to agree before the proposal can be finalised and adopted. The amendments to the CRR II, being a regulation, will be directly applicable in all EU countries once implemented, whereas amendments to the CRD IV and BRRD, being directives, need to be implemented into national legislation before being applicable. The time for implementation is uncertain given the upcoming negotiations but it is stated that the amendments will start entering into force in 2019 at the earliest, with some parts being implemented later and subject to phase-in.

10.2.1 TLAC / MREL

The Financial Stability Board (FSB) published on 9 November 2015 the Total Loss-absorbing Capacity Term Sheet ('the TLAC standard'), which requires Global Systemically Important Banks (G-SIBs), referred to as G-SIIs in EU legislation, to have a sufficient amount of highly loss absorbing ("bailinable") liabilities to ensure smooth and fast absorption of losses and recapitalisation in resolution. The TLAC standard is included in the proposed amendments to the CRR, building on the existing framework of the BRRD which includes the Minimum Requirement for own funds and Eligible Liabilities (MREL). The purpose of MREL is to achieve the same objective as for the TLAC standard, although it is technically different from the TLAC standard and is applied for both G-SIIs and non G-SII institutions in EU.

In November 2016, the existing MREL framework in the current BRRD was proposed to be amended. According to the proposal, both G-SIIs and non G-SIIs should meet the so-called firm specific MREL requirement decided by the resolution authorities. The requirement should not exceed the sum

of the loss absorption amount and recapitalisation amount, both of which are determined by the minimum capital requirement of 8% and the Pillar II capital requirement. On top of the firm specific MREL requirement, the resolution authorities can also decide to impose a MREL guidance, the breach of which does not automatically lead to MDA restrictions.

The TLAC requirement for G-SIIs need to be met by eligible instruments that are subordinated. In addition, the resolution authorities can decide to require non G-SIIs to meet the firm specific MREL requirement by subordinated eligible instruments. In order to make it possible for banks to issue eligible instruments in a cost efficient and harmonised way, the European Commission proposed in November 2016 to introduce a new insolvency hierarchy for non-preferred senior debt.

10.2.2 Pillar II

The proposed changes to the rules governing Pillar II introduces a split of Pillar II add-ons into Pillar II Requirements (P2R) and Pillar II Guidance (P2G), where the P2R will increase the MDA level while the P2G is a soft measure that does not affect the MDA level. Given how the current Pillar II framework has been implemented by the Swedish FSA ("fully flexible Pillar II guidance approach"), the suggested approach from the European Commission might result in a change to the existing Pillar II practice.

In April 2016, the Swedish National Debt Office (SNDO) published a proposal for MREL, providing details for the Swedish implementation of the EU MREL requirement. According to the proposal, Nordea needs to hold MREL eligible liabilities (MREL debt) additional to current own funds. The amount of the additional MREL debt required from Q4 2017 is proposed to be equal to the total capital requirement. The final proposal for the calibration of the requirement is expected to be published during Q1 2017, together with details about the form, extent and timing for the subordination requirement of the MREL debt.

10.2.3 Net Stable Funding Ratio (NSFR)

The European Commission proposes to introduce a binding NSFR that requires institutions to finance their long-term activities (assets and off-balance sheet items) with stable funding. The NSFR proposal aligns NSFR governance, compliance and supervisory actions with the EU Liquidity Coverage Ratio (LCR) requirement, specifically;

- Institutions are required to comply with NSFR requirements daily under both normal and stressed conditions,
- Institutions are required to ensure consistency between currency denomination of available stable funding (ASF) and required stable funding (RSF),
- Supervisors are allowed to set limits on significant currencies,
- The NSFR requirement is applied on individual and consolidated basis (possibility to receive a waiver for individual requirements), and
- Intragroup funding should receive symmetrical ASF and RSF factor.

Institutions will be required to comply with NSFR two years after the revisions enter into force, expected earliest from mid-2020 depending on negotiations.

Generally, the suggested NSFR is aligned with the Basel Committee on Banking Supervision (BCBS) standard, but the European Commission has included some adjustments as recommended by the European Banking Authority (EBA) to ensure that the NSFR does not hinder the financing of the European real economy.

10.2.4 Leverage ratio

The CRR introduced a non-risk based measure, the leverage ratio, to limit an excessive build-up of leverage on credit institutions' balance sheets in an attempt to contain the cyclicality of lending. The leverage ratio is calculated as the Tier 1 capital divided by an exposure measure, comprising of on-balance and off-balance sheet exposures with adjustments for certain items such as derivatives and securities financing transactions.

The proposal introduces a binding leverage ratio requirement of 3% of Tier 1, harmonised with the international BCBS standard. It further includes amendments to the calculation of the exposure measure with regards to exposures to public development banks, pass-through loans and officially granted export credits. Additionally, the initial margin received from clients for derivatives cleared through a Qualifying Central Counterparty (QCCP) can be excluded from the exposure measure.

10.2.5 Standardised Approach for Counterparty Credit Risk (SA-CCR)

In March 2014, the BCBS published a standard on a new standardised method to compute the exposure value of derivatives exposures, the so-called Standardised Approach for Counterparty Credit Risk, to address the shortcomings of existing standardised methods. The implementation of SA-CCR in the proposal is accomplished by removing the existing Standardised Approach and the Mark-to-Market Method and replacing them with the new SA-CCR.

10.2.6 Market risk

In January 2016, the BCBS concluded its work on the fundamental review of the trading book (FRTB) and published a new standard on the treatment of market risk. The European Commissions proposal incorporates the FRTB rules into EU regulation with some adjustments compared to the Basel version, such as postponing implementation to 2021 and including a three year phase-in period.

The key features of the framework includes a revised boundary for trading book and non-trading book (banking book) exposures, a revised internal model approach and a revised standardised approach. The revised internal model approach includes a shift from value-at-risk to an expected shortfall measure of risk under stress and the incorporation of the risk of market illiquidity. The revised standardised approach is composed of three components; the sensitivities-based method, the residual risk add-on and the default risk charge.

10.2.7 Small and Medium-sized Enterprises (SME) supporting factor

The European Commission proposes an extended SME supporting factor. The current SME supporting factor provides a capital reduction of 23.81% for exposures up to EUR 1.5 million towards SMEs. The proposal extends this discount with an

additional 15% reduction for the part above the EUR 1.5 million threshold, intended to further stimulate the lending to SMEs.

10.2.8 Regulatory reporting and disclosure requirements

The proposals from the European Commission aim at enhancing proportionality in the regulatory reporting and disclosure requirements. In general, smaller and less complex institutions can expect a decrease in the substance and frequency of their regulatory reporting and disclosure requirements. Furthermore, the existing disclosure requirements are amended to better align to the internaltional BCBS standards on Pillar III disclosures.

10.3 Revisions to the Basel III capital framework

Basel III is a global, regulatory framework on bank capital adequacy, stress testing, and liquidity risk. It was agreed upon by the members of BCBS in 2010 and 2011, however some parts are yet to be finalised. More specifically, the BCBS have proposed revisions to the capital floor, standardised and IRB approaches for credit risk, the leverage ratio and operational risk. On 3 January 2017, the BCBS announced that they are working to finalise these reforms and expect to complete its work in the near future.

10.3.1 Revised capital floor (Basel I floor)

In December 2014, the BCBS published a consultative document on the design of a permanent floor, replacing the Basel I (transitional) floor applicable today. The BCBS proposal is that the floor should be based on the revised standardised approaches for credit, market and operational risks.

10.3.2 Revised standardised approach for credit risk

In December 2015, the BCBS published a second consultative paper on the revision of the standardised approach for credit risk. The proposal differs in several ways from the initial proposal published in December 2014. The previous proposal removed all references to external credit ratings and assigned risk weights based on a limited number of alternative risk drivers. The new proposal reintroduces the use of ratings for exposures to banks and corporates.

10.3.3 Revised IRB approach for credit risk

On 24 March 2016, the BCBS published a consultative document on proposed revisions to the IRB approach, affecting both the advanced and foundation approaches. The aim is to reduce the complexity of the regulatory framework and to improve comparability by seeking to decrease the variablitity in capital requirements for credit risk. The proposed revisions include restrictions to the use of the IRB approach for certain exposures, such as exposures towards institutions and large corporates, as well as introducing model-parameter floors.

10.3.4 Leverage ratio

There are ongoing discussions in the BCBS regarding a potential leverage ratio buffer for G-SIBs.

10.3.5 Operational risk

In 4 March 2016, the BCBS published a second consultative document on the revision of a simplified approach for operational risk. The Committee is proposing to remove the existing approaches and instead introduce a revised operational risk capital framework that will be based on a single non-model-based method for the estimation of operational risk capital; the Standardised Measurement Approach (SMA). The proposed SMA combines a financial statement-based measure of operational risk - the "Business Indicator" (BI) - with an individual firm's past operational losses.

10.3.6 Capital Adequacy treatment of IFRS 9

In addition to the revised framework, the BCBS on 11 October 2016, published a discussion paper and a consultative document on policy considerations associated with the regulatory treatment of accounting provisions related to IFRS 9 under the Basel III regulatory capital framework. The discussion paper presents proposals on a revised long-term regulatory treatment of provisions to be applied once the revisions to the SA and IRB approach become applicable. IFRS 9 enters into force in 2018 and the BCBS proposal is, during an interim period, to retain the current regulatory treatment of provisions as applied under both the SA and IRB approach to allow thorough consideration of the longer-term options for the regulatory treatment of provisions.

11. List of abbreviations

ABCP	Asset-Backed Commercial Paper
ADF	Actual Default Frequency
AIRB	Advanced Internal Ratings Based approach
ALCO	Asset and Liability Committee
ALM	Asset and Liability Management
AR	Annual Report
ASF	Available Stable Funding
AT1	Additional Tier 1
AUM	Assets under management
AVA	Additional valuation adjustment
BA	Business Areas
BAC	Board Audit Committee
BCBS	Basel Committee on Banking Supervision
BI	Business Indicator
BRC	Bord Remuneration Committee
BRRD	Bank Recovery and Resolution Directive
BRIC	Board Risk Committee
CCF	Credit Conversion Factor
CCO	Chief Credit Officer
CCoB	Capital Conservation Buffer
CCP	Central Counterparties
CCR	Counterparty Credit Risk
CCY	Currency
CCyB	Countercyclical Capital Buffer
CDO	Collateralised debt obligation
CEM	Current Exposure Method
CET1	Common equity Tier 1
CEO	Chief Executive Officer
COO	Chief Operating Officer
CIRA	Compliance Independent Risk Assessment
CIU	Collective Investment Undertakings
CLN	Credit-Linked Notes
CLS	Continuous Linked Settlement
CO	Compliance Officer
COO	Chief Operating Officer
CRD	The EU's Capital Requirements Directive
CRO	Chief Risk Officer
CRR	Capital Requirements Regulation
CRU	Customer Responsible Unit
CVA	Credit valuation adjustment
EAD	Exposure at default
EBA	European Banking Authority
EC	Economic capital
EL	Expected loss
EP	Economic Profit
ESA	European Financial Supervisory Authority
ESG	Environment Social Governance
EU	European Union
FIRB	Foundation Internal Ratings Based approach
FRTB	Fundamental Review of the Trading Book
FSA	Financial Supervisory Authority
FSB	Financial Stability Board
FX	Foreign exchange
G-SIB	Global Systemically Important Bank
G-SII	Global Systemically important Institution
GC	Group Compliance
GCO	Group Compliance Officer
GCRM	Group Credit Risk Management
GDP	Gross Domestic Product
GEM	Group Executive Management
GIA	Group Internal Audit
GICS	Global Industries Classification Standard
GMCCR	Group Market and Counterparty Credit Risk
GOR	Group Operational Risk
GF	Group Functions
GRMC	Group Risk Management & Control
GWWR	General Wrong-Way Risk
ICAAP	Internal Capital Adequacy Assessment Process
ICR	Internal capital requirement
IFRS	International Financial Reporting Standard
ILAAP	Internal Liquidity Adequacy Assessment Process
IMM	Internal Model Method
IRB	Internal Ratings Based approach
IRM	Incremental Risk Measure
LCR	Liquidity Coverage Ratio
LGD	Loss given default
LoD	Line(s) of Defence
LTC	Loan-to-collateral
LTV	Loan-to-value
MDA	Maximum distributable amount
MREL	Minimum requirement for own funds and eligible liabilities
NBD	Nordea Bank Danmark
NBF	Nordea Bank Finland
NBN	Nordea Bank Norge
NBAB	Nordea Bank AB
NBSF	Net balance of stable funding
NLP	Nordea Life & Pensions
NSFR	Net stable funding ratio
O-SII	Other systemically important institutions
OTC	Over-the-counter
ORX	Operational Riskdata eXchange Association
P/L	Profit and loss

PD	Probability of default
PIT	Point-in-time
P2G	Pillar 2 II Guidance
P2R	Pillar 2 II Requirement
QRA	Quality and Risk Analysis
QCCP	Qualitied Central Counterparty
RAROCAR	Risk Adjusted Return on Capital At Risk
RCSA	Risk and Control Self-Assessment
REA	Risk exposure amount
RFF	Rolling Financial Forecast
RIRB	Retail Internal Ratings Based approach
RSF	Required Stable Funding
S&P	Standard & Poor's
SA	Standardised approach
SCRA	Specific Credit Risk Adjustment
SMA	Supervisory Formula Method
SFSA	Swedish FSA
SFT	Securities Financing Transactions
SII	Systemically important institutions
SIIR	Structural Interest Income Risk
SNDO	Swedish National Debt Office
SMA	Standardised Measurement approach
SME	Small and Medium-sized Enterprises
SPE	Special Purpose Entity
SRB	Systemic Risk Buffer
SREP	Supervisory Review and Evaluation Process
SWWR	Specific Wrong-Way risk
sVaR	Stressed Value-at-Risk
T2	Tier 2
TALM	Group Treasury & ALM
TMTP	Transitional Method for Technical Provisions
TLAC	Total Loss Absorbing Capacity
TPRM	Third Party Risk Management
TTC	Through-the-cycle
VA	Volatility Adjustment
VaR	Value-at-Risk
VCF	Value Creation Framework

Signing of the Capital and Risk Management Report

The Board of Directors and the President and Group CEO attest that the disclosures in the Nordea Group's Capital and Risk Management Report, provided according to Part Eight of Regulation (EU) 575/2013, have been prepared in accordance with the internal controls and procedures in the Policy for disclosure of capital adequacy information in the Nordea Group approved by the Board of Directors.

The policy ensures that the disclosed information is subject to an internal control framework with defined responsibilities and independent review through several levels of the organisation. A steering committee is appointed to approve the progress on the report, review the report as it takes form and support the process by ensuring management attention and priority. The policy's control framework stipulates that all inputs to the Capital and Risk Management Report shall be independently reviewed and verified. The steering committee is responsible to provide assurance to the Board of Directors and the President and Group CEO on the process and that the Capital and Risk Management Report has been prepared in accordance with the policy.

3 February 2017

Björn Wahlroos
Chairman

Marie Ehrling
Vice Chairman

Tom Knutzen
Board member

Robin Lawther
Board member

Toni H. Madsen
Board member

Lars G Nordström
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Hans Christian Riise
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Sarah Russell
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Kari Stadigh
Board member

Birger Steen
Board member

Casper von Koskull
President and Group CEO