

OP Amalgamation Capital Adequacy Report
30 June 2019

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Introduction

This report discloses information on the capital adequacy of the consolidated group of the amalgamation of member cooperative banks, as specified in Part 8 of the Capital Requirements Regulation of the European Parliament and of the Council No. 575/2013 (CRR) (Pillar III disclosures) in compliance with the guidelines issued by the European Banking Authority (EBA/GL/2016/11). Given that this information is based on the consolidated capital adequacy on the amalgamation of member cooperative banks, it is not directly comparable with information disclosed on OP Financial Group. The Report is unaudited.

The amalgamation of cooperative banks consists of the amalgamation's central cooperative (OP Cooperative), the central cooperative's member credit institutions and the companies belonging to their consolidation groups. Although OP Financial Group's insurance companies do not belong to the amalgamation of the cooperative banks, investments made in them have a major impact on capital adequacy calculated in accordance with the capital adequacy regulations for credit institutions. More detailed information on companies within the consolidation group can be found in the 2018 Financial Statement's Notes 22 and 47.

OP Financial Group's risk management practices and goals can be found in the 2018 Financial Statements Notes 2 and 53. OP Financial Group's Corporate Governance and steering systems are available on websites covering respective issues (op.fi > OP Financial Group > About us > Corporate Governance) and in OP Financial Group's Corporate Governance Statement 2018.

A description of the remuneration schemes and practices can be found in the 2018 Financial Statements Notes 49 and 50, OP Financial Group's website dealing with remuneration (op.fi > OP Financial Group > About us > Corporate governance > Remuneration) and in the Corporate Governance Statement 2018.

OP Financial Group received IRBA permission in stages between 2008–2011. OP Financial Group has applied the Internal Ratings Based Approach (IRBA) to retail, credit institution and corporate exposures and equity investments. The Standardised Approach (SA) is used for other exposure categories. The Standardised Approach is used for OP Card Company's exposures. OP Card Company aims to adopt IRBA for its exposures.

1 Capital base and capital adequacy

1.1 Capital base

EUR million	30 June 2019	31 Dec. 2018
OP Financial Group's equity capital	12,310	11,835
The effect of insurance companies on the Group's shareholders' equity is excluded	-124	189
Fair value reserve, cash flow hedge	-152	-33
Common Equity Tier 1 (CET1) before deductions	12,034	11,991
Intangible assets	-660	-710
Excess funding of pension liability and valuation adjustments	-61	-76
Cooperative capital deducted from own funds	-2	-147
Expected profit distribution	-48	-94
Shortfall of ECL minus expected losses	-408	-288
Common Equity Tier 1 (CET1)	10,854	10,677
Hybrid capital to which transitional provision is applied	60	80
Additional Tier 1 capital (AT1)	60	80
Tier 1 capital (T1)	10,914	10,757
Debenture loans	871	995
Tier 2 capital (T2)	871	995
Total capital base	11,786	11,752

The table presents how OP Amalgamation's CET1 capital derives from OP Financial Group's equity capital. CET1 capital increased by EUR 177 million. CET1 capital was increased by Banking performance and Profit Share issues. The amount of Profit Shares in CET1 capital increased to EUR 2,984 million (2,898, from which EUR 144 million has been deducted related to Profit Shares refunded to customers in January 2019). The amount of debenture loans included in Tier 2 capital (T2) decreased as the loans were transferred to the maturity of less than 5 years, in which case they are not included in the capital base in full.

OP Financial Group has applied transitional provisions regarding old capital instruments to subordinated loans.

1.2 Overview of RWAs (EU-OV1)

EUR million	RWAs		Minimum capital requirements
	30 June 2019	31 March 2019	30 June 2019
1 Credit risk (excluding CCR)	48,090	42,264	3,847
2 Of which the standardised approach	5,064	4,869	405
3 Of which the foundation IRB (FIRB) approach	26,001	25,124	2,080
4 Of which the advanced IRB (AIRB) approach	10,104	5,552	808
5 Of which equity IRB under the simple risk-weighted approach	484	265	39
5a Of which equity investments under PD/LGD method	6,437	6,453	515
6 CCR	742	727	59
7 Of which mark to market	547	545	44
12 Of which CVA	195	182	16
13 Settlement risk	0	0	0
14 Securitisation exposures in the banking book (after the cap)	41	43	3
15 Of which IRB approach	41	43	3
19 Market risk	1,488	1,561	119
20 Of which the standardised approach	1,488	1,561	119
23 Operational risk	4,232	4,232	339
25 Of which standardised approach	4,232	4,232	339
27 Amounts below the thresholds for deduction (subject to 250% risk weight)	264	261	21
27a Other risks	32	42	
29 Total	54,889	49,131	4,391
30 Risk weight floors based on ECB's decision	773	4,647	62
31 Total risk exposure amount including risk weight floors	55,661	53,778	4,453

Total risk exposure amount increased by 3.5% during the quarter. The average risk weights of retail exposures increased as a result of added conservatism in risk parameters and of risk parameter factors set by the ECB.

Risk weight floors based on the ECB's decision apply to retail exposures other than SME corporate exposures. In these, floors set for the average risk weight are 15.4% for mortgage-backed securities and 32.7% for other than mortgage-backed securities.

1.3 Minimum capital requirement

OP Financial Group has used the Foundation Internal Ratings Based Approach (FIRB) to measure capital requirement for corporate and credit institution exposures. This approach uses internal credit ratings to determine a customer's probability of default (PD), whereas loss given default (LGD) and credit conversion factor (CCF) are regulatory standard estimates. The Group has used the Internal Ratings Based Approach (IRBA) to measure capital requirement for retail exposures. This approach uses internal credit ratings to determine a customer's PD. Also LGD and CF are estimated internally.

It is possible to use various methods to measure capital adequacy requirement for equity investments. In the PD/LGD method, investments' risk-weighted exposure is calculated using PD, based on internal credit rating, and a regulatory standard LGD. According to the Simple Risk Weight Approach, investments' risk-weighted exposure amount derives from multiplying each investment by the risk-weight determined by the type of investment.

OP Financial Group has used the Standardised Approach to measure capital requirement for operational risks and market risks.

EUR million	30 June 2019		31 Dec. 2018	
	Capital requirement*	Risk weighted assets	Capital requirement*	Risk weighted assets
Credit and counterparty credit risk	3,915	48,943	3,328	41,602
Standardised Approach	331	4,133	310	3,878
Exposures to central government and central banks	21	264	21	261
Exposures to public sector entities	3	38	3	33
Exposures to multilateral development banks	0	0	0	0
Exposures to institutions	1	9	1	7
Exposures to corporates	221	2,759	203	2,533
Retail exposures	81	1,014	77	961
Exposures secured by mortgages on immovable property			2	29
Exposures in default	1	18	2	19
Exposures in the form of units or shares in collective investment undertakings (CIU)	0	0	0	0
Equity exposures	0	3	1	12
Other items	2	28	2	24
Internal Ratings-based Approach (IRB)	3,585	44,809	3,018	37,724
Exposures to institutions	74	923	87	1,083
Exposures to corporates	2,049	25,618	1,878	23,474
Retail exposures	808	10,104	422	5,276
Exposures secured by mortgages on immovable property	638	7,975	264	3,302
Other retail exposures	170	2,129	158	1,974
Equity investments	554	6,921	533	6,659
PD/LGD method	515	6,437	516	6,454
Simple Risk Weight Approach	39	484	16	205
Private equity investments	19	239	12	152
Listed investments	1	11		
Other	19	233	4	52
Securitisation exposures	3	41	4	46
Other non-credit obligations	96	1,203	95	1,188
Clearing/settlement risk	0	0	0	0
Market risk (Standardised Approach)	119	1,488	106	1,319
Position risk	118	1,477	105	1,309
Commodity risk	1	10	1	11
Operational risk	339	4,232	331	4,136
Risk associated with exposure value adjustment	16	195	14	175
Other risks	3	32		
Risk exposure amount	4,391	54,889	3,779	47,233
Risk weight floors based on ECB's decision	62	773	391	4,893
Total risk exposure amount including risk weight floors	4,453	55,661	4,170	52,126

* Capital requirement = Risk-weighted assets x 0.08

1.4 Capital Ratios

Ratios, %	30 June 2019	31 Dec. 2018
CET1 capital ratio	19.5	20.5
Tier 1 ratio	19.6	20.6
Capital adequacy ratio	21.2	22.5

Ratios, fully loaded, %	30 June 2019	31 Dec. 2018
CET1 capital ratio	19.5	20.5
Tier 1 ratio	19.5	20.5
Capital adequacy ratio	21.1	22.4

The lower ratio was affected by an increase in the loan portfolio and a rise in the risk weights of retail exposures.

Capital requirement, EUR million	30 June 2019	31 Dec. 2018
Capital base	11,786	11,752
Capital requirement	7,953	7,448
Buffer for capital requirements	3,833	4,304

OP Financial Group's capital adequacy is on a solid basis compared to the statutory requirements and those set by the authorities. The capital requirement of 14.5% comprises the minimum requirement of 8%, the capital conservation buffer of 2.5%, the O-SII buffer requirement of 2.0%, the minimum requirement (P2R) of 2.0% (1.75 a year ago) set by the ECB and the changing capital conservation buffers by country for foreign exposures.

2 Credit Risk

The figures presented in the credit risk section excludes items treated within the scope of counterparty credit risk.

2.1 Credit quality of exposures by exposure class and instrument (EU CR1-A)

30 June 2019, EUR million	a		b	c	e	f	g
	Defaulted exposures	Gross carrying values of		Specific credit risk adjustments	Accumulated write-offs	Credit risk adjustment charges of the period	Net values (a+b-c)
		Non-defaulted exposures					
IRB approach							
2 Institutions		7,390	1			0	7,390
3 Corporates	726	49,612	402	14	-1	49,936	
5 Of which: SMEs	289	18,535	128	7	-4	18,696	
6 Retail	495	56,515	110	7	4	56,900	
7 Secured by real estate property	384	47,061	53	1	2	47,392	
8 SMEs	29	1,098	3	0	0	1,125	
9 Non-SMES	355	45,962	50	0	2	46,267	
11 Other retail	111	9,455	57	6	2	9,508	
12 SMEs	28	912	11	2	-2	929	
13 Non-SMES	83	8,543	47	5	4	8,579	
14 Equity	0	2,498			14	2,498	
14a Other non-credit obligations	1	1,202	1		0	1,202	
15 Total IRB approach	1,222	117,218	514	21	17	117,926	
Standardised approach							
16 Central government and central banks		12,694	0		0	12,693	
17 Regional government or local authorities		4,450	1		0	4,449	
18 Public sector entities		327	0		0	327	
19 Multilateral development banks		285				285	
20 International organisations		469				469	
21 Institutions		232	0		0	232	
22 Corporates		3,261	5		-2	3,257	
23 Of which: SMEs		2,220	4		-2	2,216	
24 Retail		3,672	18	1	2	3,654	
25 Of which: SMEs		4	0		0	4	
28 Exposures in default	25		9	5	3	16	
32 Collective investments undertakings		0				0	
33 Equity exposures		3	0		0	3	
34 Other exposures		28				28	
35 Total standardised approach	25	25,422	33	6	3	25,414	
36 Total	1,248	142,640	546	27	21	143,341	
37 Of which: Loans	1,149	93,705	498		6	94,356	
38 Of which: Debt securities		11,673			0	11,673	
39 Of which: Off-balance-sheet exposures	63	26,826			-5	26,889	

The quality of the loan portfolio still remained good. The ratio of defaulted exposures to exposures was the same as on 31 December 2018. Impairment loss (ECL) increased slightly year on year. Defaulted exposures are exposures belonging to rating categories 11–12 or F. In the Standardised Approach exposures are defaulted in case interest or capital are over 90 days overdue.

2.2 Credit quality of exposures by industry or counterparty types (EU CR1-B)

30 June 2019, EUR million	Gross carrying values of		c Specific credit risk adjustments	e Accumulated write-offs	f Credit risk adjustment charges of the period	g Net values (a+b-c)
	a Defaulted exposures	b Non-defaulted exposures				
1 Renting and operation of residential real estate	70	9,819	26		0	9,863
2 Operating of other real estate	56	5,260	23	1	0	5,294
3 Trade	49	5,645	21	3	-2	5,672
4 Energy	39	4,448	36		1	4,452
5 Services	105	6,965	43	1	9	7,027
6 Construction	95	4,667	37	1	7	4,725
7 Other manufacturing	34	3,055	16	1	-1	3,073
8 Manufacture of machinery and equipment (incl. maintenance)	31	2,589	19	1	1	2,601
9 Transportation and storage	45	2,176	13	3	-8	2,207
10 Financial and insurance activities	5	9,666	9	5	-5	9,662
11 Central bank deposits		10,463				10,463
12 Covered bonds		6,363				6,363
13 Agriculture, forestry and fishing	124	5,390	35	0	-1	5,478
14 Forest industry	146	1,387	103	0	3	1,429
15 Metal industry	32	1,135	13	0	-9	1,154
16 Food industry	17	931	14	0	-2	935
17 Buying and selling of own real estate	4	782	2		0	783
18 Information and communication	15	1,275	13	0	6	1,277
19 Other sectors	6	1,591	5	0	14	1,580
20 Water supply and waste management	1	467	1	0	0	467
21 Mining and quarrying	34	371	23	0	0	382
22 Manufacture of chemicals and chemical products	0	373	0		0	372
23 Activities of households as employers; undifferentiated goods and services producing activities of households for own use	2	360	2	0	0	360
24 Public administration and defence (incl. compulsory social security)		5,056	1		0	5,055
25 Activities of extraterritorial organisations and bodies		0	0		0	0
26 Households	338	52,407	92	10	8	52,653
24 Total	1,248	142,640	546	27	21	143,341

Credit risk adjustments in the real estate sector are low due to high collateral levels. The amount of defaulted exposures in Agriculture, forestry and fishing relative to credit risk adjustments is explained by technical defaults resulting from subsidies payment schedules. The high amount of defaulted exposures in the Forest industry, mining and quarrying relative to exposures is due to individual cases with high exposure amount in comparison with the total exposure amount in the sector.

2.3 Credit quality of exposures by geography (EU CR1-C)

30 June 2019, EUR million	Gross carrying values of		c Specific credit risk adjustments	e Accumulated write-offs	f Credit risk adjustment charges of the period	g Net values (a+b-c)
	a Defaulted exposures	b Non-defaulted exposures				
1 Finland	1,227	126,516	536	27	21	127,207
2 Other Nordic countries	2	3,342	1	0	0	3,343
3 Baltic States	12	3,008	7	0	1	3,013
4 Rest of EU	4	7,863	1	0	0	7,866
5 Rest of Europe	0	164	0		0	164
6 USA	0	147	1		0	146
7 Asia	0	344	0	0	0	344
8 Other	2	1,255	1	0	0	1,256
11 Total	1,248	142,640	546	27	21	143,341

A total of 89% of total exposures are in Finland and other distribution is presented applying the materiality principle. A total of 98% of defaulted exposures and 98% credit risk adjustments are in Finland.

2.4 Ageing of past-due exposures (EU CR1-D)

30 June 2019, EUR million	a	b	c Gross carrying values		e	f
	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
1 Loans	375	100	92	151	141	475
2 Debt securities						
3 Total exposures	375	100	92	151	141	475

Past due exposures increased slightly during the first half but total exposures are low.

2.5 Non-performing and forborne exposures (EU CR1-E)

30 June 2019, EUR million	Debt securities	Loans and advances	Off-balance-sheet exposures
Gross carrying values of performing and non-performing exposures	11,673	94,854	26,889
Of which performing but past due > 30 days and <= 90 days		89	
Of which performing forborne		2,568	2
Of which non-performing		1,504	74
Of which defaulted		1,283	64
Of which impaired		1,257	
Of which forborne		447	
Accumulated impairment and provisions and negative fair value adjustments due to credit risk			
On performing exposures	-2	-118	8
Of which forborne		-8	
On non-performing exposures		-420	
Of which forborne		-62	
Collaterals and financial guarantees received			
On non-performing exposures	80	975	21
Of which forborne exposures		2,441	0

Forborne exposures increased slightly during the first half.

2.6 Changes in the stock of general and specific credit risk adjustments (EU CR2-A)

30 June 2019, EUR million	a Accumulated specific credit risk adjustment
1 Opening balance 31 Dec 2018	545
2 Increases due to amounts set aside for estimated loan losses during the period	14
3 Decreases due to amounts reversed for estimated loan losses during the period	-1
4 Decreases due to amounts taken against accumulated credit risk adjustments	-5
8 Other adjustments	-7
9 Closing balance 30 June 2019	546

Credit risk adjustments under IFRS 9 (ECL) are presented as specific credit risk adjustments.

2.7 Changes in the stock of defaulted and impaired loans and debt securities (EU CR2-B)

30 June 2019, EUR million	a Gross carrying value defaulted exposures
1 Opening balance 31 Dec 2018	1,209
2 Loans and debt securities that have defaulted or impaired since the last reporting period	258
3 Returned to non-defaulted status	-89
4 Amounts written off	-31
5 Other changes	-99
6 Closing balance 30 June 2019	1,248

Defaulted loans increased slightly especially in corporate customers.

2.8 CRM techniques – Overview (EU CR3)

30 June 2019, EUR million	a Exposures unsecured – Carrying amount	b Exposures secured – Carrying amount	c Exposures secured by collateral	d Exposures secured by financial guarantees	e Exposures secured by credit derivatives
1 Total loans	35,377	58,980	53,787	5,193	
2 Total debt securities	4,812	6,861	6,363	498	
3 Total exposures	75,712	67,629	61,613	6,016	
4 Of which defaulted	398	452	413	39	

In the IRBA applied to retail exposures, it is possible to use collateral securities on a more extensive basis than in the SA applied to credit institution and corporate exposures. Guarantees and collateral related to retail exposures are treated as part of LGD. Several collateral securities or guarantees may apply to the same exposure in the table.

In the SA and IRBA applied to credit institution and corporate exposures, OP Financial Group utilises the following real collateral securities specified in the capital adequacy regulations: residential buildings and shares entitling their holders to the possession of an apartment, deposits and securities (equities). Deposits and securities are financial collateral, as referred to in the regulatory framework, and alternative methods are available for their accounting treatment. OP Financial Group has treated financial collateral in the above approaches using the so-called comprehensive method and volatility adjustments given by the relevant regulator.

In the SA and IRBA applied to credit institution and corporate exposures, only approved guarantors specified in the capital adequacy regulations may be used, such as guarantees granted by the Finnish State and other states, and those granted by municipalities and banks. Credit derivatives have not been used in the calculation. Offsetting balance-sheet or off-balance-sheet items was not applied in credit risk.

Residential buildings and shares entitling their holders to the possession of an apartment in Finland lodged as collateral constitute the largest collateral type used in capital adequacy. The effect of other physical securities on the capital adequacy of credit risks is much less significant. Guarantees used have been given by a number of sources, the largest single one being the State of Finland.

2.9 Standardised approach – Credit risk exposure and CRM effects (EU CR4)

Exposure classes, EUR million	a	b	c	d	e	f
	Exposures before CCF and CRM On-balance-sheet amount	Exposures before CCF and CRM Off-balance-sheet amount	Exposures post CCF and CRM On-balance-sheet amount	Exposures post CCF and CRM Off-balance-sheet amount	RWAs and RWA density (%) RWAs	RWA density (%)
1 Central governments or central banks	12,201	492	14,059	165	264	1.9
2 Regional government or local authorities	3,224	1,226	4,086	351		
3 Public sector entities	220	107	105	51	37	23.5
4 Multilateral development banks	285		420	11	0	0.0
5 International organisations	469		469			
6 Institutions	210	22	16	0	3	17.6
7 Corporates	2,607	654	2,474	301	2,759	99.4
8 Retail	1,371	2,301	1,353	0	1,014	75.0
10 Exposures in default	25	0	16	0	18	106.7
14 Collective investment undertakings	0		0		0	100.0
15 Equity	3		3		3	100.0
16 Other items	28		28		28	99.6
17 Total	20,644	4,803	23,029	880	4,126	17.3

The exposure amount and RWAs under the Standardised Approach decreased slightly during the year. Central government exposures include deferred tax assets which have not been deducted from the Group's own funds; these are treated with a risk weight of 250%.

2.10 Standardised approach (EU CR5)

Exposure classes, EUR million	Risk weight								Total	unrated
	0 %	20 %	35 %	75 %	100 %	150 %	250 %	Others		
1 Central governments or central banks	14,118						106		14,224	11,303
2 Regional government or local authorities	4,437								4,437	3,024
3 Public sector entities		149			7				156	17
4 Multilateral development banks	431				0				431	145
5 International organisations	469								469	
6 Institutions	2	14							16	15
7 Corporates					2,708			68	2,775	2,675
8 Retail				1,350				4	1,353	1,353
10 Exposures in default					14	2		0	16	16
14 Collective investment undertakings					0				0	0
15 Equity					3				3	3
16 Other items	0				28				28	28
17 Total	19,457	163		1,350	2,759	2	106	72	23,909	18,581

In its capital adequacy measurement for credit risk under the Standardised Approach to determine the exposure's risk weight, OP Financial Group applies credit ratings by Moody's Investors Service, Fitch Ratings or Standard & Poor's Financial Services to receivables from central governments and central banks (and comparable items, above lines 2–5) and corporations. External credit assessment determines the receivable's credit rating category. In the capital adequacy requirement for receivables, the risk weight is determined by the credit rating category. If two credit rating applies to the counterparty or receivable, the lowest rating category is used to determine the rating category.

The risk weight of international development banks' receivables may also be determined on the basis of other than credit rating based on external credit assessment. If the risk weight is affected by external credit assessment, credit ratings issued by the aforementioned rating agencies will also apply to the risk weighting of international development banks' receivables in capital adequacy measurement.

For a receivable in capital adequacy measurement, the security-specific credit rating of the issue programme or arrangement to which the receivable belongs must be used. If such a rating is not available, the issuer's general credit rating will be used, provided that it is available. Items under the Standardised approach do not include items deducted from the capital base.

2.11 IRB approach – Credit risk exposures by exposure class and PD range (EU CR6)

The table below presents the PD class breakdown of credit exposures within the scope of the IRB approach, specification of risk parameters and other information. The defaults, or PD 100, are not included in the average PD and risk weight. The minimum PD is 0.03%. CCF stands for a credit conversion factor. Off-balance-sheet exposures include loans not drawn down and unused commitments. Exposure amounts do not include counterparty credit risk.

PD scale	a Original on-balance-sheet gross exposures	b Off-balance-sheet exposures pre-CCF	c Average CCF	d EAD post CRM and post CCF	e Average PD	f Number of obligors	g Average LGD	h Average maturity	i RWAs	j RWA density	k EL	l Impairments and value adjustments
Retail												
0,00 - < 0,15	40,508	3,873	52.5 %	38,643	0.1 %	583,660	27.1 %	14.3	1,689	4.4 %	5	
0,15 - < 0,25	4,255	114	53.8 %	4,198	0.2 %	94,182	26.6 %	14.7	583	13.9 %	2	
0,25 - < 0,50	2,553	167	58.1 %	2,480	0.4 %	110,492	30.8 %	10.4	518	20.9 %	3	
0,50 - < 0,75	1,598	75	52.3 %	1,561	0.6 %	63,493	34.6 %	11.6	512	32.8 %	3	
0,75 - < 2,50	4,128	182	61.0 %	4,049	1.3 %	104,665	33.0 %	11.7	1,931	47.7 %	17	
2,50 - < 10,00	2,096	83	64.1 %	2,059	5.0 %	70,814	35.6 %	10.7	1,941	94.3 %	37	
10,00 - < 100,00	1,376	18	73.4 %	1,370	31.4 %	36,116	32.7 %	11.1	2,232	162.9 %	136	
100,00	495	4		491	100.0 %	12,807	31.6 %	17.2	698	142.1 %	120	
Total	57,010	4,517	53.2 %	54,852	1.2 %	1,076,229	28.3 %	13.7	10,104	17.3 %	325	110

The average private customer PDs and LGDs increased especially as a result of the ECB's risk parameter factors, and conservatism added to the models also increased the parameters.

In setting PD values given by rating models assessing solvency of personal customers' retail exposures, OP Financial Group has used its own default data and external data. As external data, OP Financial Group has made use of the unemployment rate since 1989. The Group has taken account of uncertainty associated with the data using a statistical margin of conservatism.

In setting PD values given by rating models assessing corporate customers in retail exposures, OP Financial Group has used its own default data and external data. As external data, the Group has used bankruptcy statistics since 1987. The Group has taken account of uncertainty associated with the data using a statistical margin of conservatism. The current corporate customer PDs in use were adopted in the first quarter of 2015.

In determining LGD estimates for retail exposures, the Group has used contract, customer, default, collateral and debt-collection data from 2008 until 2014. The Group applies the definition of default as in the PD models. In addition, the model uses product level cash flow data on uncollateralised returns and the recovery rate of default probabilities as well as recession valuation adjustments for collateral values based on the recession of the early 1990s. The Group has taken account of uncertainty associated with the data using a margin of conservatism.

In the risk weight calculation, the Group applies the regulatory LGD minimum of 10% and 15% to residential mortgage-backed exposures and commercial mortgage-backed exposures, respectively.

PD scale	a Original on-balance-sheet gross exposures	b Off-balance-sheet exposures pre-CCF	c Average CCF	d EAD post CRM and post CCF	e Average PD	f Number of obligors	g Average LGD	h Average maturity	i RWAs	j RWA density	k EL	l Impairments and value adjustments
Retail - Secured by real estate property												
0,00 - < 0,15	34,883	744	54.7 %	34,546	0.0 %	419,448	25.2 %	14.8	1,394	4.0 %	4	
0,15 - < 0,25	3,675	47	53.4 %	3,653	0.2 %	41,767	27.1 %	14.9	527	14.4 %	2	
0,25 - < 0,50	1,608	65	61.4 %	1,583	0.4 %	27,633	23.7 %	12.4	270	17.1 %	1	
0,50 - < 0,75	1,073	16	54.4 %	1,066	0.5 %	14,567	28.0 %	14.4	288	27.0 %	2	
0,75 - < 2,50	3,213	85	62.6 %	3,181	1.2 %	43,330	27.5 %	13.4	1,450	45.6 %	11	
2,50 - < 10,00	1,500	32	66.8 %	1,490	4.7 %	21,187	27.9 %	12.7	1,497	100.5 %	20	
10,00 - < 100,00	1,108	10	72.7 %	1,105	33.3 %	14,315	27.9 %	12.4	1,927	174.4 %	104	
100,00	384	2		382	100.0 %	4,830	21.1 %	16.0	621	162.3 %	39	
subtotal	47,445	1,001	56.2 %	47,007	1.1 %	587,077	25.6 %	14.5	7,975	15.8 %	183	53
Retail - Other												
0,00 - < 0,15	5,625	3,129	51.9 %	4,097	0.1 %	230,268	42.8 %	9.9	295	7.2 %	1	
0,15 - < 0,25	580	67	54.1 %	546	0.2 %	54,668	22.6 %	13.4	56	10.3 %	0	
0,25 - < 0,50	945	102	55.8 %	896	0.4 %	84,755	43.4 %	6.9	247	27.6 %	2	
0,50 - < 0,75	525	59	51.7 %	495	0.7 %	49,711	48.9 %	5.4	224	45.3 %	2	
0,75 - < 2,50	916	97	59.2 %	868	1.4 %	66,838	53.1 %	5.4	480	55.3 %	6	
2,50 - < 10,00	596	52	61.5 %	569	5.7 %	52,747	55.7 %	5.5	444	78.0 %	18	
10,00 - < 100,00	268	8	74.5 %	265	23.6 %	23,801	52.7 %	5.5	305	114.9 %	32	
100,00	111	2		109	100.0 %	8,735	68.8 %	21.4	77	70.8 %	81	
subtotal	9,565	3,516	52.3 %	7,845	1.5 %	571,523	44.6 %	8.7	2,129	26.5 %	142	57
Total	57,010	4,517	53.2 %	54,852	1.2 %	1,158,600	28.3 %	13.7	10,104	17.3 %	325	110

The average risk weights of mortgage-backed retail exposures and risk parameters increased as a result of added conservatism in risk parameters and of risk parameter factors set by the ECB. Considering that the one and the same customer may include in several sub-exposure classes, the sums of the number of obligors differ between the tables.

PD scale	a Original on- balance-sheet gross exposures	b Off-balance- sheet exposures pre-CCF	c Average CCF	d EAD post CRM and post CCF	e Average PD	f Number of obligors	g Average LGD	h Average maturity	i RWAs	j RWA density	k EL	l Impair- ments and value adjustments
Corporates												
0,00 - < 0,15	11,243	4,608	70.0 %	8,690	0.1 %	575	44.6 %	4.2	2,095	24.1 %	3	
0,15 - < 0,25	4,857	2,153	68.7 %	3,707	0.2 %	613	44.6 %	3.7	1,608	43.4 %	3	
0,25 - < 0,50	10,755	3,249	61.3 %	8,975	0.4 %	9,312	43.6 %	10.2	4,674	52.1 %	15	
0,75 - < 2,50	12,293	4,382	64.1 %	10,048	1.3 %	9,738	43.2 %	8.4	8,648	86.1 %	55	
2,50 - < 10,00	9,503	2,090	60.0 %	5,435	4.5 %	9,174	43.2 %	8.2	6,640	122.2 %	105	
10,00 - < 100,00	961	305	62.1 %	813	22.4 %	1,535	43.3 %	7.2	1,543	189.7 %	79	
100,00	726	59	53.1 %	688	100.0 %	867	44.1 %	16.9			304	
Total	50,338	16,845	65.0 %	38,357	1.6 %	31,814	43.8 %	7.5	25,208	66.9 %	563	402

The average risk weight of corporate exposures increased slightly from the 2018-end level.

In setting PD values given by rating models assessing solvency of corporate customers' retail exposures, OP Financial Group has used its own default data and external data. As external data, the Group has used bankruptcy statistics since 1987. The Group has taken account of uncertainty associated with the data using a statistical margin of conservatism. The current corporate customer PDs in use were adopted in the first quarter of 2015.

PD scale	a Original on- balance-sheet gross exposures	b Off-balance- sheet exposures pre-CCF	c Average CCF	d EAD post CRM and post CCF	e Average PD	f Number of obligors	g Average LGD	h Average maturity	i RWAs	j RWA density	k EL	l Impair- ments and value adjustments
Corporates - Other												
0,00 - < 0,15	9,274	3,774	70.1 %	7,230	0.1 %	335	44.6 %	3.9	1,770	24.5 %	2	
0,15 - < 0,25	4,467	2,010	69.8 %	3,403	0.2 %	164	44.7 %	3.3	1,502	44.1 %	3	
0,25 - < 0,50	5,383	2,342	70.4 %	4,197	0.4 %	1,341	44.2 %	5.6	2,578	61.4 %	7	
0,75 - < 2,50	6,619	2,791	65.9 %	5,164	1.3 %	1,679	43.2 %	6.2	5,182	100.4 %	29	
2,50 - < 10,00	4,823	1,271	60.8 %	2,494	4.4 %	1,662	43.6 %	8.3	3,666	147.0 %	48	
10,00 - < 100,00	511	264	64.8 %	386	20.1 %	198	44.1 %	6.0	884	228.9 %	34	
100,00	437	48	54.1 %	407	100.0 %	177	44.4 %	15.5			181	
subtotal	31,514	12,499	68.1 %	23,280	1.2 %	5,556	44.1 %	5.3	15,582	68.1 %	304	274
Corporates - SMEs												
0,00 - < 0,15	1,968	834	69.3 %	1,461	0.1 %	240	44.9 %	5.5	326	22.4 %	0	
0,15 - < 0,25	390	144	54.1 %	304	0.2 %	449	44.2 %	9.0	106	34.8 %	0	
0,25 - < 0,50	5,372	907	41.4 %	4,778	0.4 %	7,972	43.1 %	14.2	2,096	43.9 %	8	
0,75 - < 2,50	5,675	1,591	61.4 %	4,885	1.2 %	8,066	43.1 %	10.7	3,467	71.0 %	26	
2,50 - < 10,00	4,680	819	59.0 %	2,941	4.5 %	7,513	42.8 %	8.1	2,974	101.1 %	57	
10 - < 100	450	41	45.7 %	427	24.5 %	1,337	42.6 %	8.2	658	154.2 %	45	
100	289	11	48.6 %	281	100.0 %	690	43.7 %	19.0			123	
subtotal	18,824	4,346	56.8 %	15,077	2.2 %	26,267	43.2 %	10.9	9,626	65.1 %	259	128
Total	50,338	16,845	65.0 %	38,357	1.6 %	31,823	43.8 %	7.5	25,208	66.9 %	563	402

PD scale	a Original on- balance-sheet gross exposures	b Off-balance- sheet exposures pre-CCF	c Average CCF	d EAD post CRM and post CCF	e Average PD	f Number of obligors	g Average LGD	h Average maturity	i RWAs	j RWA density	k EL	l Impair- ments and value adjustments
Institutions												
0,00 - < 0,15	6,443	470	68.0 %	6,301	0.0 %	161	14.3 %	5.2	498	7.9 %	0	
0,15 - < 0,25	573	94	73.7 %	554	0.2 %	23	16.0 %	3.3	105	19.0 %	0	
0,25 - < 0,50	223	50	55.8 %	201	0.4 %	45	18.6 %	6.2	68	34.1 %	0	
0,50 - < 0,75	71	51	50.3 %	38	0.7 %	53	45.0 %	2.9	40	105.5 %	0	
0,75 - < 2,50	15	10	32.6 %	9	1.5 %	25	45.0 %	13.2	12	137.7 %	0	
2,50 - < 10,00	61	45	41.3 %	35	4.3 %	46	45.0 %	2.6	64	180.6 %	1	
10,00 - < 100,00	4	4	34.8 %	2	11.7 %	13	45.0 %	0.6	5	245.7 %	0	
100,00												
Total	7,390	724	64.6 %	7,140	0.1 %	366	14.9 %	5.0	792	11.1 %	2	1

The average risk weights of credit institution exposures decreased slightly from the 2018-end level. The majority of the credit institution exposures are covered bonds.

For setting PD values given by the credit institution exposure rating model, OP Financial Group has used rating scores for credit institution exposure and external credit ratings and the corresponding default data. PD values have been adjusted with a margin of conservatism in order to take account of uncertainties associated with the data.

2.12 Equities (EU CR10, EU CR6)

Equities under the simple risk-weighted approach

Categories	On-balance-sheet amount	Off-balance-sheet amount	Risk weight	Exposure amount	RWAs	Capital requirements
Private equity exposures	120	6	190 %	126	239	19
Exchange-traded equity exposures	4		290 %	4	11	1
Other equity exposures	63		370 %	63	233	19
Total	187	6		193	484	39

Equity investments increased during the the first half. Listed investments are measured at market value.

PD/LGD method

	a	b	c	d	e	f	g	h	i	j	k	l
PD Scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
0,75 - < 2,50	2,306			2,306	1,3	4	90,0	22,5	6,437	279,2	26	

The PD/LGD method for equity investments has been used to treat the Group's strategic investments, which include investments in the Group's insurance companies. In these exposures, EAD is the same as gross exposures and the exposures do not include off-balance-sheet items. PD for unlisted investments is 1.25 which is determined by regulation. No major changes have occurred in the amount of exposures. Maturity has been presented for instruments with a contractual maturity.

2.13 Non-deducted participations in insurance undertakings (EU INS1)

30 June 2019, EUR million	Value
Holdings of own funds instruments of a financial sector entity where the institution has a significant investment not deducted from own funds (before risk-weighting)	2,306
Total RWAs	6,437

The Group treats insurance holdings in equity investments based on the supervisor's permission. In October 2015, the Group received permission from the ECB to treat insurance holdings within the conglomerate as risk-weighted assets according to the previous practice.

2.14 RWA flow statements of credit risk exposures under the IRB approach (EU-CR8)

EUR million	a	b
	RWA amounts	Capital requirements
1 RWAs as at the end of the previous reporting period 31 March 2019	30,676	2,454
2 Asset size	839	67
3 Asset quality	231	19
4 Model updates	806	64
5 Methodology and policy	3,553	284
9 RWAs as at the end of the reporting period 30 June 2019	36,104	2,888

Changes occurred in retail exposures, corporate exposures and credit institution exposures during the last quarter are presented using the flow statements. Growth in exposure amount increased risk-weighted assets and the credit quality weakened slightly in corporate exposures, which increased risk-weighted assets. The effect of increases in the margins of conservatism of retail exposures is presented in the model updates. The effect of risk parameter factors set by the ECB has been presented in changes in method and policy.

3 CCR and Market Risk

3.1 Analysis of CCR exposure by approach (EU CCR1)

Counterparty credit risk arising from derivative contracts is based on the daily market valuation of derivative contracts.

The size of customer limits are defined on the basis of assets included in derivative contracts and the estimated validity of the contracts.

Counterparty credit risk associated with derivative contracts arises from receivables which OP Financial Group may have from its counterparties in case they default. OP Financial Group measures counterparty credit risk using a fair value model, whereby the value of liability comprises the contract market value and the expected potential future exposure. The credit equivalent based on the fair value model is used both in the regulatory capital adequacy requirement and economic capital requirement.

The Group confirms corporate counterparty exposure limits once a year and in this connection also checks the status of collateral applying to the limits for derivative transactions.

Credit risk arising from bank counterparties is reduced through collateral, which means the use of ISDA Credit Support Annex (CSA) contract associated with the ISDA general agreement. In the collateral system, the counterparty provides cash or securities in security for the receivable. Collateral matching between counterparties are performed on a daily basis. In respect of guarantees and collateral securities, the Group applies the same practice as in credit risks. The Group ensures sufficient collateral as part of its daily liquidity management through stress tests.

Capital adequacy requirement due to counterparty credit risk may arise from items related to banking book and the trading book. Capital adequacy requirement due to counterparty credit risk is calculated, for example, on OTC derivatives and sale and repurchase agreements.

30 June 2019, EUR million	b Replacement cost/current market value	c Potential future credit exposure	f EAD post CRM	g RWAs
1 Mark to market	1,431	1,337	2,721	547

Counterparty credit risk exposures remained at the 2018-end level.

3.2 CVA capital charge (EU CCR2)

30 June 2019, EUR million	a Exposure value	b RWAs
4 All portfolios subject to the standardised method	290	195

The risk-weighted derivative assets were at the level recorded on 31 December 2018.

3.3 Standardised approach – CCR exposures by regulatory portfolio and risk (EU CCR3)

Exposure classes, EUR million	Risk Weight					Total	Of which unrated
	0 %	2 %	50 %	100 %	Others		
1 Central governments or central banks	314					314	314
2 Regional government or local authorities	415					415	415
3 Public sector entities				1		1	1
4 Multilateral development banks	341					341	
6 Institutions		312				312	312
11 Total	1,071	312		1		1,384	1,043

Exposures for central counterparty clearing are shown in column 2%. Exposure amounts were at the 2018-end level.

3.4 IRB approach – CCR exposures by portfolio and PD scale (EU CCR4)

	a	b	c	d	e	f	g
PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Corporates							
0,00 - < 0,15	423	0.1 %	90	45.0 %	13.8	97	23.0 %
0,15 - < 0,25	142	0.2 %	29	45.0 %	14.9	63	44.5 %
0,25 - < 0,50	92	0.4 %	52	45.0 %	9.5	57	61.9 %
0,75 - < 2,50	153	1.2 %	96	45.0 %	11.9	134	99.0 %
2,50 - < 10,00	24	4.0 %	58	45.0 %	6.0	32	132.6 %
10,00 - < 100,00	12	12.8 %	5	45.0 %	6.0	26	221.6 %
100,00	1	100.0 %	1	45.0 %	9.1	0	0.0 %
Total	847	0.8 %	331	45.0 %	12.8	409	49.4 %
	a	b	c	d	e	f	g
PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Institutions							
0,00 - < 0,15	360	0.1 %	26	45.0 %	8.7	68	33.0 %
0,15 - < 0,25	17	0.2 %	10	45.0 %	6.6	1	52.3 %
0,25 - < 0,50	112	0.4 %	8	45.0 %	12.7	61	82.8 %
Total	489	0.1 %	44	45.0 %	9.7	130	46.2 %

The average risk weights of corporate and credit institution exposures rose from the 2018-end level. No information has been presented on retail exposures; the amount of counterparty risk exposures under retail exposures is not material.

3.5 Impact of netting and collateral held on exposure values (EU CCR5-A)

	a	b	c	d	e
30 June 2019, EUR million	Gross positive fair value	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1 Derivatives	6,002	2,900	3,103	382	2,721

The gross positive fair value of derivatives rose from the 2018-end level especially due to decline in interest rates. Also the amount of collateral and net exposure amounts increased.

3.6 Composition of collateral for exposures to CCR (EU CCR5-B)

	a	b	c	d	
30 June 2019, EUR million	Collateral used in derivative transactions				
	Fair value of collateral received		Fair value of posted collateral		
	Segregated	Unsegregated	Segregated	Unsegregated	
1 Cash			382	0	602
2 Sovereign debt				193	311

Collateral given to the central counterparty is segregated. Collateral with other counterparties are unsegregated. The majority of the collateral is cash.

3.7 Credit derivatives exposures (EU CCR6)

	a	b	c
30 June 2019, EUR million	Credit derivative hedges		
	Protection bought	Protection sold	Other credit derivatives
Notionals			
Index credit default swaps			132
Other credit derivatives			81
Total notionals			213
Fair values			-2
Positive fair value (asset)			3
Negative fair value (liability)			-5

The amount of credit derivatives was at the 2018-end level.

3.8 Exposures to CCPs (EU CCR8)

30 June 2019, EUR million	a	b
	EAD post CRM	RWAs
1 Exposures to QCCPs (total)	312	6
2 Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	312	6
3 (i) OTC derivatives	312	6
7 Segregated initial margin	193	

The amount of exposures related to the central counterparty rose slightly in the first half. The initial margin depends on the risk level of the position; the margin amount increased during the first half.

3.9 Market risk under the standardised approach (EU MR1)

30 June 2019, EUR million	a	b
	RWAs	Capital requirements
Outright products		
1 Interest rate risk (general and specific)	1,225	98
4 Commodity risk	10	1
Options		
6 Delta-plus method	252	20
9 Total	1,488	119

The general risk increased slightly during the first half. The specific risk increased slightly due to the position increase and the deterioration of the average credit rating level. The risk-weighted assets based on the Delta-plus method decreased slightly.

4 Leverage and Liquidity Coverage Ratio (LCR)

4.1 Leverage

Leverage ratio, EUR million	30 June 2019	31 Dec. 2018
Tier 1 capital (T1)	10,914	10,757
Total exposure	128,165	125,510
Leverage ratio, %	8.5	8.6

The leverage ratio that describes a company's minimum leverage ratio is presented in accordance with Commission Delegated Regulation. According to these rules, the minimum ratio is three per cent. The minimum leverage ratio is based on end of quarter figures.

4.2 LCR disclosure template (EU LIQ1)

Scope of consolidation
Consolidated

EUR million	Total weighted value (average)			
	30 June 2019	31 March 2019	31 Dec 2018	30 Sept 2018
Quarter ending on (30, June 2019)				
Number of data points used in the calculation of averages: 12				
	TOTAL ADJUSTED VALUE			
21 LIQUIDITY BUFFER	19,938	20,295	19,603	19,559
22 TOTAL NET CASH OUTFLOWS	13,233	13,390	13,189	13,445
23 LIQUIDITY COVERAGE RATIO (%)	151 %	152 %	149 %	145 %

5 Requirements

5.1 Compliance with disclosure requirements

CRR Article	Reference
431 Scope of disclosure requirements	
1	This report, OP Financial Group's financial statements 2018 and information disclosed at www.op.fi
2	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10 and the introduction and point 1.3 of this report
3	Disclosure principles of capital adequacy information approved by OP Financial Group's management
4	To be delivered on request
432 Non-material, proprietary or confidential information	
1-4	Point 5.2
	Information is disclosed on the date of publication of the financial statements. Information disclosed quarterly and half-yearly is presented in connection with interim reports. The frequency of disclosure will be assessed according to the disclosure principles of capital adequacy information.
433 Frequency of disclosure	
434 Means of disclosures	www.op.fi
435 Risk management objectives and policies	
1 a)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles (EU OVA, EU CRA, EU CCRA, EU MRA, LIQA)
1 b)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, points 2. and 3. (EU OVA, EU CRA, EU CCRA, EU MRA, LIQA)
1 c)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, point 2.6 (EU OVA, EU CRA, EU CCRA, EU MRA, LIQA) and www.op.fi > OP Financial Group > To the media > Reports > OP's reports > Year 2018 > Corporate Governance Statement 2018, point 8.
1 d)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles (EU OVA, EU CRA, EU CCRA, EU MRA, LIQA), and point 2.8. (EU CR3) of this report.
1 e)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, point 16. (EU OVA, EU CRA, EU CCRA, EU MRA, LIQA)
1 f)	Note 53. to the 2018 financial statements OP Financial Group's risk tolerances
The EBA's guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 (EBA/GL/2017/1)	Point 4.2. (LIQ1) and Note 2. to the 2018 financial statements. OP Financial Group's risk and capital adequacy management principles, especially point 12. (LIQA)
2 a)-e)	www.op.fi : OP Financial Group > About us > Corporate governance and www.op.fi > OP Financial Group > To the media > Reports > OP's reports > Year 2018 > Corporate Governance Statement 2018
436 Scope of application	
a)	Introduction
b)	Introduction
c)	Not applicable.
d)	Not applicable.
e)	Not applicable.
437 Own funds	
1a)	Point 1.1
1b)	Not presented half-yearly
1c)	The terms and conditions of instruments can be found on the websites of issuers. The terms and conditions of CET1 instruments can be found in the bylaws of each Group member cooperative bank on their websites: op.fi > OP Financial Group > About us > Group member cooperative banks
1d)	The terms and conditions of AT1 and T2 capital instruments can be found on OP Corporate Bank's website: op.fi > OP Financial Group > Debt Investors, and on the Helsinki Area Cooperative Bank's website: op.fi > OP Financial Group > About us > Group member cooperative banks > OP Helsinki
1e)	Point 1.1
1f)	Not applicable.
2) Commission Implementing Regulation (EU) No 1423/2013 laying down implementing technical standards with regard to disclosure of own funds requirements for institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council	Not presented half-yearly
438 Capital requirements	
a)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, points 2.2 and 2.4 and note 53. to the 2018 financial statements OP Financial Group's risk tolerances
b)	Point 1.4.
c)	Points 1.2 (EU OV1) and 1.3
c)	Points 1.2 (EU OV1) and 1.3
i)	Points 1.2 (EU OV1) and 1.3
ii)	Points 1.2 (EU OV1) and 1.3
iii)	Not applicable.
iv)	Not applicable.
e)	Points 1.2 (EU OV1), 1.3 and 3.9 (MR1)
f)	Points 1.2 (EU OV1) and 1.3
Exposures related to financing for special objects and equity exposures, basic method – risk weights	Point 2.12 (EU CR10)
439 Exposure to counterparty credit risk	
a)	Point 3.1 (EU CCR1), (EU CCRA) and Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles (EU CCRA), point 10.5.
b)	Point 3.1 (EU CCR1), (EU CCRA) and Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles (EU CCRA), point 10.5.
c)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles (EU CCRA), point 10.5
d)	Not presented half-yearly
e)	Point 3.5 (EU CCR5-A)
f)	Point 3.4 (EU CCR4)
g)	Point 3.7. (EU CCR6)

h)	Point 3.7. (EU CCR6)
i)	Not applicable.
440 Capital buffers	
1a)	Not presented half-yearly
1b)	Not presented half-yearly
441 Indicators of global systemic importance	Not applicable
442 Credit risk adjustments	
a)	Note 1. to the 2018 financial statements Accounting policies and Note 56. Receivables from credit institutions and customers, and doubtful receivables
b)	Note 1. to the 2018 financial statements Accounting policies
c)	Not presented half-yearly
d)	Point 2.3 (EU CR1-C)
e)	Point 2.2 (EU CR1-B)
f)	Specified material exposure classes.
g)	Not presented half-yearly
g)	Points 2.1 (EU CR1-A) and 2.2 (EU CR1-B)
a.	Points 2.1 (EU CR1-A) and 2.2 (EU CR1-B)
b.	Points 2.1 (EU CR1-A) and 2.2 (EU CR1-B)
c.	Points 2.1 (EU CR1-A) and 2.2 (EU CR1-B)
h)	Point 2.3 (EU CR1-C)
i)	Point 2.6 (EU CR2-A)
i.	Point 2.6 (EU CR2-A)
ii.	Point 2.6 (EU CR2-A)
iii.	Point 2.6 (EU CR2-A)
iv.	Point 2.6 (EU CR2-A)
v.	Point 2.6 (EU CR2-A)
Specific credit risk adjustments and recoveries recorded directly to the income statement shall be disclosed separately.	Not applicable.
443 Unencumbered assets	
EBA/GL/2014/03 Guidelines on disclosure of encumbered and unencumbered assets	Not presented half-yearly
444 Use of ECAs	
a)	Point 2.10 (EU CRD)
b)	Point 2.10 (EU CRD)
c)	Point 2.10 (EU CRD)
d)	Not applicable.
e)	Points 2.9 (EU CR4) and 2.10 (EU CR5)
445 Exposure to market risk	Points 1.3 and 3.9 (EU MR1)
446 Operational risk	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 6 and point 1.3 of this report
447 Exposures in equities not included in the trading book	
a)	Note 1. to the 2018 financial statements Accounting policies
b)	Point 2.12 (EU CR10)
c)	Point 2.12 (EU CR10)
d)	Note 7. to the 2018 financial statements Net investment income
e)	Note 35. to the 2018 financial statements Equity and Note 20. Investment assets
448 Exposures in equities not included in the trading book	
a)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 13.1 and Note 61. Sensitivity analysis of interest rate and market risk
b)	Note 61. to the 2018 financial statements Sensitivity analysis of interest rate and market risk
449 Exposure to securitisation positions	
a)	Not presented half-yearly
b)	Not presented half-yearly
c)	Not presented half-yearly
d)	Not presented half-yearly
e)	Not presented half-yearly
f)	Not presented half-yearly
g)	Not applicable.
h)	Not presented half-yearly
i)	OP Financial Group does not act as an arranger
j)	OP Financial Group does not act as an arranger
i)	OP Financial Group does not act as an arranger
ii)	OP Financial Group does not act as an arranger
iii)	OP Financial Group does not act as an arranger
iv)	OP Financial Group does not act as an arranger
v)	OP Financial Group does not act as an arranger
vi)	OP Financial Group does not act as an arranger
k)	OP Financial Group does not act as a securitiser
l)	Not applicable.
m)	OP Financial Group does not act as a securitiser
n)	OP Financial Group does not act as a securitiser
i)	OP Financial Group does not act as a securitiser
ii)	OP Financial Group does not act as a securitiser
iii)	OP Financial Group does not act as a securitiser
iv)	OP Financial Group does not act as a securitiser
v)	OP Financial Group does not act as a securitiser
vi)	OP Financial Group does not act as a securitiser
o)	Not presented half-yearly
i)	Not presented half-yearly
ii)	Not presented half-yearly
p)	Not presented half-yearly
q)	Not applicable.
r)	Not applicable.
450 Remuneration policy	
1a)	Not presented half-yearly
1b)	Not presented half-yearly
1c)	Not presented half-yearly
1d)	Not presented half-yearly
1e)	Not presented half-yearly
1f)	Not presented half-yearly
1g)	Not presented half-yearly

1h)	Not presented half-yearly
1i)	Not presented half-yearly
1j)	Not presented half-yearly
2)	Not presented half-yearly
451 Leverage	
a)	Point 4.1
b)	Not presented half-yearly
c)	Not presented half-yearly
d)	Not presented half-yearly
e)	Not presented half-yearly
452 Use of the IRB Approach to credit risk	
a)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10 and the introduction of this report (EU CRE)
b)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10 and the introduction of this report (EU CRE)
i)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10 and the introduction of this report (EU CRE)
ii)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10. (EU CRE)
iii)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10. (EU CRE)
iv)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10. (EU CRE)
c)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10.
i)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10.
ii)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10.
iii)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10.
iv)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10.
v)	Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 10.
d)	Points 2.11 and 2.12 (EU CR6), (EU CR10)
e)	Points 2.11 and 2.12 (EU CR6), (EU CR10)
i)	Points 2.11 and 2.12 (EU CR6), (EU CR10)
ii)	Points 2.11 and 2.12 (EU CR6), (EU CR10)
iii)	Points 2.11 and 2.12 (EU CR6), (EU CR10)
f)	Points 2.11 and 2.12 (EU CR6), (EU CR10)
g)	Point 2.1 (EU CR1-A)
h)	Point 2.11 (EU CR6)
i)	Not presented half-yearly
j)	
i)	Point 5.2
ii)	Point 5.2

When applying the c) above, the description must incorporate the types of exposure included in the exposure class; definitions, techniques and information used in the estimation and validation of PD figures (and, if need be, LGD figures and credit conversion factors) including the assumptions used in the calculation of the variables concerned; description of material deviations from the definition of default under Article 178, including general segments which the deviations concerned affect.

Note 2. to the 2018 financial statements OP Financial Group's risk and capital adequacy management principles, section 109 and point 2.11 of this report (EU CR6)

453 Use of credit risk mitigation techniques

a)	Point 2.8 (EU CRC)
b)	Point 2.8 (EU CRC)
c)	Point 2.8 (EU CRC)
d)	Point 2.8 (EU CRC)
e)	Point 2.8 (EU CRC)
f)	Point 2.8 (EU CR3)
g)	Point 2.8 (EU CR3)

454 Use of the Advanced Measurement Approaches to operational risk

Not applicable.

455 Use of Internal Market Risk Models

Not applicable.

5.2 Immaterial items not disclosed

Disclosure requirement CRR Article 452 j)	A total of over 89% of OP Financial Group's exposures are in Finland. The average PD and LGD is not presented according to the split by geographic region.
Template EU CR6 based on the EBA's guidelines (EBA/GL/2016/11)	The retail exposure class is not presented under division between SMEs and non-SMEs because the SME EAD accounts for less than 4% of retail exposures.
Template EU CCR4 based on the EBA's guidelines (EBA/GL/2016/11)	Retail exposures are not presented in the table concerned because they amount to less than EUR 500,000.
Information required on a half-yearly basis by Commission Implementing Regulation (EU) No 1423/2013	No material change
Blank templates and zero lines based on the EBA's guidelines (EBA/GL/2016/11) are not presented.	