OP Financial Group Report by the Executive Board and Financial Statements 2018

OP

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OP Financial Group's Report by the Executive Board

Customer business developed favourably and full-year earnings before tax were EUR 1,017 million

Earnings before tax Q1–4/2018	Net interest income Q1–4/2018	Net insurance income Q1–4/2018	Net commissions and fees Q1–4/2018	CET1 ratio 31 Dec. 2018
€1,017 million	+7%	+19%	+1%	20.5%

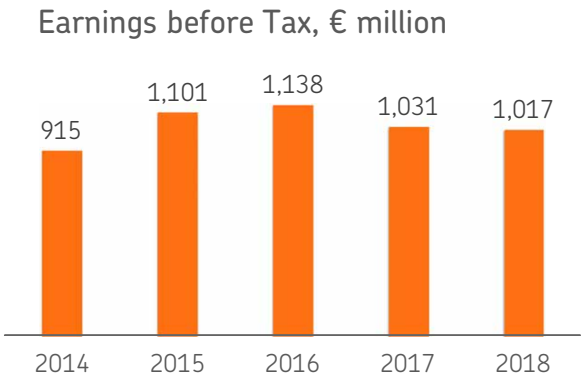
- Earnings before tax amounted to EUR 1,017 million (1,031).
- Income from customer business showed favourable development. Net interest income increased by 7% to EUR 1,175 million and net commissions and fees by 1% to EUR 887 million. Net insurance income increased by 19% to EUR 566 million – comparable change was –2%.
- Investment income fell by 46% to EUR 280 million and other operating income by 26% to EUR 61 million. Investment income was affected by a year-on-year decrease of EUR 227 million in capital gains.
- Expenses decreased by 5% to EUR 1,681 million. OP Financial Group transferred the management of the majority of the personnel's statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company at the end of 2018. The transfer reduced OP Financial Group's pension costs and improved earnings before tax by EUR 286 million while improving the Group's capital adequacy ratio by 0.4 percentage points.
- Impairment loss on receivables was EUR 46 million (48), or still low.
- The CET1 ratio was 20.5% (20.1).
- **Banking** earnings before tax increased by 28% to EUR 795 million. Net interest income increased by 4% and net commissions and fees decreased by 6%. The transfer of the pension liability improved the segment's earnings by EUR 172 million. The loan portfolio increased by 6% and deposits by 6%.
- **Non-life Insurance** earnings before tax decreased by 37% to EUR 133 million**.** Insurance premium revenue increased by 2% and expenses by 9%. Investment income fell by EUR 159 million**.** The reduction in the discount rate for insurance liability increased claims incurred by EUR 102 million a year ago.
- **Wealth Management** earnings before tax decreased by 14% to EUR 213 million. Net commissions and fees decreased by 11% and investment income by 11%. The transfer of the pension liability improved the segment earnings by EUR 35 million. Assets under management decreased by 8%.
- **Other Operations** earnings before tax were EUR –123 million (–45). The earnings were eroded by an increase in depreciation/amortisation and impairment losses as well as by a decrease in net investment income. The transfer of the pension liability improved the segment earnings by EUR 71 million. Non-recurring income of EUR 42 million was included in income a year ago.
- In 2018, OP invested EUR 384 million (454) in developing its operations and improving customer experience.
- OP bonuses given out rose by 4% to EUR 230 million.
- In January–December, the number of OP cooperative banks' owner-customers increased by 79,000 to over 1.9 million and that of OP Financial Group's joint banking and insurance customers by 21,000 to over 1.8 million.
- Earnings before tax for 2019 are expected to be lower than in 2018. For more detailed information on the outlook, see "Outlook for 2019".

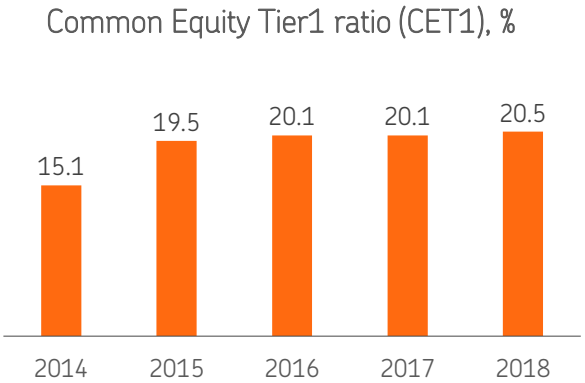
OP Financial Group's key indicators

	Q1–4/2018	Q1–4/2017	Change, %
Earnings before tax, € million	1,017	1,031	-1.3
Banking	795	619	28.3
Non-life Insurance	133	210	-36.7
Wealth Management	213	247	-13.7
Other Operations	-123	-45	172.9
New OP bonuses accrued to owner-customers	-230	-220	4.4
	31 Dec. 2018	31 Dec. 2017	Change, %
CET1 ratio, %	20.5	20.1	0.4*
Ratio of capital base to minimum amount of capital base (under the Act on the Supervision of Financial and Insurance Conglomerates), % **	147	148	0*
Return on economic capital, %***	20.8	20.4	0.4*
Return on equity (ROE), %	6.9	7.7	-0.8*
Return on assets (ROA), %	0.57	0.60	0.0*
Ratio of non-performing receivables to loan and guarantee portfolio, %****	1.0	1.2	-0.2*
Owner-customers (1,000)	1,911	1,833	4.2

On 1 January 2018, OP Financial Group adopted IFRS 9 Financial Instruments. Comparatives deriving from the income statement are based on figures under IAS 39 reported for the corresponding period in 2017. Unless otherwise specified, balance sheet and other cross-sectional figures under IAS 39 on 31 December 2017 are used as comparatives.

* Change in ratio
** The FiCo ratio has been calculated for insurance companies using transition provisions included in solvency regulation.
*** 12-month rolling
**** Non-performing receivables refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne receivables related to such receivables due to the customer's financial difficulties.





Comments by President and Group Executive Chair Timo Ritakallio

Our customer business continued to show favourable development during the last quarter of 2018. Our loan and deposit portfolio increased at a brisk pace, and credit risks and impairment loss on receivables were still low. Our full-year earnings before tax amounted to EUR 1,017 million, thus remaining almost at the same level as in the previous year. Our capital adequacy improved further.

Growth in expenses was OP Financial Group's challenge in 2018. Higher claims incurred weakened Non-life Insurance earnings. Investment income, too, decreased markedly. In Wealth Management, general market developments decreased client assets under management.

The transfer of the management of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company had a positive impact on OP Financial Group's earnings for 2018. The transfer will strengthen our capital base and provides us with the opportunity to focus on our core business. The investment environment for the transfer was exceptionally favourable, and the timing was highly successful due to the situation in capital markets.

As part of a more extensive change in our operating model, we completed the Information and Consultation of Employees process in the last quarter of the year, concerning 6,000 central cooperative employees. As a result, 700 roles ceased to exists and 1,000 new jobs were created. The negotiations with employee representatives were held in a very good spirit. During this transformation, we have supported our personnel in many ways to find a new job in OP Financial Group, and the number of employee redundancies has remained low.

One of our priorities is to utilise the opportunities provided by digitalisation in our business. At the end of the year, we extended our automatic home loan service to cover a larger number of our customers. The service enables customers to apply for a home loan digitally and get a loan decision almost on a real-time basis. In the service, we exploit opportunities provided by artificial intelligence.

The Finnish economy showed a favourable development last year. Employment improved and low interest rates supported consumer buying power. The global economy weakened considerably at the end of last year and uncertainty increased. Swings in the financial markets were significantly wilder than in the previous year. Home sales decreased and prices increased only slightly.

Economic growth is slowing down. In 2019, the Finnish economy is expected to grow by 1.6%. OP's economists forecast that in 2020 slowing global economic growth will hit Finland harder than the rest of the euro zone. Fixed investments are expected to fade, which means that economic growth will rely more on domestic consumption. The weakening economic situation will challenge both the business sector and policymakers to be elected in the spring to make decisions on a long-term basis.

Operating environment

World economic growth slowed down and economic confidence deteriorated during the last few months of 2018. The economic mood was still relatively good. The world economy grew at almost the same brisk rate in 2018 as in 2017. Differences in economic growth widened between different countries. Euro-area economic growth slowed down clearly over the course of the year, due partly to transient factors. The unemployment rate continued to fall markedly and the inflation rate rose.

The European Central Bank (ECB) continued to normalise its monetary policy. The ECB reduced its net asset purchases under its asset purchase programme to EUR 15 billion per month in October and ended them entirely at the end of the year.

The main refinancing rates remained unchanged the whole year. The Euribor rate rose a bit at the end of the year. Longer market rates decreased because of greater uncertainty at the end of the year, coming to the same level as at the beginning of the year. Due to a sharp fall seen at the end of the year, stock prices sank lower than at the beginning of the year.

The Finnish economy still continued to grow briskly during the latter half of the year. Based on preliminary information, the economic growth rate in 2018 was slightly slower than in 2017. The growth focused on consumption more than before. Employment saw a marked improvement and real earnings increased. However, consumer confidence weakened towards the year end. Business profitability continued to improve further but fixed investments increased only slightly.

The sales of old homes in the housing market decreased slightly over the previous year. Demand focused on new homes that were completed the most since the early 1990s. Home prices rose only slightly.

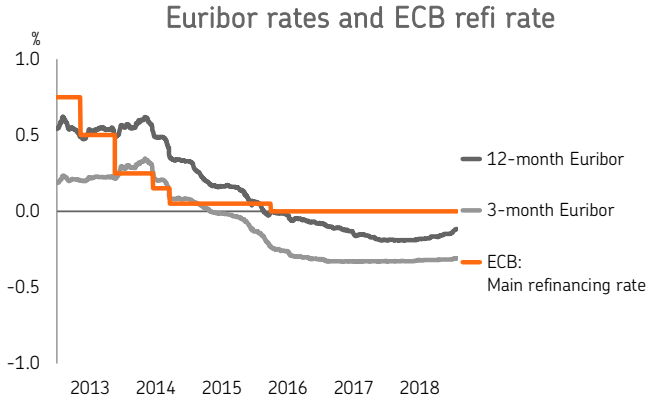
The economic outlook is deteriorating and uncertainty has clearly increased. The greatest risks are associated with the global economy and international policy. The outlook for interest rates is stable. The ECB has announced that it would keep its main refinancing rate at its current level at least for the summer of 2019.

Total household loans grew by 2.2% in 2018. Home loans drawn down increased by 1.7% and a decrease in the borrowing rate for new home loans drawn down came to a halt towards the end of the year. The annual growth rate in corporate and housing company loans sped up, standing at 7.5% in December. The banking barometer results anticipate demand for household and corporate loans to decline markedly.

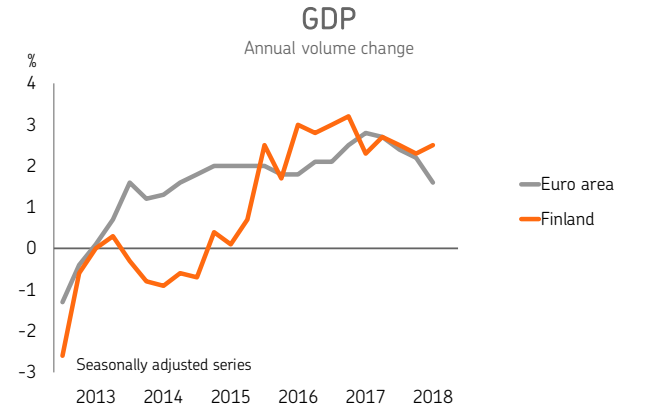
Total deposits increased by 2.6% in 2018. Household deposits increased by 5.6% and corporate deposits by 3.5%. Total deposits by public-sector entities decreased by almost 13%.

The value of mutual funds registered in Finland amounted to EUR 110.1 billion at the end of 2018. The funds' net asset inflows during the year were EUR 3.9 billion negative. Long-term bond funds and equity funds saw redemptions the most.

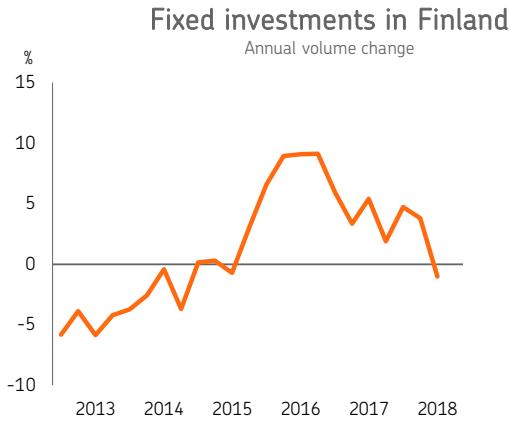
The positive economic mood supported the Finnish insurance sector in 2018 but price competition that remained rather tough and the capital market turbulence at the end of the year weakened earnings performance.



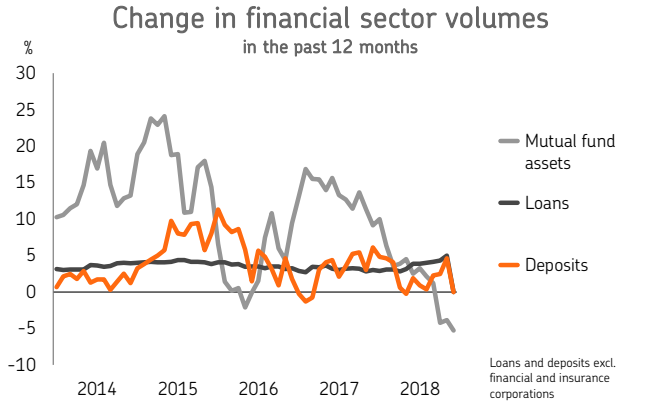
Source: Bank of Finland



Sources: Eurostat, Statistics Finland



Source: Statistics Finland



Sources: Bank of Finland, Investment Research Finland

Earnings analysis and balance sheet

Earnings analysis, € million	Q1–4/2018	Q1–4/2017*	Change, %	Q4/2018	Q4/2017*	Change, %	Q3/2018
Earnings before tax	1,017	1,031	-1.3	330	192	71.5	262
Banking	795	619	28.3	306	141	116.6	156
Non-life Insurance	133	210	-36.7	2	73	-97.4	67
Wealth Management	213	247	-13.7	76	56	36.1	42
Other Operations	-123	-45	172.9	-54	-77	-30.5	-4
Income							
Net interest income	1,175	1,102	6.7	308	281	9.7	297
Net insurance income	566	478	18.5	134	137	-2.5	154
Net commissions and fees	887	879	0.9	232	242	-4.4	212
Net investment income	254	522	-51.3	-31	104	-129.5	79
Other operating income	61	83	-26.2	15	8	77.6	25
Total income	2,943	3,063	-3.9	657	772	-14.8	766
Expenses							
Personnel costs (excl. transfer of earnings-related pension liability)	803	758	6.0	211	193	9.1	178
Transfer of statutory earnings-related pension liability	-286			-286			
Depreciation/amortisation and impairment loss	325	246	32.0	136	88	55.1	58
Other operating expenses	839	764	9.9	242	222	9.2	185
Total expenses	1,681	1,768	-4.9	303	503	-39.7	422
Impairment loss on receivables	-46	-48	-3.6	-22	-20	8.3	-17
Temporary exemption (overlay approach)	26			56			-7
New OP bonuses accrued to owner-customers	-230	-220	4.4	-58	-56	4.1	-58

*2017 comparatives have been changed as described in the Notes, as a result of entry into force of IFRS 15 and change in the recognition practice of loan service fees.

Key balance sheet figures, € million	31 Dec. 2018	31 Dec. 2017	Change, %
Receivables from customers	87,081	82,193	5.9
Investment assets	23,047	23,324	-1.2
Liabilities to customers	66,112	65,549	0.9
Insurance liabilities	9,476	9,950	-4.8
Debt securities issued to the public	30,456	26,841	13.5
Equity	11,832	11,084	6.7
Total assets	140,382	137,205	2.3

January–December

OP Financial Group's earnings before tax amounted to EUR 1,017 million (1,031). The figure decreased by EUR 14 million over the previous year. Income from customer business, or net interest income, net insurance income and net commissions and fees, rose year on year. Transferring the management of the majority of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company improved earnings before tax by EUR 286 million. Lower net investment income and other operating income reduced earnings.

Net interest income increased by 6.7% to EUR 1,175 million. Banking net interest income increased by EUR 50 million and that by the Other Operations segment by EUR 27 million. Net insurance income amounted to EUR 566 million (478). A year ago, the reduction in the discount rate for insurance liability reduced net insurance income by EUR 102 million. Comparable net insurance income changed by –2.3%. An increase in private and corporate customer insurance premium revenue supported an increase in net insurance income. Net commissions and fees were EUR 887 million, or EUR 8 million higher than the year before. Refunds based on unit-linked management fees increased by EUR 14 million, payment transfer net commissions and fees by EUR 17 million and net commissions and fees from health and wellbeing services by EUR 4 million. In the meantime, asset management commission income fell by EUR 29 million.

Net investment income decreased by EUR 268 million (51.3%) to EUR 254 million. The overlay approach is applied to certain equity instruments of insurance companies. Changes in the fair value of investments within the scope of the overlay approach are presented under the fair value reserve under equity. Total net investment income decreased by 46.3% to EUR 280 million. The combined return on investments at fair value of OP Financial Group's insurance institutions was 0.7% (3.1).

Net income recognised at fair value through other comprehensive income (net income from available-for-sale financial assets a year ago) decreased by EUR 252 million over the previous year. As a result of the adoption of IFRS 9 at the beginning of 2018, investments recognised at fair value through other comprehensive income and capital gains decreased. However, investments recognised at fair value in the income statement increased and their earnings effect was EUR 174 million (301). Net income from investment property decreased by EUR 40 million from its level a year ago. Capital gains recognised totalled EUR 36 million (263). A year ago, the capital gains were mainly used to supplement insurance liability. The net change in the short-term life insurance supplementary interest rate provision improved earnings by EUR 43 million. A year ago, the net change in these supplementary interest rate provisions reduced earnings by EUR 51 million. Net trading income resulting from positive value changes in Credit Valuation Adjustment (CVA) in derivatives credit and counterparty risk owing to market changes was EUR 14 million lower than a year ago.

Other operating income fell by EUR 22 million year on year to EUR 61 million. All share capital of the Baltic subsidiary Seesam Insurance AS was sold to Vienna Insurance Group (VIG). OP Financial Group recognised a total of EUR 16 million in non-recurring capital gain on the sale. Non-recurring VAT refunds for prior years, interest included, totalled EUR 22 million a year ago. In addition, non-recurring income of EUR 25 million from the sale of the portfolio of agreements and POS terminals of acquiring and POS services was recognised a year ago in other operating income and extra amortisation and other expenses recognised related to the sale totalled EUR 6 million.

Total expenses decreased by 4.9% to EUR 1,681 million. The transfer of statutory earnings-related pension liability at the end of 2018 reduced OP Financial Group's pension costs by EUR 286 million. Excluding the effect of this transfer, total expenses increased by 11.3% to EUR 1,967 million and personnel costs by 6.0% to EUR 803 million. Development costs were EUR 202 million (219). New businesses accounted for EUR 92 million (61) of total expenses. Planned depreciation/amortisation increased by 14.6% to EUR 219 million. This increase resulted from higher development expenditure recognised for prior years. Impairment write-downs increased by EUR 51 million year on year. Impairment loss recognised on property in own use totalled EUR 41 million and on information systems EUR 61 million. Charges of financial authorities increased by EUR 41 million year on year.

Impairment losses on loans and receivables and on investments recognised under various income statement items that reduced earnings amounted to EUR 70 million (89), of which EUR 46 million (48) concerned loans and receivables. Considering that impairment losses on receivables are calculated in 2018 based on IFRS 9, they are not comparable with those calculated under the previous IAS 39. The ratio of non-performing receivables in loans and receivables to the loan and guarantee portfolio was low, at 1.0% (1.2).

OP Financial Group's current tax amounted to EUR 125 million (189). The effective tax rate was 21.7% (20.7). The effective tax rate was increased by non-deductible items arising from the Group's internal holdings.

OP Financial Group's equity amounted to EUR 11.8 billion (11.1). Equity was increased by the financial year's earnings. Equity included EUR 3.0 billion (2.9) in Profit Shares, terminated Profit Shares accounting for EUR 0.3 billion (0.3). The return target for Profit Shares for 2018 is 3.25%. Interest payable on Profit Shares accrued during the financial year is estimated to total EUR 94 million. The amount of interest paid for 2017 totalled EUR 90 million in June 2018.

Key income statement items by quarter

€ million	Q1	Q2	Q3	2018 Q4	2018 Q1–4	2017 Q1–4	Change %
Net interest income	282	289	297	308	1,175	1,102	6.7
Net insurance income	127	151	154	134	566	478	18.5
Net commissions and fees	232	212	212	232	887	879	0.9
Net investment income	79	127	79	-31	254	522	-51.3
Other operating income	12	9	25	15	61	83	-26.2
Total income	732	788	766	657	2,943	3,063	-3.9
Personnel costs	204	209	178	-75	516	758	-31.8
Depreciation/amortisation and impairment loss	66	65	58	136	325	246	32.0
Other operating expenses	187	225	185	242	839	764	9.9
Total expenses	456	500	422	303	1,681	1,768	-4.9
Impairment loss on receivables	-4	-3	-17	-22	-46	-48	-3.6
Temporary exemption (overlay approach)	19	-41	-7	56	26		
OP bonuses to owner-customers	-52	-57	-58	-58	-226	-217	4.0
Earnings before tax	239	187	262	330	1,017	1,031	-1.3

2018 highlights

Changes in senior management

President and Executive Chairman Reijo Karhinen retired on 31 January 2018, based on his executive contract. He served as OP Financial Group's President and Group Executive Chairman from 2007. Timo Ritakallio, LL.M., MBA and D.Sc. (Tech.), took up his duties as the new President and Group Executive Chair on 1 March 2018. Previously, he was CEO of Ilmarinen Mutual Pension Insurance Company. Between 1 and 28 February 2018, the Executive Board was chaired by Tony Vepsäläinen, Executive Vice President, Operations, OP Financial Group, and he acted as President and Group Executive Chairman.

Jouko Pölönen, member of the Executive Board, resigned from membership of the Executive Board of OP Financial Group's central cooperative on 30 April 2018 to take up his duties as President and CEO of Ilmarinen Mutual Pension Insurance Company. From 2014, Jouko Pölönen as member of the Executive Board headed the Banking segment.

Jari Himanen, member of the Executive Board, resigned from membership of the Executive Board of OP Financial Group's central cooperative on 6 May 2018 and took up his duties as Managing Director of OP Suur-Savo. From 2014, Jari Himanen was member of the Executive Board and in charge of Group Steering and Customer Relationships.

On 6 June 2018, the Supervisory Board of OP Financial Group's central cooperative made a decision to reorganise the Executive Board of the central cooperative and the areas of responsibility of the senior management. During the rest of the year, OP Financial Group's central cooperative consolidated continued its reorganisation according to the new areas of responsibility of the Executive Board.

The core of OP Financial Group's business is banking and insurance business. Banking is divided into two areas of responsibility. On the Executive Board, responsibility for Banking Private and SME Corporate Customers rests with Harri Nummela, LL.M, eMBA.

Katja Keitaanniemi, Lic.Sc. (Tech.), as Executive Board member is in charge of the Banking Corporate and Institutional Customers business. She moved to OP Financial Group from Finnvera and took up her duties on 6 August 2018.

Insurance Business includes non-life and life insurance business for private and corporate customers, as well as health and wellbeing business. Olli Lehtilä, M.Sc. (Agr. & For.), eMBA, is responsible for the Insurance Customers business on the Executive Board.

Harri Luhtala, M.Sc. (Econ. & Bus. Adm.), acted as OP Financial Group's CFO, Executive Board member and OP Cooperative's CEO until 31 October 2018. Vesa Aho, M.Sc. (Econ. & Bus. Adm.), was appointed OP Financial Group's CFO, Executive Board member and OP Cooperative's CEO as of 1 November 2018. Previously, Aho acted as CEO of Garantia Insurance Company Ltd and CFO of Pohjola Bank plc.

Executive Board member Tony Vepsäläinen, LL.M, eMBA, is in charge of Group Services. He also acts as Vice Chair of the Executive Board and deputy to the President and Group Executive Chair.

Executive Board member Juho Malmberg, M.Sc. (Tech.), is in charge of Development and Technologies.

Executive Board member Tiia Tuovinen, Master of Laws, LL.M.Eur, is in charge of Legal Services and Compliance.

In addition to the Executive Board members, those reporting directly to the President and Group Executive Chair include Leena Kallasvuo, Chief Audit Executive; Tuuli Kousa, Chief Communications Officer and Executive Vice President, Communications and Public Affairs; Hannakaisa Länsisalmi, Executive Vice President, Human Resources; Pekka Puustinen, Executive Vice President, Strategy and Renewal; and Markku Pehkonen, CRO.

Transferring the management of the statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company

The Representative Assembly of OP Bank Group Pension Fund, which manages statutory earnings-related pension for OP Financial Group, decided on 31 July 2018 to transfer its pension liability and the management of earnings-related pension insurance portfolio worth around EUR 1,068 million to Ilmarinen Mutual Pension Insurance Company. The transferred solvency capital totalled EUR 263 million. This decision was preceded by competitive bidding in which the Board of Trustees of OP Bank Group Pension Fund invited bids from the largest pension insurance companies. The insurance portfolio concerned accounted for some 90.8% of OP Bank Group Pension Fund's total pension liability. The transfer was executed on 31 December 2018.

Based on the initial plan, the remaining pension liability will be transferred to Ilmarinen at a later date, but no earlier than at the end of 2020.

The transfer improved OP Financial Group's CET1 ratio by 0.4 percentage points. The transfer of the pension liabilities created an item in OP Financial Group's financial statements that improved OP Financial Group's earnings by EUR 286 million.

OP Financial Group becomes member of Finance Finland

OP Financial Group became member of Finance Finland as of 1 January 2019 and left membership of Service Sector Employers Palta. Through this decision, OP wanted to strengthen the development, cooperation and competitiveness of the Finnish financial sector.

Surveys and rewards

In the Luottamus & Maine (Reputation & Trust) survey by T-Media published in October, OP ranked seventh among the most renowned and trusted companies in Finland. The rank was the best among companies within the financial sector.

Based on the annual Employer Branding Survey conducted by Universum in October, OP was ranked the most attractive employer in the financial sector both among business professionals and IT professionals. As the most attractive employer, OP ranked fifth among business professionals and ninth among IT professionals.

In November, OP was ranked first in Finland in the Banker's Bank of the Year Awards.

In November, OP Corporate Bank plc was ranked the best bank in the Corporate Banking 2018 Finland survey conducted by Prospera among the largest companies category or those with net sales of over EUR 1.5 billion.

OP Financial Group's strategic targets and focus areas

OP Financial Group's strategic targets	31 Dec. 2018	31 Dec. 2017	Target 2019
Customer experience, NPS (-100–+100)			
Brand	23	22	25
Service encounter	61	58	70
CET1 ratio, %	20.5	20.1	22
Return on economic capital, % (12-month rolling)	20.8	20.4	22
Expenses of present-day business (12-month rolling), € million	1,833	1,661	Expenses for 2020 at 2015 level (1,500)
Owner-customers, million	1.9	1.8	2.1 (2019)

On 26 September 2018, the Supervisory Board of OP Financial Group's central cooperative decided on the key strategic focus areas of OP Financial Group for the remaining strategy period. It also decided on a new vision. The strategy confirmed in 2016 still forms the basis for OP Financial Group but the Group has wanted to sharpen its strategic focus because of changes in the operating environment.

OP Financial Group's vision is to be the leading and most attractive financial services Group in Finland from the perspective of employees, customers, partners and stakeholders. This is why excellent employee experience, best customer experience and an increase in the number of owner-customers to at least two million are highlighted as focus areas in the strategy. Two other strategic focus areas support these: maximising development productivity and faster growth in profits than expenses.

In order to implement its strategy and vision, OP Financial Group has begun to reform its practices. New agile practices highlight task significance and enhance job satisfaction, which, in turn, improves customer experience and workplace efficiency, creating potential for cost savings.

The agile practices will be phased in at OP Financial Group's central cooperative. The implementation of the new operating model began with reorganisation. The related Information and Consultation of Employees process started in the central cooperative consolidated on 1 October 2018 and ended on 13 November 2018. Following the changes, approximately 700 roles were lost, while more than 1,000 new jobs were created. The new organisation took effect on 1 January 2019. Developing the operating model and planning the change will continue in spring 2019. The organisational changes are a part of the 100 million euro cost savings programme in the central cooperative consolidated.

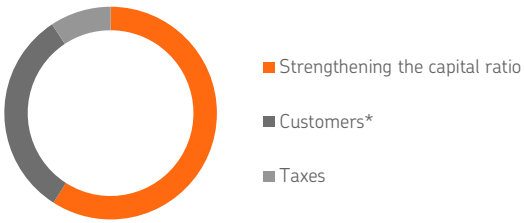
Promotion of the prosperity and wellbeing of owner-customers and in the operating region

Based on its mission, OP Financial Group creates sustainable prosperity, security and wellbeing for its owner-customers and in its operating region by means of its strong capital base and efficiency. OP's operations are based on cooperative values, a strong capital base, capable risk management and customer respect. The Group's core values are a People-first Approach, Responsibility, and Prospering Together.

Allocation of earnings

OP Financial Group with a cooperative foundation aims not to maximise profits for its owners but to provide, as efficiently as possible, the services which the cooperative's owner-customers need. The shared success will be used for the benefit of owner-customers in the form of loyalty benefits and other financial benefits as well as the maintenance and further development of service capabilities.

OP Financial Group's estimated earnings allocation for the financial year that is to be confirmed after the end of the financial year:



*Customers = customer bonuses, discounts and interest on contributions made by owner-customers

Implementing OP Financial Group's mission successfully requires a strong capital base which the requirements set by the authorities also necessitate. OP Financial Group uses the majority of its earnings to enhance its capital base. That will require efficiency and earnings power of the Group in the years to come too.

A considerable part of earnings is returned to the owner-customers in the form of OP bonuses and various benefits and discounts. According to the fundamental cooperative business principle, benefits are allocated on the basis of the extent to which each member uses the cooperative's services. OP's loyalty

benefit programme consists of OP bonuses – generated in proportion to almost all of a person's transactions with OP – as well as benefits and discounts related to OP's banking, non-life insurance and wealth management products and services. Furthermore, some service packages are only available to owner-customers. Owner-customers also have the opportunity to contribute capital to their own OP cooperative bank through Profit Shares. Interest will be annually paid on Profit Shares as the banks' profit distribution.

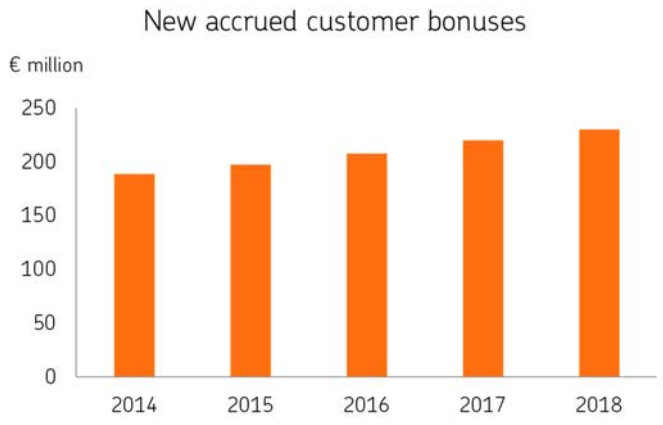
OP Financial Group is one the largest tax payers in Finland measured by tax on profits. By paying taxes in Finland, OP is contributing to prosperity in the whole of Finland.

Customer relationships and customer benefits

In January–December, the number of OP Financial Group's owner-customers increased by almost 79,000 to 1.9 million. In January–December, the number of joint banking and non-life insurance customers increased by 21,000 to over 1.8 million.

Contributions made by OP cooperative banks' owner-customers to the banks' Profit Shares and cooperative shares totalled EUR 3.2 billion (3.1) on 31 December 2018.

OP cooperative banks' owner-customers earn OP bonuses through banking, non-life insurance and wealth management transactions. The combined amount of new bonuses earned by owner-customers between January–December for using OP as their main bank and insurer was worth EUR 230 million (220). A total of EUR 111 million (102) of bonuses were used to pay for banking and wealth management services and EUR 118 million (114) to pay non-life insurance premiums. OP bonuses were used to pay 2,371,000 insurance bills (2,315,000), with 358,000 (327,000) of them paid in full using bonuses.



In the financial year, owner-customers benefitted EUR 31 million (29) from the reduced price of the daily banking package, based on the updated calculation. Owner-customers were provided with EUR 67 million (71) in non-life insurance loyalty discounts. In addition, owner-customers bought, sold and switched the majority of the mutual funds without separate charges. The value of this benefit amounted to EUR 6 million (5).

The abovementioned OP bonuses and customer benefits totalled EUR 334 million (325), accounting for 24.7% of OP Financial Group's earnings before tax and granted benefits (24.0).

Interest payable on Profit Shares accrued during the financial year is estimated to total EUR 94 million (90). The return target for Profit Shares for 2018 is an interest rate of 3.25% (3.25).

Multichannel services

The Group has a multichannel service network comprising branch, online, mobile and telephone services. The Group provides personal customer service both at branches and digitally. The Group seeks to provide the best multichannel customer experience in the sector by creating ongoing and relevant encounters in all channels.

In July, OP launched a stripped-down and easy-to-use version of its online service to promote equal access to banking services for all customer groups. The OP Accessible platform provides basic banking services to private customers who are unable to use, for example, the op.fi service or OP-mobile due to vision or hearing impairments, motoric challenges or other functional defects. The service has been developed in cooperation with customers.

In December, OP-mobile was the main channel for customers' daily banking, with visits totalling over 22 million (18) during one month. The number of visits to the Pivo mobile application totalled 4 million (2) in December. The number of visits to OP Business mobile totalled 620,000 (360,000) in December. The person-to-person payment on Pivo and the Siirto payment enable customers to send money to other people by using their mobile phone number. By now some 520,000 OP customers (330,000) have registered for Siirto payments.

The number of visits to online services in December amounted to around 9 million (9). Despite the expansion of online and mobile services, OP Financial Group still has Finland's most extensive branch network with 365 branches (407) across the country. The Group's own branch network is further supported by a comprehensive agency and partnership network, which is particularly important in terms of the sale of non-life insurance policies.

OP Financial Group also has extensive presence in the most common social media channels where it has some 420,000 followers (370,000). In addition to the Group's national social media accounts, many member cooperative banks have their own Facebook pages where they share publications destined for local customers.

Health and wellbeing

The hospital network of Pohjola Health Ltd was completed in May 2018 when a hospital in Turku opened its doors. Hospitals located in Helsinki, Tampere, Oulu, Kuopio and Turku provide basic healthcare and special healthcare services, examinations, surgery and rehabilitation on an extensive basis. Pohjola Health has given up its previous plan to build a network of medical centres and will focus on hospital operations.

Customers have been satisfied with services provided by Pohjola Health. Among surgery customers, the NPS figure was 96 (97) in January–December 2018.

Report on non-financial information

OP Financial Group aims to be a pioneer in corporate social responsibility (CSR). The CSR basis is formed by the mission, shared values, strong capital base and competent risk management that are supported by the customer-owned business model. OP Financial Group's main business lines were Banking, Non-life Insurance, and Wealth Management until the end of 2018. A more detailed description of OP Financial Group's business model can be found in the sections of each business section in this Report by the Executive Board.

OP Financial Group's key corporate social responsibility principles include the Code of Business Ethics, Principles for Responsible Investment and the Supplier Code of Conduct. The most important international commitments include the UN Global Compact Initiative and the UN Principles for Responsible Investment.

OP Financial Group's Corporate Social Responsibility Programme brings together responsibility Group-level responsibility targets concerning key areas. The umbrella theme of the Programme is "Positive driver of change through responsibility". The Programme is built around four themes: 1) We foster a sustainable economy, 2) We support local vitality, 3) We act with a people-first approach and through engagement and 4) We foster health, security and wellbeing. The Programme themes derive from the materiality assessment of the responsibility perspectives.

OP was among the first asset management companies in Finland to sign the UN Principles for Responsible Investment in 2009. OP is also one of the founding members of Finland's Sustainable Investment Forum (FINSIF). In keeping up with international standards, OP, in addition to its own monitoring, makes use of an independent partner, which produces continuous analyses of the fulfilment of international standards by investment vehicles, for use by investors. The partner also checks all of OP's asset management and fund management companies' investments twice a year for violations. The screening covers direct and active equity and corporate bond investments managed by OP's asset management company. If OP can confirm that a company it has invested in has violated international norms, OP will either sell the investment or start to engage with the company.

As part of its Corporate Social Responsibility Report for 2018, OP Financial Group will publish its Annual Review in February 2019. In respect of the reporting framework, we refer to the GRI standards (GRI Standards referenced).

Environmental aspects

Environmental impacts arise in OP's own operations, supply chain and investments. OP Financial Group seeks to build a sustainable economy while supporting the prevention of climate change and adjusting to it. OP develops products and services which will encourage its customers to act in a responsible and environment-friendly manner and take into account the effects of its operations on the diversity of nature. OP wants to reduce risk caused by climate change to its customers and provides information on climate change and solutions for its negative effects. The Code of Business Ethics contains OP's key environmental and climate objectives.

In its CSR Programme, OP Financial Group has set a target to be carbon positive by 2025. The most significant direct and indirect emission effects are caused by the consumption of heating and electrical energy on premises. In its energy use, OP aims to increase renewable electrical energy. In 2018, renewable electrical energy accounted for 31% of the entire Group's electricity consumption of which OP generates through solar power plants located on the roofs of its own premises.

OP calculates emissions in accordance with the Greenhouse Gas Protocol (GHG), and greenhouse gases are indicated as CO_2 equivalents. In 2018, direct (scope1) and indirect (scope2) emissions declined by 6% over the previous year, totalling 19,613 CO2e tonnes. OP evaluates the impacts of climate change in the annual CDP survey. In 2018, OP became a member of the Climate Leadership Coalition (CLC) to bolster work to combat climate change in cooperation with Finnish pioneering companies.

Investment operations cause indirect greenhouse gases. OP supports investors in selecting mutual funds by providing them with a carbon risk indicator and by publishing the carbon intensity figures on a half-yearly basis and the carbon footprint of OP equity funds. In addition, OP publishes fund-specific ESG analyses of OP equity funds that show, for example, the positive environmental impact of each fund. OP Wealth Management's strategy to exclude high-carbon companies from investments concerns mining companies with more than 25% of their net sales coming from coal production used for energy generation or whose energy coal production volumes are large. Among power producers, OP has excluded companies that are among the largest producers of emissions from coal-fired energy generation.

OP has in place the WWF's Green Office system. Around one-third of OP's employees work on premises that comply with the Green Office. As practical tools, OP's operating premises are also equipped with energy monitoring systems and environmental certifications for buildings (LEED). OP has carried out an energy audit, recommended for large enterprises in accordance with the Energy Efficiency Directive.

Social aspects, aspects related to personnel and human rights

Employee experience is one of OP Financial Group's five strategic focus areas. In respect of employee experience, OP Financial Group focuses on the following three themes in particular: wellbeing at work, job satisfaction and a smooth workflow. OP Financial Group wants its employees to find their work meaningful, and it involves its staff in business development. In order to promote wellbeing at work, OP Financial Group looks after its employees' fitness for work on a daily basis. Having clear yet flexible goals and procedures is important for making work run more smoothly.

OP Financial Group considers diversity to be an asset and guarantees equal opportunities, rights and fair treatment for everyone. Employees are treated equally in areas such as

remuneration, recruitment and career advancement. To promote diversity, OP's objective is that the proportion of both genders in defined managerial positions is at least 40%. The proportion of women in these positions was 24% at the end of 2018. OP monitors on an annual basis the distribution of personnel in various task groups by factors such as gender, pay and age.

Regulation and regulatory supervision require of the personnel competencies in various fields and, additionally, OP Financial Group has internally defined contents that all employees must manage. The Group supervises these competencies and reports them through online courses, according to various needs. Online courses shared by all OP Financial Group employees include Anti-money laundering, Code of Business Ethics, Workplace data security and Security induction.

OP Financial Group respects human rights and aims to prevent discrimination in all its activities. OP's own operations do not involve any direct human rights risks or impacts of significance. Indirectly, such impacts may arise from the supply chain or from the operations of investees and financed parties. OP Financial Group's Supplier Code of Conduct updated during 2018 requires suppliers to ensure that human rights are fulfilled in their operational chain.

Human rights aspects are also included in OP Wealth Management's process of keeping up with and influencing international standards. OP does not make active direct investments in companies that have violated international norms and where engagement has been unsuccessful.

Processing personal data carefully and cautiously is of primary importance to OP Financial Group. OP always processes personal data in compliance with data protection legislation and good information management and processing practice. OP acts in accordance with good banking and insurance practice.

Teaching young people financial literacy and supporting digital skills among senior citizens form an important part of OP Financial Group's corporate social responsibility. In 2018, OP Financial Group organised over 500 events across Finland to support 42,000 children and young people in their personal financial management. Among the most important means of teaching financial literacy are visits to schools and educational institutions and banks' open days, which are aimed at teaching children and young people financial, entrepreneurship and labour market skills. In a financial literacy project, OP Financial Group's volunteers lead financial literacy courses for groups of young people found through youth work. Moreover, some of the banks' volunteers act as personal financial mentors for individual youngsters. OP is the main partner of the Association for Teachers of History and Social Studies in Finland's financial literacy competition for ninth graders. OP established a partnership with Junior Achievement Finland in 2018, through which it is supporting the labour market skills of primary and secondary school pupils by running programmes called *Uskalla yrittää* and *Pikkuyrittäjät*. During the year, OP continued to support business villages for sixth-graders and ninth-graders in Oulu, Tampere, Turku and Kuopio.

In 2018, OP launched an OP Accessible online service which promotes equality in using online services. OP launched an event concept called *Varmuutta verkkoon* (Feel Confident Online) aimed at promoting the digital competence and financial literacy of seniors. OP hosted a total of around 800 digital training events for seniors. More than 70 *Varmuutta verkkoon* events were held in honour of the Week of Older People in October.

OP Financial Group's charity donations in 2018 totalled around EUR 2.9 million, of which donations to universities of applied sciences accounted for around EUR 1.3 million to support Finnish education.

Anti-corruption and anti-bribery

OP is committed to acting on the Code of Business Ethics. Responsibility involves managing conflicts of interest and abolishing corruption. The Code of Business Ethics is supplemented by more detailed rules and guidelines. OP Financial Group has carried out a compulsory online course for all Group employees to ensure that the Code of Business Ethics is observed. By the end of 2018, 98% of OP cooperative banks' employees and 83% of the central cooperative's employees had passed the Code of Business Ethics online course.

The prevention of corruption incidents in OP Financial Group is based on Managing Conflicts of Interest at OP Financial Group and Anti-corruption Practices guidelines. All OP Financial Group entities are, for their part, responsible for in-house compliance with the guidelines governing prevention of conflicts of interest and corruption. Each and every executive and employee must know the guidelines. Every manager is in charge of supervising compliance with the guidelines, with the CEO and board of directors of each organisation having ultimate responsibility. The guidelines for Managing Conflicts of Interest must be revisited within the organisation and with personnel at regular intervals and whenever new employees are hired. OP has a security staff designated for the prevention of abuses, dealing with abuses originating from both within the Group and from outside it. Incidents that fulfil the criteria for crime are always reported to the authorities, to be investigated, and any abuses are reported to the relevant authority, such as the Financial Supervisory Authority, and internally to OP's Executive Board. As prescribed in the Act on Preventing and Clearing Money Laundering and Terrorist Financing, OP has in place customer due diligence systems, ongoing customer due diligence methods and staff training, guidelines and protection. Any suspicious incidents will be reported to the Money Laundering Clearing House as required by law.

OP Financial Group has in place the so-called whistleblowing channel through which anonymous reports on suspected breaches of rules and regulations can be made to OP Financial Group's Chief Audit Executive.

Risks and their management in respect of non-financial information

OP Financial Group's Risk and Compliance organisations also oversee risks and conformity related to non-financial matters. The materialisation of risks associated with environmental issues, social and personnel issues, breach of human rights, corruption and bribery would deteriorate OP Financial Group's reputation and might cause harm to customer and stakeholder group

relationships. OP manages these kinds of non-financial risks, for example, by paying attention to them in business risk assessments and risk assessments for new products, services and operating models and by ensuring that it seeks to eliminate the identified risks as far as possible. In part, OP also reduces risk by ensuring that its personnel is aware of, and complies with, the guidelines related to the matters mentioned above.

Key principles of risk and capital adequacy management

The strategic goal is to ensure the Group's risk capacity in all circumstances and to keep risk-taking moderate relative to risk capacity. Each Group entity focuses on carrying out its role according to its service capabilities and risk capacities in accordance with shared business models.

The purpose of risk and capital adequacy management is to secure OP Financial Group's and its entities' risk capacity and, thereby, ensure business continuity. Risk capacity is made up of effective risk management that is proportionate to the extent and complexity of operations and of adequate capital resources and liquidity based on profitable business operations.

Risk and capital adequacy management involves risk identification, measurement, assessment and mitigation. It also involves determining reliably and independently the need for capital and liquidity required for various risk types and business operations, and allocating capital and liquidity systematically in line with the current and planned risk-taking by business segment.

OP Cooperative (the central cooperative) is responsible for OP Financial Group's risk and capital adequacy management and for ensuring that the Group's risk management system is adequate and up to date. The central cooperative issues Group entities with guidelines for ensuring risk management and ensures, through supervision, that the entities operate in accordance with official regulations, their own rules, guidelines issued by the central cooperative, OP Financial Group's internal procedures and procedures that are appropriate and ethically sound for customer relationships. OP Financial Group entities are responsible for their own risk and capital adequacy management in accordance with the nature and extent of their operations.

OP Financial Group's quantifiable risks are restricted by means of limits, tolerances and control limits that guide operations at Group level, in OP cooperative banks and entities belonging to OP Cooperative Consolidated. The central cooperative's Supervisory Board has determined risk tolerances for 2018 concerning OP Financial Group's capital adequacy, risk appetite, concentration risk credit, liquidity, market and underwriting risks as well as operational risks.

A more detailed description of OP Financial Group's risk and capital adequacy management principles can be found in Note 2 "OP Financial Group's risk management and capital adequacy management principles".

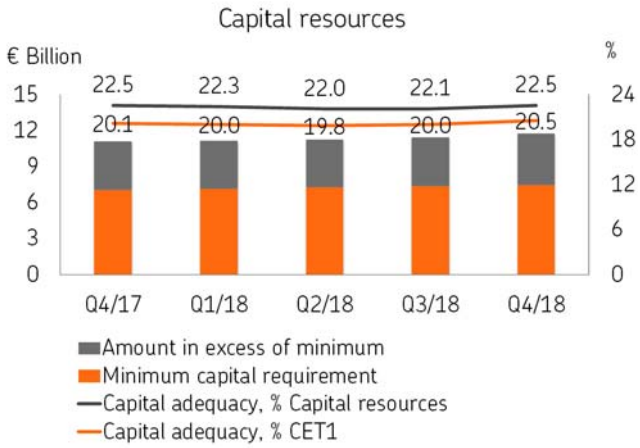
Solvency

Capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates

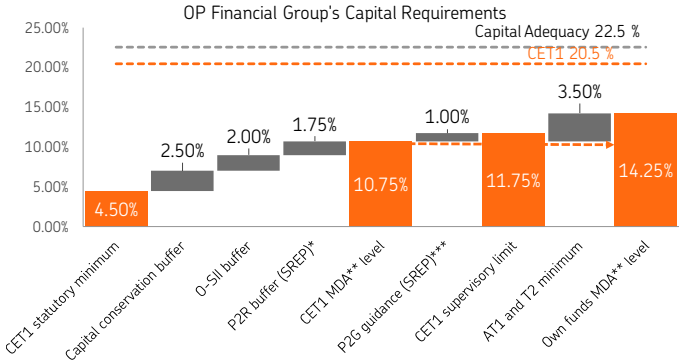
OP Financial Group's capital base, calculated according to the Act on the Supervision of Financial and Insurance Conglomerates (FiCo), exceeded the minimum amount specified in the Act by EUR 3.7 billion (3.6). Banking capital requirement remained unchanged at 14.3%, calculated on risk-weighted assets. The ratio of the Group capital base to the minimum capital requirement was 147% (148). The ratio was 162% without the risk weight floors set by the ECB. As a result of the buffer requirements for banking and solvency requirement for insurance companies, the minimum FiCo solvency of 100% reflects the level within which the group can operate without regulatory obligations resulting from buffers below the required level.

Capital adequacy for credit institutions

OP Financial Group's CET1 ratio was 20.5% (20.1). The risk weight floors set by the ECB decreased the CET1 ratio by 2.1 percentage points.



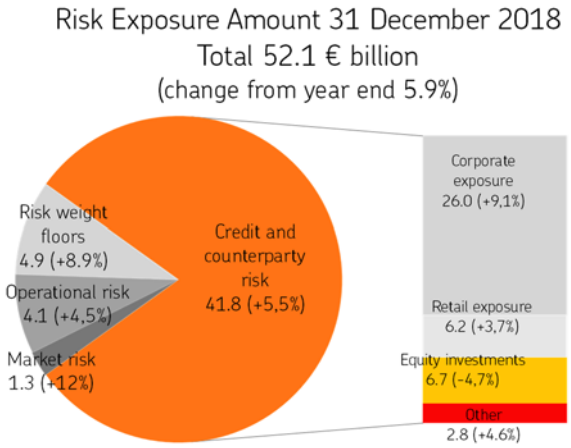
As a credit institution, OP Financial Group's capital adequacy is on a solid basis compared to the statutory requirements and those set by the authorities. The statutory minimum for the capital adequacy ratio is 8% and for the CET1 ratio 4.5%. The requirement for the capital conservation buffer of 2.5% under the Act on Credit Institutions, the O-SII buffer of 2% and the P2R requirement increase in practice the minimum capital adequacy ratio to 14.3% and the CET1 ratio to 10.8%.



* P2R supervisory Pillar II requirement ** Maximum distributable amount
*** P2G supervisory guidance, breach results enhanced supervisory measures

OP Financial Group's CET1 capital was EUR 10.7 billion (9.9). The CET1 capital was increased by Banking earnings, the transfer of the earnings-related pension liability and Profit Share issues. The amount of Profit Shares in CET1 capital was EUR 2.9 billion (2.8).

The risk exposure amount (REA) totalled EUR 52.1 billion (49.2), or 5.9% higher than on 31 December 2017. The minimum risk weight for retail exposures set by the ECB was EUR 4.9 billion, without which total risk was EUR 47.2 billion and the increase 5.6% from the turn of the year. The average risk weights of corporate and retail exposures rose slightly.



OP Financial Group treats insurance holdings within the financial and insurance conglomerate as risk-weighted assets, based on permission from the ECB. Equity investments include EUR 6.4 billion in risk-weighted assets of the Group's internal insurance holdings with a risk weight of around 280%.

The Finnish Financial Supervisory Authority (FIN-FSA) makes a macroprudential policy decision on a quarterly basis. In December 2018, the Financial Supervisory Authority reiterated its decision not to impose a countercyclical capital buffer requirement on banks. In housing loans, a 15% minimum risk weight became effective from the beginning of 2018 for at least two years. Without the ECB's risk weight floor, the risk weight floor of 15% for home loans set by the Financial Supervisory Authority would reduce the CET1 ratio by an estimated 1.4 percentage points.

The upcoming EU regulation includes a requirement measuring the ratio of the degree of indebtedness, the leverage ratio. The leverage ratio of OP Financial Group's Banking is estimated at about 8.6% (7.9) based on the existing interpretations, calculated using the December-end figures. The leverage ratio was especially improved by the more extensive identification of non-binding limits implemented in the calculation. According to the draft rules, the minimum ratio is 3%.

Non-life and Life Insurance

Interim dividends paid by non-life and life insurance companies decreased the capital base. The solvency position was improved by a decrease in the solvency requirement.

	Non-life Insurance		Life Insurance	
	31 Dec. 2018	31 Dec. 2017	31 Dec. 2018	31 Dec. 2017
Capital base, € million*	818	902	1,297	1,317
Solvency capital requirement (SCR), € million*	621	666	578	674
Solvency ratio, %*	132	135	225	195
Solvency ratio, % (excluding transitional provision)	132	135	176	151

*including transitional provisions

ECB's supervision

OP Financial Group is supervised by the European Central Bank (ECB). On 2 February 2017, OP Financial Group received the ECB's decision to set risk weight floors for OP Financial Group's retail exposures. The relevant risk weight floors for retail exposures set by the ECB are 15.4% for mortgage-backed exposures and 32.7% for other private customer exposures.

The ECB has set a capital requirement for OP Financial Group based on the supervisory review and evaluation process (SREP). The capital buffer requirement (P2R) set by the ECB and effective as of 1 January 2018 is 1.75%. In addition, the ECB has set on OP Financial Group a capital adequacy guidance (P2G) of 1.0%. Failure to meet this guidance would not affect e.g. profit distribution. The capital requirements set by the ECB are at the same level as a year ago.

Liabilities under the Resolution Act

Under regulation applied to crisis resolution of credit institutions and investment firms, the resolution authority is authorised to intervene in the terms and conditions of investment products issued by a bank in a way that affects an investor's position. The EU's Single Resolution Board (SRB) based in Brussels is OP Financial Group's resolution authority. The SRB has set OP Financial Group's Minimum Requirement for own funds and Eligible Liabilities (MREL) at EUR 12.2 billion, accounting for 27.6% of the total risk exposure amount at the end of 2016. OP Financial Group aims to meet the requirements under the MREL with its capital base and other subordinated debt. OP Financial Group's MREL ratio stood at 35% at the turn of 2017. The SRB has confirmed a resolution strategy for OP Financial Group whereby the resolution measures would apply to OP Corporate Bank acting as a Single Point of Entry.

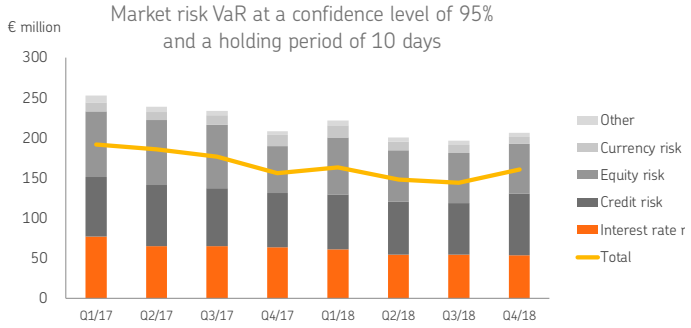
Risk exposure

OP Financial Group's risk exposure has remained stable. Risk capacity is strong and secures conditions for the Group's business.

The strong risk capacity and moderate target risk exposure level maintained the Group's credit risk exposure stable.

OP Financial Group's funding position and liquidity is good. The availability of funding has remained good. During the financial year, OP Financial Group issued long-term bonds worth EUR 3.3 billion (4.0). The loan-to-deposit ratio remained stable during the financial year.

OP Financial Group's market risk exposure was stable during the financial year. The Group's VaR, a measure of market risk, was EUR 160 million (156) on 31 December 2018. It includes the balance sheet total of the insurance institutions, trading, liquidity buffer and the Group Treasury's interest rate risk exposure.



The Group expects its operational risks to be moderate as targeted. Reorganisation, changing practices and the speed of service development will, however, set additional challenges for operational risk management in the coming years.

Risks associated with defined benefit pension plans relate to interest rate and market risk, future increases in pension benefits and longer life expectancy. A change in the discount rate for pension liabilities has a substantial effect on the amount of pension liabilities. The decrease in net liabilities related to defined benefit pension plans recognised in other comprehensive income during the financial year improved comprehensive income before tax by EUR 88 million (48). This change was mainly influenced by an increase in the discount rate and a decrease in the pension insurance assumption. The transfer of the statutory earnings-related pension insurance liability to Ilmarinen Mutual Pension Insurance Company will reduce this risk significantly.

In the financial year, key tasks of the Compliance function involved ensuring compliance with new regulatory requirements that became effective in 2018.

In early 2016, OP Financial Group provided its reply to the request for clarification received in 2015 from the Finnish Competition and Consumer Authority. The authorities are investigating OP Financial Group's market position in retail banking services and the pricing of non-life insurance products. The issue is still being investigated by the Authority.

Banking

Within Banking, major risks are associated with credit risk arising from customer business, and market risk.

Credit risk exposure by Banking remained stable and credit risk remained moderate.

Doubtful receivables increased to EUR 3.1 billion (2.9) while performing forborne exposures rose by EUR 261 million. Doubtful receivables refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne receivables due to the customer's financial difficulties. Forbearance measures consist of concessions agreed at the customers' initiative to contractual payment terms towards the customer to make it easier for them to manage through temporary payment difficulties. OP cooperative banks make every effort to find solutions to overcome customers' temporary financial difficulties. Loan modifications due to reasons other than the customer's financial difficulties are not classified as doubtful receivables. Performing forborne exposures (forborne exposures reclassified as performing ones during their probation period or forbearance measures made into a not non-performing agreement) accounted for 69.5% (64.3) of doubtful receivables. Non-performing receivables remained low, accounting for 1.0% (1.2) of the loan and guarantee portfolio. Impairment losses amounted to EUR 46 million (48).

Breakdown of loan and guarantee portfolio

	31 Dec. 2018	31 Dec. 2017
Loan and guarantee portfolio, EUR billion	90.0	84.8
Private customer exposures, EUR billion	51.5	50.0
of loan and guarantee portfolio, %	57.2	58.9
in the two highest borrower grades, %	84.0	83.5
in satisfactory borrower grades, %	12.5	12.9
in the two lowest borrower grades, %	3.5	3.6
Corporate and housing company exposures, EUR billion	34.6	32.6
of loan and guarantee portfolio, %	38.4	38.5
in the highest borrower grades (IG), %	54.6	55.4
in other borrower grades (excluding default), %	44.5	43.4
classified as default, %	1.0	1.2
classified as default, EUR million	473.5	554.3
Other exposures, EUR billion	4.0	2.2

No single customer's exposure exceeded 10% of the capital base after allowances and other recognition of credit risk mitigation. The capital base covering customer exposure amounted to EUR 11.4 billion (11.0).

The most significant sectors in corporate and housing company exposures	31 Dec. 2018	31 Dec. 2017**
Renting and operating of residential real estate*, %	17.9	17.4
Services, %	10.1	9.0
Renting and operating other real property, %	9.9	9.8
Other sectors, %	62.2	63.8
Total, %	100	100

*A total of 94.4% of exposures within Renting and Operating of Residential Real Estate were those by housing companies and 8.3% were those guaranteed by general government.
**The figures a year ago have been adjusted to be in accordance with the current monitoring.

Banking's interest rate risk measured as the effect of a one-percentage point decrease on 12-month net interest income was EUR –48 million (–81) at the end of December.

Deposits within the scope of deposit guarantee (deposit insurance) and managed by OP Financial Group totalled EUR 36.0 billion (34.3) at the end of December. The Deposit Guarantee Fund compensates a maximum of EUR 100,000 for each OP Financial Group customer.

Non-life Insurance

Major risks within Non-life Insurance include underwriting risks associated with claims developments, market risks associated with investments covering insurance liabilities, a faster-than-expected increase in life expectancy of the beneficiaries related to insurance liability for annuities, interest rates used in insurance liability valuation and the difference between the discount rate applied to insurance liabilities and market interest rates.

A one-year increase in life expectancy would increase insurance liability for annuities by EUR 45 million (45). A 0.1 percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 23 million (27).

No significant changes took place in Non-life Insurance's underwriting risks. Non-life Insurance's most significant market risk is associated with increasing insurance liability value and capital requirement resulting from lower market interest rates.

The risk exposure of investments was stable during the financial year. The VaR, a measure of market risk, was EUR 50 million (52) on 31 December 2018. No major changes took place in the investment portfolio's asset class allocation. Interest rate derivatives have been used to hedge against interest rate risk associated with insurance liability. The portfolio's interest rate and credit risk remained stable. The Group has significantly increased the hedge ratio of interest rate risk associated with insurance liabilities.

Wealth Management

The key risks associated with Wealth Management are the market risks of Life Insurance's investment assets, the interest rate used for the valuation of insurance liabilities and a faster-than-expected life expectancy increase among those insured.

A one-year increase in life expectancy would increase insurance liability by EUR 26 million (27). A 0.1 percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 29 million (32).

Investment risks associated with separated insurance portfolios transferred from Suomi Mutual and risks associated with changes in customer behaviour have been buffered. The buffer is sufficient to cover a significant negative return on the investment assets included in the separate portfolios, after which OP Financial Group will bear the risks associated with the portfolios. The buffers totalled EUR 289 million (367) on 31 December 2018.

The risk exposure of investments was stable during the financial year. The VaR, a measure of market risk, was EUR 56 million (61) on 31 December 2018. No major changes took place in the investment portfolio's asset class allocation. Interest rate derivatives have been used to hedge against interest rate risk associated with insurance liability. The portfolio's interest rate and credit risk remained stable. The Group has significantly increased the hedge ratio of interest rate risk associated with insurance liabilities.

Other Operations

Major risks related to Other Operations include credit and market risks associated with the liquidity buffer, and liquidity risks. The market risk is highest in notes and bonds included in the liquidity buffer.

The market risk in proportion to the market value of notes and bonds in the liquidity buffer (VaR with 95% confidence) remained stable during the financial year. No major changes occurred in the asset class allocation.

OP Financial Group secures its liquidity through a liquidity buffer which consists mainly of deposits with central banks and receivables eligible as collateral for central bank refinancing. The liquidity buffer is sufficient to cover the need for short-term funding for known and predictable payment flows and in a liquidity stress scenario.

OP Financial Group monitors its liquidity and the adequacy of its liquidity buffer using, for example, the LCR (Liquidity Coverage Ratio). According to regulation, the LCR must be at least 100% from the beginning of 2018. OP Financial Group's LCR was 143% (123) on 31 December 2018.

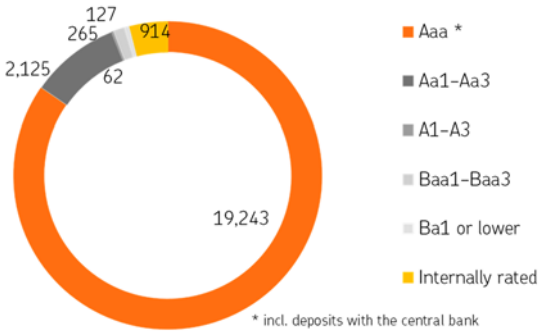
OP Financial Group monitors its long-term funding sufficiency, for example, by means of the Net Stable Funding Ratio, or NSFR. In regulation, no minimum requirement for the NSFR has been set as yet. Based on the present interpretations, OP Financial Group's NSFR was 111% (116) at the end of December 2018.

Liquidity buffer

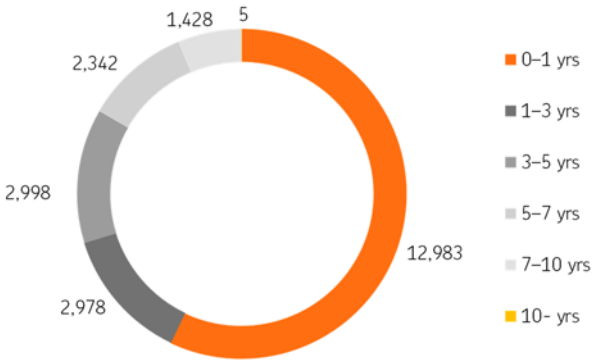
€ billion	31 Dec. 2018	31 Dec. 2017	Change, %
Deposits with central banks	12.2	12.8	-4.7
Notes and bonds eligible as collateral	9.2	9.1	1.3
Total	21.4	21.9	-2.2
Receivables ineligible as collateral	1.3	1.5	-9.3
Liquidity buffer at market value	22.7	23.3	-2.6
Collateral haircut	-0.7	-0.7	2.4
Liquidity buffer at collateral value	22.0	22.7	-2.8

The liquidity buffer comprises notes, bonds and securitised assets issued by governments, municipalities, financial institutions and companies all showing good credit ratings.

Financial assets included in the liquidity buffer by credit rating on 31 December 2018, € million



Financial assets included in the liquidity buffer by maturity on 31 December 2018, € million



Credit ratings

31 Dec. 2018

Rating agency	Short-term debt	Outlook	Long-term debt	Outlook
Standard & Poor's	A-1+	Stable	AA-	Stable
Moody's	P-1	Stable	Aa3	Stable

OP Corporate Bank plc has credit ratings affirmed by Standard & Poor's Global Ratings Europe Limited and Moody's Investors Service Ltd. When assessing OP Corporate Bank's credit rating, credit rating agencies take account of the entire OP Financial Group's financial position.

The credit ratings did not change in the financial year.

Moody's affirmed in December 2018 and Standard & Poor's affirmed in July 2018 OP Corporate Bank plc's credit ratings for short-term and long-term debt. Both rating agencies kept the rating outlook for both companies stable.

Financial performance by segment

At its meeting on 6 June 2018, the Supervisory Board of OP Financial Group's central cooperative decided a new division of responsibilities of the Executive Board, which changed the segment structure as of the beginning of 2019. In its interim reports and financial statements, OP Financial Group will begin financial reporting based on its new segments as of the first interim report of 2019. During the transition period, OP Financial Group will report its business segments according to the previous segment structure, with Banking, Non-life Insurance and Wealth Management as its business segments. The health and wellbeing business is included in the Non-life Insurance segment. Non-business segment operations are presented under the Other Operations segment. OP Financial Group prepares its segment reporting in compliance with its accounting policies.

Banking

- Earnings before tax amounted to EUR 795 million (619).
- Total income increased by 4.8%. Net interest income increased by 4.2% year on year but net commissions and fees decreased by 6.3%. Total expenses decreased by 9.5% to EUR 878 million. The transfer of the earnings-related pension liability decreased personnel costs by EUR 172 million. Other operating expenses increased by 18.1% due to the stability contribution, development costs and higher volumes.
- The loan portfolio increased by 5.9% and the deposit portfolio by 5.8%. The loan portfolio showed the fastest growth in corporate loans as well as housing company loans and other loans.
- Impairment losses amounted to EUR 45 million (47). Non-performing receivables accounted for 1.0% (1.2) of the loan and guarantee portfolio.
- The most significant Banking development investments involved the upgrades of payment and finance systems, for example, those concerning the development of the digital home loan service.

Banking: key figures and ratios

€ million	Q1–4/2018	Q1–4/2017	Change, %
Net interest income	1,242	1,192	4.2
Net commissions and fees	540	576	-6.3
Net investment income	105	19	445.4
Other income	25	36	-30.7
Total income	1,911	1,823	4.8
Personnel costs (excl. transfer of earnings-related pension liability)	343	354	-3.1
Transfer of statutory earnings-related pension liability	-172		
Depreciation/amortisation and impairment loss	40	51	-22.1
Other operating expenses	667	565	18.1
Total expenses	878	970	-9.5
Impairment loss on receivables	-45	-47	-3.3
OP bonuses to owner-customers	-194	-187	3.7
Earnings before tax	795	619	28.3
Cost/income ratio, %	45.9	53.2	
€ million			
Home loans drawn down	7,633	6,954	9.8
Corporate loans drawn down	7,351	7,389	-0.5
No. of brokered residential property and property transactions	12,158	13,080	-7.0
€ billion			
Loan portfolio	31 Dec. 2018	31 Dec. 2017	Change, %
Home loans	38.6	37.5	2.8
Corporate loans	21.1	19.7	7.1
Housing company and other loans	27.4	25.0	9.5
Total	87.1	82.2	5.9
Guarantee portfolio	2.9	2.6	4.7
Deposits			
Current and payment transfer	42.8	40.1	6.8
Investment deposits	18.5	17.9	3.5
Total	61.3	58.0	5.8

OP Financial Group's Banking comprises banking for private and SME corporate customers as well as that for corporate and institutional customers. OP cooperative banks are mainly responsible for banking for private and SME corporate customers. The corporate and institutional customer business is almost entirely centralised in OP Corporate Bank.

The loan portfolio grew by 5.9% to EUR 87.1 billion. Growth in the corporate loan portfolio was especially strong, increasing by 7.1%. The home loan portfolio increased by 2.8%. OP Corporate Bank accounted for 26% of the loan portfolio.

The loan portfolio grew by 5.8% to EUR 61 billion. Investment deposits increased slightly year on year. OP Corporate Bank accounted for 19% of the deposit portfolio.

During the financial year, OP introduced a digital home loan service which enables customers to apply for and receive a home loan decision and offer online, quickly and automatically. In the last quarter of the year, the service expanded further into 117 OP cooperative banks and to also cover loan decisions of co-borrowers.

OP is involved in developing a digital platform for selling and purchasing a home (DIAS), together with other banks, real estate businesses, a technology firm and authorities. The digitalisation of the system for selling and purchasing shares in a housing company started in the beginning of 2019 and will progress in stages.

The volume of homes and real property sold and bought through the OP-Kiinteistökeskus real estate agents decreased by 7.0% year on year.

Home loan borrowers have enjoyed historic low interest rates for an exceptionally long time, and customers have demonstrated greater interest in protecting their home loans and housing company loans against higher interest rates. At the end of the financial year, 19.7% (11.5) of private customer home loans were covered by the interest rate protection.

The number of banking customers totalled 3.6 million (3.7) at the end of December.

Earnings

Earnings before tax recorded by Banking amounted to EUR 795 million (619). Total income increased by 4.8%. The personnel's statutory earnings-related pension insurance portfolio was transferred to Ilmarinen Mutual Pension Insurance Company. On the transfer, OP Financial Group recognised an item in its earnings, as a result of which personnel costs decreased by EUR 172 million. Other operating expenses rose by 18.1%. As a result of the decrease in expenses, the cost/income ratio improved to 45.9% (53.2). Impairment loss on receivables amounted to EUR 45 million (47). Non-performing receivables accounted for 1.0% (1.2) of the loan and guarantee portfolio.

Owing to an increase in the loan portfolio and a decrease in funding costs, net interest income grew by 4.2% to EUR 1,242 million. Derivatives operations decreased OP Corporate Bank's net interest income whereas OP cooperative banks' net interest income rose.

Net commissions and fees decreased to EUR 540 million (576). The decrease in net commissions and fees was affected by the inclusion of certain client income items of derivatives operations in the segment's net investment income during the financial year; a year ago, the income concerned was included in net commissions and fees.

Net investment income increased by EUR 86 million. Net investment income was increased by EUR 16 million in a non-recurring capital gain. CVA valuation arising from interest rate changes and other market changes improved the income by EUR 7 million (21).

Expenses decreased to EUR 878 million. Personnel costs fell by EUR 183 million to EUR 171 million. The fall in personnel costs was affected by the transfer of the statutory earnings-related pension liability. Excluding the effect of this transfer, total expenses increased by 8.3% to EUR 1,050 million and personnel costs decreased by 3.1% to EUR 343 million. Other operating expenses increased by 18.1% to EUR 667 million. ICT costs increased by EUR 52 million. Higher ICT costs were explained by investments in development and by growth in volumes. Higher other operating expenses were also explained by stability contributions of EUR 39 million to the Financial Stability Authority. OP cooperative banks and OP Corporate Bank's Banking reported increased expenses.

Non-life Insurance

- Earnings before tax decreased by 36.7% to EUR 133 million (210).
- Insurance premium revenue increased by 2.4% (3.8% excluding the Baltics).
- The operating combined ratio was 92.0% (96.1) and operating expense ratio 21.0% (20.3). The combined ratio was 93.2% (97.6).
- Net investment income, taking account of the overlay approach, totalled EUR 24 million (183). Net return on investments at fair value totalled EUR 14 million (135).
- Development investments focused on development of electronic services and the basic system upgrade initiated.

Non-life Insurance: key figures and ratios

€ million	Q1–4/2018	Q1–4/2017	Change, %
Insurance premium revenue	1,466	1,432	2.4
Claims incurred	915	970	-5.7
Other expenses	3	3	-10.9
Net insurance income	549	459	19.5
Net investment income	0	183	-100.1
Other net income	-5	-33	84.9
Total income	543	609	-10.7
Personnel costs (excl. transfer of earnings-related pension liability)	137	116	17.9
Transfer of statutory earnings-related pension liability	-7		
Depreciation/amortisation and impairment loss	61	50	22.4
Other operating expenses	243	231	5.0
Total expenses	433	397	9.2
OP bonuses to owner-customers	-2	-2	3.0
Temporary exemption (overlay approach)	25		
Earnings before tax	133	210	-36.7
Combined ratio, %	93.2	97.6	
Operating combined ratio, %	92.0	96.1	
Operating loss ratio, %	70.9	75.8	
Operating expense ratio, %	21.0	20.3	
Operating risk ratio, %	64.5	69.3	
Operating cost ratio, %	27.4	26.9	
Solvency ratio, %*	132	135	
Large claims incurred retained for own account	107	78	
Changes in claims for provisions of previous years (run-off result)	42	35	

* including transitional provisions.

Insurance premium revenue from corporate customers increased, backed by the general economic development. Premium revenue from private customers began to rise in spite of intensified price competition.

Key development investments focused on the development of electronic transaction and purchase services and the basic system upgrade initiated. Developing online and mobile services in both insurance and claims services ranks among key Non-life Insurance priorities.

The sale of all share capital of the Baltic subsidiary Seesam Insurance AS to Vienna Insurance Group (VIG) was completed on 31 August 2018. The Baltic business is included in the segment's earnings until the date of completion of the sale.

Pohjola Health has launched a Health Advisor service to OP Insurance's private and corporate customers with personal insurance against illness or injury. The Pohjola Health Advisor helps in assessing the need for treatment and, whenever necessary, refers the person to appropriate treatment. Late in the year, the service expanded to be digital through the Pohjola Hospital application.

Earnings

Earnings before tax amounted to EUR 133 million (210). This earnings decline was particularly explained by net investment income which, including the overlay approach, was EUR 158 million lower than a year ago. Net capital gains on investments totalled EUR –5 million (133). Net insurance income increased by 19.5% to EUR 549 million. The reduction in the discount rate for insurance liability increased claims incurred by EUR 102 million a year ago. The sale of the Baltic non-life insurance business increased other operating income by EUR 16 million.

The operating combined ratio was 92.0% (96.1). The operating ratios a year ago include the effects of changes in the discount rate of insurance liability but exclude amortisation on intangible assets arising from the corporate acquisitions. The reduction in the discount rate weakened the operating combined ratio by 7.1 percentage points.

Insurance premium revenue

€ million	Q1–4/2018	Q1–4/2017	Change, %
Private Customers	798	786	1.5
Corporate Customers	624	584	6.8
Baltics	44	62	-29.0
Total	1,466	1,432	2.4

The divestment of the Baltic non-life insurance business had an impact on insurance premium revenue generation late in the year. Insurance premium revenue, excluding the Baltic figures, rose by 3.8% during the financial year.

Claims incurred increased by 5.4%, excluding the effect of the reduced discount rate for insurance liability a year ago. Claims under property and business liability insurance incurred arising from new large claims were higher than a year ago. The reported number of new large claims under property and business liability insurance (in excess of EUR 0.3 million) amounted to 98 (85) in January–December, with their claims incurred retained for own account totalling EUR 107 million (78). The change in provisions for unpaid claims under statutory pension weakened earnings by one million euros (–8).

Changes in claims for previous years, excluding the effect of the discount rate change, improved the balance on technical account by EUR 42 million (35). The operating loss ratio was 70.9% (75.8). The operating risk ratio excluding indirect loss adjustment expenses was 64.5% (69.3).

Expenses grew by 9.2%, being EUR 36 million higher than a year ago, due to higher development-related ICT costs and depreciation/amortisation and the expansion of the health and wellbeing business. Impairment write-downs increased by EUR 12 million year on year. The operating expense ratio was 21.0% (20.3). The operating cost ratio (including indirect loss adjustment expenses) was 27.4% (26.9).

Operating balance on technical account and combined ratio (CR)

	Q1–4/2018		Q1–4/2017	
	Balance, € million	CR, %	Balance, € million	CR, %
Private Customers	87	89.0	93	88.1
Corporate Customers	33	94.8	-41	107.0
Baltics	-2	104.8	3	95.3
Total	118	92.0	55	96.1

Intensified price competition eroded profitability of the Private Customers business. A single large claim weakened the balance for Baltics.

Investment

Net return on Non-life Insurance investments at fair value totalled EUR 14 million (135). Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from total investment assets.

Investment portfolio by asset class

%	31 Dec. 2018	31 Dec. 2017
Bonds and bond funds	71.9	68.0
Alternative investments	5.5	4.7
Equities	7.6	8.5
Private equity	2.0	1.9
Real property	8.4	8.3
Money markets	4.6	8.5
Total	100	100

Non-life Insurance's investment portfolio totalled EUR 3,730 million (3,903). Investments within the investment-grade category accounted for 94% (95), and 62% (66) of the investments were rated at least A–. On 31 December 2018, the fixed-income portfolio's modified duration was 4.3 (5.1).

The running yield for direct bond investments averaged 1.5% (1.7) on 31 December 2018. The calculation of the ratio was specified in 2018 and the comparative was adjusted retrospectively.

Wealth Management

- Earnings before tax decreased by 13.7% to EUR 213 million.
- Net commissions and fees decreased by 10.5% to EUR 345 million as assets under management and performance-based management fees declined, and due to price reductions executed.
- Net investment income, taking account of the overlay approach, totalled EUR 76 million (85). Net return on investments at fair value totalled EUR 53 million (96).
- The gross amount of assets under management decreased by 7.9% to EUR 71.8 billion.
- Development investments mainly focused on finishing the adoption of regulatory projects and the development of electronic services.

Wealth Management: key figures and ratios

€ million	Q1–4/2018	Q1–4/2017	Change, %
Net commissions and fees			
Funds, asset management and securities	228	276	-17.2
Life Insurance	185	174	6.3
Expenses	68	64	5.9
Total net commissions and fees	345	385	-10.5
Life Insurance's net risk results	29	27	8.1
Net investment income from Life Insurance	69	85	-19.1
Other income	8	10	-14.9
Total income	451	507	-11.0
Personnel costs (excl. transfer of earnings-related pension liability)	76	75	1.6
Transfer of statutory earnings-related pension liability	-35		
Depreciation/amortisation and impairment loss	33	28	21.4
Other operating expenses	142	130	8.9
Total expenses	216	233	-7.1
OP bonuses to owner-customers	-30	-28	5.9
Temporary exemption (overlay approach)	7		
Earnings before tax	213	247	-13.7
€ billion	31 Dec. 2018	31 Dec. 2017	Change, %
Assets under management (gross)			
Mutual funds	22.7	24.6	-7.8
Institutional clients	21.5	24.2	-11.2
Private Banking	17.9	19.1	-6.2
Unit-linked insurance assets	9.8	10.2	-3.5
Total assets under management (gross)	71.8	78.0	-7.9
€ million	Q1–4/2018	Q1–4/2017	Change, %
Net inflows			
Investor and saver customers	168	711	-76.4
Private Banking clients	223	563	-60.4
Institutional clients	363	623	-41.7
Total net inflows	754	1,897	-60.2

Capital market sentiment weakened as investors were anxious about tighter trade relations, import duties and higher interest rates. The negative sentiment reduced demand for Wealth Management products and net assets inflow decreased year on year by 60.2% to EUR 754 million. The gross amount of assets under management decreased by 7.9% to EUR 71.8 billion. Assets under management included about EUR 11 billion (13) in assets of the companies belonging to OP Financial Group. Along with the transfer of the OP Bank Group Pension Fund liabilities, assets transferred to Ilmarinen totalled EUR 1.3 billion.

During the financial year, Wealth Management was active in developing the range of wealth management investment products by, for example, launching several index-linked bonds. Wealth Management brought infra and credit risk investment baskets as investment vehicles to unit-linked insurance designed for institutional and private banking clients.

The number of OP Mutual Fund unitholders increased by about 27,000 in gross terms to 774,000 during the financial year. The Morningstar rating for OP Mutual Funds was 3.0 (2.9).

The aggregate number of investor and saver customers grew by almost 12,000 in the financial year, totalling around 795,000 on 31 December 2018.

During the financial year, Wealth Management development investments focused on finalising the implementation of regulatory projects and developing electronic sales and transactions. Electronic agreements accounted for 56% (51) of new Wealth Management agreements. A total of 79% (80) of mutual fund orders were made electronically.

Earnings

Earnings before tax decreased by 13.7% to EUR 213 million year on year.

Net commissions and fees decreased by 10.5% year on year, amounting to EUR 345 million (385). This decrease was due, for example, to performance-based management fees that were lower than a year ago. Net commissions and fees accounted for 0.45% of the gross amount of the assets under management (0.50).

Net return on Life Insurance investments at fair value totalled EUR 53 million (96). Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from total investment assets. These investments exclude the so-called separated balance sheets that were transferred from Suomi Mutual.

Expenses decreased by 7.1% year on year, amounting to EUR 216 million. Transferring the management of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company at the end of 2018 lowered pension costs by 35 million. Excluding the effect of this transfer, total expenses increased by 8.0% to EUR 251 million and personnel costs by 1.6% to EUR 76 million. Expenses accounted for 0.27% (0.29) of the gross amount of the assets under management.

Interest rate risk associated with insurance liability has been hedged through supplementary interest rate provisions and interest rate derivatives. The net change in the short-term life insurance supplementary interest rate provision improved earnings by EUR 43 million (lowered by EUR 51 million). Accrued supplementary interest rate provisions related to insurance liabilities (excluding the separated balance sheets) totalled EUR 341 million (405) on 31 December 2018. Short-term supplementary interest rate provisions accounted for EUR 44 million (87) of these provisions.

Life Insurance's investment assets, excluding assets covering unit-linked insurance, interest rate derivatives hedging insurance liability and the separated balance sheets, amounted to EUR 3,644 million (3,830). Investments within the investment-grade category accounted for 95% (95) of the fixed-income portfolio. On 31 December 2018, the fixed-income portfolio's modified duration was 4.1 (4.4). The running yield for direct bond investments (excluding the separated balance sheets) averaged 1.4% (1.7) on 31 December 2018. The calculation of the ratio was specified in 2018 and the comparative was adjusted retrospectively.

Investment portfolio by asset class

%	31 Dec. 2018	31 Dec. 2017
Bonds and bond funds	71.1	69.5
Alternative investments	10.8	9.3
Equities and equity funds	6.1	6.1
Real property	7.4	6.9
Money markets	4.6	8.2
Total	100	100

Return on investments on the separated Life Insurance balance sheets

In connection with the portfolios' transfer, separated balance sheets were created out of the portfolios transferred from Suomi Mutual in 2015 and 2016 with a profit distribution policy differing from other life insurance operations.

On 31 December 2018, investment assets in the individual life insurance portfolio in the separated balance sheet, excluding interest rate derivatives hedging insurance liability, amounted to EUR 810 million (891). Net return on investments at fair value totalled EUR 3 million (19). Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from investment assets.

Investment portfolio by asset class: separated balance sheet of individual life insurance portfolio

%	31 Dec. 2018	31 Dec. 2017
Bonds and bond funds	77.3	78.5
Alternative investments	8.3	9.4
Equities and equity funds	1.8	1.0
Real property	8.4	6.6
Money markets	4.2	4.4
Total	100	100

On 31 December 2018, investment assets in the individual pension insurance portfolio in the separated balance sheet, excluding interest rate derivatives hedging insurance liability, amounted to EUR 2,295 million (2,573). Net return on investments at fair value totalled EUR –24 million (86). Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from investment assets.

Investment portfolio by asset class: separated balance sheet of individual pension insurance portfolio

%	31 Dec. 2018	31 Dec. 2017
Bonds and bond funds	74.8	75.8
Alternative investments	12.2	12.3
Equities and equity funds	1.8	0.7
Real property	8.1	7.4
Money markets	3.1	3.8
Total	100	100

Other Operations

Other Operations: key figures and ratios

€ million	Q1–4/2018	Q1–4/2017	Change, %
Net interest income	-48	-75	-36.4
Net commissions and fees	6	-63	-110.1
Net investment income	86	238	-63.9
Other operating income	671	632	6.1
Total income	715	732	-2.3
Personnel costs (excl. transfer of earnings-related pension liability)	248	213	16.6
Transfer of statutory earnings-related pension liability	-71		
Depreciation/amortisation and impairment loss	191	118	62.3
Other operating expenses	469	446	5.1
Total expenses	837	777	7.8
Impairment loss on receivables	-1	0	
Earnings before tax	-123	-45	172.9

Earnings

Earnings before tax amounted to EUR –123 million (–45). This earnings reduction is explained by lower net investment income and higher expenses. Transferring the management of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company improved earnings before tax by EUR 71 million. Non-recurring income of EUR 42 million was included in earnings a year ago. Total income decreased by 2.3% to EUR 715 million.

Net interest income was EUR –48 million (–75).
Net investment income decreased by 63.9% to EUR 86 million. Derivatives operations increased net interest income by EUR 24 million and decreased net trading income included in net investment income by EUR 90 million. According to OP Financial Group's accounting policy, income from derivative instruments is split between net interest income and net trading income. How this income is broken down between the two income statement items may vary considerably depending on the derivative instruments used in position management at a given time. In addition, lower net investment income was explained by a reduction of EUR 10 million in dividend income and a reduction of EUR 29 million in net income from investment property.

Net commissions and fees were up by EUR 67 million year on year. OP Financial Group's internal net commissions and fees mainly affect those of the Other Operations segment.

Other operating income rose by EUR 6.1% to EUR 671 million due to higher intra-Group charges. A year ago, a total of EUR 22 million in non-recurring VAT refunds for prior years, interest included were recognised under the Other Operations segment. A year ago, OP Financial Group sold its portfolio of agreements and POS terminals of merchant acquiring and POS terminal services to Nets. A non-recurring gain of EUR 20 million on the transaction was recognised in other operating income of the Other Operations segment a year ago. For the financial year a year ago, the Group recognised extra amortisation of EUR 3 million and other expenses of EUR 3 million related to the transaction.

Depreciation/amortisation and impairment losses increased the Other Operations segment's expenses. Total expenses increased by 7.8% to EUR 837 million. The transfer of statutory earnings-related pension liability at the end of 2018 reduced pension costs by EUR 71 million. Excluding the effect of the pension liability transfer, personnel costs rose by 16.6% to EUR 248 million. The reorganisation provision raised personnel costs by EUR 8 million. Other operating expenses increased by 5.1% to EUR 469 million as ICT costs rose by EUR 7 million and the costs of purchased services by EUR 12 million.
Depreciation/amortisation and impairment loss on PPE and intangible assets increased by 62.3% to EUR 191 million. Impairment write-downs were EUR 39 million higher than the year before. The increase in depreciation/amortication and impairment losses resulted from higher development expenditure recognised for prior years.

In December 2018, the average margin of OP Financial Group's senior wholesale funding, TLTRO-II funding and covered bonds was 14 basis points (19). Use of the TLTRO-II funding, together with funding arriving at maturity at higher cost, lowers the cost of wholesale funding. Covered bonds are reported as part of the Banking segment.

Capital expenditure and service development

OP Financial Group invests in developing its operations and improving customer experience on an ongoing basis. The central cooperative with its subsidiaries is responsible for OP Financial Group's service development. ICT investments make up a significant portion of the costs of developing these services.

In January–December, OP Financial Group's development expenditure totalled EUR 384 million (454). These include licence fees, purchased services, other external costs related to projects and in-house work. The capitalised development expenditure totalled EUR 182 million (234).

More detailed information on OP Financial Group's investments can be found in each business segment's section in this financial statements bulletin.

Personnel and remuneration

On 31 December 2018, OP Financial Group had 12,066 employees (12,269). The number of employees averaged 12,241 (12,212). During the financial year, the number of employees decreased by 341 because of the sale of the Baltic non-life insurance business.

During the financial year, 318 OP Financial Group employees (357) retired at an average age of 61.8 years (62.1).

OP Financial Group's scheme for variable remuneration comprises short-term company-specific incentives and long-term Group-wide incentives. The long-term scheme for the entire OP Financial Group consists of a management incentive scheme and a personnel fund for other staff.

A long-term management remuneration scheme has been confirmed for 2017–2019. OP Financial Group's personnel fund remuneration scheme will also be extended by one-year performance periods.

In drawing up the incentive schemes, OP has taken account of the regulation regarding the financial sector's remuneration schemes. As a rule, the remuneration scheme for 2017–2019 follows the principles observed during the previous three-year performance period.

OP Cooperative's Supervisory Board has set the following long-term target performance metrics: OP Financial Group's EBT, customer experience and the use of digital services. The Group-level targets are the same in the management incentive scheme and in OP Financial Group's Personnel Fund.

Executive Board members' and Chief Audit Executive's executive contracts

The Nomination Committee of the central cooperative consolidated's Supervisory Board determines the remuneration and other benefits to OP Cooperative's Executive Board members and the Chief Audit Executive. A written executive contract, approved by the Supervisory Board, stipulates the terms governing each of the above-mentioned persons' employment.

Information required by the EU capital requirements regulation and directive concerning the remuneration of OP Financial Group's identified staff are published annually on OP Financial Group's website.

In 2018, OP Financial Group's President and Group Executive Chair Timo Ritakallio received EUR 613,791 in salary and EUR 21,750 in fringe benefits. In 2018, OP Financial Group's former President and Group Executive Chairman Reijo Karhinen received EUR 203,243 in salary, EUR 1,525 in fringe benefits and EUR 125,050 in bonuses for 2017 based on the short-term scheme, or a total of EUR 329,818. In 2018, the amount of deferred bonuses earned for 2014–2016 under the short-term and long-term schemes totalled EUR 180,931.

Other Executive Board members and the Chief Audit Executive received a total of EUR 2,930,411 in salary and EUR 117,735 in fringe benefits. The amount of bonuses earned for 2014–2017 under the short-term and long-term schemes totalled EUR 885,743. Salaries and bonuses paid to other Executive Board members and the Chief Audit Executive totalled EUR 3,933,889.

The salaries and bonuses include the portion of the performance-based bonuses earned in 2017 and paid in 2018 as well as the portion of bonuses, based on the long-term management remuneration scheme, earned between 2014 and 2016 and paid in 2018. Payment of performance-based bonuses earned by the President and Group Executive Chair and Executive Board members for 2017 under the short-term scheme has not been deferred. The deferral procedure is based on a procedure prescribed in the Act on Credit Institutions (610/2014), which is described in Note 50 of OP Financial Group's 2018 IFRS Financial Statements on variable remuneration.

The former President and Group Executive Chairman was covered by OP Bank Group Pension Foundation's supplementary pension scheme. Reijo Karhinen retired, based on his executive contract, when he turned 63 in January 2018. OP Bank Group Pension Foundation has charged a one-time payment, totalling EUR 534,539 for 2018, for an increase in the supplementary pension liability of the President and Group Executive Chairman.

The retirement age of the new President and Group Executive Chair Timo Ritakallio is 65 years. The retirement age of Olli Lehtilä, Harri Nummela, Tony Vepsäläinen and Chief Audit Executive Leena Kallasvuo is 63 years. The retirement age of other Executive Board member is determined as specified in applicable pension laws. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans.

In 2018, contributions paid into the supplementary pension insurance under the defined benefit plan totalled EUR 1,642,373. The amount includes payment for 2017 and 2018 due to changes in the supplementary pension plan. In 2018, contributions paid into the supplementary pension insurance under the defined contribution plan totalled EUR 106,113.

Supplementary pension costs have been published in the credit institutions' remuneration data collected annually by the European Banking Authority (EBA) in accordance with the capital requirements regulation (EU 575/2013) and directive of the (2013/36/EU, CRD IV) of the European Parliament and of the Council.

The period of notice for the President and Group Executive Chair, other Executive Board members and the Chief Audit Executive is 6 months. Upon termination of employment in cases specifically stipulated in their executive contracts, the President and Group Executive Chair is entitled to a severance pay and a sum equivalent to a maximum of 12 months' pay, while other Executive Board members and the Chief Audit Executive are entitled to a sum equivalent to a maximum of 6 months' pay.

	Regular pay	Fringe benefits	Short-term performance -based bonus earned in 2017 and paid in 2018	Total salaries, bonuses and fringe benefits paid in 2018	Portion of bonus under the long-term remuneration scheme earned between 2014 and 2016 and paid in 2018*	Total salaries, bonuses and fringe benefits, and deferred performance-based bonuses paid in 2018 under the long-term scheme
Timo Ritakallio (1 March–31 Dec. 2018)	613,791	21,750	-	635,541	-	635,541
Tony Vepsäläinen	617,988	13,020	91,768	722,776	100,120	822,896
Vesa Aho (1 Nov.–31 Dec. 2018)	55,960	40	-	56,000	-	56,000
Katja Keitaanniemi (6 Aug.–31 Dec. 2018)	160,598	97	-	160,695	-	160,695
Olli Lehtilä	333,571	35,815	37,700	407,086	56,209	463,296
Juho Malmberg (11 June–31 Dec. 2018)	167,530	140	-	167,670	-	167,670
Harri Nummela	373,796	11,400	35,530	420,726	69,110	489,836
Tiia Tuovinen (11 June–31 Dec, 2018)	124,265	6,405	-	130,670	-	130,670
Leena Kallasvuo	190,638	11,340	28,662	230,640	29,827	260,467
Reijo Karhinen (1–31 Jan. 2018)	203,243	1,525	125,050	329,818	180 931	510,749
Jouko Pölönen (1 Jan.–30 April 2018)	185,604	3,920	48,832	238,356	-	238,356
Karri Alameri (1 Jan.–10 June 2018)	127,728	4,572	56,496	188,796	25,409	214,205
Jari Himanen (1 Jan–6 May 2018)	97,938	7,556	52,440	157,934	33,479	191,413
Harri Luhtala (1 Jan.–31 Oct. 2018)	217,957	10,950	32,493	261,400	45,234	306,634
Erik Palmén (1 Jan.–10 June 2018)	104,018	-	40,916	144,934	32,042	176,976
Carina Geber-Teir (1 Jan.–10 June 2018)	89,085	6,090	38,845	134,020	-	134,020
Outi Taivainen (1 Jan.–10 June 2018)	83,735	6,390	30,631	120,756	-	120,756
						5,080,178

* Includes the amount of performance-based bonuses under the long-term scheme earned between 2014 and 2016 and paid in 2018. Payment of deferred amounts requires a separate decision.

Changes in OP Financial Group's structure

OP Financial Group's consolidated financial statements at the end of the financial year included the accounts of 156 OP cooperative banks (167) and OP Cooperative Consolidated.

The number of OP cooperative banks decreased during the financial year due to mergers.

Leppävirran Osuuspankki and Suonenjoen Osuuspankki merged into Pohjois-Savon Osuuspankki. The execution of the merger was registered on 28 February 2018.

Auran Osuuspankki, Marttilan Osuuspankki, Pöytyän Osuuspankki and Tarvasjoen Osuuspankki merged into Paattisten Osuuspankki. Consequently, the business name of Paattisten Osuuspankki changed to Auranmaan Osuuspankki. The execution of the merger was registered on 31 March 2018.

Haukivuoren Osuuspankki, Heinäveden Osuuspankki, Hirvensalmen Osuuspankki and Sulkavan Osuuspankki merged into Suur-Savon Osuuspankki. The execution of the merger was registered on 31 March 2018.

Käylän Osuuspankki merged with Kuusamon Osuuspankki. The execution of the merger was registered on 31 August 2018.

Mellilän Osuuspankki and Niinijoen Osuuspankki accepted a merger plan on 21 August 2018, according to which the former will merge into the latter. Consequently, the business name of Niinijoen Osuuspankki will change to Niinijokivarren Osuuspankki. The planned date for registration of the merger is 28 February 2019.

Turun Seudun Osuuspankki and Merimaskun Osuuspankki accepted a merger plan on 13 December 2018, according to which the former will merge into the latter. The planned date for registration of the merger is 30 April 2019.

Järvi-Hämeen Osuuspankki and Kalkkisten Osuuspankki accepted a merger plan on 17 December 2018, according to which the latter will merge into the former. The planned date for registration of the merger is 30 April 2019.

OP Insurance Ltd sold all share capital of its Baltic-based subsidiary Seesam Insurance As, including its Latvian and Lithuanian branches, to Vienna Insurance Group (VIG). The parties signed the related contract of sale on 18 December 2017 and the sale was completed on 31 August 2018.

OVY Insurance Ltd, which previously acted as OP Financial Group's internal credit insurance company, merged into OP Cooperative. The execution of the merger was registered on 31 July 2018.

OP Financial Group's subsidiary Payment Highway Oy merged into Checkout Finland Oy. The execution of the merger was registered on 31 August 2018.

OP Financial Group is planning to adopt the Pohjola name in its non-life insurance business during 2019. OP Insurance Ltd would, in the future, be known under the name Pohjola Insurance Ltd. Pohjola Health will be renamed Pohjola Hospital during 2019 and it will focus on hospital operations in the future.

Governance of OP Cooperative

OP Financial Group's central cooperative (OP Cooperative) held its Annual Cooperative Meeting on 20 March 2018.

The Meeting re-elected for the term of three years ending in 2021 the following members to the Supervisory Board who were due to resign: Managing Director Kalle Arvio, Managing Director Anne Harju, Professor Jarna Heinonen, M.Sc.(Agric.) Seppo Kietäväinen, Managing Director Olli Koivula, Lecturer Jaakko Korkonen, Authorised Public Accountant Katja Kuosa-Kaartti, Planner Jukka Kääriäinen, Senior Manager Anssi Mäkelä, Director, Administration Annukka Nikola, Managing Director Olli Näsi, Managing Director Olli Tarkkanen and Managing Director Ari Väänänen.

New members elected to the Supervisory Board for the term of three years ending in 2021 were Executive Director Timo Alho, Managing Director Kyösti Myller, Project Management Specialist Yrjö Niskanen, Strategy and Account Manager Timo Metsä-Tokila, Managing Director Leo-Petteri Nevalainen, Managing Director Timo Suhonen, Managing Director Juha-Pekka Nieminen, Professor Markku Sotarauta.

In addition, the Annual Cooperative Meeting re-elected Director Jaakko Kiander a Supervisory Board member outside of OP Financial Group for a three-year term ending in 2021.

The Supervisory Board comprises 36 members.

At its reorganising meeting, the Supervisory Board elected the presiding officers of the Supervisory Board. Professor of Economics Jaakko Pehkonen was re-elected the Chair and Senior Lecturer in Marketing Mervi Väisänen and Managing Director Olli Tarkkanen Vice Chairs.

Along with the presiding officers, the Supervisory Board's five committees have a key role in Supervisory Board work. The Supervisory Board Chair chairs the Supervisory Board Working Committee, Remuneration Committee and the central cooperative consolidated Executive Board's Nomination Committee. The Supervisory Board Audit Committee is chaired by Riitta Palomäki, M.Sc. (Econ.&Bus. Adm.), and the Risk Management Committee by Arto Ylimartimo, M.Sc. (Econ.&Bus. Adm.), Chair of the Board of Directors.

At its meeting on 20 March 2018, the central cooperative's Annual Cooperative Meeting approved alteration of the cooperative Bylaws. The alteration applied to changes in the paragraphs related to the Supervisory Board and its committees as well as the Executive Board, based on official and regulatory requirements. A minimum of four Supervisory Board members must be outside of OP Financial Group.

The Annual Cooperative Meeting re-elected KPMG Oy Ab, an audit firm, to act as the auditor for the financial year 2018, with Raija-Leena Hankonen, APA, acting as the Auditor-in-charge, appointed by KPMG Oy Ab.

Legal structure of the amalgamation of the cooperative banks and OP Financial Group

Amalgamation of OP Financial Group member cooperative banks, and OP Financial Group

The amalgamation of OP Financial Group member cooperative banks is formed by OP Cooperative (central cooperative), companies belonging to its consolidation group, the central cooperative's member credit entities and companies belonging to their consolidation groups, and credit institutions, financial institutions and service companies in which the abovementioned entities together hold more than half of the total votes.

OP Financial Group is comprised of the amalgamation of the member cooperative banks and those non-amalgamation entities of which entities belonging to the amalgamation hold more than half of the total votes. The extent of OP Financial Group differs from that of the amalgamation of the member cooperative banks in that OP Financial Group subsumes companies other than credit institutions, financial institutions or service companies. The most important of these are the insurance companies with which the amalgamation forms a financial and insurance conglomerate. In addition, Pohjola Health Ltd, a hospital, belongs to OP Financial Group.

Control, risk management and capital adequacy of the amalgamation of cooperative banks

Pursuant to the Act on the Amalgamation of Deposit Banks, the consolidated capital base and liquidity of the companies within the amalgamation are controlled on a consolidated basis. The central cooperative is under an obligation to supervise its member credit institutions, issue instructions to them on risk management, good corporate governance and internal control to secure liquidity and capital adequacy, as well as instructions on compliance with standardised accounting policies in the preparation of the consolidated financial statements. In the manner as specified in its Bylaws, the central cooperative may also confirm general principles to be followed by its member credit institutions in operations relevant to their amalgamation.

However, the obligation to issue guidelines and exercise supervision does not authorise the central cooperative to dictate the course of the member credit institutions' business operations. Each member credit institution carries on its business independently within the scope of its own resources and guidelines provided by the central cooperative.

A company belonging to the amalgamation may not, in the course of its operations, take any risk of such magnitude that it poses a substantial danger to the combined capital base or liquidity of the companies within the amalgamation. The central cooperative must by law pursue good corporate governance that enables effective risk management and have in place adequate internal control and risk management systems in view of the performance of the amalgamation. The risk management principles applied to the amalgamation of the cooperative banks are included in OP Financial Group's Risk-taking System and Risk Appetite Framework document and these are described in greater detail in other parts of the Report by the Executive Board and OP Financial Group's IFRS Financial Statements.

The amalgamation must fulfil the legal requirements concerning its financial position. The amalgamation must have the minimum capital base specified in Chapter 10, Section 1 of the Act on Credit Institutions.

In accordance with the Act on the Amalgamation of Deposit Banks, the supervisor may give the central cooperative permission to decide on exceptions to its member credit institutions related to the capital base amount and capital requirements, customer risks and liquidity and the qualitative management of risks.

OP Financial Group's financial statements and audit

According to the Act on the Amalgamation of Deposit Banks, OP Financial Group's financial statements must be prepared in compliance with the International Financial Reporting Standards, as referred to in the Accounting Act. The Financial Supervisory Authority has issued more detailed regulations on the preparation of OP Financial Group's financial statements. The accounting policies applied are presented in the notes to OP Financial Group's financial statements.

The central cooperative has a statutory obligation to issue instructions to the member credit institutions on observing uniform accounting policies in preparing the OP Financial Group's financial statements. The member credit institutions are obliged to provide the central cooperative with the information necessary for the consolidation of OP Financial Group's financial statements.

The central cooperative's auditors are authorised to obtain a copy of the documents relating to a member credit institution's audit for auditing OP Financial Group's financial statements.

The central cooperative's auditors audit OP Financial Group's financial statements observing, as appropriate, the provisions of the Act on Credit Institutions. The financial statements are presented and distributed to the Annual Cooperative Meeting of the central cooperative.

Supervision of the amalgamation of the cooperative banks

The central cooperative and the amalgamation of the cooperative banks is supervised by the European Central Bank (ECB), while the central cooperative's member credit institutions are supervised by the ECB and the central cooperative.

The central cooperative exercises oversight to ensure that the companies within the amalgamation operate in compliance with the laws, decrees and regulations issued by the relevant authorities governing financial markets, and with their own bylaws or articles of associations and the instructions issued by the central cooperative by virtue of Section 17 of the Act on the Amalgamation of Deposit Banks. Furthermore, the central cooperative supervises the financial position of the companies within the amalgamation.

The ECB oversees the central cooperative so that it controls and supervises the member credit institutions in accordance with the provisions of the Act on the Amalgamation of Deposit Banks and that the companies within the amalgamation fulfil their legal requirements.

The audit of the central cooperative and its member credit institutions is carried out by Internal Audit, which reports to OP Financial Group's President and Group Executive Chair. It is responsible for the internal audit of the central cooperative's member credit institutions and companies belonging to their consolidation groups and the central cooperative and its subsidiaries.

Internal Audit is a function independent of business lines that audits the effectiveness and adequacy of OP Financial Group's internal control system, risk management as well as management and governance processes. Internal audit has been organised on a business organisation basis. All Group entities and functions are subject to internal audit.

The Supervisory Board of the central cooperative appoints and dismisses the Chief Audit Executive and decides his/her employment terms and conditions and compensation.

The Supervisory Board's Audit Committee adopts the Internal Audit action plan. Internal Audit reports on its audits to the central cooperative's Executive Board and Audit Committee as well as to the management teams of functions. Company-

specific audits are reported to the governing bodies and management of the companies.

In its auditing work, Internal Audit complies with the Internal Audit Charter confirmed by the Supervisory Board and the International Standards for the Professional Practice of Internal Auditing confirmed by the Institute of Internal Auditors (IIA). Internal audit performance is subject to external quality assessment approximately every five years.

Central cooperative's liability for debt and joint and several liability of member credit institutions

The central cooperative and its member credit institutions fall within the scope of the amalgamation's joint and several liability. As a support measure referred to in the Act on the Amalgamation of Deposit Banks, the central cooperative is liable to pay any of its member credit institutions an amount that is necessary to prevent the credit institution from being placed in liquidation. The central cooperative is also liable for the debts of a member credit institution which cannot be paid using the member credit institution's assets.

Each member credit institution is liable to pay a proportion of the amount which the central cooperative has paid to either another member credit institution as part of support action or to a creditor of such member credit institution in payment of an amount overdue which the creditor has not received from the member credit institution. Furthermore, in the case of the central cooperative's default, a member credit institution has unlimited refinancing liability for the central cooperative's debts as referred to in the Co-operatives Act.

Each member credit institution's liability for the amount the central cooperative has paid to the creditor on behalf of a member credit institution is divided between the member credit institutions in proportion to their last adopted balance sheets. The combined annual amount collected from each member credit institution in order to prevent liquidation of one of the member credit institutions may in each financial year account for a maximum of five thousandths of the last adopted balance sheet of each member credit institution.

Protection afforded by the Deposit Guarantee Fund and the Investors' Compensation Fund

According to the law governing the Deposit Guarantee Fund, the deposit banks belonging to the amalgamation of the cooperative banks are considered to constitute a single bank in respect of deposit insurance. The Deposit Guarantee Fund reimburses a maximum total of 100,000 euros to an individual account holder who has receivables from deposit banks belonging to the amalgamation of cooperative banks.

Under the law governing the Investors' Compensation Fund, the amalgamation of the cooperative banks is also considered to constitute a single credit institution in respect of investors' compensation. The Investors' Compensation Fund's assets may be used to compensate an investor's receivables from companies belonging to the amalgamation of the cooperative banks up to a total maximum of 20,000 euros.

The Financial Stability Authority manages the Financial Stability Fund outside the government budget. The Fund consists of a resolution fund financed through stability contributions and a deposit guarantee fund financed through deposit guarantee contributions.

Financial and insurance conglomerate

OP Financial Group forms a financial and insurance conglomerate as defined in the Act on the Supervision of Financial and Insurance Conglomerates. The amalgamation's central cooperative operates as the company heading the amalgamation pursuant to Section 3 of said Act.

The Act stipulates a specific capital adequacy requirement for a financial and insurance conglomerate. OP Financial Group's capital adequacy is stated as the amount of its capital base in excess of the minimum capital requirement and as a ratio of the total capital base to the minimum required capital base.

The set of norms governing financial statements under the Act on the Supervision of Financial and Insurance Conglomerates does not apply to OP Financial Group on the basis of Section 30 of the Act, because the Group prepares its financial statements in compliance with IFRS.

Outlook for 2019

The financial-sector operating environment is quite favourable on the whole although the world economy is showing signs of slower growth. While low market interest rates are expected to slow down growth in banks' net interest income and erode insurance institutions' income from fixed income investments, they should also improve customers' repayment capacity. Impairment losses have been very low for a long time now. The most significant strategic risks in the financial sector are currently associated with changing customer behaviour, operating environment digitisation, competition from outside of the traditional financial sector and more complex regulation. Industry disruption is threatening to slow down growth and erode income generation in the years to come. Changes mean that financial sector players will be faced with an obvious requirement to improve customer and employee experience, enhance the agility of their operations and related development as well as improve productivity.

OP Financial Group's Earnings before tax for 2019 are expected to be lower than in 2018. The most significant uncertainties in respect of the financial performance relate to changes in the interest rate and investment environment, market growth rate, changes in the competitive situation and impairment losses.

All forward-looking statements in this Report by the Executive Board expressing the management's expectations, beliefs, estimates, forecasts, projections and assumptions are based on the current view on developments in the economy, and actual results may differ materially from those expressed in the forward-looking statements.

Key income statement and balance sheet items, and financial indicators

€ million	2018	2017	2016	2015	2014
Key income statement items, € million					
Net interest income	1,175	1,102	1,058	1,026	1,043
Net insurance income	566	478	558	527	481
Net commissions and fees	887	879	859	855	853
Net investment income	254	522	391	441	324
Other operating income	61	83	122	46	52
Personnel costs	516	758	762	781	741
Depreciation/amortisation and impairment loss	325	246	160	162	149
Other operating expenses	839	764	646	577	665
Impairment loss on receivables	-46	-48	-77	-78	-88
OP bonuses to owner-customers	-226	-217	-206	-195	-195
Temporary exemption (overlay approach)	26				
Earnings before tax	1,017	1,031	1,138	1,101	915
Key balance sheet items – assets, € million					
Cash and cash equivalents	12,350	12,937	9,471	8,619	3,942
Derivative contracts	3,482	3,412	4,732	5,072	5,998
Receivables from credit institutions	183	504	337	425	686
Receivables from customers	87,081	82,193	78,604	75,192	70,683
Investment assets	23,047	23,324	25,887	21,803	16,634
Assets covering unit-linked contracts	9,771	10,126	9,168	8,640	7,492
Intangible assets and property, plant and equipment	2,227	2,353	2,345	2,238	2,113
Other items	2,242	2,355	3,203	2,465	2,879
Total assets	140,382	137,205	133,747	124,455	110,427
Key balance sheet items – liabilities and equity, € million					
Liabilities to credit institutions	4,807	5,157	4,669	1,673	1,776
Derivative contracts	2,821	3,026	4,044	4,678	5,499
Liabilities to customers	66,112	65,549	60,077	58,220	51,163

Insurance liabilities	9,476	9,950	10,586	7,705	6,386
Liabilities from unit-linked insurance and investment contracts	9,812	10,158	9,205	8,666	7,513
Debt securities issued to the public	30,456	26,841	28,287	27,706	24,956
Other liabilities	5,064	5,440	6,642	6,483	5,921
Equity capital	11,835	11,084	10,237	9,324	7,213
Total liabilities and equity	140,382	137,205	133,747	124,455	110,427
Figures and ratios					
Return on equity, ROE, %	6.9	7.7	9.4	10.3	8.1
Return on equity (ROE) at fair value, %	5.2	6.0	7.8	13.2	5.7
Return on assets, ROA, %	0.6	0.6	0.7	0.7	0.6
Cost/income ratio, %	57	58	52	53	56
Average personnel	12,241	12,212	12,271	12,174	12,548
Common Equity Tier 1 (CET1) capital ratio, %	20.5	20.1	20.1	19.5	15.1
Capital adequacy ratio, %	22.5	22.5	23.1	22.9	17.3
Capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates, %*	147	148	170	191	158

*Figures for 2014–2016 are presented under Solvency II. Transitional provisions have been taken into account in figures

Formulas for key ratios

The Alternative Performance Measures are presented to illustrate the financial performance of business operations and to improve comparability between companies in the same sector and reporting periods.

The calculation of the used Alternative Performance Measures is presented below. The new Alternative Performance Measures presented include "Ratio of non-performing receivables to loan and guarantee portfolio, %", "Coverage ratio, %" and "Default capture rate". These ratios were adopted on 1 January 2018 when adopting IFRS 9.

ALTERNATIVE PERFORMANCE MEASURES:

Return on equity (ROE), %	Profit for the financial year / Equity (average of the beginning and end of financial year)	x 100
Return on equity (ROE) at fair value, %	Total comprehensive income for the financial year / Equity (average of the beginning and end of financial year)	x 100
Return on assets (ROA), %	Profit for the financial year / Balance sheet total (average of the beginning and end of financial year)	x 100
Cost/income ratio, %	Total expenses / Total income	x 100
Ratio of non-performing receivables to loan and guarantee portfolio, %	Non-performing receivables (net) / Loan and guarantee portfolio at end of financial year	x 100
Coverage ratio, %	Receivables from customers, and on-balance-sheet and off-balance-sheet items / Loss allowance	x 100
Default capture rate, %	New defaulted contracts in stage 2 a year ago / New defaulted contracts in financial year	x 100
Non-life Insurance key ratios:		
Loss ratio (excl. unwinding of discount), %	Claims and loss adjustment expenses / Net insurance premium revenue	x 100
Expense ratio, %	Operating expenses + Amortisation/adjustment of intangible assets related to company acquisition / Net insurance premium revenue	x 100
Risk ratio (excl. unwinding of discount), %	Claims excl. loss adjustment expenses / Net insurance premium revenue	x 100
Combined ratio (excl. unwinding of discount), %	Loss ratio + expense ratio / Risk ratio + cost ratio	
Cost ratio, %	Operating expenses and loss adjustment expenses / Net insurance premium revenue	x 100

Operating loss ratio, %	Claims incurred excl. changes in reserving bases / Insurance premium revenue, excl. net changes in reserving bases	x 100
Operating expense ratio, %	Operating expenses / Insurance premium revenue, excl. net changes in reserving bases	x 100
Operating combined ratio, %	Operating loss ratio + operating expense ratio Operating risk ratio + Operating cost ratio	
Operational risk ratio (excl. unwinding of discount), %	Claims excl. loss adjustment expenses and changes in reserving bases / Net insurance premium revenue, excl. net changes in reserving bases	x 100
Operating cost ratio, %	Operating expenses and loss adjustment expenses / Net insurance premium revenue, excl. net changes in reserving bases	x 100

KEY INDICATORS BASED ON A SEPARATE CALCULATION

Capital adequacy ratio, %	Total capital / Total risk exposure amount	x 100
Tier 1 capital ratio, %	Tier 1 capital (Tier 1) / Total risk exposure amount	x 100
Common Equity Tier 1 (CET1) capital ratio, %	Common Equity Tier 1 (CET1) / Total risk exposure amount	x 100
Solvency ratio, %	Capital base / Solvency capital requirement (SCR)	x 100
Liquidity coverage ratio (LCR), %	Liquid assets / Liquidity outflows – liquidity inflows in shocks	x 100
Net Stable Funding Ratio (NSFR), %	Available stable funding / Required stable funding	x 100
FiCo capital	Conglomerate's total capital base / Conglomerate's total minimum capital base	x 100

Non-life Insurance operating result EUR million	Q1–4/2018	Q1–4/2017	Change, %
Insurance premium revenue	1,465	1,431	2.4
Claims incurred	-1,039	-1,085	-4.2
Operating expenses	-308	-291	6.0
Amortisation adjustment of intangible assets	-18	-21	-16.7
Balance on technical account	**100**	**34**	**195.9**
Investment income and expenses	0	183	-100.1
Other income and expenses	8	-7	-227.0
Earnings before tax	**108**	**210**	**-48.4**
Temporary exemption (overlay approach)	25		
Earnings before tax	**133**	**210**	**-36.7**

The Non-life Insurance financial indicators are calculated using expenses by function applied by non-life insurance companies, which are not presented on the same principle as in the Consolidated Income Statement.

Income statement

EUR million	Notes	2018	2017
Net interest income	4	1,175	1,102
Net insurance income	5	566	478
Net commissions and fees	6	887	879
Net investment income	7	254	522
Other operating income	8	61	83
Total income		**2,943**	**3,063**
Personnel costs*	9	516	758
Depreciation/amortisation	10	325	246
Other expenses	11	839	764
Total expenses		**1,681**	**1,768**
Impairments loss on receivables	12	-46	-48
OP bonuses to owner-customers	13	-226	-217
Temporary exemption (overlay approach)		26	
Earnings before tax		**1,017**	**1,031**
Income tax expense	14	223	214
Profit for the financial year		**794**	**817**
Attributable to:			
Profit for the period attributable to owners		786	812
Profit for the period attributable to non-controlling interest		8	6
Total		**794**	**817**

* OP Financial Group transferred the management of and the majority of the personnel's statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company at the end of 2018. The transfer reduced OP Financial Group's pension costs and improved earnings before tax by EUR 286 million.

Statement of comprehensive income

EUR million	Notes	2018	2017
Profit for the financial year		**794**	**817**
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	33	88	48
Change in revaluation reserve			17
Items that may be reclassified to profit or loss			
Change in fair value reserve			
Measurement at fair value	36	-172	-146
Cash flow hedge	36	22	-32
Temporary exemption (overlay approach)		-26	
Translation differences		0	0
Income tax on other comprehensive income			
Items that will not be reclassified to profit or			
Gains/(losses) arising from remeasurement of defined	26	-18	-10
Change in revaluation reserve			-4
Items that may be reclassified to profit or loss			
Measurement at fair value	36	34	29
Cash flow hedge	36	-4	6
Temporary exemption (overlay approach)	0	5	
Total comprehensive income for the financial year		**723**	**727**
Attributable to:			
Total comprehensive income for the period attributable to owners		715	721
Total comprehensive income for the period attributable to non-controlling interests		8	5
Total		**723**	**727**

Balance sheet

EUR million	Notes	31 Dec. 2018	31 Dec. 2017
Cash and cash equivalents	15	12,350	12,937
Receivables from credit institutions	16	183	504
Derivative contracts	18	3,482	3,412
Receivables from customers	19	87,081	82,193
Investment assets	20	23,047	23,324
Assets covering unit-linked contracts	21	9,771	10,126
Intangible assets	23	1,490	1,555
Property, plant and equipment (PPE)	24	737	798
Other assets	25	2,033	2,131
Tax assets	26	209	224
Total assets		**140,382**	**137,205**
Liabilities to credit institutions	27	4,807	5,157
Derivative contracts	28	2,821	3,026
Liabilities to customers	29	66,112	65,549
Insurance liabilities	30	9,476	9,950
Liabilities from unit-linked insurance and investment contracts	31	9,812	10,158
Debt securities issued to the public	32	30,456	26,841
Provisions and other liabilities	33	2,785	3,150
Tax liabilities	26	921	890
Subordinated liabilities	35	1,358	1,400
Total liabilities		**128,547**	**126,122**
Equity capital			
Share of OP Financial Group's owners			
Cooperative capital			
Cooperative share		199	191
Profit shares		3,042	2,906
Fair value reserve		7	176
Other reserves		2,183	2,173
Retained earnings		6,250	5,536
Non-controlling interests		154	101
Total equity capital	36	**11,835**	**11,084**
Total liabilities and equity capital		**140,382**	**137,205**

Statement of changes in equity capital

	Attributable to owners						
EUR million	Coope-rative capital	Fair value reserve*	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity capital
Balance at 1 Jan. 2017	**2,901**	**318**	**2,108**	**4,808**	**10,135**	**102**	**10,237**
Total comprehensive income for the period		-142	14	850	**721**	5	**727**
Profit for the period				812	**812**	6	**817**
Other comprehensive income		-142	14	38	**-90**	0	**-90**
Profit distribution				-89	**-89**		**-89**
Change in membership and profit shares	196				**196**		**196**
Transfer of reserves			51	-51	**0**		**0**
Other				-1	**-1**	-6	**-7**
Balance at 31 Dec. 2017	**3,097**	**176**	**2,173**	**5,536**	**10,982**	**101**	**11,084**

	Attributable to owners						
EUR million	Coope-rative capital	Fair value reserve*	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity capital
Balance at 31.12.2017	**3,097**	**176**	**2,173**	**5,536**	**10,982**	**101**	**11,084**
Effect of IFRS 9 transition at 1 Jan. 2018		-28		-33	**-61**		**-61**
Balance at 1 Jan. 2018	**3,097**	**148**	**2,173**	**5,503**	**10,921**	**101**	**11,023**
Total comprehensive income for the period		-141	0	856	**715**	8	**723**
Profit for the period				786	**786**	8	**794**
Other comprehensive income		-141		70	**-71**		**-71**
Profit distribution				-90	**-90**	-13	**-103**
Change in membership and profit shares	144				**144**		**144**
Transfer of reserves			10	-10	**0**		**0**
Other				-10	**-10**	58	**49**
Balance at 31 Dec. 2018	**3,241**	**7**	**2,183**	**6,250**	**11,681**	**154**	**11,835**

* Note 36

Cash flow statement

EUR million	Notes	2018	2017
Cash flow from operating activities			
Profit for the financial year		794	817
Adjustments to profit for the financial year		-127	289
Increase (-) or decrease (+) in operating assets		**-4,920**	**-1,523**
Receivables from credit institutions	16	88	40
Derivative contracts	18	-87	-41
Receivables from customers	19	-4,907	-3,643
Non-life Insurance assets	21	-299	-594
Investment assets	20	68	1,833
Other assets	25	216	881
Increase (+) or decrease (-) in operating liabilities		**44**	**5,134**
Liabilities to credit institutions	27	-420	605
Derivative contracts	28	-5	-2
Liabilities to customers	29	562	5,473
Adjustments to profit for the financial year	30	46	29
Liabilities from unit-linked insurance and investment contracts	31	102	124
Provisions and other liabilities	33	-242	-1,094
Income tax paid		-145	-205
Dividends received		106	123
A. Net cash from operating activities		**-4,249**	**4,634**
Cash flow from investing activities			
Acquisition of subsidiaries and associates, net of cash and cash equivalents acquired	22	0	
Disposal of subsidiaries and associates, net of cash and cash equivalents disposed		67	6
Purchase of PPP and intangible assets	23, 24	-228	-352
Proceeds from sale of PPE and intangible assets	23, 24	16	51
B. Net cash used in investing activities		**-145**	**-295**
Cash flow from financing activities			
Increases in subordinated liabilities	32, 35	0	0
Decreases in subordinated liabilities	32, 35	0	0
Increases in debt securities issued to the public	32	27,984	24,051
Decreases in debt securities issued to the public	32	-24,465	-24,747
Increases in cooperative and share capital		659	838
Decrease in cooperative and share capital		-515	-718
Dividends paid and interest on cooperative capital		-90	-89
C. Net cash used in financing activities		**3,573**	**-666**
Net change in cash and cash equivalents (A+B+C)		**-821**	**3,674**
Cash and cash equivalents at period-start		**13,245**	**9,571**
Cash and cash equivalents at period-end		**12,423**	**13,245**

EUR million		2018	2017
Interest received		**2,012**	**2,066**
Interest paid		**-829**	**-992**
Adjustments to profit for the financial year			
Non-cash items and other adjustments			
Impairment losses on receivables		61	63
Unrealised net earnings in insurance operations		-243	-169
Change in fair value for trading		-173	-229
Unrealised net gains on foreign exchange operations		-32	-38
Change in fair value of other investments		-76	123
Defined benefit pension plans		-286	
Planned amortisation and depreciation		325	246
Share of associates' profits/losses		-39	-21
OP bonuses to owner-customers		226	217
Income tax paid		145	205
Dividends received		-106	-123
Other		88	27
Items presented outside cash flow from operating activities			
Capital gains, share of cash flow from investing activities		-18	-13
Interest on cooperative capital		0	0
Total adjustments		**-127**	**289**
Cash and cash equivalents			
Liquid assets	15	12,350	12,937
Receivables from credit institutions payable on demand		74	307
Total		**12,423**	**13,245**

Segment reporting

Segment information

OP Financial Group's business segments are Banking, Non-life Insurance, and Wealth Management. Non-segment operations are presented under Other Operations. OP Financial Group prepares its segment reporting in compliance with its accounting policies. Defining segments and presentation are based on management reporting. The segments' earnings and profitability are assessed in terms of EBT. OP cooperative banks' income items have been allocated to different segments. Income and expenses have been allocated to the segments based on the matching principle or allocation rules.

The Banking segment companies consist of OP Card Company Plc, OP Mortgage Bank and OP Corporate Bank Group's Banking segment.
Net interest income is Banking's most significant income item. Income also comes from commissions and fees and investment. Expenses arise mainly from personnel and ICT costs and the costs of the branch network and OP bonuses to owner-customers. The most significant risk category pertains to credit risk but business also involves market risks and operational risks.

The Non-life Insurance segment encompasses the operations of OP Financial Group's non-life insurance companies, i.e. OP Insurance Ltd, Eurooppalainen Insurance Company Ltd, A-Insurance Ltd as well as the operations of service companies supporting non-life insurance.
Non-life insurance products include non-life products sold to corporate and private customers. Net income generated by Non-life Insurance derives mainly from income from insurance premiums and net investment income. The most significant risks in Non-life Insurance pertain to insurance risks and investment risks. The Non-life Insurance segment also includes Pohjola Health Ltd whose earnings come from doctor's fees and billing for treatment, diagnostics and occupational healthcare services.

The Wealth Management segment comprises OP Life Assurance Company Ltd engaged in life and pension insurance business, OP Fund Management Company Ltd engaged in mutual fund business, OP Property Management Ltd, OP Asset Management Ltd and its subsidiaries as well as OP Corporate Bank plc's Equity Sales & Execution and Equity Research Business division. The most significant items of income generated by the Wealth Management segment include life insurance net investment income and risk results as well as commissions and fees. The commissions and fees of the Wealth Management segment consist mainly of those from asset and mutual fund management and life insurance policies.

Other Operations includes operations that support the segments, particularly the operations of OP Cooperative, OP-Services Ltd and OP Customer Services Ltd as well as OP Corporate Bank Group's Treasury and the Markets division's interest rate derivatives and FX trading as well as bonds trading. In addition, the new businesses Pivo Wallet Oy, Checkout Finland Oy and OP Co-ride Ltd are reported under the Other Operations segment. Costs of the services for the business segments are allocated to the segments in the form of internal service charges. Income from the Other Operations segment mainly consists of OP Financial Group Treasury's net investment income and OP Financial Group's internal charges recognised in other operating income.

Segment accounting policies

OP Financial Group's segment reporting is based on accounting policies applied in its financial statements. Income, expenses, assets and liabilities which have been considered to relate directly to and be reasonably attributable to the segments are allocated to the segments. Income, expenses, investments and capital which have not been allocated to segments and inter-segment Group eliminations are reported under 'Group eliminations'.

Segment capitalisation is based on OP Financial Group's capital adequacy measurement in accordance with the Act on Credit Institutions. Capital requirements according to this measurement are allocated among the operating segments. Capital has been allocated to banking in such a way that the CET1 ratio is 20% (21%). Capital has been allocated to non-life insurance in such a way that the solvency ratio (SII) is 120% and to life insurance in such a way that the solvency ratio is 130%. Capital allocation has an effect on the Group's internal interest amounts paid by the segment concerned. The allocation of equity capital to the business segments is carried out through OP Financial Group's Treasury under other operations, which means that any earnings effect of equity capital differing from the target level is shown under Other operations.

Q1–4 earnings 2018, EUR million	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Net interest income	1,242	-15	3	-48	-7	1,175
of which internal net income before tax	-6	-12	3	14		
Net insurance income		549	29		-12	566
Net commissions and fees	540	-12	345	6	8	887
Net investment income	105	0	69	86	-5	254
Other operating income	25	22	5	671	-661	61
Total income	**1,911**	**543**	**451**	**715**	**-678**	**2,943**
Personnel costs	171	130	41	177	-2	516
Depreciation/amortisation	40	61	33	191	0	325
Other operating expenses	667	243	142	469	-682	839
Total expenses	**878**	**433**	**216**	**837**	**-684**	**1,681**
Impairments loss on receivables	-45	0	0	-1	0	-46
OP bonuses to owner-customers	-194	-2	-30		0	-226
Temporary exemption (overlay approach)		25	7		-6	26
Earnings before tax	**795**	**133**	**213**	**-123**	**0**	**1,017**

Net income from the Baltic countries came to EUR 10 million

Q1–4 earnings 2017, EUR million	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Net interest income	1,192	-15	1	-75	-1	1,102
of which internal net income before tax	-17	-12	1	28		
Net insurance income		459	27		-8	478
Net commissions and fees	576	-17	385	-63	-3	879
Net investment income	19	183	85	238	-3	522
Other operating income	36	-1	8	632	-593	83
Total income	**1,823**	**609**	**507**	**732**	**-608**	**3,063**
Personnel costs	354	116	75	213	-1	758
Depreciation/amortisation	51	50	28	118		246
Other operating expenses	565	231	130	446	-608	764
Total expenses	**970**	**397**	**233**	**777**	**-609**	**1,768**
Impairments loss on receivables	-47	0		0	-1	-48
OP bonuses to owner-customers	-187	-2	-28		0	-217
Earnings before tax	**619**	**210**	**247**	**-45**	**0**	**1,031**

Net income from the Baltic countries came to EUR 10 million

Balance sheet 31 December 2018	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Cash and cash equivalents	90	249	436	12,209	-634	12,350
Receivables from credit institutions	10,921	10	67	10,136	-20,951	183
Derivative contracts	681	32	124	3,057	-411	3,482
Receivables from customers	87,944	0	0	-19	-844	87,081
Investment assets	-76	3,500	6,738	18,233	-5,348	23,047
Assets covering unit-linked contracts			9,771			9,771
Intangible assets	50	637	346	461	-3	1,490
Property, plant and equipment (PPE)	347	41	25	336	-11	737
Other assets	301	747	270	1,171	-456	2,033
Tax assets	105	13	15	66	11	209
Total assets	**100,362**	**5,228**	**17,790**	**45,651**	**-28,649**	**140,382**
Liabilities to credit institutions	10,248			15,773	-21,214	4,807
Derivative contracts	322	11	26	2,876	-414	2,821
Liabilities to customers	62,290		14	5,228	-1,421	66,112
Insurance liabilities		3,157	6,319			9,476
Liabilities from unit-linked insurance and investments contracts			9,812			9,812
Debt securities issued to the public	11,357			19,263	-165	30,456
Provisions and other liabilities	1,499	559	259	912	-443	2,785
Tax liabilities	414	66	61	381	-1	921
Subordinated liabilities	41	135	245	1,332	-395	1,358
Total liabilities	**86,172**	**3,928**	**16,736**	**45,764**	**-24,053**	**128,547**
Equity						**11,835**

Net assets from the Baltic countries came to EUR 34 million.

Balance sheet 31 December 2017	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Cash and cash equivalents	104	318	438	12,807	-729	12,937
Receivables from credit institutions	9,727	6	84	9,615	-18,928	504
Derivative contracts	335	10	83	3,320	-336	3,412
Receivables from customers	83,023	0	1	-19	-812	82,193
Investment assets	536	3,542	7,152	17,358	-5,264	23,324
Assets covering unit-linked contracts			10,126			10,126
Intangible assets	64	677	364	453	-3	1,555
Property, plant and equipment (PPE)	409	42	26	333	-12	798
Other assets	305	727	296	1,303	-499	2,131
Tax assets	122	18	29	43	11	224
Total assets	**94,624**	**5,341**	**18,599**	**45,213**	**-26,572**	**137,205**
Liabilities to credit institutions	9,460			14,204	-18,506	5,157
Derivative contracts	223	15	31	3,097	-339	3,026
Liabilities to customers	59,228		0	7,839	-1,518	65,549
Insurance liabilities		3,143	6,807		0	9,950
Liabilities from unit-linked insurance and investments contracts			10,158			10,158
Debt securities issued to the public	11,974			15,696	-829	26,841
Provisions and other liabilities	1,568	548	275	1,248	-489	3,150
Tax liabilities	376	76	69	369	0	890
Cooperative capital	19				-19	0
Subordinated liabilities	82	135	245	1,391	-452	1,400
Total liabilities	**82,929**	**3,917**	**17,585**	**43,844**	**-22,153**	**126,122**
Equity						**11,084**

Net assets from the Baltic countries came to EUR 74 million.

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General

OP Financial Group is a financial entity as referred to in §9 of the Act on the Amalgamation of Deposit Banks. OP Financial Group's financial statements have been prepared as a combination of the financial statements and consolidated financial statements of OP Cooperative and its subsidiaries and member credit institutions.

OP Financial Group does not form a consolidation group, as referred to in the Accounting Act, because OP Cooperative and its member cooperative banks do not have control over each other, as referred to in general consolidated accounting policies. For this reason, a technical parent company has been determined for OP Financial Group.

OP Cooperative acts as the entire OP Financial Group's strategic owner institution and as a central cooperative in charge of Group control and supervision.

The Act on the Amalgamation of Deposit Banks requires OP Financial Group's central cooperative, OP Cooperative, to prepare consolidated financial statements for OP Financial Group. OP Cooperative's Executive Board is responsible for preparing the financial statements in accordance with applicable regulations.

OP Cooperative is domiciled in Helsinki and the address of its registered office is Gebhardinaukio 1, FI-00510 Helsinki.

A copy of OP Financial Group's consolidated financial statements is available at www.op.fi or the Group's office at Gebhardinaukio 1, FI-00510 Helsinki.

The Executive Board of OP Cooperative has approved OP Financial Group's financial statements bulletin for issue on 5 February 2019.

1 Basis of preparation

OP Financial Group's financial statements were prepared in accordance with the International Financial Reporting Standards (IFRS), applying IASs, IFRSs and SIC and IFRIC interpretations effective on 31 December 2018. The International Financial Reporting Standards refer to standards and their interpretations adopted in accordance with Regulation (EU) No. 1606/2002 of the European Parliament and of the Council. OP Financial Group's obligation to prepare its financial statements in accordance with IFRS is based on the Act on the Amalgamation of Deposit Banks. OP Financial Group's notes also conform to the requirements of Finnish accounting and company legislation that complement IFRS regulations.

In 2018, OP Financial Group adopted the following standards and interpretations:

- IFRS 9 Financial Instruments. Adjustments made to carrying amounts were recognised in equity in the opening balance sheet on the adoption date of 1 January 2018. OP Financial Group has not adjusted comparatives for prior years. The effects of transition to IFRS 9 on the classification and measurement of financial instruments have been presented in Note 3. Changes in accounting policies and presentation.

- IFRS 15 Revenue from Contracts with Customers On 1 January 2018, OP Financial Group adopted IFRS 15 using the retrospective transition method.
  The effects of the transition fo IFRS 15 have been presented in Note 3. Changes in accounting policies and presentation.

- Annual improvements to IFRS for cycles 2014 2016 (applicable mainly to accounting periods beginning on or after 1 January 2018). Minor amendments are annually made to standards through the Annual Improvements process. The effects of the amendments vary by standard but they are not significant.

- Amendments to IFRS 2 and IFRIC 22 that took effect on 1 January 2018. The amendments did not have any major effect on OP Financial Group's financial statements.

OP Financial Group's consolidated financial statements were prepared at historical cost, with the exception of financial assets and liabilities at fair value through profit or loss, financial assets at fair value through other comprehensive income (available-for-sale financial assets), hedged items in fair value hedging (for hedged risk) and investment property measured at fair value.

The financial statements are presented in millions of euro. Number zero in the tables in Notes means that the item contains some balance but it is rounded off to zero. If nothing (blank) is presented in the item, the balance of the item is zero.

Comparative information on financial instruments for 2017 is mainly presented in their separate rows in tables in the note, based on the previous IAS 39, with the exception of IAS 39 based available-for-sale financial assets that are presented in the same row with the financial assets at fair value through other comprehensive income based on IFRS 9.

According to the Act on the Amalgamation of Deposit Banks and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, OP Cooperative's Executive Board must confirm any applicable accounting policies for which the IFRSs provide no guidelines. In accordance with the above, OP Cooperative's Executive Board has confirmed the principle that OP Financial Group's technical parent company consists of OP Financial Group member cooperative banks.

The central cooperative consolidated presents Pillar III disclosures in compliance with EU Regulation No. 575/2013 of the European Parliament and of the Council in a separate OP Amalgamation Capital Adequacy Report.

2 Use of estimates

The preparation of the financial statements in conformity with IFRS requires the management to make judgements, estimates and assumptions in the application of the accounting policies. Section 20 "Critical accounting estimates and judgements" provides more detailed information on applying accounting policies requiring management assessment and judgement.

3 Consolidation principles

3.1 Technical parent company

The Act on the Amalgamation of Deposit Banks Act prescribes that the consolidated financial statements of OP Financial Group must be a combination of the financial statements or consolidated financial statements of OP Cooperative and its member credit institutions. The consolidated financial statements also include the accounts of entities over which the abovementioned entities jointly have control as prescribed in the Accounting Act. OP Financial Group's cooperative capital comprises such cooperative contributions paid by members of cooperative banks which the member banks have an unconditional right to refuse the redemption. In accordance with the above principles, OP Financial Group has formed a technical parent company.

Within the technical parent company, intra-Group holdings, transactions, receivables and liabilities, distribution of profit and margins are eliminated.

3.2 Subsidiaries, associates and joint arrangements

The financial statements of the technical parent company and companies over which it exercises control are consolidated into those of OP Financial Group. OP Financial Group has control over an entity if it is exposed, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity (including structured entities). Most of the subsidiaries are wholly owned by OP Financial Group, which means that the Group's control is based on votes.

OP Financial Group both acts as investor and manages various mutual funds in order to gain investment income and various commissions. Funds that have been classified as structured entities have been consolidated into the Group's financial statements when OP Financial Group's control is not based on votes but the control of significant operations, exposure to variable returns from the fund, and organising the fund's management. Changes in control concerning various fund investments consolidated into OP Financial Group are monitored quarterly. When estimating the amount of control, the Group takes into account the investor's power to direct relevant activities over an investee and the investor's exposure to varying returns. When OP Financial Group ceases to have control any retained interest in the entity is remeasured to its fair value at the date when control is lost, with the change in carrying amount recognised in the income statement. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial assets. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if OP Financial Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to the income statement.

Intra-Group holdings have been eliminated using the acquisition method. The consideration transferred and the acquiree's identifiable assets acquired and liabilities assumed are measured at fair value at the time of acquisition. Acquisition cost in excess of net assets is presented under goodwill. If the acquisition cost is lower than the fair value of net assets, the difference is recognised in profit and loss.

Acquisition-related costs are expensed as incurred. Any contingent consideration is measured at fair value and classified as a liability or equity. Contingent consideration classified as a liability is measured at fair value in the income statement on the balance sheet date.

Associated companies over which OP Financial Group companies exercise significant influence are accounted for using the equity method. Significant influence generally arises if the Group holds 20–50% of the other company's votes or otherwise exercises influence, not control, over the company. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. OP Financial Group's investment in associates includes goodwill identified on the acquisition date. If the consolidation group's share of losses in an associate exceeds its interest in the associate, the investment is entered in the balance sheet at zero value, and further losses exceeding the carrying amount are not recognised unless OP Financial Group is committed to fulfil the obligations of associates. Private equity funds treated as associates are measured at fair value through profit or loss in compliance with IFRS 9 as permitted by IAS 28.

A joint arrangement is an arrangement of which two or more parties have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. A joint arrangement is either a joint operation or a joint venture. A joint venture is an arrangement in which OP Financial Group has rights to the arrangement's net assets, while in a joint operation OP Financial Group has both rights to assets and obligations for the liabilities relating to the arrangement. Property companies are incorporated into OP Financial Group's financial statements as joint operations by consolidating the

proportionate share of OP Financial Group's holding of the property company's assets and liabilities.

Subsidiaries, associates or joint arrangements acquired during the financial year are consolidated from the date on which control or significant influence is transferred to OP Financial Group while those that have been sold are de-consolidated from the date on which control or significant influence ceases.

Intra-Group transactions, receivables, liabilities and profit distribution are eliminated in the preparation of the financial statements.

3.3 Non-controlling interests

Profit for the financial year attributable to the technical owners of the parent and non-controlling interests is presented in the income statement, and total comprehensive income attributable to the owners of the parent and non-controlling interests is presented in the statement of comprehensive income. Profit shown in the income statement and the statement of comprehensive income for the financial year is also attributed to non-controlling interests in the event that their share, as a result, would become negative. Non-controlling interests are presented as part of equity capital in the balance sheet. If the investee's equity does not fulfil the equity classification criteria under IAS 32, the non-controlling parties' share of the net assets is presented as liability.

Non-controlling interests in an acquiree are measured either at fair value or as the proportionate share of net assets of the acquiree. The valuation principle applied is determined separately for each acquiree.

4 Foreign currency translation

OP Financial Group's financial statements are presented in euros, which is the functional and presentation currency of the parent. Non-euro transactions are recognised in euros at the exchange rate quoted on the transaction date or at the average exchange rate of the month of recognition. On the balance sheet date, non-euro monetary balance sheet items are translated into euros at the exchange rate quoted on the balance sheet date. Non-monetary balance sheet items measured at cost are presented at the exchange rate quoted on the transaction date.

The exchange rate differences arising from the translation of non-euro transactions and monetary balance sheet items into euros are recognised as foreign exchange gains or losses under "Net investment income" in the income statement.

5 Financial instruments

Chapter 5 Financial instruments in the accounting policies changed due to IFRS 9 as of 1 January 2018, except for Sections 5.1 Fair value determination, 5.9 Derivative contracts and 5.10 Hedge accounting. Only the accounting policies regarding 2017 dealing with financial instruments are presented in Chapter 5.8. For the avoidance of doubt, the headings in the accounting policies for 2017 indicate year 2017.

5.1 Fair value determination

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date.

The fair value of financial instruments is determined using either prices quoted in an active market or the company's own valuation techniques where no active market exists. Markets are deemed to be active if price quotes are easily and regularly available and reflect real and regularly occurring market transactions on an arm's length basis. The current bid price is used as the quoted market price of financial assets.

If the market has a commonly used valuation technique applied to a financial instrument to which the fair value is not directly available (e.g. OTC derivatives), the fair value is based on a commonly used valuation technique and market quotations of the inputs used by the technique.

If the valuation technique is not a commonly used technique in the market, a valuation model created for the instrument in question will be used to determine the fair value. Valuation models are based on widely used measurement techniques, incorporating all factors that market participants would consider in setting a price, and are consistent with accepted economic methodologies for pricing financial instruments.

The valuation techniques used include prices of market transactions, the discounted cash flow method and reference to the current fair value of another instrument that is substantially the same. The valuation techniques take account of estimated credit risk, applicable discount rates, the possibility of early repayment and other factors affecting the reliable measurement of the fair value of financial instruments.

The fair values of financial instruments are categorised into three hierarchy levels, depending on the inputs used in valuation techniques:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1)
- Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2)
- Inputs for the asset or liability that are not based on observable market data (Level 3).

If the inputs used to measure fair value are categorised into different levels of the fair value hierarchy, the fair value measurement is categorised in its entirety at the same level as the lowest level input that is significant to the entire measurement. The significance of inputs has been assessed on the basis of the fair value measurement in its entirety.

It is typical of illiquid instruments that their price calculated using a pricing model differs from the actual transaction price. However, the actual transaction price is the best evidence of the instrument's fair value. The Day 1 profit/loss, based on the difference between the actual transaction price and the price deriving from the pricing model that uses market prices, is recognised in the income statement over the term of the agreement. However, the non-recognised amount will be recognised as soon as there is a genuine market price for the instrument or a well-established pricing practice is created in the market.

The amount of illiquid financial assets is insignificant in OP Financial Group's balance sheet.

The illiquid financial liabilities (investment contracts) of the Group's life insurance operations are measured at fair value according to IFRS 9. The investment contracts' fair value is measured using a valuation technique which takes account, for example, of the time value of money and the fair value of financial assets that are used to cover them. However, the value of the liability may not be lower than the contract's surrender value. These contracts have been categorised on Level 3 in the fair value hierarchy.

5.2 Financial assets and liabilities

5.2.1. Amortised cost

Amortised cost is the amount at which the financial asset or financial liability is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any loss allowance.

The effective interest method uses the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability to the gross carrying amount of a financial asset or to the amortised cost of a financial liability. When calculating the effective interest rate, OP Financial Group shall estimate the expected cash flows by considering all the contractual terms of the financial instrument excluding the expected credit losses (ECL). The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs, and all other premiums or discounts.
Fees that are an integral part of the rate of a financial instrument include office and origination fees related to loan drawdown and they are amortised over the expected life of the financial instrument or a shorter period if that is appropriate. Fees that are not an integral part of the effective interest rate of a financial instrument and are accounted for in accordance with IFRS 15 include fees charged for servicing a loan, for example.

OP Financial Group incorporates the impact of expected credit losses in the estimated future cash flows when calculating the credit-adjusted effective interest rate for financial assets that are considered to be purchased or originated credit-impaired at initial recognition (POCI).

Interest revenue

Interest revenue has been calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for:

a) purchased or originated credit-impaired financial assets. For those financial assets, OP Financial Group applies
the credit-adjusted effective interest rate to the amortised cost of the financial asset from initial recognition
b) financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets (or that are in stage 3). For those financial assets, OP Financial Group applies the effective interest rate to the amortised cost of the financial asset (i.e. to the net carrying amount after the deduction of the expected credit loss).

5.2.2. Initial recognition and measurement

At initial recognition, OP Financial Group measures a financial asset or financial liability at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are incremental and directly attributable to the acquisition or issue of the financial asset or financial liability. Immediately after initial recognition, an expected credit loss allowance of a financial asset will be recognised if the financial asset is measured at amortised cost or at fair value through other comprehensive income. This results in accounting loss recognition for newly originated or newly purchased financial assets in the income statement.

5.3 Classification and subsequent measurement of financial assets

OP Financial Group has classified financial assets into the following categories since 1 January 2018:

- Fair value through profit or loss (FVTPL)
- Fair value through other comprehensive income (FVOCI)
- Amortised cost.

5.3.1 Loans and notes and bonds

The classification and subsequent measurement of loans and notes and bonds depend on the following factors:

a) OP Financial Group's business model for managing the financial assets
b) the contractual cash flow characteristics of the financial asset.

On the basis of these factors, OP Financial Group classifies loans and notes and bonds into the following three measurement categories:

1) Financial assets measured at amortised cost shall be held within a business model whose objective is to hold financial assets in order to collect contractual cash flows that are solely payments of principal and interest on the principal amount outstanding. The financial asset's carrying amount is adjusted by any allowance for expected credit losses and interest revenue is recognised in interest revenue using the effective interest method.

2) Financial assets recognised at fair value through other comprehensive income are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets. In addition, the contractual terms of the financial asset give rise on specified dates that are solely payments of principal and interest on the principal amount outstanding. Changes in the fair value are recognised in the fair value reserve. Impairment gains or losses and foreign exchange gains or losses are recognised in profit or loss. When a financial asset is derecognised, the cumulative profit or loss in the fair value reserve is reclassified from equity to profit or loss in net investment income as a reclassification adjustment. Interest calculated using the effective interest method is recognised in interest revenue or net investment income (insurance company investments).

3) Financial assets measured at fair value through profit or loss are held for trading or if the financial asset does not meet the criteria for amortised cost or FVOCI. Gains and losses are recognised in net investment income.

Business model

A business model refers to how OP Financial Group manages its financial assets in order to generate cash flows. OP Financial Group's business model determines whether cash flows will result solely from collecting contractual cash flows or from collecting contractual cash flows and cash flows and by selling a financial assets, or whether the purpose is held for trading. Financial assets within the trading business model are measured through profit or loss. When assessing the business model, OP Financial Group takes account of future measures to achieve the objective of the business model. The assessment includes previous experience in collecting cash flows, how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel, how risks are managed and how managers of the business are compensated. For example, OP financial Group holds home loans it has granted to collect contractual cash flows. They can be sold only in rare cases between OP Financial Group companies, for example, to guarantee covered bonds issued by OP Mortgage Bank or in a stress case liquidity crisis scenario. In addition, the objective of the business model of OP Financial Group's liquidity buffer is to collect contractual cash flows and to sell financial assets.

Change in the business model

Changes in the business model are expected rarely as a result of internal or external changes and they must be significant in terms of OP Financial Group's operations. OP Cooperative's Executive Board decides on changes in the business model. The business model changes in case OP Financial Group acquires or transfers a business area or closes down it. The business model change is appropriately documented by the business unit concerned and is handled by Finance and Risk Management to determine the related accounting effects (incl. the effects on the ECL). The change of the objective of the entity's business model must be executed before the date of the reclassification.

The reclassification is applied prospectively from the reclassification date onwards. The reclassification date is the first date of the following reporting period, before which a decision on the reclassification has been made. Prior reporting periods are not adjusted retrospectively.

The table below shows the effects of various reclassifications on accounting:

Initial measurement category	**New measurement category**	**Accounting effect**
Amortised cost	FVTPL	Fair value is determined on the reclassification date. Any gain or loss on the difference that may arise between a financial asset previously measured at amortised cost and the fair value is recognised through profit or loss.
FVTPL	Amortised cost	The fair value on the reclassification date becomes a new gross carrying amount. The effective interest rate is determined based on the fair value on the reclassification date.
Amortised cost	FVOCI	Any gain or loss on the difference that may arise between a financial asset previously measured at amortised cost and the fair value is recognised in other comprehensive income. The effective interest rate and the amount of expected credit losses are not adjusted as a result of the reclassification.

FVOCI	Amortised cost	The fair value on the reclassification date becomes a new amortised cost. A gain or loss previously recognised in other comprehensive income is, however, derecognised from equity and recognised to adjust the fair value of a financial asset on the reclassification date. The effective interest rate and the amount of expected credit losses are not adjusted as a result of the reclassification.
FVTPL	FVOCI	The fair value on the reclassification date becomes a new carrying amount. The effective interest rate is determined based on the fair value on the reclassification date.
FVOCI	FVTPL	The fair value on the reclassification date becomes a new carrying amount. A gain or loss previously recognised in other comprehensive income is transferred as an adjustment due to the reclassification from equity through profit or loss on the reclassification date.

Cash flow characteristics

When OP Financial Group's business model is other than trading, OP Financial Group assesses whether contractual cash flows are consistent with a basic lending arrangement. In the basic lending arrangement, contractual cash flows are solely payments or principal and interest on the principal amount outstanding (SPPI) where consideration for the time value of money, credit risk, lending risks and profit margin are typically the most significant elements of interest. The majority of OP Financial Group's financial assets are basic lending arrangements.

All loans to private customers and some corporate loans granted by OP Financial Group contain the option for early repayment. The terms and conditions are, however, consistent with the basic lending arrangement because the prepayment amount substantially represents the contractual par amount and accrued (but unpaid) contractual interest, which may include reasonable additional compensation for the early termination of the contract.

OP Financial Group uses Bloomberg's SPPI Test solution to test the cash flow characteristics of notes and bonds. On the basis of its test result (pass/fail), the SPPI test is either passed or failed with no further reviews or OP Financial Group reviews the cash flow characteristics using its internal guidelines before the decision on classification (further review required as the result). The solution identifies various elements in contract terms that affect whether the SPPI definition is satisfied.

When contractual cash flows are exposed, for example, to change in stock prices or a borrower's financial result, this is no basic lending arrangement and such financial assets are measured through profit or loss. These are typically various mutual fund investments which do not fulfil the definition of equity in the issuer's financial statements under IAS 32.

Embedded derivatives included in financial assets are not separated from the host contract but they are considered in the overall assessment of contractual cash flows.

If OP Financial Group has to change its business model for managing financial assets, it may have to reclassify financial assets. The reclassification must be applied prospectively from the reclassification date. Such changes are expected to be very infrequent.

5.3.2 Equity instruments

Equity instruments are instruments that evidence a residual interest in the assets of a company after deducting all of its liabilities. These are typically equity investments.

Equity instruments are subsequently measured at fair value through profit or loss, except when OP Financial Group has made an irrevocable election at initial recognition for particular investments in equity instruments that would otherwise be measured at fair value through profit or loss to present subsequent changes in fair value in other comprehensive income. Such investments do not currently exist. Capital gains or losses on these investments are not recognised through profit or loss but their dividends are recognised in other operating income. Dividends of equity instruments held for trading are recognised in net investment income in the income statement.

5.3.3 Modification of contractual cash flows

Modifications in the contractual payment terms are made as a normal measure related to the management of customer relationship but also in situations where the customer's repayment capacity has deteriorated. In such a case, a concession resulting from weaker repayment capacity has to be given to the loan terms – such as a repayment holiday – for a limited period. Generally in these cases, the contractual cash flows of a loan are renegotiated or otherwise modified and the renegotiation or modification does not result in the derecognition of that loan. Modifications in payment terms are subject to regular monitoring and reporting to the management as an indicator anticipating customers' solvency.

If modifications to the loan terms are significant or the loan is renegotiated, OP Financial Group derecognises the original loan and recognises the modified new loan in the balance sheet.

The date of renegotiation is consequently considered to be the date of initial recognition for the impairment calculation purposes. This typically means measuring the loss allowance at an amount equal to 12-month expected credit losses. OP Financial Group uses internal rating to classify reasons for modifications and severity classes to monitor whether there has been evidence that the new loan recognised has deemed to be credit-impaired at initial recognition. Accordingly, it is recognised as an originated credit-impaired financial asset. This might occur, for example, in a situation in which there was a substantial modification of a distressed asset.

Otherwise, OP Financial Group derecognises financial assets when the contractual rights to the cash flows from the financial asset expire or it transfers the financial asset to another party and the transfer qualifies for derecognition.

5.3.4 Insurance companies' financial assets measured at fair value through profit or loss

A financial asset is measured at fair value through profit or loss unless it is measured at amortised cost or at fair value through other comprehensive income. OP Financial Group has designated financial assets as measured at fair value through profit or loss (fair value option) if doing so eliminates or reduces the so-called accounting mismatch in the measurement of financial assets and related financial liabilities.

Investments covering life-insurance unit-linked policies and those in the so-called separated balance sheets are designated investments as measured at fair value through profit or loss because the related insurance liability or investment contract liability is recognised at fair value through profit or loss.

Equity instruments and mutual fund investments related to OP Financial Group's non-life and life insurance investment operations are classified as financial assets measured at fair value through profit or loss. OP Financial Group applies a temporary overlay approach to a considerable proportion of these instruments, which will restore the profit/loss impact of these instruments to be aligned with IAS 39. OP Financial Group will stop applying the overlay approach at the latest when IFRS 17 Insurance Contracts becomes effective. The overlay approach is aimed at reconciling temporary earnings volatility resulting from the different dates of entry into force of IFRS 9 and IFRS 17 when investments are measured at fair value through profit or loss in accordance with IFRS 9 but the related insurance liability can not yet be measured at fair value through profit or loss in accordance with IFRS 17.

5.4 Impairment

Expected credit losses are calculated on all balance sheet items amortised at cost and those recognised at fair value through other comprehensive income (FVOCI) (instruments other than equity instruments) and on off-balance-sheet loan commitments and financial guarantee contracts. Expected credit losses are recognised at each reporting date, reflecting:

a) an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes
b) the time value of money and
c) reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

5.4.1 Classification of contracts into three impairment stages

Contracts are classified into three stages. The different stages reflect credit deterioration since initial recognition.

- Stage 1: contracts whose credit risk has not increased significantly since initial recognition and for which a 12-month ECL is calculated.
- Stage 2: contracts whose credit risk has increased significantly since initial recognition and for which a lifetime ECL is calculated.
- Stage 3: defaulted contracts for which a lifetime ECL is also calculated.

In addition, originated credit-impaired contracts are always within the scope of the lifetime expected credit loss (POCI).

Definition of default

In the IFRS 9 based calculation, OP Financial Group applies the same definition of default as in internal credit risk models (IRB). OP Financial Group assesses default using its internal rating system based on payment behaviour. Default as definition for private customers is applied on a contract-by-contract basis whereas corporate customers are reviewed in terms of a group of connected clients. A customer is classified as a default customer when it is probable that the customer will not pay his loan obligations in full without OP Financial Group resorting to measures (e.g. realisation of collateral) or no later than when payment related to financial assets is more than 90 days past due.

The definition of default is based on Article 178 of Regulation No. 575/2013 (CRR) of the European Parliament and of the Council.

The customer's default ends when it no longer meets the criteria for the definition of default. After that, the payment behavioural class will be restored with a delay of 6 months.

Significant increase in credit risk

The expected credit losses are calculated for each contract for 12 months or lifetime, depending on whether the instrument's credit risk on the reporting date has increased significantly since initial recognition. Both qualitative and quantitative criteria are used to assess whether the credit risk has increased significantly. Forbearance is regarded as a qualitative criterion. Other qualitative factors consist of various credit risk indicators (e.g. breach of covenants) to be taken into account in credit rating models or in the assessment of the payment behavioural category.

OP Financial Group has included relative and absolute thresholds for the determination of significant quantitative increases in credit risk considering all reasonable and supportable information.

A quantitative change is assessed based on the relative change in lifetime PD figures (PD curve). The original lifetime PD curve is calculated on the origination date of the loan taking account of macroeconomic factors. Next, the acceptable natural range of variation is determined for the limits within which the credit risk is not considered to increase significantly during the remaining maturity of the loan. The acceptable range has been modelled separately for private customers and corporate customers. This yields a so-called threshold value curve. On each reporting date, the current lifetime PD curve is compared to the threshold value curve. If the threshold value is exceeded, the credit risk has increased significantly and a credit loss (calculated for the entire remaining maturity of the loan) is recognised. In addition to this limit of the relative change, a further requirement is that a borrower grade has deteriorated since initial recognition so that shifting to the lifetime ECL calculation does not occur only on the basis of the passage of time. In addition, an absolute threshold is used for the weakest borrower grades.

In addition to the aforementioned criteria, credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due.

In the assessment of a significant increase in credit risk, OP Financial Group has not applied a transitional rule on the assumption of low credit risk permitted by IFRS 9 to contracts, for which it is not possible without undue cost or effort, to calculate the original lifetime PDs.

OP Financial Group monitors regularly how effectively the abovementioned criteria perceive a significant increase in credit risk before contractual payments have been over 30 days past due and that the contracts do not generally move from impairment stage 1 directly to impairment stage 3, and performs the required calibrations to the calculation method of the relative change.

5.4.2 Measurement methods

Expected credit losses are mainly measured on a system basis using the PD/LGD method on a contract-specific basis for all private and corporate customer exposures.
Additionally, the cash flow based ECL measurement method based on expert judgement is used for the largest corporate exposures in stage 3.

5.4.2.1 PD/LGD method

Expected credit losses are calculated using modelled risk parameters with the formula probability of default (PD) x loss given default (LGD) x exposure at default (EAD) for majority of portfolios per contract and they reflect expectations of future credit losses at the reporting date. PD describes probability of default according to the definition of default. LGD describes the share of an asset if a borrower defaults. It is affected, for example, by the quantity and type of collateral securities and various financial guarantees. EAD describes the exposure amount at default, including exposure in the balance sheet (capital and accrued interest) and expected use of off-balance-sheet items at default.

The ECL calculation is based on three different scenarios. Risk parameters PD, LGD and EAD are calculated for yearly time buckets in each scenario. Yearly ECL figures are discounted to the reporting date and a probability-weighted ECL is calculated from the figures of different scenarios. The contract's effective interest or its estimate is used as the discount factor. The contract's maximum residual term to maturity is limited to 30 years in the calculation.

The lifetime probability of default (lifetime PD) models for a contract have been prepared separately for private customers and corporate customers. The PD models are substantially affected by the contract's credit rating, loan age (private customers) as well as the model's sub-segment, which is determined for corporate customers on the basis the rating model and for private customers on the basis of the product type. In addition, PD estimates are dependent on macroeconomic factors and their forecasts in each scenario.

The life time LGD for a contract consists of the following three components: 1) cure rate, 2) collateral return and 3) non-collateral return. The values of the different components depend substantially on the product type, industry (companies) and the type of collateral. The macroeconomic factors and their forecasts affect the first two components.

The lifetime exposure at default (lifetime EAD) for a contract is based on contractual cash flows, utilisation rate, prepayment rate and maturity model, depending on the product type.

Determining the period of a contract

The period of a contract for promissory notes is a contractual maturity that takes account of repayments under the payment terms. The prepayment model applies to secured promissory notes (excl. default). It does not reduce the contractual maturity but is taken into account as part of the contract's EAD.

Revolving credit facilities (such as credit cards) are contracts valid until further notice and an expected maturity has been modelled for them. The modelled maturity depends on the product type and borrower grade, averaging some 15 years.

Forward-looking information

The calculation model includes forward-looking information and macroeconomic scenarios. OP Financial Group's economists update macroeconomic scenarios on a quarterly basis and the scenarios are the same that OP Financial Group uses otherwise in its financial annual planning. Macroeconomic forecasts span five years and have been extrapolated for up to 30 years ahead using a production function. The macroeconomic factors used are: GDP growth, unemployment rate, investment growth rate, inflation rate, change in income level and 12-month Euribor

rate. In addition, the house price index is used in LGD models. Three scenarios are used: baseline, upside and downside. Scenarios also include probability weights.

Preparing macroeconomic forecasts and projecting them into the future up to 30 years involves a large amount of uncertainty, which is why actual results may differ significantly from the forecasts. OP Financial Group has analysed that the relationship of the change in the components of risk parameters and macroeconomic factors used in the ECL calculation is not linear. Accordingly, the macroeconomic forecasts represent OP Financial Group's best view of potential scenarios and outcomes.

5.4.2.2 Cash flow based ECL method based on customer-specific expert assessment

For the largest corporate exposures in stage 3 within the R rating model, the ECL is calculated as an expert assessment using the cash flow based customer-specific ECL method. Such expert assessment is performed in connection with a rating or credit decision.

The forward-looking information used in the calculation is part of the credit rating assessment and rating proposal by a credit analyst that cover developments in business, markets, competitive situation and the forecast cash flow.
The calculation also takes account of the scenarios describing the effect of macroeconomic variables
(upside, baseline and downside), on the basis of which the customer's weighted expected credit loss is calculated. The scenarios used in the PD/LGD model are utilised in the determination of the scenarios.

When the customer included in the ECL measurement based on the customer-specific expert assessment does no longer meet the criteria for default and has been identified and classified as a "performing" counterparty, it is excluded from this method and returns to be included in the ECL measurement based on the normal PD/LGD model after a three-month trial period.

5.4.3 Impairment of notes and bonds

The expected loss on notes and bonds recognised through other comprehensive income are recognised through profit or loss and to adjust the fair value reserve.

OP Financial Group avails itself of two separate models in the calculation of the expected credit loss on notes and bonds, with the primary model being the Bloomberg tool. The Bloomberg tool does not, however, support all bonds from the beginning of 2018, so the bonds that the Bloomberg tool does not support on each ECL measurement date, OP uses its own tool based on credit rating information.

5.4.3.1 Bloomberg tool

Expected credit losses are calculated using the formula PD x LGD x EAD for all portfolios per purchase lot and they reflect expectations of future credit losses at the reporting date.

In the case of listed companies, OP Financial Group uses the Merton distance-to-default (DD) model as the basis for probability of default (PD), whose outcome will be converted into the PD value based on the model's historical outcome. The figure is adjusted with indicators from companies' financial statements data describing the strength of the balance sheet, liquidity risk and earnings power. These indicators have, in turn, been normalised according to the estimated effect of off-balance-sheet items.

In the case of private companies, PD modelling is based on financial indicators collected from their financial statements and on the average risk modelled for the sector.

The definition of default is consistent with that required by international regulators, covering bankruptcy, non-payment, distressed exchanges and government bail-out.

The recovery rate in the LGD model is based on historical realised recovery rates of default bonds. The realised recovery rate is defined as trading price of the defaulted bond. It takes account of payment rank, issuer's creditworthiness, nature of the industry, credit cycle, type of collateral, region etc.

5.4.3.2 Model based on credit rating information

In the model, credit ratings are sought for purchase lots on the purchase date and the reporting date, and they are converted into PD figures. The Group primarily uses the averages of external credit rating and secondarily internal credit rating, in case no external credit ratings exist.

The PDs correspond to the actual historical default rates by credit rating for each period from the date of issuing the credit rating. The historical data, for which the determined correspondence is based on, is comprehensive and on a long-term basis. The LGDs also correspond to the studied historical actuals by investment class/insurance line and these are not separately assessed by issuer or investment. Because external credit ratings measure total credit risk (ECL), not PD, the LDG in these cases affect only the division of the ECL between PD and LGD components.

5.4.3.3 Classification of notes and bonds into impairment stages

In both calculation models, a significant increase in credit risk is identified by means of consistent criteria as in transfers to stage 3.

Investments whose 12-month PD has doubled in such a way that the change is at least 0.2 percentage points, an investment is subject to forbearance measures or its payments are over 30 days past due are transferred to stage 2. Investments related to an issuer in default are classified into stage 3 if its payments are over 90 days past due or if the customer is a default customer.

5.4.4 Impairment of off-balance-sheet items

Several products provided by OP Financial Group include a limit, credit facility or another off-balance-sheet loan commitment as a standard feature or a feature in some stage of the product lifecycle. For example, revolving credit facilities, such as credit cards and accounts with credit facility, include both a loan and an undrawn commitment component. Moreover, OP Financial Group is an issuer in various guarantee contracts, such as financial guarantees and other commercial guarantees or guarantees given to authorities, to all of which IFRS 9 impairment rules apply. For loan commitments and financial guarantee contracts, the date that OP Financial Group becomes a party to the irrevocable commitment shall be considered to be the date of initial recognition for the purposes of applying the impairment requirements. Accordingly, only OP Financial Group's binding items are taken into account in the calculation of expected credit losses.

The expected credit loss is calculated for these items using the same principles as for loans. Likewise, increases in significant credit risk are assessed on the same grounds. OP Financial Group models EAD for such products that forecasts exposure at default. It includes both the utilisation rate and credit conversion factor. In addition, a maturity model is applied to contracts valid until further notice. The model takes account of cases where OP Financial Group has a contractual ability to demand repayment and cancel the undrawn commitment but it does not limit the Group's exposure to credit losses during the contractual notice period.

5.4.5 Recognition of expected credit losses

OP Financial Group mainly recognises a loss allowance for expected credit losses on a loan in a separate account. For loan commitments and financial guarantee contracts the loss allowance is recognised as a provision. For products that include both a loan (i.e. financial asset) and an undrawn commitment (i.e. loan commitment) component and OP Financial Group cannot separately identify the expected credit losses on the loan commitment component from those on the financial asset component, the expected credit losses on the loan commitment are recognised together with the loss allowance for the financial asset.

5.4.6 Write-off

A write-off constitutes a derecognition event. When OP Financial Group has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof, it directly reduces the gross carrying amount of the financial asset.

A loan is derecognised when collateral securities have been realised or when the final meeting of the bankruptcy estate has been held, debt rescheduling or financial restructuring has come to an end or when collection measures have ended. Payments received after the derecognition are recognised as an adjustment to impairment losses on receivables.

5.5 Cash and cash equivalents

Cash and cash equivalents consist of cash and receivables from credit institutions repayable on demand.

5.6 Classification and subsequent measurement of financial liabilities

Financial liabilities comprise deposits and other liabilities to credit institutions and customers, debt securities issued to the public and other financial liabilities.

Financial liabilities are classified at amortised cost using the effective interest method, except for derivative liabilities measured at fair value through profit or loss. In addition, investment contracts with no entitlement to discretionary participation feature issued by insurance companies are designated as measured at fair value through profit or loss. Liabilities held for trading also include obligations to deliver securities the counterparty which have been sold but which are not owned at the time of selling (short selling).

Upon initial recognition, OP Financial Group has not designated financial liabilities as measured at fair value through profit or loss.

OP Financial Group derecognises a financial liability (or a part of a financial liability) when it is extinguished – i.e. when the obligation specified in the contract is discharged or cancelled or expires.

An exchange between OP Financial Group and original lenders of financial liabilities with substantially different terms must be accounted for as an extinguishment of the original financial liability. In such a case, any costs or fees incurred are recognised as part of the gain or loss on the extinguishment. If the exchange or modification is not accounted for as an extinguishment, the amortised cost of the modified financial liability will be recalculated by discounting the modified contractual cash flows using the original effective interest rate. Changes in the amortised cost of the financial liability is recognised through profit or loss. Costs or fees incurred adjust the carrying amount of the liability and are amortised over the remaining term of the modified liability. OP Financial Group has not made any exchanges of financial liabilities for the existing financial liabilities.

5.7 Netting

Financial assets and liabilities are offset in the balance sheet if OP Financial Group currently has a legally enforceable right of set-off in the normal course of business and in the event of default, insolvency or bankruptcy, and intends to settle the asset and liability on a net basis. OTC interest rate derivatives for central counterparty clearing are offset in the balance sheet, which are cleared in the daily clearing process with London Clearing House.

5.8. Accounting policies regarding financial instruments in 2017

This Chapter presents the accounting policies regarding 2017 dealing with financial instruments.

5.8.1 Impairment of financial assets in 2017

At the end of each reporting period, the Group assesses whether there is objective evidence that a financial asset other than that carried at fair value through profit or loss is impaired.

A financial asset is impaired and impairment losses are incurred if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset and that the loss event has an impact on the estimated future cash flows of the financial asset that can be reliably estimated.

The criteria used to determine whether there is objective evidence of an impairment loss include:

- significant decline in the issuer's financial results, credit rating, balance sheet, payment status or business plans, and unfavourable changes in the issuer's economic and operating environment;
- a *bona fide* bid for the same or similar investment from the market below acquisition value;
- events or circumstances that significantly weaken the issuer's business opportunities on a going concern basis, such as negative cash flows resulting from operations, insufficient capital and shortage of working capital;
- a debtor's bankruptcy or other reorganisation becoming probable;
- a debtor's breach of contract;
- a concession granted to the debtor;
- impairment recognised earlier;
- the disappearance of an active market for a financial asset.

In addition, a significant or prolonged decline in the equity instrument's fair value below its cost constitutes objective evidence of impairment.

A more detailed description of recognition of impairment losses can be found under the various financial instruments below.

5.8.2 Securities sale and repurchase agreements in 2017

The purchase price of securities bought under 'resell conditions' binding on both parties is recognised as a receivable under the balance sheet item determined by the counterparty. The difference between the purchase price and resale price is treated as interest income and accrued over the term of the agreement.

The selling price of securities sold under 'resell conditions' binding on both parties is recognised as a financial liability under the balance sheet item determined by the counterparty. The difference between the selling price and repurchase price is treated as interest expenses and accrued over the term of the agreement.

5.8.3 Classification and recognition of OP Financial Group's financial instruments in 2017

Upon initial recognition, financial assets and liabilities are classified as follows: financial assets and liabilities at fair value through profit or loss, loans and receivables, held-to-maturity investments, available-for-sale financial assets and other financial liabilities. The classification depends on the purpose for which the financial assets and liabilities were acquired. Loans and receivables, held-to-maturity investments and other financial liabilities are measured at amortised cost, using the effective interest method.

The purchase and sale of financial assets and liabilities at fair value through profit or loss, held-to-maturity investments and available-for-sale financial assets are recognised in the balance sheet on the transaction date, or the date on which the company agrees to buy or sell the asset or liability in question. Notes and bonds classified as loans and receivables are recognised as financial assets on the transaction date and loans granted on the date on which the customer draws down the loan.

Financial assets and liabilities are offset in the balance sheet if OP Financial Group currently has a legally enforceable right of set-off in the normal course of business and in the event of default, insolvency or bankruptcy, and intends to settle the asset and liability on a net basis. OTC interest rate derivatives for central counterparty clearing are offset in the balance sheet, which are cleared in the daily clearing process with London Clearing House.

OP Financial Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or when it transfers the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Financial liabilities are derecognised when they are extinguished, i.e. when the obligation is discharged, cancelled or expires.

5.8.3.1 Financial assets and liabilities at fair value through profit or loss in 2017

Financial instruments at fair value through profit or loss include financial assets and liabilities held for trading, derivative contracts held for trading, financial assets at fair value through profit or loss at inception, and liabilities from investment contracts with no entitlement to discretionary participation feature granted by insurance companies. Financial assets at fair value through profit or loss are initially recognised at fair value and transaction costs are charged to expenses. A subsequent change in fair value as well as capital gains and losses, interest

income and expenses, and dividend income are recognised in the item by their nature in the income statement.

5.8.3.1.1 Financial assets and liabilities held for trading and derivative contracts held for trading in 2017

Assets held for trading include notes and bonds, and shares and participations acquired with a view to generating profits from short-term fluctuations in market prices. Liabilities held for trading refer to the obligation to deliver securities which have been sold but which have not been owned at the time of selling (short selling). Derivatives are also treated as held for trading items unless they are designated as derivatives for effective hedging or they are guarantee contract derivatives.

5.8.3.1.2 Financial assets at fair value through profit or loss at inception in 2017

Financial assets at fair value through profit or loss at inception include financial assets which are designated as at fair value through profit or loss upon their initial recognition.

Bonds, which OP Financial Group, in accordance with its risk management principles, manages and assesses their performance at fair value in order to receive a true and real-time picture of investment operations, are defined as those recognised at fair value through profit or loss at inception. Reporting to OP Financial Group's management is based on fair values. Since the business involves investment on a long-term basis, financial assets are presented separately from those held for trading.

Investments covering life-insurance unit-linked policies are classified as those at fair value through profit or loss because the corresponding insurance liability or investment contract liability is recognised at fair value through profit or loss.

Financial assets at fair value through profit or loss also include hybrid instruments in which the fair value of an embedded derivative cannot be determined separately, and investments related to unit-linked insurance policies.

5.8.3.2 Loans and receivables in 2017

Financial assets classified as loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Receivables related to insurance contracts, claims administration contracts and disposal of investments are presented within this asset class.

Loans and receivables are initially recognised at cost, which is the fair value of consideration given plus directly attributable transaction costs. Loans and receivables are carried at amortised cost after their initial recognition.

Impairment losses on loans and receivables are recognised on an individual or collective basis. Impairments will be assessed on an individual basis if the debtor's total exposure is significant. In other respects, impairment is assessed on a collective basis.

Impairment is recognised and impairment losses incurred if there is objective evidence that the receivable cannot be recovered in full. The receivable has impaired if its present value of the estimated future cash flows – collateral included – is lower than the aggregate carrying amount of the loan and the related unpaid interest. Estimated future cash flows are discounted at the loan's original effective interest rate. If the loan carries a variable interest rate, the discount rate for measuring any impairment is the current effective interest rate determined under the agreement. Impairment loss recognised in profit or loss equals the difference between the carrying amount of the loan and the lower present value of future cash flows.

Impairment assessment is a two-phase process. Impairment is assessed individually for loans and receivables. If it is not necessary to assess impairment for financial assets included in loans and receivables on an individual basis, they will be assessed collectively for impairment. Collectively assessed impairment includes losses incurred but not yet reported, which cannot yet be allocated to a certain loan. Collectively assessed impairment provisions are based on a statistical model used in the measurement of economic capital. The model is derived from the expected credit loss model used in capital adequacy measurement, adjusted to correspond to the requirements under IFRS. Through-the-cycle component and the official minimum capital adequacy requirements have been eliminated from the PD and LGD estimates used in the economic capital requirement model so that they better reflect the point in time approach and the current economic cycle. In the model, the so-called emergence period is used to measure the identification of a loss event. The emergence period is based on OP Financial Group's impairment assessment process by customer segment. The emergence period reflects the time effect of a loss event on testing a loan for impairment on an individual basis. In addition, the receivables in the model are grouped into customer segments on the basis of similar credit risk characteristics. Collectively assessed impairment is measured by customer segment on the basis of the expected loss and the measurement also takes account of the emergence period and the discounted present values of collateral.

If the contractual payment terms of a loan are modified, the reason for such modification and the severity class are documented using an internally defined scale. Loans may also be modified for reasons related to the management of customer relationships, not to the financial difficulties of the customer. Such modifications do not affect loan impairment recognition. In some cases, the Group may, due to the customer's financial difficulties, modify the loan terms and conditions, such as in terms of repayment holiday for a limited period or another loan modification, which are aimed at securing the customer's repayment capacity and limiting credit risk associated with liabilities. Such renegotiated loans are reported as doubtful receivables. Modifications in the contractual payment terms that are due to the customer's financial difficulties are forbearance measures and together with other criteria reduce the customer's credit rating and

thereby increase collective impairment allowance. In addition, they will also have an effect on the loan being assessed on an individual basis for impairment. If the customer has adhered to the new payment terms and no impairment allowance has been recognised for the customer's exposure, it will be removed from doubtful debt classification after two years. Modifications in payment terms are subject to regular monitoring and reporting to the management as an indicator anticipating customers' solvency.

Loans and receivables are categorised in the notes to evaluate the credit quality also on the basis of how the debtor is estimated to be able to fulfil its payment obligations. A loan is categorised as non-performing if payments are more than 90 days past due, if the customer has been rated in the Group's internal 12-grade rating system in the weakest two borrower grades (11 or 12) or if an individual impairment loss has been recognised. In all other cases the loan is reported under "performing" category.

Both individual and collective impairment loss is recorded in a separate allowance account to reduce the carrying amount of receivables in the balance sheet. Impairment losses are presented in the income statement under "Impairment losses on receivables". Recognition of interest on the impaired amount continues after the recognition of impairment.

The loan is derecognised after the completion of all debt-collection measures if the loan terms are substantially modified (such as refinancing). Payments received after the derecognition are recognised as an adjustment to impairment losses on receivables. If there is subsequent objective evidence of the debtor's improved solvency, the amount of the impairment loss recognised earlier will be reassessed and any change in the recoverable amount will be recorded in the income statement.

5.8.3.3 Held-to-maturity investments in 2017

Investments held to maturity are non-derivative financial assets with fixed or determinable payments that the company has the positive intention and ability to hold to maturity. Held-to-maturity investments are initially recognised at fair value to which transaction costs are added. These investments are subsequently carried at amortised cost after their initial recognition.

Impairment of investments held to maturity is reviewed on the basis of the same principles as that of loans and receivables. The difference between the carrying amount of notes and bonds and a lower present value of future cash flows is recognised as an impairment loss in the income statement.

Investments included in the financial assets held to maturity category are sold before their maturity only in exceptional cases mentioned in IAS 39.

5.8.3.4 Available-for-sale financial assets in 2017

Available-for-sale financial assets include non-derivative assets which are not classified as the abovementioned financial assets but which may be sold before their maturity, comprising notes and bonds, shares and participations.

At the time of their acquisition, available-for-sale financial assets are recognised at cost, which equals the fair value of the consideration paid plus transaction costs directly attributable to their acquisition. Available-for-sale financial assets are subsequently measured at fair value. Any changes in their fair value are recognised in other comprehensive income, from where they are transferred to the income statement when the asset is derecognised or there is objective evidence that the asset is impaired.

In the case of available-for-sale financial assets, for example, a significant downgrade of the credit rating of the issuer of bonds and notes, or a significant or prolonged decline in the equity instrument's fair value below its cost, constitutes objective evidence.

If a security's market value continues to fall following impairment recognition, the impairment loss will be recognised in the income statement.

If the fair value of impaired notes and bonds classified as available-for-sale financial assets increases subsequently and this increase can be objectively regarded as being related to an event after their impairment loss recognition, the impairment loss will be reversed and recorded in the income statement. If the fair value of an impaired equity instrument increases subsequently, this increase will be recognised in other comprehensive income.

The difference between the nominal value and the acquisition cost of fixed-rate bonds is recognised in interest income over the estimated residual term to maturity, using the effective interest method.

5.8.4 Cash and cash equivalents in 2017

Cash and cash equivalents consist of cash and receivables from credit institutions repayable on demand.

5.8.5 Other financial liabilities in 2017

Other financial liabilities include financial liabilities other than those at fair value through profit or loss, comprising deposits and other liabilities to credit institutions and customers, debt securities issued to the public and other financial liabilities. Other financial liabilities are recognised in the balance sheet on the settlement date and carried at amortised cost after initial recognition.

The difference between the nominal value and the acquisition cost of fixed-rate bonds is recognised in interest expenses over the estimated residual term to maturity.

5.9 Derivative contracts

Derivative contracts are classified as hedging derivative contracts and derivative contracts held for trading, containing interest rate, currency, equity, commodity and credit derivatives. Derivatives are measured at fair value at all times.

The fair value of OTC interest rate derivatives for central counterparty clearing is cleared in cash on a daily basis. In the balance sheet, these cleared derivatives are netted and shown as a net change in cash and cash equivalents. Other derivatives are presented in the balance sheet on a gross basis, in which case positive value changes are presented as Derivative contracts under assets and negative value changes as Derivative contracts under liabilities.

5.9.1 Hedging derivatives

OP Financial Group has prepared methods and internal principles used for hedge accounting, whereby a financial instrument can be defined as a hedging instrument. In accordance with the hedging principles, OP Financial Group can hedge against interest rate risk, currency risk and price risk by applying fair value hedge or cash flow hedge. Fair value hedging refers to hedging against changes in the fair value of the hedged asset, and cash flow hedging to hedging against changes in future cash flows. In OP Financial Group, the hedgeable risk categories are fair value and cash flow interest rate risks as well as currency risk.

Contracts are not accounted for according to the rules of hedge accounting if the hedging relationship between the hedging instrument and the related hedged item, as required by IAS 39, does not meet the criteria of the standard. OP Financial Group also concludes derivative contracts which are in fact used to hedge against financial risks but which do not fulfil these criteria.

5.9.2 Derivatives held for trading

The difference between interest received and paid on interest-rate swaps held for trading is recorded in net interest income and the corresponding interest carried forward is recognised in other assets or other liabilities. Changes in the fair value of derivatives held for trading are recorded under Net investment income in the income statement. Derivatives are carried as assets under Derivative contracts when their fair value is positive and as liabilities under Derivative contracts when their fair value is negative.

Embedded derivatives associated with structured bonds issued and certain loan agreements are separated from the host contract and measured at fair value in the balance sheet, and changes in the fair value of these embedded derivatives and changes in their fair value and derivatives designated as their hedging instruments are recognised in Net interest income.

5.10 Hedge accounting

Hedge accounting is used to verify that changes in the fair value of a hedging instrument or cash flows fully or partially offset the corresponding changes of a hedged item. Section 11.3.2 describes Life Insurance hedge accounting.

The relationship between hedging and hedged instruments is formally documented, containing information on risk management principles, hedging strategy and the methods used to demonstrate hedge effectiveness. Hedge effectiveness is tested at the inception of the hedge and in subsequent periods by comparing respective changes in the fair value or cash flows of the hedging instrument and the hedged item. The hedge is considered effective if the change in the fair value of the hedging instrument or in cash flows offsets the change in the fair value of the hedged contract or portfolio or in cash flows within a range of 80–125%.

5.10.1 Fair value hedges

Fair value hedging against interest rate risk involves long-term fixed-rate debt instruments (such as the Group's own issues and certain term deposit issues), individual bond and loan portfolios, as well as individual loans. The Group applies a fair-value portfolio hedging model to hedging against interest rate risk involved in certain demand deposit current and savings accounts with a fixed interest rate or an interest rate cap. The Group uses forward exchange contracts and interest-rate and currency swaps (OTC swaps) as hedging instruments. Hedging against equity and foreign currency risks applies to Non-life Insurance's and Life Insurance's equity fund investments.

Changes in the fair value of derivative contracts that are documented as hedging the fair value and are highly effective hedges are recognised in the income statement. Hedged assets and liabilities are also measured at fair value during the period for which the hedge is designated, and any fair value changes are recognised through profit or loss.

In fair value hedge accounting, changes in the fair value of the hedging instrument and the hedged item are recorded in Banking in the income statement under Net interest income and Net investment income. These are recorded in net investment income in Non-life Insurance and Life Insurance. Any ineffectiveness that may arise from a hedge relationship may be caused by the timing differences between the cash flows of the hedging instrument and the hedged item, and it is correspondingly recognised in the abovementioned items.

5.10.2 Cash flow hedges

A cash flow hedge is a hedge of the exposure to the variability attributable to a particular risk associated with variable-rate debt or other variable-rate assets and liabilities. In addition, cash flow hedging is used to hedge the future interest flows of the loans defined on the basis of reference interest rate linkage. Interest rate swaps are mainly used as hedging instruments.

Derivative contracts which are documented as cash flow hedges and provide effective hedges are measured at fair value. The effective portion of changes in the fair value of the hedging instrument is recognised in other comprehensive income. Any ineffectiveness that may arise from a hedge relationship may be caused by the timing differences between the cash flows of the hedging instrument and the hedged item, and it is recognised in Net interest income in the income statement. Fair value changes recognised in equity are included in the income statement in the period when hedged items affect net income.

6 Investment property

Investment property is land and/or buildings or part thereof held to earn rental income or for capital appreciation. Property, a minor part of which is used by the owner company or its personnel, is also accounted for as investment property. However, a part of property used by the owner company or its personnel is not accounted for as investment property if the part can be sold separately. Investment property is shown as investment assets in OP Financial Group's balance sheet.

Investment property is initially recognised at cost which includes transaction costs. It is subsequently carried at fair value. Investment property under construction is also measured at fair value only if the fair value can be determined reliably. Any changes in fair value are recognised in Net income from investment property under Net investment income.

If no comparable market data is available on the actual transaction prices of the property comparable with the property under review, the Group uses the income approach and internal methods based on property-specific net income to determine the fair value of commercial, office and industrial premises. OP Financial Group uses both its internal and external information in the income approach. A property's net income comprises the difference between rental income and maintenance charges and is based on income under current leases or, if no lease is in force, on average market rents. Expenses deducted from income are mainly based on actual expenses. Assumption of underutilisation of the property is also taken into account in the calculation. For the income approach, OP Financial Group obtains information on market rental and cost levels from sources outside the Group, in addition to its own expertise. The return requirements for investment property holdings are determined on the basis of the property's purpose of use, location and condition/modernness and are based on market data provided by an external expert.

The fair value of residential buildings and land areas is primarily determined using the market approach, based on information on the actual transaction prices of similar properties and on OP Financial Group's internal expertise. In the fair value of undeveloped plots, the Group has taken account of the planning and market situation at the time of appraisal. The fair value of major property holdings is based on valuation reports drawn up by Authorised Property Valuers. External valuers use a cash flow analysis as the basis for their appraisal.

7 Intangible assets

7.1 Goodwill

For business combinations, the Group measures the resulting goodwill as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree and the previous holding exceed OP Financial Group's share of the fair value of the acquired assets and assumed liabilities.

For acquisitions before the effective date of the current IFRS 3, goodwill represents at the time of acquisition the excess of the cost of an acquisition over the fair value of OP Financial Group's share of the net identifiable assets, liabilities and contingent liabilities of an acquiree.

Goodwill is tested annually for any impairment. For the purpose of impairment testing, goodwill is allocated to cash-generating units, which are either business segments or entities belonging to them. Goodwill is carried at cost less accumulated impairment losses.

7.2 Value of acquired insurance portfolio

An intangible asset corresponding to the value of an acquired insurance portfolio is recognised if the insurance portfolio is acquired directly from another insurance company or through the acquisition of a subsidiary. The fair value of acquired insurance policies is determined by estimating the present value of future cash flows on the basis of the insurance portfolio on the date of acquisition. Upon initial recognition, the fair value of acquired insurance policies is divided into two parts: a liability associated with insurance contracts measured in accordance with the applicable principles on the acquisition date, and an intangible asset. Subsequent to the acquisition, the intangible asset is amortised, depending on the business, either on a front-loaded basis or on a straight-line basis over the estimated effective lives of the acquired contracts. The effective lives are reviewed annually and the value is amortised over 1–4 years for non-life insurance and 10–15 years for life insurance. An intangible asset is tested annually for impairment in connection with testing the adequacy of the liability associated with insurance contracts.

7.3 Customer relationships

Identifiable customer relationships acquired through business combinations are measured at fair value upon acquisition. This intangible asset arising from customer relationships is amortised on a straight-line basis over the asset's estimated useful life. The estimated useful life of OP Financial Group's acquired customer relationships is 5–13 years.

7.4 Brands

Identifiable brands acquired through business combinations are measured at fair value upon acquisition. The estimated useful lives of brands are indefinite, since they will generate cash

flows for an indefinable period. The value of brands is tested annually for impairment.

7.5 Other intangible assets

Other intangible assets are measured at cost less accumulated amortisation and any impairment losses. In general, computer software and licences are amortised over 4 years and other intangible assets over 5 years.

Expenditure on the development of internally-generated intangibles (software) is capitalised starting from the time when the software is found to generate future economic benefits. The capitalised expenditure includes, for example, licence fees, purchased services, other external costs related to projects and in-house work. The asset will be amortised from the time it is ready for use. An asset that is not yet ready for use is assessed annually for impairment.

8 Property, plant and equipment

Property, plant and equipment (PPE) assets are carried at cost less accumulated depreciation and any impairment losses. These assets are depreciated on a straight-line basis over their estimated useful lives. Land is not subject to depreciation. Subsequent expenditures are capitalised at the asset's carrying amount only if it is probable that the asset will generate greater economic benefits than initially estimated.

The estimated useful lives are mainly as follows:

Buildings	20–50 years
Emergency power units and generators	15 years
Machinery and equipment	3–10 years
ICT hardware	3–5 years
Cars	2–6 years
Other tangible assets	3–10 years

The assets' residual value and useful lives are reviewed on each balance sheet date and adjusted as appropriate if expectations differ from previous estimates with respect to economic benefits.

8.1 Impairment of PPE and intangible assets

On each balance sheet date, the Group assesses whether there is any indication of an asset's impairment. If such indication exists, the amount recoverable from the asset will be estimated. Regardless of the existence of such indication, the recoverable amount is estimated for assets not yet available for use, goodwill and intangible assets with indefinite useful lives (brands). An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its future recoverable amount.

The recoverable amount is the higher of an asset's fair value less costs to sell (net selling price) or value in use. The recoverable amount is primarily determined on the basis of the asset's net selling price, but if this is not possible, the asset's value in use must be determined. The asset's value in use equals the present value of future cash flows expected to be recoverable from the asset. The discount rate used is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the asset. The need for impairment of the annually tested assets stated above is always determined on the basis of value-in-use calculations.

If the asset's net selling price cannot be determined and the asset does not generate cash flows independent of other assets, the need for impairment will be determined through the cash-generating unit, or the business segment or its company, to which the asset belongs. In such a case, the carrying amounts of the unit's assets are compared with the entire unit's recoverable amounts.

An impairment loss is reversed if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The increased carrying amount of the asset may not exceed the carrying amount of the asset that would have been determined had no impairment loss been previously recognised. Impairment loss on goodwill may not be reversed under any circumstances.

In respect of property in own use, the Group assesses as part of the financial statements whether there is any indication of an impaired property. Such indication includes a significant reduction in the market value and evidence of non-marketability or physical damage. If the income generated in the future by property in own use is expected to be lower than its acquisition cost not depreciated, the resulting difference will be impairment loss and charged to expenses.

9 Leases

On the date of inception, leases (also when part of other arrangements) are classified as finance leases or operating leases depending on the substance of the transaction. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incident to ownership to the lessee. All other leases are classified as operating leases. Lease classification is performed at the inception of the lease.

Assets leased out under finance lease are recorded as receivables from customers in the balance sheet, to the amount equal to the net investment in the lease. Finance income from the lease is recognised in interest income based on a pattern reflecting a constant periodic rate of return on the lessor's net investment outstanding in respect of the finance lease.

Assets leased under finance lease are recognised as property, plant and equipment and the corresponding finance lease liability is included in other liabilities. At the inception of the lease term, these leased assets are recorded as assets and liabilities at the lower of the fair value of the asset and the

present value of the minimum lease payments. PPA assets are depreciated over the shorter of the lease term or the life of the asset. Finance charges are recognised in interest expenses so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Assets leased out under operating lease are shown under property, plant and equipment and are depreciated on a straight-line basis over the lease term. Lease income is presented under "Other operating income" and is recognised on straight-line basis over the lease term. Lease payments for leased assets under operating lease are recognised as expenses in "Other operating expenses" on a straight-line basis over the lease term.

10 Employee benefits

10.1 Pension benefits

Statutory pension cover for OP Financial Group companies' employees is arranged through pension insurance taken out with OP Bank Group Pension Fund. Some OP Financial Group companies provide their employees with supplementary pension cover through OP Bank Group Pension Foundation or an insurance company.

With respect to funded disability and old-age pensions, pensions managed by OP Bank Group Pension Fund are defined benefit plans. Pension plans managed by insurance companies may be either defined benefit or defined contribution plans. All of the plans managed by OP Bank Group Pension Foundation are defined benefit plans.

Expenses arising from pension plans are recognised under "Personnel costs" in the income statement. Contributions under defined contribution plans are paid to the insurance company and charged to expenses for the financial year to which they relate. No other payment obligations are included in defined contribution plans. Curtailing the defined benefit pension plan or fulfilling or changing the related obligation is recognised through profit or loss at the time of occurrence.

Defined benefit plans managed by insurance companies, OP Bank Group Pension Fund and OP Bank Group Pension Foundation are funded through payments based on actuarial calculations.

The liability recognised in the balance sheet in respect of the defined benefit plan is the present value of the defined benefit obligation on the balance sheet date less the fair value of the plan assets of OP Bank Group Pension Fund, OP Bank Group Pension Foundation and acceptable insurance.

Defined benefit obligations are calculated separately for each plan using the projected unit credit method. Pension costs are charged to expenses over the employees' expected working lives on the basis of calculations performed by authorised actuaries. The discount rate for the present value of the defined benefit obligation is determined on the basis of the market return on high-grade corporate bonds on the closing date of the reporting period.

Items resulting from remeasurements of the net defined benefit liability are recognised in other comprehensive income in the period they occur. Remeasurements of the net defined benefit liability recognised in other comprehensive income will not be reclassified to income statement in later financial periods.

10.2. Long-term management remuneration scheme

OP Financial Group has a short-term and long-term management remuneration scheme in place. Those included in the schemes may receive bonuses either in cash only or as a combination of cash and a reference instrument decided by OP Cooperative's Supervisory Board or a Remuneration Committee it has appointed. Bonuses will be paid for work performed during the so-called performance and vesting period. The maximum amount of the remuneration schemes is calculated on the grant date and the amount charged to expenses is recognised in personnel costs and deferred expenses over the vesting period.

The amount of compensation corresponding to the objectives reached is reviewed quarterly. Any effects resulting from reviewing the original estimates are recognised in personnel costs and the corresponding adjustment is made in deferred expenses.

11 Insurance assets and liabilities

11.1 Classification of financial assets within insurance business

The section "Classification and recognition" under Financial Instruments contains information on the classification of financial assets within OP Financial Group's insurance operations.

11.2 Classification of insurance contracts issued by insurers

An insurance contract is a contract which transfers significant insurance risk from the policyholder to the insurer, as defined in IFRS 4. Other contracts which the insurance company may issue under its licence represent investment or claims management contracts. If a contract does not involve any significant insurance risk on the balance sheet date but the policyholder has the right to change the contract in such a way that the contract transfers significant insurance risk to the insurer, the contract is classified as an insurance contract. The contracts are categorised contract by contract or by types of contract containing homogeneous risks. If several contracts are concluded simultaneously with a single counterparty or if contracts are otherwise interdependent, the significance of insurance risk is assessed jointly.

The savings and insurance components of insurance contracts are not unbundled.

Almost all of the contracts issued by non-life insurers are insurance contracts. Contracts in which the difference between realised and estimated losses are balanced with a supplementary premium and which involve no underwriting risk have been categorised as claims management contracts.

Capital redemption contracts issued by life insurers and such endowment and pension insurance contracts under which, in the case of the insured person's death, purely savings will be paid to beneficiaries or an amount that differs slightly from it, are classified as insurance contracts because they do not include any significant underwriting risk and their policyholder has no right to change the contracts to include underwriting risk.

Insurance contracts are classified into risk groups in such a way that the risks of contracts are homogeneous in each group. This classification of non-life contracts takes account of the insured object, differences in the duration of contracts or the average length of the period between the occurrence of a loss event and the date of the fully-paid claim (claim settlement period). As to life insurance policies, the Group takes account of whether savings are accumulated, how the return of the savings is determined and whether the contract is for life or death risk.

The main insurance contract categories are short-term non-life contracts, long-term non-life contracts and life insurance contracts.

Short-term non-life insurance contracts usually have a policy term of 12 months or less, very rarely more than 24 months. In particular, policies for private individuals, motor-vehicle policies and statutory workers' compensation policies are usually automatically renewable annual policies that are treated as short-term contracts.

Long-term non-life insurance contracts refer to contracts with an average minimum policy term of two years. These include perpetual insurance policies and decennial insurance policies under the Housing Transactions Act.

Life insurance contracts include single and regular premium endowment policies where the sum insured is to be paid at termination of the policy, individual pension policies, group pension policies supplementing statutory pension cover, and term insurance policies issued mainly for death. Life and pension insurance savings can have either a guaranteed interest rate, with a discretionary participation in the profit of the insurer, or unit-linked in which the investment risk has been transferred to policyholders.

11.3 Recognition and measurement of insurance contracts issued by insurers

Contracts are recognised when an insurer's obligation to pay out the related claim begins following the occurrence of an insurance event.

Insurance contracts and investment contracts where the contract holder has the right of discretionary participation feature or the right to transfer the savings for a guaranteed interest rate and thereby be entitled to the discretionary participation feature are treated and measured according to Insurance Contracts standard IFRS 4. Other investment contracts are measured according to IFRS 9.

Liabilities of contracts issued by insurers and measured under IFRS 4 are calculated mainly in accordance with national accounting standards. However, equalisation provisions are not included in these liabilities but are included in equity capital. In addition, part of the insurance liability is measured by taking account of the current interest rate.

The liabilities comprise provisions for unearned premiums and claims liability. The life insurance provisions for unearned premiums consist of the liability calculated from the expected net claims and operating expenses during the contracts' remaining maturities less future insurance premiums during the remaining coverage periods of the recognised policies. Non-life provisions for unearned premiums equal the liabilities arising from claims and other expenses expected for the remaining coverage periods of the recognised policies. Provision for unpaid claims arises from reported and non-reported claims incurred and from their claims and settlement expenses paid in the future.

11.3.1 Measurement of insurance contracts issued by non-life insurers

Premiums are primarily recognised as revenue over the term of the contract. However, revenue recognition in decennial and perpetual insurance policies is based on the distribution of underwriting risk. In these policies, the portion of premiums written for the post-balance sheet date is recorded as provision for unearned premiums in the balance sheet and recognised as premium revenue relative to risk over the policy term.

Claims paid out and direct and indirect claim settlement expenses are charged to claims incurred on the basis of the date of loss occurrence. Claims unsettled on the balance sheet date for losses already occurred and their settlement expenses – including claims incurred but not yet reported (IBNR) – are reserved in the provision for unpaid claims consisting of both claims reserved for individual cases and statistically reserved claims. The provision, included in the provision for unpaid claims, for the future settlement of expenses is based on estimated costs.

Provision for unearned premiums for decennial insurance and perpetual insurance policies and insurance liability related to annuities are discounted. The general trend for the interest rate is taken into account in determining the discount rate. Change in the discount rate of the insurance liability for annuities is taken into account as one continuously updated variable of an accounting estimate. The discount rate may not exceed the expected return on the assets covering the liability or the level set by the authorities. An increase in liabilities due to the passage of time (unwinding of discount) is shown in the

income statement as a separate item in Non-life Insurance items under Net investment income.

Non-life Insurance's interest rate risk associated with insurance liability is reduced by entering into interest rate derivative contracts and making direct fixed-income investments that are recognised at fair value through profit or loss. The value of derivatives is included in the insurance liability so that the insurance liability reacts to changes in market interest rates.

Capital gain or loss on derivatives is recognised over the insurance liability's residual term to maturity mainly by decreasing or increasing the discount rate. A capital loss on a derivative may be recognised by increasing the discount rate only if the planned rate is not exceeded. By selling investment instruments that hedge the insurance liability, it is possible to cover the systematic decrease of the discount rate only to a limited extent. The limit at its most is the value change that has accrued from the rate movement exceeding the target level at that time.

11.3.2 Measurement of insurance contracts issued by life insurers

The portion of premiums written for risk insurance policies' post-balance sheet date, less any yet unpaid insurance premiums, is recognised as provision for unearned premiums in the balance sheet.

The liabilities of savings-type insurance contracts and those of insurance contracts measured under IFRS 4 are calculated as the capital value of future benefits, policy administration costs and future premiums. The capital value is calculated mainly by the discount rate, mortality and assumptions of operating expenses used for pricing. The decided additional bonuses are included in the insurance liability.

Provision for unpaid claims arises from reported and non-reported claims incurred and from their claims and settlement expenses paid in the future.

The liabilities' discount rate, according to the Insurance Companies Act, cannot be any higher than what was used for insurance pricing. The discount rate may not exceed the expected return on the assets covering the liability or the level set by the authorities.

The company has savings at its own risk with interest rate guarantees ranging between 0.5 and 4.5%. The insurance liability of contracts whose interest rate guarantee is 4.5% has been supplemented so that the technical interest rate of insurance liabilities in the financial statements is permanently 3.5% as the insurance liability discount rate. In addition to this, supplementary interest rate provisions have been applied to reduce the discount rate of the guaranteed-interest portfolio for a specific period. The provision for unpaid claims of life insurance other than pension insurance is not discounted.

OP Financial Group reduces the interest rate risk of the life insurance liability by entering into interest rate derivative contracts and making direct fixed-income investments that are recognised at fair value through profit or loss. The value of derivatives is included in the insurance liability, because any benefit from the derivatives is used for the guaranteed cash flows of the contracts.

The main assumption when calculating the liability of unit-linked insurance contracts and investment contracts is that the market income of assets covering the insurance liability is credited as income to the policy.

Unit-linked investment contracts are presented under Liabilities from unit-linked insurance and investment contracts in the balance sheet.

11.4 Liability adequacy test on insurance contracts

On each balance sheet date, the Group tests for the adequacy of liabilities in the balance sheet, using current estimates of future cash flows from insurance contracts. If the test shows that the liability's carrying amount arising from insurance contracts is not sufficient, the liability amount will be increased by the shortfall and the shortfall will be recognised in the income statement.

11.5 Premiums written

Premiums written included in net insurance income in the income statement are a consideration of the insurance coverage that began during the period.

Insurance premium tax, but not commissions and credit loss on insurance premium receivables, is deducted from premiums written.

Insurance premiums based on non-life insurance contracts are recognised as premiums written when the insurance period begins.

Life insurance premiums and investment contract payments are recognised under premiums written on an accrual basis in such a way that contracts other than defined benefit group pension contracts do not generate insurance receivables. Commissions or credit losses are not deducted from premiums written.

11.5.1 Receivables and payables related to insurance contracts

Non-life Insurance premium receivables are recognised at the beginning of the insurance period when the right to the receivable is established. These receivables are mainly those from policyholders and to a minor extent from insurance intermediaries. Prepaid insurance premiums are included in Direct insurance liabilities under Other liabilities.

Non-life Insurance receivables based on insurance contracts are tested for impairment on each balance sheet date. If there is objective evidence of an impaired receivable, its carrying amount is reduced through profit or loss. Both final impairment losses (loan losses) and impairment losses established statistically on the basis of the phase of collecting the charge are deducted from receivables.

11.6 Salvage and subrogation reimbursements

Subrogation reimbursements and damaged property that has come into possession are recognised at fair value under Other asset in the balance sheet when the claim is settled.

11.7 Reinsurance contracts

Reinsurance taken out by OP Financial Group refers to an insurance contract which meets the classification requirements set for insurance contracts and under which the Group may be paid compensation by another insurer if the Group becomes liable to pay compensation on the basis of other insurance contracts (ceded reinsurance).

Assets based on reinsurance contracts are tested for impairment on each balance sheet date. If there is objective evidence that OP Financial Group may not receive all amounts to which it is entitled on the basis of the contract terms, the carrying amount of the reinsurance asset is reduced to correspond to the recoverable amount and the impairment loss is recognised in the income statement.

Non-life insurance benefits received under reinsurance contracts held are included in Other assets, Reinsurance assets in the balance sheet, with the latter receivables corresponding to reinsurers' share of provision for unearned premiums and provision for unpaid claims of the insurance contracts reinsured by OP Financial Group. Premiums unpaid to reinsurers are included in Other liabilities, Reinsurance liabilities.

Amounts recovered from or due to reinsurers are measured consistently with the amounts associated with the reinsured insurance contracts and are recognised in the balance sheet either under Other assets or Other liabilities.

11.8 Coinsurance and pools

OP Financial Group is involved in a few coinsurance arrangements with other reinsurers. Of coinsurance contracts, OP Financial Group treats only its share of the contract as insurance contracts and the Group's liability is limited to this share.

OP Financial Group also underwrites shares of insurance contracts through pools, whose members are primarily responsible for their own proportionate share of the underwriting risk. These shares are based on contracts confirmed annually. OP Financial Group treats as insurance contracts its own proportionate share of the direct insurance business managed by pools and of the reinsurance business from the pool to its members.

The pool's share of these insurance contracts is treated as reinsurance. In some pools, members are responsible for an insolvent member's liabilities in proportion to their shares in the pool. OP Financial Group recognises liabilities and receivables based on joint liability if joint liability is likely to materialise.

11.9 Principle of equity concerning life insurance

With the exception of unit-linked parts of life insurance contracts, almost all life insurance contracts and some capital redemption contracts entitle to a discretionary participation feature to the profit, in addition to guaranteed benefits, which may account for a significant portion of the total contractual benefits, but whose amount and timing is at the discretion of the company under the contract. Some unit-linked policies include an option for a discretionary participation feature. Additional benefits are distributed as additional return in excess of technical interest, additional death benefit or reduced premiums.

The distribution of the surplus is based on the principle of equity referred to in the Insurance Companies Act which requires that a reasonable amount of the surplus to which the contracts are entitled is distributed to these policyholders, provided the solvency requirements prevent this. It is necessary to aim at continuity with respect to the level of additional benefits. Nevertheless, the principle of equity will not enable policyholders to demand any funds as debt. OP Financial Group has published its life-insurance additional benefit principles and its realisation on its website.

Separated balance sheets with a profit distribution policy differing from other life insurance operations have been created from the endowment policies and individual pension policies transferred from Suomi Mutual Life Assurance Company. The amount with which the assets in the separated balance sheet exceed the insurance liabilities measured by discounting using a swap curve on a market consistency basis is reserved as liability for future bonuses.

12 Provisions and contingent liabilities

A provision is recognised for an obligation if the obligation is based on a past event and it is probable that an outflow of resources will be required to settle the obligation, but there is uncertainty about the timing or amount required in settlement. In addition, an entity must have a present legal or constructive obligation towards a third party as a result of past events. If it is possible to receive compensation for part of the obligation from a third party, the compensation is recognised as a separate asset, but only at the time when receipt of the compensation is actually certain.

A contingent liability is a possible obligation arising from past events, whose existence will be confirmed only by the realisation of an uncertain future event beyond OP Financial Group's control. A present obligation which probably does not

require fulfilment of payment obligation or the amount of which cannot be defined reliably is also considered as contingent liability. A contingent liability is presented as a note.

13 Equity

OP Financial Group categorises instruments it has issued on the basis of their nature either as equity or financial liability. Incremental costs directly attributable to the issue or purchase of equity instruments are shown in equity as a deduction.

Cooperative capital, divided into cooperative bank members' cooperative contributions and Profit shares, are classified as equity instruments. Cooperative banks have an unconditional right to refuse to redeem both cooperative shares and Profit Shares. However, cooperative banks may decide to redeem cooperative shares, within the limits set by the authorities. Cooperative banks' supplementary cooperative capital is presented in OP Financial Group's financial statements as liability.

Cooperative contributions and the resultant customer ownership entitle the owner-customer to take part in the bank's decision-making. Cooperative banks have an unconditional right to refuse redemption of cooperative contributions. No interest is paid on cooperative contributions.

Profit Shares confer no voting rights. Cooperative banks have an unconditional right to refuse payment of Profit Share capital or interest. Any interest payable on Profit Shares is the same for all Profit Shares. The interest is recognised as liability and deducted from equity once the decision for payment has been made.

14 Income tax and deferred tax

Income tax expense shown in the income statement includes current tax, based on the taxable income of OP Financial Group companies for the financial year, and income tax for prior financial years and deferred tax expense or income. Taxes are recognised in the profit and loss except when they are directly linked to items entered into equity or other items in other comprehensive income. In such a case, the tax is recognised in the items in question. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the companies operate and generate taxable income.

Deferred tax liabilities are recognised for temporary taxable differences between the carrying amount of assets and liabilities and their tax base. Deferred tax assets are calculated on tax-deductible temporary differences between the carrying amount and taxable value included in the financial statements, and on losses confirmed for tax purposes. Deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. The greatest temporary differences in OP Financial Group are caused by tax provisions (such as loan loss provision), measurement of investments at fair value, and elimination of equalisation provision within non-life insurance.

The Group offsets deferred tax assets and liabilities by company. Deferred tax assets and liabilities resulting from consolidation are not offset. Deferred tax assets and liabilities are measured at the tax rate that is expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted by the balance sheet date.

15 Revenue recognition

15.1 Interest income

Interest income and expenses for interest-bearing assets and liabilities are recognised using the effective interest method. More detailed information on the effective interest method can be found in 5.2.1 Amortised cost in these accounting policies. Interest on receivables with non-settled, due payments is also recognised as revenue. The difference between the receivable's acquisition cost and its nominal value is recognised as interest income and that between the amount received and nominal value of the liability in interest expenses. The difference between the nominal value and the acquisition cost of fixed-rate bonds is recognised as interest income or expenses over the residual term to maturity.

15.2 Net commissions and fees

Fees that are not an integral part of the effective interest rate of a financial instrument are accounted for in accordance with IFRS 15 Revenue from Contracts with Customers. Fees and commissions under IFRS 15 are recognised as revenue when a service's agreed performance obligations are transferred to the customer and the key criterion is transfer of control. Commissions and fees are recognised to the amount to which an entity expects to be entitled in exchange of transferring promised services to a customer. Commission expenses are recognised in net commissions and fees on an accrual basis.

In the Banking segment, commissions and fees are charged from private customers and corporate customers. Commissions and fees consist of those from lending and payment transactions. In addition, the segment charges fees outside of OP Financial Group, for example for legal services, guarantees and real estate agency services. The abovementioned items consist of several hundreds of fee types whose performance obligations are fulfilled over time or at a point in time, according to the type of the fee. The performance obligations of lending and guarantee fees are mainly fulfilled over time while other those of other Banking fees at a point in time. The amount of consideration for the services is mainly the list price or a contractually stated price. Owner-customers are entitled to a 45% discount on their daily banking services. The Group charges its customers the fees on a monthly basis or after the service performance according to the contract terms.

Non-life insurance contracts with which no underwriting risk is associated are recognised as revenue under IFRS 15 and presented in net commissions and fees. Commissions and fees mainly consist of income from health and wellbeing services as well as from insurance brokerage fees. Income from health and

wellbeing services is recognised for each treatment visit after the service has been rendered. The fee is charged from the customer after the service based on the list of charges and fees. In occupational healthcare agreements, income is recognised over time during the contract period and the fee is charged from the customer on a monthly basis as agreed. In healthcare and wellbeing services, OP Financial Group acts as the principal under IFRS 15, in which case the fee paid to the relevant entrepreneur is presented in commission expenses. OP Financial Group's partners pay commission income from broking insurance policies according to the consideration specified in the contract. The performance obligations are fulfilled over time and the fees are charged from customers on a monthly basis.

The Wealth Management segment commission income consist of mutual fund and asset management fees as well as life insurance total expense loadings and refunds of unit-linked management fees. The life insurance expense loading contains a subscription fee for the insurance premium (so-called kappa loading) and the management fee for insurance savings (so-called gamma loading). Other life insurance fees are recognised as revenue in accordance with IFRS 4 Insurance Contracts. Wealth Management commission income is mainly recognised as revenue over time during the contract period, and the monthly consideration is a contractual percentage of the client's investments or insurance savings under management. The Wealth Management segment uses performance-based management fees tied to investment performance. The performance-based management fees are not recognised as revenue until the criteria measuring the success of investment has been met highly likely.

The Other Operations segment fees consist mainly of payment transaction fees, of which the most significant item constitute various card payment fees. The performance obligations are fulfilled over time and the consideration amount is as agreed. The fees are charged based on the actual payment transactions.

Revenue from contracts with customers in the financial statements is grouped according to the segments (Note 6. Net commissions and fees).

Dividends are primarily recognised when they are approved by the General Meeting of Shareholders by the distributing entity. Dividend income is shown in net investment income.

16 Summary of presentation of income statement items

Net interest income	Received and paid interest on fixed-income instruments, the recognised difference between the nominal value and acquisition value, interest on interest-rate derivatives and fair value change in fair value hedging. Fees that are regarded as compensation for the risk taken by the bank associated with the financial instrument and as being an integral part of the financial instrument's effective interest rate
Net insurance income	Non-life Insurance premiums written and paid claims, including the reinsures' share and the risk result of Life Insurance.
Net commissions and fees	Commission income from lending, deposits, payment transactions, securities brokerage, securities issuance, mutual funds, investment management, legal services, guarantees, real estate services, insurance brokerage, life insurance expense loading, refunds of unit-linked insurance management fees as well as from healthcare and wellbeing services. Commission expenses for payment transactions, securities brokerage, securities issuance, mutual funds, investment management, insurance operations as well as for healthcare and wellbeing services.
Net investment income	Fair value changes in financial instruments at fair value through profit or loss, excluding accrued interest, and capital gains and losses, as well as dividends. Realised capital gains and losses on financial assets recognised through other comprehensive income (Available-for-sale), impairment losses and dividends. Income from loans and receivables recognised at amortised cost, and impairment loss. Fair value changes in investment property, capital gains and losses, rents and other property-related expenses. Life Insurance credited interest on customers' insurance savings and change in underwriting provisions as well as Non-life Insurance unwinding of discount. Associated companies' income consolidated using the fair value and equity method.
Other operating income	Rental income and sales revenues from property in own use, and other operating income.
Personnel costs	Wages and salaries, pension costs and social expenses.
Other operating expenses	Services purchased from others, ICT production and development costs, administrative expenses, charges of financial authorities, rents and other expenses.
Impairment loss on receivables	Expected credit losses from customers, off-balance-sheet items and notes and bonds as well as final credit losses and their reversals.

17 Charges of financial authorities

OP Financial Group pays charges to various authorities. The Financial Stability Authority is in charge of deposit guarantee. Responsibility for banking supervision rests with the European Central Bank. The Finnish Financial Supervisory Authority is responsible for insurance supervision, macroprudential supervision and supervision of conduct of business. The EU's Single Resolution Board (SRB) is responsible for bank resolution. The financial authority contributions and fees are recognised under other operating expenses on an accrual basis.

17.1 Stability contribution

Stability contributions will be paid to the euro-area Single Resolution Fund (SRF) until 2023 in such a way that the target of a minimum of 1% of the amount of covered deposits will be reached. The SRF is managed by the Single Resolution Board which also determines the amount of stability contributions. The SRF ensures that the financial industry, as a whole, finances the stabilisation of the financial system. The stability contribution is determined based on the bank's importance and risk profile.

17.2 Deposit guarantee contribution

Amounts contributed to the former Deposit Guarantee Fund currently exceed the EU requirements governing the deposit guarantee level. By virtue of its rules, the former Deposit Guarantee Fund takes charge of the deposit guarantee contributions payable by its member banks to the new Deposit Guarantee Fund in proportion to which each member bank has made contributions to the former Deposit Guarantee Fund over the years. The Financial Stability Fund will determine the contribution for each member bank but will charge the amount directly from the former Deposit Guarantee Fund. The deposit guarantee contribution had no effect on OP Financial Group in 2018 in terms of expenses.

17.3 Financial Stability Authority's administrative fee

The administrative fee charged by the Financial Stability Authority is based on the same calculation method as the supervision fee charged by the Financial Supervisory Authority.

17.4 Financial Supervisory Authority's supervision fee

The supervision fee charged by the Financial Supervisory Authority comprises a relative supervision fee, which is based on an entity's balance sheet total, and a fixed basic fee.

17.5 European Central Bank's supervisory fee

The ECB supervisory fee is determined based on the bank's importance and risk profile.

18 OP bonuses to owner-customers

In the income statement, OP bonuses to owner-customers are presented as a separate item. OP cooperative banks' owner-customers earn OP bonuses through banking, non-life insurance and wealth management transactions. OP bonuses are expensed in the income statement as they are earned and recognised as accrued liabilities in the balance sheet. Accrued bonuses are used automatically for banking and wealth management service fees and non-life insurance premiums starting from the oldest ones, and the accrued liabilities are reversed.

19 Segment reporting

Financial information, which the executive in charge monitors regularly, serves as the basis of defining operating segments.

OP Financial Group reports income statements and balance sheets for the following business segments: Banking, Non-life Insurance, and Wealth Management. Non-segment operations are presented in Other Operations. Segments are reported in a way that is uniform with internal reporting submitted to the management. In segment reporting, OP Financial Group's Central Banking is reported as part of Other Operations not included in the business segments, as are income, expenses, investment and capital not included in actual business operations.

A description of the operating segments and segment accounting policies can be found as part of segment information.

20 Critical accounting estimates and judgements

The preparation of financial statements requires making estimates and assumptions about the future and the actual results may differ from these estimates and assumptions. It also requires the management to exercise its judgement in the process of applying the accounting policies.

Liabilities arising from insurance contracts involve several discretionary factors and uncertainty. With respect to Non-life Insurance, estimates are based on assumptions about the operating environment and on the actuarial analyses of the Group's own claims statistics. An especially high degree of management judgement is required for determining the discount rate and estimating claims expenditure arising from the already occurred loss events (Note 64. Sensitivity analysis of Non-life Insurance).

Liabilities arising from life insurance contracts involve several discretionary factors and uncertainty. When calculating life insurance liabilities, the Group primarily uses assumptions on the date when the contract was made concerning insurance risk materialisation, operating expenses and investment income. The Group follows the assumptions continuously and if it turns out that the liability calculated based on these assumptions is too small, the liability is increased to meet the

latest observations. The management's judgement is required especially in determining the discount rate of the liability, mortality assumption and operating expenses related to the future management of insurance policies (Note 76. Information on the nature of Life Insurance and sensitivity analysis of insurance liabilities).

When estimating the control over structured entities, the central cooperative consolidated takes into account the investor's power to direct the investee's relevant activities and the exposure or right to variable returns from its involvement with the investee. Discretion is exercised when estimating power to direct relevant activities and variable returns. The emergence of control is evaluated in more detail when the investment accounts for 10–20% of the investee's net assets and returns. The investee is consolidated as a subsidiary at the latest when OP Financial Group's share of the variable returns exceeds 37% and there is a link between the control and the returns.

Goodwill, assets with indefinite useful lives and intangible assets not yet available for use are tested annually for impairment. The recoverable amount determined in the impairment test is usually based on value in use, and its calculation requires estimates of future cash flows and the applicable discount rate (Note 23. Intangible assets).

The determination of the measurement models for expected credit losses (ECL) involves several factors requiring management judgement, such as:

- Selection of appropriate ECL models so that they describe the expected credit losses on the contract portfolio as well as possible
- Different assumptions and expert judgements made in the models
- Selection of the estimation methods of the parameters for the ECL models
- Determination of the contract's maturity for non-maturing loans (revolving credit facilities)
- Determination of model risk associated with the quality of the available modelling data and other data
- Proper grouping of contracts into different segments so that their ECL can be calculated using the appropriate model
- Selection of macroeconomic factors in such a way that their changes correlate with the contracts' probability of default
- Forecasting future macroeconomic scenarios and their probabilities.

Management judgement has also been used in the assessment of a significant increase in credit risk, such as in:

- The expert judgement used in the assessment of change in relative credit risk associated with private customers to ensure a true number of contracts that move to stage 2 before moving to stage 3 (so-called default capture rate)
- The selection of the absolute threshold that is based on historical default behaviour and OP Financial Group's credit risk process
- The determination of the length of a period during which the customer must prove proper payment behaviour so that the impairment stage 3 can improve to stage 2 or 1.

The actual calculation of ECL figures is performed using the abovementioned models without management judgement expect if a large corporate exposure in stage 3 is involved, in which case the ECL is calculated using the cash flow based ECL method based on expert assessment.

The management must assess when markets for financial instruments are not active. The management must also assess whether an individual financial instrument is actively traded and whether the price obtained from the market is a reliable indication of the instrument's fair value. When the fair value of financial instruments is determined using a valuation technique, management judgement is required to select the applicable valuation technique. Whenever market observable input data is not available for outputs produced by valuation techniques, the management must evaluate how much other information will be used.

The present value of pension obligations depends on several factors determined by using several assumptions. The discount rate, future increases in salaries and pension payments and the inflation rate are the assumptions used to determine net costs (or income) arising from pensions. Changes in actuarial assumptions have an effect on the carrying amount of pension obligations (Note 33. Provisions and other liabilities).

The measurement of investment property at fair value is partially based on the management's estimates of the market value of property holdings. Investment property is also measured using a calculation model based on the income capitalisation approach utilising estimates of future net yield on property holdings (Note 41. Recurring fair value measurements by valuation technique). Income probably generated in the future by property in own use is based on the management's judgement (Note 24. Property, plant and equipment).

In Wealth Management, OP bonuses mainly accrue from mutual fund management fees and unit-linked insurance fees paid by customers. The OP bonuses of these items are close to considerations paid to customers under IFRS 15 that are accounted for as a reduction of the transaction prices and thereby revenue. Netting Wealth Management OP bonuses from asset management commission income would, based on management judgement, lead to the fact that OP bonuses in OP Financial Group's income statement would not give a true picture of their total amount. Consequently, Wealth Management OP bonuses are presented in the OP bonuses to owner-customers row in the income statement, in addition to the Banking and Non-life Insurance OP bonuses.

21 New standards and interpretations

The IASB (International Accounting Standards Board) has issued the following significant future IFRS amendments.

21.1. IFRS 16 Leases

OP Financial Group will adopt IFRS 16 Leases from 1 January 2019. The new standard will change the lessor's accounting and affect the Group's accounting for operating leases. As a result, almost all the lessor's leases will be recognised in the balance sheet since operating leases and finance leases will no longer be separated from each other. Accounting by lessors remains substantially similar to IAS 17.

OP Financial Group applies a retrospective approach in the transition to a limited extent, in which case comparatives will not be restated and any accrued effect will be recognised in adjustments to retained earnings on 1 January 2019. Owing to this choice, the following practical expedients under the transitional provisions will be applied when assessing leases:

- At the date of initial application, the Group will not reassess whether a contract is, or contains, a lease.
- A lease liability is recognised at the date of initial application for leases previously classified as an operating lease applying IAS 17. Lease liability is measured at the present value of the remaining lease payments discounted using the incremental borrowing rate. The right-to-use asset is recognised to the amount that equals the lease liability adjusted to the prepayments or deferring lease payments related to the lease concerned, which are recognised in the balance sheet on 31 December 2018. Initial direct costs are not taken into account in the measurement of the right-to-use asset.
- Hindsight will be used to determine lease terms if the lease involves renewal or termination options.

For leased contracts, OP Financial Group defines the lease term as follows:A fixed term that cannot be extended or terminated without any good reason or sanction or, based on management judgement, for a maximum of three years covering the earnings path when it is the question of a property lease until further notice to which a mutual notice period applies.If the lease is fixed at first and is renewed to be valid until further notice as described above, the lease term is a combination of these.

- When such a lease has been terminated, the notice period is defined as the lease term. When determining the lease term, OP assesses that it is reasonably certain that the lessee stays on the premises longer because the property based on the lease has a central location and no substitutive property is necessarily available.
- the lessor's notice period if it is the question of a property lease until further notice to which a mutual notice period applies. The lease term will always be renewed with a new notice period after the notice period unless the lease has been terminated. When determining the lease term, OP assesses that it is reasonably certain that leases have been concluded for a longer time because terminating and renewing such leases would not be profitable.
- Or the useful life of the leased property if it is shorter than the lease terms mentioned above.

The fixed duration specified in the contract is determined as the lease term in the leased contracts that may not be extended or terminated without a good reason or sanction.

Leased fixed assets are presented in PPE assets and is mainly derecognised during the lease term. The corresponding lease liability is presented in other liabilities and the related interest expenses are presented in net interest income. Service charges related to leases, which on the whole are separated from the lease amount, are presented in other operating expenses. Separating the service charge is performed by fixed asset class.

In calculating lease liability, OP Financial Group usually uses the incremental borrowing rate of the lessor. The interest rate quoted by the OP Financial Group Treasury is used as the incremental borrowing rate that Treasury uses to lend OP cooperative banks and OP Financial Group's subsidiaries.

OP Financial Group applies entry concessions allowed for lessors. Expenses of low-value and short-term leases for the financial year are recognised in other operating expenses. These leases include laptops, mobile phones and smaller devices and devices and machines leased on a one-time basis.

OP Financial Group's leased contracts are mainly those related to premises, company cars and safety devices. Base on a preliminary estimate regarding the adoption of 1 January 2019, OP Financial Group will recognise around EUR 7.2 million in fixed assets and lease liability in its balance sheet. Undiscounted lease liabilities amounted to EUR 42 million on 31 December 2018 (Note 44. Operating leases).

Reconciliation statement	**€ million**
Operating lease commitments on 31 December 2018 as disclosed in the notes	42
Operating lease obligations discounted at borrowing rate on 31 December 2018	35
Adjustments relating to different treatment of renewal options	27
Lease liability on 1 January 2019	**62**
Lease liability was discounted at borrowing rates on 31 December 2018. The weighted average rate applied was 0.36%	
Right-of-use assets on 1 January 2019	**€ million**
Buildings	50
Vehicles	3
ICT equipment	4
Machinery and equipment	5
Total right-of-use assets	**62**

21.2 IFRS 17 Insurance Contracts

Replacing the current IFRS 4 Insurance Contracts, IFRS 17 Insurance Contracts was published on 18 May 2017.

The most important goal of the standard is to harmonise the measurement of insurance liability on a global basis; the measurement under the existing insurance contracts standard is based on national measurements. Under IFRS 17, measurement is based on current estimates, as is the case in insurance companies' solvency measurement. However, IFRS 17 differs from solvency measurement in terms of its purpose and principle basis.

Insurance contracts are measured based on the general approach (GA) using the following three parts on each reporting date:

- Estimates of future cash flows adjusted to reflect time value of money
- A risk adjustment for OP Financial Group's non-financial risk describing risk appetite and
- The contractual service margin which is measured at the time of recognition of the contract in such a way that no profit results from the contract at recognition but loss is recognised immediately. The contractual service margin represents unearned profits and its is recognised as revenue during the policy period based on how the insurance service is produced.

The current practice, in which insurance liability may contain implicit margins of risk-bearing and future profits, will cease to exist, forcing reporting entities to explain changes in liability in a transparent way.

For insurance contract measurement, IFRS 17 also allows an optional simplified measurement approach, the premium allocation approach (PAA), to contracts whose policy period is a maximum of one year. Non-life insurance products rank among these contracts, for example.

Furthermore, the standard has a variable fee approach (VFA), a modification of the general model, that must be applied to direct insurance participating contracts. In the VFA model, a company's participation in changes in the below investments is included in the contractual service margin that changes on each reporting date. These contracts typically include life insurance unit-linked contracts.

Changes in assumptions of financial risk and changes in liability arising from market changes can be buffered against corresponding changes in assets in income/expenses. The standard gives the right to reclassify insurance company assets when the standard is adopted for the first time.

The new standard means changes in the insurance contract valuation method and the presentation of the balance sheet and income statement. For the presentation of the balance sheet, the rights and obligations involved in insurance contracts are netted and presented either in assets or liabilities.

Insurance service earnings are presented as subtotal in the income statement and separately net investment income that is separated from endowment insurance.

In addition, the new standard means more qualitative and quantitative requirements for notes to the financial statements, such as reconciliation statements for changes in the net carrying amounts of insurance contracts during the period and an analysis of insurance service income per valuation component.

IFRS 17 affects the valuation and recognition of OP Financial Group's non-life and life insurance products as well as their presentation in the financial statements. OP Financial Group has organised a project where it is working on its preparedness related to the adoption of the standard by assessing the needs for changes and by assessing its impact on OP Financial Group's financial position and financial performance.

IFRS 17 must be applied for accounting periods beginning on or after 1 January 2021 Nevertheless, the IASB decided in November 2018 that it would propose the adoption date of IFRS 17 to be postponed until 1 January 2022. This proposal will be discussed after hearing the draft standard. The European Union has not yet adopted IFRS 17.

21.3 Other upcoming amendments to standards

Amendments to IFRS 3, IFRS 9, IFRS 11, IAS 12, IAS 19, IAS 23, IAS 28, IAS 40, IFRIC 22 and IFRIC 23 took effect on 1 January 2019. The amendments will not have any significant effect on OP Financial Group's financial statements.

Note 2. Risk management and capital adequacy management principles

1 OP Financial Group's risk-taking

The mission of OP Financial Group is to promote the sustainable prosperity, security and wellbeing of its owner-customers, customers and operating regions. OP Financial Group's operations are based on cooperative ideals, a strong capital base and capable risk management. The aim is to ensure risk capacity in all circumstances and to keep risk-taking moderate relative to risk capacity. In the long term within moderate risk-taking, the Group seeks market-based growth. This requires controlled risk-taking relying on strong risk management.

OP Financial Group's principles governing risk-taking and the Risk Appetite Framework, adopted by the central cooperative's Supervisory Board, define how the Group's risk-taking is controlled, restricted and supervised and how the risk management and internal capital adequacy assessment process is organised. These principles also define significant risks associated with OP Financial Group's business. They are also linked to the strategy, annual planning and capital allocation.

Group-level risk tolerances for capital adequacy and significant risks confirmed by the Supervisory Board specify the maximum of the moderate Group-level risk appetite. In the risk policy, target levels and qualitative targets as well as limits and control limits for OP Financial Group entities are derived from these. Quantitative and qualitative target levels set for risk appetite balance out the business targets based on the strategy and moderate risk appetite.

The Group is continually maintaining and enhancing a corporate culture that takes a positive approach to risk management and internal control. OP Financial Group's remuneration scheme does not encourage excessive risk-taking. The remuneration scheme takes into account the Group's capital adequacy and profitability.

OP Financial Group's risk tolerances in 2018

Risk capacity (capital adequacy)	
	Common Equity Tier 1 (CET1) ratio, %
	FiCo ratio, %
Risk appetite	
	Economic capital, %
	Capital tied to new businesses, %
Counterparty risk concentrations	
	Biggest individual customer risk, %
	Total significant customer risks, %
	Industry risk, %
	Country risk concentration, %
Credit risks	
	Doubtful receivables, %
	Economic capital requirement for credit risk, %
Market risks	
	Interest income risk in banking book, € million
	Banking book present value risk, %
	VaR (99% confidence) of Trading and customer business derivative position, 1 day, € million
	Long-term investments by Treasury and Banking, VaR (95% confidence), 1 mo, %
	Long-term investments by insurance, VaR (95% confidence), 1 mo, %
Underwriting risks	
	Highest Non-life Insurance retention per object and event, € million
Liquidity risks	
	Liquidity coverage ratio (LCR), %
	Net Stable Funding Ratio (NSFR), %
Operational risks	
	Materialised operational risks (net), € million

2 Risk and capital adequacy management

Risk and capital adequacy management aims to illustrate OP Financial Group's risk profile and risk capacity and their sensitivity to market movements and choices made by business lines/divisions. Another aim is to generate information for decision-making and ensure that risk-taking remains within the confirmed tolerances, limits and control limits. This is to safeguard the risk capacity and liquidity of OP Financial Group and its entities while ensuring business continuity.

Risk capacity is made up of effective risk management that is proportionate to the extent and complexity of operations and of adequate capital resources and liquidity based on profitable business operations.

Risk and capital adequacy management consists of

- identifying, measuring, assessing and mitigating risks;
- determining reliably and independently how much capital and liquidity is required for various risk types and business operations; and
- allocating capital and liquidity systematically by business segment in line with current and planned risk-taking.

In OP Financial Group's risk policy, the central cooperative's Executive Board confirms annually risk-management principles, actions, objectives, limits and control limits, to be applied by Group entities, that are used to guide business to implement the policies confirmed in the Group's strategy and the principles of the Risk Appetite Framework (RAF).

The risk limit system ensures that OP Financial Group or any of its entities does not take excessive risks to endanger the Group's or the entity's capital adequacy, profitability, funding liquidity and business continuity. The central cooperative Supervisory Board confirms at least once a year the Group's risk tolerances that form Group-level limits. The Executive Board confirms limits for the central cooperative consolidated's entities and control limits for OP cooperative banks in OP Financial Group's Risk Policy. The Risk Management Committee will allocate the limits at a more detailed level on the business segment's proposal if need be. The limits and control limits define the boundaries for implementing moderate risk appetite.

Pursuant to the Act on the Amalgamation of Deposit Banks, the consolidated capital base and liquidity of the companies within the amalgamation are controlled on a consolidated basis. The central cooperative is under an obligation to control and supervise its member credit institutions, issue instructions to them on risk management, good corporate governance and internal control to secure liquidity and capital adequacy.

The central cooperative fulfils its statutory control and supervision obligation through general control and, in problems situations, entity-specific control based on risk categorisation. The risk category reflects the view of the central cooperative on each bank's risk capacity and the bank's risk of having to resort to financial aid, or any possible risk to the Group's reputation. The main purpose of OP Financial Group's entity-specific control is to prevent an individual entity from having to resort to the Group's capital base or support. Another objective is to help entities recover from problem situations that have threatened or jeopardised their operations.

OP Financial Group's statutory Recovery Plan creates a framework and determines the policy options used to safeguard the business continuity of the credit institutions within the amalgamation of cooperative banks in a situation where the amalgamation's financial position has significantly deteriorated. The financial position is considered to have deteriorated significantly at least if the amalgamation is in danger of not fulfilling the financial conditions set for its operations or if it otherwise violates the threshold values of the alerting indicators specified in the Recovery Plan. A liquidity contingency plan or tools available to strengthen liquidity and capital adequacy based on the capital plan control practices of the levels or preparedness are likely to be in use before the implementation of the Recovery Plan.

2.1 Risk identification, assessment and measurement

The risk management and ICAAP process consists of the continuous identification and assessment of risks associated with business and the operating environment. The central cooperative's independent Risk Management monitors the development of the Group's and its entities' risk exposure and risk capacity. It provides regular reports on its observations and assessments to the Executive Board and the Supervisory Board's Risk Management Committee.

OP Financial Group assesses its capital base and that of its entities in relation to economic capital and the existing and expected regulatory minimum capital requirements and the requirement for the capital conservation buffer. Such assessment also makes use of the results of stress tests.

Before the launch of any products or services or the adoption of new operating models or systems, OP Financial Group assesses related risks using procedures as laid down by the central cooperative's Risk Management. OP Financial Group offers only products to customers and applies business models that have been approved at Group level.

2.2 Economic capital requirement

The economic capital requirement is OP Financial Group's own estimate of the amount of capital sufficient to cover any annual losses with a 99.97 per cent probability and one-year time that may arise from risks associated with business and the operating environment. The economic capital requirement is calculated using models for each risk type, the results of which are combined taking account of correlations between the risk types and the resulting diversification benefits.

Economic capital is divided into quantitative and qualitative, or assessable, risks. Quantitative risks include credit risk, Banking interest rate, equity and property as well as market risk associated with long-term investment and insurance operations, and market risk associated with trading and

underwriting risks. The assessable risks are divided into operational risks and other risks. "Other risks" include any significant risks that have not been taken into consideration in any other risk-specific models related to economic capital requirement. These risks are typically caused by external factors, such as changes in competition or the market situation or regulatory measures. Well over a third of OP Financial Group's economic capital requirement consists of credit risks and about a fifth of market risks associated with long-term investment and insurance operations.

In the model for economic capital, the Group assesses several risk types on a more extensive basis than required by the relevant authorities. Such risk types include banking interest rate risk, insurance market risks and other risks, in particular. The key difference in the measurement of economic capital for credit risks is related to concentration risk. Moreover, the measurement of economic capital differs from capital adequacy measurement in that the property and equity risks associated with banking are calculated separately in terms of economic capital, while in capital adequacy calculations they are included in the capital requirement for credit risk.

Indicators based on the economic capital requirement are used in OP Financial Group's target, limit and control limit indicators, in loan pricing and insurance premium rating and in capital planning when defining the capital buffer.

2.3 Stress tests

Stress tests are used to assess how various exceptionally serious, albeit potential, situations and those differing from the forecasts of risk models may affect the liquidity, profitability risk exposure or capital adequacy of OP Financial Group or its entity. Stress tests assess the effect of both individual stress factors and the joint effect of multiple variables acting simultaneously. Stress tests cover all significant risks affecting OP Financial Group's financial position.

Sensitivity analyses are used as part of the risk analysis for various risk types. They help understand the effect of the used assumptions and risk factors on the liquidity and capital adequacy position as well as the values of risk metrics. Sensitivity analyses conducted at different shock levels give a concrete idea of the effect of different risks and the probability of losses of various sizes. Reverse stress tests are used to specify a trend that may lead to a pre-determined shock – such as that below the official limit.

Scenario analyses are used to assess macroeconomic development and systemic risks. Macroeconomic scenario analyses of multiple years are based on the baseline scenario and several severe risk scenarios supplementing it. The scenario analyses play a substantial role in OP Financial Group's capital planning as well.

The stress tests and economic capital supplement each other and they together form an integral part of OP Financial Group's assessment of the total capital adequacy ratio. In addition to the calculation of economic capital and capital planning, stress test methods are utilised, for example, in liquidity management and as the basis for business continuity and recovery planning as well as in the preparation of the Recovery Plan.

2.4 Capital management

Capital management aims in all circumstances to proactively control and ensure that OP Financial Group's capital adequacy meets the set targets and official requirements and thus ensure OP Financial Group's business continuity.

A capital plan is made to assess the adequacy of capital and proactively ensure an adequate capital base even in exceptional conditions. The capital plan contains, for example, quantitative and qualitative targets for capital adequacy, predicted changes in the capital base and capital requirement, capital allocation within OP Financial Group, a contingency plan, capital adequacy monitoring and control practices as well as scenario calculations to assess capital adequacy.

The central cooperative Executive Board adopts at least once a year a Group-level capital plan. Its main conclusions are communicated to the central cooperative's Supervisory Board.

Each OP Financial Group entity is responsible for its capital adequacy and must set its capital adequacy targets and limits according to guidelines set by the central cooperative.

In any potential crises, capital allocation within OP Financial Group is primarily performed on a market consistency basis through voluntary arrangements. The central cooperative is in charge of capitalising OP Financial Group entities in cases where the entity's own resources are insufficient to secure its operational capacity. Ultimately, capital allocation within the amalgamation of cooperative banks is based on the provisions of the Act on the Amalgamation of Deposit Banks.

2.5 Liquidity management

OP Financial Group's Treasury acting within OP Corporate Bank plc is responsible for the Group's liquidity on a centralised basis and manages the liquidity buffer. OP Corporate Bank gets funding for the Group from wholesale markets according to the funding plan.

OP Financial Group manages its liquidity position by means of

- proactive planning of funding structures, the Group's risk tolerances and risk limits, as well as limits, control limits and target levels derived from them for Group entities;
- monitoring the liquidity status and a liquidity buffer of the right size;
- planning and managing daily liquidity;
- contingency planning based on emergency levels; and
- effective and ongoing control of the liquidity status.

A solid funding structure requires that the loan portfolio and OP Financial Group's liquidity buffer be funded not only through

deposit funding and short-term funding but also through long-term wholesale funding.

2.6 Control and reporting

Risk and capital adequacy management control adheres to the Internal Control Principles confirmed by the Supervisory Board. The central cooperative's independent Risk Management controls the risk and capital adequacy management of the Group and its entities and analyses their risk exposure. It also controls the maintenance of their risk exposure, capital adequacy and liquidity within the confirmed risk tolerances, limits and control limits.

Risk Management reports regularly on its observations and assessments to the central cooperative's Supervisory Board and its Risk Management Committee as well as the Executive Board and its committees.

The fact that reports on measurable risks are produced for Group entities on a centralised basis and separate from any business operations also ensures the independence of risk reporting.

3 Organisation of risk and capital adequacy management

Risk and capital adequacy management is organised in such a way that it is in sufficient proportion to the nature, extent and diversity of OP Financial Group and each business segment and entity.

The central cooperative is in charge of the OP Financial Group level risk and capital adequacy management. At Group level, risk management is carried out independent of business operations. OP Financial Group entities are responsible for their own risk and capital adequacy management. The application of the independence principle is determined separately in the Group entities' own guidelines, taking into consideration the extent and nature of their business.

3.1 Risk and capital adequacy management's three lines of defence

OP Financial Group's risk management has been integrated as an integral part of the Group's business and management. Each OP Financial Group entity focuses on carrying out its role according to its service capabilities and risk capacities in accordance with shared business models.

OP Financial Group's risk management is built on three lines of defence.

The first line consists of risk management applied within business and other operations. It supervises risk decisions and manages documentation and the monitoring of risk retention levels.

The second line of defence consists of risk management independent of operational business organisations. It controls, supports and supervises the implementation of the principles, confirmed by the Supervisory Board, within OP Financial Group and its entities. It is in charge of the Group's risk management

framework, supervises the risk-decision process and is responsible for the Group's consolidated risk exposure and risk-capacity monitoring.

Internal Audit centralised in the central cooperative forms the third line of defence. It audits and evaluates both the Group's risk management framework and its application in the central cooperative and other Group entities. In its annual report, Internal Audit provides the Audit Committee of the central cooperative's Supervisory Board with its overall assessment of the risk management process.

3.2 OP Financial Group's risk management

OP Financial Group's Risk Management is a function independent of business that provides guidelines for, controls and supervises the overall risk management of the Group and its entities, and analyses their risk exposure. Risk management focuses on preventive work, preparation and proactive analysis and control of risk exposure as well as on ensuring regulatory compliance of risk management. The objective is to secure the Group's and its entities' sufficient risk capacity and to ensure that any business risks taken do not threaten profitability, capital adequacy, liquidity, business continuity and the achievement of strategic targets.

Risk Management is in charge of the Group's risk management process and supports Group entities in risk management implementation. It supports the efficient use the Group's balance sheet by analysing the balance sheet on a risk-driven basis vis-à-vis counterparty, price, interest rate and liquidity risks. Risk Management also supports capital adequacy management by developing and supervising the principles, models and methods of the measurement of economic capital requirement deriving from risks and of that based on regulatory requirements. Moreover, it maintains, develops and prepares risk management principles for approval by the Executive Board and Supervisory Board.

The Risk Management organisational structure supports the review of risk positions, risk management processes and risks by risk type. In addition, Risk Management ensures the monitoring of the consolidated risk exposure at Group and entity level as well as the required internal independence of risk management roles.

Risk Management is divided into the following three departments with responsibilities confirmed by the Chief Risk Officer:

- Capital Requirement and Validations
- Risk Positions
- Risk Management Processes

The Capital Requirements and Validations department is responsible for ensuring that the adequacy of the Group's capital and liquidity is assessed on an ongoing basis. This is performed by supervising the comprehensiveness of risk management and the development of overall risk exposure. The department also supports and supervises capital adequacy and liquidity management as well as the internal management and governance of Risk Management. It is also in charge of developing, controlling and supervising the management framework of the Group's model risks (principles and practices). Through annual validations and other quality assurance tools, the department assesses as part of this framework the reliability of the income statement and balance sheet items and of risks as well as of the business pricing and decision-making models and of the processes and systems they use.

The Risk Positions department supervises and analyses the Group's risk-taking by ensuring that the Group and its entities remain within the confirmed risk tolerances, limits and control limits. It also support the credit process by ensuring compliance with the risk policy in lending. It is also responsible for monitoring default customers, deciding on the Group's internal rating and monitoring the functionality and reliability of credit risk models. In respect of market, underwriting and liquidity risks, the department the department is responsible for the development, control and supervision of the risk management framework (principles, practices and processes.

The Risk Management Processes department is responsible for the development, maintenance, provision of instructions and supervision of the principles, practices and measurement of the credit risk management process for the Group and its entities (owns the process). The department is also responsible for the development of all models owned by Risk Management, and for the coordination of information management needed by the entire risk management function.

In June 2018, the Internal Control Support function, with Compliance acting as its part, transferred from the Risk Management function to the Legal Services and Compliance function.

3.3 Supervisory Board

OP Cooperative's Supervisory Board adopts, among other things, OP Financial Group's strategy and other objectives and policies and practices. It confirms the Group's principles of internal control and Risk-taking system and Risk Appetite Framework, the control system principles required by joint and several liability, the capital plan principles, the Group's annual plan and Group-level risk tolerances concerning capital adequacy and risk types. It also adopts the general principles and policies concerning OP Financial Group's remuneration and decides on long-term remuneration schemes. The Supervisory Board monitors the progress of strategy implementation and the development of the Group's and the central cooperative consolidated's business, risk capacity and risk exposure and its maintenance within the risk tolerances and limits.

3.3.1 Supervisory Board committees

The Supervisory Board of OP Cooperative has set up committees to support the performance of its duties, of which the Risk Management Committee is the most important one with respect to capital adequacy management. The committees are not as a rule authorised to make decisions independently.

The Risk Management Committee, among other things, assists the Supervisory Board to ensure that a sufficient risk management system is in place and that no exposure is so large that it can jeopardise business continuity, capital adequacy, liquidity or strategy implementation. It also assists the Supervisory Board in matters relating to the central cooperative's and the entire Group's risk tolerances and risk-taking, and in supervising compliance of the central cooperative's Executive Board with the risk tolerances determined by the Supervisory Board. The Committee also assists the Supervisory Board's Remuneration Committee in creating sound remuneration schemes.

3 4 Executive Board

OP Cooperative's Executive Board is tasked with controlling the amalgamation's operations and issuing instructions to the member credit institutions within the amalgamation on risk management, good corporate governance and internal control to secure liquidity and capital adequacy, as well as on compliance with standardised accounting policies in the preparation of the amalgamation's consolidated financial statements. It also supervises compliance of the companies within the amalgamation with the laws and decrees governing the financial position, regulations issued by the relevant authorities, their own bylaws or articles of association, and instructions issued by the central cooperative.

The Executive Board annually adopts OP Financial Group's risk policy and the risk limits of the central cooperative consolidated's entities. It also adopts the risks included in economic capital and the stress testing framework. It is also responsible for ensuring that the systems and procedures concerning risk and capital adequacy management are sufficient and up to date.

The Executive Board reports to the Supervisory Board and its Risk Management Committee on changes in the business, risk capacity and risk exposure of the Group, the central cooperative and its entities.

3.4.1 Executive Board committees

To support the performance of its duties, OP Cooperative's Executive Board has set up committees, of which the ALM and Risk Management Committee as well as the Control and Compliance Committee were the most important ones in 2018 in respect of risk management. The committees make decisions on matters delegated to them by the Executive Board.

The ALM and Risk Management Committee supports the Executive Board in steering and managing OP Financial Group's risk capacity and risk appetite according to the operating principles and decisions confirmed by the Supervisory Board. The Committee also assists the Executive Board in ensuring that the central cooperative and its consolidation group have adequate capital adequacy management and risk management systems in place covering all operations.

The Control and Compliance Committee's primary duty is to support the Executive Board in the central cooperative's implementation of control and supervision of the central cooperative consolidated and cooperative banks based on the principles issued by the central cooperative's Supervisory Board. The Committee is engaged in general control of the central cooperative consolidated and all OP cooperative banks and in bank-specific control.

In addition, there were two coherent OP Financial Group's committees in 2018 appointed by the Executive Board and subordinated to it and under its supervision ensuring risk management: Risk Management Committee and Credit Risk Committee.

The Risk Management Committee is responsible for ensuring that OP Financial Group has the ability to operate successfully in the long term by making sure that the principles, methodologies, models, metrics valuations and instructions of the Group's risk and capital adequacy management systems correspond to the best estimates of the independent Risk Management and comply with the principles based on the Risk Management Guidelines adopted by the Executive Board.

The Credit Risk Committee controls the limiting system of the Group's counterparty risk and controls the limiting system of the Group's counterparty risk and confirms limit and exposure limit decisions made by business ensuring that they are in line with the risk tolerances determined by the Supervisory Board, the risk policy that expands on it and confirmed by the Executive Board as well as with other principles in force. Furthermore, it monitors the loan portfolio in terms of quantity, quality and structure.

Both committees have reported to the Executive Board's ALM and Risk Management Committee.

3.5 Central cooperative subsidiaries

In their operations, the central cooperative consolidated subsidiaries apply OP Financial Group's principles of the risk-taking system and the Risk Appetite Framework adopted by the central cooperative's Supervisory Board as required by the nature and extent of their business.

The entity's executive management is responsible for the implementation of risk and capital adequacy management according to the principles and operating policies that have been agreed on, and reports regularly on the entity's business, risk capacity and risk exposure to the board of directors.

The duties of risk and capital adequacy management of OP Financial Group's and the central cooperative's subsidiaries (the second line of defence) have been centralised in the parent entity.

3.6 OP cooperative banks

An OP cooperative bank's risk management is organised in accordance with the general instructions issued by OP Cooperative to its member banks. The OP cooperative bank's supervisory board oversees the cooperative bank's administration managed by the board of directors and the managing director. The supervisory board's Audit Committee assists the supervisory board in the latter's supervisory duties. In addition, it assesses, for its part, the bank's risk exposure and the sufficiency of risk management.

The OP cooperative bank's board of directors is responsible for the sufficiency of risk management systems. The board of directors confirms, for example, the bank's action plans, goals, capital plan and the risk limits regarding capital adequacy and various risk types. Furthermore, it regularly supervises and monitors the bank's business, risk capacity and risk exposure. In controlling the banks' operations, the board of directors adheres to the Group's principles.
The managing director is responsible for the implementation of practical risk and capital adequacy management measures. The managing director reports regularly to the board of directors, supervisory board and OP Cooperative on the bank's business, risk capacity and risk exposure.

The central cooperative's Risk Management guides and supports OP cooperative banks' risk management. The largest OP Financial Group member cooperative banks have a risk management function independent of operational decision-making. In small and mid-size banks, the managing director is in charge of risk management, receiving expert support from the central cooperative for the management of credit risks, operational risks and compliance risks.

In OP cooperative banks, the risk-management assessment independence of business operations is based on reports produced by the central cooperative's Risk Management, the bank risk categorisation carried out by the central cooperative as well as the assessment by OP Financial Group's Internal Audit concerning the status of the bank's capital adequacy management.

OP Financial Group's Internal Audit helps OP cooperative banks to reach their objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, control and governance processes. Internal audit is based on an independent and objective assessment, assurance and consulting activities.

4 OP Financial Group's risks

Risks associated with OP Financial Group's business segments differ in terms of weight. Credit risks and market risks play a pronounced role in Banking, the most significant of which include interest rate risk in the banking book as well as liquidity risk and related customer behaviour. Market risks associated with investment and insurance liability play a pronounced role in insurance operations. In Life Insurance, the customer behaviour of policyholder also plays a key role. The role of operational risks will increase in all business segments as services go digital and the role of the commission-based business increases. With regulation becoming more complex and supervision tightening, compliance risk management is highlighted in all functions.

In both banking and insurance operations, model risk has become essential as models affect, for example, risk selection, values of insurance liabilities, capital adequacy requirements, expected credit losses, prices of loans and insurance policies and the measurement of credit risks associated with derivative contracts.

The size of the Group and various business areas provide significant risk diversification benefits. Meanwhile, however, the role of various concentration risks will increase.

The table below describes OP Financial Group's significant risks. The paragraphs below the table describe the nature of the risks and how they can be managed.

OP Financial Group's significant risks

Strategic risks	Risk caused by changes in the business environment, inadequate response to changes in the competitive environment or customer behaviour, poor choice of the strategy or poor strategy implementation.
Operational risks	Risk of financial loss or other detrimental consequences caused by inadequate or failed processes, inadequate competence, inadequate or flawed procedures or systems or some external factors. Operational risks also include ICT, security, data security and procedural risks.
Model risks	Risk of loss or of loss of reputation caused by such decisions made on the basis of the results of the models, in which the errors in the development, implementation or use are the reason.
Compliance risks	Risks caused by non-compliance with external regulation, internal policies, appropriate procedures or ethical principles governing customer relationships.
Reputational risks	Risk of deterioration of reputation or trust caused by negative publicity or realisation of some risk.
Credit risks	Risk arising from the counterparty not fulfilling obligations established through a credit relationship or from the customer's weakening creditworthiness that leads to an increase in capital requirement. Non-fulfilment of other obligations of a counterparty is also known as counterparty risk.
Concentration risks	Risks that may arise of a business's excessive concentration on individual customers, products, lines of business, maturity periods or geographical areas.
Market risks	Market risks comprises structural market risks associated with the balance sheet (market risks associated with the banking book and insurance liability) and those associated with trading and long-term investment. Market risks include all interest rate, equity, currency, credit spread, volatility and property risks associated with on- and off-balance sheet items as well as other possible price risks.
Liquidity risks	Liquidity risk comprises funding liquidity risk, structural funding risk, funding concentration risk and asset encumbrance.
Non-life insurance risks	Non-life insurance risks comprise risk of loss or damage, and provision risk.
Life insurance risks	Life insurance risks comprise biometric risks, cost risk and customer behaviour risks.
Customer behaviour risks	Risk of change in customer behaviour that affects, for example the value of insurance contracts, volume of deposits or early repayments of contracts.

5 Strategic risks

Identifying strategic risks and opportunities forms an integral part of OP Financial Group's strategic planning and continuous business development. Strategy statements are discussed extensively within OP Financial Group before being confirmed and implemented.

As part of the ongoing strategy process, OP Financial Group assesses strategic risks, identifies related control measures and assesses their effects, for example, on the Group's overall risk exposure and economic capital requirement. OP Financial Group takes account of risks stemming from its operating environment by implementing proactive risk management and systematically monitoring its operating and competitive environment. Strategic risk is reduced by regular planning, based on views of customer needs, developments in different sectors and market areas, and of competition.

The strategic risks are subject to regular reporting and the central cooperative Executive Board and Supervisory Board discuss and monitor related actions. The representatives of governing body members, senior management and business lines are involved in assessing the significance and probability of strategic risks.

6 Operational risks

The aim of operational risk management is to ensure that operations have been organised appropriately and that risks do not result in unforeseeable financial losses or other negative consequences, such as loss of reputation. The Group is continually maintaining and enhancing a corporate culture that takes a positive approach to operational risk management and internal control.

The target risk-taking level set for operational risks is moderate. The Group further develops operational risk limits describing a moderate risk level. Owing to the nature of operational risks, their limit levels are threshold values. In 2018, MIM failures (major incidence management), the usability of systems and operational risk events were the

threshold values for the OP Financial Group-level operational risks.

The key area of operational risk management involves identifying and assessing risks and assessing the effectiveness and adequacy of risk control and management tools. Before any new business models (including outsourcing) are carried out or products or services are launched, their risks are assessed as laid down by the central cooperative's Risk Management. All OP Financial Group products offered to customers and business models in place have been approved at Group level. Risks that may disrupt business continuity are prepared against by means of business continuity planning in key business divisions. Business continuity planning also forms the basis for preparation against emergency conditions referred to in the Emergency Powers Act. Business continuity plans are tested according to testing plans that have been made.

Any possible effect of a materialised operational risk may be transferred outside the Group through insurance. The evaluation of the necessity for insurance depends on the nature of each entity's business and the level of risk management.

In its operational risk management, OP Financial Group adheres to a uniform, system-supported operating model or an operating model approved by Risk Management. In this model, the Group's entities assess operational risks, involving identifying and assessing business risks and defining and monitoring measures designed to reduce them. The Group also monitors occurred risk events and close calls and losses suffered by other financial sector players, and analyses them and ensures adequate methods to prevent similar losses.

Group entities are responsible for the management of their own operational risks as required by the nature and extent of their business (including outsourced services/functions).

6.1 Monitoring and reporting operational risks

OP Financial Group entities identify operational risks associated with major products, services, functions, processes and systems, and outsourced services/functions. Risk identification also involves paying attention to the illegal use of banking systems, such as risks associated with money laundering and terrorism financing. OP Financial Group assesses the significance of identified risks on the basis of their financial effect and probability. The information obtained is used to support planning, decision-making and management.

Operational risks are reported regularly to the management of the central cooperative and the entities.

7 Model risks

The significance of model risks has increased when risk assessment increasingly rests on quantitative methods, valuation methods used in accounting are used on a more extensive basis and business automation leads to decision-making to gradually hinge on model-based decision engines.

The Group manages model risk through well-defined roles and responsibilities as well as by ensuring adequate knowledge of quantitative methods and resource allocation. The development of models is segregated from their validation while the approval of models is segregated from the decisions of their implementation. The functionality of the models in use is assessed through monitoring and validation.

8 Compliance risks

Compliance risk forms part of operational risk. Compliance activities are aimed at ensuring that all OP Financial Group entities comply with laws, official instructions and regulations, self-regulation of markets, and internal guidelines, policies and instructions of OP Financial Group and the entities. Compliance also ensures that customer relationship management complies with appropriate and ethically sound principles and practices.

Materialisation of compliance risk may result not only in financial loss but also other adverse consequences, such as sanctions. Such sanctions may include a corporate fine and separate administrative fines for violation of obligations, and public warnings and reprimands. Compliance risk may materialise in terms of loss or deterioration of reputation or trust.

Responsibility for regulatory compliance and its supervision within OP Financial Group entities rests with the senior and executive management and all supervisors and managers. Everyone employed by OP Financial Group is responsible for his/her own part for compliance with regulations.

Guidelines, advice and support concerning compliance within OP Financial Group are the responsibility of the compliance organisation that is independent of the central cooperative. Central cooperative consolidated entities have concentrated compliance functions in the centralised compliance organisation, in addition to which the most significant central cooperative consolidated companies have their own compliance officers. Each OP cooperative bank has a designated person to ensure regulatory compliance.

8.1 Compliance risk management tools

Managing compliance risks forms part of internal control and good corporate governance practices and, as such, an integral part of business management duties and the corporate culture. Compliance risk management tools include monitoring legislative developments, providing the organisation concerned with guidelines, training and consultation in respect of observing practices based on regulation as well as supervising regulatory compliance with procedures applied within the organisation.

8.2 Compliance risk monitoring and reporting

Compliance risks are identified, assessed and reported regularly according to the operational risk management model as part of the assessment of operational risks. Any observations made by

Compliance are reported regularly to the business lines, the central cooperative's Executive Board and the Supervisory Board's Risk Management and Audit Committees.

9 Reputational risk

Reputational risk is managed proactively and in the long term by complying with regulation, good practices of the financial sector and OP Financial Group's Code of Business Ethics and by emphasising transparency of operations and communications. OP Financial Group adheres to international financial, social and environmental responsibility principles and international commitments.

Reputational risks are reported regularly to the management of the central cooperative and the entities. Any threat to imminent reputational risk will be reported immediately.

10 Credit risks

The principles based on OP Financial Group's Risk-taking system and Risk Appetite Framework, and Risk Policy are used to control credit risk. The credit risk policy defines, for example, the target risk exposure level, risk-taking principles and restrictions as well as the principles governing customer selection, collateral and financial covenants that are used to ensure the sufficient diversification of the loan portfolio and to avoid excessive risk concentrations by customer group, industry, borrower grade, maturity period or country.

OP Financial Group's credit risk derives primarily from private and corporate customer financing within Banking. Credit risk also derives from investment by insurance operations,from reinsurance and insurance premiums. Credit and country risks related to credit institutions arise mainly from liquidity management by banking and investment by insurance institutions. Funds are mainly invested in notes and bonds eligible as collateral for central bank refinancing, such as government bonds or mortgage-backed bonds. In insurance institutions' investments, government bonds and bonds issued by companies and credit institutions with a high credit rating have a significant weight in the investment portfolio. Counterparty and country risks also arise from interest rate trading, the management of the portfolio of notes and bonds, and the Group's foreign trade financing.

Unsecured retail exposures and leasing and factoring have been centralised within the central cooperative's Banking.

10.1 Credit risk management

Credit risk management is based on active customer relationship management, good knowledge of customers, strong professional skills and comprehensive documentation. The day-to-day credit process and its effectiveness play a key role in the management of credit risks. A customer's sufficient debt-servicing capacity is the prerequisite for all lending. Careful and deliberate lending decisions are based on decision-making guidelines and updated credit rating. Credit rating controls customer selection, consequences of insufficient collateral and exposure pricing. Target values by borrower grade have been set for OP Financial Group's and its member banks' new lending and loan portfolio to maintain good loan portfolio quality.

OP Financial Group ensures the repayment capacity of private customers against higher interest rates as well. Customers can protect their loans against higher interest rates by choosing a fixed interest rate, an interest rate cap or corridor. In lending, the Group avoids high financing percentages. Customers are offered payment protection insurance in the case of illness or unemployment.

The assessment of corporate customers' debt-servicing capacity and credit risk uses not only credit ratings but also payment behaviour data, financial statements analyses and forecasts, corporate analyses, statements and sector reviews, and customer needs analyses, credit rating assessments and other documents produced by the banks' account managers. Corporate customers can protect against higher interest rates using an interest rate cap or interest rate corridor.

OP Financial Group mitigates credit risks by using collateral, financial covenants, central counterparty clearing, netting agreements and exchange-traded products. Settlement risk management focuses on ensuring the reliability of a counterparty, and the Group mitigates the risk by concluding standard agreements and using only reliable clearing centres.

In order to ensure repayment, collateral is provided for exposure, and any retail banking exposure is primarily secured by hard collateral. With respect to larger corporate customers in particular, the Group also uses financial covenants to ensure the availability of information and an option to re-evaluate loan terms and conditions, collateral requirements or pricing should the risk status changes. Insufficient collateral may be acceptable in the best borrower grades.

Separate instructions apply to collateral assessment and use of financial covenants. Collateral evaluation is based on the principle of independent evaluation and a prudent approach to fair value. Maximum valuation percentages for each type of collateral have been specified and the Group monitors developments in collateral values on a regular basis. The Group follows and monitors the values of home collateral using index data produced by Statistics Finland. The Group exercises special care in assessing the value of collateral deemed as cyclical in nature. In case a customer gets into difficulties or the collateral's value changes significantly, the Group checks whether there is need for collateral re-evaluation.

The Group responds to any foreseeable problems as early as possible. The operating models for potential default and default customers are described to ensure uniform treatment of private, corporate and agricultural customers. Customers whose financial status performance, credit risk and payment behaviour justify a more detailed review are subject to special control. The need for changing the customer's credit rating is also assessed at the same time. This often also means changes in loan decision levels.

In insurance operations, credit risk management is based not only on customer selection but also on credit control and investment plans. Reinsurance credit risk is managed by using companies with a sufficient creditworthiness.

10.2 Credit risk monitoring and reporting

The Group monitors developments in credit risks regularly relative to the set tolerances, limits, control limits and targets. In addition, it monitors the quality and structure of the loan portfolio, the adequacy of collateral and doubtful receivables.

Credit risk is measured based, for example, on the ratio of doubtful receivables to the loan and guarantee portfolio and the economic capital relative to exposure at default. Concentration risk associated with the loan portfolio is measured through industry risk, individual customer risk and total significant customer risks as well as country concentration risk.

10.3 Credit risk models

OP Financial Group uses credit risk models for Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD).

Credit risk models

Probability of loan defaults within 12 months	=	Probability of default (PD), %
Estimate of the loss caused by a loan default	=	Loss given default (LGD), %
Estimate of the sum the customer would owe the bank in case of default	=	Exposure at default (EAD), €

The Group makes extensive use of credit risk models in measuring and managing credit risk, such as in

- lending and pricing;
- specifying financing decision-making powers;
- setting and monitoring the loan portfolio's qualitative targets;
- credit risk reporting;
- capital adequacy measurement using the Internal Ratings Based Approach (IRBA);
- measuring economic capital requirement and expected loss; and
- measuring expected credit loss.

10.3.1 Credit rating and probability of default

The purpose of credit rating is to group customers (agreements in the case of private customers) by borrower grade based on probability of default. Default means that some of the customer's exposures becomes a receivable to OP Financial Group that is over 90 days past due or some other more severe payment default. A default customer also means a customer who does not fully meet his/her payment obligations without the bank's measures (e.g. realisation of collateral). Probability of default, or PD, is the average proportion of default events estimated for each borrower grade during one year over the economic cycle. When the economy is thriving, the actual proportion of default customers in a given borrower grade is lower than the estimated PD.Probability of default increases by many times when moving to lower borrower grades compared with high borrower grades.

10.3.2 Assessing probability of default of private customer agreements

OP Financial Group uses a 16-level scale of A F to assess the probability of default for its private customer agreements, with F representing defaulting borrowers.

The Group assesses monthly all private customer agreements' PD using loan portfolio rating models. Specific models apply to OP cooperative banks' home loans, OP cooperative banks' other

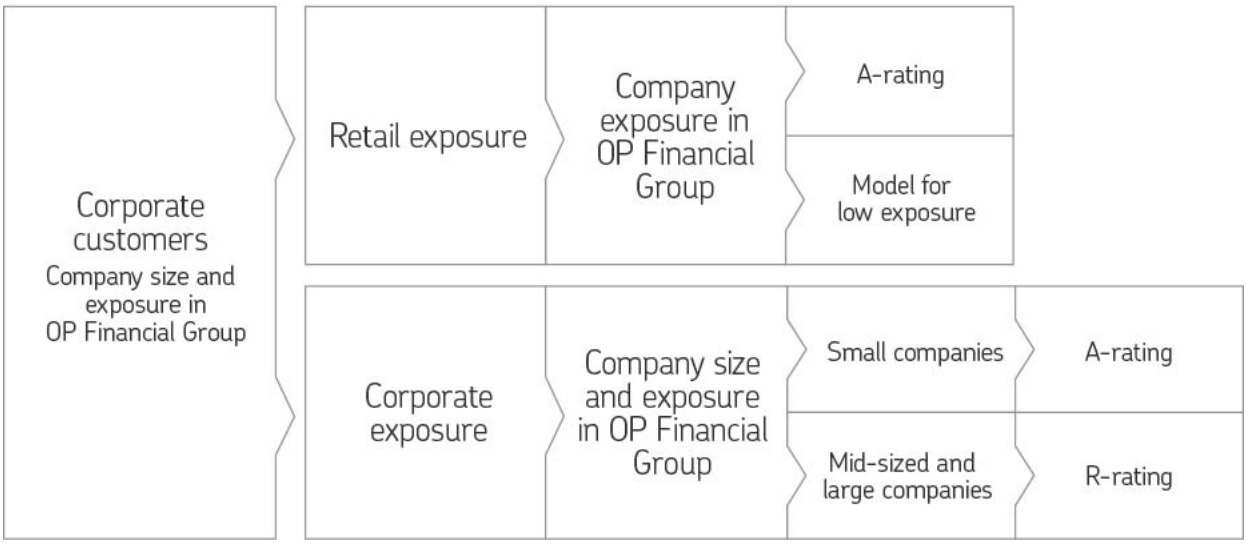
loans as well as to the agreements of OP Card Company and finance company products. The loan portfolio rating is based on a customer's basic data, payment behaviour and other transaction history data. The scores calculated on the basis of this data determine the borrower grade. Average PDs have been calculated for each borrower grade for a period of 12 months. The loan portfolio rating model is used for credit risk assessment and capital requirement measurement.

OP Cooperative banks use an application stage rating model that covers most of the promissory notes granted to private customers. The Group's finance company products and OP Card Company's consumer loans have their own specific application stage models. The application stage rating takes place as part of OP Financial Group's loan approval process. The rating based on the application stage supports the loan approval process, credit risk assessment and the pricing of new loans.

10.3.3 Assessing corporate customers' probability of default

OP Financial Group assesses the probability of default of its corporate customers using its internal 20-level credit rating system on a scale of 1.0 12.0, with 11 12 borrower grades representing default customers.

Rating of corporate customers in OP Financial Group



The R rating for mid-size and large corporate customers is based on the company's financial indicators and qualitative background data on the basis of which a statistical model generates a proposal for rating. An expert familiar with the customer will make a rating proposal on the basis of what is suggested by the model and on any other information available. Any changes and uncertainties relating to the future outlook will be regarded as warning signs and exceptions to the rating provided by the model. The borrower grade is determined by the central cooperative's independent Risk Management, based on the rating proposal, at least once a year and, in respect of potential default customers, on a half yearly basis.

Suomen Asiakatieto's automated rating model, Rating Alfa, forms the basis of small corporate customers' A rating. The rating Alfa variables include information on payment default and payment practices of the company or its persons in charge, key indicators based on financial statements and the customer's basic data. Risk scores provided by the rating Alfa and OP Financial Group's internal payment behaviour data are used to generate OP Financial Group's borrower grades that will be changed based on expert assessments, if need be.

The validity of the borrower grade of almost all A-rated customers within the Corporate Exposures group is assessed at least once a year.

Low exposure corporate customers are rated using a rating model for low exposures. The rating model is an automated rating model calculated on a monthly basis that is created on the basis of the customer's basic data, transaction data and payment behaviour data.

Borrower grades generated by the corporate rating models are comparable because, irrespective of the model, each borrower grade is subject to the same probability of default. In deriving probability of default, the central cooperative consolidated has used recent years' actual payment default data, long-term loan loss data and bankruptcy statistics and the cyclical nature of the model. The need for updating probabilities of default for each grade is assessed annually.

OP Financial Group's credit ratings for corporate customers and Standard & Poor's (S&P) equivalent

S&P Rating	AAA...AA-	A+...A-	BBB+...BBB-	BB+...BB-	B+...B-	CCC+...C
OP Financial Group	1.0–2.5	3.0–4.0	4.5–5.5	6.0–7.0	7.5–8.5	9.0–10.0

10.3.4 Assessing credit institutions' probability of default

Credit institution exposure is divided into 20 grades ranging from 1.0 to 12.0, with defaulted customers falling into categories 11–12.

A specific L rating model is used to assess the probability of default of credit institutions as counterparties, the structure of which corresponds to the R rating model.

The statistical model as the basis of the credit rating is based on financial indicators in financial statements and on qualitative background data. Such rating can be revised by an expert with warning signs and, in many cases, rating is also affected by the parent company's support to the banking group and by the Sovereign Ceiling rule whereby the counterparty cannot be better than the country concerned in terms of creditworthiness. The independent Risk Management within the central cooperative decides ratings for credit institutions at least once a year.

OP Financial Group's credit ratings for credit institutions and Standard & Poor's (S&P) equivalent

S&P Rating	AAA...AA+	AA...BBB+	BBB...BBB-	BB+...BB-	B+...B	B-...CCC
OP Financial Group	1.0–2.0	2.5–4.5	5.0	5.5–7.0	7.5–8.0	8.5–10.0

10.3.5 Loss given default (LGD) and exposure at default (EAD)

In addition to the models used for assessing probability of default, OP Financial Group uses models for predicting loss given default (LGD) and exposure at default (EAD) to measure credit risk. EAD refers to the estimated amount of the bank's receivable from the customer at default. Off-balance-sheet exposures at default are determined on the basis of the conversion factor (CF). Loss Given Default, or LGD, is an estimate of a financial loss incurred by the bank, as a share of EAD, if the customer defaulted.

10.3.6 Use of credit risk models in capital adequacy measurement

For the measurement of credit risk for capital adequacy, OP Financial Group has permission from the supervisory authority to use the Internal Ratings-based Approach for corporate and credit institution exposures, retail exposures and equity investments.

OP Financial Group applies the Foundations Internal Ratings Based Approach (FIRBA) to measure capital adequacy requirement for credit risk on corporate and credit institution exposures. In FIRBA, an estimate of probability of default (PD) generated by OP Financial Group's credit risk models affects the capital adequacy requirement for credit risk associated with the customer. Regulatory standard estimates are used for LGD and CF.

The Group uses FIRBA to calculate the capital requirement for credit risk on retail exposures, in which the capital requirement is affected by the PD, LGD and EAD values of OP Financial Group's internal credit risk models. OP Financial Group uses the Standardised Approach (SA) for government and central bank exposures and for some other exposure categories (like those of the Baltic countries and OP Card Company). Since 30 September 2018, the Internal Ratings-based Approach has applied to six member cooperative banks transferred to OP Financial Group in 2015. The Standardised Approach was previously applied to them. As a rule, a simple model applies to equity investments. The PD/LGD method applies to OP Financial Group's strategic investments, where the PD values are based on internal models and LGD values on standard estimates.

10.3.7 Decision-making and assessment related to credit risk models

The models are developed and maintained by Risk Management, independent of business lines/divisions. In the development of new models and changes in models in production, the approval of the content by Risk Management is segregated from the implementation decision made by the executive management. If such adoption requires permission from or notification to the relevant authority, Finance and Treasury will apply for the required permit before any decision on the adoption.

The effectiveness of the credit rating process and credit risk models is subject to regular monitoring and supervision. The monitoring is aimed at giving real-time picture of the

functionality and quality of the credit risk models by assessing the performance of the model by means of quantitative and qualitative reviews. If the reviews performed during the monitoring reveal that the model's functionality has deteriorated, the related observation can be submitted to the Risk Management Committee. In less severe cases, it is possible to issue recommendations based on the monitoring, for example, to fix the process related to the adoption of the process or to analyse the model performance in greater detail in validation. The monitoring includes analysing data, used methods, model structure, variables, model usability and operating process. Monitoring the credit risk models concerns the PD and LGD models, conversion factor (CF) and IFRS 9 models within the scope of IRB permission. OP Financial Group's Risk Management also collects continuous feedback from the business lines/divisions on the effectiveness of the credit rating process and credit risk models.

The Group also assures the quality of the models at least once a year in accordance with the validation instructions approved by the Risk Management Committee. The set of the validation instructions contains requirements for quality assurance carried out when adopting a model. Validation uses statistical methods to test, for example, the model's sensitivity and the validity of risk parameter estimates (PD, LGD and EAD). Validation also involves qualitative assessment, such as feedback received from monitoring, and a peer group analysis. The results of validation and any proposals for development measures are reported to the Risk Management Committee, which decides on any improvements on the basis of the validation.

OP Financial Group's Internal Audit performs audits to ensure the independence of validation. It also controls the risk model development process and the appropriate and extensive use of the models on the basis of its risk-based assessment.

10.4 Securitisations

OP Financial Group has not acted as an originator or manager of securitisation transactions but has invested in securitised assets. The underlying assets that have been securitised are subject to regular monitoring. In calculating the total amount of the risk-weighted assets of securitisation exposures, the Group has used IRBA to credit risk when the securitisation exposure belongs to the exposure category to which the assessment model based on credit rating is applied.

10.5 Counterparty risk

Counterparty risk associated with derivative contracts arises from receivables which OP Financial Group may have from its counterparties in case they default.

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

The Group measures counterparty risk using a fair value model, whereby the value of liability comprises the contract market value and the expected potential future exposure. The market value of counterparty credit risk adjusted using a Credit Value Adjustment (CVA) is determined at counterparty level.

OP Financial Group's portfolio of derivatives consists mainly of interest rate derivatives in which no parallel correlation exists between the creditworthiness of the counterparty to the derivative contract and interest rates (so-called Wrong Way Risk).

OP Financial Group manages counterparty risks associated with derivative contracts through master agreements enabling netting related to bankruptcies, through collateral and optional early termination. The Group confirms counterparty exposure limits once a year when it also checks the amount and the status of collateral applying to limits for derivatives. OP Financial Group uses netting for counterparty exposure arising from derivative contracts in both capital adequacy measurement and the monitoring of credit risk limits. Derivative contracts are also novated to a central counterparty.

11 Concentration risks

Concentration risks associated with OP Financial Group arise, for example, from Finland being as the main market, customer, industry and country concentrations, insurance entities' investment as well as from funding.

The management of concentration risks is closely integrated with other risk management, and these are monitored on a regular basis. Concentration risk management is based on Group-level guidelines and principles as well as risk tolerances and limits that are used to ensure sufficient diversification in terms of time and quantity and to avoid excessive risk concentrations by customer group, financial instrument, industry, borrower grade, maturity period and country. Funding sources are also diversified by geographic region, market and investor.

12 Liquidity risks

Liquidity risk comprises funding liquidity risk, structural funding risk, funding concentration risk and asset encumbrance. Funding liquidity risk refers to the risk that OP Financial Group will not be able to meet its current and future cash flows and collateral needs, both expected and unexpected, without affecting its daily operations or overall financial position. Structural funding risk refers to uncertainty related to long-term lending, arising from the refinancing risk due to the structure of funding. Funding concentration risk refers to the risk that funding becomes more difficult due, for example, to a transaction related to an individual counterparty, currency, instrument or maturity band. Encumbrance of assets means risk of securing liquidity and reducing free collateral used as funding collateral.

Liquidity risk management is based on the principles of OP Financial Group's risk-taking system and Risk Appetite

Framework, Risk Policy lines as well as on the set tolerances, target levels and the limits and control limits derived from the Group limits to Group entities. The ALM and Risk Management Committee of the central cooperative's Executive Board has approved the qualitative targets set for the liquidity buffer, a funding plan, and a contingency funding plan in the case of threat scenarios. The contingency plan contains a control model for liquidity for various threshold levels, funding sources and a contingency funding plan for liquidity management at operational level.

OP Financial Group manages its liquidity position through the proactive planning of the funding structure, the monitoring of the liquidity status and a well-balanced liquidity buffer, planning and management of daily liquidity, the contingency plan based on emergency preparedness, as well as the effective and ongoing control of the Group's liquidity status.

Funding liquidity management is governed by the regulations governing the minimum reserve and marginal lending facility systems by the European Central Bank.

OP Financial Group safeguards its liquidity with a liquidity buffer and other sources of funding referred to in the contingency plan. The liquidity buffer and contingency plan items have been scaled in such a way that OP Financial Group will maintain its liquidity in a long-term liquidity shock too. Liquid funding may be made available for use by the Group by selling notes and bonds in the liquidity buffer or using them as collateral. The liquidity buffer consists mainly of deposits with the central bank and receivables eligible as collateral for central bank refinancing.

As OP Financial Group's treasury, OP Corporate Bank plc is tasked with securing the liquidity of the entire Group and each OP cooperative bank or Group entity. The Group's daily liquidity management refers to managing liquidity of the Group's companies engaged in banking. The liquidity of OP Financial Group's insurance and pension institutions transfers through bank accounts to the Group's overall liquidity. Any changes in their liquidity position will change OP Corporate Bank's liquidity position. The liquidity buffer of banking within the entire OP Financial Group is managed by the Group's Treasury.

OP Financial Group's funding planning is based on the proactive planning of the funding structure and on the tolerances set for the liquidity risk. Deposits from the general public and wholesale funding form the basis of OP Financial Group's funding. Wholesale funding is aimed at actively and proactively covering funding needs arising from the growth differentials between the receivables and the deposit portfolio in the balance sheet, funding maturity, other internal objectives and credit rating objectives. A solid funding structure requires that the loan portfolio and OP Financial Group's liquidity buffer be funded not only through deposit funding and short-term funding but also through long-term wholesale funding. Diversifying funding sources will reduce OP Financial Group's dependence on an individual source and decrease price risk associated with funding. The Group diversifies its funding by time, maturity, instrument and customer segment.

Any surplus deposits with member banks are mainly channelled to the central cooperative consolidated accounts or instruments it has issued in order not to increase the Group's wholesale funding unnecessarily. OP Corporate Bank manages on a centralised basis the Group's wholesale funding in the form of senior bonds and equity capital, while OP Mortgage Bank manages wholesale funding based on covered bonds.

The central cooperative's Executive Board is responsible for OP Financial Group's liquidity risk management and controls funding liquidity management using various threshold levels. In cases of market disruption, liquidity management relies on the liquidity contingency plan. Each entity within OP Financial Group controls its liquidity management within the framework of tolerances, limits and control limits issued by the central cooperative and guidelines and of account, deposit and loan terms and conditions.

Insurance operations' funding liquidity risk is assessed individually from each insurance business's viewpoint. Insurance companies' investment assets act as a liquidity buffer for the company concerned. The entities' liquidity requirements are taken into account in the investment portfolio weightings.

12.1 Monitoring and reporting liquidity risks

Monitoring and reporting liquidity risks exposed by the Group's entities vary from real-time to quarterly practices, depending on the nature and extent of their business. Monitoring and reporting are based on the Group's tolerances, limits and target values. Depending on the entity and reporting level, reporting practices may vary from daily cash-flow monitoring (funding liquidity) to the monitoring and forecasting of the long-term funding structure (refinancing risk).

For each of those liquidity levels, the Group has specified control and monitoring practices which become more rigorous when moving up to the next level. The Group reports liquidity risks to the Executive Board on a regular basis and, with a heightened threshold level of the liquidity status, will adopt weekly or daily progress reporting practices whenever necessary. Group entities report liquidity risks to their boards of directors regularly, applying at least the level which has been set for control limits and limits.

The effect of threats and future scenarios related to structural funding risk and funding liquidity risk on the Group's liquidity, financial performance and capital adequacy is stress-tested as part of its risk management and internal capital adequacy assessment process.

OP Financial Group has set its liquidity risk tolerances for the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The calculation of the LCR is based on rules issued by the authorities. The LCR requires that a bank have sufficient liquid assets that cover the net cash outflows from the bank in shocks. The NSFR measures the sufficiency of the amalgamation's stable funding relative to the stable funding requirement of business.

In addition, a Group-level limit has been set for net cash flows by maturity which guide the structural funding risk. The indicator describes the maximum portion of the net cash flows in the Group's balance sheet that may have a maturity within different time periods. Agreements with a maturity date are included in the analysis of structural funding risk according to the maturity date or any earlier repayment date. The maturities of accounts with no maturity date have been modelled.

The Group monitors long-term funding maturity using a maturity distribution, for which it has set limits. Concentrations by counterparty and instrument and asset encumbrance are also subject to monitoring.

Furthermore, OP Financial Group monitors funding liquidity risk in scenarios based on liquidity stress testing it has determined. The funding liquidity risk indicators show for how long the liquidity buffer will cover the known and predictable net cash flows payable daily outside the Group and any unexpected liquidity stress scenario.

The allocation breakdown of insurance investment portfolios is subject to regular reporting. Stress tests are also used to assess sensitivity to funding liquidity risk.

13 Market risks

Effective market risk management requires real-time and accurate information on exposures and markets and a quick response to changes. Due to this, OP Financial Group manages market risks on a more consolidated basis that other risks.

Market risks comprise structural market risks associated with the banking book and those associated with trading and long-term investment.

Market risks include all interest rate, equity, currency, credit spread and property risks associated with on- and off-balance sheet items as well as other price risks, if any. Market risk also affects the counterparty risk credit valuation adjustment (CVA).

The task of market risk management is to identify and assess market risks associated with business operations, mitigate them to an acceptable level, and report them regularly. This ensures that changes in market prices or other external market factors will not excessively deteriorate the long-term profitability or capital base of OP Financial Group or an individual Group entity.

OP Financial Group controls and restricts market risk-taking by following the principles of risk-taking system and Risk Appetite Framework and using the supplementary Risk Policy, risk management guidelines as well as tolerances, limits and control limits.

The Group assesses its market risks by means of sensitivity analyses, VaR (Value-at-Risk) analyses, and stress tests. The risk analysis is supplemented with stress tests because risk management must also takes account of the continuous opportunity for the emergence of new risk factors and the limited perspective of risk measurement performed on the basis of historical time series data.

OP Financial Group uses derivatives for trading and hedging purposes. OP cooperative banks uses derivatives only for hedging purposes. The Group monitors risks associated with derivatives used for hedging purposes as part of the exposure using the same benchmarks as for balance sheet exposure.

13.1 Structural market risk associated with the balance sheet

The most significant sources of the structural market risk in the balance sheet include the interest rate risk associated with the banking book and that associated with insurance liability. The interest rate risk associated with banking is by nature structural interest rate risk related to interest income from financing which is sensitive to changes in short-term interest rates. In Non-life Insurance and Life Insurance, interest rate risk arises when changes in the interest rate affect the value of and income from investment assets and the cash flows of insurance liabilities. The values of insurance companies' investments and insurance liabilities is sensitive to changes in long-term interest rates.

OP cooperative banks manage their interest rate risk by reducing the difference of floating rate receivables and debts. The difference can be reduced by actively reshaping the asset-liability position and through long-term business decisions. OP cooperative banks may also hedge against interest rate risk in their banking book by means of interest-rate derivatives as approved within the Group.

All interest-bearing on- and off-balance sheet items are included in the Banking interest-rate risk analysis. A Group-level tolerance has been set for an interest income risk, which measures the effect of a one-percentage-point parallel change on net interest income for the next 12 months. Another interest rate risk tolerance describes the effect of a two-percentage-point change in interest rates on the present value of the Group's Banking relative to the Group's permanent capital. As part of regular interest rate risk measurement and reporting, the Group carries out stress tests to analyse the effects of various interest rate changes on the present value of the interest rate risk exposure and on interest income risk.

In Life Insurance, interest rate risk is involved in obligations to policyholders that are included in insurance liabilities. These obligations consist of a binding income promise in insurance contracts and customer bonuses. Interest rate risk in Non-life Insurance arises from long-term annuities. The Group hedges interest rate risk for insurance liabilities of Life and Non-life Insurance using the investment portfolio and interest rate derivatives in order to bring the overall risk exposure to the target level set in the investment plan.

13.2 Market risks associated with trading

The purpose of trading is to benefit from market price changes and offer trading services to customers. Trading exposes OP

Financial Group to market and counterparty risks. The OP cooperative banks' trading books have fulfilled the terms and conditions of the small trading book determined under capital adequacy regulation, in which case the management of market risks and capital adequacy is executed as with the banking book.

Market risk associated with trading consists of interest rate, credit spread, volatility, currency, equity and commodity risks as well as price risk of investments in structured products. The Group limits market risks through VaR and sensitivity figure limits monitored on a daily basis.

13.3 Market risks associated with long-term investment

OP Financial Group's long-term investment includes investment by insurance companies and the management of the liquidity buffer. OP Financial Group secures its liquidity through a liquidity buffer maintained by OP Corporate Bank, consisting mainly of deposits with central banks and receivables eligible as collateral for central bank refinancing. Investments made by insurance companies are aimed at ensuring customer income (Life Insurance), obtaining assets covering insurance liabilities, and investing profitably. The aim is that investment operations meet the needs of OP Financial Group and each business division and entity without compromising the capital adequacy of the Group or the Group entity.

The Group controls and restricts investment operations by means of its risk-taking system and Risk Appetite Framework and Risk Policy. The Group and its entities have quantitative and qualitative restrictions in place in terms of products, regions and creditworthiness. In addition, investment operations are guided by the principles of sustainable investment. The Group limits investment risks through statistical VaR metrics, allocation, credit rating and country risk limits.

Companies' investment plans determining the desired risk and return level also play a key role. These investment plans also specify the mix, range and benchmark indices for investment assets as well as other restrictions on investment.

The investment asset allocation of insurance operations takes account of the insurance companies' risk capacity, structural interest rate risk and other requirements set by insurance liability on investment assets and their liquidity. In Life Insurance, the application of the principle of equity also affects investment targets and the amount of risk taken. The Group diversifies investments effectively among various asset classes and investment instruments, both by region and industry.

Insurance companies manage market risks associated with investment and insurance liabilities by means of various investment instruments and derivative contracts. The extent and principles of use of derivatives are determined annually in the companies' investment plans and the principles governing the use of derivatives.

Sensitivity analyses are used to assess investment risks. VaR limitation covers the key investment risk exposures of insurance companies. The Group uses stress tests to assess the effects of exceptional market conditions.

The Group has set a Group-level VaR limit for investment operations' long-term investments in relation to the market value of investments and for the Treasury's and Banking's long-term investments in relation to the nominal value.

13.4 Market risk monitoring and reporting

The extent and frequency of market risk reporting in Group entities vary by the nature and extent of their business from real-time to monthly monitoring. The central cooperative's Risk Management produces market risk reports for OP cooperative banks and regularly reports the development of the entire OP Financial Group's balance sheet structure and market risks to the central cooperative's management.

14 Underwriting risks associated with Non-life Insurance

14.1 Risks of insurance operations

The insurance business is based on taking and managing risks. The largest underwriting risks pertain to risk selection and pricing, the acquisition of reinsurance cover, and the adequacy of insurance liabilities. The risk inherent in insurance liabilities lies mainly in insurance lines characterised by a long claims settlement period. In addition to underwriting risks, a significant insurance business risk consists of the investment risk related to the assets covering insurance liabilities.

14.2 Underwriting risks

Underwriting risks associated with Non-life Insurance comprise risk of loss or damage, and provision risk.

Risk of loss or damage occurs when there are an above-average number of losses or they are exceptionally large. This results in assets covering technical provisions differing due to expected higher claims incurred. Provision risk arises when the claims incurred due to already-occurred losses are higher than anticipated on the balance sheet date. The uncertainty related to the timing of claims paid out also has an effect on the amount of provision for unpaid claims. Once a loss has been reported, uncertainty may still prevail as regards the size of the loss. However, the most significant uncertainty relates to the assessment of unknown losses.

The majority of claims expenditure in statutory lines of insurance for bodily injuries consists of compensation for loss of income and for medical care. In addition to accidental injuries, statutory occupational accident and occupational disease insurance covers occupational diseases, which tend to develop slowly. For this reason, major uncertainty is involved in assessing claims incurred in the case of occupational diseases.

It is typical of the statutory lines of insurance that the period from the date of the occurrence of loss until the date on which the claim is fully paid is often long. Such underwriting business generates a long-term cash flow, on the evaluation of which the mortality of beneficiaries, medical-cost inflation and return to work have the greatest impact. With respect to occupational accident and occupational disease insurance and motor liability insurance, the insurance company is not, however, liable for the index increments of compensation for loss of income nor for any medical expenses that are paid for over ten years after the accident's occurrence. These are financed through the pay-as-you-go system. The pay-as-you-go system is a scheme based on special laws governing each statutory line of insurance. Under this system, the financing of benefits, the so-called pay-as-you-go benefits, specified in these laws, has been arranged through the pay-as-you-go system. The pay-as-you-go system does not generate any financial benefit or harm to the insurance company that would lead to changes in equity.

Individual claims are usually small in voluntary accident and health insurance. The largest claims may arise from catastrophes with a large number of injured people. Medical-cost inflation has a major impact on projecting cash flows in medical expenses insurance, with respect to illnesses for which compensation is paid for a long time. Rapid progress in medicine and rising pharmaceuticals costs increase medical-cost inflation. Developments in public healthcare will also affect future cash flows. If tax-funded public healthcare services decline, those insured will increasingly start paying for their medical care through medical expenses insurance.

In motor vehicle and cargo insurance, weather conditions have the greatest effect on the number and size of claims. Claims expenditure is therefore larger during the winter than during the summer. The greatest risks within cargo insurance are associated with risk concentrations caused by sea transport and trading stock. In addition, weather conditions, such as storms and floods, and snow and icy roads during the winter relating to motor vehicle insurance may involve accumulation risks covering a geographically large region.

The largest single risks within property and business interruption insurance include fire, natural phenomenon and breakage risks exposed by companies' production facilities and buildings, and the related business interruption risks. Households' individual property risks are small and the related individual claims have no material effect on the Non-life Insurance earnings. The majority of claims expenditure for households is due to leakage, fire and burglary claims.

The risk of natural catastrophes has been considered minor in Finland. However, studies have suggested that there are indications of a change in climatic conditions in our operating region at least in the longer term. The projected temperature increase will probably be reflected in changes in summer and winter conditions and, for instance, in higher precipitation and wind speeds.

Laws and legal practice governing the liability to pay damages have a major impact on the number and size of liability claims in general liability insurance. For private individuals, claims have a minor effect on earnings. In addition, private individuals' risks account for a minor share of the total risk within the class. The majority of corporate liability policies consist of product liability and commercial general liability policies. Liability insurance is characterised by losses being revealed and settled slowly, especially in respect of product liability insurance in North America.

Decennial insurance and perpetual insurance are long-term contracts. Decennial insurance is a statutory policy where a loss event requires both a construction defect and the builder's default. The underwriting of perpetual insurance was terminated in the 1970s and their sums insured and associated risks are small due to low inflation. The policyholders consist mainly of private individuals.

A specific risk type consists of a claim accumulation generated by natural catastrophes or large catastrophes caused by human activity. In such a case, one catastrophic event may in practice give rise to simultaneously payable claims for a large number of insured risks at high amounts. The resulting total claims expenditure may be extremely large.

Unidentified background factors may also affect underwriting risks. Examples from recent history include cases of occupational diseases caused by exposure to asbestos dust, and the effect of higher life expectancy than predicted on the pension portfolio of statutory insurance.

14.2.1 Underwriting risk management

The most important tasks within the management of underwriting risks relate to risk selection and pricing, the acquisition of reinsurance cover, the monitoring of claims expenditure and the analysis of insurance liabilities. The highest underwriting risk decision-making body is the Insurance Committee tasked with managing Non-life Insurance underwriting risks. The Insurance Committee makes underwriting decisions within the framework of confirmed powers. It reports its decisions to the Insurance Customers management team.

Decisions on customer and insurance object selection and risk pricing are made according to the Underwriting Guidelines. The Insurance Committee approves the most significant and demanding risks in terms of their effect. For smaller risks, decisions are made jointly by several underwriters or managers on the basis of risk size and severity. For basic insurance lines, decisions are made on a system-supported basis and customers and the objects of insurance are selected within the powers determined by instructions specifically approved.

14.2.2 Risk selection and pricing

Operating models highlight the role of risk selection and pricing. The Group has set limits for the size and extent of risk for each insurance line and risk concentration. Non-life Insurance has a centralised data warehouse and analysis applications in place to support risk selection and pricing. Insurance terms and

conditions play a substantial role in risk mitigation. In addition, the Group performs risk analyses on a customer or insurance line specific basis to mitigate risks.

14.2.3 Reinsurance

The reinsurance principles and the maximum retention levels for different type of risks are annually approved by the board of directors of each insurance company. In practice, the Group's own retention levels can be kept lower than the maximum retention levels adopted by the board of directors, if the reinsurance pricing supports this. Retention in both risk-specific reinsurance and catastrophe reinsurance is a maximum of 5 million euros. Reinsurance has an effect on the solvency capital requirement. Only reinsurance companies with a sufficiently high financial strength rating are accepted as reinsurers. The reinsurer's counterparty risk is managed by means of reinsurance diversification limits.

14.2.4 Risk concentrations

The Group takes account of local risk concentrations in EML (Estimated Maximum Loss) estimates for property and business interruption risks and through EML breakthrough cover included in reinsurance cover. Our operating region has no major risk of earthquakes. With respect to risks associated with other natural disasters, such as storms and floods, Finland is a stable area. However, the Group has protected against catastrophe accumulation losses through an extensive catastrophe reinsurance cover whose size has been dimensioned to correspond to the calculated size of a catastrophe loss occurring once every 200 years. The catastrophe accumulation cover applies to property damage and personal injuries.

14.2.5 Evaluation of insurance liabilities

The Group monitors the adequacy of insurance liabilities on an annual basis. Insurance liabilities arising from insurance contracts are determined on the basis of estimated future cash flows. The cash flows comprise payable claims and loss adjustment expenses.

The amount of insurance liabilities has been estimated securely in such a way that it would be sufficient to fulfil the obligations arising from insurance contracts. This has been performed in such a way that an expected value has first been estimated for the insurance liability on top of which a safety loading based on the degree of uncertainty related to the liability has been determined.

The estimation of insurance liabilities always involves uncertainties which may be due, for instance, to the prediction of the claims trend, delays in verifying losses, cost inflation, legislative amendments and general economic development. Every three years, an external actuary performs for Non-life Insurance an analysis of the appropriateness of the calculation bases and the amount of insurance liabilities.

The provision for unpaid claims for annuities consists mainly of annuities of statutory insurance lines. Discounting is used in the computation of the provision for unpaid claims for annuities and the discount rate used is of great significance for the provision.

15 Underwriting risks associated with Life Insurance

In life insurance, underwriting risks comprise biometric risks, customer behaviour risk and cost risk.

Biometric risks occur when death or disability causes higher claims paid out than expected, or pension disbursements being paid for a longer period than expected.

Mortality and life expectancy affect a life insurance company's risk exposure in pure life insurance policies and pension policies. Longevity risk is particularly prevalent in group pension insurance policies under a defined benefit plan, because these contracts do not contain any significant amount of the opposite mortality risk.

Disability risk is included in group pension insurance contracts on the basis of which benefits are paid as disability benefits for the insured person's reduced incapacity for work.

The policyholders' customer behaviour may give rise to lapse risk and surrender risk. Policyholders have the right to stop paying their premiums, terminate the contract prematurely or change the contract if there is an option provided for this; this will result in higher risk for the company. One example of such options is the customer's right to change the profit type of his/her assets from unit-linked to one with a guaranteed interest rate, which increases the market risk. Another example is the postponement of pension, which increases the longevity risk. Endowment policies and capital redemption contracts with the right of surrender as well as term life policies, which the policyholder can terminate anytime, are particularly susceptible to risk of termination related to customer behaviour. Surrender of pension insurance is possible only in exceptional circumstances.

Expense risk refers to a situation in which incurred insurance contract management expenses differ from those estimated in rating. Termination of insurance policies may also jeopardise the accuracy of cost assumptions used for rating and thereby contribute to the materialisation of the cost risk.

15.1 Life Insurance underwriting risk management tools

Life Insurance underwriting risk management tools include prudent premium rating, careful selection of exposure and reinsurance. Diversifying insurance between different insurance types also reduces risks. Life Insurance reinsures, when necessary, any major individual risks and risk concentrations.

Risks related to mortality and longevity are rated in a secure way on the basis of the conditions and situation prevailing when the policy is issued. The company may change the prices

of these long-term contracts to a very limited extent. This is why the risk for any later changes in the premium rating bases will be borne by the insurance company so that the premiums of new policies are increased and the company records an insurance liability supplement to sold policies. Offering insurance policies that have opposite risk exposures reduces the net risk of the entire insurance portfolio.

The primary method for managing disability risk is by appropriate rating.

Termination risk related to customer behaviour and risk of a customer's option to change the profit type of his/her assets to one with the guaranteed interest rate are managed through a competitive range of products, suitable product structures and incentives and sanctions in the contract terms and conditions.

The Group manages expense risk by means of sufficient cost control and prudent premium rating. The Group monitors regularly the realisation of assumptions made with regard to rating and, if necessary, increases the premiums of new policies and records a supplement to insurance liabilities with regard to the sold policies.

15.2 Monitoring and reporting underwriting risks associated with Life Insurance

The Group monitors changes in underwriting risks on a monthly basis, with more detailed analyses carried out when necessary. A more detailed analysis is carried out annually, showing risk materialisation by insurance type and age group. The Group monitors operating expenses by insurance line on a monthly basis. It also monitors monthly customer behaviour, payments, terminations and transfers of savings between different types of profit performance bases.

Legislative amendments may lead to such changes in the insurance terms and conditions that may have an effect especially on the sales of new policies and customer behaviour. Such amendments include amendments to laws or directives affecting products based on a systematic investment plan or the premium rating bases of life insurance policies. Life insurance companies follow any legislative amendments and, whenever necessary, adjust their insurance contract pricing and terms and conditions as required by laws and in the manner as required by the companies' solvency management.

A Group-level limit has been set for Life Insurance's underwriting risks which describes economic capital of the underwriting risk in relation to the Group's permanent capital. Economic capital for underwriting risk is measured using the insurance company's own risk model.

16 Declaration on the adequacy of risk management arrangements

In accordance with Article 435, Section 1 of the Capital Requirements Regulation, OP Financial Group must disclose a declaration approved, for example, by the management body (OP Cooperative's Supervisory Board) on the adequacy of risk management arrangements.

Declaration by the Supervisory Board:

"OP Financial Group's principles of the Risk Appetite Framework, adopted by the Supervisory Board, define how the Group's risk-taking is controlled, restricted and supervised and how the risk management and internal capital adequacy assessment process is organised. The principles are binding on all OP Financial Group entities. The Risk Appetite Framework principles are specified by the Risk Management Guidelines and the Risk Policy adopted by the Executive Board.

OP Financial Group's risk management has been integrated as an integral part of the Group's business and management. Each Group entity focuses on carrying out its role according to its service capabilities and risk capacities in accordance with shared business models. OP Financial Group and its entities ensure that their risk management resources are sufficient in view of the nature and extent of their business. The Group's risk management and compliance function are built around the principles of three lines of defence.

Every year, the central cooperative's Risk Management compiles reports on capital adequacy and liquidity. The reports describe the methods, quality and comprehensiveness of risk and capital adequacy management, Group risk exposure and the adequacy of capital and liquidity. Based on the reports, the Risk Management Committee of the Supervisory Board prepares statements of the adequacy of the Group's capital and liquidity that the Supervisory Board confirms. On the basis of the reports, the Supervisory Board has stated that the assessment procedures for the Group's capital and liquidity are adequate in view of the nature and extent of operations.

The Supervisory Board has concluded that the risk management systems in place are adequate vis-à-vis the institution's risk profile and strategy."

Note 3. Changes in accounting policies and presentation

IFRS 9 Financial Instruments

On 1 January 2018, OP Financial Group adopted IFRS 9 Financial Instruments, issued by the IASB in July 2014 and approved by the EU in November 2016.

The adoption resulted in changes to the classification and measurement of financial instruments and impairments. Likewise, it has a significant effect of other standards dealing with financial instruments, such as IFRS 7 Financial Instruments, Disclosures. OP Financial Group continued to apply hedge accounting under IAS 39 after adoption of IFRS 9.

The IFRS 9 transition resulted in changes to the accounting policies as well as adjustments to the amounts of receivables previously recognised in the balance sheet. Adjustments made to carrying amounts were recognised in equity in the opening balance sheet on the adoption date of 1 January 2018. Changes in the notes to the financial statements under IFRS 7 arising from the application of IFRS 9 will only be presented for 2018. Notes for 2017 remained the same as in the financial statements for 2017.

Classification and measurement

The classification and measurement of financial assets under IFRS 9 are based on business models and contractual cash flow characteristics.

OP Financial Group reclassified financial assets in accordance with IFRS 9 based on how the loans and various notes and bonds are managed within the business models and on the contractual cash flow characteristics of notes and bonds.

The majority of OP Financial Group's loans and notes and bonds will continue to be recognised at amortised cost or fair value through other comprehensive income.

The most significant classification changes applied to investment by OP Financial Group's Non-life and Life Insurance investment. Equity instruments and mutual fund investments were mainly reclassified as those recognised at fair value through profit or loss. OP Financial Group applies the overlay approach to Non-life and Life Insurance investments until the effective date of IFRS 17 that restores the earnings effect of such investments in accordance with IAS 39.

IFRS 9 did not change the classification of OP Financial Group's financial liabilities.

Impairment

The expected credit losses (ECL) for loss allowance are calculated on all balance sheet items measured at amortised cost and those recognised at fair value through other comprehensive income (FVOCI) as well as on off-balance-sheet loan commitments and guarantee agreements.

Loss allowance is calculated using modelled risk parameters and using the formula probability of default (PD) x loss given default (LGD) x exposure at default (EAD) for the majority of the portfolios. Large corporate exposures make an exception. They are still monitored on an individual basis. Loss allowance is calculated for each contract for 12 months or lifetime, depending on whether the instrument's credit risk on the reporting day has increased significantly from the original one.

Both qualitative and quantitative criteria are used to assess whether the credit risk has increased significantly. Qualitative factors consist of various credit risk indicators (e.g. forbearance measures). Credit ratings will affect the lifetime PD used for assessing the quantitative change. In addition, credit risk has increased significantly if payment is over 30 days past due.

Contracts are classified into three stages:

- Stage 1: contracts whose credit risk has not increased significantly since initial recognition and for which a 12-month loss allowance is calculated.
- Stage 2: contracts whose credit risk has increased significantly since initial recognition and for which a lifetime loss allowance is calculated.
- Stage 3: defaulted contracts for which a lifetime loss allowance is also calculated.

Definition of default is consistent with the definition that is used for regulatory purposes.

The calculation model includes forward-looking information and macroeconomic scenarios. The macroeconomic scenarios are the same that OP Financial Group uses otherwise in its financial annual planning. Three scenarios are used: baseline, upside and downside.

The tables below present the effect of the application of IFRS 9 on the balance sheet of 1 January 2018.

a) Classification and measurement

The table below presents the measurement classes and carrying amounts of financial assets and liabilities in the opening balance sheet of 1 January 2018 according to IAS 39 and IFRS 9. No changes have occurred in the classification and measurement of financial liabilities.

Measurement classes of financial assets Assets in the balance sheet	IAS 39 Valuation method (class) 31 Dec. 2017	Carrying amount € million	IFRS 9 Valuation method 1 Jan. 2018	Carrying amount* € million
Cash and cash equivalents	Amortised cost	12,937	Amortised cost	12,937
Receivables from credit institutions	Amortised cost (loans and receivables)	504	Amortised cost	504
Derivative contracts	At fair value through profit or loss	3,412	At fair value through profit or loss	3,412
Receivables from customers	Amortised cost (loans and receivables)	82,193	Amortised cost	82,153
			At fair value through profit or loss 1)	0
Investment assets				
Financial assets held for trading	At fair value through profit or loss	590	At fair value through profit or loss	579
Equity instruments	At fair value through other comprehensive income (available-for-sale financial assets)	1,399	At fair value through profit or loss	1,385
	At fair value through profit or loss	220	At fair value through profit or loss	220
Debt instruments	At fair value through other comprehensive income (available-for-sale financial assets)	16,372	At fair value through other comprehensive income	16,279
			At fair value through profit or loss 1)	104
			Amortised cost	0
	At fair value through profit or loss	3,309	At fair value through profit or loss	3 308
			At fair value through other comprehensive income	0
	Amortised cost (held-to-maturity investments)	40	At fair value through other comprehensive income	30
			Amortised cost	10
	Amortised cost (Other investment loans, non-life insurance)	2,293	Amortised cost	2,280
			At fair value through profit or loss	8
			At fair value through other comprehensive income	6
Assets covering unit-linked contracts	At fair value through profit or loss	10,126	At fair value through profit or loss 2)	10,126
Total financial assets in balance sheet		**133,397**		**133,343**

1) Financial assets outside the trading book that are mandatorily measured at fair value through profit or loss
2) Fair value option

b) Reconciliation of balance sheet items under IAS 39 and IFRS 9

Measurement classes under IFRS 9 were determined based on OP Financial Group's different business models and on the cash flow characteristics of the financial instrument concerned. OP Financial Group's business models are based on the existing business principles and they did not change as a result of entry into force of IFRS 9. A more detailed description of the classification requirements can be found in section 5.3 of the accounting policies.

The table below presents the transition of the carrying amounts of financial assets from the measurement class under IAS 39 to the measurement class under IFRS 9 on the date of transition on 1 January 2018.

Changes in classification and measurement

Balance sheet items, € million	Reference	Carrying amount (IAS 39) 31 Dec. 2017	Reclassification	Remeasurement	Carrying amount (IFRS 9) 1 Jan. 2018
Cash and cash equivalents		12,937			12,937
Receivables from credit institutions		504			504
Derivative contracts		3,412			3,412
Receivables from customers	2)	82,193		-40	82,153
Investment assets					
Financial assets held for trading	1)	590	-11		579
Equity investments					
Fair value through other comprehensive income					
(Available-for-sale investments)	3)	1,399	-1,399		0
Fair value through profit or loss	4) 5)	220	1,399	-14	1,605
Debt investments					
Fair value through other comprehensive income					
(Available-for-sale investments)	1)	16,372	-58	1	16,315
Fair value through profit or loss	6)	3,309	112	-1	3,420
Carried at amortised cost	7)	2,333	-43		2,290
Assets covering unit-linked contracts					
At fair value through profit or loss		10,126			10,126
Total		**133,397**	**0**	**-54**	**133,343**

The new classification requirements under IFRS 9 shown in the table above are described below:

1) Previously, OP Financial Group's liquidity buffer portfolio was classified as financial instruments recognised at fair value through profit or loss, available for sale, loans and

receivables and held to maturity. Since OP Financial Group's business model for the liquidity buffer portfolio is to collect contractual cash flows and sales, the entire portfolio was designated as measured at fair value to be recognised through other comprehensive income. The business model is based on the portfolio management mechanisms and previous practice.

2) OP Financial Group has issued a small amount of subordinated loans in accordance with Chapter 12 of the Limited Liability Companies Act, whose contractual cash flows do not solely represent payment of principal and interest because repayment depends on the company's distributable funds. These financial assets were measured at amortised cost according to IAS 39. Subordinated loans of EUR 26 million were measured at fair value on 1 January 2018 according to IFRS 9.

3) Equity instruments and mutual fund investments were previously classified as available-for-sale investments but which were chiefly designated as measured at fair value through profit or loss in accordance with IFRS 9. OP Financial Group reclassified equity instruments of EUR 1,399 million to be recognised at fair value through profit or loss. Gross fair value gains/losses of available-for-sale investments worth a total of EUR 33 million previously recognised in the fair value reserve were transferred to retained earnings.

4) Assets recognised at fair value through income statement increased by EUR 1,399 million as a result of reclassification of other measurement classes.

5) OP Financial Group holds shares in support of local business that are recognised at cost because no reliable fair value has been available to them. In the IFRS 9 transition, the fair value of these shareholdings is considered zero, and this change in the treatment method resulted in a deduction of EUR 14 million before tax recognised in OP Financial Group's retained earnings. The equity investments for which a quoted fair value is available are measured at fair value through profit or loss.

6) OP Financial Group had EUR 111 million in notes and bonds on convertible and perpetual bonds whose contractual cash flows are not solely payment of principal and the interest on the principal outstanding. These investments were designated as measured at fair value through profit or loss.

7) Notes and bonds held to maturity, totalling EUR 40 million, which were previously measured at amortised cost, were classified in the IFRS 9 transition in such way that the notes and bonds, totalling EUR 30 million, included in the liquidity buffer were measured at fair value through other comprehensive income and EUR 11 million were measured at amortised cost as at 1 January 2018.

c) Effects on expected credit losses

The table below presents the replacement of the impairment provision for the realised losses recognised in the Financial Statements 2017 under IAS 39 with the provision for expected credit losses under IFRS 9 on 1 January 2018.

Balance sheet items, € million	Impairment loss on receivables (IAS 39) 31 Dec. 2017	Remeasurement	Expected credit losses (IFRS 9) 1 Jan. 2018
Receivables from customers	493	40	533
Investment assets (FVOCI)	-	5	5
Off-balance-sheet items			
Loan commitments	-	7	7
Guarantees	-	3	3
Total	**493**	**55**	**548**

OP Financial Group adopted the measurement of expected credit losses using mainly the models under IFRS 9.

Consequently, prior impairment losses on an individual and collective basis under IAS 39, totalling EUR 493 million,

were replaced with the loss allowance calculated on expected credit losses under IFRS 9, totalling EUR 548 million.

Loss allowance showed the largest growth in corporate financing whereas loss allowance in home loans decreased from the previous IAS 39 based impairment loss due to their good collateral status. In private customers, revolving credit facilities showed the largest growth in loss allowance because they also include the forecast use of the off-balance-sheet limit. Investments recognised at fair value through other comprehensive income, loan commitments and guarantees are included in the loss allowance measurement for the first time.

The table below shows liabilities in the calculation of the expected credit losses and their loss allowances by impairment stage. Stage 1 includes contracts whose credit risk has not increased significantly since initial recognition. Stage 2 includes contracts whose credit risk has increased significantly since initial recognition. Relative and absolute threshold values as well as payments past due over 30 days are used as the threshold values of a significant increase in credit risk. Sometimes the contract may fulfil more than one of the abovementioned threshold values. In the tables below, all such contracts are classified as more than 30 days past due, irrespective of whether some other threshold value has been fulfilled. Defaulted contracts are classified into Stage 3.

Exposures within the scope of accounting for expected credit losses by impairment stage 1 January 2018

On-balance-sheet exposures, € million	**Stage 1**	**Stage 2**			**Stage 3**	**Total exposure**
Receivables from customers (gross)		Not more than 30 DPD	More than 30 DPD	Total		
Non-banking corporates	29,649	2,896	500	3,395	816	33,861
Households	45,166	3,852	172	4,024	463	49,652
Public-sector entities	140	12	12	24		165
Other	868	0	0	0	0	868
Total receivables from customers	75,823	6,759	684	7,443	1,279	84,545
Off-balance-sheet limits						
Non-banking corporates	3,892	365	0	365	11	4,267
Households	2,971	68	7	75	4	3,050
Public-sector entities	173	5		5		178
Other	516	0		0	0	516
Total	**7,552**	**438**	**7**	**444**	**15**	**8,011**
Other off-balance-sheet commitments						
Non-banking corporates	7,273	299		299	47	7,619
Households	1,830	0		0	0	1,830
Public-sector entities	6	10		10		16
Other	1					1
Total	**9,110**	**309**		**309**	**47**	**9,467**
Notes and bonds						
Total notes and bonds	**16,410**	**39**		**39**	**5**	**16,454**
Total exposures within the scope of accounting for expected credit losses	**108,895**	**7,545**	**691**	**8,236**	**1,346**	**118,477**

Loss allowance by impairment stage 1 Jan. 2018

On-balance-sheet exposures and related off-balance-sheet limits*, € million	Stage 1	Stage 2			Stage 3	Total ECL
Receivables from customers		Not more than 30 DPD	More than 30 DPD	Total		
Non-banking corporates	-20	-41	-1	-42	-357	-419
Households	-4	-35	-1	-36	-73	-113
Public-sector entities	0	0	0	0		0
Other	0	0		0	0	0
Total receivables from customers	**-23**	**-75**	**-2**	**-78**	**-431**	**-532**
Other off-balance-sheet commitments**						
Non-banking corporates	-3	-3		-3	0	-5
Households	-5	0		0		-5
Public-sector entities						
Other						
Total	**-8**	**-3**		**-3**	**0**	**-11**
Notes and bonds***	-5	0		0	0	-5
Total	-36	-79	-2	-81	-431	-548

*Loss allowance is entered as one component to deduct the balance sheet item
**Loss allowance is entered in provisions and other liabilities in the balance sheet
***Loss allowance is entered in the fair value reserve in OCI

d) Effects on equity and the CET1 ratio

The table below presents the effects of the transition to IFRS 9 on equity:

Changes in equity, € million	Cooperative capital	Fair value reserve	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity
Shareholders' equity 31 Dec. 2017	3,097	176	2,173	5,536	10,982	101	11,083
Reversal of previous IAS 39 impairment provision				493	493		493
New ECL under IFRS 9		5		-548	-543		-543
Effect of reclassifications under IFRS 9							
1) Measured at fair value							
Reversal of the fair value reserve of available-for-sale investments to retained earnings		-33		19	-14		-14
2) Carried at amortised cost							
Revaluation of investments at fair value to be transferred as measured through other comprehensive income items		-1			-1		-1
Net change in deferred tax		1		3	4		4
Equity 1 Jan. 2018	**3,097**	**148**	**2,173**	**5,503**	**10,921**	**101**	**11,023**

Since the amount of the loss allowance, EUR 548 million, was below the expected loss (EL) calculated in capital adequacy measurement, EUR 791 million, the amount of the loss allowance in accounting had no impact on OP Financial Group's CET1 ratio on 1 January 2018. The capital adequacy EL calculation method is regulated by the authorities and includes prudence, for example, in the form of various floors. However, the loss allowance accounting model describes the current economic situation and is based on OP Financial Group's own models without in-built prudence. OP Financial Group will not for the time being apply the transitional rules of Capital Requirements Regulation (CRR) for the period of 1 January 2018–31 December 2022, in which the effects of IFRS 9 based impairment calculation can be taken into account in stages.

Change in accounting policies for amortisation of fees

Following the systems development occurred in connection with the adoption of IFRS 9, OP Financial Group adopted the amortisation of fees over the life of the loan paid for office and arrangement fees at the time of drawdown of private customer loans, applying the effective interest method. Since the fully retrospective application was not technically possible, only the fees for 2017 were restated from the income statement. The change decreased net commissions and fees for 2017 by EUR 54 million and increased net interest income by EUR 8 million. As a result, earnings before tax reported a year ago decreased by EUR 37 million. On the balance sheet of 31 December 2017, receivables from customers decreased by EUR 47 million, tax assets increased by EUR 10 million and equity decreased by EUR 37 million. These fees will be amortised for future years for the average life of private customer loans.

Adoption of IFRS 15 on 1 January 2018

OP Financial Group has applied IFRS 15, Revenue from Contracts with Customers, since 1 January 2018. In OP Financial Group, IFRS 15 mainly applies to commissions and fees of the Wealth Management segment and Banking segment fees not included in the calculation of the effective interest rate. IFRS 15 led to added information presented in the Notes to the Financial Statements.

The grouping of commission income and expenses in net commissions and fees was specified in the Notes. Net commissions and fees were divided into groups according to commission income and expenses recorded from customer agreements. New groups to be presented in net commissions and fees include commission income and expenses from health and wellbeing services, asset management fees, fees paid for asset management services, legal fees and mutual fund commission expenses. Net commissions and fees are presented as divided into segments.

IFRS 15 did not change the revenue recognition time of the Wealth Management management fees or performance-based fees or any other fees included in the scope of application of the standard in comparison with the previous practices. Thus, the adoption of IFRS 15 did not have any effect on OP Financial Group's earnings before tax. OP Financial Group started to apply IFRS 15 using the full retrospective transition approach, i.e. the 2017 data was adjusted. Below is a description of the retrospective changes made to the specification of net commissions and fees:

- Commission income from health and wellbeing services, EUR 11 million, has been transferred from other operating income to commission income.
- Commission expenses from health and wellbeing services, EUR 5 million, have been transferred from other operating expenses to commission expenses.
- Asset management fees and fees for legal services, EUR 112 million, will be presented separately in future.
- Brokerage expenses of securities, EUR 12 million, have been separately divided among mutual fund charges and brokerage expenses of securities.
- Net commissions and fees have been presented as divided into segments.

Changes in presentation

The "Share of associates' profit/loss line" in the income statement will be presented in net investment income and the Interest in associates line in the balance sheet will be presented in investment assets in the balance sheet. A significant number of the associates are private equity fund investments which are measured at fair value through income statement under IFRS 9. Data for 2017 was adjusted according to the new presentation. The Financial assets held for trading line in the balance sheet will in future be presented under investment assets according to its nature. Data for 2017 was adjusted according to the new presentation.

The alternative ratio presented previously – the ratio of impairment loss on receivables to the loan and guarantee portfolio, %, – is no longer presented because the content of the ratio is not comparable as a result of the IFRS 9 transition. The ratio of non-performing receivables to the loan and guarantee portfolio, %, is a new alternative ratio presented.

Notes to the income statement

Note 4. Net interest income

EUR million	2018	2017
Interest income		
Receivables from credit institutions		
Interest	5	4
Negative interest	23	23
Total	28	27
Receivables from customers		
Loans	1,158	1,158
Finance lease receivables	23	22
Impaired loans and other commitments	1	3
Negative interest	11	8
Total	1,192	1,191
Notes and bonds		
Held for trading	7	7
Measured at fair value through profit or loss	2	
At fair value through other comprehensive income	90	
Amortised cost	1	
Available for sale		105
Held to maturity		1
Loans and receivables		1
Total	99	114
Derivative contracts		
Held for trading	703	720
Fair value hedge	-101	-117
Cash flow hedge	44	37
Ineffective portion of cash flow hedge	0	1
Total	647	641
Other	8	9
Total	**1,974**	**1,983**
Interest expenses		
Liabilities to credit institutions		
Interest	0	1
Negative interest	64	56
Total	64	57
Liabilities to customers	60	74
Notes and bonds issued to the public	249	288
Subordinated liabilities		
Subordinated loans	2	2
Other	45	45
Total	47	47
Derivative contracts		
Held for trading	591	600
Cash flow hedge	-123	-130
Other	-92	-65
Total	377	406
Other	8	10
Total	**805**	**882**
Net interest income before fair value adjustment under hedge accounting	**1,169**	**1,101**
Hedging derivatives	-22	-114
Value changes of hedged items	28	114
Total	**1,175**	**1,102**

Interest income calculated using the effective interest method totalled EUR 1,220 million.

Note 5. Net insurance income

EUR million	2018	2017
Net insurance premium revenue		
Premiums written	1,468	1,438
Insurance premiums ceded to reinsurers	0	-5
Change in provision for unearned premiums	-10	-6
Reinsurers' share	-3	-3
Total	1,454	1,424
Net Non-life Insurance claims		
Claims paid	-951	-889
Insurance claims recovered from reinsurers	30	8
Change in provision for unpaid claims*	-6	-109
Reinsurers' share	13	20
Total	-915	-970
Other Non-life Insurance items	-3	-3
Life Insurance risk premiums collected	29	27
Total	**566**	**478**

* The item includes EUR 17 million (102) as a result of changes in reserving bases.

Note 6. Net commissions and fees

Q1–4 2018, EUR million	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Commission income						
Lending	142	0		4	1	147
Deposits	3		0	0	0	3
Payment transfers	190			61	-14	238
Securities brokerage	0		21	0	-4	17
Securities issuance	4		1	4	0	8
Mutual funds			144	0	2	146
Asset management	11		56	1	-11	57
Legal services	24			0	0	24
Guarantees	20			0	0	20
Housing service	72					72
Insurance brokerage	41	13	10	0	-13	51
Life insurance total expense loadings			93			93
Refund of unit-linked management fees			82			82
Health and wellbeing services		19			-2	17
Other	79		6	-34	-13	37
Total	**586**	**32**	**413**	**36**	**-55**	**1,012**
Commission expenses						
Payment transfers	26	1	1	7	-22	13
Securities brokerage	0		13	0	-5	8
Securities issuance	1		0	1	2	3
Mutual funds			9		1	10
Asset management	3		14	2	-7	11
Insurance operations	-10	36	27		-13	40
Health and wellbeing services		7				7
Other	26	0	4	21	-19	32
Total	**46**	**44**	**68**	**30**	**-63**	**125**
Total net commissions and fees	**540**	**-12**	**345**	**6**	**8**	**887**

Q1–4 2017, EUR million	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Commission income						
Lending	140	0		4	1	145
Deposits	4			0	0	4
Payment transfers	194			75	-25	244
Securities brokerage	0		25	0	-5	19
Securities issuance	6		2	4	0	11
Mutual funds	0		144		4	147
Asset management	11		99	-1	-21	89
Legal services	23			0		23
Guarantees	19			0	0	19
Housing service	71					71
Insurance brokerage	43	15	11		-15	55
Life insurance total expense loadings			96			96
Refund of unit-linked management fees			67			67
Health and wellbeing services		13			-2	11
Other	128		7	-86	-20	28
Total	**639**	**28**	**450**	**-5**	**-83**	**1,029**
Commission expenses						
Payment transfers	40	1	1	28	-33	37
Securities brokerage	0		9		-7	2
Securities issuance	1		0	1	2	3
Mutual funds			7		3	10
Asset management	3	0	17	0	-7	13
Insurance operations	-6	39	25		-13	45
Health and wellbeing services		5				5
Other	25	0	5	29	-24	36
Total	**63**	**46**	**64**	**58**	**-80**	**150**
Total net commissions and fees	**576**	**-17**	**385**	**-63**	**-3**	**879**

Note 7. Net investment income

EUR million	2018	2017
Net income from assets at fair value through other comprehensive income (Net income from available-for-sale financial assets)		
Notes and bonds		
Interest income	66	85
Capital gains and losses	26	44
Currency fair value gains and losses	18	-46
Impairment losses and their reversal	-5	0
Total	105	83
Shares and participations		
Dividends	11	107
Other income and expenses	3	2
Capital gains and losses	0	218
Impairment losses and their reversal	0	-38
Total	14	288
Total	118	371

Net income recognised at fair value through profit or loss	2018	2017
Financial assets held for trading		
Notes and bonds		
Fair value gains and losses	-5	-3
Total	-5	-3
Shares and participations		
Fair value gains and losses	11	0
Dividend income and share of profits	3	0
Total	14	1
Derivatives		
Fair value gains and losses	133	164
Total	133	164
	142	162
Financial assets that must measured at fair value through profit or loss		
Notes and bonds		
Interest income	23	
Fair value gains and losses	-4	
Total	19	
Shares and participations		
Fair value gains and losses	-33	
Dividend income and share of profits	63	
Total	29	
Financial assets designated as at fair value through profit or loss		
Notes and bonds		
Interest income	45	
Fair value gains and losses	-39	
Total	7	
Shares and participations		
Fair value gains and losses	-24	
Dividend income and share of profits	14	
Total	-9	
Derivatives		
Fair value gains and losses	-3	
Total	-3	

Assets and liabilities recognised at fair value through profit or loss		
Notes and bonds		
Interest income		61
Capital gains and losses		-6
Fair value gains and losses		-36
Total		19
Shares and participations		
Capital gains and losses		3
Fair value gains and losses		9
Dividend income		2
Total		14
Derivatives		
Interest income		2
Capital gains and losses		70
Fair value gains and losses		-33
Total		39
Other		
Interest income		0
Total		0
Total assets and liabilities recognised at fair value through profit or loss		72
Total net income from financial assets recognised at fair value through profit or loss	**42**	**234**
Net income from foreign exchange operations		
Currency exchange		1
Fair value gains and losses*		37
Total net income from foreign exchange operations		37

* Net income from hedging derivatives amounted to -4.1 million euros (12.9).

Net income from investment property		
Rental income	73	79
Fair value gains and losses	-8	18
Maintenance charges and expenses	-70	-65
Other	-5	-3
Net income from investment property total	-11	29
Net income from loans and receivables measured at amortised cost		
Loans and receivables		
Interest income	9	10
Interest expenses	-1	-1
Capital gains and losses	0	2
Impairment losses and their reversal	2	-3
Loans and receivables total	11	7
Non-life Insurance		
Unwinding of discount, Non-life Insurance	-28	-32

The increase in the discounted insurance liabilities in Non-life Insurance due to passage of time is unwinding of discount. Unwinding of discount is computed monthly applying the discount rate at the end of the previous month and the insurance liabilities at the beginning of the current month. On 31 December 2018, the discount rate used was 1.5% (1.5).

Life Insurance		
Interest credited on customers' insurance savings	-85	-89
Change in supplementary interest rate provisions	38	48
Other technical items**	-15	-111
Total	-62	-152

** Other technical items include changes in other technical provisions than those in supplementary interest rate provisions.

Associated companies		
Accounted for using the fair value method	21	0
Consolidated using the equity method	19	27
Total	41	27
Total net investment income	**254**	**522**

Note 8. Other operating income

EUR million	2018	2017
Rental income from property in own use	13	12
Capital gains on property in own use	1	2
Leasing agreements	4	1
ICT income	2	0
Debt collection	1	1
Other*	40	66
Total	**61**	**83**

* All share capital of the Baltic subsidiary Seesam Insurance AS was sold to Vienna Insurance Group (VIG). OP Financial Group recognised a total of EUR 16 million in non-recurring capital gain on the sale. A year ago, OP Financial Group sold its portfolio of agreements and POS terminals of merchant acquiring and POS terminal services to Nets. Non-recurring gain of EUR 25 million on the transaction was recognised in other operating income a year ago. Non-recurring VAT refunds for prior years totalled EUR 20 million a year ago.

Note 9. Personnel costs

EUR million	2018	2017
Wages and salaries	582	547
Variable remuneration*	41	45
Pension costs		
Defined contribution plans	75	70
Defined benefit plans**	-208	65
Other personnel related costs	26	31
Total	**516**	**758**

* Note 50.

** Note 33.

The Representative Assembly of OP Bank Group Pension Fund, which manages statutory earnings-related pension for the personnel, decided on 31 July 2018 to transfer its pension liability and the management of earnings-related pension insurance portfolio worth around EUR 1,068 million to Ilmarinen Mutual Pension Insurance Company. The transfer was executed on 31 December 2018. The transfer of the liabilities resulted in a non-recurring item of EUR 286 million recognised in defined benefit plans for 2018.

Note 10. Depreciation/amortisation and impairment loss

EUR million	2018	2017
Depreciation and amortisation		
Buildings	31	31
Machinery and equipment	15	14
Intangible assets related to business combinations	30	34
Other intangible assets	139	106
Leased out assets	0	-1
Other	4	6
Total	219	191
Impairment loss		
Property in own use	41	32
Goodwill		0
Brand	4	
Information systems	61	23
Total	106	55
Total	**325**	**246**

Note 11. Other operating expenses

EUR million	2018	2017
ICT costs		
Production	199	178
Development	153	156
Rental expenses	9	7
Expenses for property in own use	75	75
Capital losses on property in own use	2	1
Government charges and audit fees*	54	13
Membership fees	4	4
Services purchased from others	139	133
Telecommunications	38	37
Marketing	37	35
Corporate social responsibility expenses	10	8
Other administrative expenses	62	66
Insurance and security costs	9	10
Other Non-life Insurance expenses	2	3
Other	47	37
Total	**839**	**764**

* The item includes EUR 2.0 million (2.1) in audit fees paid to auditors, EUR 0.2 million (0.3) in fees for assignments as referred to in sub-paragraph 2, paragraph 1 section 1 of the Auditing Act, EUR 0.1 million (0.1) in fees for legal counselling and EUR 0.4 million (0.6) in fees for other services. Non-audit services provided by KPMG Oy Ab to OP Financial Group companies totalled EUR 0.3 million and services for tax advisory services EUR 0.1 million.

OP Financial Group's stability contribution calculated for 2018 amounted to EUR 39.4 million. The stability contribution of EUR 24.8 million for 2017 has been fully covered by the bank levy paid previously.

The deposit guarantee contribution of EUR 24.4 million (24.1) calculated for OP Financial Group for 2017 has been fully covered by payments accounted for from the old Deposit Guarantee Fund.

Development costs

€ million	2018	2017
ICT development costs	153	156
Share of own work	50	63
Total development costs in the income statement	**203**	**219**
Capitalised ICT costs	170	220
Capitalised share of own work	12	14
Total capitalised development costs	**182**	**234**
Total development costs	**384**	**454**
Depreciation/amortisation and impairment loss	202	116

The development investments ensure the competitiveness and continuity of the present-day business and regulatory compliance and create conditions for new customer-driven business models. The majority of the development expenditure was allocated to the development of the present-day business, but new businesses will account for a larger share in the future.

Note 12. Impairment losses on receivables

EUR million	2018	2017
Receivables written down as loan and guarantee losses	70	79
Recoveries of receivables written down	-15	-15
Expected credit losses** (ECL) on receivables from customers and off-balance-sheet items	-10	
Expected credit losses** (ECL) on notes and bonds*	1	
Increase in impairment losses on individually assessed receivables		68
Decrease in impairment losses on individually assessed receivables		-91
Collectively assessed impairment losses		7
Total	**46**	**48**

* The expected credit losses on notes and bonds in insurance operations are presented in net investment income.

** Loss allowance is itemised in Note 51. Loss allowance regarding receivables and notes and bonds.

Note 13. OP bonuses to owner-customers

EUR million	2018	2017
New OP bonuses accrued to owner-customers	222	214
Unused, expired OP bonuses	4	3
Total OP bonuses to owner-customers	**226**	**217**

Liite 14. Temporary exemption (overlay approach)

	2018
Net investment income within the scope of the overlay approach recognised according to IFRS 9	
Financial assets that must measured at fair value through profit or loss	
Shares and participations	
Fair value gains and losses	-49
Total (A)	-49
Net investment income within the scope of the overlay approach measured according to IFRS 39	
Shares and participations	
Capital gains and losses	-12
Impairment losses and their reversals	-11
Total (B)	-23
Effect of the overlay approach on the income statement (-A+B)	**26**
Effect of the overlay approach on the statement of comprehensive	**-26**

Note 15. Income tax

EUR million	2018	2017
Current tax	125	189
Tax for previous financial years	3	-1
Deferred tax	95	25
Income tax expense	**223**	**214**
Corporate income tax rate	20.0	20.0
Reconciliation between tax expense in the income statement and tax expense calculated by the applicable tax		
Earnings before tax	1,017	1,031
Tax calculated at a tax rate of 20%	203	206
Tax for previous financial years	3	-1
Tax-exempt income	-29	-31
Non-deductible expenses and income portions of limited partnerships	24	25
Re-evaluation of unrecognised tax losses	22	15
Tax adjustments	1	2
Other items	-2	-1
Tax expense	**223**	**214**

Notes to assets

Note 16. Liquid assets

EUR million	31 Dec. 2018	31 Dec. 2017
Cash	83	96
Deposits with central banks repayable on demand		
OP Corporate Bank plc's minimum reserve deposit	703	668
Cheque account	11,564	12,173
Total liquid assets	**12,350**	**12,937**

In accordance with the minimum reserve system under the euro system, credit institutions are obligated to have a minimum reserve deposit with their national central bank. The reserve deposit equals the required percentage of the reserve base, as specified by the European Central Bank. The reserve base includes deposits (extensive) and debt securities with a maximum maturity of two years. The reserve base does not include deposits from other parties subject to the minimum reserve obligation. The reserve deposit is currently 1% of the reserve base. Credit institutions within OP Financial Group place a reserve deposit with OP Corporate Bank plc, which acts as an intermediary authorised by OP Financial Group credit institutions and is responsible for OP Financial Group's obligation to place a deposit with the Bank of Finland.

Note 17. Receivables from credit institutions

EUR million	31 Dec. 2018	31 Dec. 2017
Receivables from credit institutions		
Deposits		
Repayable on demand	73	307
Other	0	0
Total	73	307
Loans and receivables		
Repayable on demand	0	0
Other	110	198
Notes and bonds	0	0
Total	111	199
Total	184	506
Impairment losses		-2
Loss allowance*	-1	
Total receivables from credit institutions	**183**	**504**

* Loss allowance is itemised in Note 51. Loss allowance regarding receivables and notes and bonds.

Note 18. Derivative contracts

EUR million	31 Dec. 2018	31 Dec. 2017
Held for trading		
Interest rate derivatives	2,750	2,859
Currency derivatives	145	213
Equity and index derivatives	0	2
Credit derivatives	6	1
Commodity derivatives	4	25
Other	0	0
Total	2,905	3,100
Hedging derivative contracts		
Fair value hedging		
Interest rate derivatives	374	192
Currency derivatives	142	81
Cash flow hedge		
Interest rate derivatives	0	0
Total	516	273
Other hedging derivatives		
Interest rate derivatives	61	39
Other		0
Total	61	39
Total derivative contracts	**3,482**	**3,412**

The balance sheet item includes positive changes in fair value of derivative contracts as well as premiums paid.

Note 19. Receivables from customers

EUR million	31 Dec. 2018	31 Dec. 2017
Loans to the public and public sector entities	79,262	75,162
Notes and bonds	0	0
Finance lease receivables	2,154	1,856
Guarantee receivables	10	11
Receivables	6,180	5,655
Total	87,606	82,684
Impairment losses		-491
Loss allowance*	-525	
Total receivables from customers	**87,081**	**82,193**

* Loss allowance is itemised in Note 51. Loss allowance regarding receivables and notes and bonds

Changes in impairment losses on loans and guarantee receivables in receivables from customers

EUR million	Loans	Notes and bonds	Bank guarantee receivables	Interest receivables	Total
Impairment losses 1 January 2017	500	-1	9	-1	506
Increase in impairments of individually assessed loans and receivables	67	1	1	-14	55
Change in impairments of collectively assessed loans and receivables	7		0		7
Reversal of impairments of loans and receivables individually assessed	-34	0	-1	14	-21
Loans and guarantee receivables derecognised from the balance sheet, of which an individually assessed impairment	-56	0	0	0	-56
Impairment losses 31 December 2017	485	0	8	-2	491

Changes in loss allowance for 2018 is itemised in Note 51. Loss allowance regarding receivables and notes and bonds

Finance lease receivables

OP finances moveable capital assets, real property and other premises through finance leases.

EUR million	31 Dec. 2018	31 Dec. 2017
Maturity of finance leases		
Not later than one year	585	423
1-5 years	1,336	1,132
Over 5 years	326	386
Gross investment in finance leases	2,246	1,941
Unearned finance income (-)	-92	-85
Present value of minimum lease payments	**2,154**	**1,856**
Present value of minimum lease payment receivables		
Not later than one year	557	401
1-5 years	1,290	1,089
Over 5 years	307	367
Total	**2,154**	**1,856**

Note 20. Investment assets

EUR million	31 Dec. 2018	31 Dec. 2017
Financial assets held for trading		
Government notes and bonds	3	7
Certificate of deposits and commercial papers	290	392
Debentures	24	30
Perpetual loans	4	9
Bonds	180	150
Other notes and bonds	0	1
Shares and participations	81	0
Total	583	590
Financial assets that must measured at fair value through profit or loss		
Notes and bonds	451	
Shares and participations (Overlay approach)	1,085	
Shares and participations (other than those under Overlay approach)	45	
Total	1,581	
Financial assets designated as at fair value through profit or loss		
Notes and bonds	2,227	
Shares and participations	245	
Total	2,472	
Financial assets at fair value through profit or loss at inception		
Notes and bonds		3,310
Shares and participations		220
Total		3,530
Financial assets at fair value through other comprehensive income (Available-for-sale financial assets)		
Notes and bonds	17,124	16,372
Shares and participations		1,399
Total	17,124	17,771
Amortised cost		
Notes and bonds	4	
Other	65	
Total	69	
Held-to-maturity investments		
Notes and bonds		40
Loans and receivables		
Notes and bonds		5
Other		157
Total		161
Investment property		
Land and water areas	141	153
Buildings	838	851
Total	979	1,004
Associated companies		
Associates	237	228
Joint ventures	0	0
Total	237	228
Total investment assets	**23,047**	**23,324**

Breakdown of notes and bonds recognised at fair value through profit or loss and shares and participations by quotation and issuer

	31 Dec. 2018		31 Dec. 2017	
EUR million	Notes and bonds	Shares and participations	Notes and bonds	Shares and participations
Quoted				
From public corporations	762		1,733	0
From others	2,000	818	1,575	220
Other				
From public corporations	17			
From others	401	638	2	
Total	**3,181**	**1,456**	**3,310**	**220**

Financial assets recognised at fair value through other comprehensive income and investments carried at amortised cost 31 December 2018

	Notes and bonds			Shares and participations			
EUR million	At fair value	At amortised cost	Total	At fair value	At cost	Total	Investments carried at amortised cost
Quoted							
Eligible as collateral	12,455		12,455				
Ineligible as collateral	4,486		4,486	0		0	
Other							
From public corporations	7		7				
From others	176		176	0	0	0	
Total	**17,124**		**17,124**	**0**	**0**	**0**	

Financial assets recognised at fair value through other comprehensive income include EUR 29 million (39) in subordinated publicly quoted notes and bonds from others.

Available-for-sale financial assets and held-to-maturity investments, 31 December 2017

	Available-for-sale notes and bonds			participations			
EUR million	At fair value	At amortised cost	Total	At fair value	At cost	Total	Held-to-maturity investments
Quoted							
Eligible as collateral	11,260		11,260				23
Ineligible as collateral	4,608		4,608	743		743	10
Other							
From public corporations	0						
From others	505		505	595	62	657	8
Total	**16,372**		**16,372**	**1,337**	**62**	**1,399**	**40**
Impairment losses for the financial year	0		0	-38		-38	

Changes in investment property, EUR million	2018	2017
Acquisition cost 1 Jan.	939	910
Increases	65	51
Decreases	-85	-97
Transfers between items	12	76
Acquisition cost 31 Dec.	931	939
Accumulated changes in fair value	65	41
Changes in fair value during the financial year	-4	17
Decreases	-8	-7
Other changes	-5	14
Accumulated changes in fair value 31 Dec.	48	65
Carrying amount 31 Dec.	979	1,004

Increases in investment property include EUR 13 million (EUR 14 million) in capitalised expenses recognised after the acquisition. Depreciation, impairment losses and their reversals under PPE are charged to Other operating expenses. Changes in the fair value of investment property are recognised under Net investment income. The fair value of investment property holdings includes the portion of debt.

OP Financial Group companies own investment property subject to restrictions concerning their assignment and sales price under the legislation on state-subsidized housing loans, such property being worth EUR 1 million (1). Group companies had EUR 1 million (5) in construction and repair obligations regarding investment properties that were based on preliminary agreements.

A breakdown of tangible assets leased out under operating lease can be found in Note 44.

Investment property contains property used as collateral worth EUR 4 million (5).

Information on associated companies can be found in Note 22. Investments accounted for using the equity method.

Note 21. Assets covering unit-linked contracts

EUR million	31 Dec. 2018	31 Dec. 2017
Shares and participations	9,745	10,113
Other investments	26	13
Total	**9,771**	**10,126**

Note 22. Investments accounted for using the equity method

Amounts entered in the balance sheet:

EUR million	31 Dec. 2018	31 Dec. 2017
Associates	237	228
Joint ventures	0	0
Total	**237**	**228**

Amounts entered in the income statement:

EUR million	31 Dec. 2018	31 Dec. 2017
Associates	41	27
Total	**41**	**27**

Investments in associates and joint ventures

OP Financial Group has 18 (19) associates and 3 (3) joint ventures which are not significant when reviewing them one by one. The table below shows OP Financial Group's share of the profit/loss of these associates and joint ventures. Three (4) of the private equity funds treated as associates have been measured at fair value in accordance with IAS 28.

OP Financial Group's investments in associates and joint ventures have no quoted market price.

No contingent liabilities are involved in the associates or joint ventures. No such unrecognised commitments are related to the joint ventures that concern the provision of financing or resources or an obligation to buy another investor's interest in case certain future events occur.

EUR million	Associates consolidated using equity method 31 Dec. 2018	31 Dec. 2017	Associates measured at fair value 31 Dec. 2018	31 Dec. 2017	Joint ventures 31 Dec. 2018	31 Dec. 2017
Profit of continuing operations	19	9	21	18		
Comprehensive income	**19**	**9**	**21**	**18**		

The above summary of associates measured at fair value is based on the companies' financial statements.

Note 23. Intangible assets

Changes in intangible assets, EUR million	Goodwill	Brands	Customer relationships related to insurance contracts and policy acquisition costs		Other intangible assets	Total
Acquisition cost 1 January 2018	634	179	0	517	1,154	2,485
Increases*					182	182
Decreases	-1	-13		-10	-14	-38
Transfers between items					0	0
Acquisition cost 31 December 2018	633	166		507	1,323	2,630
Acc. amortisation and impairments 1 January		-7	0	-406	-517	-930
Amortisation during the financial year				-31	-138	-169
Impairments during the financial year		-4			-61	-65
Decreases		7		10	7	24
Other changes					0	0
Acc. amortisation and impairments 31 December 2018	0	-4		-428	-708	-1,140
Carrying amount 31 December 2018	633	162		79	615	1,490

* Internal development work accounts for EUR 12 million (EUR 14 million).

Changes in intangible assets, EUR million	Goodwill	Brands	Customer relationships related to insurance contracts and policy acquisition costs	Other intangible assets	Total
Acquisition cost 1 January 2017	634	179	514	959	2,286
Increases*			3	236	239
Decreases				-39	-39
Other changes				0	0
Transfers between items				-1	-1
Acquisition cost 31 December 2017	634	179	517	1,154	2,485
Acc. amortisation and impairments 1 January		-7	-373	-433	-812
Amortisation for the period			-34	-94	-127
Impairments for the period				-16	-16
Decreases				27	27
Other changes				-1	-1
Accumulated amortisation and impairments 31 December 2017		-7	-406	-517	-930
Carrying amount 31 December 2017	634	172	110	638	1,555

Other intangible assets

Carrying amount, EUR million	31 Dec. 2018	31 Dec. 2017
Information systems	391	344
Information systems under development	222	286
Other	2	7
Total	**615**	**638**

Intangible assets with indefinite economic lives

EUR million	31 Dec. 2018	31 Dec. 2017
Goodwill	633	634
Brands	162	172
Total	**795**	**807**

The useful lives of brands acquired through business combinations are estimated to be indefinite, since they will generate cash flows for an indefinable period.

Goodwill impairment test

Goodwill, EUR million	Acquired business	31 Dec. 2018	31 Dec. 2017
Non-life Insurance	Acquisition of Pohjola Group plc's non-life insurance business and Excenta Ltd's wellness business	392	393
Wealth Management	Acquisition of Pohjola Group plc's mutual fund, asset management and life insurance businesses	217	217
Banking	Acquisition of Pohjola Finance Ltd's businesses	13	13
Other business	Acquisition of Pohjola Group plc's ICT functions and of Checkout Finland Ltd's businesses	12	12
Total		**633**	**634**

Testing goodwill for impairment

Goodwill was determined by the so-called Purchase Price Allocation process (PPA). The resulting goodwill was allocated to the cash-generating units (CGUs), which were either business segments or entities included in them. Impairment testing of goodwill was carried out in accordance with IAS 36 on those CGUs for which acquisition cost calculations were made.

The value of the CGUs of OP Financial Group was, for the goodwill testing, determined by the 'Excess Returns' method. Accordingly, the profits for the current and future periods were reduced by the return requirement on equity capital. Any excess return was discounted by a discount rate corresponding to the return rate on equity capital in order to determine the present value of cash flows.

The testing period was determined to be five years under IFRS 36, including residual values.

The forecasts used in the cash flow statements are based on OP Financial Group's long-term business strategy, confirmed in in 2016 by OP Financial Group Central Cooperative's Supervisory Board, and expectations derived from them concerning business development in 2019–2021. Growth in cash flows for periods after 2021 ranges between 1.5 and 4%. Within Life Insurance, however, premiums written in interest-bearing investment are expected to fall further throughout the testing period, as specified in the valid strategy.

The discount rate used in the calculations was the market-based equity cost, which is in line with the applied value determination methods (i.e. through cash flows, only the value of equity belonging to investors was determined and the value was discounted by using the return requirement rate on equity capital). The discount rate used in the calculations before tax (i.e. IFRS WACC) varied from 7.4 to 9.9%. In 2017, it varied from 7.4 to 10.2%. Based on market information, OP Financial Group decreased the discount rate for Non-life and Life Insurance by 0.5 percentage points to 7.4%, for asset management and mutual fund business by 1.9 percentage points to 6.6% and for OP Finance business by 0.6 percentage points to 6.8%. The discount rate for ICT business after tax was increased by 0.4 percentage points to 6.7% to correspond to the discount rate based on market information.

The impairment testing of goodwill did not lead to recognition of impairment losses.

Sensitivity analysis of goodwill

A sensitivity analysis was carried out separately for each CGU on the basis of key parameters of each CGU. Variables used in the sensitivity analyses were the same a year ago. A change in one variable in relation to values used in forecasts causes an impairment risk. The sensitivity analysis does not include simultaneous changes in all key variables.

Key variables used in the sensitivity analysis and their changes that cause an impairment risk

Segment	Acquired business	Key variables	Value used in forecasts, %	Change caused by impairment risk, pp
Non-life Insurance	Non-life insurance business	Discount rate, %	8.7	9.0
		Combined ratio, %	90-92	9.41
		Net investment income, %	2,3-4,0	-3.8
Wealth Management	Asset management business	Discount rate, %	7.9	21.7
		Growth in assets under management, %	4.0	-10.5
		Growth in expenses, %	1.5	10.7
	Life insurance business	Discount rate, %	9.9	5.4
		Growth in operating expenses, %	1.5	2.5
		Net investment income percentage, %	0,5-2,6	-0.4
	Mutual fund business	Discount rate, %	7.4	16.5
		Growth in mutual fund assets, %	4	-11.0
		Growth in expenses of fixed type, %	1.5	11.4
Banking	OP Finance Ltd's business	Discount rate, %	8.1	14.8
		Loan portfolio growth, %	2,0-4,1	-15.7
		Growth in expenses, %	2.0	14.4
Other Operations	ICT business	Discount rate, %	7.9	52.2
		Growth in service income, %	0,1 / 6,1	-65.9
		Contribution margin, %	2.0	-1.7

Impairment testing of brands

OP Financial Group's brands originate entirely from the acquisition of Pohjola Group plc's business operations. Impairment testing was carried out separately for the Pohjola, Eurooppalainen and A-Vakuutus (A-Insurance) brands, in accordance with IAS 36. OP Financial Group sold the Seesam brand to Vienna Insurance Group (VIG) as part of the sale of all share capital of Seesam Insurance AS as well as the sale of the Latvian and Lithuanian branches.

The value of the brands was determined by using the 'Relief from Royalty' method. Accordingly, their value was determined to be royalty savings accrued in the future from owning the brands, discounted to the present. In testing the Pohjola brand, the used discount rate was the weighted average of market-based equity costs for non-life and occupational healthcare services (7.3% and 7.3%) plus an asset-specific risk premium of 3%. The discount rate used in testing other brands was the market-based equity cost defined for Non-life Insurance (7.3%) plus an asset-specific risk premium of 3%. The same risk premium and the corresponding royalty percentages were applied in 2018 as in the PPA procedure and in previous years' tests.

The testing period of brands was determined to be five years under IAS 36. The forecasts used in cash flow statements are based on strategy figures for 2019–2021 updated for Non-life Insurance and post-strategy-period expectations derived from them regarding the business line's future developments. A 3% inflationary expectation was used as growth in cash flows for post-forecast periods.

OP Financial Group is planning to adopt the Pohjola name in its non-life insurance business during 2019. OP Insurance Ltd would, in the future, be known under the name Pohjola Insurance Ltd. Alongside the rebranding of non-life insurance business, Pohjola Health will be renamed Pohjola Hospital and it will focus on hospital business in the future. If materialised, this change will become effective during 2019. As part of testing the Pohjola brand for impairment, the Group assessed the effect of the abovementioned change on the useful life and the length of the testing period, the discount rate, risk premium and royalty rate used in testing. As a result, the Group stated that the brand is, according to IAS 36, an intangible asset in terms of its useful life. The brand will also be used for traditional insurance business, so the testing period was restored to the original five years. Previously, the testing period was extended to 15 years because the brand was used only for the fast-growing healthcare and wellbeing business. No material changes was made to other parameters because the parameters initially were suitable for the insurance business. The testing of the brand took account of the cash flows comparable with the net sales of the businesses that will operate under the brand.

As a result of testing brands for any impairment, there is no need to recognise any impairment loss on brands in the financial statements 2018. The Eurooppalainen brand has, however, been written down in the financial statements because the company is planned to merge with OP Insurance.

Impairment testing of other essential intangible assets

OP Financial Group's customer relationships and insurance contracts were acquired as part of the acquisition of the business operations of Pohjola Group plc. In addition, intangible assets related to customer relationships and insurance contracts were allocated to OP Financial Group's balance sheet in 2012 as part of the acquisition of Aurum Investment Insurance Ltd.

Intangible assets originating from Non-life Insurance customer relationships was amortised on a straight-line basis during 2018. Intangible assets originating from Life Insurance customer relationships as well as from insurance contracts are charged to expenses using amortisation on a front-loaded basis, over their estimated useful lives. No indications of the need for impairment recognition

Note 24. Property, plant and equipment

EUR million	31 Dec. 2018	31 Dec. 2017
Property in Group use		
Land and water areas	80	82
Buildings	589	649
Machinery and equipment	53	51
Other tangible assets	15	16
Leased-out assets	0	0
Total property, plant and equipment	**737**	**798**
of which construction in progress	4	42

Changes in property, plant and equipment (PPE), and investment property, EUR million	Property in Group use	Machinery and equipment	Other tangible assets	Leased-out assets	Total PPE
Acquisition cost 1 January 2018	1,175	130	18	2	1,325
Increases	40	18	1	0	60
Decreases	-25	-7	-2	-1	-35
Transfers between items	-14	1	0		-13
Acquisition cost 31 December 2018	1,176	141	17	1	1,336
Accumulated depreciation and impairments 1 January 2017	-445	-78	-2	-2	-527
Depreciation for the financial year	-34	-15	-1	0	-50
Impairments for the financial year	-39		-3		-41
Reversal of impairments during the financial year	0				0
Decreases	7	5	0	1	13
Other changes	3		3		6
Accumulated depreciation and impairments 31 December 2018	-508	-88	-2	-1	-599
Carrying amount 31 December 2018	668	53	15	0	737

Changes in property, plant and equipment (PPE), and investment property, EUR million	Property in Group use	Machinery and equipment	Other tangible assets	Leased-out assets	Total PPE
Acquisition cost 1 January 2017	1,226	214	34	5	1,479
Increases	119	22	1	0	142
Decreases	-94	-106	-17	-3	-220
Transfers between items	-76	0	0	0	-76
Acquisition cost 31 December 2017	1,175	130	18	2	1,325
Accumulated depreciations and impairments 1 January 2017	-419	-169	-16	-4	-609
Depreciation for the financial year	-35	-14	-1	0	-50
Impairments for the financial year	-39	0	0	0	-39
Reversal of impairments during the financial year	0	0	0	0	0
Decreases	54	105	15	2	176
Other changes	-5	0	0	0	-5
Accumulated depreciations and impairments 31 December 2017	-445	-78	-2	-2	-527
Carrying amount 31 December 2017	731	51	16	0	798

Note 25. Other assets

EUR million	31 Dec. 2018	31 Dec. 2017
Payment transfer receivables	21	67
Pension assets	34	0
Accrued income and prepaid expenses		
Interest	195	199
Interest on derivatives receivables	170	199
Commission receivables from asset management	7	8
Performance-based management fees from asset management	1	13
Subscription, redemption and management fee receivables	23	26
Other insurance operations' items	86	86
Other	58	26
Derivatives receivables, central counterparty clearing	3	11
CSA receivables from derivative contracts	458	543
Securities receivables	20	17
Direct insurance receivables	322	311
Claims administration contracts	181	181
Reinsurance receivables	73	80
Reinsurers' share of provisions for unearned premiums	8	11
Reinsurers' share of provisions for unpaid claims	97	84
Other receivables	278	270
Total	**2,033**	**2,131**

Note 26. Tax assets and liabilities

EUR million	31 Dec. 2018	31 Dec. 2017
Income tax assets	61	55
Deferred tax assets	148	169
Total tax assets	**209**	**224**

EUR million	31 Dec. 2018	31 Dec. 2017
Income tax liabilities	4	15
Deferred tax liabilities	917	874
Total tax liabilities	**921**	**890**

Deferred tax assets	31 Dec. 2018	31 Dec. 2017
Due to financial assets at fair value through other comprehensive income (Available-for-sale financial ass	2	0
Due to depreciation and impairments	6	4
Due to provisions and impairments on loans	16	18
Due to losses related to taxation	1	1
Cash flow hedge	4	4
Due to hedging of interest rate risk associated with technical provisions	9	-2
Due to timing difference of securities issued to the public		0
Due to timing difference of derivatives	7	8
Due to defined-benefit pension plans	46	79
Due to consolidation of Group accounts	33	25
Due to other temporary differences	47	47
Set-off against deferred tax liabilities	-23	-16
Total	**148**	**169**

Deferred tax liabilities	31 Dec. 2018	31 Dec. 2017
Due to appropriations	671	617
Due to financial assets at fair value through other comprehensive income (Available-for-sale financial ass	0	64
Cash flow hedge	12	8
Due to elimination of equalisation provision	66	59
Due to fair value measurement of investment	47	35
Allocation of price of corporate acquisitions	44	51
Defined benefit pension plans	43	20
Due to consolidation of Group accounts	11	3
Due to other temporary differences	45	33
Set-off against deferred tax assets	-23	-16
Total	**917**	**874**
Net deferred tax asset (+)/liability (-)	**-769**	**-705**

Changes in deferred taxes	31 Dec. 2018	31 Dec. 2017
Deferred tax assets/liabilities 1 January	-705	-707
Effect of changes in accounting policies, total	3	
Deferred tax assets /liabilities 1 January	-703	-707
Recognised in the income statement		
Effect of losses	0	0
Provisions and impairments on receivables	-2	1
Appropriations	-54	-42
Amortisation/depreciation and impairments	6	6
Eliminations of equalisation provisions	-7	1
Defined-benefit pension plans	-38	8
Due to hedging of interest rate risk associated with technical provisions	12	-10
Due to provisions and impairment losses on receivables	0	-1
Due to timing difference of derivatives	-2	0
Investment valuation	-13	-8
Other	2	17
Recognised in statement of comprehensive income		
Available-for-sale financial assets		
Changes in fair value	43	4
Cash flow hedge	-13	-1
Transfers to the income statement	13	41
Actuarial gains/losses on post-employment benefit obligations	-18	-10
Change in revaluation reserve		-4
Other	5	-3
Total deferred tax assets 31 December, asset (+)/liability (-)	**-769**	**-705**
Income tax assets, asset (+)/liability (-)	**57**	**39**
Total tax assets, asset (+)/liability (-)	**-712**	**-666**

Tax losses for which a deferred tax asset was not recognised came to EUR 189 million (EUR 87 million) at the end of 2018. The losses will expire before 2028.

A deferred tax liability has not been recognised for the EUR 22 million (EUR 56 million) of undistributed profits of the Baltic subsidiaries, since the assets have been permanently invested in these countries.

Notes to liabilities and equity capital

Note 27. Liabilities to credit institutions

EUR Million	31 Dec. 2018	31 Dec. 2017
Liabilities to central banks	4,006	4,023
Liabilities to credit institutions		
Repayable on demand		
Deposits	1	141
Other liabilities	1	0
Total	2	141
Other than repayable on demand		
Deposits	730	974
Other liabilities	68	20
Total	798	993
Total liabilities to credit institutions and central banks	**4,807**	**5,157**

Note 28. Derivative contracts

EUR million	31 Dec. 2018	31 Dec. 2017
Held for trading		
Interest rate derivatives	2,316	2,368
Currency derivatives	145	196
Equity and index derivatives	0	0
Credit derivatives	4	0
Other	8	26
Total	2,474	2,591
Hedging derivative contracts		
Fair value hedging		
Interest rate derivatives	289	342
Currency derivatives	57	86
Other		0
Cash flow hedge		
Interest rate derivatives	1	8
Total	347	436
Total derivative contracts	**2,821**	**3,026**

The balance sheet item includes negative changes in value of derivative contracts as well as premiums received.

Note 29. Liabilities to customers

EUR million	31 Dec. 2018	31 Dec. 2017
Deposits		
Repayable on demand		
Private	35,990	33,505
Companies and public-sector entities	23,911	22,383
Total	59,902	55,889
Other		
Private	1,292	1,548
Companies and public-sector entities	133	554
Total	1,425	2,102
Total deposits	61,327	57,991
Other financial liabilities		
Repayable on demand		
Private	17	13
Companies and public-sector entities	0	0
Total	17	14
Other		
Companies and public-sector entities	4,767	7,545
Total	4,767	7,545
Total other financial liabilities	4,785	7,559
Total liabilities to customers	**66,112**	**65,549**

Note 30. Insurance liabilities

EUR million	31 Dec. 2018	31 Dec. 2017
Non-life Insurance insurance liabilities	3,157	3,143
Insurance liability of Life Insurance other than guaranteed portions of unit-linked insurance	6,354	6,842
Life Insurance liability other than guaranteed portions of unit-linked investment contracts	3	3
Total	**9,514**	**9,987**

Non-life Insurance contract liabilities and reinsurers' share

	31 Dec. 2018			31 Dec. 2017		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims for annuities	1,510	-4	1,506	1,516	-6	1,510
Other provisions by case	182	-69	113	194	-53	141
Special provision for occupational diseases	13		13	14		14
Collective liability (IBNR)	761	-23	737	779	-25	754
Reserved loss adjustment expenses	101		101	67		67
Provision for unearned premiums	569	-8	561	585	-11	574
Interest rate hedge for insurance liabilities	21		21	-12		-12
Total Non-life Insurance insurance liabilities	**3,157**	**-104**	**3,053**	**3,143**	**-95**	**3,048**

Changes in insurance liabilities arising from insurance contracts and in receivables arising from reinsurance contracts

	2018			2017		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims						
Provision for unpaid claims 1 Jan.	2,557	-84	2,473	2,430	-64	2,365
Claims paid in financial year	-1,075	30	-1,045	-1,004	8	-996
Change in liability/receivable	1,081	-42	1,039	1,113	-28	1,085
Current period claims	1,121	-40	1,081	1,043	-25	1,018
Increase (decrease) from previous financial ye	-39	-2	-42	-32	-3	-35
Change in discount rate				102		102
Unwinding of discount	27		27	31		31
Value change in interest rate hedges	25		25	-12		-12
Sold business operations	-28		-28			
Foreign exchange gains (losses)	0		0	0	0	0
Provision for unpaid claims 31 Dec.	2,588	-97	2,491	2,557	-84	2,473
Liability for remaining contract period						
Insurance liability 1 Jan.	585	-11	574	578	-14	565
Increase	539	-7	532	524	-6	518
Decrease	-528	10	-518	-518	9	-509
Sold business operations	-27		-27			
Unwinding of discount	1		1	1		1
Insurance liability 31 Dec.	569	-8	561	585	-11	574
Total Non-life Insurance insurance liabilities	**3,157**	**-105**	**3,052**	**3,143**	**-95**	**3,048**

The insurance liability for the remaining contract period of insurance contracts has mainly been determined in accordance with the pro rata parte temporis rule for each contract.

Determination of insurance liabilities arising from non-life insurance contracts

a) Methods and assumptions used

The amount of insurance liability has been estimated in such a way that it is, in reasonable probability, sufficient to cover the liabilities arising from insurance contracts. This has been performed by estimating an expected value for the insurance liability and, after that, by determining a safety margin based on the degree of uncertainty related to the liability.

The provision for unpaid claims for annuities corresponds to the discounted present value of cash flow of compensation for loss of income payable as continuous annuity. The discount rate is determined taking account of the current interest rate, security required by law and the maximum discount rate set by the authorities and expected reasonable return on assets covering insurance liabilities. On 31 December 2018, the discount rate used was 1.5% (1.5). The mortality model applied is the cohort mortality model which is based on Finnish demographic statistics and which assumes the current trend of an increase in life expectancy to continue.

The provision for unpaid claims includes asbestos liabilities which arise from occupational diseases coverable under statutory workers' compensation insurance. The forecasted cash flow of these claims is based on an analysis which takes account of to what extent asbestos was used annually as raw material in Finland and how the latency periods of different asbestos diseases are distributed. Trends in asbestos-related claims are monitored annually and the outcome has corresponded well to the forecast.

Determining collective liability is based on different statistical methods: Bornhuetter-Ferguson, Cape Cod and Chain Ladder. When applying these methods, other selections must also be made, in addition to the selection of the method, such as deciding on how many occurrence years' statistics the methods will be applied.

In the valuation of collective liability, the largest risks relate to

- Estimating the future rate of inflation (excl. indemnities for loss of income payable on the basis of statutory insurance)

- Adjustment of changes due to changed compensation practices and legislation in the development triangle of claims (i.e. whether history provides a correct picture of the future)

- Adequacy of historical information over dozens of years.

Of the collective liability, only the liability for annuities has been discounted.

For the assessment of collective liability, the Group's non-life insurance portfolio is divided into several categories by risk and eg maturity of the cash flow applying to compensation paid. In each category, collective liability is first calculated using each statistical method stated above, and the method that best suits the category under review is chosen. The selection criteria used includes how well the model would have predicted developments in prior years of occurrence and the sensitivity of the estimate generated by the model with respect to the number of statistical years used. The safety margin of 2–10% is added to the expected value generated by the selected model. The safety margin is determined by the uncertainty associated with future cash flows and duration, as well as the quality of historical data.

When estimating the collective liability for medical expenses and rehabilitation expenses benefits in statutory workers' compensation and motor liability insurance, the Group has taken account of the fact claims paid for losses occurred more than 10 years ago are financed through the pay-as-you-go system.

Effect of changes in methods and assumptions on amount of liability	2018	2017
Effect of changes in methods and assumptions on amount of liability	17	102
Total	**17**	**102**

b) Claims development

The claims triangle compares the actual claims incurred with previous estimates. The triangles describing claims development have been drawn up by occurrence year.

With the exception of long-term liabilities, claims development for the gross business is presented over a period of ten years. The claims triangle does not monitor the shares of pools and the trends in the rights of recourse related to statutory workers' compensation insurance. The capital value of finalised annuities is treated as if the annuities had been paid equalling the capital amount in connection with confirmation as final. For long-term liabilities, i.e. annuities confirmed as final and asbestos-related claims, information on the adequacy of insurance liabilities is provided.

Claims triangles, gross business, EUR million

Occurrenc	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Estimated total claims expenditure											
0*	666	738	784	815	903	931	976	1,000	1,043	1,121	8,977
n+1	633	746	751	802	879	905	887	1,006	1,063		
n+2	640	744	752	805	861	920	902	995			
n+3	641	743	757	821	885	939	910				
n+4	651	750	771	836	891	929					
n+5	653	760	786	840	888						
n+6	659	771	785	840							
n+7	670	772	783								
n+8	673	779									
n+9	674										
Current estimate of total claims expenditure											
	674	779	783	840	888	929	910	995	1,063	1,121	8,982
Accumulated claims paid											
	-645	-740	-743	-791	-833	-858	-818	-882	-892	-652	-7,854
Provision for unpaid claims for 2009-2018											
	29	**39**	**40**	**49**	**56**	**71**	**92**	**113**	**171**	**469**	**1,128**
Provision for unpaid claims for previous years											214

* = at the end of the occurrence year

Development of claims due to latent occupational diseases, EUR million

Financial y	Collective liability	Known liabilities for annuities	Claims paid	Claims incurred	Changes in reserving basis*	Adequacy
2009	42	43	-4	-8	4	-4
2010	38	44	-3	0		0
2011	35	50	-3	-6	5	-2
2012	32	53	-4	-4	2	-1
2013	28	53	-4	-1	1	0
2014	22	53	-4	-2	2	0
2015	19	54	-4	-2	2	-1
2016	17	53	-5	-1	2	1
2017	14	53	-5	-3	3	0
2018	13	51	-6	-2		-2

Development of annuities confirmed as final, EUR million

Financial y	Year-start	Year-end	New annuity capital	Annuities paid	Changes in reserving basis*	Adequacy
2009	763**	771	42	32		2
2010	771	794	60	34		3
2011	794	895	66	35	77	7
2012	895	940	66	34	31	18
2013	940	965	51	37	23	12
2014	965	1,010	54	40	36	5
2015	1,010	1,046	53	44	30	2
2016	1,046	1,080	54	49	31	3
2017	1,080	1,141	54	52	75	16
2018	1,141	1,145	56	54		-2

* Effect of changes in the discount rate and the mortality model on final annuity capital.

** A small amount of healthcare and senior housing provisions was eliminated from 2009 figures.

Claims triangles, net business, EUR million

Occurrence	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Estimated total claims expenditure											
0*	649	693	721	796	861	897	957	992	1,019	1,081	8,666
n+1	620	707	697	782	829	868	877	1,000	1,026		
n+2	629	705	710	786	819	875	892	990			
n+3	629	705	714	804	843	887	898				
n+4	633	712	727	818	847	887					
n+5	633	721	741	823	847						
n+6	635	732	743	823							
n+7	646	734	742								
n+8	648	740									
n+9	648										
Current estimate of total claims expenditure											
	648	740	742	823	847	887	898	990	1,026	1,081	8,684
Accumulated claims paid											
	-632	-702	-703	-775	-794	-820	-810	-880	-885	-648	-7,648
Provision for unpaid claims for 2009-2018											
	16	**39**	**39**	**49**	**54**	**68**	**88**	**110**	**141**	**432**	**1,036**
Provision for unpaid claims for previous years											209

* = at the end of the occurrence year

Change in claims incurred based on loss events for prior financial years

Claims incurred for losses occurred in prior financial years decreased by EUR 42 million while those for the previous financial year increased by EUR 67 million. Change in claims incurred based on loss events for prior financial years describes the adequacy of insurance liabilities, which on average is positive due to the security of insurance liabilities.

Changes in Life Insurance insurance liabilities

Liabilities, EUR million	1 Jan. 2018	Growth in liability arising from insurance premiums	Dis-charged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec. 2018
Other than unit-linked contract liabilities							
Other insurance liability than unit-linked liability discounted with interest rate	2,898	72	-227	87	-12	7	2,824
Separated balance sheet 1	904	0	-45	35	-6	-61	827
Separated balance sheet 2	2,565	6	-219	110	9	-175	2,296
Other liability than unit-linked investment contracts discounted with interest rate	3	0	0	0	0	0	3
Reserve for decreased discount rate	413					-116	297
Effect of discounting with market interest rate	-8					51	43
Other items	70					-3	66
Total	**6,845**	**79**	**-491**	**232**	**-10**	**-297**	**6,357**

Liabilities, EUR million	1 Jan. 2017	Growth in liability arising from insurance premiums	Dis-charged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec. 2017
Other than unit-linked contract liabilities							
Other insurance liability than unit-linked liability discounted with interest rate	2,999	153	-234	90	-97	-13	2,898
Separated balance sheet 1	1,066	0	-56	40	-6	-140	904
Separated balance sheet 2	3,045	9	-264	80	7	-311	2,565
Other liability than unit-linked investment contracts discounted with interest rate	3	0	0	0	0	-1	3
Reserve for decreased discount rate	390					23	413
Effect of discounting with market interest rate	42					-50	-8
Other items	72					-3	70
Total	**7,618**	**162**	**-554**	**210**	**-96**	**-494**	**6,845**

When determining the liabilities related to insurance and investment contracts other than unit-linked contracts and to unit-linked policies, OP Financial Group has complied with the Finnish Accounting Standards, with the exception that the Group started using the discount rate for insurance liabilities that is closer to the real-time interest rate. Insurance and capital redemption contract savings have been entered in the life insurance company's balance sheet at its own investment risk with their interest rate guarantees ranging between 1.5% and 4.5% and discounted to the amount of the interest guarantee in the national financial accounts' insurance liabilities. The effect of the reduced discount rate under FAS has been entered in the reserve for the decreased discount rate. Part of the interest rate risk between the market and discount rate has been hedged using fixed-income investments, the value of which has been entered as part of the liability from insurance and capital redemption contracts.

Life insurance liabilities act as term life insurance liabilities.

Amounts recovered from or due to reinsurers are measured consistently with the amounts associated with the reinsured insurance contracts and are recognised in the balance sheet separately.

Group pension insurance liabilities have been annually increased since 2011 owing to the higher life expectancy.

Refunded interest amounts includes guaranteed interest and, based on management judgement, distributed and paid customer bonuses.

Note 31. Liabilities from unit-linked insurance and investment contracts

EUR million	31 Dec. 2018	31 Dec. 2017
Unit-linked contract liabilities		
Liabilities for unit-linked insurance contracts	4,518	5,036
Liabilities for unit-linked investment contracts	5,255	5,084
Total	**9,774**	**10,120**

Changes in insurance liabilities

Liabilities, EUR million	1 Jan. 2018	Growth in liability arising from insurance premiums	Discharged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec. 2018
Unit-linked contract liabilities							
Liabilities for unit-linked insurance contracts	5,036	179	-339	-315	-18	-26	4,518
Liabilities for unit-linked investments contracts	5,084	812	-411	-310	-20	101	5,255
Total	**10,120**	**991**	**-750**	**-625**	**-38**	**75**	**9,774**

Liabilities, EUR million	1 Jan. 2017	Growth in liability arising from insurance premiums	Discharged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec. 2017
Unit-linked contract liabilities							
Liabilities for unit-linked insurance contracts	4,944	219	-335	215	-19	12	5,036
Liabilities for unit-linked investments contracts	4,221	593	-284	219	-18	353	5,084
Total	**9,166**	**813**	**-619**	**434**	**-37**	**365**	**10,120**

The dependence of unit-linked contracts is the policyholder's choice. At company level, the value change cannot be compared with any benchmark index. Similarly, return from guaranteed-interest investment contracts cannot reliably be compared with any benchmark index. Return from guaranteed-interest investment contracts cannot reliably be compared with any benchmark index. The return is based on that on assets covering the liability. Company assets have no benchmark.

Unit-linked investment contracts are measured at fair value.

The liability of unit-linked policies is valued at the market values of assets associated with contracts on the balance sheet date.

Note 32. Debt securities issued to the public

EUR million	Average interest rate %	31 Dec. 2018	Average interest rate %	31 Dec. 2017
Bonds	0.83	9,520	1.24	9,016
Covered bonds		10,720		10,750
Other				
Certificates of deposit	2.53	105	1.10	83
Commercial paper	0.55	10,162	0.47	7,034
Included in own portfolio in trading (–)*		-50		-42
Total debt securities issued to the public		**30,456**		**26,841**

*Own bonds held by OP Group have been set off against liabilities.

Reconciliation of changes in liabilities in cash flows from financing activities against balance sheet items

EUR million	Debt securities issued to the public	Subordinated liabilities
Balance sheet value 1 Jan. 2018	**26,841**	**1,400**
Changes in cash flows from financing activities		
Increases in bonds	2,344	
Increases in covered bonds	1,004	
Increases in certificates of deposit	141	
Increases in commercial papers	24,495	
Increases total	**27,984**	
Decreases in bonds	-1,898	
Decreases in covered bonds	-1,100	
Decreases in certificates of deposit	-121	
Decreases in commercial papers	-21,346	
Decreases total	**-24,465**	
Total changes in cash flows from financing activities	**3,519**	
Valuations and changes in exchange rates	96	-42
Balance sheet value 31 Dec. 2018	**30,456**	**1,358**

EUR million	Debt securities issued to the public	Subordinated liabilities
Balance sheet value 1 Jan. 2017	**28,287**	**1,445**
Changes in cash flows from financing activities		
Increases in bonds	1,194	
Increases in covered bonds	2,991	
Increases in certificates of deposit	86	
Increases in commercial papers	19,779	
Increases total	**24,051**	
Decreases in bonds	-2,863	
Decreases in covered bonds	-1,396	
Decreases in certificates of deposit	-28	
Decreases in commercial papers	-20,459	
Decreases total	**-24,747**	
Total changes in cash flows from financing activities	**-696**	
Valuations and changes in exchange rates	-750	-45
Balance sheet value 31 Dec. 2017	**26,841**	**1,400**

Most significant issues in 2018	Nominal amount	Interest rate
OP Corporate Bank plc		
OP Corporate Bank plc Issue of EUR 500,000,000 Floating Rate Instruments due May 2021 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	EUB3M + 0,500 %
OP Corporate Bank plc Issue of EUR 500,000,000 0.375 per cent. Instruments due 29 Aug 2023 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.375%
OP Corporate Bank plc Issue of EUR 500,000,000 1.00 per cent. Instruments due 22 May 2025 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments.	500.0	Fixed 1.000%
OP Mortgage Bank		
OP Mortgage Bank Issue of EUR 1,000,000,000 0,625 per cent. Covered Notes due 1 Sep 2025 under the EUR 15,000,000,000 Euro Medium Covered Note Programme.	1,000.0	Fixed 0.625%

Note 33. Provisions and other liabilities

EUR million	31 Dec. 2018	31 Dec. 2017
Provisions		
Loss allowance	6	
Reorganisation provision	10	
Other statutory provisions	5	9
Other liabilities		
Payment transfer liabilities	929	731
Accrued expenses		
Interest payable	182	200
Interest payable on derivatives	190	197
Other accrued expenses	368	378
CSA liabilities from derivatives	504	657
Pension liabilities	62	304
Accounts payable on securities	21	36
Payables based on purchase invoices	50	82
Direct insurance liabilities	49	51
Reinsurance liabilities	11	16
Claims administration contracts	209	192
Total	2,576	2,843
Other	188	298
Total provisions and other liabilities	**2,785**	**3,150**

Changes in provisions

EUR million	Loss allowance	Reorganisation	Other provisions	Total
31 Dec. 2017			9	9
1 Jan. 2018 IFRS 9 transition	10			10
Increase in provisions		10	5	15
Provisions used	-4		-9	-13
Reversal of unused provisions				0
31 Dec. 2018	6	10	5	22

EUR million	Reorganisation	Other provisions	Total
1 Jan. 2017	0	3	4
Increase in provisions		1	1
Provisions used	0	-2	-2
Reversal of unused provisions		-1	-1
31 Dec. 2017	0	3	3

Claims administration contracts

Claims administration contracts are contracts which are not insurance contracts, but on the basis of which claims are paid on behalf of another party which has full risk for its own account. Among these contracts, the most important are captive arrangements in which the insured risk is reinsured with a captive company belonging to the same Group of companies with the customer; index increases in annuities of statutory workers' compensation, motor liability and patient insurance policies; certain other increases in benefits; and medical treatment indemnities payable over ten years after the occurrence of the accident; as well as public sector patient insurance.

Defined benefit pension plans

OP Financial Group has funded assets of its pension schemes through OP Bank Group Pension Fund, OP Bank Group Pension Foundation and insurance companies. Schemes related to supplementary pensions in the Pension Foundation and insurance company, as well as the TyEL (Employees' Pensions Act) funded old-age and disability pension schemes managed by the Pension Fund are treated as defined benefit plans. Contributions to the TyEL pay-as-you-go system are treated as defined contribution plans.

OP Bank Group Pension Fund

OP Bank Group Pension Fund has managed statutory pension insurance for the employees of OP Financial Group employers. The statutory pension scheme under TyEL (Employees' Pensions Act) provides pension benefits based on the years of employment and earnings as prescribed in the Act.

The new TyEL came into force in 2017. Benefits under the employees pension scheme comprise old-age pension, partial early old-age pension, year-of-service pension, disability pension, survivors' pension and rehabilitation benefits. Partial early old-age pension based on the previous TyEL was replaced with partial old-age pension and it did not recognise years-of-age pension. The changes in benefits caused by the amended law was already recognised in the income statement before 2017.

The TyEL pension scheme is based on a system that is partly a funded system and partly a pay-as-you go system. A pension insurance institution, which has insured each employment, manages funding for each employee. The funded portion of the pension benefits disbursed annually by the Pension Fund accounts for an average of a quarter.

The Pension Fund aims to manage statutory pension insurance in such a way that the level of contributions will remain steady year after year and be below the average contribution level of the employees pension scheme. In 2018, OP Bank Group Pension Fund's level of contributions was 22.9% and the plan's average contribution level is 24.4%. The most significant associated risk relates to the possibility of the actual return on investment assets being lower than the actual average investment return under the pension scheme. If such a risk materialises in several consecutive years, this would result in increasing the level of insurance contributions.

The most significant actuarial risks of OP Bank Group Pension Fund are associated with interest rate and market risks, future increases in pension benefits and systematically increasing life expectancy. A change in the discount rate for pension liabilities has a substantial effect on the amount of pension liabilities.

Under the Employee Benefit Funds Act, the Pension Fund must invest its assets securely and profitably and in view of its liquidity. The Pension Fund must cover the insurance liability arising from pension obligations, in accordance with the national accounting framework. When covering the insurance liability, the Pension Fund must consider what type of insurance business it conducts and, accordingly, must ensure the security of, return on and cashability of its assets and that they are appropriately versatile and properly diversified. As prescribed by law, the Pension Fund has a specific solvency limit which it must cover through its solvency capital.

Responsible for investment, the Board of Trustees of the Pension Fund approves the Pension Fund's investment plan related to its assets. A pension institution's chief actuary prepares annually a forecast for developments in insurance liabilities and pension costs. On this basis, investment asset allocation takes account of the requirements set by the nature of insurance liabilities for investment operations with respect to the level of security, productivity and liquidity, as well as the Pension Fund's risk-bearing capacity.

The Representative Assembly of OP Bank Group Pension Fund decided on 31 July 2018 to transfer the management of statutory earnings-related pension insurance and the pension insurance portfolio of EUR 1,068 million to Ilmarinen Mutual Pension Insurance Company. The transferred solvency capital totalled EUR 263 million. This decision was preceded by competitive bidding in which the Board of Trustees of OP Bank Group Pension Fund invited bids from the largest pension insurance companies. The insurance portfolio concerned accounted for some 90.8% of OP Bank Group Pension Fund's total pension liability. The transfer was executed on 31 December 2018. Based on the initial plan, the remaining pension liability will be transferred to Ilmarinen at a later date, but no earlier than at the end of 2020. The transfer reduced OP Financial Group's pension costs and improved earnings before tax by EUR 286 million while improving the Group's capital adequacy ratio by 0.4 percentage points.

Supplementary pension at OP Bank Group Pension Foundation and insurance companies

OP Bank Group Pension Foundation manages supplementary pension cover for employees provided by the employers within OP Financial Group. The purpose of the Pension Foundation is to grant old-age and disability pension benefits and sickness benefits to employees covered by the Pension Foundation activities, and survivors' pension benefits to their beneficiaries, and burial grant. In addition, the Pension Foundation may grant said employees benefits related to rehabilitation. Given that providing supplementary pension is voluntary, not all employers belonging to the Pension Fund belong automatically to the Pension Foundation. Supplementary pension cover provided by the Pension Foundation is fully funded.

The Pension Foundation covers every employee who has reached the age of 20 years and who has been employed, as specified by TyEL, for two consecutive years by the employer within the Pension Foundation and whose employment has begun before 1 July 1991. The employment term entitling to pension begins from the day the employee turned 23 years in the employment of the employer. The salary/wage serving as the basis for the calculation of pension refers to pensionable pay based on one and the same employment and calculated under the Finnish Employees' Pensions Act, TEL, in force until 31 December 2006. The retirement age of those covered by the Pension Foundation varies from 60 to 65 years, depending on the personnel group to which the employee belongs under the Pension Foundation rules.

OP Bank Group Pension Foundation altered its bylaws to be in line with the amended TyEL effective since 1 January 2017. The effect of this alteration was EUR–2 million on income and EUR –12 million on comprehensive income. In 2017, liabilities were increased by a one-off increase in the liability of paid-up policies performed based on the Finnish Insurance Complaints Board's recommendation, and by a decision by the Labour Court on adjusting supplementary pensions under the collective agreement in the financial sector to TyEL that entered into force at the beginning of the year. TThe effect of the liability on comprehensive income for 2017 was EUR 45 million.

The most significant associated risk relates to the possibility of the actual return on investment assets being lower than the target set for the minimum return. If such a risk materialises in several consecutive years, this would result in charging contributions.

The most significant actuarial risks of OP Bank Group Pension Foundation are associated with interest rate and market risks, systematically increasing life expectancy and inflation risk. A change in the discount rate for pension liabilities has a substantial effect on the amount of pension liabilities.

Responsible for investment, the Board of Trustees of the Pension Foundation approves the Foundation's investment plan related to its assets. A pension institution's chief actuary prepares annually a forecast for developments in insurance liabilities and pension costs. On this basis, investment asset allocation takes account of the requirements set by the nature of insurance liabilities for investment operations with respect to the level of security, productivity and liquidity, as well as the Pension Foundation's risk-bearing capacity.

Supplementary pension has also been arranged in life insurance companies. The adaptation performed as a result of the TyEL change in 2017 increased the liability by EUR 12 million in the financial statements for 2018.

	Defined benefit obligations		Fair value of pension assets		Net liabilities (assets)	
Balance sheet value of defined benefit plans, EUR million	2018	2017	2018	2017	2018	2017
Opening balance 1 Jan.	**2,230**	**2,131**	**-1,926**	**-1,821**	**304**	**310**
Defined benefit pension costs recognised in income statement						
Current service cost	62	59			62	59
Interest expense (income)	37	35	-32	-30	5	5
Effect of plan curtailment, change and fulfilment of obligation or previous service cost	-1,484	0	1,208		-276	0
Administrative expenses			1	1	1	1
Total	**-1,385**	**94**	**1,177**	**-29**	**-208**	**65**
Losses (gains) recognised in other comprehensive income arising from remeasurement						
Actuarial losses (gains) arising from changes in economic expectations	-96	-5			-96	-5
Actuarial losses (gains) arising from changes in demographic expectations		3				3
Return on TyEL interest rate difference and growth in old-age pension liabilities (net)	34	36	-34	-36		
Experience adjustments	0	36			0	36
Return on plan assets, excluding amount (–) of net defined benefit liability (asset)			8	-83	8	-83
Total	**-62**	**70**	**-26**	**-118**	**-88**	**-48**
Other						
Employer contributions*			19	-23	19	-23
Benefits paid	-69	-67	69	67		
Total	**-69**	**-67**	**88**	**43**	**19**	**-23**
Closing balance 31 Dec.	**714**	**2,230**	**-686**	**-1,926**	**28**	**304**

* include refund of OP Bank Group Pension Fund's solvency capital surplus, totalling EUR 43 million.

Liabilities and assets recognised in the balance sheet, EUR million	31 Dec. 2018	31 Dec. 2017
Net liabilities/assets (Pension	-34	5
Net liabilities/assets (Pension Fund)	28	272
Net liabilities (Other pension plans)	35	27
Total net liabilities	**62**	**304**
Total net assets	**-34**	

Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec. 2018, EUR million	Level 1	Level 2	Level 3	Total
Shares and participations	81	0	20	102
Notes and bonds	181	1	10	191
Real property			17	17
Mutual funds	198	6	74	278
Derivatives	0	0		0
Other assets	46		3	49
Total	**506**	**7**	**124**	**638**

Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec. 2017, EUR million	Level 1	Level 2	Level 3	Total
Shares and participations	118		62	181
Notes and bonds	370	56	20	446
Real property			116	116
Mutual funds	497	37	442	977
Structured investment vehicles			6	6
Derivatives	1	3		4
Other assets	151			151
Total	**1,138**	**96**	**646**	**1,880**

The fair value of Level 1 assets is determined on the basis of the quotes in markets.

The fair value of Level 2 assets means value derived from the market price of a financial instrument's components or similar financial instruments; or value which can be determined using commonly used valuation models and techniques if the inputs significant to the fair value measurement are based on observable market data.

The fair value Level 3 assets is determined using a pricing model whose input parameters involve uncertainty.

Proportion of the most significant assets of total fair value of plan assets, %	31 Dec. 2018	31 Dec. 2017
Shares and participations	**16**	**10**
Financial sector	0	1
Forest	5	3
Real estate	3	1
Other	8	5
Notes and bonds	**30**	**24**
Government bonds	28	3
Other	2	21
Real property	**3**	**6**
Mutual funds	**44**	**52**
Equity funds	17	32
Bond funds	2	7
Real estate funds	19	9
Hedge funds	6	4
Derivatives	**0**	**0**
Interest rate derivatives	0	0
Currency derivatives		0
Other		0
Structured investment vehicles		**0**
Other	**8**	**8**
Total	**100**	**100**

Pension plan assets include, EUR million,	31 Dec. 2018	31 Dec. 2017
Securities issued by OP Financial Group companies		26
Other receivables from OP Financial Group companies	51	164
Total	**51**	**189**

Contributions payable under the defined benefit pension plan in 2019 are estimated at EUR 8 million.
The duration of the defined benefit pension obligation in the Pension Fund on 31 December 2018 was 25.4 years, in the Pension Foundation 14.2 years and in other plans 20.8 years.

Key actuarial assumptions used, 31 Dec. 2018, EUR million	Pension Fund	Pension Foundation	Other
Discount rate, %	1.9	1.7	2.0
Future pay increase assumption, %	2.5	2.3	2.5
Future pension increases, %	1.1	1.6	1.9
Turnover rate, %	3.0	0.0	0.0
Inflation rate, %	1.7	1.5	1.7
Estimated remaining service life of employees in years	22.9	1.2	8.9
Life expectancy for 65-year old people			
Men	21.4	21.4	21.4
Women	25.4	25.4	25.4
Life expectancy for 45-year old people after 20 years			
Men	23.7	23.7	23.7
Women	28.1	28.1	28.1

Key actuarial assumptions used, 31 Dec. 2017, EUR million	Pension Fund	Pension Foundation	Other
Discount rate, %	1.8	1.5	1.7
Future pay increase assumption, %	2.7	2.5	2.6
Future pension increases, %	1.1	1.9	2.0
Turnover rate, %	3.0	0.0	0.0
Inflation rate, %	1.9	1.7	1.8
Estimated remaining service life of employees in years	21.0	7.1	10.5
Life expectancy for 65-year old people			
Men	21.4	21.4	21.4
Women	25.4	25.4	25.4
Life expectancy for 45-year old people after 20 years			
Men	23.7	23.7	23.7
Women	28.1	28.1	28.1

	Change in defined benefit pension obligation			
	Pension Fund		Pension Foundation	
Sensitivity analysis of key actuarial assumptions, 31 Dec. 2018	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-19	-10.8	-28	-6.3
0.5 pp decrease	22	12.7	31	7.1
Pension increases				
0.5 pp increase	21	11.8	27	6.3
0.5 pp decrease	-18	-10.5	-26	-5.9
Mortality				
1-year increase in life expectancy	5	2.9	14	3.3
1-year decrease in life expectancy	-5	-2.9	-14	-3.2

	Change in defined benefit pension obligation			
	Pension Fund		Pension Foundation	
Sensitivity analysis of key actuarial assumptions, 31 Dec. 2017	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-155	-9.4	-31	-6.7
0.5 pp decrease	181	10.9	35	7.6
Pension increases				
0.5 pp increase	170	10.2	31	6.6
0.5 pp decrease	-154	-9.3	-29	-6.1
Mortality				
1-year increase in life expectancy	56	3.4	16	3.4
1-year decrease in life expectancy	-55	-3.3	-15	-3.2

The Pension Foundation's sensitivity figures do not include the one-off increase of EUR 33 million in paid-up policy liability on 31 December 2017, based on the recommendation issued by the Finnish Insurance Complaints Board.

Note 34. Subordinated liabilities

EUR million	Average interest rate %	31 Dec. 2018	Average interest rate %	31 Dec. 2017
Subordinated loans	1.14	52	0.77	80
Other				
Debentures	3.45	1,306	3.41	1,320
Total subordinated liabilities		**1,358**		**1,400**

Principal terms and conditions of the hybrid bonds/subordinated loans are as follows:

1. Perpetual bond of EUR 50 million

This is a perpetual loan without interest-rate step-ups, but with an 8% interest rate cap. The loan was issued on 31 March 2005 and its interest rate for the first year was 6.5% and thereafter CMS 10 years + 0.1%.Interest payments are made annually on 11 April. If interest cannot be paid for a given interest period, the obligation to pay interest for the period in question will lapse. The loan can be called in on 11 April 2010 at the earliest, subject to authorisation by the Financial Supervisory Authority. The loan's

2. Perpetual bond of EUR 40 million

This perpetual loan carries a variable interest rate based on 3-month Euribor + 1.25% payable quarterly on 28 February, 30 May, 30 August and 30 November. If interest cannot be paid for a given interest period, the obligation to pay interest for the period in question will lapse. Subject to authorisation by the Financial Supervisory Authority, the loan may be called in on the due dates of interest payment. The entire loan principal must be repaid in one instalment.

Debentures

1. A debenture loan of CHF 100 million (euro equivalent 89 million), which is a ten-year bullet loan, will mature on 14 July 2021. The loan carries a fixed interest rate of 3.375% p.a.
2. A debenture loan of EUR 100 million, which is a ten-year bullet loan, will mature on 14 September 2021. The loan carries a fixed interest rate of 5.25% p.a.
3. A debenture loan of EUR 500 million, which is a 10-year bullet loan, will mature on 22 August 2022. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a fixed interest rate of 5.75% p.a.
4. Debenture loan of JPY 10 billion (euro equivalent 79 million), which is a ten-year bullet loan, will mature on 3 July 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to the JPY Libor + 0.735%.
5. Debenture loan of SEK 3,500 million (euro equivalent 341 million), which is a ten-year non-call 5 loan. The loan may be called in on 25 August 2020, matures on 25 August 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to Stibor + 1.60% .
6. Debenture loan of 100 million euros, which is a 10-year bullet loan, will mature on 25 September 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a fixed interest rate of 2.405% p.a.
7. A debenture loan of EUR 11 million, which is a 10-year bullet loan, will mature on 14 May 2024. The loan carries a fixed interest rate of 3.25% p.a.
8. A debenture loan of EUR 11 million, which is a 10-year bullet loan, will mature on 18 June 2024. The loan carries a fixed interest rate of 3.25% p.a. until 18 June 2019 and thereafter a 6-month Euribor + 2.54% p.a.
9. A debenture loan of EUR 6 million, which is a 10-year bullet loan, will mature on 22 August 2024. The loan carries a fixed interest rate of 3.25% p.a. until 22 August 2019 and thereafter a 6-month Euribor + 2.67% p.a.
10. A debenture loan of EUR 11 million, which is a 10-year bullet loan, will mature on 10 October 2024. The loan carries a fixed interest rate of 3.25% p.a. until 10 October 2019 and thereafter a 6-month Euribor + 2.78% p.a.
11. A debenture loan of EUR 11 million, which is a 10-year bullet loan, will mature on 14 November 2024. The loan carries a fixed interest rate of 3.25% p.a. until 14 November 2019 and thereafter a 6-month Euribor + 2.81% p.a.
12. A debenture loan of EUR 8 million, which is a 10-year bullet loan, will mature on 29 December 2024. The loan carries a fixed interest rate of 3.25% p.a. until 29 December 2019 and thereafter a 6-month Euribor + 2.86% p.a.

Loans 1–6 were issued in international capital markets.

OP Corporate Bank plc has no breaches of the terms and conditions of the loan contracts with respect to principal, interest and other conditions. The difference between the nominal value and carrying amount is due to the fair value hedge related to interest rate risk measurement.

Note 35. Equity capital

EUR million	31 Dec. 2018	31 Dec. 2017
Capital and reserves attributable to OP Financial Group owners		
Cooperative capital, cooperative shares	193	185
of which cancelled cooperative shares	6	6
Cooperative capital, profit shares	2,744	2,599
of which cancelled profit shares	298	307
Reserves		
Restricted reserves		
Reserve fund	794	791
Fair value reserve		
Cash flow hedge	33	16
Measurement at fair value		
Notes and bonds	-14	135
Loss allowance regarding notes and bonds	9	
Shares and participations	0	25
Shares and participations (overlay approach)	-21	
Other restricted reserves	14	15
Non-restricted reserves		
Other non-restricted reserves	1,374	1,367
Retained earnings		
Profit (loss) for previous financial years	5,464	4,724
Profit (loss) for the financial year	786	812
Equity capital attributable to OP Financial Group's owners	**11,681**	**10,982**
Non-controlling interests	**154**	**101**
Total equity capital	**11,835**	**11,084**

Cooperative capital, cooperative shares

The equity capital of OP Financial Group includes cooperative shares paid by Group member cooperative bank members, and the bank has an absolute right to refuse to pay interest on them and refund the capital. Cooperative contributions and the following customer ownership entitle the customer to take part in the bank's administration and decision-making.

Cooperative capital, profit shares

The equity capital of OP Financial Group also includes investments in profit shares made by members of the Group member cooperative bank members, and the bank has an absolute right to refuse to pay interest on them and refund the capital. For 2018-19, OP Financial Group seeks an interest rate of 3.25% and will each year confirm afterwards the interest payable. The return target may change on an annual basis. No customer-owner rights are involved in profit shares and they do not confer any voting rights.

If a member cooperative bank has not refused a refund, the cooperative contribution and the profit share contribution may be refunded within 12 months after the end of the financial year when membership terminated or the profit share has been cancelled by its holder. If the refund cannot be made in full in any given year, the balance will be refunded from disposable equity capital based on subsequent financial statements. However, this entitlement to the refund for the balance will terminate after the fifth financial statements. No interest will be paid on the balance.

Number of Group cooperative shares

(1 000)	Cooperative capital, member shares	Cooperative capital, profit shares	Total number of cooperative shares
1 Jan. 2017	1,826	27,189	29,015
Increase in cooperative capital	147	3,210	3,358
Refund of cooperative capital	-56	-1,337	-1,393
31 Dec. 2017	1,918	29,062	30,980
Increase in cooperative capital	146	2,782	2,927
Refund of cooperative capital	-60	-1,426	-1,486
31 Dec. 2018	2,003	30,417	32,421

Reserves

Reserve fund

The reserve fund consists of profits transferred to it during previous periods and of the portion transferred to it from member cooperative banks' revaluation reserves and loan loss provisions. The reserve fund may be used to cover losses for which non-restricted equity capital is not sufficient. The reserve fund may also be used to raise the share capital and it can be lowered in the same way as the share capital. In cooperative credit institutions, the reserve fund can only be used to cover losses. In a limited liability company, it has not been possible to increase the reserve fund since 1 September 2006.

Fair value reserve

The fair value reserve includes the change in the fair value of equity instruments as financial assets recognised through the statement of comprehensive income (available-for-sale) and within the scope of the overlay approach. Items included in this reserve will be derecognised and recorded in the income statement when an available-for-sale financial asset is disposed of or is subject to impairment. The expected loss on notes and bonds recognised through other comprehensive income is recognised to adjust the fair value reserve. The reserve also includes the net fair value change of interest rate derivatives as cash flow hedges verified as effective and adjusted for deferred tax. Fair value changes are included in the income statement in the period when hedged cash flows affect net income.

Fair value reserve after income tax

	Available-for-sale financial assets			
EUR million	Notes and bonds	Equity instruments	Cash flow hedging	Total
Opening balance 1 Jan. 2017	105	172	41	318
Fair value changes	59	-39	6	26
Capital gains transferred to income sta	-22	-165		-187
Impairment loss transferred to income	0	21		21
Transfers to net interest income			-38	-38
Deferred tax	-7	37	6	35
Closing balance 31 Dec. 2017	135	25	16	176

	Fair value through other comprehensive income				
EUR million	Notes and bonds	Shares and participations	Shares and participations (overlay approach)	Cash flow hedging	Total
Balance sheet 31 Dec. 2017	135	25		16	176
Effect of IFRS 9 transition at 1 January	-2	-25			-28
Opening balance 1 Jan. 2018	133	0	0	16	148
Fair value changes	-135	0	-35	66	-104
Capital gains transferred to income sta	-37		-8		-45
Impairment loss transferred to income			17		17
Transfers to net interest income				-45	-45
Deferred tax	34	0	5	-4	35
Closing balance 31 Dec. 2018	-5		-21	33	7

The fair value reserve before tax amounted to EUR 9 million (220) and the related deferred tax liability amounted to EUR 2 million (44). At the end of the reporting period, positive mark-to-market valuations of equity instruments in the fair value reserve totalled EUR 82 million (146) and negative mark-to-market valuations EUR 54 million (38), owing to the application of the overlay approach.The loss allowance on notes and bonds recognised at fair value through other comprehensive income totalled EUR -6 million in the fair value reserve.
A negative fair value reserve may recover by means of asset appreciation and recognised impairments.

Other restricted reserves
These reserves consist of retained earnings based on the Articles of Association or other rules describing their purpose. The revaluation reserve includes the difference between the carrying amount and fair value of the investment property previously in own use at the time of reclassification.

Other non-restricted reserves
These reserves consist of retained earnings based on the Articles of Association or other rules, or decisions taken by the General Meeting, Representatives' Meeting, or Cooperative Meeting.

Retained earnings
Retained earnings also contain voluntary provisions and depreciation difference included in the separate financial statements of Group companies and insurance companies' equalisation provisions and profits/(losses) due to the redefinition of defined benefit pension plans less deferred tax.

Other notes to the balance sheet

Note 36. Notes and bonds eligible for central bank refinancing

EUR million	31 Dec. 2018	31 Dec. 2017
Financial assets at fair value through profit or loss	105	67
Financial assets at fair value through other comprehensive income (Available-for-sale financial assets)	11,301	10,943
Amortised cost (held to maturity)	1	23
Total notes and bonds eligible for central bank refinancing	**11,407**	**11,032**

Only OP Corporate Bank plc within OP Financial Group is eligible for central bank refinancing.

Note 37. Subordinated notes and bonds

EUR million	31 Dec. 2018	31 Dec. 2017
Publicly quoted		
From others	23	29
Total	23	29
Other		
From others	6	10
Total	6	10
Total included financial assets at fair value through profit or loss	**28**	**39**
Publicly quoted		
From others		11
Total		11
Other		
From others		3
Total		3
Financial assets at fair value through other comprehensive income, total (Available-for-sale financial assets)		**14**

Note 38. Collateral given

EUR million	31 Dec. 2018	31 Dec. 2017
Given on behalf of own liabilities and commitments		
Pledges	171	110
Loans (as collateral for covered bonds)	13,700	13,266
Others	5,775	5,663
Total collateral given*	**19,647**	**19,039**
Secured derivative liabilities	928	889
Other secured liabilities	4,149	4,146
Covered bonds	10,720	10,750
Total	**15,797**	**15,784**

* In addition, bonds with a book value of EUR 5.1 billion have been pledged in the central bank, of which EUR 1.5 billion in intraday settlement collateral. Given that the bonds are available for withdrawal without the central bank's advance permission, they are not presented in the table above.

Note 39. Financial collateral held

OP has received collateral, in accordance with the Financial Collateral Act, which it may resell or repledge.

EUR million	31 Dec. 2018	31 Dec. 2017
Fair value of collateral received		
Other	490	414
Total	**490**	**414**

The credit risk arising from derivatives is mitigated 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 securities or cash in security for the receivable. The amount of CSA-related collateral received in cash totalled EUR 490 million on the balance sheet date (414). The Group had no securities received as collateral on the balance sheet date.

Note 40. Classification of financial assets and liabilities

			Fair value through profit or loss				
Assets, EUR million	Amortised cost	Fair value through other comprehen-sive income	Financial assets held for trading	Financial assets designated as at fair value through profit or loss	Must be measured at fair value through profit or loss	Hedging derivatives	Carrying amount total
Cash and cash equivalents	12,350						12,350
Receivables from credit institutions	183						183
Derivative contracts			2,905			577	3,482
Receivables from customers	87,081						87,081
Assets covering unit-linked contracts				9,771			9,771
Notes and bonds	4	17,124	502	2,227	451		20,309
Equity instruments		0	81	245	1,130		1,456
Other financial assets	2,098						2,098
Financial assets							**136,730**
Other than financial instruments							3,652
Total 31 December 2018	**101,715**	**17,124**	**3,488**	**12,243**	**1,581**	**577**	**140,382**

Assets, EUR million	Loans and receivables	Held to maturity	Available for sale	Recognised at fair value through profit or loss*	Hedging derivatives	Carrying amount total
Cash and cash equivalents	12,937					12,937
Receivables from credit institutions	504					504
Derivative contracts				3,100	312	3,412
Receivables from customers	82,193					82,193
Assets covering unit-linked contracts				10,126		10,126
Notes and bonds		40	16,372	3,899		20,311
Equity instruments			1,399	220		1,620
Other financial assets	2,293					2,293
Financial assets						133,397
Other than financial instruments						3,809
Total 31 December 2017	**97,927**	**40**	**17,771**	**17,346**	**312**	**137,205**

* Investment assets in the balance sheet include Non-life and Life Insurance notes and bonds recognised through profit or loss, and equity instruments.

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		4,807		4,807
Derivative contracts	2,400		421	2,821
Liabilities to customers		66,112		66,112
Insurance liabilities		9,476		9,476
Liabilities from unit-linked insurance and investment contracts	9,812			9,812
Debt securities issued to the public		30,456		30,456
Subordinated loans		1,358		1,358
Other financial liabilities		2,302		2,302
Financial liabilities				**127,143**
Other than financial liabilities				1,404
Total 31 December 2018	**12,212**	**114,511**	**421**	**128,547**

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		5,157		5,157
Derivative contracts	2,572		454	3,026
Liabilities to customers		65,549		65,549
Insurance liabilities		9,950		9,950
Liabilities from unit-linked insurance and investment contracts	10,158			10,158
Debt securities issued to the public		26,841		26,841
Subordinated loans		1,400		1,400
Other financial liabilities		2,275		2,275
Financial liabilities				**124,356**
Other than financial liabilities				1,765
Total 31 December 2017	**12,730**	**111,172**	**454**	**126,122**

Bonds included in debt securities issued to the public are carried at amortised cost. On 31 December, the fair value of these debt instruments was approximately EUR 242 (385) million higher than their carrying amount, based on information available in markets and employing commonly used valuation techniques. Subordinated liabilities are carried at amortised cost. Their fair values are higher than their amortised costs, but determining reliable fair values involves uncertainty.

Note 41. Recurring fair value measurements by valuation technique

Fair value of assets on 31 December 2018, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	592	185	679	1,456
Debt instruments	2,107	762	312	3,181
Unit-linked contracts	6,337	3,434		9,771
Derivative financial instruments	0	3,425	57	3,482
Fair value through other comprehensive income				
Equity instruments		0		0
Debt instruments	13,885	3,026	214	17,124
Total financial instruments	**22,921**	**10,831**	**1,262**	**35,014**
Investment property			979	979
Total	**22,921**	**10,831**	**2,241**	**35,993**

Fair value of assets on 31 December 2017, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	125	57	38	220
Debt instruments	3,249	234	416	3,899
Unit-linked contracts	7,111	3,015		10,126
Derivative financial instruments	2	3,279	131	3,412
Available-for-sale				
Equity instruments	623	200	577	1,399
Debt instruments	11,977	4,041	354	16,372
Total financial instruments	**23,087**	**10,826**	**1,516**	**35,429**
Investment property			1,004	1,004
Total	**23,087**	**10,826**	**2,520**	**36,433**

Fair value of liabilities on 31 December 2018, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Unit-linked contracts	6,364	3,448		9,812
Other		0		0
Derivative financial instruments	10	2,767	44	2,821
Total	**6,373**	**6,215**	**44**	**12,633**

Fair value of liabilities on 31 December 2017, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Unit-linked contracts	7,133	3,024		10,158
Other		1		1
Derivative financial instruments	5	2,929	92	3,026
Total	**7,138**	**5,955**	**92**	**13,185**

Fair value measurement

Derivatives

The Group obtains the price of listed derivatives directly from markets. In the fair value measurement of OTC derivatives, Pohjola uses models and techniques commonly used in markets. These are needed, for instance, to create yield curves and currency conversion charts and volatility surfaces as well as for option valuation. The input data of these models can generally be derived from markets. In the fair value measurement of some contracts, however, the Group has to use models where input data cannot be observed in the market and therefore they must be assessed. Such contracts are included in Level 3.

Middle Office is responsible for the fair value measurement of Banking derivatives, incl. level 3 hierarchy, and the quality and reliability of market data, valuation curves and volatility surfaces used in them, as part of its daily fair value measurement process. Middle Office compares regularly at contract level valuation prices with valuations supplied by CSA counterparties and central counterparties and, whenever necessary, determines any possible significant valuation differences.

Risk Management Control is responsible for approval of new fair value measurement models and techniques and supervision of the fair value measurement process. Verifying fair values is based, for example, on valuation using alternative sources for market prices and other input data. In this verification process, valuation prices can be compared with prices supplied by CSA counterparties and central counterparties. In addition, it is possible to use valuation services provided by third parties.

The fair value measurement of OTC derivatives takes account of the credit risk of the parties to a transaction. Credit risk is adjusted with a Credit Valuation Adjustment (CVA) and with a Debit Valuation Adjustment (DVA). CVA and DVA valuation adjustments are calculated for each counterparty. CVA and DVA adjustments are calculated by simulating the market values of derivatives and events of default based primarily on data obtained from markets. In assessing probabilities of default, the Group utilises market data through illiquid counterparties too by combining the counterparties with liquid market data.

Fair value hierarchy

Level 1: Quoted prices in active markets
This level includes equities listed on major stock exchanges, quoted debt instruments issued by companies, governments and financial institutions as well as and exchange-traded derivatives. The fair value of these instruments is determined on the basis of the quotes in active markets.

Level 2: Valuation techniques using observable inputs

Valuation techniques based on observable input parameters. The fair value of the instruments included within this level means value derived from the market price of a financial instrument's components or similar financial instruments; or value which can be determined using commonly used valuation models and techniques if the inputs significant to the fair value measurement are based on observable market data. This hierarchy level includes the majority of OP Corporate Bank Group's OTC derivatives and quoted debt instruments issued by companies, governments and financial institutions which have not been included in Level 1.

Level 3: Valuation techniques using unobservable inputs
Valuation techniques whose input parameters involve uncertainty. The fair value determination of the instruments included within this level contains inputs not based on observable market data (unobservable inputs). Level 3 also includes bonds for which there is little, if any, market activity on the valuation date. This level includes the most complex OTC derivatives and derivatives with a long maturity for which the Group had to extrapolate the market data used in their value measurement, as well as certain private equity investments, and illiquid bonds, structured bonds, including securitised bonds and structured debt securities, and hedge funds. Level 3 fair value is based on pricing information from a third party.

Transfers between levels of the fair value hierarchy

Transfers between the levels of the fair value hierarchy are considered to take place on the date when an event causes such transfer or when circumstances change. Transfers between the levels are mainly due to the number of available market quotes.

Reconciliation of Level 3 items

Specification of financial assets and liabilities

Financial assets, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Fair value through other comprehen-sive income	Total assets
Balance sheet 31 December 2017	454	131	931	1,516
Effects of IFRS 9 transition 1. Jan. 2018	601		-593	8
Opening balance 1 January 2018	**1,055**	**131**	**338**	**1,525**
Total gains/losses in profit or loss	-382	-75	-1	-457
Total gains/losses in other comprehensive income			0	0
Purchases	201		3	203
Sales	-164		-1	-166
Settlements	-15		-10	-24
Transfers into Level 3	296		141	437
Transfers out of Level 3			-256	-256
Closing balance 31 Dec. 2018	**991**	**57**	**214**	**1,262**

Financial assets, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Available-for-sale financial assets	Total assets
Opening balance 1 Jan. 2017	**142**	**160**	**1,149**	**1,452**
Total gains/losses in profit or loss	13	-29	-62	-77
Total gains/losses in other comprehensive income			-33	-33
Purchases	29		136	165
Sales	-53		-189	-242
Settlements	-67		-7	-74
Transfers into Level 3	392		175	567
Transfers out of Level 3	-3		-240	-242
Closing balance 31 Dec. 2017	**454**	**131**	**931**	**1,516**

Financial liabilities, EUR million	Derivative contracts	Total liabilities
Opening balance 1 Jan. 2018	**92**	**92**
Total gains/losses in profit or loss	-48	-48
Closing balance 31 Dec. 2018	**44**	**44**

Financial liabilities, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Total liabilities
Opening balance 1 Jan. 2017		**107**	**107**
Total gains/losses in profit or loss		-15	-15
Closing balance 31 Dec. 2017		**92**	**92**

Total gains/losses included in profit or loss by item for the financial year on 31 Dec. 2018

EUR Million	Net interest income	Net investment income	Statement of comprehensive income/ Change in fair value reserve	Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end
Realised net gains (losses)	-411	29		-382
Unrealised net gains (losses)	-26		0	-27
Total net gains (losses)	**-438**	**29**	**0**	**-409**

Total gains/losses included in profit or loss by item for the financial year on 31 Dec. 2017

EUR Million	Net interest income	Net investment income	Statement of comprehensive income/ Change in fair value reserve	Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end
Realised net gains (losses)	13			13
Unrealised net gains (losses)	-14	-62	-33	-108
Total net gains (losses)	**0**	**-62**	**-33**	**-95**

Derivatives included in Level 3 comprise structured derivatives for customer needs, whose market risk is covered by a corresponding derivatives contract. The uncovered market risk does not have any effect on earnings. Level 3 derivatives relate to structured bonds issued by OP Corporate Bank, whose return is determined by the value performance of an embedded derivative instrument. The fair value change of these embedded derivatives is not presented in the above table. In addition, long-maturity derivatives have been included in Level 3 for which the Group had to extrapolate the market data used in their value measurement.

Changes in the levels of hierarchy

No major changes occurred in valuation techniques in 2018.

Sensitivity analysis of input parameters involving uncertainty on 31 Dec. 2018

Type of instrument, EUR million	Receivables	Liabilities	Net balance	Sensitivity analysis	Reasonably possible change in fair value
Recognised at fair value through profit or loss:					
Bond investments	312		312	31.2	10%
Epälikvidit sijoitukset	127		127	19.1	15%
Private equity funds*	407		407	40.7	10%
Real estate funds***	145		145	29	0.2
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term	57	-44	13	1.4	11%
Fair value through profit or loss					
Bond investments	214		214	21.4	10%
Investment property					
Investment property***	688		688	137.6	20%

Sensitivity analysis of input parameters involving uncertainty on 31 Dec. 2017

Type of instrument, EUR million	Receiv-ables	Liabilities	Net balance	Sensitivity analysis	Reasonably possible change in fair value
Recognised at fair value through profit or loss:					
Private equity funds*	38		38	3.8	10%
Bond investments	416		416	41.6	10%
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term	131	-92	39	4.3	11%
Available-for-sale:					
Bond investments	354		354	35.4	10%
Illiquid investments	81		81	12.2	15%
Private equity funds*	352		352	35.2	10%
Real estate funds***	143		143	28.6	20%
Investment property					
Investment property***	1004		1004	200.7	20%

* The value of private equity funds depends mainly on the profit performance of portfolio companies and the PE ratios of similar listed companies. The Total Value to Paid-in (TVPI) multiple, which has changed an average of 10%, is used to monitor the progress of the fair value of private equity funds.

** Following stress scenarios: the combined value change of volatility of shares (30%), dividends of shares (30%), credit risk premiums (30%) and significant correlation changes.

*** In the valuation of real estate funds and investment property, OP mainly uses the income approach whose main components are yield requirement and net rent. A +/– 1 percentage point change in the yield requirement leads on average to around 20% change in the fair value.

Notes to contingent liabilities and derivatives

Note 42. Off-balance-sheet commitments

	2018	31 Dec. 2017
Guarantees	775	643
Other guarantee liabilities	2,162	1,936
Loan commitments	12,577	12,176
Commitments related to short-term trade transactions	283	372
Other	1,195	1,121
Total off-balance-sheet commitments	**16,993**	**16,247**

Note 43. Contingent liabilities and assets

Insurance companies belonging to OP Financial Group underwrite insurance policies through pools. Pool members are primarily responsible for their own proportionate share of the risk. Proportionate shares are based on contracts confirmed annually. In certain pools, pool members are responsible for an insolvent member's liabilities in proportion to their shares in the pool. Group insurance companies recognise liabilities and receivables based on joint liability if joint liability is likely to materialise.

Note 44. Operating leases

OP Financial Group as Lessee

OP has leased some of the office premises it uses. The remaining term of these leases varies between one and ten years and they usually include the option of extending the lease after the original date of expiry. Some of the leased premises have been subleased. In addition, motor vehicles and office equipment have been leased under lease agreements.

Future minimum lease payments under non-cancellable operating leases

EUR million	31 Dec. 2018	31 Dec. 2017
No later than 1 year	16	7
Later than 1 year and no later than 5 years	25	20
Later than 5 years	2	3
Total	**42**	**31**

OP Financial Group as Lessor

OP Financial Group companies have leased out investment properties they own, which generated lease income of EUR 73 million (79).

Future minimum lease payments receivable under non-cancellable operating leases

EUR million	31 Dec. 2017	31 Dec. 2018
No later than 1 year	43	53
Later than 1 year and no later than 5 years	115	124
Later than 5 years	119	127
Total	**277**	**304**

Note 45. Derivative contracts

Derivatives held for trading 31 December 2018

	Nominal values/residual maturity				Fair values*		Potential future exposure
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives							
Interest rate swaps	9,456	27,006	38,799	75,261	1,306	1,050	2,823
Cleared by the central counterparty	7,151	21,767	27,371	56,288	6	10	1,226
OTC interest rate options							
Call and caps							
Purchased	2,559	5,730	2,879	11,169	214	14	322
Written	2,141	9,347	3,323	14,811	86	114	23
Put and floors							
Purchased	4,132	4,802	2,128	11,061	83	55	191
Written	3,914	6,131	1,591	11,635	54	49	55
Total OTC interest rate derivatives	22,201	53,015	48,720	123,936	1,744	1,283	3,415
Interest rate futures	3,850	3,280		7,129	0	0	
Total exchange traded derivatives	3,850	3,280		7,129	0	0	
Total interest rate derivatives	26,051	56,295	48,720	131,066	1,744	1,283	3,415
Currency derivatives							
Forward exchange agreements	17,649	631	2	18,281	137	136	348
Interest rate and currency swaps	2,699	4,269	2,928	9,896	751	761	1,200
Currency options							
Call							
Purchased	180	17		197	1	1	4
Written	239	24		262	1	1	
Put							
Purchased	316	24		340	2	1	7
Written	299	21		319	1	2	
Total OTC currency derivatives	21,380	4,986	2,930	29,296	892	902	1,560
Total currency derivatives	21,380	4,986	2,930	29,296	892	902	1,560
Equity and index derivatives							
Equity index options							
Call							
Purchased	0	3		3	0	0	0
Total OTC equity and index derivatives	0	3		3	0	0	0
Total equity and index derivatives	0	3		3	0	0	0
Credit derivatives							
Credit default swaps	15	189	2	206	4	9	4
Total credit derivatives	15	189	2	206	4	9	4

Other							
Other forward contracts	16	1		17	0	4	2
Other swaps	190	363	8	560	34	24	78
Other options							
Call							
Purchased	0	0		0	0		0
Written	0			0			
Put							
Purchased	0			0			0
Written	0			0			
Total other OTC derivatives	207	364	8	579	34	28	80
Other futures contracts	0	0		1	0	0	
Total other derivatives	208	364	8	580	34	29	80
Total derivatives held for trading	**47,654**	**61,837**	**51,659**	**161,150**	**2,674**	**2,222**	**5,059**

Derivatives held for trading 31 December 2017

	Nominal values/residual maturity				Fair values*		Potential future exposure
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives							
Interest rate swaps	10,361	33,223	40,673	84,257	2,212	2,103	2,988
Cleared by the central counterparty	7,311	22,328	29,198	58,837	757	-814	1,307
OTC interest rate options							
Call and caps							
Purchased	2,682	4,438	5,686	12,806	334	2	451
Written	2,449	6,315	3,370	12,134	4	208	14
Put and floors							
Purchased	1,147	5,169	1,876	8,191	102	10	163
Written	1,159	5,835	1,955	8,949	11	87	55
Total OTC interest rate derivatives	17,798	54,979	53,560	126,337	2,662	2,411	3,671
Interest rate futures	1,615	1,000		2,615	1	1	
Total exchange traded derivatives	1,615	1,000		2,615	1	1	
Total interest rate derivatives	19,414	55,979	53,560	128,953	2,663	2,411	3,671
Currency derivatives							
Forward exchange agreements	27,606	263	23	27,893	206	190	484
Interest rate and currency swaps	2,059	6,932	2,472	11,463	705	654	1,258
Currency options							
Call							
Purchased	115	28		143	3		6
Written	151	17		168		3	
Put							
Purchased	227	17		244	1		4
Written	178	31		209		1	
Total OTC currency derivatives	30,336	7,287	2,496	40,119	915	848	1,752
Total currency derivatives	30,336	7,287	2,496	40,119	915	848	1,752

Equity and index derivatives							
Equity index options							
Call							
Purchased	5	3		8	1	0	2
Put							
Written	280			280	1		
Total OTC equity and index derivatives	286	3		288	2	0	2
Credit derivatives							
Credit default swaps	28	189	10	227	9	6	10
Total credit derivatives	28	189	10	227	9	6	10
Other							
Other forward contracts	17	0		17	0	3	2
Other swaps	211	513		723	65	31	130
Total other OTC derivatives	228	513		741	65	34	132
Other futures contracts	7	1		8	0	2	
Total other derivatives	235	513		748	65	36	132
Total derivatives held for trading	**50,298**	**63,971**	**56,066**	**170,335**	**3,655**	**3,301**	**5,566**

Derivative contracts for hedging purposes - fair value hedging 31 December 2018

	Nominal values/residual maturity				Fair values*		Potential future exposure
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives							
Interest rate swaps	3,751	24,020	14,548	42,319	222	31	807
Cleared by the central counterparty	2,027	16,903	9,333	28,264	2	2	459
Forward rate agreements							
OTC interest rate options							
Call and caps							
Purchased	210	2,905	4,047	7,162	0	59	204
Total OTC interest rate derivatives	3,961	26,925	18,595	49,481	222	91	1,011
Total interest rate derivatives	3,961	26,925	18,595	49,481	222	91	1,011
Currency derivatives							
Forward exchange agreements							
Interest rate and currency swaps	422	1,799	475	2,696	91	179	223
Total OTC currency derivatives	422	1,799	475	2,696	91	179	223
Total currency derivatives	422	1,799	475	2,696	91	179	223
Total derivative contracts, fair value hedge	**4,383**	**28,724**	**19,070**	**52,177**	**313**	**269**	**1,235**

Average prices of derivative contracts in hedge accounting – fair value hedge 31 Dec. 2018

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
Cleared by the central counterparty	0.616	0.488	0.771	0.591
OTC interest rate derivatives	0.963	0.695	0.869	0.791
Total interest rate derivatives	0.748	0.539	0.801	0.647

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 Dec. 2018

	<1 year	1–5 years	>5 years	Total
Forward exchange agreements:				
EUR:USD	1.149			
Interest rate and currency swaps				
GBP	0.910	2.231		2.000
JPY	0.434	0.562	1.300	0.518
USD		1.939	3.823	2.764

Derivative contracts for hedging purposes – cash flow hedge 31 December 2018

	Nominal values /residual term to maturity				Fair values*		Potential future
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	exposure
Interest rate derivatives							
Interest rate swaps	524	961	2,801	4,286	95	1	142
Cleared by the central counterparty	100			100	0		1
Total OTC interest rate derivatives	524	961	2,801	4,286	95	1	142
Total interest rate derivatives	**524**	**961**	**2,801**	**4,286**	**95**	**1**	**142**
Currency derivatives							
Forward exchange agreements	6,843			6,843	35	39	106
Total OTC currency derivatives	6,843	0	0	6,843	35	39	106
Total currency derivatives	6,843	0	0	6,843	35	39	106
Total derivative contracts, cash flow hedge	**7,367**	**961**	**2,801**	**11,130**	**129**	**40**	**249**
Total derivative contracts held for hedging	**11,750**	**29,685**	**21,871**	**63,306**	**442**	**310**	**1,483**

Average prices of derivative contracts in hedge accounting – cash flow hedge 31 Dec. 2018

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
Cleared by the central counterparty	0.602			0.602
OTC interest rate derivatives	1.400	1.175	0.906	1.019
Total interest rate derivatives	1.249	1.175	0.906	1.009
Currency derivatives				
Forward exchange agreements				
Average EUR:USD	1.1654			1.1654
Average EUR:GBP	0.8936			0.8936
Average EUR:CHF	1.1529			1.1529

Derivative contracts for hedging purposes – fair value hedging 31 December 2017

	Nominal values/residual maturity				Fair values*		Potential future
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	exposure
Interest rate derivatives							
Interest rate swaps	3,325	21,262	11,592	36,180	421	334	701
Cleared by the central counterparty	880	16,158	6,417	23,455	179	-285	356
Total OTC interest rate derivatives	3,325	21,262	11,592	36,180	421	334	701
Total interest rate derivatives	**3,325**	**21,262**	**11,592**	**36,180**	**421**	**334**	**701**
Currency derivatives							
Forward exchange agreements	61			61		1	1
Interest rate and currency swaps	517	1,958	319	2,794	35	265	162
Total OTC currency derivatives	578	1,958	319	2,855	35	265	163
Total currency derivatives	578	1,958	319	2,855	35	265	163
Total derivative contracts, fair value hedge	**3,903**	**23,220**	**11,911**	**39,035**	**456**	**600**	**864**

Derivative contracts for hedging purposes – cash flow hedge 31 December 2017

	Nominal values /residual term to maturity				Fair values*		Potential future
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	exposure
Interest rate derivatives							
Interest rate swaps	652	1,379	1,556	3,587	73	5	104
Cleared by the central counterparty	200	100		300	4		5
Total OTC interest rate derivatives	652	1,379	1,556	3,587	73	5	104
Total interest rate derivatives	652	1,379	1,556	3,587	73	5	104
Currency derivatives							
Forward exchange agreements	5,794			5,794	32	67	88
Total OTC currency derivatives	5,794	0	0	5,794	32	67	88
Total currency derivatives	5,794	0	0	5,794	32	67	88
Total derivative contracts, cash flow hedge	**6,446**	**1,379**	**1,556**	**9,381**	**105**	**72**	**192**
Total derivative contracts held for hedging	**10,349**	**24,599**	**13,467**	**48,416**	**561**	**672**	**1,056**

Total derivatives 31 December 2018

	Nominal values/residual maturity				Fair values*		Potential future
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	exposure
Interest rate derivatives	30,535	84,181	70,116	184,833	2,060	1,374	4,568
Cleared by the central counterparty	9,278	38,670	36,704	84,652	8	12	1,686
Currency derivatives	28,646	6,784	3,404	38,835	1,018	1,120	1,889
Equity and index-linked derivatives	0	3		3	0	0	0
Credit derivatives	15	189	2	206	4	9	4
Other derivatives	208	364	8	580	34	29	80
Total derivatives	**59,404**	**91,522**	**73,530**	**224,456**	**3,116**	**2,532**	**6,542**

Total derivatives 31 December 2017

	Nominal values/residual maturity				Fair values*		Potential future
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	exposure
Interest rate derivatives	23,391	78,621	66,708	168,720	3,157	2,751	4,476
Cleared by the central counterparty	8,392	38,585	35,615	82,592	941	-1,100	1,668
Currency derivatives	36,708	9,245	2,815	48,768	982	1,180	2,002
Equity and index-linked derivatives	286	3		288	2	0	2
Credit derivatives	28	189	10	227	9	6	10
Other derivatives	235	513	0	748	65	36	132
Total derivatives	**60,647**	**88,571**	**69,533**	**218,751**	**4,216**	**3,973**	**6,621**

*Fair values include accrued interest which is shown under other assets or provisions and other liabilities in the balance sheet.

Interest rate derivatives for central counterparty clearing are offset in the balance sheet. The effects of netting can be found in Note 46 below. Other derivative contracts are presented on a gross basis in the balance sheet. In its capital adequacy measurement, OP Amalgamation also applies netting of derivatives. The effects of netting on counterparty risk are presented in 3.5 of the OP Amalgamation Capital Adequacy Report. Netting would reduce the credit equivalent of OP Corporate Bank plc's derivative contracts by EUR 4,099 million (4,495).

Note 46. Financial assets and liabilities offset in the balance sheet or subject to enforceable master netting arrangements or similar agreements

Financial assets

				Financial assets not set off in the balance sheet		
31 Dec. 2018, EUR million	Gross amount of financial assets	Gross amount of financial liabilities deducted from financial assets*	Net amount presented in the balance sheet**	Derivative contracts***	Collateral received	Net amount
Derivatives	4,416	-934	3,482	-1,823	-490	1,169

				Financial assets not set off in the balance sheet		
31 Dec. 2017, EUR million	Gross amount of financial assets	Gross amount of financial liabilities deducted from financial assets*	Net amount presented in the balance sheet**	Derivative contracts***	Collateral received	Net amount
Derivatives	4,341	-928	3,412	-1,928	-412	1,072

Financial liabilities

				Financial liabilities not set off in the balance sheet		
31 Dec. 2018, EUR million	Gross amount of financial liabilities	Gross amount of financial assets deducted from financial liabilities*	Net amount presented in the balance sheet**	Derivative contracts***	Collateral given	Net amount
Derivatives	3,887	-1,066	2,821	-1,823	-703	295

				Financial liabilities not set off in the balance sheet		
31 Dec. 2017, EUR million	Gross amount of financial liabilities	Gross amount of financial assets deducted from financial liabilities*	Net amount presented in the balance sheet**	Derivative contracts***	Collateral given	Net amount
Derivatives	4,112	-1,085	3,026	-1,928	-717	381

* Incl. daily cleared derivatives on a net basis included in cash and cash equivalents, totalling -140 (-161) million euros.

** Fair values excluding accrued interest

***It is the practice to enter into master agreements for derivative transactions with all derivative counterparties.

Central counterparty clearing for OTC derivatives

Standardised OTC derivative transactions entered into with financial counterparties are cleared in London Clearing House, accordance with EMIR (EU 648/2012). Based on this model, the central counterparty will become the derivatives counterparty at the end of the daily clearing process, with whom daily payments for derivatives are netted. In addition, collateral is paid or received daily, which corresponds to the change in the fair value of open positions (variation margin). Interest rate derivatives cleared by the central counterparty are presented on a net basis in the balance sheet.

Other bilaterally cleared OTC derivative contracts

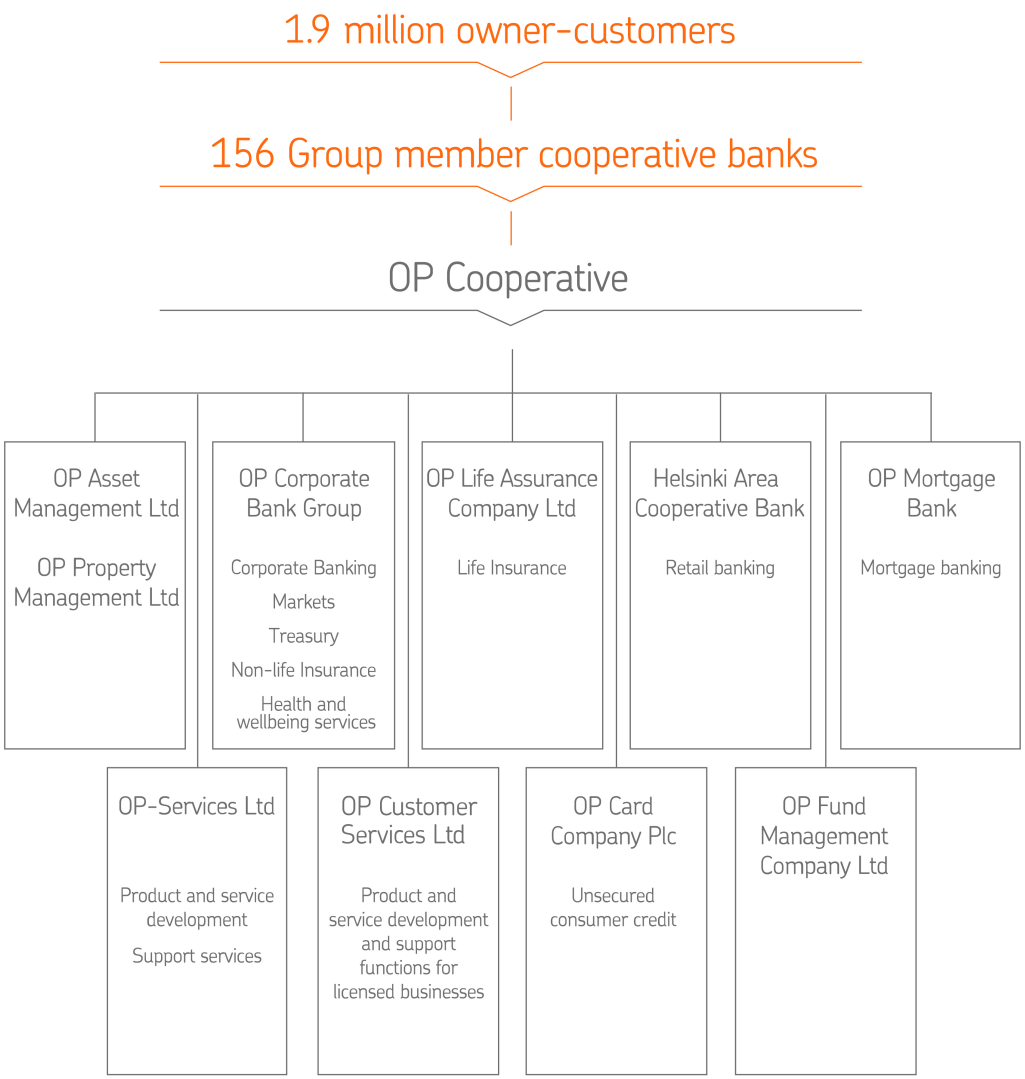
The ISDA Master Agreement or the Master Agreement of the Federation of Finnish Financial Services or the Group will apply to derivative transactions between the Group and other clients and to derivative transactions to which central counterparty clearing in accordance with the Regulation does not pertain. On the basis of these agreements, derivative payments may be netted per transaction on each payment date and in the event of counterparty default and bankruptcy. It is also possible to agree on collateral on a counterparty-specific basis in the terms and conditions of the agreement. Such derivatives are presented on a gross basis in the balance sheet.

Other notes

Note 47. Ownership interests in subsidiaries, structured entities and joint operations

OP Financial Group's structure

The following figure describes the structure of OP Financial Group. Group member cooperative banks constitute the Group's technical parent company. In addition to the member cooperative banks, the most important subsidiaries, OP Cooperative (central cooperative) and its subsidiaries, associates and various joint arrangements are consolidated into OP Financial Group.



Credit institutions within OP Financial Group are liable for each other's debts. OP Financial Group is supervised by the ECB on a consolidated basis.

Changes occurred in subsidiaries and structured entities during the financial year

OVY Insurance Ltd, which previously acted as OP Financial Group's internal credit insurance company, merged into OP Cooperative. The execution of the merger was registered on 31 July 2018.

Payment Highway Oy merged into Checkout Finland Oy. The execution of the merger was registered on 31 August 2018.

On 31 August 2018, OP Insurance Ltd sold all share capital of its Baltic-based subsidiary Seesam Insurance As, including its Latvian and Lithuanian branches, to Vienna Insurance Group (VIG).

Major subsidiaries included in the financial statements of OP Financial Group in 2017

Major OP Financial Group subsidiaries include companies whose business is subject to licence and other major companies relevant to business operations. All major consolidated subsidiaries are wholly owned and accordingly they have no major non-controlling interests.

Company	Domicile/ home country	Interest, %	Votes, %
OP Cooperative	Helsinki	100.0	100.0
Helsinki Area Cooperative Bank*	Helsinki		
OP Mortgage Bank	Helsinki	100.0	100.0
OP Life Assurance Company Ltd	Helsinki	100.0	100.0
OP Card Company Plc	Helsinki	100.0	100.0
OP-Services Ltd*)	Helsinki	100.0	100.0
OP Customer Services Ltd	Helsinki	100.0	100.0
OP Fund Management Company Ltd	Helsinki	100.0	100.0
Pivo Wallet Oy	Helsinki	100.0	100.0
OP Corporate Bank plc	Helsinki	100.0	100.0
Checkout Finland Oy	Tampere	100.0	100.0
OP Property Management Ltd	Helsinki	100.0	100.0
OP Asset Management Limited	Helsinki	100.0	100.0
OP Custody Ltd	Helsinki	100.0	100.0

*Helsinki Area Cooperative Bank is a cooperative. Every representative of its Representative Assembly has one vote. The Representative Assembly has 20 representatives appointed by the central cooperative and 10 owner-customer representatives.

Subsidiaries consolidated into OP Corporate Bank Group's financial statements

A-Insurance Ltd	Helsinki	100.0	100.0
Pohjola Health Ltd	Helsinki	100.0	100.0
OP Finance AS	Estonia	100.0	100.0
OP Finance SIA	Latvia	100.0	100.0
OP Insurance Ltd	Helsinki	100.0	100.0
UAB OP Finance	Lithuania	100.0	100.0
Eurooppalainen Insurance Company Ltd	Helsinki	100.0	100.0

In addition to the subsidiaries, 47 (50) OP-Kiinteistökeskus real estate agencies are consolidated into the financial statements of OP Financial Group. These real estate agencies, which are wholly owned subsidiaries, provide services for buying and selling real property and homes and house management services. In addition to the real estate agencies, 22 (23) other subsidiaries have been consolidated.

Member cooperative banks forming the technical parent company of OP Financial Group in 2018

Name	Balance sheet 2018, EUR million	Capital adequacy, % 31 Dec. 2018	Managing Director 31 Dec. 2018
Akaan Seudun Op	194	68.6	Tuomo Smått
Alajärven Op	300	62.1	Jari Leivo
Alastaron Op	65	64.1	Sanna Metsänranta
Alavieskan Op	70	55.7	Antero Alahautala
Alavuden seudun Op	245	58.9	Jussi Ruuhela
Andelsbanken för Åland	457	25.7	Johnny Nordqvist
Andelsbanken Raseborg	457	31.4	Lars Björklöf
Artjärven Op	51	78.2	Reijo Hurskainen
Askolan Op	140	47.5	Kari Leskinen
Auramaan Op	442	63.9	Tuomo Jokinen
Etelä-Hämeen Op	1,566	59.6	Mika Helin
Etelä-Karjalan Op	1,523	46.8	Petri Krohns
Etelä-Pohjanmaan Op	1,280	29.4	Olli Tarkkanen
Euran Op	208	75.8	Timo Viitanen
Haapamäen Seudun Op	65	84.4	Hannu Petjoi
Hailuodon Op	46	63.7	Jani Isomaa
Halsuan-Ylipään Op	73	71.1	Heidi Pöyhönen
Himangan Op	88	37.7	Kari Haanmäki
Honkilahden Op	37	73.4	Jukka-Pekka Koivisto
Humppilan Op	63	65.6	Jari Salokangas
Itä-Uudenmaan Op	1,343	30.1	Mauri Molander
Janakkalan Op	416	78.4	Mikko Suutari
Jokioisten Op	128	63.9	Vesa Rantanen
Jämsän Seudun Op	338	86.8	Kyösti Myller
Järvi-Hämeen Op	438	72.5	Teemu Sarhemaa
Kainuun Op	713	54.9	Teuvo Perätalo
Kalajoen Op	227	39.8	Leena Pajumaa
Kalkkisten Op	22	73.0	Ville Lehtinen
Kangasalan Seudun Op	461	46.0	Mika Kivimäki
Kangasniemen Op	199	82.5	Seppo Laurila
Kannuksen Op	116	46.5	Juha Lundström
Kemin Seudun Op	374	52.4	Heikki Palosaari
Kerimäen Op	96	75.8	Jarmo Kaivonurmi
Keski-Pohjanmaan Op	1,070	29.7	Kimmo Peuranto
Keski-Suomen Op	2,844	41.2	Pasi Sorri
Keski-Uudenmaan Op	2,085	44.8	Juhani Rinta-Kartano
Kesälahden Op	78	82.4	Mikko Koski
Kihniön Op	39	65.1	Pirjo Haapa-aho Vehniä
Kiikoisten Op	33	71.6	sijainen Pia Segerman
Kiteen Seudun Op	307	70.3	Olli Koivula
Koitin-Pertunmaan Op	79	79.1	Jouko Iso-Kuortti
Korpilahden Op	94	66.9	Tuomas Kupsala
Korsnäs Andelsbank	141	45.4	Jan-Erik Westerdahl
Kronoby Andelsbank	125	62.0	Kaj Nylund
Kuhmon Op	210	86.4	Martti Pulkkinen
Kuortaneen Op	68	51.5	Markku Jaatinen
Kurun Op	55	61.7	Marja-Leena Siuro
Kuusamon Op	264	42.1	Kari Kivelä
Kymenlaakson Op	1,984	51.3	Juha Korhonen
Kärkölän Op	106	47.5	Arto Haavikko
Köyliön Op	68	74.3	Jari Valonen
Laihian Op	109	59.9	Seppo Hautala
Lapin Op	105	60.0	Juha Teerialho
Lehtimäen Op	69	34.4	Veli-Jussi Haapala

Lemin Op	84	53.7	Ilkka Martikainen
Limingan Op	128	41.4	Petteri Juusola
Liperin Op	216	55.6	Jukka Asikainen
Loimaan Seudun Op	284	64.4	Juha Pullinen
Lokalahden Op	40	74.3	Ville Aarnio
Lounaismaan OP	1,546	49.0	Jouni Hautala
Lounaisrannikon Op	597	39.3	Juha-Pekka Nieminen
Lounais-Suomen Op	323	77.6	Markku Rainio (vt. tj)
Luhangan Op	55	47.4	Tuomas Puttonen
Luopioisten Op	43	66.0	Sirpa Leppäkoski
Luumäen Op	108	72.1	Mikko Purmonen
Länsi-Kymen Op	337	45.9	Saila Rosas
Länsi-Suomen Op	2,916	48.2	Matti Kiuru
Länsi-Uudenmaan Op	1,170	41.5	Markus Sillanaukee
Maaningan Op	116	74.1	Ari Väänänen
Mellilän Seudun Op	39	96.4	Aarre Anttila
Merimaskun Op	39	95.5	Sauli Jalonen
Metsämaan Op	31	81.8	Jussi Nieminen
Miehikkälän Op	81	83.1	Mikael Hanhilahti
Mouhijärven Op	87	46.9	Rainer Sillanpää
Multian Op	83	70.6	Arto Laitinen
Mynämäen-Nousiaisten Op	393	68.5	Kimmo Ranta
Mäntsälän Op	238	62.3	Heikki Kananen
Nagu Andelsbank	62	51.8	Alice Björklöf
Nakkila-Luvian Op	231	71.3	Jussi Kuvaja
Niinijoen Op	41	124.4	Kaisa Markula
Nilakan Seudun Op	182	60.4	Jouni Karhinen
Nivalan Op	203	48.1	Markku Niskala
Op Kantrisalo	105	69.4	Bo Hellen
Orimattilan Op	274	68.1	Jukka Sipilä
Oripään Op	70	29.7	Jouko Rekolainen
Oulaisten Op	240	51.7	Mika Korkia-aho
Oulun Op	3,818	29.6	Timo Levo
Outokummun Op	169	82.2	Ari Karhapää
Paltamon Op	70	63.8	Jorma Niemi
Parikkalan Op	145	79.5	Tuomo Liukka
Pedersörenejdens Andelsbank	504	32.0	Thomas Hulten
Perhon Op	103	48.8	Pekka Pajula
Perhonjokilaakson Op	150	47.6	Asko Ahonen
Peräseinäjoen Op	128	62.0	Juha Mäki
Petäjäveden Op	94	61.8	Jaakko Ylitalo
Pihtiputaan Op	88	42.5	Toni Ruokanen
Pohjois-Hämeen Op	444	44.5	Pertti Pyykkö
Pohjois-Karjalan Op	1,720	46.4	Jaana Reimasto-Heiskanen
Pohjois-Savon Op	2,980	52.1	Seppo Pääkkö
Pohjolan Op	1,276	34.0	Keijo Posio
Polvijärven Op	150	80.7	Ari Noponen
Posion Op	115	75.3	Vesa Jurmu
Pudasjärven Op	200	84.5	Pertti Purola
Pukkilan Op	89	62.7	Jari Toivanen
Pulkkilan Op	44	80.9	Marja Hyvärinen
Punkalaitumen Op	102	84.4	Petri Antila
Purmo Andelsbank	41	42.6	Tommy Olin
Päijät-Hämeen Op	1,704	39.4	Mika Kivimäki
Raahen seudun Op	436	49.6	Ari Pohjola
Rantasalmen Op	135	57.9	Kari Mäkelä
Rautalammin Op	79	47.3	Esko-Pekka Markkanen
Riistaveden Op	143	43.6	Pauli Kröger
Ruoveden Op	180	46.2	Leena Selkee

Ruukin Op	148	54.8	Kalle Arvio
Rymättylän Op	78	54.6	Leena Nikula
Rääkkylän Op	86	65.2	Heli Silvennoinen
Sallan Op	91	54.8	Anne Harju
Sastamalan Op	304	38.2	Janne Pohjolainen
Satakunnan Op	521	69.2	Olli Näsi
Satapirkan Op	357	43.7	Antti Suomijärvi
Savitaipaleen Op	116	72.0	Samppa Oksanen
Siikajoen Op	51	61.7	Sakari Kangas
Siikalatvan Op	90	43.8	Ismo Välijärvi
Simpeleen Op	89	101.4	Asko Imppola
Sonkajärven Op	119	72.9	Esko Nissinen
Suomenselän Op	670	38.7	Timo Suhonen
Suur-Savon Op	2,264	47.0	Mikko Antikainen (vt. tj.)
Säkylän Op	98	57.2	Jari Katila
Taivalkosken Op	84	61.2	Piia Mourujärvi
Taivassalon Op	64	45.2	Jens Hildén
Tampereen Seudun Op	3,827	35.9	Mikko Rosenlund
Tervolan Op	84	53.4	Hannu Neuvonen
Tervon Op	63	41.7	Jani Kääriäinen
Toholammin Op	126	42.6	Juha Pajumaa
Tornion Op	328	35.8	Terhi Luokkanen
Turun Seudun Op	3,564	21.7	Olli-Pekka Saario
Tuusniemen Op	140	45.3	Esa Simanainen
Tyrnävän Op	110	36.9	Antto Joutsiniemi
Ullavan Op	42	50.1	Jorma Somero
Urjalan Op	127	83.0	Jouni Tammelin
Utajärven Op	206	48.5	Jukka Jaurakkajärvi
Vaara-Karjalan Op	450	57.6	Raili Hyvönen
Vaasan Op	1,001	32.3	Ulf Nylund
Valkeakosken Op	272	51.0	Juha Luomala
Vampulan Op	88	66.9	Kari Hänti
Vehmersalmen Op	86	74.5	Petri Tyllinen
Vesannon Op	71	69.8	Markku Niskanen
Vihannin Op	122	56.2	Jari Kantomaa
Vimpelin Op	84	75.8	Matti Mäkinen
Virtain Op	215	51.9	Ari Kakkori
Ylitornion Op	101	67.8	sij Pirkko Nahkiaisoja
Ylä-Kainuun Op	243	58.1	Eija Sipola
Yläneen Op	84	54.3	Heikki Eskola
Ylä-Savon Op	395	53.2	Mikko Paananen
Ypäjän Op	72	66.4	Kirsi-Marja Hiidensalo

Structured entities included in the consolidated financial statements

OP Financial Group both acts as investor and manages various mutual funds in order to gain investment income and various commissions. The financial statements of OP Financial Group include the accounts of 0 (0) mutual fund and of 2 (2) real estate funds. These funds that have been classified as structured entities because OP Financial Group's control is not based on votes but the control of significant operations, exposure to variable returns from the fund, and organising the fund's management. These funds also involve non-controlling interests most relevant to the Group.

The table below structured entities with a significant number of non-controlling interests

Name	Place of business	Main line of business	Interest, % 2017	Interest, % 2016	Non-controlling interests, %
Real Estate Funds of Funds II Ky	Helsinki	Real Estate Fund	27.8	27.8	72

Summary of financial information on subsidiaries with a significant proportion of non-controlling interests

The table below presents a summary of financial information on subsidiaries with a significant proportion of non-controlling interests from OP Financial Group's perspective. The financial information corresponds to the figures presented in the financial statements of the subsidiaries to which, for example, fair value adjustments have been made to correspond to OP Financial Group's accounting policies. The figures below are before the elimination of internal transactions.

Balance sheet in summary	Real Estate Fund of Funds II Ky	
EUR million	31 Dec. 2018	31 Dec. 2017
Cash and cash equivalents	4	0
Investments	21	36
Other assets	1	0
Total assets	**26**	**36**
Other liabilities	0	0
Total liabilities	0	0
Net assets	**26**	**36**
Accrued share of non-controlling interests	18	26
Statement of comprehensive income in summary		
Net sales	4	3
Profit or loss of continuing operations after tax	3	3
Other comprehensive income	-1	0
Comprehensive income	**2**	**3**
Comprehensive income attributable to non-controlling interests	1	2
Share of profit paid to non-controlling interests	2	2
Cash flows in summary		
Net cash flow from operating activities	-2	0
Net cash flow from investing activities	19	9
Net cash flow from financing activities	-14	-9
Net change in cash flows	**3**	**-1**
Cash and cash equivalents at year start	0	1
Cash and cash equivalents at year end	4	0

Joint operations

Some 958 (1,111) property companies are incorporated into OP Financial Group's financial statements as joint operations by consolidating the proportionate share of OP Financial Group's holding of the property company's assets. Classification into joint operations has been made according to the nature of the business although OP Financial Group has control over some of the property companies. The shares of the property companies entitle to the occupancy of certain apartments some of which are in OP Financial Group's own use. Each shareholder of the mutual real estate company is responsible for its/his/her share of the company's loans. Some of these joint operations constitute OP Financial Group's branch network in Finland and are included in property, plant and equipment in the balance sheet as shown in Note 24. The rest of the property companies are investment property included in Note 20.

Summary of the effect of consolidation of joint operations on the balance sheet

EUR million	31 Dec. 2018	31 Dec. 2017
Land	140	150
Buildings	1,196	1,251
Total assets	1,336	1,402
Total liabilities	3	4

Most significant joint operations consolidated into OP Financial Group's financial statements in 2018

Name	Domicile	Sector	Holding, %
Asunto Oy Oulun Kalevankulma	Oulu	Property holding and management	100.0
Kiinteistö Oy Ansatie 5	Helsinki	Property holding and management	100.0
Kiinteistö Oy Arkadiankatu 23	Helsinki	Property holding and management	100.0
Kiinteistö Oy Hämeenkivi	Tampere	Property holding and management	100.0
Kiinteistö Oy Jyväskylän Kassatalo	Jyväskylä	Property holding and management	100.0
Kiinteistö Oy Kaisaniemenkatu 1	Helsinki	Property holding and management	22.4
Kiinteistö Oy Koskikatu 9	Joensuu	Property holding and management	60.1
Kiinteistö Oy OPK-Vallila	Helsinki	Property holding and management	100.0
Kiinteistö Oy Quartetto Intermezzo	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tampereen Hämeenkatu 12	Tampere	Property holding and management	100.0
Kiinteistö Oy Uusi Paino	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vammalan Torikeskus	Vammala	Property holding and management	100.0
Kiinteistö Oy Vääksyntie 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vääksyntie 4	Helsinki	Property holding and management	100.0
Mikkelin Forum Oy	Mikkeli	Property holding and management	87.1
As Oy Lappeenrannan Mariankulma	Lappeenranta	Property holding and management	100.0
Companies owned by OP Corporate Bank Group			
Kiinteistö Oy Kanta-Sarvis II	Tampere	Property holding and management	100.0
Kiinteistö Oy Helsingin Puutarhurinkuja 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy STC Viinikkala	Vantaa	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 1	Helsinki	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 2	Vantaa	Property holding and management	100.0
Kiinteistö Oy Vantaan Kisällintie 13	Vantaa	Property holding and management	100.0
Tikkurilan Kauppatalo Oy	Vantaa	Property holding and management	53.7
Kiinteistö Oy Vuosaaren Pohjoinen Shopping centres	Helsinki	Property holding and management	100.0
Kiinteistö Oy Kanta-Sarvis I	Helsinki	Property holding and management	50.0
Kiinteistö Oy Koskitammi	Tampere	Property holding and management	100.0
Kiinteistö Oy Kuopion Isabella	Kuopio	Property holding and management	100.0
Kiinteistö Oy Oulun Kiilakivi	Oulu	Property holding and management	100.0
Kiinteistö Oy Turun Joukahaisenkatu 9	Turku	Property holding and management	100.0
Kiinteistö Oy Helsingin Frantseninkatu 13	Helsinki	Property holding and management	100.0
Kiinteistö Oy Topeliuksenkatu 41b	Helsinki	Property holding and management	50.0
Kiinteistö Oy Asiakkaankatu 3	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tuusulan Jatke	Tuusula	Property holding and management	100.0
Keskinäinen Kiinteistö Oy Marikko			100.0
Kiinteistö Oy Helsingin Kaarlenkadun Fenno			100.0
Kiinteistö Oy Koivuhaan Yrityskeskus			100.0

Most significant joint operations consolidated into OP Financial Group's financial statements in 2017

Name	Domicile	Sector	Holding, %
Asunto Oy Oulun Kalevankulma	Oulu	Property holding and management	100.0
Kiinteistö Oy Ansatie 5	Helsinki	Property holding and management	100.0
Kiinteistö Oy Arkadiankatu 23	Helsinki	Property holding and management	100.0
Kiinteistö Oy Hämeenkivi	Tampere	Property holding and management	100.0
Kiinteistö Oy Jyväskylän Kassatalo	Jyväskylä	Property holding and management	100.0
Kiinteistö Oy Kaisaniemenkatu 1	Helsinki	Property holding and management	22.4
Kiinteistö Oy Koskikatu 9	Joensuu	Property holding and management	67.0
Kiinteistö Oy OPK-Vallila	Helsinki	Property holding and management	100.0
Kiinteistö Oy Quartetto Intermezzo	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tampereen Hämeenkatu 12	Tampere	Property holding and management	100.0
Kiinteistö Oy Turun Asemanseutu	Turku	Property holding and management	49.5
Kiinteistö Oy Uusi Paino	Helsinki	Property holding and management	100.0

Kiinteistö Oy Vammalan Torikeskus	Vammala	Property holding and management	100.0
Kiinteistö Oy Vääksyntie 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vääksyntie 4	Helsinki	Property holding and management	100.0
Mikkelin Forum Oy	Mikkeli	Property holding and management	87.1
Kiinteistö Oy Eteläesplanadi 12	Helsinki	Property holding and management	99.8
As Oy Lappeenrannan Mariankulma	Lappeenranta	Property holding and management	100.0
Kiinteistö Oy Fenix Terra	Helsinki	Property holding and management	100.0
Companies owned by OP Corporate Bank Group			
Kiinteistö Oy Kanta-Sarvis II	Tampere	Property holding and management	100.0
Kiinteistö Oy Helsingin Puutarhurinkuja 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy STC Viinikkala	Vantaa	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 1	Helsinki	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 2	Vantaa	Property holding and management	100.0
Kiinteistö Oy Vantaan Kisällintie 13	Vantaa	Property holding and management	100.0
Tikkurilan Kauppatalo Oy	Vantaa	Property holding and management	53.7
Kiinteistö Oy Vuosaaren Pohjoinen Shopping centres	Helsinki	Property holding and management	100.0
Kiinteistö Oy Kanta-Sarvis I	Helsinki	Property holding and management	50.0
Kiinteistö Oy Koskitammi	Tampere	Property holding and management	100.0
Kiinteistö Oy Kuopion Isabella	Kuopio	Property holding and management	100.0
Kiinteistö Oy Oulun Kiilakivi	Oulu	Property holding and management	100.0
Kiinteistö Oy Turun Joukahaisenkatu 9	Turku	Property holding and management	100.0
Kiinteistö Oy Helsingin Frantseninkatu 13	Helsinki	Property holding and management	100.0
Kiinteistö Oy Topeliuksenkatu 41b	Helsinki	Property holding and management	50.0
Kiinteistö Oy Asiakkaankatu 3	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tuusulan Jatke	Tuusula	Property holding and management	100.0

The consolidated financial statements include the share of assets and related liabilities under joint control.

Interests in unconsolidated structured entities

OP Fund Management Company Ltd within OP Financial Group manages OP Mutual Funds OP Fund Management Company Ltd uses OP Asset Management Ltd as the portfolio manager for many of the mutual funds it manages In addition, OP Property Management Ltd within the Group manages several real estate funds. In many funds, the fund management company controls significant operations by making investment decisions in accordance with the fund rules. OP Financial Group companies have no interests in the funds managed by the abovementioned companies that would significantly expose the Group to the varying return on the investment and would thereby cause a consolidation obligation.

OP Financial Group receives management fee income from unconsolidated funds that is included in net commissions and fees in the income statement. In addition, OP Financial Group as investor receives from unconsolidated funds income which is recognised in net investment income, depending on in which balance sheet item the investments are recognised in the balance sheet.

OP Financial Group's investments in OP Mutual Funds and the funds of OP Property Management Ltd have been recognised in investment property in the balance sheet. The Group's risk of loss is limited to the investment's balance sheet value. Investments in mutual funds managed by OP Financial Group totalled 249 million (330) on 31 December 2017.

Note 48. Information by country

OP Corporate Bank plc has branches engaged in banking in Estonia, Latvia and Lithuania. In addition, it has subsidiaries in Estonia, Latvia and Lithuania engaged in finance-company operations.

Name		Domicile
OP Corporate Bank plc Estonian Branch	Branch	Estonia
OP Corporate Bank plc Latvian Branch	Branch	Latvia
OP Corporate Bank plc Lithuanian Branch	Branch	Lithuania
OP Finance AS	Subsidiary	Estonia
"OP Finance" SIA	Subsidiary	Latvia
UAB "OP Finance"	Subsidiary	Lithuania

Financial information, EUR million	Estonia	Latvia	Lithuania	31 Dec. 2018 Total
Total operating income	11	10	16	**36**
Total EBIT	4	3	7	**14**
Total current tax	0	0	1	**1**
Total personnel in man-years	127	75	92	**294**

Financial information, EUR million	Estonia	Latvia	Lithuania	31 Dec. 2017 Total
Total operating income	42	22	29	**94**
Total EBIT	9	2	8	**19**
Total current tax		0	1	**1**
Total personnel in man-years	170	104	124	**399**

Note 49. Related-party transactions

The related parties of OP Financial Group include associates, administrative personnel and other related party companies. The administrative personnel comprise OP Financial Group's Executive Chairman (Chairman of the Executive Board of OP Cooperative), President of OP Cooperative, members and deputy members of the Executive and Supervisory Boards and their close relatives. Related parties also include companies over which a person among administrative personnel or his close family member exercises significant influence. Other entities regarded as related parties include OP Bank Group Pension Fund and OP Bank Group Pension Foundation.

Standard terms and conditions for credit are applied to loans granted to the related parties. Loans are tied to generally used reference rates.

The period of notice observed by OP Financial Group's Executive Chairman, other OP Central Cooperative's Executive Board members and a deputy member and the employer is a maximum of 6 months. Upon termination of employment in cases specifically stipulated in the executive contract, the Executive Chairman and CEO is entitled to a severance pay and a sum equivalent to a maximum of 12 months' pay, while other Board members, deputy members and the Chief Audit Officer are entitled to a sum equivalent to a maximum of 6 months' pay.

Related-party transactions 2018

EUR 1,000	Associates	Administrative personnel	Others
Loans	270,517	1,990	
Receivables	17	55	
Deposits	14,253	2,832	50,646
Interest income		31	
Interest expenses		2	61
Insurance premium revenue	24	67	7,254
Commission income	171	19	310
Commission expenses	8	20	9
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits		3,838	
Related-party holdings			
Number of participations		85	

Related-party transactions 2017

EUR 1,000	Associates	Administrative personnel	Others
Loans	313,226	10,442	
Receivables	23	3,093	1,590
Deposits	15,216	4,927	163,466
Interest income		54	
Interest expenses		2	77
Insurance premium revenue	22	61	6,985
Commission income	166	39	197
Commission expenses	7	18	7
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits		6,234	
Related-party holdings			
Number of participations		68	

In 2017, the Group sold the shares in an owner-occupied flat and a parking facility under standard terms and conditions at fair value to a member of the Executive Board for EUR 1,211 thousand. A capital gain of approximately EUR 77 thousand was recognised on the sale. The flat and the parking facility were previously rented to the Executive Board member as a company-owned flat.

Pension obligations regarding members of the Executive Board

OP Cooperative has an Executive Board acting as a directorate. The Executive Board comprises a chairman acting as the CEO and called as President and Group Executive Chairman; a deputy to the Executive Chairman and CEO; and a minimum of four and a maximum of nine other members and a maximum of four deputy members.

The President and Group Executive Chair's retirement age is 65. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans. The President and Group Executive Chair is covered by OP Bank Group Pension Foundation's supplementary pension scheme. Pension accrued under the supplementary pension scheme may begin to be disbursed as a paid-up pension before the old-age pension if employment with OP Financial Group terminates.

The retirement age of other Executive Board members who became members before 2018 and the Chief Audit Executive is 63 years. The retirement age of Executive Board members who became members in 2018 corresponds to the lowest pensionable age under TyEL. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans. Note 33 provides more detailed information on OP Financial Group's pension plans.

EUR 1,000	Pension costs under TyEL plan* 2018	2017	IFRS expense of voluntary supplementary defined benefit pension 2018	2017
Current Executive Board				
Timo Ritakallio, President and Group Executive Chair, Executive Board Chair	98			
Tony Vepsäläinen, Executive Board Vice Chair	160	159	201	174
Vesa Aho, Executive Board member	9			
Katja Keitaanniemi, Executive Board member Olli	27			
Lehtilä, Executive Board member	108	67	98	85
Juho Malmberg, Executive Board member	27			
Harri Nummela, Executive Board member	88	78	87	80
Tiia Tuovinen, Executive Board member	21			
Those resigned from the Executive Board in 2018				
President and Group Executive Chairman				
Reijo Karhinen, Executive Board Chairman	67	165	18	186
Carina Geber-Teir, Executive Board member	36	67	25	42
Jari Himanen, Executive Board member	39	93	43	92
Harri Luhtala, Executive Board member	39	64	57	64
Erik Palmén, Executive Board member	29	59	33	57
Jouko Pölönen, Executive Board member	45	96	40	101
Outi Taivainen, Executive Board member	34	64	25	42
Karri Alameri, Executive Board member	37	56	46	78

* IFRS expense has been used for the portion of the TyEL defined benefit plan and the equalisation portion of an employee's contribution less the employee's portion of the contribution has been used for the defined contribution plan.

Note 50. Variable remuneration

Personnel fund

About 80% of all personnel are members of OP Financial Group's Personnel Fund.

Payment of profit-based bonuses to OP Financial Group's Personnel Fund in 2017 was based on the achievement of the following targets: OP Financial Group's EBT with a weight of 60%, use of digital services with a weight of 20%, service encounter NPS with a weight of 15% and brand NPS with a weight of 5%. Profit-based bonuses for 2017 transferred to the Fund account for some 1.7% (3.2) of the combined salaries and wages earned by the Fund's members. The bonuses recognised in 2017 totalled EUR 6 million (11).

Long-term remuneration schemes

OP Financial Group's remuneration schemes are in compliance with regulation in the financial sector and are based on OP Financial Group's strategic targets

OP Financial Group's variable remuneration principles take account of the Group's risk exposure and risk management methods. The performance indicator targets have been set at a level that does not encourage excessive risk-taking. Long-term variable remuneration is based on reaching OP Financial Group's targets, whereas short-term variable remuneration is based on how an individual Group company or business unit reaches its targets. The maximum amount of remuneration is limited in all schemes.

Long-term scheme

Managers and designated persons in key positions in OP Central Cooperative Consolidated and Group member banks and their subsidiaries, whom the board of directors of the company in question or the OP Cooperative's Supervisory Board have appointed, are included in the long-term management incentive scheme. The 2014–2016 scheme covers some 273 (300) persons, the 2017–2019 scheme some 310 (322) persons.

The scheme consists of consecutive three-year performance periods. The bonus for the performance period of 1 January 2014–31 December 2016 was paid after a deferment period in three equal instalments by the end of each June from 2018 to 2020. Bonuses for the performance period of 1 January 2017–31 December 2019 will be paid in four equal instalments between 2020 and 2023. The bonus will be paid to members and deputy members of OP Cooperative's Executive Board and the Chief Audit Executive in six equal instalments between 2020 and 2025.

During the performance period of 2014–2016, it was possible to annually earn bonuses equalling a person's 2–8-month salary and the targets were achieved at around 57%. During the performance period of 2017–2019, it is possible to annually earn bonuses equalling a person's 1–8-month salary, provided that the targets are achieved at 100%.

Performance metrics under the long-term scheme

The Supervisory Board of OP Cooperative determines the performance indicators for the scheme and targets set for them separately for each performance period.

In setting targets for the 2014–16 scheme, OP has taken account of the Capital Requirements Directive IV (CRD IV) of the European Parliament and of the Council, which will limit the maximum variable remuneration to the amount of a person's annual fixed remuneration. The targets for the 2014–16 are based on the following criteria:

- OP Financial Group's EBT
- OP Financial Group's CET1
- Growth in the number of customers using OP as their main bank and insurer

The targets set for the 2017–19 scheme are in line with the strategy in force and are based on the following criteria:
- OP Financial Group's EBT
- Use of digital services
- Service encounter NPS
- Brand NPS

The Group-level targets are the same in the management incentive scheme and in OP Financial Group's Personnel Fund.

Determination and payout of bonuses under the long-term scheme

At the beginning of the scheme for 2014–16, bonuses were determined in euro terms and bonuses that may be paid under the scheme will be paid in terms of debentures issued by OP. The earned euro bonus will be converted into the number of debentures once the outcome of the scheme is known. An amount paid in cash will be deducted from the bonus to cover related taxes and fiscal charges. During the financial year, OP Cooperative's Supervisory Board decided to change the terms and conditions of the scheme in such a way that, instead of the debentures, the bonus payout is tied to a reference instrument decided by the Supervisory Board or the Remuneration Committee it has appointed.

Bonuses for 2017–19 will be paid in cash unless deferral procedures under regulation are applied to the person.

Bonuses for the 2014–16 schemes will be paid to their beneficiaries provided that OP Financial Group's FiCo capital adequacy is 1.30 or higher on the payout date. Bonuses for the 2017–19 scheme will be paid to their beneficiaries provided that the CET1 ratio is over the CET1 buffer set by the ECB + 3% on the payout date and that the person within the scheme is employed by OP Financial Group up to the payout date.

Expenses for both schemes are recognised from the beginning of the performance period up to the date of payment (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses. A liability recognised under the scheme amounted to EUR 19.3 million (19.3) on 31 December 2018.

OP Cooperative's Supervisory Board or the Remuneration Committee it has appointed manages the long-term scheme and supervises compliance with it. OP Cooperative's Supervisory Board may exercise discretion to change the terms and conditions of the scheme and defer bonus payout for compelling reasons.

Short-term remuneration schemes

In short-term schemes, the performance period is one calendar year and the bonus is paid in cash. In OP cooperative banks, the performance period varies between 1 month and 12 months. Short-term remuneration schemes are based on targets set by each company and entity, covering all personnel of OP Financial Group.

The bonus is determined by the job grade and the maximum bonuses correspond to a 1–4-month annual salary. The maximum bonuses for separately specified duties may not exceed the amount equalling the person's annual salary.

Performance metrics under the short-term scheme

The shared metrics at OP Central Cooperative Consolidated determine the maximum bonus payable under the short-term scheme. The shared metrics include OP Financial Group's EBT (weight of 50%), OP Financial Group's operating expenses (weight of 25%) and OP Financial Group's service encounter NPS (weight of 25%). Targets shown in the balanced scorecards and derived from annual planning are decided by the business lines/functions.

Short-term remuneration in OP cooperative banks is based on shared bank-level targets and personal targets. Customer experience, sales and the strategy-based targets for growth and digitality are highlighted in the metrics.

Determination and payout of bonuses under the short-term scheme

Like in the long-term remuneration, bonuses will be paid to their beneficiaries provided that the CET1 ratio is over the CET1 buffer set by the ECB + 3% on the payout date. and that the person within the scheme is employed by OP Financial Group up to the payout date. Bonus payout in OP cooperative banks requires that the bank's customer business show profit.

Bonuses earned based on the balanced scorecard will be reduced before bonus payout if binding internal guidelines within the Group or task or regulatory requirements have been ignored and risk management elements have been materialised. If an offence or negligence becomes apparent only after the bonus payout, bonus reduction or clawback can also be applied retrospectively.

Expenses for the scheme are recognised from the beginning of the performance period up to the date of payout (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses.

The Remuneration Committee appointed by OP Cooperative's Supervisory Board defines the maximum bonuses under the short-term schemes applied by the Group and the structural framework of the schemes. OP Cooperative's Executive Board and OP cooperative banks' boards of directors decide on the terms and conditions and metrics of the schemes in greater detail.

Deferment of variable remuneration

The payment of variable remuneration has been prescribed in the Act on Credit Institutions (610/2014). If a person is categorised on the basis of his/her duties as belonging to a group that may cause considerable risk (Identified Staff) to his/her company, the company may defer the payment of variable remuneration over three years under certain conditions (five years for the Executive Board).

Identified staff in OP Financial Group include managing directors and other key management personnel, other people with a major impact of the company's risk exposure, Internal Control and other designated persons or special groups.

The deferment of variable remuneration payment applies to identified staff if their variable remuneration for a 12-month performance period exceeds EUR 50,000 – the maximum recommended by the Financial Supervisory Authority. The remuneration of the identified staff is reviewed up to the EUR 50,000 deferment limit as a whole, considering both long- and short-term remuneration.

If the euro maximum for deferment is exceeded, some bonus will be paid immediately, while the rest is deferred and the deferred bonus will be paid in equal instalments within the next three years (within the next five years for the Executive Board). In such a deferment situation, half of the variable remuneration is paid in cash and half is tied to the value of the reference instrument decided by OP Cooperative's Supervisory Board or the Remuneration Committee appointed by the Supervisory Board. The bonus tied to the reference instrument will be paid to its beneficiary after a one-year retention period.

Remuneration for persons in charge of control duties

The remuneration objectives of persons in charge of control duties independent of business lines, such as risk management, internal audit, compliance and actuarial duties, may not jeopardise the independence of the duties. Variable remuneration must be independent of the business line under control and the Chief Risk Officer's metrics may not include any direct sales-based targets. It is also recommended that the balanced scorecard also includes a qualitative metric that measures the performance of control duties.

Monitoring of OP Financial Group's remuneration

OP Financial Group monitors the market consistency of its total remuneration on a regular basis. It receives information on trading venues and on the market consistency of the structures of the systems from providers, such as Alexander Incentives, Aon Hewitt, Hay Group and Mercer.

The Remuneration Committee appointed by OP Cooperative annually monitors how paid bonuses are in proportion to OP Financial Group's success vis-à-vis benchmark companies and refunds paid to customers. OP Financial Group also makes internal, Group-level comparisons of remuneration and structures on a regular basis.

Expenses recognised for variable remuneration*

EUR million	2018	2017
Personnel fund	6	11
Short-term schemes	28	27
Long-term schemes:		
Scheme for 2011–13	0	0
Scheme for 2014–16	2	4
Scheme for 2017–20	4	4
Total	**41**	**45**

* Excl. social expenses

More information on the remuneration schemes is available at www.op.fi.

Note 51. Loss allowance regarding receivables and notes and bonds

Credit risk exposures and related loss allowance

A description of OP Financial Group's credit risk formation and management can be found in section 10 of Note 2. The measurement principles of expected credit losses are described in section 5 Impairment of Note 1.

Expected credit losses are calculated on receivables measured at amortised cost and notes and bonds recognised at fair value through other comprehensive income (investments in bonds). OP Financial Group receivables include loans, standby credit facilities (e.g. credit cards and accounts with credit facility and lease and factoring receivables). In addition, expected credit losses are calculated on off-balance-sheet items, such as loan commitments, credit facilities and bank guarantees. However, notes and bonds are investments in bonds. For expected credit losses, loss allowance is recognised in the balance sheet or in the case of notes and bonds in other comprehensive income.

The following factors, for example, affect the amount of expected credit losses: exposure amount, exposure validity, customer borrower grade and collateral value as well as forward-looking information.

The following table shows the receivables which are exposed to credit risk and on which expected credit loss is calculated. Here the on-balance-sheet and off-balance sheet exposures also describe the maximum exposure amount exposed to credit risk, excluding collateral securities or other arrangements that improve credit quality. The off-balance sheet exposure represents the exposure amount binding on the bank or the guarantee amount.

Exposures within the scope of accounting for expected credit losses by impairment stage 31 December 2018

On-balance-sheet exposure	Stage 1	Stage 2			Stage 3*	
EUR million		Not more than 30 DPD	More than 30 DPD	Total		Total exposure
Receivables from customers (gross)						
Non-banking corporates	31,130	3,454	219	3,673	782	35,585
Households	45,584	4,604	241	4,845	448	50,877
Public-sector entities	1,265		6	6		1,272
Other	2,722		0	0	1	2,723
Total	**80,702**	**8,057**	**466**	**8,524**	**1,230**	**90,456**
Off-balance-sheet limits						
Non-banking corporates	4,488	650	128	778	18	5,284
Households	3,231	53	3	56	3	3,290
Public-sector entities	763		9	9		772
Other	1,409	1		1	0	1,410
Total	**9,890**	**703**	**141**	**844**	**21**	**10,755**
Other off-balance-sheetcommitments						
Non-banking corporates	6,365	262		262	34	6,661
Households	1,768	3		3		1,771
Public-sector entities	443			0		443
Other	385	0		0	0	385
Total	**8,961**	**265**		**265**	**34**	**9,260**
Notes and bonds	**16,896**	**332**		**332**	**11**	**17,240**
Total	**16,896**	**332**		**332**	**11**	**17,240**
Total exposures within the scope of accounting for expected credit losses	**116,450**	**9,358**	**607**	**9,965**	**1,297**	**127,712**

* A total of 28 million euros of Stage 3 exposures are purchased or originated credit-impaired financial assets (POCI).

Loss allowance by stage 31 December 2018 On-balance-sheet exposures and related off-balance-sheet limits* EUR million	Stage 1	Stage 2 Not more than 30 DPD	Stage 2 More than 30 DPD	Stage 2 Total	Stage 3 ****	Total loss
Receivables from customers						
Non-banking corporates	-29	-44	-2	-45	-336	-410
Households	-5	-30	-5	-35	-73	-113
Public-sector entities	-1		0	0		-1
Other	-2		0	0		-2
Total	**-37**	**-74**	**-6**	**-81**	**-409**	**-526**
Other off-balance-sheetcommitments**						
Non-banking corporates	-2	-2		-2	0	-5
Households	0	0		0		0
Public-sector entities	0			0		0
Other	0			0		0
Total	**-3**	**-3**		**-3**	**0**	**-6**
Notes and bonds***	**-6**	**-4**		**-4**	**-4**	**-14**
Total	**-46**	**-81**	**-6**	**-87**	**-413**	**-546**

* Loss allowance is recognised as one component to deduct the balance sheet item.

** Loss allowance is recognised in provisions and other liabilities in the balance sheet.

*** Loss allowance is recognised in the fair value reserve in other comprehensive income.

****EUR 6 million of Stage 3 loss allowance relates to purchased or originated credit-impaired financial assets (POCI).

The table below shows a summary of loss allowance relative to the exposure amount by impairment stage. The coverage ratio describes the ratio of loss allowance to exposure amount.

Summary and key indicators	Stage 1	Stage 2			Stage 3	
		Not more than 30 DPD	More than 30 DPD	Total		Total
Receivables from customers and off-balance-sheet items						
Non-banking corporates	35,618	4,103	347	4,451	800	40,868
Loss allowance	-31	-46	-2	-48	-336	-415
Coverage ratio, %	-0.09%	-1.13%	-0.46%	-1.08%	-42.03%	-1.02%
Households	48,815	4,656	245	4,901	451	54,167
Loss allowance	-6	-31	-5	-35	-73	-114
Coverage ratio, %	-0.01%	-0.66%	-1.91%	-0.72%	-16.15%	-0.21%
Public-sector entities	2,029	0	15	15	0	2,044
Loss allowance	-1		0	0		-1
Coverage ratio, %	-0.04%		0.00%	0.00%		-0.05%
Other	4,131		0	1	1	4,132
Loss allowance	-2		0	0		-2
Coverage ratio, %	-0.05%		-0.91%	-0.03%		-0.05%
Total receivables from customers and off-balance-sheet items	99,553	9,026	607	9,632	1,286	110,472
Loss allowance	-40	-77	-6	-83	-409	-532
Coverage ratio, %	-0.04%	-0.85%	-1.04%	-0.86%	-31.80%	-0.48%
Carrying amount, notes and bonds	16,896	332	0	332	11	17,240
Loss allowance	-6	-4	0	-4	-4	-14
Coverage ratio, %	-0.04%	-1.18%		-1.18%	-34.32%	-0.08%

Contracts have been classified into thee groups by credit risk characteristics on the basis of exposure classes used in capital adequacy measurement: corporate customers, households and public-sector entities. Class Other includes, e.g. credit institutions.

Collateral and other arrangements improving credit quality

OP Financial Group's credit risk management measures to reduce credit risk are described in Note 2, section 10.1. The most common measures to reduce credit risk is to use various collateral securities. Home loans and standby credit facilities are the largest credit groups among households. Home loans account for 73% of household exposures. Residential property is typically used as collateral for home loans.

The table below presents a breakdown of home loans on 31 December 2018 by LTV level with loss allowance. The LTV (loan-to-value) ratio describes the loan's balance sheet value relative to the fair value of the residential property collateral. The loan may also have other collateral securities but these have not been taken into account in the table. The lower the LTV ratio, the larger the collateral value in relation to the loan amount. Loss allowance is lower in relative terms, the lower the LTV ratio is.

	Total home loans	
LTV %, € million	Exopsure amount in balance sheet	Loss allowance
0–50%	8,491	0
51–70%	16,911	-6
Over 70%	12,582	-20
Total	37,984	-25

Changes in loss allowance during financial year

The table below shows the change in loss allowance by impairment stage during 2018 in respect of the effect of the following factors:

Note 1, section 5.4.1 describes impairment stages.

Receivables from customers and off-balance-sheet items, EUR million	Stage 1	Stage 2	Stage 3	Total
	12 months	Lifetime	Lifetime	
Loss allowance 1 January 2018	31	80	431	543
Transfers from Stage 1 to Stage 2	-2	18		16
Transfers from Stage 1 to Stage 3	0		25	25
Transfers from Stage 2 to Stage 1	2	-16		-14
Transfers from Stage 2 to Stage 3		-8	23	15
Transfers from Stage 3 to Stage 2		9	-30	-21
Transfers from Stage 3 to Stage 1	1		-7	-6
Increases due to origination and acquisition	13	7	13	34
Decreases due to derecognition	-9	-12	-22	-43
Changes in risk parameters (net)	4	3	28	35
Changes due to update in the methodology for estimation (net)				
Decrease in allowance account due to write-offs	0	0	-52	-52
Other adjustments				
Net change in expected credit losses	9	3	-22	-11
Loss allowance 31 December 2018	40	83	409	532

In June 2018, forborne exposures were included as the qualitative criterion of a significant increase in credit risk, which slightly increased transfers from Stage 1 to Stage 2.

Transfers from Stage 1 to State 3 compare the current year-end Stage 3 of a financial asset to the Stage 3 at the beginning of the year. Of these, some 85% (see the default capture rate below) have been reported in Stage 2 during 2018, so the agreements have, as a rule, transferred to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default.

Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2018 with a delay of three months.

Risk parameters included in the LGD (loss given default) model have been calibrated during the financial year, for example, by reducing the recovery rate by –10 percentage points and removing it altogether from corporate exposures in bankruptcy. This is shown in an increase in loss allowance.

Notes and bonds, EUR million	Stage 1	Stage 2	Stage 3	Total
	12 months	Lifetime	Lifetime	
Loss allowance 1 January 2018	5	0	0	5
Transfers from Stage 1 to Stage 2	0	1		1
Transfers from Stage 1 to Stage 3	0		2	2
Transfers from Stage 2 to Stage 1	0	0		0
Transfers from Stage 2 to Stage 3		0	0	0
Transfers from Stage 3 to Stage 2		0	0	0
Transfers from Stage 3 to Stage 1	0		0	0
Increases due to origination and acquisition	2	3	2	7
Decreases due to derecognition	-2	0		-2
Changes in risk parameters (net)	0			0
Changes due to update in the methodology for estimation (net)	1		0	1
Decrease in allowance account due to write-offs				
Other adjustments				
Net change in expected credit losses	1	4	3	8
Loss allowance 31 December 2018	6	4	4	14

The table below presents exposures of receivables in the balance sheet by rating and off-balance-sheet exposures, exposure amount after deducting collateral as well as loss allowance. Ratings 1–12 are used in the credit rating of public-sector entities and Ratings A–F in the credit rating of households. The ratings have been combined into the table in such a way that the corporate customer rating 1 comprises ratings 1 and 1.5 etc. The private customer rating A comprises A+, A and A- etc. Note 2, section 10.3.1 describes OP Financial Group's ratings. Net exposure has been calculated for each contract and it excludes overcollateralisation.

EUR million	Balance sheet exposures			Off-balance-sheet exposure, gross			Net exposure after collateral			Loss allowance		
Rating	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
1	1,359	2		474	14		1,377	2		0	0	
2	2,031	2		851	16		1,853	2		1	0	
3	3,503	39		2,351	36		3,207	30		1	0	
4	4,534	145		2,289	139		4,089	118		2	0	
5	7,382	324		2,913	82		3,137	84		3	1	
6	6,179	530		1,963	140		2,701	160		5	2	
7	5,000	847		1,768	204		2,641	266		10	6	
8	3,874	915		842	265		793	273		11	10	
9		567			131			162			15	
10		302			17			83			15	
11			401			52			252			145
12			381			0			247			192
A	30,801	254		3,570	10		5,140	31		0	0	
B	9,832	1,422		1,344	12		2,324	182		1	0	
C	3,380	850		314	19		1,119	170		1	3	
D	2,828	913		171	15		593	209		4	8	
E		1,412			11			358			24	
F			448			0			141			73
Total	**80,702**	**8,524**	**1,230**	**18,851**	**1,109**	**52**	**28,974**	**2,131**	**640**	**40**	**83**	**409**

The majority of the loans have transferred to stage 2 in all ratings based on OP's relative SICR model. Payments past due over 30 days causes a transfer to stage 2 in most cases in the middle and lower level ratings. Forbearance measures cause a transfer to stage 2 in corporate customers more often in middle and lower level ratings whereas they affect transfers to stage 2 in all ratings in private customers.. The lowest ratings are classified into stage 2 based on an absolute rating limit. In the lowest ratings, in particular, there are several reasons for transfers to stage 2. Default is identified on a real-time basis, immediately causing a transfer to stage 3.

OP Financial Group may write off credit loss from financial assets in full or in part, but thereafter these will still be subject to collection measures. The amount of such financial assets were EUR 99 million on 31 December 2018.

Significant increase in credit risk (SICR)

A significant increase in credit risk is discovered on a technical basis as presented in the accounting policies (Note 1 section 5.4.1).

The classification of contracts under SICR into similar groups in terms of credit risk is identical with lifetime PD (probability at default) models. Credit ratings are input data of the PD models. Both the current PDs and threshold PDs include forward-looking information (below).

The effectiveness of SICR is assessed on every reporting date using the following indicators:
The default capture rate measures how many contracts were in Stage 2 before it transferred to Stage 3. The rate was 85% on 31 December 2018. The higher the rate is, the better the SICR model can capture a significant increase in credit risk. Contracts in Stage 2 accounted for 8% of the entire non-default loan portfolio.

Forward-looking information included in the ECL measurement models

The assessment of SICR and the measurement of expected credit loss incorporate forward-looking information; OP Financial Group has analysed what macroeconomic variables have an explanatory significance to the credit risk amount.

The table below shows a summary of the values of the five most important macroeconomic variables for 2018–2046 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of the expected credit loss. These values were used for all product groups on 31 January 2018.

Economic variable	Scenario	Average (%)	Minimum (%)	Maksimum (%)
GDP growth	Downside	0.6	-0.7	2.5
	Baseline	1.5	1.3	2.5
	Upside	2.2	2.0	3.8
Unemployment rate	Downside	8.8	7.6	9.0
	Baseline	7.0	7.0	7.6
	Upside	5.3	5.0	7.6
Investment growth %	Downside	0.7	-0.9	4.0
	Baseline	1.7	1.5	4.0
	Upside	2.6	2.0	7.0
House price index	Downside	1.1	-2.0	1.5
	Baseline	2.8	1.0	3.0
	Upside	4.1	1.0	5.5
12-month Euribor	Downside	1.2	-0.2	1.8
	Baseline	2.0	-0.1	2.5
	Upside	2.9	-0.1	3.3

On 31 December 2018, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%.

The table below shows a summary of the values of the five most important macroeconomic variables for 2018–2045 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of expected credit losses. These values were used for all product groups on 1 January 2018.

Economic variable	Scenario	Average (%)	Minimum (%)	Maximum (%)
GDP growth	Downside	0.7	-0.5	3.2
	Baseline	1.6	1.3	3.2
	Upside	2.2	2.0	4.0
Unemployment rate	Downside	9.0	8.5	10.2
	Baseline	6.7	6.5	8.6
	Upside	5.3	5.0	8.6
Investment growth %	Downside	0.5	-2.7	8.0
	Baseline	2.0	1.5	8.0
	Upside	3.0	2.0	8.1
House price index	Downside	1.1	-1.5	1.5
	Baseline	2.9	1.5	3.0
	Upside	4.1	1.5	5.5
12-month Euribor	Downside	1.2	-0.1	1.8
	Baseline	2.0	-0.1	2.5
	Upside	3.0	-0.1	3.4

On 1 January 2018, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%. The scenarios are based on the forecasts performed by OP Financial Group economists. The forecast process also takes account of comparable forecasts by external organisations, such as the OECD, International Monetary Fund, Bank of Finland, Ministry of Finance etc., as well as academic research.

The rationality of the used macroeconomic variables is assessed when reviewing the functionality of the models for PD, LGD, EAD and prepayment.

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2018.

Total private customer and corporate customer exposures	Weighted loss allowance	Loss allowance under downside scenario	Loss allowance under baseline scenario	Loss allowance under upside scenario
Stage 1	37	40	36	33
Stage 2	83	88	83	78
Stage 3	409	409	409	409
Total	**529**	**537**	**528**	**520**

As a rule, loss allowance is the largest under the downside scenario. Private customer loans are mainly variable rate loans, so an increase in interest rates has a major effect on PD parameters. This is why loss allowance of private customers in Stage 1 is the highest under the upside scenario because the 12-month Euribor rate has the strongest effect on it through the PD change. Loss allowance of private customers in Stage 2 contracts, however, is the highest under the downside scenario, which is due to developments in the lifetime LGD parameter. All corporate customer risk parameters affect in a parallel way in such a way that loss allowance is clearly the largest under the downside scenario. The LGD model for Stage 3 is independent of macroeconomic factors, but a significant proportion of Stage 3 exposures is assessed by means of a cash flow based expert assessment that also takes account of forward-looking information.

Sensitivity analysis

The sensitivity analysis describes the sensitivity of loss allowance to changes in macroeconomic factors. The analysis below only describes somewhat potential economic deterioration and not an economic upswing at all. In addition, all different components of the sensitivity analysis do not necessarily develop together during a recession in the way presented in the sensitivity analysis.

The most significant macroeconomic variables in risk parameters and exposure classes include the 12-month Euribor rate, investment growth rate and GDP development. Changes used in sensitivity analyses include a 1% increase in the 12-month Euribor rate, a 6% decrease in investment growth and a 3.5% decrease in the GDP growth rate. So the figures reflect an economic situation that is poorer than now and all of them increase loss allowance and are based on the following facts. First of all, the interest rate and related forecasts in the modelling period of 2008–2016 are clearly lower and GDP and the investment growth rate plus their forecasts are considerably higher, i.e. the economic situation is good in view of history. The levels used in the sensitivity analysis are based on the behaviour of variables in the historic period, and the changes roughly correspond to the change of standard deviation.

The sensitivity analysis covers only Stage 1 and 2 contracts. The sensitivity analysis does not take account of the transfers between Stage 1 and 2 as a result of SICR. Changes in the lifetime PD stressed scenarios are included only in PD estimates based on the loss allowance formula and the effects of PD changes are not taking into account through SICR in the sensitivity analysis.

The table below show the sensitivity of change in the loss allowance of the groups household and corporate customers on 31 December 2018, when the economic situation weakens due to changes in the combined effects of interest rates, investment growth rate and GDP:

Group Stage	Loss allowance 31 Dec. 2018	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	5	6	6.0 %
Stage 2	35	41	16.0 %
Corporate customers			
Stage 1	29	45	54.0 %
Stage 2	45	73	61.0 %
Total	**115**	**164**	**43.0 %**

* 1 percentage point increase in the 12-month Euribor rate, 6 percentage point decrease in the investment growth rate and a 3.5 percentage point decrease in the GDP rate under all scenarios

Loss allowances are largely determined based on the first couple of years when the first years of the simulated scenario years are essential in terms of the results.

A 1 percentage point increase in the interest rate increases the amount of loss allowance in both private customers and corporate customers. A deterioration in the investment growth rate raises the amount of loss allowance in corporate customers, as well as through changes in PD and LGD. GDB growth has a negative relation to the amount of loss allowance through all model components. Slower GDP growth increases PD values for both private customers and corporate customers. It also affects through the LGD in such a way that a GDP decrease weakens developments in home collateral, which has an effect on Stage 2 contracts.

The analysis shows that the most significant proportional and absolute changes apply to the corporate customers where the amounts of loss allowance regarding Stage 1 and 2 contracts increase by over 50%. Changes are considerably smaller in private customers than in corporate customers because the estimates of their risk parameters are not so sensitive to economic conditions.

Comparison of exposures in impairment stage 3 in the balance sheet with non-performing receivables

The value of impairment stage 3 exposures are impaired financial assets due to credit risk. The table below shows a reconciliation statement between exposures and loss allowance presented in impairment stage 3 and Note 56 concerning doubtful receivables.

EUR million, 31.12.2018	Balance sheet exposure	Loss allowance
Impairment stage 3	1,230	409
Difference between the definitions*	150	3
Performing and forborne receivables (stage 2)	2,137	29
Doubtful receivables (Note 56)	3,517	440

* Commission Implementing Regulation (EU) 2015/227 Annex 5 part 2: 155, 157, 176

Note 52. Events after the balance sheet date

No events took place after the balance sheet date.

Notes to risk management

Note 2 describes OP Financial Group's risk and capital adequacy management principles.
Notes 53–55 present OP Financial Group's risk exposure, Notes 56–62 Banking risk exposure, Notes 63–74 Non-life Insurance risk exposure, Notes 75–95 Wealth Management risk exposure and capital adequacy and capital base in Notes 96–102. OP Financial Group publishes information under Pillar III disclosures in the OP Amalgamation Capital Adequacy Report.

OP Financial Group's risk exposure

Note 53. OP Financial Group's risk tolerances

In accordance with Article 435, point 1 of the Capital Requirements Regulation, OP Financial Group must disclose, for example, a concise risk statement approved by the management body (OP Cooperative's Supervisory Board) succinctly describing the institution's overall risk profile associated with the business strategy.

Supervisory Board risk statement:
OP Financial Group's strategic goal is to ensure risk capacity in all circumstances and to keep risk-taking moderate relative to risk capacity. In the long term within moderate risk-taking, the Group seeks above-market-average growth. This requires controlled risk-taking relying on strong risk management.
Risk appetite becomes concrete in terms of the qualitative and quantitative risk-taking tolerances adopted by the Supervisory Board. Risk tolerance metrics reflect the profile of OP Financial Group's quantitative risks. The Supervisory Board annually confirms OP Financial Group's significant risks in the Risk Appetite Framework (RAF) principles. The Group defines tolerances for significant risks. The tolerances are specified at more accurate target risk metrics levels found in the Risk Policy, through qualitative targets as well as limits and control limits.

OP Financial Group remained within the set tolerances during the year.

Indicator	Tolerance	31 Dec. 2018	31 Dec. 2017
Capital adequacy			
CET1, %	14.0	20.5	20.1
FiCo solvency, %	110	147	143
Risk appetite (Economic capital / permanent capital, %)			
OP Financial Group, %	75	48	48
Banking, %	50	33	35
Treasury, %	10	54	5
Wealth Management, %	20	8	9
Non-life Insurance, %	20	11	12
New businesses			
Capital tied to new businesses / permanent capital, %	3	0.5	0.3
Counterparty risk concentrations			
Largest single customer risk / capital under FiCo, %	10	5	5
Total of significant customer risks (≥ 3%) / capital under FiCo, %	100	31	21
Industry risk / Corporate receivables and commitments, %	15	11	11
Concentration risk			
Country risk concentration / FiCo capital, %	5	2.6	2.5
Credit risks			
Doubtful receivables / loan and guarantee portfolio, %	5	3.4	3.4
Economic capital requirement for credit risk / exposure at default, %	3	2.1	2.1
Market risks			
12-month interest income risk in banking book for 1-pp change in interest rates, € million	-250	-47.9	-81.0
Banking book present value risk to 2-pp change in interest rate / permanent capital, %	-10	2.4	1.5
VaR (99% confidence) of Trading and customer business derivative position, 1 day, € million	7	2.4	1.8
Long-term investments by Treasury and Banking, VaR (95% confidence), 1mo / nominal value, %	0.85	0.6	0.5
Long-term investments by insurance, VaR (95% confidence), 1 mo / market value, %	3.4	2.1	2.2
Underwriting risks			
Highest Non-life Insurance retention per object and event, € million	20	20	20
Liquidity risks			
Liquidity coverage (LCR) ratio, %	120	143	123
Net Stable Funding Ratio (NSFR), %	100	111	116
Operational risks			
Materialised operational risks (net), € million	50	4.8	5.2

Concentration risk

Country concentration risk means unexpected and expected losses arising from exposures of a specific country. Tolerance specifies the maximum exposure of a single country. Losses are proportioned to the Group's FiCo capital.

Credit risks

OP Financial Group uses credit risk tolerances to spread risk by sector and counterparty and to limit the formation of doubtful receivables. The Group's sector and customer risks are diversified. At the end of 2017, customer risk deriving from an individual counterparty and the total of significant customer risk was clearly within the tolerances. Any customer exposure that accounts for at least 3% of the Group's FiCo capital base covering customer exposure has been taken into account in measuring significant customer exposure. In calculating sector risk, the Group uses its internal sector breakdown and, in addition to Banking receivables and commitments, takes account of direct investments by insurance institutions, incomplete housing corporations and guarantees from public-sector entities.

Market risks

OP Financial Group limits its Trading and long-term investment market risks using VaR limits.
At the end of the year, the VaR of Trading was clearly within the tolerance set for it.

Market risk associated with long-term investments by Treasury and Banking remained stable during the financial year, being clearly below its tolerance limit at the end of the year.

Insurance risks

The Group reinsures all underwriting risks above the retention limit in order to keep claims expenditure arising from an individual object and event within the limits of risk tolerance.

Liquidity risk

The liquidity coverage ratio (LCR) based on regulation requires credit institutions to have sufficient liquid funds that correspond to at least net cash outflows in an acute shock with duration of 30 days.

The Net Stable Funding Ratio (NSFR) measures the sufficiency of the amalgamation's stable funding to the stable funding requirement expected by business (lending and investment and derivative business as the most significant ones).

Note 54. OP Financial Group's exposure split by geographic region and exposure class

The majority of OP Financial Group's country exposure is in EU countries. The exposures cover all balance-sheet and off-balance-sheet items and are based on values used in capital adequacy.

Exposure split by geographic region 31 Dec. 2018

EUR million	Exposures to central governments and central banks	Exposures to credit institutions	Exposures to corporates	Retail exposures	Equity investments*	Collateralised notes and bonds**	Other	Total exposures
Finland	16,337	397	46,359	58,932	530	495	996	124,046
Baltic countries	271	0	2,126	15			6	2,418
Other Nordic countri	149	415	1,467	126	7	1,768	0	3,933
Germany	2,657	164	47	103	3	1,264	7	4,244
France	186	421	248	161	16	836		1,868
UK	2	832	152	346	52	449	0	1,832
Italy		24	24	26				74
Spain		38	12	19		1	0	71
Other EU countries	2,040	405	474	289	231***	1,244		4,684
Rest of Europe		145	116	34	42	37		373
USA		236	50	626	89	34		1,036
Russia		42	3	8				54
Asia		279	40	79			0	398
Other countries	31	117	248	112	783***	1,282	1,322	3,895
Total	**21,673**	**3,514**	**51,365**	**60,876**	**1,753**	**7,411**	**2,331**	**148,923**

* Also includes EUR 104 million in bond funds.

** Comprises RMBS, ABS and Covered Bond investments.

*** Consist mainly of investments in European funds in Other EU countries and Emerging Markets and Global funds in Other countries.

Exposure split by geographic region 31 Dec. 2017

EUR million	Exposures to central governments and central banks	Exposures to credit institutions	Exposures to corporates	Retail exposures	Equity investments*	Collateralised notes and bonds**	Other	Total exposures
Finland	16,758	213	43,276	56,255	418	526	1,322	118,768
Baltic countries	129	194	1,880	16	0		0	2,220
Other Nordic countri	186	734	1,328	146	4	1,958	38	4,395
Germany	2,173	213	41	191	18	1,085	17	3,737
France	413	368	182	165	20	750	21	1,919
UK		821	147	302	62	539	25	1,896
Italy	84	24	16	23		6	8	160
Spain		22	12	26	0	13	65	137
Other EU countries	1,648	411	479	170	833***	1,019	60	4,621
Rest of Europe	12	247	91	87	5	63	12	516
USA		284	33	564	217	12	325	1,435
Russia		50	11	8	13		0	82
Asia		346	101	67	33	5	44	596
Other countries	975	126	78	64	448***	1,342	258	3,291
Total	**22,379**	**4,054**	**47,674**	**58,082**	**2,071**	**7,318**	**2,194**	**143,773**

* Also includes EUR 91 million in bond funds.

** Comprises RMBS, ABS and Covered Bond investments.

*** Consist mainly of investments in European funds in Other EU countries and Emerging Markets and Global funds in Other countries.

Note 55. Impairment loss recognised on financial assets

EUR million	31 Dec. 2017
Derivative contracts	
Held for trading	0
Loans and receivables	
Loans granted	39
Guarantee receivables	9
Available-for-sale financial assets	
Shares and participations	1
Total financial assets	**48**

Note 51. Loss allowance regarding receivables and notes and bonds shows a specification of expected credit losses for 2018.

Risk exposure by Banking

Note 56. Receivables from credit institutions and customers, and doubtful receivables

31 Dec. 2018	Not impaired (gross)	Loss allowance	Balance sheet value
Receivables			
Receivables from credit institutions	184	1	183
Receivables from customers	85,442	521	84,921
Bank guarantee receivables	10	0	10
Finance leases	2,154	4	2,150
Total	**87,780**	**526**	**87,254**
Receivables by sector			
Non-banking corporate sector	32,405	410	31,995
Financial institutions and insurance companie	1,065	2	1,064
Households	51,511	105	51,406
Non-profit organisations	814	6	808
Public-sector entities	1,985	3	1,981
Total	**87,780**	**526**	**87,254**

	Receivable base					
31 Dec. 2017	Not impaired (gross)	Impaired (gross)	Total	Individual assessment of impairment	Collective assessment of impairment	Balance sheet value
Receivables						
Receivables from credit institutions	506		506		2	504
Receivables from customers	80,247	627	80,875	421	70	80,383
Bank guarantee receivables	2	8	11	8	1	2
Finance leases	1,856		1,856			1,856
Total	**82,609**	**627**	**83,236**	**421**	**71**	**82,744**
Receivables by sector						
Non-banking corporate sector	29,253	423	29,677	317	38	29,321
Financial institutions and insurance companies	1,387	0	1,387	0	2	1,385
Households	49,931	201	50,132	102	30	50,000
Non-profit organisations	788	3	791	2	1	789
Total	**82,609**	**627**	**83,236**	**421**	**71**	**82,744**

			Impairments
31 Dec. 2018	Not impaired (gross)	Arrears	Loss allowance
Doubtful receivables and forborne loans			
Receivables from customers	3,512	435	440
Bank guarantee receivables	10	0	0
Finance leases	5	0	0
Total	**3,517**	**436**	**440**
Doubtful receivables and forborne loans by sector			
Non-banking corporate sector	968	265	350
Financial institutions and insurance companies	0	0	0
Households	2,512	170	85
Non-profit organisations	36	1	5
Total	**3,517**	**436**	**440**

31 Dec. 2017	Not impaired (gross)	Impaired (gross)	Total	Arrears	Impairments Individually assessed	Impairments Collectively assessed
Doubtful receivables and forborne loans						
Receivables from credit institutions						2
Receivables from customers	2,712	626	3,338	394	421	70
Bank guarantee receivables	2	8	11	8	8	1
Overdrafts	0		0	0		
Total	**2,714**	**627**	**3,341**	**395**	**421**	**71**
Doubtful receivables and forborne loans by sector						
Non-banking corporate sector	568	423	992	240	317	38
Financial institutions and insurance companies	2	0	2	0	0	2
Households	2,124	201	2,324	153	102	30
Non-profit organisations	21	3	24	2	2	1
Public-sector entities				0		0
Total	**2,714**	**627**	**3,341**	**395**	**421**	**71**

Doubtful receivables and forborne loans

31 Dec. 2018	Performing receivables from credit institutions and customers (gross)	Non-performing receivables from credit institutions and customers (gross)	Receivables from credit institutions and customers (gross)	Loss allowance	Receivables from credit institutions and customers
Over 90 days past due		614	614	229	385
Unlikely to be paid		426	426	148	278
Forborne receivables	2,137	340	2,477	62	2,414
Total	**2,137**	**1,380**	**3,517**	**440**	**3,077**

Doubtful receivables and forborne loans

31 Dec. 2017	Performing receivables from credit institutions and customers (gross)	Non-performing receivables from credit institutions and customers (gross)	Receivables from credit institutions and customers (gross)	Individually assessed	from credit institutions and customers (net)
Over 90 days past due		611	611	217	394
Unlikely to be paid		513	513	147	366
Forborne receivables	1,876	341	2,217	58	2,160
Total	**1,876**	**1,465**	**3,341**	**421**	**2,920**

The Group reports on the remaining principal as the amount of a receivable that is more than 90 days past due whose interest or principal amount has been overdue and outstanding for over three months. Contracts with the lowest credit ratings (F for private customers and 11-12 for others) are reported as unlikely to be paid. Forborne receivables include receivables that have been renegotiated due to the customer's financial difficulties. The loan terms and conditions of renegotiated receivables have been eased due to the customer's financial difficulties for example by transferring to interest only terms for a period of 6-12 months. Forborne receivables are in ECL measurement at stage two or three.

Key ratio, %	2018	2017
Loss allowance/Exposures individually assessed for impairment, % of doubtful receivables	12.5 %	12.6 %

Financial assets to which impairment is applied and payment related to them is past due

31 Dec. 2018	Less than 30 days	30–90 days	90–180 days	Over 180 days	Total
Matured receivables, not impaired	325	226	90	321	962

31 Dec. 2017	Less than 30 days	30–90 days	90–180 days	Over 180 days	Total
Matured receivables, not impaired	622	278	139	232	1,271

Note 57. Loan losses and impairment losses

EUR million	31 Dec. 2014	31 Dec. 2015	31 Dec. 2016	31 Dec. 2017	31 Dec. 2018
Receivables written down as loan and guarantee losses					70
Impairment losses on receivables	181	190	183	147	
Reversal of impairment losses	-87	-88	-99	-91	
Payments on eliminated receivables	-13	-15	-15	-15	-15
Expected credit losses (ECL) on receivables from customers and off-balance-sheet items					-10
Expected credit losses (ECL) on notes and bonds					1
Net change in impairments of collectively assessed loans and receivables	7	-9	7	7	
Total	88	78	77	48	46

Note 58. Structure of OP Financial Group funding

EUR million	31 Dec. 2018	%	31 Dec. 2017	%
Liabilities to credit institutions	4,807	4.4	5,157	4.9
Liabilities to customers				
Deposits	61,327	56.4	57,991	55.1
Other	4,785	4.4	7,559	7.2
Debt securities issued to the public				
Certificates of deposit, commercial papers and ECPs	10,217	9.4	7,075	6.7
Bonds	20,239	18.6	19,766	18.8
Other liabilities	2,785	2.6	3,150	3.0
Subordinated liabilities	1,358	1.2	1,400	1.3
Membership capital contributions	199	0.2	191	0.2
Profit shares	3,042	2.8	2,906	2.8
Total	**108,759**	**100.0**	**105,195**	**100.0**

Note 59. Maturity of financial assets and liabilities by residual maturity

31 Dec. 2018	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Financial assets						
Liquid assets	12,299					12,299
Receivables from credit institutions	145	34	4	0	0	183
Receivables from customers	5,662	8,101	33,392	19,554	20,372	87,081
Investment assets						
Financial assets held for trading	164	145	151	37	5	502
Financial assets designated as at fair value through profit or loss			387			387
Financial assets at fair value through other comprehensive income	229	535	7,043	4,407		12,214
Total financial assets						
Transfer of financial assets at fair value through profit or loss to the less-than-3-months category	-145 183	-34	-4	0	0	
Total financial assets in internal reporting	**18,500**	**8,814**	**40,976**	**23,998**	**20,377**	**112,666**

Financial liabilities	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liabilities to credit institutions	769	0	4,015	23		4,807
Liabilities to customers	63,958	1,388	267	98	401	66,112
Debt securities issued to the public	7,358	5,358	12,267	5,123	350	30,456
Subordinated liabilities		67	1,052	239	0	1,358
Total financial liabilities	**72,085**	**6,813**	**17,601**	**5,483**	**750**	**102,733**
Transfer of private customers' deposit repayable on demand from the less-than-3-months category to the 3-12-months category	-36,008	36,008				
Total financial liabilities in internal reporting	**36,077**	**42,821**	**17,601**	**5,483**	**750**	**102,733**
Guarantees	90	125	401	8	151	775
Other guarantee liabilities	329	523	611	61	638	2,162
Loan commitments	12,577					12,577
Commitments related to short-term trade transactions	70	132	79	0	3	283
Other	519	427	1	248	1	1,195
Total off-balance-sheet commitments	**13,586**	**1,207**	**1,091**	**317**	**792**	**16,993**

31 Dec. 2017	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Financial assets						
Liquid assets	12,910					12,910
Financial assets at fair value through profit or loss						
Notes and bonds	219	197	136	37	0	589
Receivables from credit institutions	369	127	8	0	0	504
Receivables from customers	5,847	7,508	31,561	18,231	19,046	82,193
Investment assets						
Available-for-sale notes and bonds	58	734	8,157	2,986	256	12,190
Held-to-maturity notes and bonds	5	0	13	22	0	40
Total financial assets	**19,409**	**8,565**	**39,874**	**21,276**	**19,303**	**108,427**
Transfer of financial assets at fair value through	-219	-197	-136	-37	0	-589
profit or loss to the less-than-3-months category	589					589
Total financial assets in internal reporting	**19,779**	**8,368**	**39,738**	**21,239**	**19,302**	**108,427**

Financial liabilities	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liabilities to credit institutions	1,130	0	4,000	27		5,157
Liabilities to customers	62,602	2,139	339	123	346	65,549
Debt securities issued to the public	5,248	4,758	10,907	5,647	282	26,841
Subordinated liabilities	-	140	1,035	225	0	1,400
Total financial liabilities	**68,980**	**7,037**	**16,281**	**6,022**	**628**	**98,948**
Transfer of private customers' deposit repayable on demand from the less-than-3-months category to the 3-12-months category	-33,519	33,519				
Total financial liabilities in internal reporting	**35,461**	**40,556**	**16,281**	**6,022**	**628**	**98,948**
Guarantees	3	51	448	11	129	643
Other guarantee liabilities	262	463	584	64	563	1,936
Loan commitments	12,176					12,176
Commitments related to short-term trade transactions	109	184	77	0	1	372
Other	534	370	1	216	0	1,121
Total off-balance-sheet commitments	**13,084**	**1,068**	**1,111**	**290**	**693**	**16,247**

Note 60. Maturities of financial assets and liabilities by maturity or repricing

31 Dec. 2018	1 month or less	>1–3 months	>3–12 months	>1–2 years	>2–5 years	Over 5 years	Total
Financial assets							
Liquid assets	12,299						12,299
Receivables from credit institutions	104	42	33	3	1	0	183
Receivables from customers							
Investment assets	16,188	19,948	45,649	604	2,311	2,380	87,081
Financial assets held for trading	48	131	151	22	108	42	502
Financial assets designated as at fair value through profit or loss	1	385					387
Financial assets at fair value through other comprehensive income	630	342	439	1,670	4,726	4,407	12,214
Total financial assets	**29,318**	**20,980**	**46,423**	**2,321**	**7,253**	**6,872**	**113,168**
Financial liabilities							
Liabilities to credit institutions	267	540	0	3,000	1,000		4,807
Liabilities to customers	62,638	1,605	1,364	95	14	396	66,112
Debt securities issued to the public	2,893	6,412	6,407	1,842	7,435	5,467	30,456
Subordinated liabilities	79	351	42	0	726	160	1,358
Total financial liabilities	**65,877**	**8,908**	**7,812**	**4,937**	**9,175**	**6,023**	**102,733**

31 Dec. 2017	1 month or less	>1–3 months	>3–12 months	>1–2 years	>2–5 years	Over 5 years	Total
Financial assets							
Liquid assets	12,910						12,910
Financial assets at fair value through profit or loss							
Notes and bonds	97	139	198	21	96	38	589
Receivables from credit institutions	350	18	128	7	0	0	504
Receivables from customers	16,735	19,335	40,971	633	2,432	2,088	82,193
Available-for-sale financial assets							
Notes and bonds	545	248	665	1,117	6,374	3,242	12,190
Held-to-maturity financial assets							
Notes and bonds	15	21	0	3	0	1	40
Total financial assets	**30,652**	**19,761**	**41,962**	**1,781**	**8,902**	**5,368**	**108,427**
Financial liabilities							
Liabilities to credit institutions	990	168	0		4,000		5,157
Liabilities to customers	61,996	1,030	2,076	92	14	342	65,549
Debt securities issued to the public	2,983	3,801	5,510	2,206	6,424	5,917	26,841
Subordinated liabilities	74	328	117	0	732	150	1,400
Total financial liabilities	**66,042**	**5,326**	**7,703**	**2,298**	**11,169**	**6,409**	**98,948**

Note 61. Sensitivity analysis of interest rate and market risk

OP Financial Group's banking book present value risk

	-200bp		+200bp	
Currency EUR million	2018	2017	2018	2017
EUR	228	111	298	521
GBP	-1	-1	1	1
USD	1	2	-1	-2
Other	2	1	0	1

Risks of GBP and USD are expressed in euro equivalents. Euro-denominated risks of other currencies have been added up as intrinsic values. Interest rate risk is calculated as the volatility of the present value of balance sheet cash flows to the parallel 2 percentage point change of the yield curve. The calculation performed every month covers all interest-bearing on-balance-sheet and off-balance sheet items of the banking book of OP Financial Group credit institutions and OP Cooperative. The interest rate sensitivity of OP cooperative banks' perpetual customer deposits is calculated using maturity assumptions based on expert assessment.

Interest income risk associated with banking book of retail banking

	-100bp		+100bp	
Currency EUR million	2018	2017	2018	2017
EUR	-48	-81	161	167

The interest rate risk limit associated with retail banking is also calculated using the interest income risk method, which measures the effect of a one-percentage-point parallel change on net interest income for the next 12 months. The calculation and reporting performed every month covers all interest-bearing on-balance-sheet and off-balance sheet items of the retail banking book. Negative interest rates are also taken into account in the calculation of interest income risk but a –2% minimum is applied to interest rates. Since the beginning of 2017, OP Financial Group has taken account of the 0% floor of reference interest rates applicable to loans on the basis of contractual terms. OP Financial Group keeps the balance sheet structure unchanged by replacing items falling due with corresponding interest rate bases or the fixed-rate maturities. In the calculation, OP Financial Group uses a maturity model based on modelling for perpetual deposits. In this connection, retail banking includes OP cooperative banks' financing operations.

Sensitivity analysis of market risk

		Change	
EUR million		2018	2017
Interest rate volatility*	10bp	1	2
Currency volatility*	10 pps	0	1
Credit risk premium**	10bp	-55	-45

* Trading portfolio
** Long-term investment assets

Note 62. Liquidity buffer

The liquidity buffer is presented under the Other Operations segment.

Liquidity buffer by maturity and credit rating on 31 December 2018, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa*	12,499	2,254	2,088	1,383	1,018		19,243	84.6
Aa1–Aa3	38	529	520	661	376	0	2,125	9.3
A1–A3	23	23	9	4		2	62	0.3
Baa1–Baa3	18	56	60	110	19	3	265	1.2
Ba1 or lower	5	34	11	61	15		127	0.6
Internally rated**	400	81	310	123			914	4.0
Total	**12,983**	**2,978**	**2,998**	**2,342**	**1,428**	**5**	**22,735**	**100.0**

* incl. deposits with the central bank

** PD </= 0.40%

The liquidity buffer's (excl. deposits with the central bank) residual term to maturity averages 4.2 years.

Liquidity buffer by maturity and credit rating on 31 December 2017, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa*	13,201	2,499	2,470	1,367	435	20	19,992	85.6
Aa1–Aa3	205	707	475	423	225	0	2,036	8.7
A1–A3	1	18	6	0	5	0	30	0.1
Baa1–Baa3	10	36	64	18	13		141	0.6
Ba1 or lower	0	12	20	65	22	0	119	0.5
Internally rated**	480	198	252	99			1,029	4.4
Total	**13,897**	**3,470**	**3,286**	**1,973**	**700**	**21**	**23,347**	**100.0**

* incl. deposits with the central bank

** PD </= 0.40%

The liquidity buffer's (excl. deposits with the central bank) residual term to maturity averages 3.7 years.

Risk exposure of Non-life Insurance

Note 63. Non-life Insurance risk-bearing capacity

Non-life Insurance must fulfil all capital adequacy requirements set by regulatory authorities mainly at company level. Based on EU directives, a minimum solvency margin requirement and a minimum solvency capital requirement apply to all non-life insurance companies.

The ratio of the capital base to solvency capital is described as the solvency ratio that reflects the company's opportunity to cover unexpected risks. Solvency figures and ratios are unaudited.

Solvency, EUR million	31 Dec. 2018	31 Dec. 2017
Eligible capital	**818**	**902**
Solvency capital requirement (SCR)		
Market risk	421	460
Underwriting risk	281	289
Counterparty risk	36	40
Operational risk	45	45
Diversification benefits and loss absorbency	-162	-169
Total	**621**	**666**
Buffer for SCR	**197**	**296**
SCR ratio, %	**132%**	**135%**
SCR ratio, % excluding transitional provisions	**132%**	**135%**

Note 64. Sensitivity analysis

The table below shows the effect of various risk parameters on profit and solvency capital:

Risk parameter	Total in 2018, EUR million	Change in risk parameter	Effect on profit/ solvency, EUR million	Effect on combined ratio
Insurance premium revenue *	1,465	Up by 1%	15	Up by 0.9 pp
Claims incurred *	1,039	Up by 1%	-10	Down by 0.8 pps
Large claim, over EUR 5 million		1 large claim	-5	Down by 0.3 pps
Personnel costs *	130	Up by 8%	-10	Down by 0.6 pps
Expenses by function **	401	Up by 4%	-16	Down by 1.1 pps
Inflation for collective liability	750	Up by 0.25 pps	-5	Down by 0.3 pps
Life expectancy for discounted insurance liabilities	1,928	Up 1 year	-45	Down by 3.1 pps
Discount rate for discounted insurance liabilities	1,928	Down by 0.1 pp	-27	Down by 1.8 pps

* Moving 12-month

** Expenses by function in Non-life Insurance excluding expenses for investment management and expenses for other services rendered

Note 65. Premiums written and sums insured by class

Premiums written by EML* class in corporate property insurance

The degree of risk in property insurance can be evaluated by dividing risks into classes by their EML* amounts. The table below shows premiums written calculated for each risk class.

EUR million	5–20	20–50	50–100	100–500
2018	10	10	8	10
2017	13	10	9	8

* EML = Estimated Maximum Loss per object of insurance

Division of premiums written by TSI* class in corporate liability insurance

The degree of risk in liability insurance can be evaluated by dividing risks into classes by their TSI* amounts. The table below shows premiums written calculated for each risk class.

EUR million	2–4	4–10	10–30	30–90
2018	4	3	6	3
2017	4	4	6	3

* TSI = Total Sum Insured

Sums insured in decennial insurance

The sum insured of insurance contracts depicts the volume of decennial insurance (construction defects insurance). The gross and net amounts of the sum insured are itemised in the table below. The liability period of decennial insurance is 10 years.

	Gross		Net*	
EUR million	2018	2017	2018	2017
Decennial insurance	1802	1882	1802	1882

* For insurance company's own account after reinsurers' share but before counter guarantee

Note 66. Trend in large claims

Number of detected large claims by year of detection for 2014–2018

Non-life Insurance monitors carefully claims expenditure arising from large claims. The claims expenditure explains a significant part of the annual fluctuation in the underwriting result. In addition, monitoring the claims expenditure arising from large claims helps to detect any changes in risks or risk selection. In this analysis, large claims are those whose gross amount exceeds EUR 2 million. Most large claims occur in property and business interruption insurance. In statutory policies, the risk of large claim is small relative to the large volume of the line of business.

Gross amount

Number of losses exceeding EUR 2 million	Statutory lines	Other accidents and health	Hull and cargo	Property and business interruption	Liability and legal expenses	Long-term
2014	6			5	2	
2015	1			6		
2016				5		
2017				7		
2018				17	3	
			Total claims, EUR million		228	
Gross amount, total claims, EUR million						
2014–2018	**15**			**187**	**26**	

Net amount

Number of losses exceeding EUR 2 million	Statutory lines	Other accidents and health	Hull and cargo	Property and business interruption	Liability and legal expenses	Long-term
2014	6			5	1	
2015	1			6		
2016				5		
2017				7		
2018				15		
			Total claims, EUR million		158	
Net amount, total claims, EUR million						
2014–2018	**15**			**130**	**12**	

Note 67. Insurance profitability

Trends in insurance premium revenue (gross and net) and combined ratio (net)

Insurance premium revenue describes the volume of an insurance class, enabling the evaluation of the importance of the insurance class in relation to the whole portfolio. Similarly, the combined ratio (CR) is used to evaluate fluctuations in the results of the insurance class and the profitability of the class. The combined ratio is presented separately adjusted for one-off items relating to previous insurance periods.

2018, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** CR*
Statutory lines	442	440	89%	89%
Other accident and health	272	272	94%	94%
Hull and cargo	302	301	95%	95%
Property and business interruption	398	365	90%	90%
Liability and legal expenses	89	84	97%	97%
Long-term	4	3	60%	60%
Total	**1,507**	**1,465**	**92%**	**92%**

2017, EUR million	IP revenue	IP revenue	CR*	CR*
Statutory lines	442	440	105%	105%
Other accident and health	250	250	94%	94%
Hull and cargo	302	301	92%	92%
Property and business interruption	385	354	93%	93%
Liability and legal expenses	89	83	87%	87%
Long-term	5	3	14%	14%
Total	**1,473**	**1,431**	**96%**	**96%**

* The combined ratio is calculated by dividing the sum of claims incurred (net) and operating expenses of insurance business by insurance premium revenue (net). Amortisation on intangible rights has not been taken into account.

** One-off changes affecting the balance on technical account have been eliminated.

Note 68. Information on the nature of insurance liabilities

Information on the nature of liabilities	2018	2017
Net insurance contract liabilities (EUR million)		
Latent occupational diseases	13	15
Other	3,040	3,033
Total (before transfers)	**3,053**	**3,048**
Duration of debt (years)		
Discounted insurance contract liabilities	14.4	14.4
Undiscounted insurance contract liabilities	2.2	2.2
Total	**9.9**	**9.8**
Discounted net debt (EUR million)		
Provision for known unpaid claims for annuities	1,552	1,517
Collective liability (IBNR)	338	351
Provision for unearned premiums	41	43
Total	**1,932**	**1,911**

Note 69. Insurance contract liabilities by estimated maturity

31 Dec. 2018, EUR million	0–1 yr	1–5 yrs	5–10 yrs	10–15 yrs	Over 15 yrs	Total
Provision for unearned premiums*	406	117	22	6	10	561
Provision for unpaid claims						
Undiscounted	296	213	58	11	4	584
Discounted	97	473	358	285	694	1,908
Total insurance contract liabilities**	**799**	**804**	**438**	**302**	**708**	**3,053**

* Includes EUR 41 million in discounted liability.

** Excluding the value of derivatives hedging the interest rate risk associated with insurance liabilities.

31 Dec. 2017, EUR million	0–1 yr	1–5 yrs	5–10 yrs	10–15yrs	Over 15 yrs	Total
Provision for unearned premiums*	416	120	21	6	10	574
Provision for unpaid claims						
Undiscounted	322	225	60	12	4	624
Discounted	96	434	354	281	685	1,849
Total insurance liabilities**	**835**	**779**	**435**	**299**	**699**	**3,048**

* Includes EUR 43 million in discounted liability.

** Excluding the value of derivatives hedging the interest rate risk associated with insurance liabilities.

Note 70. Risk exposure of Non-life Insurance investments

	31 Dec. 2018		31 Dec. 2017	
Allocation of investment portfolio	Fair value*, EUR million	%	Fair value*, EUR million	%
Money market total	**173**	**5**	**332**	**9**
Money market instruments and deposits**	167	4	327	8
Derivatives***	5	0	5	0
Total bonds and bond funds	**2,857**	**77**	**2,812**	**72**
Governments	498	13	511	13
Inflation-linked bonds		0	14	0
Investment Grade	1,895	51	1,835	47
Emerging markets and High Yield	243	7	251	6
Structured Investments****	222	6	201	5
Total equities	**360**	**10**	**408**	**10**
Finland	60	2	70	2
Developed markets	147	4	185	5
Emerging markets	76	2	76	2
Unlisted equities	1	0	3	0
Private equity investments	76	2	75	2
Total alternative investments	**28**	**1**	**26**	**1**
Hedge funds	28	1	26	1
Total property investment	**312**	**8**	**324**	**8**
Direct property investment	157	4	187	5
Indirect property investment	155	4	137	4
Total	**3,730**	**100**	**3,903**	**100**

* Includes accrued interest income

** Includes settlement receivables and liabilities and market value of derivatives

*** Effect of derivatives on the allocation of the asset class (delta-weighted equivalents)

**** Include covered bonds, bond funds and illiquid bonds

Note 71. Sensitivity analysis of Non-life Insurance investment risks

The table below shows the sensitivity of investment risks by investment category. The discount rate sensitivity analysis related to the calculation of insurance liabilities is presented in Note 64 dealing with insurance liabilities Effects of changes in investment and insurance liabilities offset one another.

Non-life Insurance	Portfolio at fair value, 31 Dec. 2018, EUR million	Risk parameter	Change	Effect on solvency capital, EUR million 31 Dec. 2018	31 Dec. 2017
Bonds and bond funds*	2,808	Interest rate	1 pp	115	127
Equities**	388	Market value	10%	39	34
Venture capital funds and unlisted	77	Market value	10%	8	8
Real property	312	Market value	10%	31	32
Currency	147	Value of currency	10%	19	20
Credit risk premium***	3,030	Credit spread	0.1 pp	34	31
Derivatives	5	Volatility	10 pps	4	1

* Include money market investments, convertible bonds and interest-rate derivatives

** Include hedge funds and equity derivatives

*** Includes bonds and convertible bonds and money-market investments, excluding government bonds issued by developed countries

Note 72. Risk exposure of Non-life Insurance investments in fixed-income securities

The market risk arising from changes in interest rates is monitored by classifying investments by instrument, in accordance with duration. The table below does not indicate the balancing effect which the insurance contract liabilities have on the interest-rate risk, because only some of the insurance contract liabilities have been discounted using an administrative interest rate (Note 30).

Fair value by duration or repricing date*, EUR million	31 Dec. 2018	31 Dec. 2017
0–1 year	421	442
>1–3 years	673	643
>3–5 years	781	776
>5–7 years	432	415
>7–10 years	353	385
>10 years	161	267
Total	**2,821**	**2,929**
Modified duration	4.3	5.1
Effective interest rate, %	1.7	1.8

* Includes money market investments and deposits, bonds, convertible bonds and bond funds

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2018*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa	3	62	378	45	110	85	682	24.2 %
Aa1–Aa3	200	94	55	49	47	8	453	16.0 %
A1–A3	77	181	144	109	55	48	613	21.7 %
Baa1–Baa3	112	296	177	186	126	18	915	32.4 %
Ba1 or lower	31	34	25	14	9	2	114	4.0 %
Internally rated	0	6	3	29	6	0	45	1.6 %
Total	**421**	**673**	**781**	**432**	**353**	**161**	**2,821**	**100.0 %**

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2017*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa	6	82	149	143	172	164	715	24.4 %
Aa1–Aa3	326	49	162	33	50	34	654	22.3 %
A1–A3	33	199	168	70	54	41	564	19.2 %
Baa1–Baa3	48	248	274	153	107	27	856	29.2 %
Ba1 or lower	27	65	25	16	2	0	135	4.6 %
Internally rated	1	1	0	0	1	0	3	0.1 %
Total	**442**	**643**	**776**	**415**	**385**	**267**	**2,929**	**100.0 %**

* Excludes credit derivatives.

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the Non-life Insurance fixed-income portfolio is Moody's A2.

The term to maturity of the Non-life Insurance fixed-income portfolio averages 4.3 years (calculated on the basis of the Call date and the maturity date).

Note 73. Currency risk associated with Non-life Insurance investments

Foreign currency exposure, EUR million	31 Dec. 2018	31 Dec. 2017
USD	86	72
SEK	4	0
JPY	0	0
GBP	1	9
Other	57	56
Total*	**147**	**138**

* The currency exposure was 3.9% (3.5) of the investment portfolio. It is calculated as the sum total of individual currencies' intrinsic values.

Note 74. Counterparty risk associated with Non-life Insurance investments

	31 Dec. 2018		31 Dec. 2017	
Credit rating, consistent with Moody's, EUR million	Investment*	Insurance**	Investment*	Insurance**
Aaa	682	0	715	
Aa1–Aa3	453	24	654	25
A1–A3	613	38	564	29
Baa1–Baa3	915	0	856	0
Ba1 or lower	114	0	135	
Internal rating	45	43	3	42
Total	**2,821**	**106**	**2,929**	**96**

* Includes money market investments, deposits and bonds and bond funds.

** Includes the reinsurers' share of insurance contract liabilities, and receivables from reinsurers.

Risk exposure by Wealth Management

The Wealth Management segment provides products and services in the field of insurance saving, personal risk insurance, mutual funds and discretionary and advisory mandates. The Group's life insurance, investment management and mutual fund businesses are included in the Wealth Management segment.

The key risks associated with Wealth Management are the market risks of Life Insurance's investment assets, the interest rate used for the valuation of insurance liabilities and the faster-than-expected life expectancy increase.

Note 75. Assets managed by Wealth Management

Assets managed by Wealth Management totalled EUR 71.8 billion (78.0) on 31 December 2018. Of the assets under management, mutual funds accounted for EUR 22.7 billion (24.6), unit-linked life policies for EUR 9.8 billion (10.2), institutional clients for EUR 21.5 billion (24.2) and private banking clients for EUR 17.9 billion (19.1).

Note 76. Information on the nature of insurance liabilities and their sensitivity analysis

Risk-bearing capacity of Life Insurance based on statutory indicators

Life insurance companies must fulfil the solvency requirements prescribed by law in force. The statutory minimum capital and solvency requirements are the key requirements to be monitored.

On 31 December 2018, the life insurance company's capital totalled EUR 1,297 million, including transitional provisions, and EUR 1,019 million, excluding transitional provisions. On 31 December 2017, the life insurance company's capital totalled EUR 1,317 million, including transitional provisions, and EUR 1,019 million, excluding transitional provisions. The solvency capital requirement was EUR 576 million (674) and the minimum capital requirement EUR 266 million (279).

The life insurance risk-bearing capacity is measured using the solvency ratio, which means the ratio of the capital base to solvency capital. Based on the Group's strategic indicators, the target for the solvency ratio is 130%, excluding transitional provisions. The solvency figures and ratios are unaudited.

Solvency, EUR million	31 Dec. 2018	31 Dec. 2017
Eligible capital	**1,317**	**1,317**
Solvency capital requirement (SCR)		
Market risk	732	759
Underwriting risk	351	394
Counterparty risk	30	27
Operational risk	34	36
Diversification benefits and loss absorbency	-571	-542
Total	**576**	**674**
Buffer for SCR	**719**	**643**
SCR ratio, %	**225%**	**195%**
SCR ratio, % excluding transitional provisions	**176%**	**151%**

Portfolio of insurance and investment contracts in Life Insurance 31 Dec. 2018

	Liability, 31 Dec. 2018, EUR million	Number of insureds or contracts	Duration on yield curve, 31 Dec. 2018
Unit-linked contracts	**9,774**	**338,507**	**10.2**
Unit-linked insurance contracts	**4,518**	**218,530**	**10.3**
Life Insurance/Savings	3,199	93,519	10.3
Individual pension insurance	1,221	118,688	10.1
Group pension insurance	99	6,323	13.6
Unit-linked investment contracts	**5,255**	**119,977**	**10.0**
Saving	3,295	65,847	11.8
Individual pension contracts	1,282	48,823	7.3
Group pension contracts	42	3,348	10.5
Capital redemption contracts	637	1,959	9.1
Other than unit-linked contracts	**6,357**	**529,163**	**11.1**
Insurance contracts discounted with technical interest rate	**6,245**	**529,149**	**11.1**
Life Insurance/Savings	1,435	62,718	8.6
Rate of guaranteed interest 4.5%	44	501	5.8
Rate of guaranteed interest 3.5%	409	8,830	7.9
Rate of guaranteed interest 2.5%	153	8,282	13.1
Rate of guaranteed interest 1.5%	2	116	7.7
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	827	44,989	8.6
Individual pension insurance	3,306	74,582	7.0
Rate of guaranteed interest 4.5%	280	7,243	5.8
Rate of guaranteed interest 3.5%	471	18,986	7.9
Rate of guaranteed interest 2.5%	257	21,540	13.1
Rate of guaranteed interest 1.5%	1	92	7.7
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	2,296	26,721	7.9
Group pension insurance	1,363	32,637	11.9
Defined benefit 3.5%	1,016	25,410	11.5
Defined benefit 2.5%	102	693	12.9
Defined benefit 1.5%	154	1,983	15.3
Defined benefit 0.5%	25	1,009	14.5
Defined contribution 3.5%	7	73	14.7
Defined contribution 2.5%	52	3,112	12.6
Defined contribution 1.5%	6	311	13.7
Defined contribution 0.5%	0	46	19.6
Individual term life policies	137	354,867	4.5
Group life insurance	4	4,345	1.6
Other than unit-linked investment contracts discounted with	**3**	**14**	**2.0**
Capital redemption contracts	3	14	2.0
Rate of guaranteed interest 2.5%	3	13	1.7
Rate of guaranteed interest 1.5%	0	1	10.2
Effect of discounting with market interest rate	**43**		
Other insurance liability items	**66**		
Total	**16,131**	**867,670**	**10.5**

Portfolio of insurance and investment contracts in Life Insurance 31 Dec. 2017

	Liability, 31 Dec. 2017, EUR million	Number of insureds or contracts	Duration on yield curve, 31 Dec. 2017
Unit-linked contracts	**10,120**	**349,082**	**10.2**
Unit-linked insurance contracts	**5,036**	**230,840**	**10.3**
Life Insurance/Savings	3,571	102,623	10.2
Individual pension insurance	1,361	121,948	10.3
Group pension insurance	104	6,269	14.2
Unit-linked investment contracts	**5,084**	**118,242**	**10.1**
Saving	3,273	63,224	12.1
Individual pension contracts	1,373	50,427	7.4
Group pension contracts	30	2,773	10.2
Capital redemption contracts	407	1,818	8.8
Other than unit-linked contracts	**6,845**	**555,715**	**9.2**
Insurance contracts discounted with technical interest rate	**6,780**	**555,700**	**9.2**
Life Insurance/Savings	1,580	71,781	8.9
Rate of guaranteed interest 4.5%	52	713	5.7
Rate of guaranteed interest 3.5%	443	10,105	8.0
Rate of guaranteed interest 2.5%	179	9,475	13.6
Rate of guaranteed interest 1.5%	2	122	8.6
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	904	51,366	9.0
Individual pension insurance	3,625	78,457	8.4
Rate of guaranteed interest 4.5%	300	7,677	5.7
Rate of guaranteed interest 3.5%	492	19,613	8.0
Rate of guaranteed interest 2.5%	266	21,799	13.6
Rate of guaranteed interest 1.5%	1	96	8.6
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	2,565	29,272	8.2
Group pension insurance	1,406	29,879	12.0
Defined benefit 3.5%	1,110	22,474	11.6
Defined benefit 2.5%	111	1,744	12.9
Defined benefit 1.5%	108	1,515	15.5
Defined benefit 0.5%	18	635	15.1
Defined contribution 3.5%	5	70	16.1
Defined contribution 2.5%	48	3,081	13.6
Defined contribution 1.5%	6	322	14.0
Defined contribution 0.5%	0	38	21.5
Individual term life policies	164	370,268	4.5
Group life insurance	5	5,315	1.6
Other than unit-linked investment contracts discounted with technical interest rate	**3**	**15**	**3.1**
Capital redemption contracts	3	15	3.1
Rate of guaranteed interest 2.5%	3	14	2.8
Rate of guaranteed interest 1.5%	0	1	10.6
Effect of discounting with market interest rate	**-8**		
Other insurance liability items	**70**		
Total	**16,965**	**904,797**	**9.8**

Sensitivity of life insurance liabilities to changes in calculation principles

Since savings and single-premium savings policies have been sold in plenty as long-term contracts, policyholders may terminate their contracts by surrendering the policies according to their needs before the date of expiry under the contract. For this reason, the number of surrenders is large. The company takes account of the resulting loss of surpluses or deficits when calculating the life insurance solvency position.

The risk of surrender for individual pension plans is very small, since by law this can only be done in specific cases such as divorce and long-term unemployment. The accumulated surrender value of insurance is paid back to the policyholder upon surrender.

The beginning of pension disbursement under individual pension insurance is postponed.. Often, when taking out a pension, policyholders do not have a realistic view of when they will actually retire. Tax laws have also changed over the decades, allowing people to claim their individual pensions later.

Pension insurance companies' mortality data show that the life expectancy figures based on technical bases are too low. However, the mortality risk and longevity risk of individual pensions offset each other, to the point that there is no need for a mortality supplement despite the rise in life expectancy. On the other hand, in group pension insurance, the longevity risk is higher than the mortality risk, and the liabilities have therefore had to be supplemented. If the mortality assumption is modified, by increasing the life expectancy of policyholders by one year on average, the liabilities will grow by EUR 26 million (27).

Since in savings insurance and investment insurance, the mortality and longevity risks almost offset each other, no mortality supplement has been needed.

The company has complied with the FAS in establishing insurance contract liabilities, with the exception that the company has moved closer to a real-time interest rate in the discount rate. The company has insurance contract savings at its own risk with guaranteed interest rate ranging between 0.5% and 4.5%. The insurance liability of the contracts with a technical interest rate of 4.5% has been permanently supplemented in such a way that the discount rate of the insurance liability is 3.5% (excl. insurance assets transferred from Suomi Mutual that are included OP Life Assurance Ltd's balance sheets separated from the other balance sheet). In addition, insurance liabilities of contracts with guaranteed interest have been supplemented with supplementary short-term interest rate provisions until 31 December 2019 and income recognised on the sale of fixed-income investments hedging sold insurance liabilities has been allocated to insurance liabilities as supplementary interest rate provisions for the residual term to maturity of fixed-income investments. Following the supplementary interest rate provisions, the company's discount rate based on technical interest is 0% until 31 December 2019, 2.5% for the following ten years and 3.2% thenceforth. The company has used fixed-income investments to hedge against some of the interest rate risk that exists between the market and discount rate. Since the benefit deriving from fixed-income investments are used for guaranteed benefits involved in insurance and capital redemption contracts, their liability is increased to the amount of the fixed-income investments under the national financial accounts by EUR 43 million (–8).

In financial statements based on national regulation, lowering the discount rate by 0.1 percentage point would increase the technical provisions by EUR 26 million (26).

On 31 December 2015, insurance liabilities transferred from Suomi Mutual to OP Life Assurance Company through a portfolio transfer. At that time, a balance sheet separated from the company's balance sheet was created out of the transferred endowment policies. The individual pension insurance portfolio of Suomi Mutual was consolidated into OP Life Assurance Company Ltd on 30 September 2016. A separated balance sheet was also created out of this portfolio. The separated balance sheets apply their own profit distribution policy specified in the portfolio transfer plans. The separate balance sheets also include liabilities of future supplementary benefits that buffer market and customer behaviour risk associated with the separated balance sheets.

The liability of unit-linked policies is measured at the market values of assets associated with the policies on the balance sheet date.

Investment contracts come in three types: OP Life Assurance investment contracts are capital redemption contracts and such unit-linked savings agreements where death cover equals insurance liability, and pension insurance contracts where death cover almost equals insurance liability in such a way that no significant underwriting risk arises. Some capital redemption contracts include entitlement to a discretionary participation feature and they are measured as specified in the Insurance Contracts standard. Some exclude this entitlement and they plus other investment contracts are measured and classified as contracts recognised at fair value through profit or loss, in accordance with IAS 39.

Note 77. Expected maturity of life insurance and investment contracts

	Duration						
31 Dec. 2017, EUR million	2019-2020	2021-2022	2023-2027	2028-2032	2033-2037	2038-2042	2043-
Unit-linked contracts	**-1,245**	**-1,163**	**-2,299**	**-1,519**	**-1,079**	**-676**	**-932**
Insurance contracts	**-640**	**-594**	**-1,199**	**-741**	**-503**	**-342**	**-535**
Life Insurance/Savings	-549	-473	-926	-558	-382	-271	-443
Individual pension insurance	-82	-109	-243	-162	-107	-60	-64
Group pension insurance	-9	-12	-30	-20	-15	-11	-28
Investment contracts	**-606**	**-568**	**-1,100**	**-779**	**-575**	**-334**	**-397**
Saving	-254	-230	-507	-424	-330	-235	-359
Individual pension contracts	-237	-245	-423	-215	-97	-45	-35
Group pension contracts	-4	-5	-14	-12	-7	-4	-3
Capital redemption contracts	-111	-88	-156	-128	-141	-50	0
Other than unit-linked contract	**-1,125**	**-1,217**	**-2,197**	**-1,173**	**-687**	**-374**	**-575**
Insurance contracts	**-999**	**-1,145**	**-2,091**	**-1,146**	**-679**	**-373**	**-575**
Life Insurance/Savings	-126	-234	-412	-154	-102	-53	-92
Rate of guaranteed interest 4.5%	-43	-81	-136	-33	-7	-1	-1
Rate of guaranteed interest 3.5%	-58	-110	-204	-78	-51	-19	-18
Rate of guaranteed interest 2.5%	-25	-44	-71	-43	-44	-32	-73
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	-98	-91	-230	-215	-95	-17	-11
Individual pension insurance	-126	-234	-412	-154	-102	-53	-92
Rate of guaranteed interest 4.5%	-43	-81	-136	-33	-7	-1	-1
Rate of guaranteed interest 3.5%	-58	-110	-204	-78	-51	-19	-18
Rate of guaranteed interest 2.5%	-25	-44	-71	-43	-44	-32	-73
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	-427	-391	-642	-333	-166	-95	-126
Group pension insurance	-187	-173	-368	-282	-212	-155	-254
Defined benefit 3.5%	-157	-144	-306	-232	-173	-125	-185
Defined benefit 2.5%	-14	-12	-24	-18	-15	-13	-25
Defined benefit 1.5%	-7	-6	-12	-10	-9	-8	-22
Defined benefit 0.5%	-2	-1	-3	-2	-2	-2	-4
Defined contribution 3.5%	-1	-1	-3	-2	-1	-1	-4
Defined contribution 2.5%	-5	-7	-18	-17	-11	-6	-12
Defined contribution 1.5%	-1	-1	-1	-1	-1	-1	-2
Defined contribution 0.5%	0	0	0	0	0	0	0
Individual pure risk insurance	-31	-21	-27	-8	-1	0	0
Group life insurance	-5	-1	0	0	0	0	0
Investment contracts	**-3**	**0**	**0**	**0**	**0**	**0**	**0**
Capital redemption contract	-3	0	0	0	0	0	0
Rate of guaranteed interest 2.5%	-3	0	0	0	0	0	0
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Liability for bonus reserves	0	0	0	0	0	0	0
Reserve for decreased discount rate	-123	-72	-106	-26	-8	-1	0
Other items in insurance liabilities	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**-2,370**	**-2,380**	**-4,496**	**-2,692**	**-1,766**	**-1,050**	**-1,506**

	Duration						
31 Dec. 2017, EUR million	2018–2019	2020–2021	2022–2026	2027–2031	2032–2036	2037–2041	2042–
Unit-linked contracts	**-1,280**	**-1,244**	**-2,414**	**-1,633**	**-1,075**	**-742**	**-1,042**
Insurance contracts	**-697**	**-691**	**-1,353**	**-843**	**-549**	**-385**	**-616**
Life Insurance/Savings	-598	-561	-1,051	-640	-410	-303	-502
Individual pension insurance	-89	-118	-271	-182	-125	-69	-79
Group pension insurance	-9	-12	-31	-22	-15	-12	-34
Investment contracts	**-583**	**-553**	**-1,061**	**-790**	**-526**	**-357**	**-426**
Saving	-244	-224	-518	-446	-332	-255	-391
Individual pension contracts	-259	-261	-432	-246	-117	-56	-33
Group pension contracts	-3	-4	-11	-9	-4	-2	-2
Capital redemption contracts	-78	-63	-100	-89	-72	-44	0
Other than unit-linked contracts	**-1,160**	**-1,262**	**-2,307**	**-1,318**	**-740**	**-382**	**-658**
Insurance contracts	**-980**	**-1,183**	**-2,192**	**-1,286**	**-729**	**-379**	**-657**
Life Insurance/Savings	-108	-249	-407	-173	-87	-44	-115
Rate of guaranteed interest 4.5%	-43	-83	-139	-33	-8	-1	0
Rate of guaranteed interest 3.5%	-51	-119	-197	-87	-46	-22	-20
Rate of guaranteed interest 2.5%	-14	-47	-71	-53	-33	-21	-95
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	-101	-93	-237	-225	-128	-21	-14
Individual pension insurance	-108	-249	-407	-173	-87	-44	-115
Rate of guaranteed interest 4.5%	-43	-83	-139	-33	-8	-1	0
Rate of guaranteed interest 3.5%	-51	-119	-197	-87	-46	-22	-20
Rate of guaranteed interest 2.5%	-14	-47	-71	-53	-33	-21	-95
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	-432	-395	-732	-420	-206	-107	-141
Group pension insurance	-192	-172	-378	-287	-219	-162	-272
Defined benefit 3.5%	-163	-146	-320	-241	-181	-131	-200
Defined benefit 2.5%	-15	-12	-26	-19	-16	-13	-27
Defined benefit 1.5%	-7	-6	-11	-9	-8	-8	-22
Defined benefit 0.5%	-1	-1	-2	-2	-1	-1	-3
Defined contribution 3.5%	-1	-1	-2	-1	-1	-1	-3
Defined contribution 2.5%	-4	-6	-16	-14	-11	-7	-14
Defined contribution 1.5%	-1	-1	-2	-1	-1	-1	-2
Defined contribution 0.5%	0	0	0	0	0	0	0
Individual pure risk insurance	-34	-23	-30	-9	-2	0	0
Group life insurance	-5	-1	0	0	0	0	0
Investment contracts	**-1**	**-1**	**0**	**0**	**0**	**0**	**0**
Capital redemption contracts	-1	-1	0	0	0	0	0
Rate of guaranteed interest 2.5%	-1	-1	0	0	0	0	0
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Liability for bonus reserves	-3	0	0	0	0	0	0
Reserve for decreased discount rate	-176	-78	-115	-32	-11	-3	0
Other items in insurance liabilities	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**-2,440**	**-2,506**	**-4,721**	**-2,951**	**-1,815**	**-1,124**	**-1,700**

Note 78. Profitability of life insurance business

	2018			2017		
EUR million	Risk income	Claims incurred	Claim ratio	Risk income	Claims incurred	Claim ratio
Life insurance	**425**	**406**	**96%**	**417**	**383**	**92%**
Term life insurance	33	17	51%	49	16	34%
Insurance saving	392	389	99%	369	367	99%
Pension insurance	**43**	**43**	**100%**	**42**	**42**	**100%**
Defined benefit	24	24	100%	24	24	100%
Defined contribution	19	19	99%	18	18	99%
OP Life Assurance Company	**468**	**449**	**96%**	**460**	**425**	**93%**

Claims expenditure of defined benefit group pension includes the longevity provision of EUR 2,8 million in 2017 and EUR 3.0 million in 2017.

Note 79. Risk exposure of Life Insurance investments

	31 Dec. 2018		31 Dec. 2017	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Total money market instruments	**175**	**5%**	**316**	**8%**
Money market investments and deposits**	170	5%	312	8%
Derivatives***	5	0%	4	0%
Total bonds and bond funds	**2,826**	**78%**	**2,852**	**74%**
Governments	623	17%	563	15%
Investment Grade	1,784	49%	1,909	50%
Emerging markets and High Yield	182	5%	188	5%
Structured investments****	236	6%	191	5%
Total equities	**337**	**9%**	**366**	**10%**
Finland	48	1%	57	1%
Developed markets	116	3%	117	3%
Emerging markets	57	2%	60	2%
Fixed assets and unquoted equities	3	0%	4	0%
Private equity investments	113	3%	127	3%
Total alternative investments	**34**	**1%**	**31**	**1%**
Hedge funds	34	1%	31	1%
Total real property investments	**271**	**7%**	**265**	**7%**
Direct property investments	114	3%	116	3%
Indirect property investments	156	4%	150	4%
Total	**3,644**	**100%**	**3,830**	**100%**

* Includes accrued interest income

** Include settlement receivables and liabilities and market value of derivatives

*** Effect of derivatives on the allocation of the asset class (delta equivalent)

**** Include covered bonds, bond funds and illiquid bonds

Note 80. Risk exposure under separated balance sheet 1 investments

In connection with the portfolios' transfer, a separated balance sheet (separated balance sheet 1) was created out of the individual life insurance portfolio (separated balance sheet 1) transferred from Suomi Mutual in 2015 and with a profit distribution policy differing from other life insurance operations.

	31 Dec. 2018		31 Dec. 2017	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Total money market instruments	**34**	**4%**	**40**	**4%**
Money market investments and deposits**	34	4%	27	3%
Derivatives***		0%	13	1%
Total bonds and bond funds	**671**	**83%**	**759**	**85%**
Governments	217	27%	247	28%
Inflation-linked bonds	3	0%	3	0%
Investment Grade	370	46%	425	48%
Emerging markets and High Yield	36	4%	25	3%
Structured investments****	45	6%	59	7%
Total equities	35	4%	32	4%
Developed markets	14	2%	9	1%
Emerging markets	1	0%		0%
Fixed assets and unquoted equities	0	0%	0	0%
Private equity investments	20	2%	23	3%
Total alternative investments	2	0%	3	0%
Hedge funds	2	0%	3	0%
Total real property investments	**68**	**8%**	**59**	**7%**
Direct property investments	48	6%	40	4%
Indirect property investments	19	2%	19	2%
Total	**810**	**100%**	**891**	**100%**

* Includes accrued interest income

** Include settlement receivables and liabilities and market value of derivatives

*** Effect of derivatives on the allocation of the asset class (delta equivalent)

**** Include covered bonds, bond funds and illiquid bonds

Note 81. Risk exposure under separated balance sheet 2 investments

In connection with the portfolios' transfer, a separated balance sheet (separated balance sheet 2) was created out of the individual life insurance portfolio (separated balance sheet 1) transferred from Suomi Mutual in 2015 and with a profit distribution policy differing from other life insurance operations.

	31 Dec. 2018		31 Dec. 2017	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Total money market instruments	**72**	**3%**	**98**	**4%**
Money market investments and deposits**	72	3%	60	2%
Derivatives***	0	0%	38	1%
Total bonds and bond funds	**1,946**	**85%**	**2,191**	**85%**
Governments	617	27%	821	32%
Inflation-linked bonds	7	0%	8	0%
Investment Grade	1,000	44%	1,049	41%
Emerging markets and High Yield	93	4%	71	3%
Structured investments****	230	10%	243	9%
Total equities	**90**	**4%**	**92**	**4%**
Finland	0	0%	11	0%
Developed markets	38	2%	8	0%
Emerging markets	2	0%		0%
Fixed assets and unquoted equities	0	0%	0	0%
Private equity investments	50	2%	73	3%
Total alternative investments	**1**	**0%**	**1**	**0%**
Hedge funds	1	0%	1	0%
Total real property investments	**185**	**8%**	**189**	**7%**
Direct property investments	143	6%	146	6%
Indirect property investments	43	2%	43	2%
Total	**2,295**	**100%**	**2,572**	**100%**

* Includes accrued interest income

** Include settlement receivables and liabilities and market value of derivatives

*** Effect of derivatives on the allocation of the asset class (delta equivalent)

**** Include covered bonds, bond funds and illiquid bonds

Note 82. Sensitivity analysis of Life Insurance investment risks

				Effect on equity capital, EUR million	
Life insurance	Portfolio at fair value, EUR million 31 Dec. 2018	Riskipara-metri		31 Dec. 2018	31 Dec. 2017
Bonds and bond funds*	2765	Interest rate	1 pp	114	132
Equities**	371	Market value	10%	37	40
Private equity investments and unquoted equities	116	Market value	10%	12	13
Commodities		Market value	10%		
Real property	271	Market value	10%	27	27
Currency	128	Market value	10%	15	16
Credit risk premium***	3001	Credit spread	0.1 pp	30	37
Derivatives	5	Volatility	10 pps	3	2

* Include money-market investments, convertible bonds and interest-rate derivatives

** Include hedge funds and equity derivatives

*** Includes bonds, convertible bonds and money-market investments, including government bonds and interest-rate derivatives issued by developed countries.

Note 83. Sensitivity analysis of investment risks under separated balance sheet 1

Separated balance sheet of individual life insurance portfolio (separated balance sheet 2)	Portfolio at fair value, EUR million 31 Dec. 2018	Risk parametre	Change	Effect on equity capital, EUR million 31 Dec. 2018	31 Dec. 2017
Bonds and bond funds	660	Interest rate	1 pp	32	38
Equities **	37	Market value	10%	4	3
Private equity investments and unquoted equities	20	Market value	10%	2	2
Commodities		Market value	10%		
Real property	68	Market value	10%	7	6
Currency	24	Market value	10%	2	3
Credit risk premium***	705	Credit spread	1 pp	8	9
Derivatives	0	Volatility	10 pps	0	0

Investment and customer behaviour risks associated with the portfolio in the separated balance sheet 1 have been buffered through future supplementary benefits. The buffers are sufficient to cover a significant negative return on the investment assets included in the separated portfolios, after which OP Financial Group will bear all the risks associated with the portfolio. Changes in investments income above the buffer will affect OP Financial Group's equity capital. The buffer of the separated balance sheet 1 is EUR 83 million (96).

* Include money-market investments, convertible bonds and interest-rate derivatives

** Include hedge funds and equity derivatives

*** Include bonds, convertible bonds and money-market investments, including government bonds and interest-rate derivatives issued by developed countries, including government bonds and interest-rate derivatives issued by developed countries

Note 84. Sensitivity analysis of investment risks under separated balance sheet 2

Separated balance sheet of individual life insurance portfolio (separated balance sheet 1)	Portfolio at fair value, EUR million 31 Dec. 2018	Risk parametre	Change	Effect on equity capital, EUR million 31 Dec. 2018	31 Dec. 2017
Bonds and bond funds	1,788	Interest rate	1 pp	95	120
Equities **	91	Market value	10%	9	9
Private equity investments and unquoted equities	50	Market value	10%	5	7
Commodities		Market value	10%		
Real property	185	Market value	10%	19	19
Currency	69	Market value	10%	6	6
Credit risk premium***	2,018	Credit spread	0.1 pp	24	27
Derivatives	0	Volatility	10 pps	0	1

Investment and customer behaviour risks associated with the portfolio in the separated balance sheet 2 have been buffered through future supplementary benefits. The buffers are sufficient to cover a significant negative return on the investment assets included in the separated portfolios, after which OP Financial Group will bear all the risks associated with the portfolio. Changes in investments income above the buffer will affect OP Financial Group's equity capital. The buffer of the separated balance sheet 2 is EUR 206 million (271).

* Include money-market investments, convertible bonds and interest-rate derivatives

** Include hedge funds and equity derivatives

*** Include bonds, convertible bonds and money-market investments, including government bonds and interest-rate derivatives issued by developed countries, including government bonds and interest-rate derivatives issued by developed countries

Note 85. Risk exposure of Life Insurance investments in fixed-income securities

Fair value by term to maturity or repricing date, € million *	31 Dec. 2018	31 Dec. 2017
0–1 year	423	415
>1–3 years	590	
>3–5 years	941	1,406
>5–7 years	426	925
>7–10 years	277	143
>10 years	170	87
Total	**2,826**	**2,977**
Modified duration	4.1	4.4
Average interest rate, %	1.5	1.3

* Includes money market investments and deposits, bonds, convertible bonds and bond funds

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2018*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	0	40	510	100	32	117	799	28.3 %
Aa1–Aa3	205	65	57	41	52	1	421	14.9 %
A1–A3	84	232	123	110	56	29	633	22.4 %
Baa1–Baa3	94	221	216	147	125	21	824	29.1 %
Ba1 or lower	22	22	13	14	10	4	86	3.0 %
Internally rated	18	10	23	13	1	-2	63	2.2 %
Total	**423**	**590**	**941**	**426**	**277**	**170**	**2,826**	**100.0 %**

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2017*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	0	61	203	127	165	154	710	23.9 %
Aa1–Aa3	300	39	121	42	59	20	580	19.5 %
A1–A3	19	230	191	63	82	28	614	20.6 %
Baa1–Baa3	65	220	249	183	177	27	921	30.9 %
Ba1 or lower	18	49	25	13	11	1	116	3.9 %
Internally rated	12	15	3	3	0	0	35	1.2 %
Total	**415**	**614**	**793**	**431**	**494**	**231**	**2,977**	**100.0 %**

* Excludes credit derivatives

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of a Life Insurance portfolio by Moody's is A1.

The average residual term to maturity of a Life Insurance fixed-income portfolio is 5.3 years (calculated on the basis of the Call date and maturity date).

Note 86. Risk exposure associated with fixed-income investments under separated balance sheet 1

Fair value by term to maturity or repricing date, € million *	31 Dec. 2018	31 Dec. 2017
0–1 year	129	160
>1–3 years	128	115
>3–5 years	150	209
>5–7 years	107	97
>7–10 years	89	98
>10 years	60	52
Total	**664**	**731**
Modified duration	5.0	5.3
Average interest rate, %	1.1	0.7

* Includes money market investments and deposits, bonds, convertible bonds and bond funds

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2018*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	36	42	41	38	32	52	240	36.2 %
Aa1-Aa3	39	7	21	16	18	2	103	15.6 %
A1-A3	14	33	30	13	14	0	105	15.8 %
Baa1-Baa3	30	41	54	35	23	3	186	28.0 %
Ba1 or lower	6	5	5	3	2	2	22	3.4 %
Internally rated	4	1	0	2	0	0	7	1.0 %
Total	**129**	**128**	**150**	**107**	**89**	**60**	**664**	**100.0 %**

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2017*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	63	48	77	30	25	47	289	39.5 %
Aa1-Aa3	34	1	27	23	21	2	107	14.7 %
A1-A3	6	31	32	8	17	0	93	12.8 %
Baa1-Baa3	50	29	68	33	35	3	218	29.8 %
Ba1 or lower	5	5	4	3	1	0	18	2.4 %
Internally rated	4	0	1	1	0	0	6	0.8 %
Total	**160**	**115**	**209**	**97**	**98**	**52**	**731**	**100.0 %**

* Excludes credit derivatives

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the fixed-income portfolio in the separated balance sheet 1 is Aa3, according to Moody's rating.

The average residual term to maturity of the fixed-income portfolio in the separated balance sheet 1 (based on call dates and maturity dates) is 5.0 years

Note 87. Risk exposure of fixed-income investments under separated balance sheet 2

Fair value by term to maturity or repricing date, € million *	31 Dec. 2018	31 Dec. 2017
0–1 year	726	711
>1–3 years	218	191
>3–5 years	282	306
>5–7 years	253	324
>7–10 years	197	304
>10 years	129	193
Total	**1,805**	**2,029**
Modified duration	5.4	6.0
Average interest rate, %	1.2	1.1

* Includes money market investments and deposits, bonds, convertible bonds and bond funds

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2018*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	250	66	102	68	42	75	603	33.4 %
Aa1–Aa3	157	1	15	22	10	41	246	13.6 %
A1–A3	148	49	48	59	32	2	338	18.7 %
Baa1–Baa3	149	86	95	87	101	9	528	29.3 %
Ba1 or lower	9	11	9	8	6	2	45	2.5 %
Internally rated	13	5	12	9	6	0	44	2.4 %
Total	**726**	**218**	**282**	**253**	**197**	**129**	**1,805**	**100.0 %**

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2017*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	323	77	150	184	174	117	1,025	50.5 %
Aa1–Aa3	127	7	15	21	43	55	267	13.2 %
A1–A3	82	37	30	25	29	8	212	10.4 %
Baa1–Baa3	150	54	99	78	54	11	446	22.0 %
Ba1 or lower	11	17	8	7	3	3	48	2.4 %
Internally rated	19	-1	4	9	0	0	31	1.5 %
Total	**711**	**191**	**306**	**324**	**304**	**193**	**2,029**	**100.0 %**

* Excludes credit derivatives

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the fixed-income portfolio in the separated balance sheet 2 is A1, according to Moody's rating.
The average residual term to maturity of the fixed-income portfolio in the separated balance sheet 2 (based on call dates and maturity dates) is 3.9 years.

Note 88. Currency risk associated with Life Insurance investments

Foreign currency exposure, EUR million	31 Dec. 2018	31 Dec. 2017
USD	74	66
SEK	2	0
JPY	0	
GBP	2	10
Other	49	45
Total*	**128**	**121**

* Total net currency exposure

The currency exposure was 3.4% (3.2) of the investment portfolio.

Note 89. Currency risk associated with investments under separated balance sheet 1

Foreign currency exposure, EUR million	31 Dec. 2018	31 Dec. 2017
USD	14	23
SEK	0	0
GBP	0	1
Other	9	10
Total*	**24**	**34**

* Total net currency exposure

The currency exposure was 2.9% (3.8) of the investment portfolio.

Note 90. Currency risk associated with investments under separated balance sheet 2

Foreign currency exposure, EUR million	31 Dec. 2018	31 Dec. 2017
USD	36	42
SEK	0	0
JPY	2	2
GBP	0	1
Other	24	24
Total*	**62**	**69**

* Total net currency exposure

The currency exposure was 2.7% (2.7) of the investment portfolio.

Note 91. Counterparty risk associated with Life Insurance investments

Credit rating, € million	31. Dec. 2018	31. Dec. 2017
Moody's equivalent	Investment*	Investment*
Aaa	799	710
Aa1–Aa3	421	580
A1–A3	633	614
Baa1–Baa3	824	921
Ba1 or lower	86	116
Internally rated	63	35
Total	**2,826**	**2,977**

* Includes money-market investments and deposits, bonds, and bond funds.

Note 92. Counterparty risk associated with investments under separated balance sheet 1

Credit rating, € million	31. Dec. 2018	31. Dec. 2017
Moody's equivalent	Investment*	Investment*
Aaa	240	289
Aa1–Aa3	103	107
A1–A3	105	93
Baa1–Baa3	186	218
Ba1 or lower	22	18
Internally rated	7	6
Total	**664**	**731**

* Includes money-market investments and deposits, bonds, and bond funds.

Note 93. Counterparty risk associated with investments under separated balance sheet 2

Credit rating, € million Moody's equivalent	31. Dec. 2018 Investment*	31. Dec. 2017 Investment*
Aaa	603	1,025
Aa1–Aa3	246	267
A1–A3	338	212
Baa1–Baa3	528	446
Ba1 or lower	45	48
Internally rated	44	31
Total	**1,805**	**2,029**

* Includes money-market investments and deposits, bonds, and bond funds.

Note 94. Credit risk associated with investments under separated balance sheet 1

	31. Dec. 2018		31. Dec. 2017		Change in fair value arising from change in credit risk	
Investments exposed to credit risk	Fair value*, € million	Credit derivative par value, € million	Fair value*, € million	Credit derivative par value, € million	Investments change ***** € million	Credit derivatives change ***** € million
Total money market instruments	**34**		**27**		**0**	
Money market investments and deposits**	34		27		0	
Derivatives***						
Total bonds and bond funds	**671**		**759**		**-15**	**0**
Governments	217		247		-1	
Inflation-linked bonds	3		3		0	
Investment Grade	370		425		-11	0
Emerging markets and High Yield	36		25		-3	
Structured investments****	45		59			
Total	**705**		**785**		**-14**	**0**

Exclude money market investments and convertible bond investments.
*Includes accrued interest income
**Include settlement receivables and liabilities
*** Effect of derivatives on the allocation of the asset class (delta equivalent)
**** Include covered bonds, bond funds and illiquid bonds
***** Running yield deducted from total return of liquid fixed-income investments and investment result relative to the EUR swap curve.
*****Total return in direct credit risk derivatives. The method is not suitable for structured investments.

Note 95. Credit risk associated with investments under separated balance sheet 2

	31. Dec. 2018		31. Dec. 2017		Change in fair value arising from change in credit risk	
Investments exposed to credit risk	Fair value*, € million	Credit derivative par value, € million	Fair value*, € million	Credit derivative par value, € million	Investments change ***** € million	Credit derivatives change ***** € million
Total money market instruments	**72**		**60**		**1**	
Money market investments and deposits**	72		60		1	
Derivatives***						
Total bonds and bond funds	**1,946**		**2,191**		**-45**	**0**
Governments	617		821		-3	
Inflation-linked bonds	7		8		0	
Investment Grade	1,000		1,049		-35	0
Emerging markets and High Yield	93		71		-7	
Structured investments****	230		243			
Total	**2,018**		**2,251**		**-44**	**0**

Exclude money market investments and convertible bond investments.
*Includes accrued interest income
**Include settlement receivables and liabilities
*** Effect of derivatives on the allocation of the asset class (delta equivalent)
**** Include covered bonds, bond funds and illiquid bonds
***** Running yield deducted from total return of liquid fixed-income investments and investment result relative to the EUR swap curve.
*****Total return in direct credit risk derivatives. The method is not suitable for structured investments.

Capital adequacy and capital base

The following notes present a summary of OP Financial Group's capital adequacy and capital base. The OP Amalgamation Capital Adequacy 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). Given that Pillar III disclosures are 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 amalgamation of the member 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 Notes 22 and 47.

Note 96. Capital base

EUR million	31 Dec. 2018	31 Dec. 2017
OP Financial Group's equity capital	**11,835**	**11,121**
The effect of insurance companies on the Group's shareholders' equity is excluded	189	92
Fair value reserve, cash flow hedge	-33	-16
Common Equity Tier 1 (CET1) before deductions	**11,991**	**11,197**
Intangible assets	-710	-717
Excess funding of pension liability and valuation adjustments	-76	-31
Items deducted from cooperative capital	-147	-148
Expected profit distribution	-94	-90
Shortfall of ECL minus expected losses	-288	-320
Common Equity Tier 1 (CET1)	**10,677**	**9,891**
Hybrid capital to which transitional provision is applied	80	81
Additional Tier 1 capital (AT1)	**80**	**81**
Tier 1 capital (T1)	**10,757**	**9,973**
Debenture loans	995	1,121
Tier 2 capital (T2)	**995**	**1,121**
Total capital base	**11,752**	**11,093**

The CET1 capital was increased by Banking performance, the transfer of the earnings-related pension liability and Profit Share issues. The amount of Profit Shares in CET1 capital was EUR 2.9 billion (2.8). Profit Shares refunded to customers in January 2019, totalling EUR 0.1 billion (0.1), are not included in CET1 capital.

A prudent valuation adjustment of EUR 27 (20) million has been deducted from CET1 capital.

OP Financial Group has applied transitional provisions regarding old capital instruments to subordinated loans. In the calculation of capital adequacy and the leverage ratio, the Group has not applied the IFRS 9 transitional provision.

Note 97. Total risk exposure amount

OP Financial Group has used the Foundation Internal Ratings Based Approach (FIRBA) 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 (LDG) and credit conversion factor (CF) 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, 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	31 Dec. 2018	31 Dec. 2017
Credit and counterparty risk	**41,602**	**39,383**
Standardised Approach (SA)	**3,878**	**3,859**
Central government and central banks exposure	293	18
Credit institution exposure	7	8
Corporate exposure	2,561	2,423
Retail exposure	961	1,057
Equity investments	12	
Other**	43	353
Internal Ratings-based Approach (IRB)	**37,724**	**35,525**
Credit institution exposure	1,083	1,054
Corporate exposure	23,474	21,438
Retail exposure	5,276	4,959
Equity investments*	6,659	7,002
Other	1,233	1,072
Market and settlement risk (Standardised Approach)	**1,319**	**1,179**
Operational risk (Standardised Approach)	**4,136**	**3,958**
Valuation adjustment (CVA)	**175**	**205**
Total risk exposure amount	**47,233**	**44,725**
Risk weight floors based on ECB's decision	**4,893**	**4,492**
Total risk exposure amount including risk weight floors	**52,126**	**49,216**

The total risk exposure amount (REA) was 5.9% higher than on 31 December 2017. The minimum risk weight for retail exposures set by the ECB was EUR 4.9 billion, without which total risk was EUR 47.2 billion and the increase 5.6% from the turn of the year. The average risk weights of corporate and retail exposures rose slightly.

The risk weight of equity investments includes EUR 6.4 billion in insurance holdings within OP Financial Group.

EUR 261 million (283 in other exposures a year ago) of government exposures represent deferred tax assets that are treated with a risk weight of 250% instead of a deduction from Common Equity Tier 1 capital.

Capital requirement for counterparty risk amounts to EUR 37 million (EUR 39 million).

Note 98. Capital ratios

Ratios, %	31 Dec. 2018	31 Dec. 2017
CET1 capital ratio	20.5	20.1
Tier 1 ratio	20.6	20.3
Capital adequacy ratio	22.5	22.5

Ratios, fully loaded, %	31 Dec. 2018	31 Dec. 2017
CET1 capital ratio	20.5	20.1
Tier 1 ratio	20.5	20.1
Capital adequacy ratio	22.4	22.4

Ratios excluding the risk weight floors, %	31 Dec. 2018	31 Dec. 2017
CET1 capital ratio	22.6	22.1
Tier 1 ratio	22.8	22.3
Capital adequacy ratio	24.9	24.8

The effect of risk weight floors on the CET 1 ratio was -2.1 percentage points.

Capital requirement, EUR million	31 Dec. 2018	31 Dec. 2017
Capital base	11,752	11,093
Capital requirement	7,448	7,027
Buffer for capital requirements	4,304	4,067

The capital requirement of 14.3% comprises the minimum requirement of 8%, the capital conservation buffer of 2.5%, the O-SII buffer of 2.0%, the minimum requirement of 1.75% set by the ECB (P2R) and the changing capital conservation buffer by country for foreign exposures. The ECB's P2R has been effective since 1 January 2017.

Note 99. Retail exposures by borrower grade (AIRB)

All retail exposures

Borrower grade 31 Dec. 2018	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
Personal customers, total	**51,801**	**54.1**	**0.7**	**16.8**	**13.9**	**4,146**	**7.4**	**159**
A	32,730	52.8	0.0	15.9	14.6	571	1.7	2
B	11,046	56.9	0.1	15.9	13.6	523	4.7	2
C	3,988	61.6	0.5	22.5	11.4	690	17.3	4
D	2,196	65.6	2.3	21.0	10.9	795	36.2	11
E	1,432	69.5	20.0	21.4	10.9	1,205	84.1	59
F	409		100.0	23.5	17.6	362	88.5	80
Corporate customers, total	**2,272**	**68.4**	**3.6**	**40.1**	**6.0**	**1,130**	**47.1**	**71**
1.0–2.0	2	65.9	0.0	26.4	3.0	0	2.0	0
2.5–5.5	639	67.3	0.4	26.7	5.6	88	13.7	1
6.0–7.0	911	68.3	1.4	42.2	5.5	378	41.5	5
7.5–8.5	496	67.7	4.9	48.3	6.1	368	74.2	12
9.0–10.0	167	76.3	24.7	49.8	5.6	208	124.7	21
11.0–12.0	57	75.7	100.0	59.2	18.0	88	153.8	33
Total	**54,073**	**55.0**	**0.9**	**17.8**	**13.6**	**5,276**	**9.0**	**230**

All retail exposures

Borrower grade 31 Dec. 2017	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
Personal customers, total	**49,868**	**53.1**	**0.7**	**17.0**	**13.8**	**4,159**	**7.5**	**157**
A	30,788	52.4	0.0	15.8	14.5	528	1.7	2
B	11,178	53.8	0.1	17.2	13.3	592	5.3	3
C	3,928	56.6	0.5	21.9	11.4	666	17.0	4
D	2,192	52.7	2.3	20.6	10.9	789	36.0	10
E	1,368	45.0	20.0	20.8	11.0	1,142	83.5	56
F	415		100.0	25.1	18.0	441	106.3	82
Corporate customers, total	**1,596**	**68.4**	**3.4**	**38.3**	**5.2**	**800**	**42.6**	**42**
1.0–2.0								
2.5–5.5	500	67.9	0.4	22.6	5.7	57	11.5	0
6.0–7.0	626	66.7	1.3	42.6	4.4	257	41.1	4
7.5–8.5	313	70.6	5.1	47.6	4.3	221	70.5	8
9.0–10.0	114	74.4	23.4	47.6	4.0	127	111.2	12
11.0–12.0	43		100.0	65.3	18.9	138	320.6	18
Total	**51,464**	**54.1**	**0.8**	**17.7**	**13.5**	**4,959**	**8.6**	**199**

Retail exposures secured by real-estates

Borrower grade 31 Dec. 2018	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
Personal customers, total	**45,665**	**54.4**	**0.6**	**14.2**	**14.5**	**2,877**	**5.6**	**78**
A	31,101	55.0	0.0	14.1	14.9	474	1.5	1
B	9,011	51.5	0.1	14.3	14.0	378	4.2	2
C	2,623	54.3	0.5	14.9	13.9	305	11.6	2
D	1,535	55.0	2.3	14.5	12.7	481	31.3	5
E	1,062	53.8	20.8	15.0	12.8	887	83.5	33
F	334		100.0	17.8	16.7	353	105.8	34
Corporate customers, total	**1,163**	**68.2**	**3.7**	**18.1**	**7.4**	**425**	**33.0**	**16**
1.0–2.0	1	65.9	0.0	17.3	3.5	0	1.3	0
2.5–5.5	200	65.7	0.3	7.6	7.0	6	3.2	0
6.0–7.0	606	67.6	1.1	17.1	7.0	113	18.7	1
7.5–8.5	237	69.3	4.9	25.2	8.1	155	65.2	3
9.0–10.0	90	76.0	26.2	25.4	6.5	100	110.2	6
11.0–12.0	29	75.3	100.0	27.9	15.6	52	179.9	6
Total	**46,828**	**56.4**	**0.7**	**14.3**	**14.4**	**3,302**	**6.2**	**93**

Retail exposures secured by real-estates

Borrower grade 31 Dec. 2017	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
Personal customers, total	**44,257**	**53.9**	**0.7**	**14.5**	**14.2**	**2,903**	**5.7**	**81**
A	29,490	54.3	0.0	14.3	14.5	452	1.5	1
B	9,120	51.9	0.1	14.5	13.9	398	4.4	2
C	2,691	53.7	0.5	15.1	13.6	318	11.8	2
D	1,583	54.0	2.3	14.5	12.7	495	31.3	5
E	1,041	53.9	20.6	14.8	12.8	858	82.5	32
F	332		100.0	19.8	16.9	381	114.7	38
Corporate customers, total	**814**	**68.5**	**3.1**	**14.6**	**6.1**	**237**	**25.0**	**9**
1.0–2.0								
2.5–5.5	181	66.3	0.3	6.3	7.0	5	2.6	0
6.0–7.0	431	67.5	1.0	13.7	5.8	64	14.8	1
7.5–8.5	131	71.5	5.1	22.4	4.9	78	59.5	2
9.0–10.0	54	75.3	24.2	22.9	4.4	53	98.6	3
11.0–12.0	18		100.0	36.6	17.9	38	205.5	4
Total	**45,072**	**55.8**	**0.7**	**14.5**	**14.1**	**3,140**	**6.1**	**89**

The defaults, or borrower grades 11.0 and 12.0 as well as F, are not included in the average PD and risk weight. The figures exclude risk weight floors.

Note 100. Corporate exposures (FIRB) by borrower grade

Borrower grade 31 Dec. 2018	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
1.0–2.0	1,129	84.2	0.0	44.4	4.2	166	14.7	0
2.5–5.5	19,874	72.7	0.2	43.8	7.1	8,031	40.4	20
6.0–7.0	9,287	72.1	1.3	43.0	9.0	8,067	86.8	52
7.5–8.5	4,761	72.6	4.5	43.0	8.0	5,673	119.1	91
9.0–10.0	812	68.4	19.9	43.4	7.9	1,538	189.4	69
11.0–12.0	680	60.7	100.0	44.1	17.9			301
Total	36,543	73.0	1.5	43.5	7.8	23,474	65.4	533

Borrower grade 31 Dec. 2017	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
1.0–2.0	880	93.3	0.0	44.7	4.3	128	14.6	0
2.5–5.5	18,800	72.7	0.2	44.5	6.2	7,335	39.0	18
6.0–7.0	7,998	69.7	1.3	44.0	8.4	6,803	85.1	45
7.5–8.5	4,658	70.0	4.3	44.1	7.7	5,596	120.1	89
9.0–10.0	823	62.5	19.9	44.2	11.4	1,576	191.5	72
11.0–12.0	743	59.2	100.0	45.0	15.5			335
Total	33,903	71.9	1.5	44.3	7.2	21,438	64.7	560

The defaults, or borrower grades 11.0 and 12.0, are not included in the average PD and risk weight.

Note 101. Credit institution exposures (FIRB) by borrower grade

Borrower grade 31 Dec. 2018	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
1.0–2.0	0		0.0	41.4	0.5	0	14.5	0
2.5–5.5	7,487	66.7	0.1	15.5	4.9	889	11.9	1
6.0–7.0	35	30.4	1.6	45.0	4.9	41	117.0	0
7.5–8.5	88	36.8	5.1	45.0	2.9	145	165.2	2
9.0–10.0	3	37.0	13.5	45.0	0.3	7	200.7	0
Total	7,614	64.0	0.1	15.9	4.9	1,083	14.2	3

Borrower grade 31 Dec. 2017	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
1.0–2.0	2,510	76.7	0.0	15.0	4.0	131	5.2	0
2.5–5.5	4,589	60.9	0.1	19.6	6.2	656	14.3	1
6.0–7.0	182	24.7	1.9	45.0	0.9	236	129.2	2
7.5–8.5	16	20.9	5.6	45.0	0.4	26	165.6	0
9.0–10.0	2	56.6	24.0	45.0	0.1	4	260.1	0
Total	7,299	57.2	0.1	18.7	5.3	1,054	14.4	3

The defaults, or rating categories 11.0 and 12.0, are not included in the average PD and risk weight.

Note 102. OP Financial Group's capital adequacy

Note 2, OP Financial Group's risk and capital adequacy management principles, provides a description of how the Group organises its Group-level risk and capital-adequacy management process. OP Financial Group and all of its entities fulfil the capital adequacy requirements set by the authorities.

Capital base and capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates

EUR million	31 Dec. 2018	31 Dec. 2017
OP Financial Group's equity capital	11,835	11,121
Hybrid instruments and debenture bonds	1,075	1,202
Other sector-specific items excluded from capital base	-349	-236
Goodwill and intangible assets	-1,501	-1,525
Insurance business valuation differences*	735	824
Proposed profit distribution	-94	-90
Items under IFRS deducted from capital base**	-46	3
Shortfall of ECL minus expected losses	-262	-294
Conglomerate's capital base, total	**11,393**	**11,005**
Regulatory capital requirement for credit institutions***	6,528	6,107
Regulatory capital requirement for insurance operations*	1,199	1,340
Conglomerate's total minimum capital requirement	**7,727**	**7,447**
Conglomerate's capital adequacy	**3,666**	**3,558**
Conglomerate's capital adequacy ratio (capital base/minimum of capital base) (%)	**147**	**148**

* Differences between fair values and carrying amounts based on the solvency of insurance companies and an estimate of SCR.
** Excess funding of pension liability, portion of cash flow hedge of fair value reserve.
*** Total risk exposure amount x 14.3 %

Transitional provisions and the risk weight floors have been taken into account in figures. The SCR figures of insurance companies are presented in Notes 63 and 76. The risk weight floors decreased the CET1 ratio by around 15 percentage points. The FiCo calculation is unaudited. Because of regulation and capital buffers set by the supervisory, the 100% capital adequacy is not a minimum level but the level above which the Group can operate without the measures required by the supervisor.

Capital adequacy

OP Financial Group has two risk tolerances for its capital adequacy. The first one is capital adequacy as referred to in the Act on the Supervision of Financial and Insurance Conglomerates. The Group's risk tolerance for this ratio is 110%. The statutory minimum is 100%. On 31 December 2018, the ratio of the capital base to the minimum amount of the capital base was 147 (148)%. On 31 December 2018, the Group's capital base totalled EUR 2,893 million (2,814) above the Group's internal risk limit and EUR 3,666 million (3,558) more than the limit required by law.

Statements concerning the financial statements

We have approved the Report by the Executive Board and the consolidated Financial Statements for 1 January–31 December 2018 of OP Financial Group, a financial entity as referred to in Section 9 of the Act on the Amalgamation of Deposit Banks. The Report by the Executive Board and the Financial Statements are presented to, and passed out at, the Annual Cooperative Meeting.

Helsinki, 11 February 2019

Executive Board of OP cooperative

Timo Ritakallio

OP Financial Group's President and Group Executive Chair

Tony Vepsäläinen

Katja Keitaanniemi

Vesa Aho

Juho Malmberg

Olli Lehtilä

Tiia Tuovinen

Harri Nummela

Auditors' note

We have today issued an auditor's report on the audit we have performed.

Helsinki, 14 February 2019

KPMG Oy Ab
Audit firm

Raija-Leena Hankonen
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This document is an English translation of the Finnish auditor's report. Only the Finnish version of the report is legally binding.

Auditor's Report

To the members of OP Cooperative

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the amalgamation OP Financial Group pursuant to the Act on the Amalgamation of Deposit Banks for the year ended 31 December 2018. The financial statements comprise the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity capital, cash flow statement and notes, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of OP Financial Group's financial position and financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

Our opinion is consistent with the additional report submitted to the Executive Board and the Audit Committee of the Supervisory Board of OP Cooperative.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report.

We are independent of member institutions within OP Financial Group in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To our best knowledge and understanding, the non-audit services that we have provided to member institutions within OP Financial Group are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 11 to the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. The materiality is determined based on our professional judgement and is used to determine the nature, timing and extent of our audit procedures and to evaluate the effect of identified misstatements on the financial statements as a whole. The level of materiality we set is based on our assessment of the magnitude of misstatements that, individually or in aggregate, could reasonably be expected to have influence on the economic decisions of the users of the financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the financial statements.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. The significant risks of material misstatement referred to in the EU Regulation No 537/2014 point (c) of Article 10(2) are included in the description of key audit matters below.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

THE KEY AUDIT MATTER	HOW THE MATTER WAS ADDRESSED IN THE AUDIT
Receivables from customers (notes 1, 3, 4, 12, 19 and 51 to the financial statements)	
Receivables from customers, totalling €87.1 billion, are the most significant item on the OP Financial Group's consolidated balance sheet representing 62 percent of the total assets. Interest income accruing on receivables, in aggregate €1.2 billion, forms a material part of the OP Financial Group's result. OP Financial Group has applied IFRS 9 Financial Instruments to recognition of impairment losses on receivables as from 1 January 2018. The adoption resulted in shift from the calculation of impairment on an individual and collective basis to that of the expected credit loss calculated using models under IFRS 9. Calculation of expected credit losses involves assumptions, estimates and management judgement, for example, in respect of the probability and amount of the expected credit losses as well as determining the significant increases in credit risk. Due to the significance of the carrying amount involved, the adoption of IFRS 9, complexity of the accounting methods used for measurement purposes and management judgement involved, receivables from customers are addressed as a key audit matter.	We evaluated compliance with the lending instructions and assessed principles and controls over recognition and monitoring of loan receivables and interest in the entities of OP Cooperative Consolidated. We utilised data analysis in our audit focusing on the lending process and loans. As regards the adoption of IFRS 9, we assessed the models and the key assumptions for calculating expected credit losses as well as tested the controls related to the calculation process and credit risk models for the expected credit losses. Our IFRS and financial instruments specialists were involved in the audit. We also requested other auditors of OP Financial Group institutions to issue an opinion that the institutions within OP Financial Group have complied with the instructions provided by OP Cooperative in respect of financing process. Furthermore, we considered the appropriateness of the notes provided by OP Financial Group in respect of receivables and expected credit losses, including the notes related to the IFRS 9 transition.

Investment assets and derivative contracts (notes 1, 3, 7, 18, 20, 28 and 51 to the financial statements)

The carrying value of investment assets totals €23 billion mainly consisting of investments measured at fair value. The aggregate derivative assets are €3.5 billion and derivative liabilities €2.8 billion comprising contracts held for trading and hedging purposes. Derivatives are measured at fair value in preparing financial statements.

The fair value of financial instruments is determined using either prices quoted in an active market or OP Financial Group's own valuation techniques where no active market exists. Determining fair values for investments and derivatives involves management judgements, especially in respect of those instruments for which market-based data is not available.

The adoption of IFRS 9 Financial Instruments as at 1 January 2018 resulted in changes to the classification and measurement of financial assets and financial liabilities. The most significant classification changes related to certain investments of OP Financial Group's Life and Non-life Insurance which are mainly measured at fair value through profit or loss.

Due to the significant carrying values of investment assets and derivative positions involved, and management judgements related to measurement of illiquid investments, valuation of these assets is addressed as a key audit matter.

We evaluated the appropriateness of the accounting principles applied and the valuation techniques used by OP Financial Group, and tested accounting and valuation of investments and derivative contracts using data-analysis, for example.

Our audit procedures also comprised assessment of net investment income by reference to developments in market and the structure of the investment portfolio.

In respect of derivative contracts we considered the appropriateness of the accounting treatment applied with the requirements set under IFRS. As regards the adoption of IFRS 9, we assessed classification principles for the financial instruments and tested the classification on a sample basis.

As part of our year-end audit procedures we compared the fair values used in valuation of investment assets and derivatives to market quotations and other external price references.

We also assessed the impairment principles applied and techniques used by OP Financial Group in respect of investments.

Finally, we considered the appropriateness of the notes on investment assets and derivatives, including the notes related to the IFRS 9 transition.

Insurance liabilities (notes 1, 5 and 30 to the financial statements)

Measurement of insurance liabilities, amounting to €9.5 billion on the OP Financial Group's balance sheet, is based on various actuarial assumptions and calculation methods.

Calculation of insurance liabilities relies on data processed in many IT systems and combination of that data. The databases are extensive and data volumes processed by the IT systems are substantial.

Interest rate risk associated with insurance liabilities is hedged with derivatives and interest rate instruments, which are measured at fair value in the financial statements.

Due to the significant carrying value of insurance liabilities involved, and the complexity associated with actuarial models used, insurance liabilities are addressed as a key audit matter.

Our audit procedures included assessment of the principles related to calculation and recognition of insurance liabilities. Our actuary specialist evaluated the appropriateness of the assumptions and methods used in determining insurance liabilities and compared the assumptions to industry development and market information, among other things.

We evaluated internal control over the accuracy of data used in calculating insurance liabilities and assessed the related controls.

We analysed the effectiveness of hedging against interest rate risks, and the appropriateness of the accounting for derivative instruments used for hedging purposes.

Furthermore, we considered the appropriateness of the notes on insurance liabilities.

Control environment relating to financial reporting process and IT systems

In respect of the accuracy of the financial statements of OP Financial Group, the key reporting processes are dependent on information systems. Therefore, information technology plays an essential role for business continuity, incident management and the accuracy of financial reporting. Consequently, the IT environment related to the financial reporting process and the application controls of individual IT systems have a significant effect on the selected audit approach.

As the consolidated financial statements of OP Financial Group are based on a large number of data flows from many systems, the financial reporting IT environment is addressed as a key audit matter.

We obtained an understanding of the IT systems related to financial reporting and the associated control environment, and tested the effectiveness of the related internal controls.

Our audit procedures also concentrated on monitoring of key data flows and transactions, change management, interfaces and outsourcing management.

For the financial year 2018, our focus areas were the IT systems with a substantial impact on financial statement figures and the assessment of the processes for managing access rights in the key financial reporting systems.

As part of our audit we performed extensive substantive procedures and data analyses relating to various aspects in the financial reporting process.

Valuation of development costs under intangible assets (notes 1, 10 and 23 to the financial statements)

The intangible assets generated from in-house development activities of the OP Financial Group mainly consist of information systems. The related development costs are capitalised since the future economic benefit are demonstrated. At 31 December 2018 the information systems under development were carried at €222 million and information systems available for use at €391 million under other intangible assets.

Information systems available for use are carried at cost less amortisation and any impairment losses. OP Financial Group assesses annually development projects not yet available for use for impairment, based on expected future economic and other benefits. Based on the assessment impairment losses totalling €61 million were recognised on the capitalised development costs.

Application of capitalisation principles for development costs, valuation of activated projects and impairment assessment for intangible assets require significant amount of management judgement. Consequently, development costs under intangible rights are addressed as a key audit matter.

Our audit procedures included assessment of the monitoring and control processes in place for intangible assets, basis for capitalization and recognition principles by reference to the internal guidelines of the OP Financial Group. We analysed the capitalised development costs using a data analysis.

We evaluated the analysis prepared by management and assessed the valuation of the capitalised development costs by reference to the management's plans and our own findings. We also assessed the presentation of development costs under intangible assets and related impairment losses.

Transfer of the statutory pension plan to the mutual pension insurance company (notes 1,9 and 33 to the financial statements)

Majority of the pension liability related to OP Financial Group's statutory pension fund was transferred to the mutual pension insurance at the end of 2018. The transfer improved the earnings before tax by €286 million consisting of the reversal of the pension liability recognised based on IAS 19.

The recognised amount forms a significant item in OP Financial Group's financial statements and involves actuarial models and assumptions.

We assessed the accounting principles and the presentation of the transfer of the pension liability compared to the requirements set under IFRS.

We involved our own actuary and IFRS specialist in evaluating the actuary calculations prepared by the external service provider as well as in assessing the related actuarial assumptions applied and the amounts of the transferred and the remaining assets and liability.

Consequently, it was addressed as a key audit matter.	Finally, we also considered the notes in relation to the transfer.

Responsibilities of the Executive Board and the Managing Director for the Financial Statements

The Executive Board and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU in a manner explained in more detail in the notes to the financial statements and comply with statutory requirements. The Executive Board and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Executive Board and the Managing Director are responsible for assessing OP Financial Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate OP Financial Group, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

— Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of OP Financial Group's internal control.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

— Conclude on the appropriateness of the Executive Board and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on OP Financial Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause OP Financial Group to cease to continue as a going concern.

- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within OP Financial Group to express an opinion on the consolidated financial statements. We remain solely responsible for our audit opinion.
- audit of the consolidated financial statements of amalgamation OP Financial Group is based on the financial statements of OP Cooperative Consolidated and member institutions, as well as the auditors' reports submitted for the audit of OP Financial Group's consolidated financial statements.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Information on our audit engagement

We were first appointed as auditors by the Cooperative Meeting of OP Cooperative in 2002 and our appointment represents a total period of uninterrupted engagement of 17 years.

Other Information

The Executive Board and the CEO are responsible for other information. The other information comprises the report of the Executive Board. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. Our responsibility also includes considering whether the report of the Executive Board has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Executive Board is consistent with the information in the financial statements and the report of the Executive Board has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed, we conclude that there is a material misstatement of the report of the Executive Board, we are required to report that fact. We have nothing to report in this regard.

Helsinki, 14 February 2019

KPMG OY AB

RAIJA-LEENA HANKONEN
Raija-Leena Hankonen
Authorised Public Accountant, KHT