

OP Financial Group Report by the Executive Board and Financial Statements 2017

OP Financial Group's Report by the Executive Board and Financial Statements for 1 January–31 December 2017

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2017 in brief

Earnings before tax over one billion euros for the third year in a row, strong growth in business

- Earnings before tax amounted to EUR 1,077 million (1,138), being 5% lower than the record earnings a year ago.
- Income increased by a total of 4%. Net interest income increased by 3%, net commissions and fees by 8% and net investment income by 27%. Net insurance income decreased by 14%.
- Expenses rose by 13%. The rise in expenses stemmed mainly from higher development investments related to the modernisation of the present-day business and from an increase in other expenses related to strategy implementation.
- Impairment loss on receivables, EUR 48 million (77), were low, accounting only for 0.06% of loans and receivables.
- CET1 ratio was 20.1%, or at the previous year-end level.
- **Banking:** The loan portfolio increased by 5% and deposits by 6%. Both net interest income and net commissions and fees increased by 4%. Supported by strong growth in income, earnings before tax increased by 16%.
- **Non-life Insurance:** Insurance premiums from private customers increased by 2%, while those from corporate customers decreased slightly. Earnings before tax decreased by 14%. The earnings were eroded by a reduction of the discount rate to 1.5% in September and more unfavourable claims development than a year ago.
- **Wealth Management:** Assets under management increased by 5%. Earnings before tax increased by 9%, aided by strong improvement in net commissions and fees.
- **Other Operations:** Earnings were weakened by higher investments in the development of services and other strategy implementation.
- President and Executive Chairman Reijo Karhinen retired on 31 January 2018, based on his executive contract. Timo Ritakallio, LL.M., MBA and D.Sc. (Tech.), will take up his duties as OP Financial Group's new President and Group Executive Chairman on 1 March 2018.
- Earnings before tax for 2018 are expected to be at about the same level as or lower than in 2017.

Business development and sense of community for the benefit of owner-customers

- In 2017, development investments worth around EUR 450 million focused on ensuring compliance with requirements set by the authorities and legislative requirements, improving operational efficiency and smoothness as well as developing business.
- In 2017, OP Financial Group opened Pohjola Hospitals in Oulu and Kuopio. The construction of a hospital in Turku is progressing as planned.
- In the financial year the number of OP cooperative banks' owner-customers increased by 86,000 to over 1.8 million and that of OP Financial Group's joint banking and insurance customers by 40,000 to almost 1.8 million.
- In November, OP held the biggest electronic voting in Finland. Almost 2,400 owner-customers were elected to Representative Assemblies in 81 OP cooperative banks for the next four years.
- OP Financial Group had the objective of donating 100 person-years of volunteering in honour of the centenary of Finland's independence. Volunteer work performed with partners totalled 274 years.
- OP bonuses increased by 6% to EUR 220 million (208).

OP Financial Group's key figures and ratios

	Q1-4/2017	Q1-4/2016	Change, %
EBT, € million	1,077	1,138	-5.4
Banking	666	574	16.0
Non-life Insurance	210	244	-13.9
Wealth Management	247	226	9.2
Other Operations	-45	95	
New OP bonuses accrued to owner-customers	220	208	5.7
	31 Dec. 2017	31 Dec. 2016	Change, %
CET1 ratio, %	20.1	20.1	0.0*
Return on economic capital, % **	21.3	22.7	-1.4*
Ratio of capital base to minimum amount of capital base (under the Act on the Supervision of Financial and Insurance Conglomerates), % ***	148	170	-22*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.06	0.09	0.0*
Owner-customers (1,000)	1,833	1,747	4.9

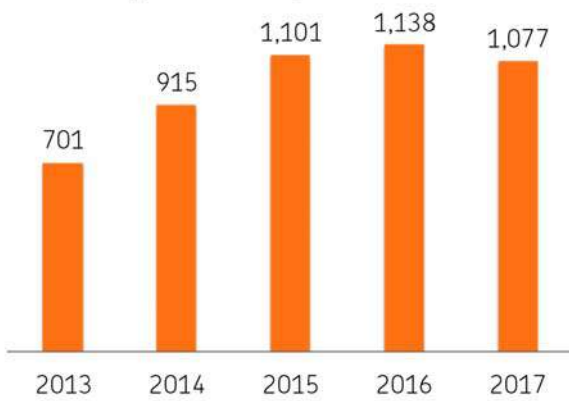
Comparatives deriving from the income statement are based on figures reported for the corresponding period in 2016. Unless otherwise specified, balance sheet and other cross-sectional figures on 31 December 2016 are used as comparatives.

* Change in ratio

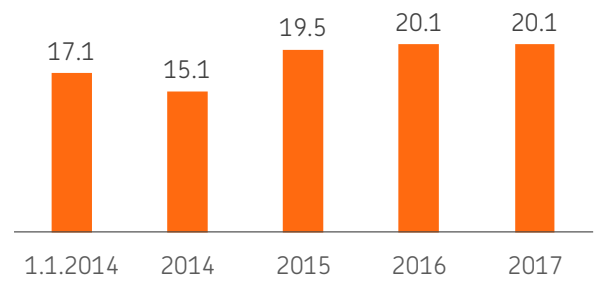
** 12-month rolling

*** The FiCo ratio has been calculated for insurance companies using transition provisions included in solvency regulation.

Earnings before Tax, € million



Common Equity Tier1 ratio (CET1), %



Comments by Executive Board Chair Tony Vepsäläinen

The year 2017 was a success for OP Financial Group in many respects. Implementing our strategy, which will transform our business on an in-depth basis, proceeded on a wide front, our financial position strengthened further, our business continued to grow steadily on the whole, and in our social role we produced visible and tangible results.

OP has stabilised its annual financial results at the level one billion euros. In spite of growth in expenses related to strategy implementation, EBT of almost EUR 1.1 billion is the third best ever recorded by OP Financial Group. Thanks to our strong results, the Group's CET1 ratio was back to over 20%.

Earnings were strengthened by growth in income on a broad basis. Not only net interest income but also commission income and investment income showed an increase. The quality of the loan portfolio remained good, which is why loan losses remained very low. The loan portfolio continued to grow at a rate above the market average, especially in corporate loans and housing corporation loans.

In 2017, our development expenditure totalled around EUR 450 million, the majority of the investments being allocated to ensuring regulatory compliance as well as to large-scale basic system upgrades and enhancing operational efficiency. The most visible improvements to our customers included our redesigned op.fi service and new versatile mobile payment solutions.

We took a number of steps to build new service packages based on our strategy. We opened a new hospital in Oulu and Kuopio, introduced new mobility services to our customers and opened an OP Home marketplace as a platform of housing-related services.

We celebrated Finland's 100 years of independence through volunteering characteristic of OP Financial Group: we encouraged our employees, administrative staff, customers and everyone in the country to donate a day of volunteering to Finland. In the end, the gift given by OP Financial Group and its partners to Finland was 274 years of volunteering. Hiiop100.fi, a meeting place for volunteering, will continue to combine tasks and their performers this year too.

OP Financial Group is there for its customers. In 2017, the number of the Group's owner-customers increased by over 86,000. In November 2017, we organised the biggest electronic voting in Finland where a total of almost 2,400 members out of the candidates were elected to the OP cooperative banks' Representative Assemblies. As part of our mission and social role, we are active in promoting prosperity in our operating regions, sense of community, responsibility and cooperation based on a people-first approach throughout Finland.

Working for OP Financial Group during five decades and heading the Group as President and Group Executive Chairman from 2007, Reijo Karhinen retired at the end of January 2018, based on his executive contract. Reijo Karhinen's career in OP Financial Group is unrivalled. During his term of being President and Group Executive Chairman, OP became Finland's leading financial services group, became fully owned by its customers and reinvented itself in a bold and responsible way. We therefore express our warmest thanks to Reijo for his unique life's work. OP Financial Group will continue reinventing itself and implementing its mission based on customer ownership. We are happy to welcome Timo Ritakallio as OP Financial Group's new President and Group Executive Chairman at the beginning of March – best of luck and success together!

Operating environment

The economic situation improved markedly in 2017. Confidence indicators continued to improve towards the year end. Based on preliminary information, the world economy grew at its fastest rate for over five years. Last year, the euro-area economy reached its best growth rate recorded during the current decade.

Inflation remained moderate despite the favourable economic development. The European Central Bank (ECB) continued its accommodative monetary policy. In 2017, the ECB's monthly asset purchases in the markets totalled EUR 60 billion and the main refinancing rates remained unchanged.

The Euribor rates remained negative. The 12-month Euribor rate decreased slightly because of abundant liquidity, but the 3-month Euribor rate remained unchanged. Longer-term rates rose slightly during the year.

The Finnish economy grew strongly on a wide front. Exports rose at their fastest pace during the current decade. Companies increased their fixed investments as a result of improved profitability and the need for additional capacity.

Supported by favourable employment development, consumer confidence improved to a record level and boosted consumer spending. Construction projects were abundant, the housing market picked up and home prices rose slightly on average.

Favourable economic development is expected to continue in the near future, both in Finland and the rest of the euro area. The monetary policy is expected to tighten during 2018, but short-term interest rates should rise only slightly. The largest risks in the near future are associated with greater uncertainty in financial markets and with the political environment.

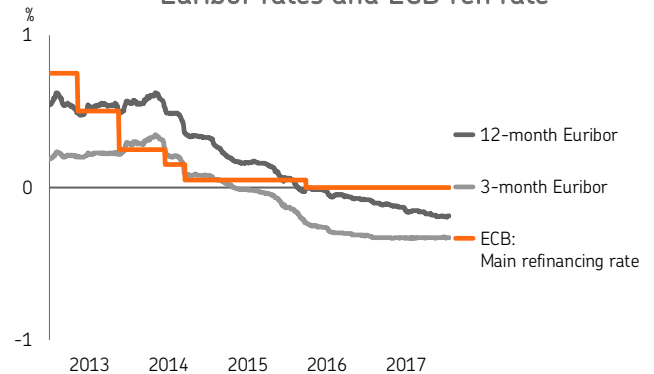
Total consumer loans increased by 2.7% over the previous year. Consumer loans were raised more actively than a year ago. The average borrowing rate of new home loans drawn down declined further, coming to less than one percent. Corporate and housing association loans increased by 4.3% on a year earlier. Demand for consumer and corporate loans is expected to continue to pick up.

The annual growth rate of total deposits accelerated to 6.1% and that of total household decelerated deposits to 3.3%. Corporate deposits increased by 8.0% over the previous year while growth in deposits by public-sector entities remained brisk.

In 2017, the value of mutual funds registered in Finland increased by 8.9% to EUR 116.2 billion. A total of EUR 4.5 billion of this growth came from net asset inflows and EUR 5.1 billion resulted from favourable market developments.

Positive mood in the economy and favourable developments in capital markets supported the insurance sector. However, price competition among private and corporate customers and in corporate and institutional insurance, which became fiercer during the latter half of the year, ate up premiums written.

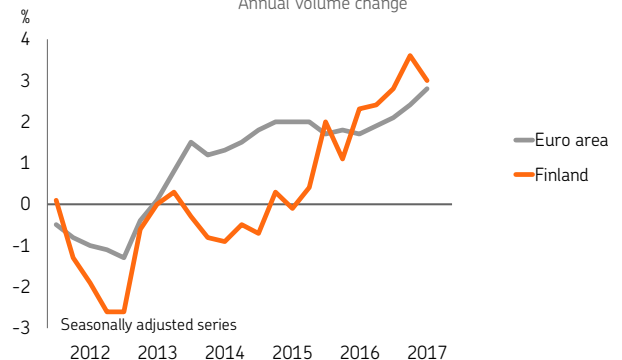
Euribor rates and ECB refi rate



Source: Bank of Finland

GDP

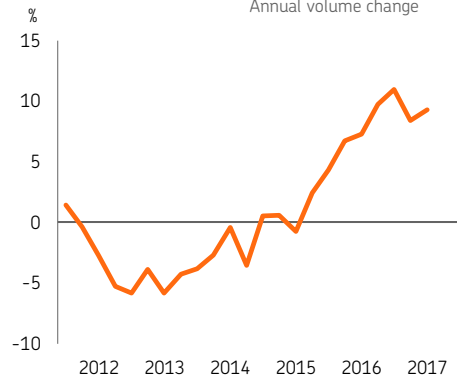
Annual volume change



Sources: Eurostat, Statistics Finland

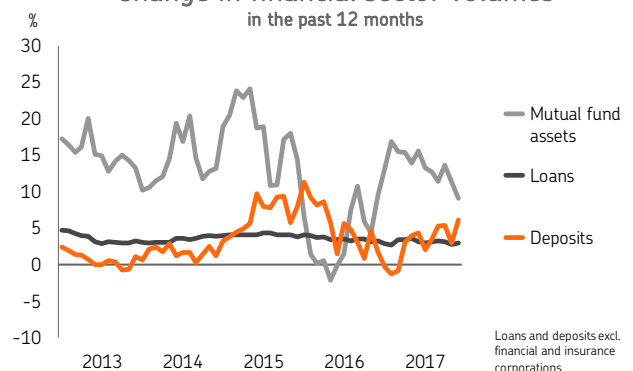
Fixed investments in Finland

Annual volume change



Source: Statistics Finland

Change in financial sector volumes in the past 12 months



Sources: Bank of Finland, Investment Research Finland

Earnings analysis and balance sheet

Earnings analysis, € million	Q1-4/2017	Q1-4/2016	Change, %
Earnings before tax	1,077	1,138	-5.4
Banking	666	574	16.0
Non-life Insurance	210	244	-13.9
Wealth Management	247	226	9.2
Other Operations	-45	95	
Income			
Net interest income	1,094	1,058	3.4
Net insurance income	478	558	-14.4
Net commissions and fees	928	859	8.0
Net investment income	495	390	26.9
Other operating income	94	122	-23.3
Share of associates' profit/loss	27	1	
Total income	3,115	2,989	4.2
Expenses			
Personnel costs	758	762	-0.6
Depreciation/amortisation and impairment loss	246	160	54.2
Other operating expenses	769	646	19.0
Total expenses	1,773	1,567	13.1
Impairment loss on receivables	48	77	-38.0
New OP bonuses accrued to owner-customers	220	208	5.7

Key balance sheet figures, € million	31 Dec. 2017	31 Dec. 2016	Change, %
Receivables from customers	82,240	78,604	4.6
Investment assets	22,506	25,105	-10.3
Liabilities to customers	65,549	60,077	9.1
Insurance liabilities	9,950	10,586	-6.0
Debt securities issued to the public	26,841	28,287	-5.1
Equity capital	11,121	10,237	8.6
Total assets	137,242	133,747	2.6

January–December

OP Financial Group's earnings before tax exceeded one billion euros for the third year in a row, totalling EUR 1,077 million (1,138). Compared with the record EBT in 2016, it declined by 5.4% due to higher expenses resulting from the implementation of the strategy. The figure was also reduced by lower net insurance income and non-recurring income. The reported earnings included EUR 41 million (76) in non-recurring income. In the meantime, net interest income, net commissions and fees and net investment income increased year on year.

Net interest income increased by 3.4% to EUR 1,094 million. Net interest income from Banking rose by 4.4%, but the entire Group's net interest income was reduced by lower net interest income from the Other Operations segment. Net insurance income fell by 14.4% to EUR 478 million, resulting especially from the discount rate reduction larger than the year before and from poorer claims developments than a year ago. The reduced discount rate increased claims incurred by EUR 102 million (55). Net commissions and fees were EUR 928 million, or EUR 69 million higher than the year before. Mutual fund commissions increased by EUR 12 million and asset management performance-based fees by EUR 33 million. Payment transfer net commissions and fees increased by EUR 11 million as commission expenses decreased by EUR 29 million. Commission expenses declined by a total of EUR 24 million.

Net investment income increased by 26.9% to EUR 495 million. Income from equity investments under available-for-sale assets increased by a total of EUR 172 million year on year. Capital gains totalled EUR 263 million (201). Impairment losses on available-for-sale assets fell by EUR 13 million. Value changes in Credit Valuation Adjustment (CVA) in derivatives owing to market changes increased net income from securities trading by a total of EUR 33 million over the previous year. Supplementary Life Insurance interest rate provisions decreased net investment income by EUR 67 million over the previous year.

Other operating income decreased by 23.3% year on year to EUR 94 million. Non-recurring VAT refunds for prior years, interest included, totalled EUR 22 million. In the second quarter, 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. OP Financial Group recognised extra amortisation and other expenses of EUR 6 million related to the transaction. A year ago, OP Financial Group recognised EUR 76 million in non-recurring gain as a result of the Visa Europe Ltd transaction. Associated companies improved their earnings by EUR 26 million year on year as a result of the larger number of associated companies consolidated into OP Financial Group.

Total expenses increased by 13.1% to EUR 1,773 million (1,567). This increase is mainly explained by higher development costs of present-day business, higher expenses of new businesses and higher amortisation/depreciation and impairment losses. OP Financial Group's significant investments in service development increased development costs by 62.2%. Direct development costs totalled EUR 219 million (135). New businesses accounted for EUR 30 million of the increase in total expenses. Planned depreciation/amortisation increased by 24.5% to EUR 191 million. This increase resulted mainly from higher development

expenditure. Impairment losses increased by EUR 49 million year on year to EUR 55 million. Impairment losses recognised on property in own use totalled EUR 39 million (6). Personnel costs of EUR 758 million (762) were lower than a year ago.

Impairment losses on loans and receivables recognised under various income statement items that reduced earnings amounted to EUR 89 million (136), of which EUR 48 million (77) concerned loans and receivables. Net impairment loss on loans and receivables were very low, at 0.06% (0.09) of the loan and guarantee portfolio.

OP Financial Group's current tax amounted to EUR 223 million (223). The effective tax rate was 20.7% (19.6).

OP Financial Group's equity capital increased by 8.6% to EUR 11.1 billion (10.2). The reported earnings and Profit Shares were behind the increase. Equity capital included EUR 2.9 billion (2.7) in Profit Shares, terminated Profit Shares accounting for EUR 0.3 billion (0.3). The return target for Profit Shares for 2017 and 2018 is 3.25%. Interest payable on the Profit Shares accrued during the financial year is estimated to total EUR 90 million. The amount of interest paid for 2016 totalled EUR 83 million in June 2017. The fair value reserve decreased by EUR 142 million to EUR 176 million.

Key income statement items by quarter

€ million	2017				2017	2016	Change
	Q1	Q2	Q3	Q4	Q1–4	Q1–4	%
Net interest income	258	272	285	279	1,094	1,058	3.4
Net insurance income	117	145	80	137	478	558	-14.4
Net commissions and fees	237	220	217	254	928	859	8.0
Net investment income	122	113	170	90	495	390	26.9
Other income	36	45	14	25	121	123	-2.0
Total income	770	795	765	784	3,115	2,989	4.2
Personnel costs	202	191	171	193	758	762	-0.6
Other expenses	215	246	244	310	1,015	806	26.0
Total expenses	417	437	415	504	1,773	1,567	13.1
Impairment loss on receivables	8	15	5	20	48	77	-38.0
OP bonuses to owner-customers	51	55	55	56	217	206	5.4
Earnings before tax	295	288	290	204	1,077	1,138	-5.4

OP Financial Group's strategy and numerical targets

According to the strategy confirmed in June 2016, OP Financial Group aims to gradually change from a plain financial services provider to a diversified services company of the digital era with strong financial services expertise. The strategy highlights customer experience enhancement by digitising services and processes. In the years to come, OP Financial Group intends to make health and wellbeing services its fourth business line alongside Banking, Non-life Insurance and Wealth Management.

OP Financial Group has a large-scale development programme underway to speed up the digitisation of its services. The Group will put the strategy into practice through systematically managed initiatives. The Group's development expenditure on the existing and new business will be up to EUR 2 billion between 2016 and 2020. The investments required to upgrade and streamline business will add to the Group's expenses and weaken Group profitability before the benefits from such investments are realised in terms of better financial indicators.

In accordance with its strategy, OP Financial Group increased its development expenditure significantly during the financial year, being roughly 44% higher than a year ago. The majority of the expenditure was allocated to the development of the present-day business, but new businesses will account for a larger share in the future. Development expenditure for 2017 totalled over EUR 450 million.

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.

During the financial year, OP Financial Group continued to upgrade its ICT architecture and the basic systems of the business segments with the aim of improving its competitiveness and enabling new digital services. The key investments for the financial year covered upgrading the Group-level ICT platform, payment service and card systems as well as non-life insurance

systems. The Group also further developed electronic sales and services for Wealth Management.

The financial year saw the launch of redesigned online services (op.fi) for private and corporate customers. OP launched a number of new functionalities on OP-mobile and Pivo. OP also introduced the first fully digital financial services during the financial year when it introduced OP Nano Insurance service family, with its home insurance launched in May and travel insurance in September. OP introduced several new products onto the market, such as a new motor liability insurance, products protecting home loans against higher interest rates, multi-currency cash pool account and cyber-insurance.

Several large-scale projects originating from the relevant authorities and legislation were also underway during the financial year. The most significant ones were related to changes in data protection and anti-money laundering regulation, the new revised Payment Service Directive (PSD2) as well as to wealth management (MiFID II and T2S) and financial management (IFRS 9).

OP Financial Group has invested in operational efficiency on many fronts. In 2017, robotics enabled cost savings of EUR 9 million (1).

In the field of new businesses, OP Financial Group opened hospitals in Oulu and Kuopio and introduced several new mobility and e-commerce services. In addition, OP piloted its first new housing-related services. The development of new businesses starts from the fact that they must be inherently linked to the present-day business.

OP Financial Group's numerical targets	31 Dec. 2017	31 Dec. 2016	Target 2019
Customer experience, NPS (-100→+100)			
Brand	21.5	22.7	25
Service encounter	58	53	70, over time 90
CET1 ratio, %	20.1	20.1	22
Return on economic capital, % (12-month rolling)	21.3	22.7	22
Expenses of present-day business (12-month rolling), € million	1,661	1,532	Expenses for 2020 at 2015 level (1,500)
Owner-customers, million	1.8	1.7	2.1 (2019)

On 26 October 2017, the Supervisory Board further specified OP Financial Group's efficiency target. The previous target was that OP Financial Group's present-day business expenses for 2019 are at the same level as in 2015, at the most. The new target is that OP Financial Group's present-day business expenses for 2020 are at the 2015 level.

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

OP Financial Group'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. 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.

As a cooperative business, OP Financial Group's operations are guided by a dual role. In its business role, the Group provides its customers with competitive products and services while ensuring its profitability and enhancing its capital base. In its social role, the Group promotes the long-term success and prosperity of the community by representing a positive driver in the operating region. The social role involves impactful actions for the benefit of the community at both local and national level – digitally and physically. Succeeding in both roles is a measure of OP Financial Group's success.

January–December

During the financial year, OP Financial Group continued with its #Suominousuun initiatives decided earlier. These initiatives are aimed at giving more leeway and economic activity among OP's broad customer base and in the entire Finland.

Financing for business growth potential

OP Financial Group acts as an intermediary bank in two SME financing programmes guaranteed by the European Investment

Fund (EIF) which enable financing worth a total of EUR 300 million. The EIF gives a 50% risk-sharing guarantee to the loans. The programmes are targeted at projects and investments of growing and innovative companies. The agreement covering the first financing programme, designed for companies with a staff of less than 500, was signed in March 2016. The agreement signed in January 2017, in turn, focuses on companies with a staff of less than 250. Within the framework of these programmes, OP has already granted 300 corporate loans totalling EUR 180 million. By providing financing to companies with growth potential, OP Financial Group wants to be involved in supporting future economic growth and employment.

With the European Investment Bank (EIB), OP Financial Group signed an agreement in November on a new guarantee programme for large and mid-sized companies. Following the agreement, OP made a 300-million euro financing package available to mid-sized Finnish companies.

Support for families with children through the #Perheenlisä initiative

From May 2016 until the end of 2017, OP Financial Group offered families with a baby products and services making their daily life easier. The #Perheenlisä initiative included a health insurance and living allowance insurance for an unborn child and NewLife life insurance for parents of children under the age of one year for one year, with no charge. Moreover, the initiative also offered the opportunity for a maximum of 12-month home loan repayment holiday without service charges to families who have fulfilled their loan obligations as per agreement and whose baby was born before the end of 2017.

During the campaign, health insurance policies were granted to over 26,600 babies to be born, i.e. almost every third baby born in Finland received the health insurance as a gift. The value of the benefit during the campaign totalled around EUR 12 million. The number of NewLife policies issued during the campaign totalled over 13,300. Furthermore, borrowers used repayment holidays for some 29,500 loans.

Hiiop – OP Financial Group's gift to the 100-year-old Finland

During the centenary of Finland's independence, OP Financial Group wanted to donate 100 person-years of volunteering to Finland and lower the threshold for volunteering. Inviting everyone in Finland to do good together, OP created a volunteer work exchange site at Hiiop100.fi. All 12,000 OP employees could do voluntary work for one day during their working hours. During the jubilee year, OP Financial Group's personnel and administration did over 274 years of volunteering together with partners and other people.

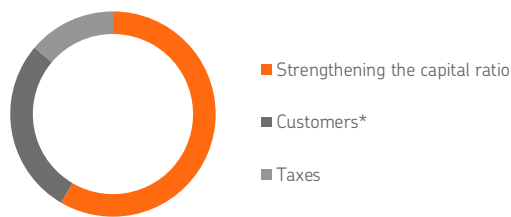
The biggest electronic voting in Finland

In November, OP Financial Group's 81 cooperative banks held the election of the Representative Assemblies electronically, where owner-customers elected from among them the Representative Assembly for their own bank for four years. The number of owner-customers entitled to vote totalled 1.5 million. Electronic votes accounted for 66% and postal votes for 34%. Almost 2,400 members out of over 5,600 candidates were elected to the Representative Assemblies.

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 on insurance policies and interest on contributions made by owner-customers

Implementing OP'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 are 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, the Group is contributing to prosperity in the whole of Finland.

Other January–December highlights

The ECB offered euro-area credit institutions four targeted longer-term refinancing operations with a maturity of four years (TLTRO-II) with the primary aim of fostering growth. Under TLTRO-II, the banks have been able to borrow up to 30% of their loan balance as at 31 January 2016 to be used for lending to non-financial corporations and households in the euro area, excluding loans to households for a home purchase. To contribute to strong growth, OP Financial Group participated in TLTRO-II operations in the financial year with EUR 1 billion. OP

Financial Group has participated in TLTRO-II with a total of EUR 4 billion.

On 2 February 2017, OP Financial Group received the ECB's decision to set risk weight floors for OP Financial Group's retail exposures for a fixed period of 18 months. The shortcomings observed by the ECB in the IRBA (Internal Ratings Based Approach) management and validation process applied by OP Financial Group in capital adequacy measurement, especially delayed validations, lie behind the decision. The most essential shortcomings have been fixed. Fixing the remaining shortcomings is proceeding as planned.

On 7 March 2017, the Finnish Financial Supervisory Authority issued a public warning to, and imposed a penalty payment of EUR 400,000 on, Helsinki Area Cooperative Bank due to shortcomings in investment advice related to the obligation to obtain information. The bank has taken corrective measures and customers have not suffered any financial harm. The warning was based on the inspection conducted by the Financial Supervisory Authority at several companies in autumn 2015.

On 5 April 2017, OP Financial Group and Nets signed an agreement whereby OP transferred its portfolio of agreements and POS terminals of acquiring and POS terminal services to Nets on 28 June 2017. Acquiring and POS terminal services enable merchants to accept card payments as a payment method for purchases. As a result of the transaction, OP transferred acquiring and payment terminal service agreements of some 15,000 merchants to Nets. OP and Nets have been in cooperation in the sold services since 2011. OP Financial Group recognised EUR 19 million in non-recurring earnings on the transaction in the financial year.

OP Financial Group has provided its replies to the request for clarification received from the Finnish Competition and Consumer Authority in 2015. 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.

Report on non-financial information

OP Financial Group aims to be a pioneer in corporate social responsibility. 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. As a cooperative business, OP's operations are guided by a dual role: OP ensures financial performance, capital adequacy and operational efficiency in its business role and in its social role it is tasked with promoting the prosperity and success of its customers and in its operating region.

OP Financial Group's business segments are Banking, Non-life Insurance, and Wealth Management. The health and wellbeing business is included in the Non-life Insurance segment. More detailed information on OP Financial Group's business model is included in the sections of each business section in this Report by the Executive Board.

In addition to laws and regulations, OP undertakes to comply with international commitments that guide operations. OP signed the UN Global Compact initiative in 2011, becoming committed to the Initiative's ten principles on human rights, labour,

environment and anti-corruption. The Global Compact principles have been integrated into OP's new supplier contracts.

OP Financial Group's CSR targets are guided and coordinated by the Corporate Social Responsibility Programme, which brings together Group-level CSR results concerning key areas. The programme was updated in 2017 under the umbrella theme "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 CSR programme themes derive from the materiality assessment.

OP was among Finland's first asset management companies to sign the UN Principles for Responsible Investment in 2009. Since then, the Group has developed responsible investment practices with even greater determination, and participated in wider development efforts in the sector. OP is also one of the founding members of Finland's Sustainable Investment Forum (FINSIF). In keeping up with international standards, we make 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.

As part of its Annual Review, OP will publish its Corporate Social Responsibility Report for 2017 in February 2018. OP complies with GRI Standards as the reporting framework.

Environmental aspects

OP seeks to build a sustainable economy while supporting the prevention of climate change and adjusting to it. OP will develop 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 updated in 2017 contains OP's key environmental and climate objectives.

In its CSR Programme updated in 2017, OP 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. OP is developing its premises to generate lower emissions, for example, by producing and utilising renewable energy.

OP reports on its emission levels in accordance with the Greenhouse Gas Protocol (GHG), and greenhouse gases are indicated as CO₂ equivalents. In 2017, direct (scope1) and indirect (scope2) emissions totalled 20,964 CO₂e tonnes. OP evaluates its impacts on climate change in the annual CDP survey.

OP also has indirect impacts through its operating environment, causing greenhouse gas emissions. OP provides investors with a carbon risk indicator to support them in selecting a mutual fund by publishing the carbon intensity figures and carbon footprint of

OP equity funds on a half-yearly basis. In 2017, OP added fund-specific ESG analyses to its offerings of OP equity funds that show, for example, the positive environmental impact of each fund.

OP has in place the WWF's Green Office system. Green Office is applied at the Vallila campus and three OP cooperative banks. Green Office is one way of increasing our employees' environmental consciousness. As practical tools, OP's operating premises are also equipped with energy monitoring system, waste reporting, and environmental certification for buildings (LEED). OP has carried out an energy audit, mandatory for large enterprises, in accordance with the Energy Efficiency Directive.

Social aspects, aspects related to personnel and human rights

OP pursues its mission not only through its business role but also through its social role. In its social role, OP bears responsibility not only for owner-customers but also society and local communities on a broader basis. Long-term knowledge of the local operating region enables financing for households and businesses during challenging times too. Financing of local businesses is one of the key prerequisites of regional prosperity in the long term. OP is indeed Finland's leading provider of home and corporate loans.

In 2017, OP's gift to the 100-year-old Finland was Hiiop – 100 years of volunteering. During the jubilee year, OP Financial Group's personnel and administration did over 274 person years of volunteering together with partners and other people. This broad-based volunteering covered organisations in the third sector for the benefit of versatile target groups. Charity donations in 2017 totalled EUR 2.3 million, universities accounting for around EUR 870,000.

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. The financial literacy project reaches especially youngsters suffering from difficulties in their personal financial management. In 2017, 130 OP employees were involved in the financial literacy project, coordinated by the Helsinki Deaconess Institute.

OP aims to be the most attractive employer in the financial sector and among the most highly regarded large employers in Finland. In HR matters, OP focuses on the renewal and development of its competencies, management and corporate culture. Highly skilled and motivated employees are a success factor, enabling OP to meet the challenges of the changing operating environment and digitalisation. Transformation in the Financial sector and the requirements for competence update together with regulatory requirements will increase the need for competence development; this also shows in greater training opportunities. In 2017, OP Financial Group used an average of 15 hours per person for training. Regulation and regulatory supervision require of us competencies in various fields and, additionally, OP Financial Group has internally defined contents that all its 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 considers diversity as an asset and providing equal opportunities, rights and treatment is important to all. In 2017, OP joined the FIBS Diversity Charter Finland and is committed to promoting diversity in its value chain. 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 21% at the end of 2017.

Employees are treated equally in areas such as remuneration, recruitment and career advancement. OP monitors on an annual basis the distribution of personnel in various task groups by factors such as gender, pay and age. OP takes safety and security into account in all of its operations related to personnel and working conditions. At the end of 2017, OP Financial Group had 12,269 employees, with men accounting for 30% and women for 70%.

Handling personal data carefully and cautiously is of primary importance to OP Financial Group. OP always handles 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.

OP 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 seeks to support the elimination of child labour and forced labour throughout its business operations and supply chain. Human rights aspects are included in OP Wealth Management's process of keeping up with and influencing international standards. Supply contracts specify corporate social responsibility requirements for suppliers. OP Fund Management Company Ltd's Unitholder Policy also takes a position to human rights issues through general meetings.

Anti-corruption and anti-bribery

The Code of Business Ethics, which was updated in December 2017, contains OP Financial Group's CSR principles which all those employed by OP Financial Group, whatever their role, position or location, must observe. The Code 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 2017, 89% of OP employees in Finland had passed the Code of Business Ethics online course. The guidelines for Handling Conflicts of Interest at OP Financial Group is intended to prevent cases of corruption.

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 within the entities 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 concerning conflicts of interests must be handled by each entity and its employees on a regular basis, and whenever a new person receives job induction. 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.

Risks and their management in respect of reporting non-financial information

The Risk and Compliance function also oversees risks and regulatory compliance 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.

Customer relationships and customer benefits

In January–December, the number of OP Financial Group's owner-customers increased by 86,000 to over 1.8 million.

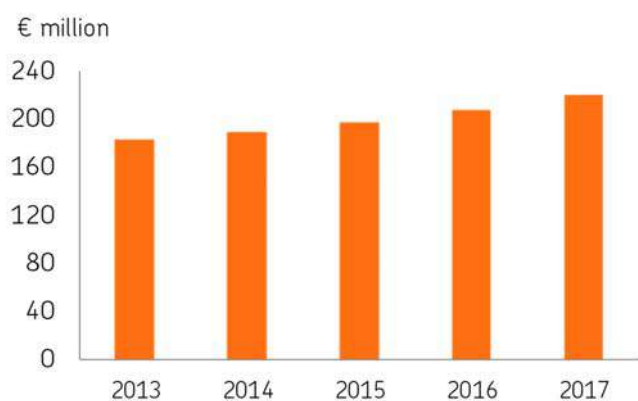
Contributions made by OP cooperative banks' owner-customers to the banks' Profit Shares and cooperative shares totalled EUR 3.1 billion (2.9) on 31 December 2017.

In January–December, the number of OP Financial Group's customers increased by 38,000 in net terms. The number of customers totalled 4,395,000 at the end of December.

The number of private customers totalled 3,950,000 and that of corporate customers 445,000. In January–December, the number of joint banking and non-life insurance customers increased by 40,000 to almost 1.8 million.

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 220 million (208). A total of EUR 103 million (101) of bonuses were used to pay for banking and wealth management services and EUR 114 million (107) to pay non-life insurance premiums. OP bonuses were used to pay 2,315,000 insurance bills (2,200,000), with 327,000 (297,000) of them paid in full using bonuses.

New accrued customer bonuses



Owner-customers were provided with EUR 70 million (67) in non-life insurance loyalty discounts during the financial year. In addition, owner-customer bought, sold and switched the majority of the mutual funds without separate charges. The value of the benefit was EUR 5 million (3) during the financial year.

Interest payable on the Profit Shares accrued during the financial year is estimated to total EUR 90 million (83). Interest payable on Profit Shares for 2017 is 3.25% (3.25).

Multichannel services

The Group has a multichannel service network comprising branch, online, telephone and mobile 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 December, OP-mobile was the main channel for customers' daily banking, with visits totalling almost 18 million (13) during one month. The number of visits to online services amounted to around 9 million (10). The number of visits to the Pivo mobile application totalled over 2.5 million (1.8) in December. The number of visits to OP Business mobile launched in 2016 totalled 360,000 (41,000) in December.

The financial year saw the launch of several new mobile payment methods: Pivo person-to-person payment, Pivo payment button and Siirto payments on Pivo and OP-mobile. The Pivo person-to-person payment and the Siirto payment enable customers to send money to other people by using their mobile phone number. By now over 333,000 OP customers have registered for Siirto payments. The Pivo payment button enables customers to pay their web purchases without a key code list or their card's PIN. It is already a payment method option at over 4,000 webshops.

In September, OP strengthened its mobile payment offering for companies by acquiring the Payment Highway service. The service enables OP's corporate customers to offer their customers, for example, new mobile payment methods like Pivo or Siirto and recurring payments made with a credit card. The service can be used, for example, to order food online or for cardless refuelling.

OP eServices op.fi has been redesigned, providing both private and corporate customers with banking services and private customers with insurance services. From the very beginning, OP has developed the new service together with its customers and is still collecting customer feedback that will guide further development.

Despite the expansion of online and mobile services, OP Financial Group still has Finland's most extensive branch network with 407 branches (442) 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 almost 370,000 followers (300,000). 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. March saw the launch of op.media, which is OP's new social customer media for owner-customers and corporate customers. The monthly number of visitors to the service totals around 350,000.

New businesses

Health and wellbeing

During the financial year, Pohjola Health Ltd expanded its hospital network by two new Pohjola Hospitals. The Pohjola Hospital located in Helsinki and the Tampere hospital opened in 2016 were complemented by the Oulu hospital in May 2017 and the Kuopio hospital in August 2017. All four Pohjola Hospitals provide basic healthcare and special healthcare services, examinations, surgery and rehabilitation on an extensive basis. The hospital network will be completed in May 2018 when the Turku Pohjola Hospital opens its doors.

In its meeting of 28 September 2017, the Supervisory Board discussed the next steps of the strategic expansion of the health and wellbeing business. In the coming years, the business is to be expanded through, for instance, the construction of a nationwide medical centre network. Branching out into care services for the elderly, too, is under investigation.

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

Mobility services

In November 2016, OP took its first step in the field of mobility services by launching the OP Kulku service in the Helsinki Metropolitan Area. The service is aimed at lowering the threshold to use electric cars by providing consumers and small firms with the opportunity to use an electric car with a monthly charge. OP Kulku expanded to Tampere and Turku and their neighbouring regions during the spring and summer. In July, OP announced OP Kulku service's car sharing solution in which electric cars acquired by cities are available to their employees or citizens, including during leisure time. Kotka piloted OP Kulku car sharing in November.

In April, OP announced that it would build with Fortum around hundred EV charging stations around Finland. The new stations will be built adjacent to OP cooperative bank branches and their construction is underway.

In May, OP launched DriveNow car sharing in Finland. DriveNow offers 150 cars for car sharing in Helsinki and neighbouring regions at a minute-based fee. The third quarter saw the launch of new features to the DriveNow service, such as hourly packages and dynamic Drive'n Save pricing. At the end of December, DriveNow already had over 16,000 customers in Finland.

At the end of August, OP launched OP Flexible car, which has a minimum rental period of one month, alongside DriveNow based on a per-minute charge and OP Kulku designed for long-term rental.

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 2017 concerning OP Financial Group's capital adequacy, risk appetite, concentration risk as well as credit, liquidity, market and underwriting 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".

Capital adequacy and capital base

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

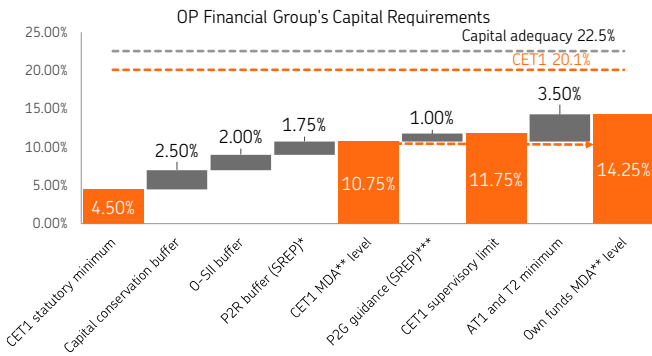
OP Financial Group's capital base, calculated according to the Act on the Supervision of Financial and Insurance Conglomerates (FiCo), exceeded the minimum amount specified in the Act by EUR 3.6 billion (4.3). The buffer was reduced by the Pillar II capital requirement (P2R) of 1.75% determined by the ECB, based on the supervisor's evaluation, combined with a higher capital requirement caused by growth in banking business as well as risk weight floors set by the ECB. The P2R buffer requirement increased the consolidated capital adequacy requirement from 12.5% to 14.3%, calculated as percentage of risk-weighted assets. The ratio of the Group capital base to the minimum capital requirement was 148% (170), with the P2R requirement reducing the ratio by 16 percentage points. 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 20.1% (20.1). The risk weight floors set by the ECB decreased the CET1 ratio by 2.0 percentage points. An increase in CET1 capital exceeded an increase in total risk exposure amount resulting from growth in the loan portfolio. The effect of the calculated adjustments of defined benefit pension plans (IAS 19) on the Group's CET1 ratio was about -1.0 percentage points, or slightly lower than at the end of 2016.



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%.

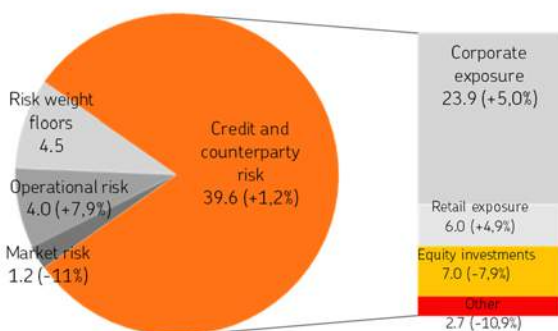


* P2R supervisory Pillar II requirement ** Maximum distributable amount
 *** P2G supervisory guidance, breach results enhanced supervisory measures

The Group's CET1 capital was EUR 9.9 billion (8.9). CET1 capital was increased by Banking performance, Profit Share issues and dividends from the Group's insurance institutions. IAS 19 adjustments deducted from CET1 capital decreased slightly from their level at the end of December 2016. The amount of Profit Shares in CET1 capital was EUR 2.8 billion (2.6). Profit Shares refunded to customers in January 2018, totalling EUR 0.1 billion, are not included in CET1 capital.

On 31 December 2017, the risk exposure amount (REA) totalled EUR 49.2 billion (44.1), or 11.6% higher than on 31 December 2016. The 2016-end figure excludes the minimum risk weight set by the ECB that accounts for 88% of the increase. The minimum risk weight for retail exposures set by the ECB was EUR 4.5 billion, without which total risk was EUR 44.7 billion and the increase 1.4% from the turn of the year. The average credit risk weights of corporate exposures decreased slightly thanks to the improved quality of the loan portfolio and optimisation of calculation methods. The average risk weights of retail exposure rose slightly.

Risk Exposure Amount 31 December 2017
 Total 49.2 € billion
 (change from year end 12%)



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 6.5 billion in risk-weighted assets of the Group's internal insurance holdings with a risk weight of around 280%.

The Financial Supervisory Authority makes a macroprudential policy decision on a quarterly basis. In December 2017, 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. According to the Authority, this risk weight floor is aimed at preparing for a higher systemic risk caused by household indebtedness. The minimum risk weight will have no effect on OP Financial Group's total risk exposure in view of the risk weight floors for retail exposures set by the ECB. Without the ECB's risk weight floor, the minimum risk weight of 15% for home loans set by the Financial Supervisory Authority would reduce the CET1 ratio by an estimated 1.2 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 7.9% (7.4) based on the existing interpretations, calculated using the December-end figures. According to the draft rules, the minimum ratio is 3%.

The Ministry of Finance is drafting the inclusion of the systemic risk buffer in the Act on Credit Institutions. Accordingly, the Financial Supervisory Authority could set the systemic risk buffer ranging from 0 to 5%. The buffer would affect OP Financial Group only if it exceeded OP Financial Group's O-SII buffer which currently is 2%.

Non-life and Life Insurance

The Non-life and Life insurance capital base decreased as a result of dividend payments. The solvency position of insurance companies remained good.

	Non-life Insurance*		Life Insurance	
	31 Dec. 2017	31 Dec. 2016	31 Dec. 2017	31 Dec. 2016
Capital base, € million **	902	983	1,317	1,455
Solvency capital requirement (SCR), € million**	666	687	674	742
Solvency ratio, % **	135	143	195	196
Solvency ratio, % (excluding transitional provision)	135	127	151	149

* OVY Ltd (formerly OVY Insurance Ltd) is excluded from the Non-life Insurance comparative
 ** including transitional provisions

ECB supervision

OP Financial Group is supervised by the European Central Bank (ECB). The ECB has set a capital requirement for OP Financial Group based on the supervisory review and evaluation process (SREP). The new capital buffer requirement (P2R) set by the ECB and effective as of 1 January 2017 was 1.75%. In addition, the ECB has set on OP Financial Group a capital adequacy guidance (P2G) which was 1.0%. Failure to meet this guidance would not affect e.g. profit distribution. The ECB issued a decision that took effect on 1 January 2018, which sets the same capital requirements for 2018 too.

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. Based on the decision, the

risk weight floors will be effective at least until the third quarter of 2018.

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 is determining the minimum level of liabilities (MREL), under the Resolution Act, at the OP Financial Group level.

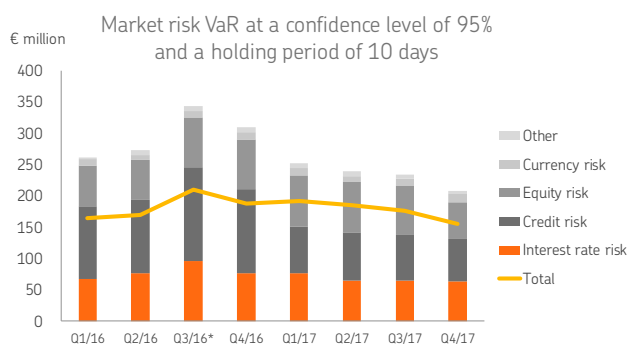
Risk exposure

OP Financial Group’s risk exposure has remained stable. The Group has a strong risk capacity that secures business continuity.

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

OP Financial Group’s funding and liquidity position is good. The availability of funding has remained good. During the financial year, OP Financial Group issued long-term bonds worth EUR 4.0 billion. In addition, OP Financial Group participated in the second series of the ECB’s targeted longer-term refinancing operations (TLTRO-II) with one billion euros. The loan-to-deposit ratio remained stable throughout 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 156 million (188) on 31 December 2017. It includes the balance sheet total of the insurance institutions, trading, liquidity buffer and the Group Treasury’s interest rate risk exposure.



* The separated balance sheet (pension insurance portfolio) transferred from Suomi Mutual Life Assurance Company has been included in figures since Q3/16.

The Group expects its operational risks to be moderate as targeted. The development speed of operations and services will, however, pose additional challenges to risk management in the upcoming 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 48 million. Net liabilities were decreased by healthy investment return and lower assumption for the increase in future employee pensions. Increases performed in the amount of paid-up policies, based on the Finnish Insurance Board’s recommendation, and a decision by the Labour Court related to the provisions of the collective agreement in the financial sector increased net liabilities of supplementary pensions by a total of EUR 45 million. A year ago, an increase in net liabilities related to defined benefit pension plans decreased other comprehensive income before tax by EUR 329 million.

In 2017, one of the key tasks of the Compliance function was to ensure compliance with regulatory requirements in OP Financial Group that became effective in 2018.

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 totalled EUR 2.9 billion (2.6), performing forbore loans accounting for EUR 1.9 billion (1.7). Higher doubtful receivables were caused by the greater use of forbearance measures and also partly by weaker borrower grades arising from the updated credit rating scale. Doubtful receivables refer to receivables that are more than 90 days past due, other receivables classified as risky and forbore 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. Member 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. Impairment losses remained low, accounting for 0.06% (0.09) of the loan and guarantee portfolio.

During the financial year, the loan and guarantee portfolio increased by EUR 3.5 billion to EUR 84.8 billion (81.3). Private customers accounted for 58.9% (60.2) of the loan and guarantee portfolio. Of the six main categories for private customer exposure, 83.5% (84.2) of the exposures belonged to the top two categories, and 3.6% (3.5) to the lowest two. Corporate exposures (incl. housing corporations) represented 38.5% (37.5) of the loan and guarantee portfolio. Of corporate exposure, the highest borrower grade 1–5.5 exposure represented 55.4% (55.2) and the exposure of the two lowest borrower grades amounted to EUR 554 million (526), accounting for 1.2% (1.2) of the total corporate exposure.

No single customer’s exposure exceeded 10% of the capital base after allowances and other recognition of credit risk mitigation. The Banking capital base covering customer exposure amounted to EUR 11.0 billion (10.4).

In the Companies and Housing Corporations exposures, the most significant industries measured by exposure were Renting and Operating of Residential Real Estate representing 18.1% (17.7), Energy representing 9.8% (9.1) and Operating of other real estate representing 9.3% (10.2). A total of 93.5% of exposures within Renting and Operating of Residential Real Estate were

those by housing corporations and 13.1% were those guaranteed by general government.

In monitoring Banking exposures, OP Financial Group started to use exposure classes instead of the customer sectors presented previously. Comparatives have been restated to correspond to the new monitoring method.

Banking's interest rate risk measured as the effect of a one-percentage point decrease on 12-month net interest income was EUR -81 million at the end of December. The measurement method changed in 2017 in such a way that it includes changes in the zero floors for home loans written into the Consumer Protection Act.

Deposits within the scope of deposit guarantee (deposit insurance) and managed by OP Financial Group totalled EUR 34.3 billion (32.6) at the end of the financial year. 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. A 0.1-percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 27 million.

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 52 million (57) on 31 December 2017. No major changes took place in the investment portfolio's asset class allocation. The Group has used both interest rate derivatives and bonds to hedge against interest rate risk associated with insurance liability. The portfolio's interest rate and credit risk remained stable. The hedge ratio of interest rate risk associated with insurance liabilities was kept stable.

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.

A one-year increase in life expectancy would increase insurance liability by EUR 27 million. A 0.1-percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 32 million. Investment and customer behaviour risks associated with the separated life insurance portfolios transferred from Suomi Mutual 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.

In Life Insurance underwriting risks, the Group has hedged against customer behaviour risk through a reinsurance contract, as a result of which the customer behaviour risk is lower than in 2016.

The risk exposure of investments was stable during the financial year. The VaR, a measure of market risk, was EUR 61 million (68) on 31 December 2017. No major changes took place in the investment portfolio's asset class allocation. The Group has used both interest rate derivatives and bonds to hedge against interest rate risk associated with insurance liability. The portfolio's interest rate and credit risk remained stable. The hedge ratio of insurance liability interest rate risk was slightly higher than at the beginning of the year.

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. The volume of investments declined slightly and the asset class allocation saw no major changes.

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 and other sources of additional funding based on the contingency funding plan are sufficient to cover funding for at least 24 months in the event wholesale funding becomes unavailable and total deposits decrease at a moderate rate.

A decrease in the amount of notes and bonds eligible as collateral was due, for example, by their use as collateral in TLTRO-II.

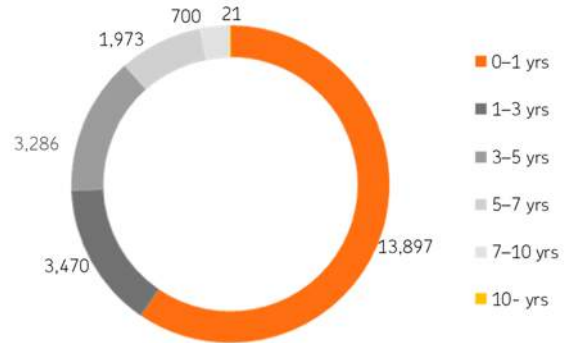
OP Financial Group monitors its liquidity and the adequacy of its liquidity buffer using, for example, the LCR (Liquidity Coverage Ratio). According to the transitional provisions, the LCR must be at least 80% in 2017 and at least 100% from the beginning of 2018. OP Financial Group's LCR was 123% on 31 December 2017.

Liquidity buffer

€ billion	31 Dec. 2017	31 Dec. 2016	Change, %
Deposits with central banks	12.8	9.3	37.2
Notes and bonds eligible as collateral	9.1	11.2	-18.7
Corporate loans eligible as collateral		0.1	
Total	21.9	20.6	6.2
Receivables ineligible as collateral	1.5	1.4	5.8
Liquidity buffer at market value	23.3	22.0	6.2
Collateral haircut	-0.7	-0.7	2.5
Liquidity buffer at collateral value	22.7	21.3	6.3

The liquidity buffer comprises notes and bonds issued by governments, municipalities, financial institutions and companies all showing good credit ratings, securitised assets and loans eligible as collateral. The notes and bonds included in the liquidity buffer are based on mark-to-market valuations.

Financial assets included in the liquidity buffer by maturity on 31 December 2017, € million



Credit ratings

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 Credit Market Services 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.

In July 2017, Standard & Poor's affirmed OP Corporate Bank plc's long-term debt rating at AA- and short-term debt rating at A-1+ while keeping the outlook stable.

Financial assets included in the liquidity buffer by credit rating on 31 December 2017, € million



Financial performance by segment

OP Financial Group's business segments are Banking, Non-life Insurance, and Wealth Management. 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 666 million (574).
- Total income increased by 6.8%. Net interest income, net commissions and fees and net investment income increased year on year. Expenses increased by 5.3% due to development expenditure and higher volumes.
- The loan portfolio increased by 4.6% and the deposit portfolio by 5.8% in the year to December. Year on year, the volume of corporate loans drawn down increased by 1.6% and that of home loans decreased by 2.4%.
- Impairment losses of EUR 47 million (76) accounted for 0.06% (0.09) of the loan and guarantee portfolio.
- The most significant Banking development investments involved the upgrades of finance and payment systems. The solutions of protecting home loans against higher interest rates and mobile payment instruments have received a positive reception among customers.

Banking: key figures and ratios

€ million	Q1-4/2017	Q1-4/2016	Change, %
Net interest income	1,184	1,134	4.4
Net commissions and fees	631	605	4.3
Net investment income	18	-15	
Other income	37	27	37.0
Total income	1,870	1,751	6.8
Personnel costs	354	378	-6.2
Depreciation/amortisation and impairment loss	51	44	15.0
Other operating expenses	565	499	13.1
Total expenses	970	921	5.3
Impairment loss on receivables	47	76	-38.3
OP bonuses to owner-customers	187	180	4.1
Earnings before tax	666	574	16.0
Cost/income ratio, %	51.9	52.6	-0.7
€ million			
Home loans drawn down	6,954	7,125	-2.4
Corporate loans drawn down	7,389	7,275	1.6
No. of brokered residential property and property transactions	13,080	12,664	3.3
€ billion			
Loan portfolio	31 Dec. 2017	31 Dec. 2016	Change, %
Home loans	37.5	36.8	1.8
Corporate loans	19.7	19.0	4.0
Housing corporation and other loans	25.0	22.8	9.7
Total	82.2	78.6	4.6
Guarantee portfolio	2.6	2.8	-6.5
Deposits			
Current and payment transfer	40.1	37.1	8.1
Investment deposits	17.9	17.7	1.0
Total	58.0	54.8	5.8

The loan portfolio increased in the year to December by 4.6% to EUR 82.2 billion.

The deposit portfolio increased in the year to December by 5.8% to EUR 58.0 billion. Investment deposits increased by EUR 179 million, or 1.0%, in the year to December. The volume of deposits in current and payment transaction accounts increased by 8.1% in the year to December.

The volume of homes and real property sold and bought through the OP Kiinteistökeskus real estate agents increased by 3.3% over the previous year. OP Financial Group is developing new digital services for housing, too. In the summer of 2017, OP Financial Group took the first step towards this housing ecosystem by launching the OP Home website.

Customers' interest in protecting home loans and housing corporation loans against rising interest rates has increased and, year on year, income from interest rate protection products quintupled to EUR 34 million (7).

As a result of a student loan reform that took effect on 1 August 2017, students can draw down government-guaranteed student loan by up to over 60% more per month than before. A record amount of OP Financial Group's student loans were drawn down between August and September, totalling EUR 98 million. In 2017, student loans drawn down totalled EUR 253 million (184).

During the financial year, OP Financial Group signed an agreement with the European Investment Bank (EIB) on a risk-sharing guarantee facility for large and mid-sized companies. Following the agreement, OP Financial Group made a 300-million euro financing package available to mid-sized Finnish companies. This risk-sharing guarantee will be allocated to OP Financial Group's eligible mid-cap financing projects. In addition, two other guarantee programmes are underway with the European Investment Fund (EIF): SME InnovFin and SME Initiative. The programmes have provided support for customers' fixed investments for the value of EUR 180 million.

September saw the launch of OP Crowdfunding: a fully digital service connecting businesses in need of capital with investors. In the service, OP intermediates financing. For businesses, the service is a new tool for financing growth while, for investors, it provides a means to support operations in line with their values and local businesses. OP Financial Group arranged two crowdfunding rounds during the financial year. At its best, crowdfunding will create new growth and jobs in Finland, which is why this type of financing fits perfectly into OP's social role.

In the spring, OP Financial Group introduced the Siirto service in its OP-mobile and Pivo apps, which has increased phone number

based payments among customers. The Group introduced Pivo as a payment method into webshops and the gradual implementation of the Mobile key began on OP-mobile.

OP Financial Group received recognition for products and services during the financial year. OP Financial Group was selected number one in Finland by Global Finance in its awards for the World's Best Banks.

The number of banking customers totalled 3.7 million at the end of December. Between January and December, OP Financial Group received 143,000 new banking customers, or 9.3% less than a year ago when the second quarter and third quarter of 2016 proved exceptionally good in terms of growth in the number of customers.

Earnings

Earnings before tax were EUR 666 million (574), or 16.0% higher than a year ago. Total income rose by 6.8% and total expenses by 5.3%. As a result of the rise in income, the cost/income ratio improved to 51.9% (52.6). Impairment losses were low, EUR 47 million (76), accounting for 0.06% (0.09) 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 4.4% to EUR 1,184 million (1,134).

Net commissions and fees increased by EUR 26 million to EUR 631 million (605) as a result of higher fees earned for interest rate protection products and realty commissions.

Net investment income increased by a total of EUR 33 million. Net investment income was increased by positive CVA valuation resulting from interest rate changes and other market movements. The CVA valuation was EUR 21 million as against EUR-12 million a year ago.

Other operating income was increased by a 4-million euro gain on the sale of the acquiring and POS terminal services and a 9-million euro reimbursement for funding costs from the Other Operations segment.

Total expenses increased by 5.3% to EUR 970 million (921). Personnel costs fell by EUR 23 million to EUR 354 million (378). Other operating expenses rose by 13.1%. ICT costs increased by EUR 51 million. Higher ICT costs were explained by investments in development and growth in volumes.

Non-life Insurance

- Earnings before tax amounted to EUR 210 million (244). Net investment income totalled EUR 179 million (97). Earnings before tax at fair value were EUR 119 million (311).
- Insurance premium revenue increased by 0.9% (1.6). Net return on investments at fair value totalled EUR 135 million (85).
- The discount rate for pension liabilities was reduced to 1.5% in September 2017. The reduced discount rate increased claims incurred by EUR 102 million (55).
- The operating combined ratio was 96.1% (87.6) and operating expense ratio 20.3% (18.5). The combined ratio was 97.6% (89.1). The reduced discount rate and unfavourable claims development weakened the combined ratios.
- OP Financial Group will sell all share capital of its Baltic-based subsidiary Seesam Insurance As (Seesam), including its Latvian and Lithuanian branches, to Vienna Insurance Group (VIG). The parties signed the related contract of sale on 18 December 2017.
- The basic system upgrade of Non-life Insurance has begun. Launches in the financial year included new motor liability insurance and, within the fully digital OP Nano service family, home insurance and travel insurance.

Non-life Insurance: key figures and ratios

€ million	Q1-4/2017	Q1-4/2016	Change, %
Insurance premium revenue	1,432	1,420	0.9
Claims incurred	970	883	9.8
Other expenses	3	3	4.3
Net insurance income	459	534	-14.0
Net investment income	179	97	84.7
Other net income	-25	-33	-24.9
Total income	614	598	2.7
Personnel costs	116	115	0.8
Depreciation/amortisation and impairment loss	50	41	22.6
Other operating expenses	236	196	20.0
Total expenses	402	352	14.1
OP bonuses to owner-customers	2	2	5.0
Earnings before tax	210	244	-13.9
Combined ratio, %	97.6	89.1	
Operating combined ratio, %	96.1	87.6	
Operating loss ratio, %	75.8	69.1	
Operating expense ratio, %	20.3	18.5	
Operating risk ratio, %	69.3	63.3	
Operating cost ratio, %	26.9	24.3	
Solvency ratio, % *	135	143	
Large claims incurred retained for own account	78	61	
Changes in claims for provisions of previous years (run-off result)	35	60	

* including transitional provisions.

Insurance premium revenue from Private Customers and Baltics increased. Insurance premium revenue from Corporate Customers was lower than a year ago. Increased price competition particularly with respect to motor liability insurance and corporate insurance eroded income generation in both Private and Corporate Customers. Claims development was markedly weaker than the year before.

Developing online and mobile services in both insurance and claims ranks among key Non-life Insurance priorities.

The new vahinkoapu.op.fi site (Claim Help) and the new loss report service on OP-mobile have been in frequent use. Up to almost 70% (70) of loss reports of private customers are filed through electronic channels. During the financial year, the Group introduced a new and fully digital OP Nano service family, with its home insurance launched in May 2017 and travel insurance in September 2017.

During 2017, the Group opened Pohjola Hospitals in Oulu and Kuopio that are included in the Non-life Insurance segment. The construction of a hospital in Turku is progressing as planned.

OP Financial Group will sell all share capital of its Baltic-based subsidiary Seesam Insurance As (Seesam), including its Latvian and Lithuanian branches, to Vienna Insurance Group (VIG). The parties signed the related contract of sale on 18 December 2017. The divestment should be completed during 2018, provided that it is approved by relevant authorities and that the related conditions are otherwise fulfilled.

Earnings

Earnings before tax amounted to EUR 210 million (244). Net insurance income fell by 14.0% to EUR 459 million, chiefly due to the reduction of the discount rate. Net investment income recognised in the income statement increased by EUR 82 million. Capital gains on investments totalled EUR 132 million (55). Earnings before tax at fair value were EUR 119 million (311).

The operating combined ratio was 96.1% (87.6). The operating ratios include the effects of changes in the discount rate but exclude amortisation on intangible assets arising from the corporate acquisitions.

Insurance premium revenue

€ million	Q1-4/2017	Q1-4/2016	Change, %
Private customers	786	771	1.9
Corporate customers	584	591	-1.3
Baltics	62	58	8.2
Total	1,432	1,420	0.9

Claims incurred, excluding the reduction in the discount rate, increased by 4.8%. 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 85 (78) in January–December, with their claims incurred retained for own account totalling EUR 78 million (61). Provisions for unpaid claims under statutory pension changed year on year by EUR –8 million (10) in January–December. The discount rate was reduced to 1.5% at the end of September 2017. On 31 December 2016, the average discount rate was 1.97%. The reduced discount rate increased claims incurred by EUR 102 million (55), weakening the operating combined ratio by 7.1 percentage points (3.9).

Changes in claims for previous years, excluding the effect of the change on the discount rate, improved the balance on technical account by EUR 35 million (60). The operating loss ratio was 75.8% (69.1). The operating risk ratio excluding indirect loss adjustment expenses was 69.3% (63.3).

Expenses grew by 14.1%, being EUR 50 million higher than a year ago, due to higher ICT costs and the expansion of the health and wellbeing business. The operating expense ratio was 20.3% (18.5). The operating cost ratio (including indirect loss adjustment expenses) was 26.9% (24.3).

Operating balance on technical account and combined ratio (CR)

	Q1-4/2017		Q1-4/2016	
	Balance, € million	CR, %	Balance, € million	CR, %
Private customers	93	88.1	130	83.1
Corporate customers	-41	107.0	41	93.1
Baltics	3	95.3	5	91.1
Total	55	96.1	176	87.6

Reduction of the discount rate weakened the balance on technical account both for Private Customers and particularly for Corporate Customers. Excluding the discount rate change deviating from the plan, the balance for Corporate Customers was EUR –4 million. The unfavourable claims development eroded the balance for major customers.

Investment

Net return on Non-life Insurance investments at fair value totalled EUR 135 million (85). 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. 2017	31 Dec. 2016
Bonds and bond funds	68.0	74.4
Alternative investments	4.7	3.2
Equities	8.5	8.1
Private equity	1.9	2.9
Real property	8.3	9.8
Money markets	8.5	1.9
Total	100	100

In the investment portfolio by asset class, illiquid low-risk mortgage-backed funds were transferred from bond and bond funds under alternative investments during the financial year. The comparatives in the table have been restated.

Non-life Insurance's investment portfolio totalled EUR 3,903 million (3,876) on 31 December 2017. Investments within the investment-grade category accounted for 95% (91), and 66% (62) of the investments were rated at least A–. The portfolio's modified duration was 5.1 (5.4) on 31 December 2017.

The running yield for direct bond investments averaged 1.8% (1.7) on 31 December 2017.

Wealth Management

- Earnings before tax amounted to EUR 247 million (226). Earnings before tax at fair value were EUR 163 million (262).
- Net commissions and fees increased by 16.6% year on year. In particular, asset management performance-based fees, net assets inflow and the gross amount of assets under management increased year on year.
- Net investment income from Life Insurance decreased by EUR 41 million, or by 36.9%. Supplementary interest rate provisions decreased net investment income by EUR 67 million over the previous year. Net return on investments at fair value totalled EUR 96 million (78).
- The gross amount of assets under management increased in the year to December by 4.6% to EUR 78.0 billion.
- The financial year involved preparing for regulatory changes and the Group adopted operating models based on MiFID II at the turn of the year. In addition, the Group continued to further develop electronic sales and services during the financial year.

Wealth Management: key figures and ratios

€ million	Q1-4/2017	Q1-4/2016	Change, %
Net commissions and fees			
Funds and asset management	276	225	22.7
Life Insurance	174	169	2.7
Expenses	64	64	0.7
Total net commissions and fees	385	330	16.6
Life Insurance's net risk results	27	24	10.0
Net investment income from Life Insurance	70	111	-36.9
Other income	25	17	45.1
Total income	507	483	5.0
Personnel costs	75	89	-15.4
Depreciation/amortisation and impairment loss	28	25	10.3
Other operating expenses	130	119	9.0
Total expenses	233	233	-0.1
OP bonuses to owner-customers	28	25	14.8
Earnings before tax	247	226	9.2
€ billion	31 Dec. 2017	31 Dec. 2016	Change, %
Assets under management (gross)			
Mutual funds	24.6	23.5	4.7
Institutional clients	24.2	24.6	-1.7
Private Banking	19.1	17.3	10.5
Unit-linked insurance savings	10.2	9.2	10.3
Total assets under management (gross)	78.0	74.5	4.6
€ million	Q1-4/2017	Q1-4/2016	Change, %
Net inflows			
Investor and saver customers	711	327	
Private Banking clients	563	437	28.8
Institutional clients	623	434	43.5
Total net inflows	1,897	1,198	58.3

The improved world economic outlook reflected favourably in the capital market. As a result, demand for Wealth Management products continued to grow and the value of assets under management increased. Total net inflows were EUR 1,897 million (1,198) and the gross amount of assets under management increased in the year to December by 4.6% to EUR 78.0 billion (74.5). Assets under management included about EUR 13 billion in assets of the companies belonging to OP Financial Group.

OP Financial Group has stopped permanently charging its owner-customers transaction costs related to its mutual funds. These benefits have aroused interest among customers, considering that the number of OP Mutual Fund unitholders increased by almost 62,000 in gross terms during the financial year. The aggregate number of investor and saver customers grew by around 17,000 in the financial year, totalling 783,000 on 31 December 2017.

The Morningstar rating for OP Mutual Funds was 2.9 (3.1).

During the financial year, the Group continued to further develop electronic sales and transactions for Wealth Management. Electronic agreements already account for 51% (38) of new Wealth Management agreements. A total of 80% (74) of mutual fund orders were made electronically. Moreover, the Group promoted development projects during the financial year related to regulatory changes, such as MiFID II and T2S. Such investments create the capacity to develop business on an ongoing basis in a new regulatory environment.

Earnings

Earnings before tax increased to EUR 247 million (226). This earnings increase was especially supported by favourable development in asset management commission income. Earnings recorded by associated companies too were higher than a year ago. Capital gains increased by EUR 11 million to EUR 113 million year on year. Earnings before tax at fair value were EUR 163 million (262).

Net commissions and fees increased by 16.6% year on year, amounting to EUR 385 million (330). Net commissions and fees accounted for 0.50% of the gross amount of the assets under management.

Net return on Life Insurance investments at fair value totalled EUR 96 million (78). 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 were almost at the previous year's level as ICT costs included in other operating expenses increased by EUR 11 million (development costs accounted for EUR 5 million of the increase) and depreciation/amortisation by EUR 3 million and as personnel costs decreased by EUR 14 million. Expenses accounted for 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. In the financial year, short-term supplementary interest rate provisions increased by EUR 51 million (-16) in net terms. A year ago, net change in short-term supplementary interest rate provisions reduced insurance liability. Accrued supplementary interest rate provisions related to insurance liabilities (excluding the separated balance sheets) totalled EUR 405 million (432) on 31 December 2017. Short-term supplementary interest rate provisions accounted for EUR 87 million (36) 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 3,830 million (4,100). Investments within the investment-grade category accounted for 95% (93) of the fixed-income portfolio. The portfolio's modified duration was 4.4 (4.9) on 31 December 2017. The running yield for direct bond investments (excluding the separated balance sheets) averaged 1.7% (1.6) on 31 December 2017.

Investment portfolio by asset class

%	31 Dec. 2017	31 Dec. 2016
Bonds and bond funds	69.5	76.2
Alternative investments	9.3	7.1
Equities and equity funds	6.1	6.3
Real property	6.9	7.2
Money markets	8.2	3.2
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 2017, investment assets in the life insurance portfolio in the separated balance sheet, excluding interest rate derivatives hedging insurance liability, amounted to EUR 891 million (1,066). Net return on investments at fair value was EUR 19 million (17). 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. 2017	31 Dec. 2016
Bonds and bond funds	78.5	81.1
Alternative investments	9.4	7.7
Equities and equity funds	1.0	2.9
Real property	6.6	6.7
Money markets	4.4	1.6
Total	100	100

On 31 December 2017, investment assets in the individual pension insurance portfolio in the separated balance sheet, excluding interest rate derivatives hedging insurance liability, amounted to EUR 2,573 million (3,049). Net return on investments at fair value was EUR 86 million. 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. 2017	31 Dec. 2016
Bonds and bond funds	75.8	71.4
Alternative investments	12.3	1.4
Equities and equity funds	0.7	2.4
Real property	7.4	6.1
Money markets	3.8	18.7
Total	100	100

Other Operations

Other Operations segment: key figure and ratios

€ million	Q1–4/2017	Q1–4/2016	Change, %
Net interest income	-75	-61	23.6
Net commissions and fees	-63	-59	6.4
Net investment income	230	199	15.7
Other operating income	632	572	10.4
Share of associates' profit/loss	7	-6	
Total income	732	646	13.3
Personnel costs	213	180	18.0
Depreciation/amortisation and impairment loss	118	50	
Other operating expenses	446	321	38.9
Total expenses	777	552	40.9
Impairment loss on receivables	0	0	
Earnings before tax	-45	95	

Earnings

Earnings before tax amounted to EUR –45 million (95). The earnings were weakened by higher expenses due to increased development expenditure and higher impairment losses on property in own use. Total income increased by 13.3% to EUR 732 million.

Net interest income was EUR –75 million (–61). Net investment income increased by 15.7% to EUR 230 million. Derivatives operations decreased net interest income and increased net income from securities trading included in net investment income. According to OP Financial Group's accounting policy, income from derivative instruments is split between net interest income and net income from securities trading. 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, an increase of EUR 5 million in net income from available-for-sale assets added to net investment income. Net commissions and fees decreased by EUR 4 million to EUR –63 million as commission income decreased.

Other operating income rose by EUR 60 million to EUR 632 million due to higher intra-Group charges. A total of EUR 22 million in non-recurring VAT refunds for prior years, interest included were recognised under the Other Operations segment. In the second quarter, 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 20 million on the transaction was recorded in the Other Operations segment. OP Financial Group recognised extra amortisation of EUR 3 million and other expenses of EUR 3 million related to the transaction. A year ago, Other Operations recognised EUR 76 million in non-recurring gain under other operating income as a result of the acquisition of Visa Europe Ltd by Visa Inc.

Investments in the development of services and impairment losses increased significantly the Other Operations segments' expenses. Furthermore, the centralisation of OP Cooperative banks' supporting services has affected the increase in expenses. Total expenses increased by EUR 225 million to EUR 777 million.

Personnel costs increased by 18.0% to EUR 213 million. Other operating expenses increased by 38.9% to EUR 446 million. Depreciation/amortisation and impairment loss on PPE and intangible assets increased by EUR 68 million to EUR 118 million. Impairment losses recognised on property in own use were EUR 37 million higher than a year ago.

In December 2017, the average margin of OP Financial Group's senior wholesale funding, TLTRO-II funding and covered bonds was 19 basis points (31). Use of the TLTRO-II funding, together with funding arriving at maturity at higher cost, lower the cost of wholesale funding. Covered bonds are reported as part of the Banking segment.

Changes in OP Financial Group's structure

OP Financial Group's consolidated financial statements at the end of the financial year include the accounts of 167 member cooperative banks (173) and OP Cooperative Consolidated.

OVY Insurance Ltd closed down its insurance business and voluntarily given up its insurance company licence. At this point the company's business name was changed to OVV Ltd. The company became fully owned by OP Cooperative on 21 December 2017.

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

Pielisen Osuuspankki merged into Pohjois-Karjalan Osuuspankki. The merger was registered on 31 March 2017.

Karjalan Osuuspankki merged into Mynämäen-Nousiaisten Osuuspankki. The merger was registered on 30 April 2017.

Vetelin Osuuspankki merged into Kaustisen Osuuspankki. Consequently, the business name changed to Perhonjokilaakson Osuuspankki. The merger was registered on 31 May 2017.

Vetelin Ylipään Osuuspankki merged into Halsuan Osuuspankki. Consequently, the business name changed to Halsua-Ylipään Osuuspankki. The merger was registered on 30 June 2017.

Oriveden Osuuspankki merged into Mäntän Seudun Osuuspankki. Consequently, the business name changed to Pohjois-Hämeen Osuuspankki. The merger was registered on 30 June 2017.

Kuhmoisten Osuuspankki merged into Järvi-Hämeen Osuuspankki. The merger was registered on 31 July 2017.

Pohjois-Savon Osuuspankki, Leppävirran Osuuspankki and Suonenjoen Osuuspankki accepted a merger plan on 10 August 2017, according to which Leppävirran Osuuspankki and Suonenjoen Osuuspankki will merge into Pohjois-Savon Osuuspankki. The planned date for registration of the merger is 28 February 2018.

Paattisten Osuuspankki, Auran Osuuspankki, Marttilan Osuuspankki, Pöytyän Osuuspankki and Tarvasjoen Osuuspankki accepted a merger plan on 10 August 2017, according to which Auran Osuuspankki, Marttilan Osuuspankki, Pöytyän Osuuspankki and Tarvasjoen Osuuspankki will merge into Paattisten Osuuspankki. Consequently, the business name of Paattisten Osuuspankki will change to Auranmaan Osuuspankki. The planned date for the registration of the merger is 31 March 2018.

Suur-Savon Osuuspankki, Haukivuoren Osuuspankki, Heinäveden Osuuspankki, Hirvensalmen Osuuspankki and Sulkavan Osuuspankki accepted a merger plan on 20 September 2017, according to which Haukivuoren Osuuspankki, Heinäveden Osuuspankki, Hirvensalmen Osuuspankki and Sulkavan Osuuspankki will merge into Suur-Savon Osuuspankki. The planned date for the registration of the merger is 31 March 2018.

OP Insurance Ltd will sell all share capital of its Baltic-based subsidiary Seesam Insurance As (Seesam), including its Latvian and Lithuanian branches, to Vienna Insurance Group (VIG). The parties signed the related contract of sale on 18 December 2017. The divestment should be completed during 2018, provided that it is approved by relevant authorities and that the related conditions are otherwise fulfilled.

Personnel and remuneration

On 31 December 2017, OP Financial Group had 12,269 employees (12,227). The number of employees averaged 12,212 (12,271). The number of OP cooperative banks' employees decreased during the year.

A total of 357 people (388) retired from OP Financial Group during the financial year at an average age of 62.1 years (61.7).

OP Financial Group is building an operating model to update employee competencies. The model anticipates the disruption whereby digitisation and automation will destroy some of the jobs currently existing in the financial sector, while also creating new jobs which require new competencies. The operating model aims to encourage and steer employees to keep their own labour market value up to date. OP seeks to provide support, in terms of education, training and in finding a new type of job, for those employees whose job will either cease to exist or drastically

change in the future. The first actions within this model will be started in 2018, and some have already been piloted.

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. On 20 September 2017, the Supervisory Board of OP Financial Group's central cooperative appointed Timo Ritakallio, LL.M, MBA and D.Sc. (Tech.), OP Financial Group's new President and Group Executive Chairman. He will join OP Financial Group from the position of President and CEO of Ilmarinen Mutual Pension Insurance Company. He will take up his duties at OP Financial Group on 1 March 2018. Tony Vepsäläinen will act as the Chair of the Executive Board and President and Group Executive Chairman until Ritakallio takes up his duties as President and Group Executive Chairman.

Jouko Pölönen, member of the Executive Board, will resign from membership of the Executive Board of OP Financial Group's central cooperative on 30 April 2018 and will take up his duties as President and CEO of Ilmarinen Mutual Pension Insurance Company. Jouko Pölönen has been employed by OP Financial Group since 2001 and headed the Banking segment since 2014.

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 new long-term management remuneration scheme has been confirmed for 2017–19. OP Financial Group's personnel fund remuneration scheme will also be extended by one-year performance periods.

In drawing up the Group's 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 OP 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 2017, OP Financial Group's President and Group Executive Chairman received EUR 760,913 in salary, EUR 17,400 in fringe

benefits and EUR 187,575 in bonuses for 2016 based on the short-term scheme, i.e. a total of EUR 965,888. In 2017, the amount of deferred bonuses earned for 2011, 2012, 2013 under the short-term and long-term schemes totalled EUR 593,944.

Other Executive Board members and the Chief Audit Executive received EUR 3,345,842 in salary and EUR 157,198 in fringe benefits and the amount of bonuses they earned for 2011–16 under the short-term and long-term schemes amounted to EUR 1,974,778, totalling EUR 5,477,819.

Salaries and bonuses include the amount of the performance-based bonuses for 2013 and 2016 and paid in 2017. Payment of performance-based bonuses earned by the President and Group Executive Chairman and Executive Board members for 2016 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 51 of OP Financial Group's 2017 IFRS Financial Statements on variable remuneration.

President and Group Executive Chairman Reijo Karhinen, the other Executive Board members and the Chief Audit Executive retire at 63. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans.

Supplementary pension insurance payments for 2017 totalled EUR 71,337. Due to changes in the supplementary pension plan

for the Executive Board, some costs for 2017 will be payable in 2018.

The President and Group Executive Chairman 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. Reijo Karhinen retired, based on his executive contract, when he turned 63 in January 2018. A provision of EUR 450,000 for 2017 has been made due to the increase of pension liability of the President and Group Executive Chairman.

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 Chairman, 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 Chairman 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 for 2016	Total salaries, bonuses and fringe benefits paid in 2017	Amount of deferred performance-based bonus earned for 2013 and paid in 2017 and amount of bonus earned for 2011–13 under the long-term remuneration scheme and paid in 2017*	Total salaries, bonuses and fringe benefits, and deferred performance-based bonuses paid in 2017 under the long-term scheme
Reijo Karhinen	760,913	17,400	187,575	965,888	593,944	1,559,832
Tony Vepsäläinen	608,021	12,548	97,990	718,558	465,591	1,184,150
Jouko Pölönen	394,921	11,760	48,000	454,681	143,107	597,789
Olli Lehtilä	304,658	35,416	52,000	392,074	129,530	521,604
Karri Alameri	303,012	12,240	36,000	351,252	112,111	463,363
Harri Nummela	342,977	11,400	49,770	404,147	160,183	564,330
Jari Himanen	291,450	22,542	48,000	361,992	92,173	454,165
Harri Luhtala	252,562	14,993	41,000	308,555	126,537	435,092
Erik Palmén	242,940	-	18,726	261,666	105,803	367,469
Carina Geber-Teir	212,424	12,180	32,410	257,014	92,394	349,408
Outi Taivainen	202,239	12,780	24,000	239,019	-	239,019
Leena Kallasvuori	190,638	11,340	22,268	224,246	77,185	301,430
Total	4,106,755	174,598	657,739	4,939,092	2,098,558	7,037,650

* Include the amount of performance-based bonuses earned for 2013 and paid in 2017 as well as the amount of long-term performance-based bonuses earned for 2011–2013 and paid in 2017. Payment of deferred amounts requires a separate decision.

Governance of OP Cooperative

OP Financial Group's central cooperative (OP Cooperative) held its Annual Cooperative Meeting on 21 March 2017.

The Meeting re-elected for the term of three years ending in 2020 the following members to the Supervisory Board who were due to resign: Health Centre Physician Terttu Hällfors, Managing Director Timo Laine and professor Jaakko Pehkonen.

New members elected to the Supervisory Board for a three-year term ending in 2020 were Coordinator Mervi Hinkkanen and Managing Director Juha Luomala.

The Meeting elected the following Supervisory Board members for a term ending in 2018 replacing those resigning from the Supervisory Board during their mid-term: Managing Director Olli Koivula and Senior Manager Anssi Mäkelä.

In addition, the Meeting elected the following members to the Supervisory Board outside of OP Financial Group for a term ending in 2020: Senior Lawyer Tiina Bäckman, CFO Riitta Palomäki and Chief Executive Officer Arto Ylimartimo. 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 Professor Jarna Heinonen and Risk Management Committee by engineer Ola Eklund.

The Annual Cooperative Meeting of the central cooperation on 21 March 2017 decided to alter the cooperative Bylaws in such a way that Executive Board deputy membership is removed from the Bylaws. This decision has no effect on the current composition of the Executive Board.

The Annual Cooperative Meeting re-elected KPMG Oy Ab, an audit firm, to act as the auditor for the financial year 2017, with Raija-Leena Hankonen, APA, acting as the Auditor-in-charge, appointed by KPMG Oy Ab.

Capital expenditure and service development

The central cooperative with its subsidiaries is responsible for OP Financial Group's service development. ICT investments and related specifications make up a significant portion of the costs of developing these services.

In January–December, OP Financial Group's development expenditure totalled EUR 454 million (315). These include licence fees, purchased services, other external costs related to projects

and in-house work. The capitalised development expenditure totalled EUR 234 million (180).

More detailed information on the Group's investments can be found in each business segment's section in this Report by the Executive Board and in section "OP Financial Group's strategy and numerical targets".

Outlook for 2018

Last year, the euro-area economy reached its best growth rate recorded during the current decade. Nevertheless, inflation remained moderate and the European Central Bank's monetary policy accommodative. Economic growth in Finland continued swiftly and on a broad basis. Fixed investments increased strongly and business profitability improved. Consumer confidence remained high and growth in employment sped up. Favourable economic development is expected to continue in the near future, both in Finland and the rest of the euro area. The monetary policy is expected to tighten in 2018 but short-term rates are anticipated to rise moderately. The largest risks in the near future are associated with greater uncertainty in financial markets and with the political environment. A longer-term risk is that economic growth will remain modest if Finland is not able to restructure its economy to a sufficient extent when the population is ageing and digitisation is proceeding.

The financial sector has adjusted very well to the new type of low interest rate environment. While low interest rates have retarded growth in banks' net interest income and eroded insurance institutions' income from fixed income investments, they also have improved customers' repayment capacity. Impairment losses have remained low despite the slow growth that has lasted for several years now. The most significant strategic risks in the financial sector are currently associated with changing customer behaviour, operating environment digitisation and more complex regulation. Industry disruption is threatening to slow down growth and erode income generation in the years to come. In the next few years, the financial sector will be faced with a strong need to reinvent itself. Changes in the operating environment will emphasise the necessity of reinvention with a long-term approach as well as the role of the management of profitability and capital adequacy.

OP Financial Group's earnings before tax for 2018 are expected to be at about the same level as or lower than in 2017. 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. IFRS 9 adopted at the beginning of 2018 is expected to increase earnings volatility in the short term.

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.

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.

Member credit institution's capital adequacy and its supervision

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.

The central cooperative may not make an exception to a member credit institution that has to a significant extent or repeatedly failed to comply with guidelines issued by the central cooperative pursuant to Section 17 of the Act on Credit Institutions or the member credit institution's obligations prescribed in Section 23 or issued pursuant to said supervisor's regulation. Such exception may be granted for a maximum period of three years. The central cooperative has enabled exceptions with regard to member credit institutions' customer exposure, liquidity and qualitative management of risks.

A member credit institution is under no obligation to publish an interim report in accordance with Chapter 12, Section 12 of the Act on Credit Institutions. Member credit institutions are under no obligation to publish capital adequacy information (Pillar III disclosures) in their entirety; such information is disclosed on the amalgamation of OP member cooperative banks.

Joining the amalgamation of the cooperative banks and withdrawal from its membership

Central cooperative members may include credit institutions if their bylaws or articles of association correspond to what is prescribed by the Act on the Amalgamation of Deposit Banks and if their bylaws or articles of association have been approved by the central cooperative. The central cooperative's Supervisory Board decides on admitting members.

A member credit institution has the right to withdraw from its membership of the central cooperative. Even if a member credit institution withdraws from membership, the aggregate amount of capital resources of companies belonging to the amalgamation must be maintained at the level as required by the Act on the Amalgamation of Deposit Banks.

A member credit institution may also be expelled from membership of the central cooperative in accordance with the Co-operatives Act. A member credit institution may also be expelled if it has not complied with instructions issued by the central cooperative by virtue of Section 17 of the Act on the Amalgamation of Deposit Banks in a way that significantly jeopardises liquidity or capital adequacy management, the application of the standardised principles related to the preparation of financial statements or the supervision of adherence to them within the amalgamation. Expulsion is also possible if a member credit institution is in material breach of the

amalgamation's general operating principles approved by the central cooperative.

The provisions of the Act on the Amalgamation of Deposit Banks governing payment liability of a member credit institution shall also apply to a former member credit institution which has withdrawn or expelled from the central cooperative, if less than five years have passed from the end of the calendar year of the member credit institution's withdrawal or expulsion from the central cooperative when a demand regarding payment liability is presented to the member credit institution.

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 Chairman. 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 performed by Internal Audit departments of OP Financial Group's Audit function is an independent and objective assessment, assurance and consulting activity designed to add value to OP Financial Group and improve its operations. Internal Audit helps OP Financial Group to reach its objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, supervision and governance processes with the focus on the identification of risk factors and the assessment of the performance of internal control. In its reports, Internal Audit issues recommendations for remedying any defects discovered.

Audits are carried out by adhering to international standards for internal audits, and to good auditing practices.

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

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 EUR 100,000 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 Board 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 Act also stipulates the maximum limits for customer risks of a financial and insurance conglomerate. Moreover, Section 21 of the Act on the Amalgamation of Deposit Banks governing the amalgamation's customer registers applies to the financial and insurance conglomerate formed by OP Financial Group.

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.

Key income statement and balance sheet items, and financial indicators

€ million	2017	2016	2015	2014
Key income statement items, € million				
Net interest income	1,094	1,058	1,026	1,043
Net insurance income	478	558	528	481
Net commissions and fees	928	859	855	853
Net investment income	495	390	432	321
Other income	121	123	54	55
Personnel costs	758	762	781	741
Other expenses	1,015	806	739	814
Impairment loss on receivables	48	77	78	88
OP bonuses to owner-customers	217	206	196	195
Earnings before tax	1,077	1,138	1,101	915
Key balance sheet items – assets, € million				
Cash and cash equivalents	12,937	9,471	8,619	3,942
Derivative contracts	3,412	4,732	5,072	5,998
Receivables from credit institutions	504	337	425	686
Receivables from customers	82,240	78,604	75,192	70,683
Investment assets	22,506	25,105	20,784	16,153
Assets covering unit-linked contracts	10,126	9,168	8,640	7,492
Property, plant and equipment, and intangible assets	2,353	2,345	2,238	2,113
Other items	3,163	3,985	3,484	3,360
Total assets	137,242	133,747	124,455	110,427
Key balance sheet items – liabilities and equity, € million				
Liabilities to credit institutions	5,157	4,669	1,673	1,776
Derivative contracts	3,026	4,044	4,678	5,499
Liabilities to customers	65,549	60,077	58,220	51,163
Insurance liabilities	9,950	10,586	7,705	6,386
Liabilities from unit-linked insurance and investment contracts	10,158	9,205	8,666	7,513
Debt securities issued to the public	26,841	28,287	27,706	24,956
Other liabilities	5,440	6,642	6,483	5,921
Equity capital	11,121	10,237	9,324	7,213
Total liabilities and equity capital	137,242	133,747	124,455	110,427
Figures and ratios				
Return on equity, ROE, %	8.0	9.4	10.3	8.1
Return on equity (ROE) at fair value, %	6.4	7.8	13.2	5.7
Return on assets, ROA, %	0.6	0.7	0.7	0.6
Cost/income ratio, %	57	52	53	56
Average personnel	12,212	12,271	12,174	12,548
Common Equity Tier 1 (CET1) capital ratio, %	20.1	20.1	19.5	15.1
Capital adequacy ratio, %	22.5	23.1	22.9	17.3
Capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates, % *	148	170	191	158

*Year-on-year figures are presented under Solvency II. Transitional provisions have been taken into account in figures.

Formulas for key ratios

The Alternative Performance Measures Guidelines issued by the European Securities and Markets Authority (ESMA) came into force on 3 July 2016. The Alternative Performance Measures are presented to illustrate the financial performance of business operations and to improve comparability between reporting periods. They should not be considered to be replacements for the performance measures defined in IFRS governing financial reporting.

The formulas for the used Alternative Performance Measures are presented below and they correspond to the previously presented performance indicators in terms of content.

ALTERNATIVE PERFORMANCE MEASURES:

Return on equity (ROE), %	$\frac{\text{Profit for the financial year}}{\text{Equity (average of the beginning and end of financial year)}} \times 100$
Return on equity (ROE) at fair value, %	$\frac{\text{Total comprehensive income for the financial year}}{\text{Equity (average of the beginning and end of financial year)}} \times 100$
Return on assets (ROA), %	$\frac{\text{Profit for the financial year}}{\text{Balance sheet total (average of the beginning and end of financial year)}} \times 100$
Cost/income ratio, %	$\frac{\text{Total expenses}}{\text{Total income}} \times 100$
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	$\frac{\text{Impairment loss on receivables}}{\text{Loan and guarantee portfolio at end of financial year}} \times 100$
Non-life Insurance key ratios:	
Loss ratio (excl. unwinding of discount), %	$\frac{\text{Claims and loss adjustment expenses}}{\text{Net insurance premium revenue}} \times 100$
Expense ratio, %	$\frac{\text{Operating expenses + Amortisation/adjustment of intangible assets related to company acquisition}}{\text{Net insurance premium revenue}} \times 100$
Risk ratio (excl. unwinding of discount), %	$\frac{\text{Claims excl. loss adjustment expenses}}{\text{Net insurance premium revenue}} \times 100$
Combined ratio (excl. unwinding of discount), %	Loss ratio + expense ratio Risk ratio + cost ratio
Cost ratio, %	$\frac{\text{Operating expenses and loss adjustment expenses}}{\text{Net insurance premium revenue}} \times 100$
Operating loss ratio, %	$\frac{\text{Claims incurred excl. changes in reserving bases}}{\text{Insurance premium revenue, excl. net changes in reserving bases}} \times 100$
Operating expense ratio, %	$\frac{\text{Operating expenses}}{\text{Insurance premium revenue, excl. net changes in reserving bases}} \times 100$

Operating combined ratio, %	Operating loss ratio + operating expense ratio Operating risk ratio + Operating cost ratio
Operational risk ratio (excl. unwinding of discount), %	$\frac{\text{Claims excl. loss adjustment expenses and changes in reserving bases}}{\text{Net insurance premium revenue, excl. net changes in reserving bases}} \times 100$
Operating cost ratio, %	$\frac{\text{Operating expenses and loss adjustment expenses}}{\text{Net insurance premium revenue, excl. net changes in reserving bases}} \times 100$
KEY INDICATORS BASED ON A SEPARATE CALCULATION	
Capital adequacy ratio, %	$\frac{\text{Total capital}}{\text{Total risk exposure amount}} \times 100$
Tier 1 capital ratio, %	$\frac{\text{Tier 1 capital (Tier 1)}}{\text{Total risk exposure amount}} \times 100$
Common Equity Tier 1 (CET1) capital ratio, %	$\frac{\text{Common Equity Tier 1 (CET1)}}{\text{Total risk exposure amount}} \times 100$
Solvency ratio, %	$\frac{\text{Capital base}}{\text{Solvency capital requirement (SCR)}} \times 100$
Leverage ratio, %	$\frac{\text{Tier 1 capital (T1)}}{\text{Exposure amount}} \times 100$
Liquidity coverage ratio (LCR), %	$\frac{\text{Liquid assets}}{\text{Liquidity outflows – liquidity outflows in shocks}} \times 100$
FiCo capital	$\frac{\text{Conglomerate's total capital base}}{\text{Conglomerate's total minimum capital base}} \times 100$
Return on economic capital, %	$\frac{\text{Earnings + customer bonuses after tax (12-month rolling)}}{\text{Average economic capital}} \times 100$

Non-life Insurance operating result, € million	Q1–4/2017	Q1–4/2016	Change, %
Insurance premium revenue	1,432	1,420	0.9
Claims incurred	970	883	9.8
Other Non-life Insurance items	3	3	4.3
Net insurance income	459	534	-14.0
Net investment income	179	97	84.7
Other net income	-25	-33	-24.9
Total income	614	598	2.7
Personnel costs	116	115	0.8
Depreciation/amortisation and impairment loss	50	41	22.6
Other operating expenses	236	196	20.2
Total expenses	402	352	14.1
OP bonuses to owner-customers	2	2	5.0
Earnings before tax	210	244	-13.9

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	2017	2016
Net interest income	4	1,094	1,058
Net insurance income	5	478	558
Net commissions and fees	6	928	859
Net investment income	7	495	390
Other operating income	8	94	122
Share of associates' profits		27	1
Total income		3,115	2,989
Personnel costs	9	758	762
Depreciation/amortisation	10	246	160
Other expenses	11	769	646
Total expenses		1,773	1,567
Impairments loss on receivables	12	48	77
OP bonuses to owner-customers	13	217	206
Earnings before tax		1,077	1,138
Income tax expense	14	223	223
Profit for the financial year		854	915
Attributable to:			
Profit for the period attributable to owners		849	913
Profit for the period attributable to non-controlling interest		6	2
Total		854	915

Statement of comprehensive income

EUR million	Notes	2017	2016
Profit for the financial year		854	915
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	33	48	-329
Change in revaluation reserve		17	
Items that may be reclassified to profit or loss			
Change in fair value reserve			
Measurement at fair value	36	-146	176
Cash flow hedge	36	-32	-35
Translation differences		0	0
Income tax on other comprehensive income			
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	26	-10	66
Change in revaluation reserve		-4	
Items that may be reclassified to profit or loss			
Measurement at fair value	36	29	-35
Cash flow hedge	36	6	7
Total comprehensive income for the financial year		764	764
Attributable to:			
Total comprehensive income for the period attributable to owners		759	726
Total comprehensive income for the period attributable to non-controlling interests		5	38
Total		764	764

Balance sheet

EUR million	Notes	31 Dec. 2017	31 Dec. 2016
Cash and cash equivalents	15	12,937	9,471
Receivables from credit institutions	16	504	337
Financial assets held for trading	17	590	692
Derivative contracts	18	3,412	4,732
Receivables from customers	19	82,240	78,604
Investment assets	20	22,506	25,105
Assets covering unit-linked contracts	21	10,126	9,168
Investments in associates	22	228	91
Intangible assets	23	1,555	1,474
Property, plant and equipment (PPE)	24	798	871
Other assets	25	2,131	2,992
Tax assets	26	214	210
Total assets		137,242	133,747
Liabilities to credit institutions	27	5,157	4,669
Financial liabilities at fair value through profit or loss		1	0
Derivative contracts	28	3,026	4,044
Liabilities to customers	29	65,549	60,077
Insurance liabilities	30	9,950	10,586
Liabilities from unit-linked insurance and investment contracts	31	10,158	9,205
Debt securities issued to the public	32	26,841	28,287
Provisions and other liabilities	33	3,150	4,226
Tax liabilities	26	890	894
Supplementary cooperative share	34	0	77
Subordinated liabilities	35	1,400	1,445
Total liabilities		126,122	123,509
Equity capital			
Share of OP Financial Group's owners			
Cooperative capital			
Cooperative share		191	182
Profit shares		2,906	2,719
Fair value reserve		176	318
Other reserves		2,173	2,108
Retained earnings		5,573	4,808
Non-controlling interests		101	102
Total equity capital	36	11,121	10,237
Total liabilities and equity capital		137,242	133,747

Statement of changes in equity capital

Attributable to owners

EUR million	Cooperative capital	Fair value reserve**	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity capital
Balance at 1 Jan. 2016	2,656	242	2,085	4,271	9,254	70	9,324
Total comprehensive income for the period		77		650	726	38	764
Profit for the period				913	913	2	915
Other comprehensive income		77		-263	-187	36	-151
Profit distribution				-71	-71		-71
Increases in membership, supplementary and profit shares	245*			-16*	229		229
Transfer of reserves			23	-23	0		0
Other				-2	-2	-6	-8
Balance at 31 Dec. 2016	2,901	318	2,108	4,808	10,135	102	10,237

* Equity capital internal eliminations have been restated, as a result of which the amount of cooperative shares under cooperative capital increased by EUR 16 million and retained earnings decreased by the same amount.

Attributable to owners

EUR million	Cooperative 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	887	759	5	764
Profit for the period				849	849	6	854
Other comprehensive income		-142	14	38	-90	0	-90
Profit distribution				-89	-89		-89
Increases in membership, supplementary and profit shares	196				196		196
Associated company transfers				19	19		19
Transfer of reserves			51	-51	0		0
Other				-1	-1	-6	-7
Balance at 31 Dec. 2017	3,097	176	2,173	5,573	11,020	101	11,121

** Note 36

Cash flow statement

EUR million	Notes	2017	2016
Cash flow from operating activities			
Profit for the financial year		854	915
Adjustments to profit for the financial year		289	577
Increase (-) or decrease (+) in operating assets		-1,520	-8,573
Receivables from credit institutions	16	40	99
Financial assets at fair value through profit or loss	17	-185	-28
Derivative contracts	18	-41	32
Receivables from customers	19	-3,680	-3,531
Non-life Insurance assets	21	-594	-150
Investment assets	20	2,059	-4,166
Other assets	25	881	-827
Increase (+) or decrease (-) in operating liabilities		5,134	7,500
Liabilities to credit institutions	27	605	3,025
Financial liabilities at fair value through profit or loss		0	0
Derivative contracts	28	-2	-36
Liabilities to customers	29	5,473	1,857
Non-life Insurance liabilities	30	29	3,061
Life Insurance liabilities	31	124	-185
Provisions and other liabilities	33	-1,095	-222
Income tax paid		-205	-248
Dividends received		123	91
A. Net cash from operating activities		4,674	263
Cash flow from investing activities			
Increases in held-to-maturity financial assets		0	-3
Decreases in held-to-maturity financial assets		52	19
Acquisition of subsidiaries and associates, net of cash and cash equivalents acquired	22	-96	-3
Disposal of subsidiaries and associates, net of cash and cash equivalents disposed		10	0
Purchase of PPP and intangible assets	23, 24	-352	-308
Proceeds from sale of PPE and intangible assets	23, 24	51	50
B. Net cash used in investing activities		-335	-246
Cash flow from financing activities			
Increases in subordinated liabilities	32, 35	0	0
Decreases in subordinated liabilities	32, 35	0	-144
Increases in debt securities issued to the public	32	24,051	26,164
Decreases in debt securities issued to the public	32	-24,747	-25,303
Increases in cooperative and share capital		838	1,317
Decrease in cooperative and share capital		-718	-1,118
Dividends paid and interest on cooperative capital		-89	-71
C. Net cash used in financing activities		-666	845
Net change in cash and cash equivalents (A+B+C)		3,674	863
Cash and cash equivalents at period-start		9,571	8,708
Cash and cash equivalents at period-end		13,245	9,571

EUR million	2017	2016
Interest received	2,066	2,362
Interest paid	-992	-1,325
Adjustments to profit for the financial year		
Non-cash items and other adjustments		
Impairment losses on receivables	63	92
Unrealised net earnings in insurance operations	-169	102
Change in fair value for trading	-229	-2
Unrealised net gains on foreign exchange operations	-38	-98
Change in fair value of other investments	123	-19
Planned amortisation and depreciation	246	160
Share of associates' profits/losses	-21	5
OP bonuses to owner-customers	217	205
Income tax paid	205	248
Dividends received	-123	-91
Other	27	-24
Items presented outside cash flow from operating activities		
Capital gains, share of cash flow from investing activities	-13	-2
Interest on cooperative capital	0	1
Total adjustments	289	577
Cash and cash equivalents		
Liquid assets	15	12,937
Receivables from credit institutions payable on demand		307
Total	13,245	9,571

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 returns to owner-customers. The most significant risk category pertains to credit risk but business also involves market risks and operational risks.

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 Asset Management Ltd and its subsidiaries as well as OP Corporate Bank plc's Markets Equities. The most significant items of income generated by the Wealth Management segment include life insurance net interest and risk results and commissions and fees arising from life insurance, asset management and mutual fund operations. The commissions and fees of the Wealth Management segment consist of those from asset and mutual fund management and life insurance policies.

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, the Seesam company operating in the Baltic countries, 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 premiums written and 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.

Other Operations includes operations that support the segments, particularly the operations of OP Cooperative, OP-Services Ltd and OP Customer Service Ltd (formerly OP Process 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, OVY Insurance Ltd and 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'.

The segments' earnings and profitability are assessed in terms of EBT. 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 19% (18%). 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 an internal bank 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 2017, EUR million	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Net interest income	1,184	-15	1	-75	-1	1,094
of which internal net income before tax	-17	-12	1	28		
Net insurance income		459	27		-8	478
Net commissions and fees	631	-25	385	-63	-1	928
Net investment income	18	179	70	230	-3	495
Other operating income	36	12	8	632	-595	94
Share of associates' profits	1	3	15	7	0	27
Total income	1,870	614	507	732	-608	3,115
Personnel costs	354	116	75	213	-1	758
Depreciation/amortisation	51	50	28	118		246
Other operating expenses	565	236	130	446	-608	769
Total expenses	970	402	233	777	-609	1,773
Impairments loss on receivables	47	0		0	1	48
OP bonuses to owner-customers	187	2	28		0	217
Earnings before tax	666	210	247	-45	0	1,077

Net income from the Baltic countries came to EUR 10 million

Q1-4 earnings 2016, EUR million	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Net interest income	1,134	-20	6	-61	-1	1,058
of which internal net income before tax	-18	-17	5	30		
Net insurance income		534	24		0	558
Net commissions and fees	605	-23	330	-59	5	859
Net investment income	-15	97	111	199	-3	390
Other operating income	25	8	8	572	-491	122
Share of associates' profits	2	1	3	-6	0	1
Total income	1,751	598	483	646	-489	2,989
Personnel costs	378	115	89	180	0	762
Depreciation/amortisation	44	41	25	50	0	160
Other operating expenses	499	196	119	321	-490	646
Total expenses	921	352	233	552	-490	1,567
Impairments loss on receivables	76	0		0	1	77
OP bonuses to owner-customers	180	2	25		0	206
Earnings before tax	574	244	226	95	0	1,138

Net income from the Baltic countries came to EUR 6 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
Financial assets held for trading	-4			596	-3	590
Derivative contracts	335	10	83	3,320	-336	3,412
Receivables from customers	83,070	0	1	-19	-812	82,240
Investment assets	531	3,532	7,088	16,740	-5,384	22,506
Assets covering unit-linked contracts			10,126			10,126
Investments in associates	9	10	64	30	114	228
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	1,294	-490	2,131
Tax assets	112	18	29	43	11	214
Total assets	94,661	5,341	18,599	45,213	-26,572	137,242
Liabilities to credit institutions	9,460			14,204	-18,506	5,157
Financial liabilities at fair value through profit or loss			0	1		1
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						11,121

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

Balance sheet 31 December 2016	Banking	Non-life Insurance	Wealth Management	Other operations	Eliminations	OP Financial Group
Cash and cash equivalents	113	90	459	9,329	-520	9,471
Receivables from credit institutions	6,351	6	53	10,180	-16,253	337
Financial assets held for trading	-4		0	698	-2	692
Derivative contracts	458	26	125	4,582	-459	4,732
Receivables from customers	79,144	0		683	-1,223	78,604
Investment assets	580	3,755	7,909	17,705	-4,843	25,105
Assets covering unit-linked contracts			9,168		0	9,168
Investments in associates	10	2	28	27	25	91
Intangible assets	62	689	374	353	-3	1,474
Property, plant and equipment (PPE)	480	46	25	332	-12	871
Other assets	292	708	336	2,104	-448	2,992
Tax assets	103	12	12	62	21	210
Total assets	87,588	5,334	18,490	46,054	-23,719	133,747
Liabilities to credit institutions	9,565			10,533	-15,428	4,669
Derivative contracts	168	17	21	4,297	-460	4,044
Liabilities to customers	54,693		3	6,815	-1,434	60,077
Insurance liabilities		3,008	7,578		0	10,586
Liabilities from unit-linked insurance and investments contracts			9,205			9,205
Debt securities issued to the public	10,522			18,790	-1,026	28,287
Provisions and other liabilities	1,856	553	285	2,094	-562	4,226
Tax liabilities	355	95	87	338	19	894
Cooperative capital	93				-17	77
Subordinated liabilities	82	135	245	1,436	-452	1,445
Total liabilities	77,334	3,809	17,424	44,303	-19,360	123,509
Equity						10,237

Net assets from the Baltic countries came to EUR 66 million.

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Note 1. OP Financial Group's accounting policies under IFRS

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 principles. 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 8 February 2018.

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 2017. 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.

Since the beginning of 2017, OP Cooperative banks' income items have been allocated to the Banking, Non-life Insurance, Wealth Management and Other Operations segments. OP cooperative banks' income and expenses were previously

presented under the Banking segment. Income and expenses have been allocated to the segments based on the matching principle or allocation rules. (Note 3. Changes in presentation of financial statements).

In 2017, OP Financial Group adopted the following standards and interpretations:

- IAS 7 Statement of Cash Flows was amended, effective as of 1 January 2017. The amendment requires the presentation of a description of changes in financial liabilities classified as cash flows from financing activities. A new table is presented in Note 32 (Debt securities issued to the public). The standard does not require the presentation of comparatives when applying the amendment for the first time.
- Annual improvements to IFRS for cycles 2014–2016 (applicable mainly to accounting periods beginning on or after 1 January 2017). 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.
- In addition, amendments have been made to IAS 12 Income Taxes, effective since 1 January 2017. 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, 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.

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.

OP Financial Group 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 for 2017.

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 19 "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 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 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

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 IAS 39. 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 above.

5.2 Impairment of financial assets

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 becomes 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.

5.3 Securities sale and repurchase agreements

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.

5.4 Classification and recognition of OP Financial Group's financial instruments

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.

The company 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.

5.4.1 Financial assets and liabilities at fair value through profit or loss

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.

5.4.1.1 Financial assets and liabilities held for trading and derivative contracts held for trading

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.

5.4.1.2 Financial assets at fair value through profit or loss at inception

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.

5.4.2 Loans and receivables

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.

5.4.3 Investments held to maturity

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.

5.4.4 Available-for-sale financial assets

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.

5.5 Cash and cash equivalents

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

5.6 Other financial liabilities

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.

5.7 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.

5.7.1 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.

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.

5.7.2 Derivatives held for trading

The difference between interest received and paid on interest-rate swaps held for trading is recorded in net interest income or expenses 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.

5.8 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 and hedged instrument. 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%.

5.8.1 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 hedged item and hedging instrument are recorded in Banking in the income statement under Net interest income (loans and own issues) and Net investment income (bonds are included in available-for-sale financial assets). In Non-life and Life Insurance, they are recorded under net investment income (mutual fund investments are included in available-for-sale financial assets).

5.8.2 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 ineffective portion of changes in the fair value is recognised

immediately in profit or loss. 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 on or after 1 January 2010, the Group measures 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 above date, 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 Deferred acquisition costs of insurance contracts

OP Financial Group defers in Baltic non-life insurance operations commissions and other costs associated with the acquisition of new insurance contracts or the renewal of existing contracts. The resulting intangible asset is amortised on a straight-line basis over the effective lives of the contracts. An intangible asset is assessed annually for impairment in connection with testing the adequacy of the liability associated with insurance contracts.

7.4 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.

7.5 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.

7.6 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	5–6 years
Other PPE 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. Changing or curtailing defined benefit pension plans 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 plan assets.

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 IAS 39.

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 net liability calculated from the expected claims and operating expenses during the contracts' remaining maturities less future 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, because any benefit from the derivatives is used for the cash flows payable from the contracts.

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 1.5% 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.

The 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, OP Financial 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, less their deferred acquisition costs is not sufficient, the shortfall will be recognised in the income statement. If the reason for such insufficiency is too high deferred acquisition costs of insurance contracts, the shortfall will be recognised by reducing it and otherwise increasing the amount of the liability.

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 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 do not 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 Cooperative capital

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 shares 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

Interest income and expenses for interest-bearing assets and liabilities are recognised using the effective interest method. Interest on receivables with non-settled, due payments is also recognised as revenue, and this interest receivable is tested for impairment. 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.

Commission income and expenses for services are recognised when the service is rendered. The Wealth Management segment uses performance-based management fees tied to investment performance. Such fees are recognised when the income has been ascertained. For one-off commissions covering several years that may have to be refunded at a later date, only the portion of their revenue related to the period is recognised.

Dividends are primarily recognised when they are approved by the General Meeting of Shareholders by the distributing entity.

Summary of presentation of income statement items:

Net interest income	<p>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.</p> <p>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.</p>
Net insurance income	<p>Non-life Insurance premiums written and paid claims, including the reinsurers' share and the risk result of Life Insurance.</p>
Net commission income	<p>Commission income and expenses, and the recognition of Day 1 profit related to illiquid derivatives.</p> <p>Life Insurance total expense loadings and return of unit-linked management fees.</p>
Net investment income	<p>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.</p> <p>Realised capital gains and losses on available-for-sale financial assets, impairment losses, dividends as well as fair value changes in investment property, capital gains and losses, rents and other property-related expenses.</p> <p>Life Insurance credited interest on customers' insurance savings and change in underwriting provisions as well as Non-life Insurance unwinding of discount.</p>
Other operating income	<p>Rental income and sales revenues from property in own use, healthcare and wellbeing fees, and other operating income.</p>
Personnel costs	<p>Wages and salaries, pension costs, share-based payments, pension costs and social expenses.</p>
Other operating expenses	<p>Services purchased from others, ICT production and development costs, administrative expenses, charges of financial authorities, rents and other expenses.</p>

16 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.

16.1 Stability contribution

Stability contributions will be paid to the euro-area Single Resolution Fund (SRF) until 2024 in such a way that the target 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. In 2017, each bank's stability contributions are credited in the same proportion as it previously paid bank levy (the Act on Temporary Bank Levy was in force between 2013 and 2014). The stability contribution had no effect on OP Financial Group in 2017 in terms of expenses.

16.2 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 2017 in terms of expenses.

16.3 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.

16.4 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.

16.5 European Central Bank's supervisory fee

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

17 OP bonuses to owner-customers

OP bonuses to owner-customers are presented in the income statement as a separate line item, consisting of OP bonuses and remaining supplementary cooperative capital interest. Interest payable on Profit Shares is recognised as a deduction in equity capital as profit distribution. 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.

18 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, 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.

19 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 Group takes into account the investor's power to direct 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).

Impairment tests for receivables are carried out on an individual or collective basis. An impairment test carried out on an individual basis is based on the management's estimate of the expected future cash flows of the individual loan. Collectively assessed impairment provisions are based on a statistical model used in the measurement of economic capital, in which expected future losses are adjusted by means of the emergence period so that the Group can assess the amount of losses incurred but not yet reported on the balance sheet date. In such a case, the management's judgement is required to determine the length of the emergence period.

Available-for-sale financial assets, notes and bonds included in loans and receivables, and investments held to maturity must be tested for impairment on each balance sheet date. If there is objective evidence of an impaired asset, the impairment loss will be recognised in the income statement. Verifying objective evidence involves management judgement. Impairment loss on an equity instrument must also be recognised if there is a significant or prolonged decline in the fair value. Defining objective evidence is a two-step approach where at first instruments that exceed certain indicators are regularly listed and put under closer review. The Group continuously assesses such instruments under review for impairment. Impairment loss will be recognised at the latest when the maximum limits are exceeded with respect to the 12 months prolonged criteria or the significant criterion of 30%.

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 43. 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).

20 New standards and interpretations

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

20.1 IFRS 9 Financial Instruments

20.1.1 Effects of transition to IFRS 9

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 on other standards dealing with financial instruments, such as IFRS 7 Financial Instruments, Disclosures. OP Financial Group continues 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 are recognised in equity in the opening balance sheet on the adoption date. OP Financial Group will not restate the comparative figures for prior years in its financial statements for 2018. Changes in the notes to the financial statements under IFRS 7 arising from the application of IFRS 9 will only be presented for the financial year 2018. Notes to the financial statements for the comparative period will remain unchanged.

Based on the current assessment, the adoption of IFRS 9 on 1 January 2018 will decrease the opening balance of OP

Financial Group's equity by EUR 59 million before tax, consisting of the following components:

- The pre-tax effect of the change in the impairment calculation method is EUR 53 million negative.
- The difference between the fair value and carrying amount resulting from the reclassification of financial assets is EUR 6 million negative.

The effects presented in this report resulting from the adoption of IFRS 9 may still change because OP Financial Group will continue refining and finalising ECL models and further developing related IT systems and strengthening the control environment.

New accounting policies, assessment methods and items subject to management's judgment may change until OP Financial Group publishes its first financial statements which include the opening balance sheet of 1 January 2018.

Classification and measurement

The classification and measurement of financial assets under IFRS 9 is based on business models and contractual cash flow characteristics.

OP Financial Group has 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 will apply a temporary overlay approach to Non-life and Life Insurance investments 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) 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.

The ECL 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. The ECL 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 since initial recognition.

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) to be mainly taken into account in credit rating models. 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 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.

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 preliminary 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, excluding the effect of ECL. No changes have occurred in the classification and measurement of financial liabilities.

Measurement categories of financial assets	IAS 39		IFRS 9	
	Measurement category 31.12.2017	Carrying amount EUR million	Measurement category 1.1.2018	Carrying amount EUR million *
Cash and cash equivalents	Amortised cost	12,937	Amortised cost	12,937
Receivables from credit institutions	Amortised cost (loans and other receivables)	504	Amortised cost	504
Derivative contracts	Fair value through profit and loss	3,412	Fair value through profit and loss	3,412
Receivables from customers	Amortised cost (loans and other receivables)	82,240	Fair value through profit and loss	82,193
			Fair value through profit and loss 1)	0
Investment assets				
Financial assets held for trading 3)	Fair value through profit and loss	590	Fair value through profit and loss	579
Equity instruments	Fair value through other comprehensive income (available for sale)	1,399	Fair value through profit and loss	1,309
			Fair value through other comprehensive income	85
			At cost	0
Notes and bonds	Fair value through other comprehensive income (available for sale)	16,372	Fair value through other comprehensive income	16,278
			Fair value through profit and loss 1)	104
			Amortised cost	0
			Fair value through profit and loss	3,309
			Fair value through other comprehensive income	0
			Fair value through other comprehensive income	30
			Amortised cost	10
Assets covering unit-linked contracts	Amortised cost (other financial assets)	2,292	Amortised cost	2,280
			Fair value through profit and loss	8
			Fair value through other comprehensive income	6
			Fair value through profit and loss 2)	6
Assets covering unit-linked contracts	Fair value through profit and loss	10,126	Fair value through profit and loss 2)	10,126
Total financial assets		133,443		133,390

1) Non-trading financial assets mandatorily at fair value through profit or loss
2) Fair value option

* Carrying amount does not include the effect of ECL

b) Reconciliation of balance sheet items under IAS 39 and IFRS 9

Measurement classes under IFRS 9 have been 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 do 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 IFRS 9 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. The remeasurement column in the table contains only the change resulting from the reclassification excluding the effect of ECL.

Changes in classification and measurement

Financial assets, EUR million	Ref.	Carrying amount (IAS 39) 31.12.2017	Reclassifications	Remeasurements	Carrying amount (IFRS 9) 1.1.2018 *
Cash and cash equivalents		12,937			12,937
Receivables from credit institutions		504			504
Derivative contracts		3,412			3,412
Receivables from customers	2)	82,240	-47		82,193
Investment assets					
Financial assets held for trading	1) 8)	590	-11		579
Equity instruments					
Fair value through other comprehensive income (available for sale)	3)	1,399	-1,315		85
Fair value through profit and loss	4)	220	1,315	-6	1,529
At cost	5)	0	0		0
Notes and bonds					
Fair value through other comprehensive income (available for sale)	1)	16,372	-58	1	16,314
Fair value through profit and loss	6)	3,309	112	-1	3,421
Amortised cost	7)	2,333	-43		2,289
Assets covering unit-linked contracts					
Fair value through profit and loss		10,126			10,126
Total		133,443	-47	-6	133,390

* Carrying amount does not include the effect of ECL

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 is 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 are 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 are chiefly designated as measured at fair value through profit or loss in accordance with IFRS 9. OP Financial Group reclassified equity instruments of EUR 1,315 million to be recognised at fair value through profit or loss. Fair value gains/losses of available-for-sale investments worth EUR 75 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 1,315 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, which this change in the treatment method resulted in a deduction of EUR 11 million before tax recognised in OP Financial Group's retained earnings. The equity investments for which a quoted fair value are available are measured at fair value through profit or loss.
- 6) OP Financial Group has 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 are 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, are classified in the IFRS 9 transition in such way that the notes and bonds, totalling EUR 30 million, included in the liquidity buffer are measured at fair value through other comprehensive income and EUR 11 million are measured at amortised cost as at 1 January 2018.
- 8) Financial assets held for trading are included in Investments assets in the balance sheet as of 1 January 2018.

c) Effects on expected credit losses

OP Financial Group will mainly shift from the calculation of impairment on an individual basis to that of the expected credit loss calculated using models under IFRS 9. Consequently, prior impairment losses on an individual and collective basis under IAS 39 have been revoked and expected credit losses of EUR 546 million under IFRS 9 have been recognised. Impairment losses of EUR 421 million previously recognised on an individual basis have mainly been replaced with expected credit losses under stage 3 and impairment losses of EUR 71 million on a collective basis with expected credit losses under stages 1 and 2.

Expected credit losses increased the most in corporate financing whereas expected credit losses in home loans decreased from their IAS 39 level due to their good collateral position. In private customers, revolving credit facilities showed

the largest growth 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 new items included in ECL calculation for the first time.

ECL calculation includes high level of judgment which have a significant impact on the amount of expected credit losses, such as:

- Determining significant increases in credit risk (SICR)
- Various assumptions used in 12-month and lifetime ECL calculation
- Incorporating macroeconomic estimates into the calculation.

The expected credit loss is anticipated to be sensitive to changes in macroeconomic estimates and it may increase significantly when the economic outlook deteriorates.

d) Effects of equity capital and the CET1 ratio

The table below presents the effects of the transition to IFRS 9 on equity:

Statement of changes in equity, EUR million	Cooperative capital	Fair value reserve	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity
Balance at 31 December 2017	3,097	176	2,173	5,573	11,019	101	11,121
Revocation of earlier IAS 39 impairment provision				493	493		493
New ECL according to IFRS 9				-546	-546		-546
Effect of IFRS 9 reclassifications							
1) Fair value through profit and loss							
Transfer of fair value reserve relating to available sale assets to retained earnings		-75		69	-6		-6
2) Amortised cost							
Remeasurement to fair value in connection to transfer to fair value through other comprehensive income		0			0		0
3) Fee deferral				-47	-47		-47
Change in deferred tax				24	24		24
Restated balance at 1 January 2018	3,097	102	2,173	5,566	10,938	101	11,039

Since the amount of expected credit losses (ECL), EUR 546 million, was below the expected loss (EL) calculated in capital adequacy measurement, EUR 791 million, the ECL amount 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 ECL 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 will adopt 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 is not technically possible, only the fees for 2017 will be restated from the income statement. This has an effect of EUR 47 million on equity before tax. These fees will be amortised for future years for the average life of private customer loans.

20.1.2 IFRS 9 accounting policies

Chapter 5 Financial instruments in OP Financial Group's accounting policies has changed as of 1 January 2018 as described below, except for Sections 5.1 Fair value determination, 5.7 Derivative contracts and 5.8 Hedge accounting. In addition, paragraphs related to impairment have been updated in Section 19 Critical accounting estimates and judgements.

5.2 Financial assets and liabilities

5.2.1 Measurement methods

5.2.1.1 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, the 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.

The 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, the 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, the 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, the 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 will classify financial assets into the following categories as of 1 January 2018:

- Fair value through profit or loss (FVPL)
- 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 and the contractual cash flow characteristics of the financial asset
- 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 and 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 assets that do 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 asset, 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. The objective of the business model of OP Financial Group's liquidity buffer is to collect contractual cash flows and to sell financial assets.

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.

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. The number of these investments is not significant and they are related to involvement in local activities. 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. In such a case, OP Financial Group shall recalculate the gross carrying amount of the loan and recognise a modification or loss in profit or loss. The gross carrying amount of the loan is recalculated as the present value of the renegotiated or modified contractual cash flows that are discounted at the loan's original effective interest rate. Any costs or fees incurred adjust the carrying amount of the modified loan and are amortised over the remaining term of the modified 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 sheet 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 into this category. OP Financial Group applies a temporary overlay approach to some of these instruments, which will restore the profit/loss impact of these instruments to be aligned with the 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 cannot 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) 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.

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. Large corporate exposures make an exception. They are monitored on an individual basis. 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 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 remaining term to maturity is limited to 30 years in the calculation.

5.4.1 Loans

The 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 EAD for a contract is based on contractual cash flows, utilisation rate, prepayment rate and maturity model, depending on the product type.

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: includes 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.

Significant increases 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. Qualitative factors consist of various credit risk indicators (e.g. forbearance measures or breach of covenants) to be mainly 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. In addition, 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.

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.

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.

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.

5.4.2 Notes and bonds

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

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

OP Financial Group avails itself of the Bloomberg tool in the calculation of the expected credit loss on notes and bonds.

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.

Investments whose 12-month PD has doubled, 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.

5.4.3 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.

The loan is derecognised after the completion of all debt-collection measures of 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.

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 measures 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 removes a financial liability (or a part of a financial liability) from its balance sheet 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.

19 Critical accounting estimates and judgements

Determining the expected credit loss (ECL) requires several management judgements, 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 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.

20.2 IFRS 15 Revenue from Contracts with Customers

OP Financial Group applies IFRS 15 as of 1 January 2018. This standard replaced the current IAS 11 and IAS 18. 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. The new standard will have no effect of the revenue recognition of financial instruments or insurance policies. IFRS 15 will lead to added information presented in the notes to the financial statements for 2018. The grouping of commission income and expenses in net commissions and fees is specified in the Notes. New items to be presented in net commissions and fees include commission income and expenses from health and wellbeing services, investment management fees, fees paid for investment management services, legal fees and mutual fund commission expenses. IFRS 15 will 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 current practices. The adoption of IFRS 15 will not have any financial effect on OP Financial Group's result. OP Financial Group will apply IFRS 15 using the retrospective transition method.

20.3 IFRS 16 Leases

OP Financial Group will adopt IFRS 16 Leases from 1 January 2019. The new standard will change accounting by lessees. The lessee chiefly recognises a right-of-use asset and lease liability related to all contracts in the balance sheet. An exemption includes short-term contracts and those for underlying assets with low value. Accounting by lessors remains substantially similar to IAS 17.

OP Financial Group is planning to apply 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 are planned to 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 of 1 January 2019. 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.
- During the transition, the right-to-use asset and the lease liability will not be recognised out of leases for whose lease term expires within 12 months of the initial application date (1 January 2019).
- Hindsight will be used to determine lease terms if the lease involves renewal or termination options.

In its implementation project, OP Financial Group has defined a process to collect the contract and how to analyse whether the contract meets the definition of a lease. OP Financial Group has also made a preliminary assessment of contracts, whereby the most substantial leases are leases of office premises and company cars. OP Financial Group assesses that the leased assets are not expected to have any significant effect on its balance sheet. Undiscounted lease liabilities amounted to EUR 31 million (Note 46. Other leases) on 31 December 2017.

20.4 IFRS 17 Insurance Contracts

IFRS 17 was published on 18 May 2017. Its mandatory effective date is 1 January 2021, replacing the existing IFRS 4 insurance contracts standard that OP Financial Group adopted on 1 January 2005. The endorsement process of IFRS 17 is only in its early phase within the European Union.

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 liability has three components:

- Estimates of future cash flows adjusted to reflect time value of money,
- A risk adjustment for the 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. Profits included in the contractual service margin are recognised during the coverage period.

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.

Insurance liability volatility will increase as a result of market-consistent inputs and current assumptions. Value changes arising from changes in assumptions of future insurance services based on insurance contracts will be recognised as opposite signs in the fulfilment cash flows and in the contractual service margin. 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.

Presentation of the balance sheet and income statement will change. Two new items of insurance contracts will be included in the income statement: insurance service result and

insurance finance income or finance expenses. The investment component of savings-type life policies must be separated from the insurance service.

The standard will increase quantitative requirements in Notes. The current standard already meant much more qualitative information in the notes to the financial statements, which the new standard will supplement.

The adoption of the new standard will be challenging especially in life insurance where almost all contracts are multi-year ones.

20.5 Other upcoming amendments to standards

Amendments to IFRS 2 and IFRIC 22 will take effect on 1 January 2018. The amendments will not have any significant effect on OP Financial Group's financial statements.

Note 2. OP Financial Group's 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-bearing capacity in all circumstances and to keep risk-taking moderate relative to risk-bearing 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.

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 Group-level risk appetite. In risk policy, target levels and qualitative targets as well as limits and control limits for segments and OP Financial Group entities are derived from these. Quantitative and qualitative target levels set for risk appetite balance the business targets based on the strategy and moderate risk appetite out.

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 2017

Risk capacity (capital adequacy)	
	Common Equity Tier 1 (CET1) ratio, %
	FiCo ratio, %
Risk appetite	
	Economic capital, %
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, %
	Trading VaR (99% confidence), 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), %

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 remain 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 all Group business segments and 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.

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. Committees set up by the Executive Board will allocate, on the business segment's proposal, the limits at a more detailed level, 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 Group-wide 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 capital adequacy based on capital plan control practices 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% probability 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 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. About a third of OP Financial Group's economic capital requirement consists of credit risks and about a fourth 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 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 economic capital requirements are used in OP Financial Group's target, limit and control limit metrics, credit and insurance policy pricing and capital planning when defining the capital conservation 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 of the most significant risks affecting OP Financial Group's financial position.

Sensitivity analyses are used as part of the risk analysis for various risk types. Sensitivity analyses help to understand how certain assumptions affect the risk parameter values. 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.

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.

Stress test methods are utilised, for example, in the Group's capital planning, 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. 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 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;
- business continuity and 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 tolerance, limits and control limits.

Risk Management reports regularly on its observations and assessments to the Supervisory Board and its Risk Management Committee as well as the Executive Board and its ALM and Risk Management Committee and to the Control and Compliance Committee.

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 and capital adequacy 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-bearing capacities in accordance with shared business models.

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

Three defence lines of risk management



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. 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, funding liquidity, business continuity and the achievement of strategic targets. Risk management helps to achieve the targets set in the strategy by controlling that risks are proportional to risk capacity.

Risk Management is in charge of the Group's risk management process and supports Group entities in risk management implementation. It is also responsible for maintaining and developing risk management systems and methods at Group level and for the entities. Moreover, it maintains, develops and prepares risk management principles for approval by the Executive Board and Supervisory Board.

The risk management organisation structure supports both an approach per risk type and consolidated risk exposure monitoring at Group and entity level. Risk Management is divided into the following four departments with responsibilities confirmed by the Chief Risk Officer:

- Risk Exposure and Capital Requirement
- Lending Support and Control
- Credit Risk Process Control and Supervision
- Internal Control Support.

Risk Exposure and Capital Requirement is responsible for the assessment and control of OP Financial Group's overall risk exposure are for supporting and supervising the management of capital adequacy and liquidity. Through annual validations and other quality assurance tools, the department assesses the reliability of the income statement and balance sheet items used by the Group, of risks as well as of the business pricing and decision-making models and of the processes and systems they use. In addition, it is in charge of the development, control and supervision of the framework of market, underwriting and liquidity risks per risk type (principles, practices and processes) as well as of risk exposure control.

Lending Support and Control supports the lending process by ensuring compliance with the Group's risk tolerances and risk policy in lending, analyses and controls the quality and risk exposure of the loan portfolio to ensure OP Financial Group's strategy and risk-taking based on the targets as well as is in charge of monitoring default customers. It is also responsible for deciding on the Group's internal rating and monitoring the functionality of credit risk models.

Credit Risk Process Control and Supervision 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. It is also responsible for the development of models owned by Risk Management.

Internal Control Support guides and supports the arrangement of internal control. As part of this, it is particularly in charge of the development, maintenance, provision of instructions and supervision of the operational and compliance risk management framework (principles, practices and processes). Its work focuses on preventative activities in the form of advice and the assessment and reporting of risk exposure.

Central cooperative's decision-making system



3.3 Supervisory Board

OP Cooperative's Supervisory Board adopts, among other things, OP Financial Group's strategy and other shared

objectives and operating principles. 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 principles and policies concerning OP Financial Group's remuneration development and decides on the Group's 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

To support its work, OP Cooperative's Supervisory Board has set up a Working Committee, Audit Committee, Remuneration Committee, Risk Management Committee and the central cooperative consolidated management Nomination Committee. The most important committees in terms of risk and capital adequacy management are the Risk Management Committee and the Audit Committee. The committees are not as a rule authorised to make decisions independently.

The Risk Management Committee assists the Supervisory Board in matters related to the central cooperative consolidated's and the Group's risk-taking and risk management and risk-based supervision to ensure that the executive management complies with the risk-taking policy in accordance with the Group strategy and the risk tolerances issued by the Supervisory Board. The Risk Management Committee 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, funding liquidity and strategy implementation. The Committee also assists the Supervisory Board's Remuneration Committee in creating sound remuneration schemes.

The Audit Committee assists the Supervisory Board in ensuring that the central cooperative consolidated and OP Financial Group have in place a sufficient and effective control system to cover all operations and that the central cooperative consolidated's and OP Financial Group's accounting and asset management control is organised appropriately. The Committee is also tasked with monitoring that the central cooperative consolidated's and OP Financial Group's activities and internal control are organised in accordance with the requirements of the laws and regulations and the principles of good corporate governance, in addition to supervising the performance of internal audit.

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 adopts the control methods under the guidelines for each bank based on the control system required for joint and several liability. It also decides on banks belonging to lower risk categories and on related control methods.

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

OP Cooperative's Executive Board has set up, in support of its duties, an HR Committee, Development Committee, Control and Compliance Committee and ALM and Risk Management Committee. The most important ones in terms of risk management are the ALM and Risk Management Committee and the Control and Compliance Committee. 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 confirmed operating principles and decisions. 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 are two coherent OP Financial Group's committees 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 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 report to the Executive Board's ALM and Risk Management Committee.

3.5 Central cooperative subsidiaries

The central cooperative Executive Board is in charge of the entire Group's operational management. It is responsible for the central cooperative consolidated's management and its appropriate organisation. In the entire central cooperative consolidated, decisions are made as extensively as possible at Group level by the central cooperative's Executive Board. The board of directors of each subsidiary discusses issues related to them primarily on the basis of the policy guidelines issued by the central cooperative's Executive Board or after hearing the Executive Board. The boards of directors of the subsidiaries mainly discuss only issues required by law.

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 supervisory board of each OP cooperative bank supervises compliance in the bank with the Group-level principles of Internal Control issued by the central cooperative as well as of the Risk-taking system and the Risk Appetite Framework. 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. Based on guidelines issued by the central cooperative, the board of directors confirms practices and instructions, business targets, capital plan and the limits concerning 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 guidelines.

The managing director is responsible for the implementation of risk and capital adequacy management. 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 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. Banking risks are associated with the balance sheet, i.e. credit risk, structural interest rate and funding risk and liquidity play a pronounced role. Interest rate and other market risks are highlighted in Non-life Insurance and life insurance market risks in Wealth Management. As services go digital, operational risks and the resulting escalating reputational risks are highlighted in all businesses, including new businesses (e.g. health and wellbeing services, and mobility services). With regulation becoming more complex and supervision tightening, compliance risk management is highlighted in all business segments.

Although the Group's big size provides significant risk diversification benefits, the role of various concentration risks

will increase. The management of concentration risks is closely integrated with other risk management.

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 competitive environment, slow reaction to changes in the business environment or customer behaviour, poor choice of strategy or poor strategy implementation.
Operational risks	Risk of financial loss or other detrimental consequences caused by inadequate or failed processes, inadequate or flawed procedures or systems or some external factor. Operational risks also include ICT, security, data security, procedural and model risks.
Compliance risk	Risks caused by non-compliance with external regulation, internal policies, appropriate procedures or ethical principles governing customer relationships.
Reputational risk	Risk of deterioration of reputation or trust caused by negative publicity or realisation of some risk.
Credit risks	Risk of a counterparty failing to fulfil its obligations arising from debt relationship. Non-fulfilment of other obligations of a counterparty is also known as counterparty risk.
Market risks	Market risks consists of structural market risk associated with the balance sheet (market risks associated with the banking book and insurance liabilities) and market risks associated with trading and long-term investment. Market risks include all interest rate, equity, currency, credit 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 and concentration risk.
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.
Concentration risks	Risks that may arise of a business's excessive concentration on individual customers, products, lines of business, maturity periods or geographical areas.

5 Strategic risks

Identifying strategic risks and opportunities forms an integral part of the Group's strategic planning and continuous business development. Strategy statements are discussed extensively within the Group before being confirmed. The Group manages its most significant strategic development initiatives through strategic development programmes.

As part of the 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. The Group takes account of risks associated with 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 analyses and forecasts of customer future needs, developments in different sectors and market areas, and of competition.

OP Financial Group assesses strategic risks on an annual basis. The strategic risks are subject to regular reporting and the central cooperative Executive Board and Supervisory Board discuss and monitor related actions and the progress of strategic development programmes.

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 central cooperative consolidated further develops operational risk limits describing a moderate risk level. Owing to the nature of operational risks, their limit levels are threshold values. In 2017, MIM failures (major incidence

management) and the usability of systems 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. The central cooperative consolidated 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 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 Risk Management that is independent of the central cooperative. The central cooperative consolidated entities have centralised compliance functions within Risk Management. Each member cooperative bank has a designated person to ensure regulatory compliance.

7.1 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 the regulatory compliance with procedures applied within the organisation.

7.2 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 line, the central cooperative's Executive Board and the Supervisory Board's Risk Management and Audit Committees.

8 Reputational risk

Reputational risk is managed proactively and in the long term by complying with regulation, good practices of the financial sector and the Group's Code of Business Ethics and by emphasising transparency of operations and communications. The 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.

9 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 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.

9.1 Credit risk management

Credit risk management in banks is based on active customer relationship management, good knowledge of customers, strong professional skills and comprehensive documentation. The day-to-day credit approval 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.

The 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 or an interest rate cap. 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 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. Maximum valuation percentages for each type of collateral have been specified and the Group monitors developments in collateral values on a regular basis. Collateral evaluation is based on the principle of independent evaluation and a prudent approach to fair value. 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. In this context, the Group also analyses the need to revise the customer's credit rating, the probability of a credit loss and the need to recognise an impairment loss. This often 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.

9.2 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, expected loss of credit exposure and 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.

9.3 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
- the measurement of impairment losses on a collective basis.

9.3.1 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.

9.3.2 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.

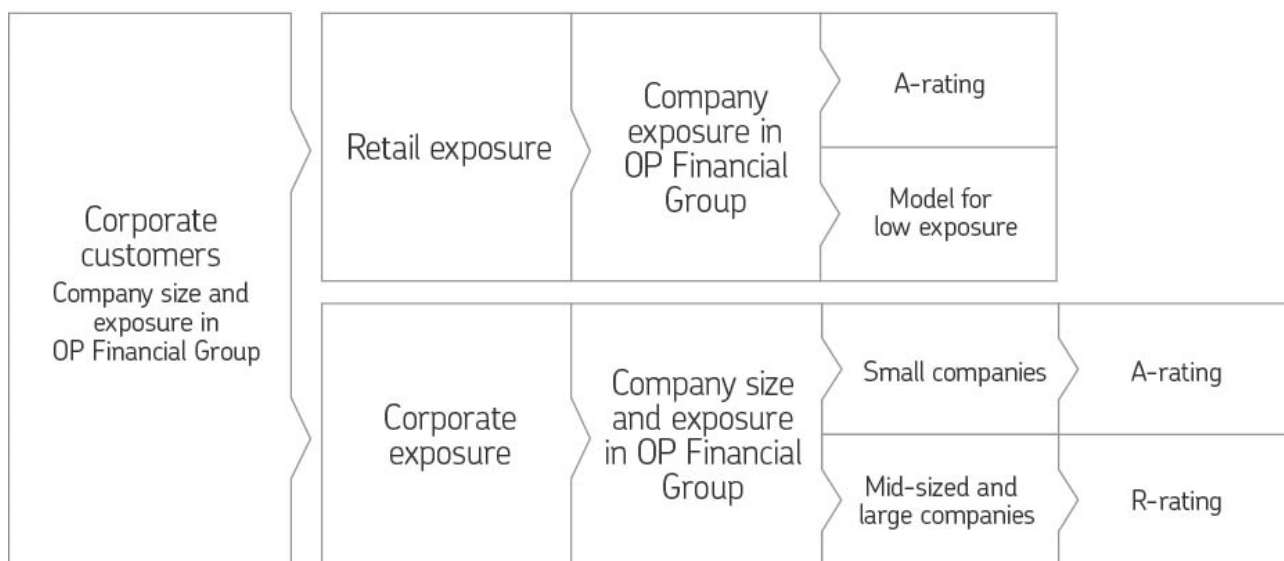
OP Cooperative banks use an application stage rating model that covers most of the promissory notes granted to private

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.

9.3.3 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 Asiakatiето'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 significant A-rated customers within the Corporate Exposures group is assessed by the account manager 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 Group 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

9.3.4 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 Group decides on credit institution ratings 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

9.3.5 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 defaults.

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.

9.3.6 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.

9.3.7 Decision-making and assessment related to credit risk models

The Executive Board's ALM and Risk Management Committee decides on the adoption of changes in models and parameters approved by the Risk Management Committee. 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 models are developed and maintained by OP Financial Group's Risk Management, independent of business lines/divisions.

The 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 effectiveness of the credit rating process and credit risk models is subject to regular monitoring and supervision. OP Financial Group's Risk Management collects continuous feedback from the business lines/divisions on the effectiveness of the credit rating process and credit risk models. On a monthly basis, it monitors the models that automatically create a borrower grade. The purpose of this monitoring is to follow changes in the loan portfolio and lending while ensuring the effectiveness of the rating process.

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. The Group uses the Standardised Approach (SA) for government and central bank exposures and for some other exposure categories (Baltic exposures, exposures of six member cooperative banks joining OP Financial Group in 2015 and exposures of OP Card Company). As a rule, a simple model applies to equity investments. The

In addition, the Group assures the quality of the models at least once a year in accordance with the validation instructions approved by OP Financial Group's 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 an analysis of user feedback, 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.

9.4 Securitised assets

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 Liquidity risks

Liquidity risk comprises funding liquidity risk and structural funding risk as well as concentration risk associated with funding. 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.

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 approves the qualitative targets set for the liquidity buffer, a funding plan, and a business continuity and contingency funding plan in the case of threat scenarios. The business continuity and 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 business continuity and 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 has the size required for

the time to implement the contingency plan in a liquidity crisis. 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 Group member 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 and other internal objectives. A solid funding structure requires that the loan portfolio and the 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 the 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 business continuity and 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.

10.1 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.

OP Financial 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.

11 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 than 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 possible price risks. Market risks are the result of interest rate, price, volatility and market liquidity changes in the financial market. 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 take 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 use 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.

11.1 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 value 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.

11.2. 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, 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.

11.3 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 restrict 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.

A VaR limit has been set at Group level for long-term investment by insurance operations relative to the market value of investments.

11.4 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.

OP Financial 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 increasingly novated to a central counterparty.

11.5 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.

12 Underwriting risks associated with Non-life Insurance

12.1 Risks of insurance operations

The insurance business is based on taking and managing risks. The largest 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.

12.2. 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 and the Baltic region. However, studies have suggested that there are indications of a change in climatic conditions in the Group's operating region at least in the long 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. 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.

12.2.1 Underwriting risk management

The most important tasks within the management 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 Underwriting (UW) Executives tasked with managing Non-life Insurance underwriting risks. The Underwriting Executives make underwriting decisions within the framework of powers confirmed by the boards of directors of the insurance companies, and report its decisions to these boards.

Decisions on customer and insurance object selection and risk pricing are made according to the UW Guidelines. The Underwriting Executives approve 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.

12.2.2 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.

12.2.3. Reinsurance

The reinsurance principles and the maximum risk per claim retained for own account are annually adopted by the boards of directors of the insurance companies, in accordance with the principles of the central cooperative's Executive Board. 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.

12.2.4 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.

12.2.5 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. Due to low interest rates, Non-life Insurance has reduced the discount rate.

13 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 expense risk.

13.1 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.

13.2 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.

14 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. These principles guide OP Financial Group's annual planning, and the central cooperative's Executive Board adopts the Risk Management Guidelines, the Risk Policy and the Capital Plan expanding on the Risk Appetite Framework, drafted by Risk Management.

OP Financial Group's risk and capital adequacy 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 is built on three lines of defence.

The risk management and ICAAP process involves:

- 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.

The central cooperative's Risk Management reports on risk exposure and risk capacity regularly to the central cooperative's ALM and Risk Management Committee, the Control and Compliance Committee and the Supervisory Board's Risk Management Committee.

The central cooperative's Risk Management annually compiles a consolidated set of reports on OP Financial Group's capital adequacy and funding liquidity (ICAAP, ILAAP and ORSA processes), which describes the methods, quality and scope of the Group's risk and capital adequacy management and the sufficiency of capital and liquidity. The Executive Board discusses the report and comments on its descriptions and assessments. Both the Supervisory Board's Risk Management Committee and the Audit Committee discuss the report and comment on it before the Supervisory Board discusses and confirms it.

At its meeting on 14 December 2017, the Supervisory Board concluded that the risk management systems in place are adequate vis-à-vis OP Financial Group's risk profile and strategy."

Notes to the income statement

Note 4. Net interest income

EUR million	2017	2016
Interest income		
Receivables from credit institutions		
Interest	4	3
Negative interest	23	9
Total	27	12
Receivables from customers		
Loans*	1,151	1,180
Finance lease receivables*	22	20
Impaired loans and other commitments	3	3
Negative interest	8	3
Total	1,183	1,207
Notes and bonds		
Held for trading	7	9
Available for sale	105	126
Held to maturity	1	2
Loans and receivables	1	1
Total	114	139
Derivative contracts		
Held for trading	720	928
Fair value hedge	-117	-130
Cash flow hedge	37	39
Ineffective portion of cash flow hedge	1	-1
Total	641	835
Other	9	7
Total	1,975	2,200
Interest expenses		
Liabilities to credit institutions		
Interest	1	4
Negative interest	56	36
Total	57	40
Financial liabilities at fair value through profit or loss	0	0
Liabilities to customers	74	95
Notes and bonds issued to the public	288	286
Subordinated liabilities		
Subordinated loans	2	4
Other	45	45
Total	47	49
Derivative contracts		
Held for trading	600	818
Cash flow hedge	-130	-145
Other	-65	-9
Total	406	665
Other	10	7
Total	882	1,141
Net interest income before fair value adjustment under hedge accounting	1,093	1,059
Hedging derivatives	-114	-67
Value changes of hedged items	114	66
Total	1,094	1,058

* The comparative has been restated as a result of the more specified classification of finance lease receivables.

Note 5. Net insurance income

EUR million	2017	2016
Net insurance premium revenue		
Premiums written	1,438	1,443
Insurance premiums ceded to reinsurers	-5	-12
Change in provision for unearned premiums	-6	-14
Reinsurers' share	-3	3
Total	1,424	1,420
Net Non-life Insurance claims		
Claims paid	-889	-862
Insurance claims recovered from reinsurers	8	29
Change in provision for unpaid claims*	-109	-27
Reinsurers' share	20	-23
Total	-970	-883
Other Non-life Insurance items	-3	-3
Life Insurance risk premiums collected	27	24
Total	478	558

* The item includes EUR 102 million (55) as a result of the changed discount rate for insurance liabilities.

Note 6. Net commissions and fees

EUR million	2017	2016
Commission income		
Lending	199	200
Deposits	4	5
Payment transfers	244	262
Securities brokerage	19	16
Securities issuance	11	6
Mutual funds	147	135
Asset management and legal services	112	80
Guarantees	19	21
Housing service	71	68
Insurance brokerage	55	55
Life insurance total expense loadings	96	95
Refund of unit-linked management fees	67	62
Other	28	23
Total	1,073	1,028
Commission expenses		
Payment transfers	37	65
Securities brokerage	12	10
Securities issuance	3	2
Asset management and legal services	13	15
Insurance operations	45	41
Other	36	35
Total	145	169
Total net commissions and fees	928	859

Note 7. Net investment income

EUR million	2017	2016
Net income from available-for-sale assets		
Notes and bonds		
Interest income	85	80
Capital gains and losses	22	112
Transferred from fair value reserve during the financial year	22	23
Fair value gains and losses	-46	-3
Impairment losses and their reversal	0	0
Total	83	211
Shares and participations		
Dividends	51	39
Other income and expenses	57	47
Capital gains and losses	52	-20
Transferred from fair value reserve during the financial year	165	87
Impairment losses and their reversal	-38	-52
Total	288	100
Total net income from available-for-sale financial assets	371	312
Net income recognised at fair value through profit or loss		
Financial assets and liabilities held for trading		
Notes and bonds		
Capital gains and losses	-2	2
Fair value gains and losses	-1	4
Total	-3	7
Shares and participations		
Capital gains and losses	5	3
Fair value gains and losses	-4	-1
Dividend income	0	0
Total	1	3
Derivatives		
Capital gains and losses	137	-14
Fair value gains and losses	27	97
Total	164	83
Total financial assets and liabilities held for trading	162	93
Assets and liabilities recognised at fair value through profit or loss		
Notes and bonds		
Interest income	61	22
Capital gains and losses	-6	7
Fair value gains and losses	-36	-5
Total	19	24
Shares and participations		
Capital gains and losses	3	-1
Fair value gains and losses	9	8
Dividend income	2	1
Total	14	8
Derivatives		
Interest income	2	8
Capital gains and losses	70	81
Fair value gains and losses	-33	54
Total	39	143
Other		
Interest income	0	0
Total	0	0
Total assets and liabilities recognised at fair value through profit or loss	72	175

Net income from foreign exchange operations

Currency exchange	1	-1
Fair value gains and losses*	37	28
Total net income from foreign exchange operations	37	27

* Net income from hedging derivatives amounted to 12.9 million euros (-14.3).

Net income from investment property

Rental income	79	70
Capital gains and losses	2	2
Gains on fair value measurement	17	1
Maintenance charges and expenses	-65	-55
Other	-3	-3
Net income from investment property total	29	15

Net income from loans and receivables measured at amortised cost**
Loans and receivables

Interest income	10	8
Interest expenses	-1	-1
Capital gains and losses	2	0
Impairment losses and their reversal	-3	0
Loans and receivables total	7	6

** Note 37 contains information on capital losses recognised on financial assets carried at amortised cost.

Non-life Insurance

Unwinding of discount, Non-life Insurance	-32	-36
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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 2017, the discount rate used was 1.5% (2) for losses occurred before 2015 and 1.5% for losses occurred in 2015, 2016 and 2017.

Life Insurance

Interest credited on customers' insurance savings	-89	-93
Change in supplementary interest rate provisions	48	34
Other technical items***	-111	-143
Total	-152	-202

*** Other technical items include changes in other technical provisions than those in supplementary interest rate provisions.

Total net investment income **495** **390**

Note 8. Other operating income

EUR million	2017	2016
Rental income from property in own use	12	12
Capital gains on property in own use	2	2
Leasing agreements	1	2
ICT income	0	1
Debt collection	1	1
Income from health and wellbeing services	11	7
Other*	66	97
Total	94	122

* In the financial year, 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. Non-recurring VAT refunds for prior years totalled EUR 20 million. A year ago, OP Financial Group recognised EUR 76 million in non-recurring gain as a result of the Visa Europe Ltd transaction.

Note 9. Personnel costs

EUR million	2017	2016
Wages and salaries	547	537
Variable remuneration*	45	67
Pension costs		
Defined contribution plans	70	78
Defined benefit plans**	65	41
Other personnel related costs	31	39
Total	758	762

* Note 51.

** Note 33.

Note 10. Depreciation/amortisation and impairment loss

EUR million	2017	2016
Depreciation and amortisation		
Buildings	31	32
Machinery and equipment	14	14
Intangible assets related to business combinations	34	34
Other intangible assets	106	68
Leased out assets	-1	0
Other	6	6
Total	191	153
Impairment loss		
Property in own use	39	4
Goodwill	0	
Other	16	2
Total	55	6
Total	246	160

Note 11. Other operating expenses

EUR million	2017	2016
ICT costs		
Production	178	159
Development	156	106
Rental expenses	7	7
Expenses for property in own use	75	72
Capital losses on property in own use	1	0
Government charges and audit fees*	13	10
Membership fees	4	6
Services purchased from others	133	113
Telecommunications	37	36
Marketing	35	36
Corporate social responsibility expenses	8	12
Other administrative expenses	66	64
Insurance and security costs	10	10
Other Non-life Insurance expenses	3	3
Costs of self-employed persons of health and wellbeing services	4	2
Other	38	9
Total	769	646

* The item includes EUR 2.1 million (1.9) in audit fees paid to auditors, EUR 0.3 million (0.2) 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 0.6 million (0.7) in fees for other services. Non-audit services provided by KPMG Oy Ab to OP Financial Group companies totalled EUR 0.5 million.

OP Financial Group's stability contribution of EUR 24.8 million (19.2) calculated for 2017 has been fully covered by the bank levy paid previously.

The deposit guarantee contribution of EUR 24.1 million (22.2) calculated for OP Financial Group for 2017 has been fully covered by payments accounted for from the old Deposit Guarantee Fund.

Development costs € million	2017	2016
ICT development costs	156	106
Share of own work	63	29
Total development costs in the income statement	219	135
Capitalised ICT costs	220	167
Capitalised share of own work	14	13
Total capitalised development costs	234	180
Total development costs	454	315
Depreciation/amortisation and impairment loss	100	64

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	2017	2016
Receivables written down as loan and guarantee losses	79	80
Recoveries of receivables written down	-15	-15
Increase in impairment losses on individually assessed receivables	68	103
Decrease in impairment losses on individually assessed receivables	-91	-99
Collectively assessed impairment losses	7	7
Total	48	77

Note 13. OP bonuses to owner-customers

EUR million	2017	2016
OP bonuses	217	205
Interest on supplementary cooperative capital	0	1
Total	217	206

Note 14. Income tax

EUR million	2017	2016
Current tax	189	170
Tax for previous financial years	-1	0
Deferred tax	35	53
Income tax expense	223	223

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	1,077	1,138
Tax calculated at a tax rate of 20%	215	228
Tax for previous financial years	-1	0
Income not subject to tax	-31	-16
Expenses not deductible for tax purposes	25	20
Re-evaluation of unrecognised tax losses	15	-6
Tax adjustments	2	-1
Other items	-1	-1
Tax expense	223	223

Notes to assets

Note 15. Liquid assets

EUR million	31 Dec. 2017	31 Dec. 2016
Cash	96	109
Deposits with central banks repayable on demand		
OP Corporate Bank plc's minimum reserve deposit	668	651
Cheque account	12,173	8,710
Total liquid assets	12,937	9,471

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 16. Receivables from credit institutions

EUR million	31 Dec. 2017	31 Dec. 2016
Receivables from credit institutions		
Deposits		
Repayable on demand	307	100
Other	0	13
Total	307	113
Loans and receivables		
Repayable on demand	0	0
Other	198	196
Notes and bonds	0	30
Total	199	226
Total	506	339
Impairment losses	-2	-2
Total receivables from credit institutions	504	337

Note 17. Financial assets held for trading

EUR million	31 Dec. 2017	31 Dec. 2016
Financial assets held for trading		
Government notes and bonds	7	7
Certificate of deposits and commercial papers	392	440
Debentures	30	42
Perpetual loans	9	3
Bonds	150	157
Other notes and bonds	1	4
Shares and participations	0	39
Total	590	692

Notes and bonds held for trading and shares and participations by quotation and issuer

Financial assets held for trading	31 Dec. 2017		31 Dec. 2016	
	Notes and bonds	Shares and participations	Notes and bonds	Shares and participations
EUR million				
Quoted				
From public-sector entities	7		10	
From others	534	0	393	39
Other				
From public-sector entities	39		246	
From others	9	0	4	0
Total	589	0	653	39

Note 18. Derivative contracts

EUR million	31 Dec. 2017	31 Dec. 2016
Held for trading		
Interest rate derivatives	2,859	3,798
Currency derivatives	213	256
Equity and index derivatives	2	1
Credit derivatives	1	1
Commodity derivatives	25	21
Other	0	0
Total	3,100	4,077
Hedging derivative contracts		
Fair value hedging		
Interest rate derivatives	192	350
Currency derivatives	81	269
Cash flow hedge		
Interest rate derivatives	0	2
Total	273	620
Other hedging derivatives		
Interest rate derivatives	39	36
Other	0	0
Total	39	36
Total derivative contracts	3,412	4,732

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. 2017	31 Dec. 2016
Loans to the public and public sector entities*	75,209	72,244
Notes and bonds	0	10
Finance lease receivables*	1,856	1,591
Guarantee receivables	11	11
Receivables	5,655	5,254
Total	82,731	79,111
Impairment losses	-491	-506
Total receivables from customers	82,240	78,604

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

EUR million	Loans	Notes and bonds	Bank guarantee receivables	Interest receivables	Total
Impairment losses 1 January 2016	482	-3	17	-3	494
Increase in impairments of individually assessed loans and receivables	102	2	0	-15	90
Change in impairments of collectively assessed loans and receivables	7		0		7
Reversal of impairments of loans and receivables individually assessed	-39		-9	16	-31
Loans and guarantee receivables derecognised from the balance sheet, of which an individually assessed impairment	-53				-53
Impairment losses 31 December 2016	500	-1	9	-1	506

Finance lease receivables*

OP finances moveable capital assets, real property and other premises through finance leases.

EUR million	31 Dec. 2017	31 Dec. 2016
Maturity of finance leases		
Not later than one year	423	387
1-5 years	1,132	907
Over 5 years	386	379
Gross investment in finance leases	1,941	1,673
Unearned finance income (-)	-85	-81
Present value of minimum lease payments	1,856	1,591
Present value of minimum lease payment receivables		
Not later than one year	401	365
1-5 years	1,089	869
Over 5 years	367	357
Total	1,856	1,591

* The comparative has been restated as a result of the more specified classification of finance lease receivables.

Note 20. Investment assets

EUR million	31 Dec. 2017	31 Dec. 2016
Financial assets at fair value through profit or loss at inception		
Notes and bonds	3,310	3,664
Shares and participations	220	510
Total	3,530	4,175
Available-for-sale financial assets		
Notes and bonds	16,372	17,541
Shares and participations	1,399	2,245
Total	17,771	19,786
Held-to-maturity investments		
Notes and bonds	40	92
Investment property		
Land and water areas	153	148
Buildings	851	803
Total	1,004	951
Loans and receivables		
Notes and bonds	5	15
Other	157	86
Total	161	101
Total investment assets	22,506	25,105

Breakdown of notes and bonds recognised at fair value through profit or loss and shares and participations by quotation and issuer

EUR million	31 Dec. 2017		31 Dec. 2016	
	Notes and bonds	Shares and participations	Notes and bonds	Shares and participations
Quoted				
From public corporations	1,733	0	2,023	1
From others	1,575	220	1,539	510
Other				
From others	2		102	
Total	3,310	220	3,664	510

Available-for-sale financial assets and held-to-maturity investments, 31 December 2017

EUR million	Available-for-sale notes and bonds			Available-for-sale shares and participations			Held-to-maturity investments
	At fair value	At amortised cost	Total	At fair value	At cost	Total	
Quoted							
Eligible as collateral	11,260		11,260				23
Ineligible as collateral	4,608		4,608	743		743	10
Other							
From others	505		505	595	62	657	8
Total	16,372		16,372	1,337	62	1,399	40
Impairment losses for the finan	0		0	-38		-38	

Available-for-sale financial assets include EUR 29 million (EUR 39 million) in subordinated publicly-quoted notes and bonds from others.

Available-for-sale financial assets and held-to-maturity investments, 31 December 2016

EUR million	Available-for-sale notes and bonds			Available-for-sale shares and participations			Held-to-maturity investments
	At fair value	At amortised cost	Total	At fair value	At cost	Total	
Quoted							
Eligible as collateral	12,249		12,249				51
Ineligible as collateral	4,908		4,908	1,372		1,372	24
Other							
From others	384		384	785	88	873	18
Total	17,541		17,541	2,157	88	2,245	92
Impairment losses for the finan	0		0	-52		-52	

Changes in investment property, EUR million

	2017	2016
Acquisition cost 1 Jan.	910	792
Business operations acquired	0	31
Increases	51	145
Decreases	-97	-50
Transfers between items	76	-8
Acquisition cost 31 Dec.	939	910
Accumulated changes in fair value	41	43
Changes in fair value during the financial year	17	1
Decreases	-7	-4
Other changes	14	0
Accumulated changes in fair value 31 Dec.	65	41
Carrying amount 31 Dec.	1,004	951

Increases in investment property include EUR 14 million (EUR 0 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 (2). Group companies had EUR 5 million (1) 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 46.

Investment property contains property used as collateral worth EUR 5 million (6).

Note 21. Assets covering unit-linked contracts

EUR million	31 Dec. 2017	31 Dec. 2016
Shares and participations	10,113	9,157
Other investments	13	10
Total	10,126	9,168

Note 22. Investments accounted for using the equity method

Amounts entered in the balance sheet:

EUR million	31 Dec. 2017	31 Dec. 2016
Associates	228	91
Joint ventures	0	0
Total	228	91

Amounts entered in the income statement:

EUR million	31 Dec. 2017	31 Dec. 2016
Associates	27	1
Total	27	1

Investments in associates and joint ventures

OP Financial Group has 19 (12) 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. Four (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		Associates measured at fair value		Joint ventures	
	31 Dec. 2017	31 Dec. 2016	31 Dec. 2017	31 Dec. 2016	31 Dec. 2017	31 Dec. 2016
Profit of continuing operations	9	2	18	-1		
Comprehensive income	9	2	18	-1		

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 2017	634	179	514	959	2,286
Increases*			3	236	239
Decreases				-39	-39
Transfers between items				-1	-1
Acquisition cost 31 December 2017	634	179	517	1,154	2,485
Acc. amortisation and impairments 1 January 2017		-7	-373	-433	-812
Amortisation during the financial year			-34	-94	-127
Impairments during the financial year				-16	-16
Decreases				27	27
Other changes				-1	-1
Acc. amortisation and impairments 31 December 2017		-7	-406	-517	-930
Carrying amount 31 December 2017	634	172	110	638	1,555

* Internal development work accounts for EUR 14 million (EUR 13 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 2016	635	179	513	782	2,108
Increases*			2	182	184
Decreases				-5	-5
Other changes	0			0	-1
Acquisition cost 31 December 2016	634	179	514	959	2,286
Acc. amortisation and impairments 1 January 2016		-7	-338	-368	-713
Amortisation for the period			-34	-66	-100
Impairments for the period				-2	-2
Decreases				2	2
Other changes				1	1
Acc. amortisation and impairments 31 December 2017		-7	-373	-433	-812
Carrying amount 31 December 2016	634	172	142	526	1,474

Other intangible assets

Carrying amount, EUR million	31 Dec. 2017	31 Dec. 2016
Information systems	344	246
Information systems under development	286	273
Modernisation costs (leased premises)	6	7
Other	1	1
Total	638	526

Intangible assets with indefinite economic lives

EUR million	31 Dec. 2017	31 Dec. 2016
Goodwill	634	634
Brands	172	172
Total	807	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. 2017	31 Dec. 2016
Non-life Insurance	Acquisition of Pohjola Group plc's non-life insurance business and Excenta Ltd's wellness business	393	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		634	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 2018–2020. Growth in cash flows for periods after 2020 ranges between 1.5 and 5%. 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 10.2%. In 2016, it varied from 7.1 to 12.0%. Based on market information, OP Financial Group decreased the discount rate after tax for Non-life and Life Insurance as well as for ICT business by 0.7 percentage points and for asset management and mutual fund business by 1.4 percentage points to 8.5% and for OP Finance business by 0.5 percentage points to correspond to the discount rate level 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, %	9.4	10.0
		Combined ratio, %	83–87	9.7
		Net investment income, %	2.3–2.6	-4.0
Wealth Management	Asset management business	Discount rate, %	10.2	33.0
		Growth in assets under management, %	6.0	-18.0
		Growth in expenses, %	1.3	18.0
	Life insurance business	Discount rate, %	10.1	2.8
		Growth in operating expenses, %	1.5	0.8
		Net investment income percentage, %	0.5–2.5	-0.2
	Mutual fund business	Discount rate, %	9.5	32.0
		Growth in mutual fund assets, %	7–9	-24.0
		Growth in expenses of fixed type, %	2.0	24.0
Banking	OP Finance Ltd's business	Discount rate, %	8.9	13.0
		Loan portfolio growth, %	4.0	-15.0
		Growth in expenses, %	2.0	14.0
Other Operations	ICT business	Discount rate, %	7.4	48.0
		Growth in service income, %	0.1 / 15.0	-67.0
		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, A-Vakuutus (A-Insurance) and Seesam brands, in accordance with IAS 36.

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 (7.8% and 7.5%) 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 (7.8%) plus an asset-specific risk premium of 3%. The same risk premium and the corresponding royalty percentages were applied in 2017 as in the PPA procedure and in previous years' tests.

The testing period of brands was mainly determined to be five years under IAS 36. The testing period of the Pohjola brand was determined to be an exceptional period of 15 years because the use of the brand will be extended to cover a completely new business that will grow strongly in the next few years. The forecasts used in cash flow statements are based on strategy figures for 2018–20 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.

In the autumn of 2014, OP Financial Group Central Cooperative's Supervisory Board decided to put Non-life Insurance together with Banking and Wealth Management under the OP brand. The Pohjola brand will be used mainly in the healthcare and wellbeing business and the closely related non-life products. 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. Because the brand will be used in the new business that is expected to grow strongly in the initial stage, the testing period was extended to 15 years. The Group did not make any major changes in parameters because the new healthcare and wellbeing business is closely related to Non-life Insurance. In the testing of the brand, the Group 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, OP Financial Group did not recognise any impairment loss on brands in its financial statements 2017.

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 and Life Insurance customer relationships as well as from life insurance contracts are charged to expenses using either amortisation on a front-loaded basis or straight-line amortisation, depending on the business line, over their estimated useful lives. No indications of the need for impairment loss recognition have been discovered.

Note 24. Property, plant and equipment

EUR million	31 Dec. 2017	31 Dec. 2016
Property in Group use		
Land and water areas	82	93
Buildings	649	714
Machinery and equipment	51	45
Other tangible assets	16	17
Leased-out assets	0	2
Total property, plant and equipment	798	871
of which construction in progress	42	37

Changes in property, plant and equipment (PPE), and investment	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 depreciation 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 depreciation and impairments 31 December 2017	-445	-78	-2	-2	-527
Carrying amount 31 December 2017	731	51	16	0	798

Changes in property, plant and equipment (PPE), and investment	Property in Group use	Machinery and equipment	Other tangible assets	Leased-out assets	Total PPE
Acquisition cost 1 January 2016	1,161	212	33	17	1,424
Increases	120	13	4	0	137
Decreases	-63	-12	-3	-12	-90
Transfers between items	8	1	0	0	9
Acquisition cost 31 December 2016	1,226	214	34	5	1,479
Accumulated depreciations and impairments 1 January 2016	-388	-167	-16	-10	-581
Depreciation for the financial year	-32	-13	-1	-2	-47
Impairments for the financial year	-4	0	0	0	-4
Reversal of impairments during the financial year	4	0	0	0	4
Decreases	14	11	0	8	33
Other changes	-14	0	0	0	-14
Accumulated depreciations and impairments 31 December 2016	-419	-169	-16	-4	-609
Carrying amount 31 December 2016	807	45	17	2	871

Note 25. Other assets

EUR million	31 Dec. 2017	31 Dec. 2016
Payment transfer receivables	67	15
Pension assets	0	9
Accrued income and prepaid expenses		
Interest	199	200
Interest on derivatives receivables	199	279
Other insurance operations' items	86	100
Other	73	61
Derivatives receivables, central counterparty clearing	11	147
CSA receivables from derivative contracts	543	1,098
Securities receivables	17	26
Direct insurance receivables	492	481
Reinsurance receivables	80	86
Reinsurers' share of provisions for unearned premiums	11	14
Reinsurers' share of provisions for unpaid claims	84	64
Other receivables	270	411
Total	2,131	2,992

Note 26. Tax assets and liabilities

EUR million	31 Dec. 2017	31 Dec. 2016
Income tax assets	55	54
Deferred tax assets	160	156
Total tax assets	214	210

EUR million	31 Dec. 2017	31 Dec. 2016
Income tax liabilities	15	31
Deferred tax liabilities	874	863
Total tax liabilities	890	894

Deferred tax assets	31 Dec. 2017	31 Dec. 2016
Due to available-for-sale financial assets	0	9
Due to depreciation and impairments	4	2
Due to provisions and impairments on loans	18	16
Due to losses related to taxation	1	0
Cash flow hedge	4	5
Due to hedging of interest rate risk associated with technical provisions	-2	8
Due to timing difference of securities issued to the public	0	1
Due to timing difference of derivatives	8	8
Due to defined-benefit pension plans	79	72
Due to consolidation of Group accounts	25	24
Due to other items	38	37
Set-off against deferred tax liabilities	-16	-28
Total	160	156

Deferred tax liabilities	31 Dec. 2017	31 Dec. 2016
Due to appropriations	617	576
Due to available-for-sale financial assets	64	109
Cash flow hedge	8	15
Due to elimination of equalisation provision	59	61
Due to fair value measurement of investment	35	29
Allocation of price of corporate acquisitions	51	57
Defined benefit pension plans	20	12
Due to consolidation of Group accounts	3	3
Due to other items	33	30
Set-off against deferred tax assets	-16	-28
Total	874	863

Net deferred tax asset (+)/liability (-)	-715	-707
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Changes in deferred taxes	31 Dec. 2017	31 Dec. 2016
Deferred tax assets/liabilities 1 January	-707	-693
Recognised in the income statement		
Effect of losses	0	-4
Provisions and impairments on receivables	1	0
Appropriations	-42	-40
Amortisation/depreciation and impairments	6	6
Eliminations of equalisation provisions	1	-6
Defined-benefit pension plans	8	5
Due to hedging of interest rate risk associated with technical provisions	-10	8
Due to provisions and impairment losses on receivables	-1	-7
Due to timing difference of derivatives	0	-1
Investment valuation	-8	-15
Other	8	-1
Recognised in statement of comprehensive income		
Available-for-sale financial assets		
Changes in fair value	4	-50
Cash flow hedge	-1	-1
Transfers to the income statement	41	23
Actuarial gains/losses on post-employment benefit obligations	-10	66
Change in revaluation reserve	-4	
Other	-3	2
Total deferred tax assets 31 December, asset (+)/liability (-)	-715	-707
Income tax assets, asset (+)/liability (-)	39	23
Total tax assets, asset (+)/liability (-)	-675	-684

Tax losses for which a deferred tax asset was not recognised came to EUR 87 million (EUR 12 million) at the end of 2017. The losses will expire before 2027.

A deferred tax liability has not been recognised for the EUR 56 million (EUR 47 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. 2017	31 Dec. 2016
Liabilities to central banks	4,023	3,240
Liabilities to credit institutions		
Repayable on demand		
Deposits	141	23
Other liabilities	0	0
Total	141	23
Other than repayable on demand		
Deposits	974	1,342
Other liabilities	20	65
Total	993	1,407
Total liabilities to credit institutions and central banks	5,157	4,669

Note 28. Derivative contracts

EUR million	31 Dec. 2017	31 Dec. 2016
Held for trading		
Interest rate derivatives	2,368	3,413
Currency derivatives	196	254
Equity and index derivatives	0	0
Credit derivatives	0	2
Other	26	19
Total	2,591	3,688
Hedging derivative contracts		
Fair value hedging		
Interest rate derivatives	342	341
Currency derivatives	86	12
Other	0	0
Cash flow hedge		
Interest rate derivatives	8	3
Total	436	356
Total derivative contracts	3,026	4,044

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. 2017	31 Dec. 2016
Deposits		
Repayable on demand		
Private	33,505	31,011
Companies and public-sector entities	22,383	21,114
Total	55,889	52,125
Other		
Private	1,548	2,147
Companies and public-sector entities	554	550
Total	2,102	2,697
Total deposits	57,991	54,822
Other financial liabilities		
Repayable on demand		
Private	13	18
Companies and public-sector entities	0	46
Total	14	64
Other		
Private		
Companies and public-sector entities	7,545	5,191
Total	7,545	5,191
Total other financial liabilities	7,559	5,255
Total liabilities to customers	65,549	60,077

Note 30. Insurance liabilities

EUR million	31 Dec. 2017	31 Dec. 2016
Non-life Insurance insurance liabilities	3,143	3,008
Insurance liability of Life Insurance other than guaranteed portions of unit-linked insurance	6,842	7,614
Life Insurance liability other than guaranteed portions of unit-linked investment contracts	3	3
Total	9,987	10,626

Non-life Insurance contract liabilities and reinsurers' share

EUR million	31 Dec. 2017			31 Dec. 2016		
	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims for annuities	1,516	-6	1,510	1,434	-6	1,427
Other provisions by case	194	-53	141	162	-34	128
Special provision for occupational diseases	14		14	17		17
Collective liability (IBNR)	779	-25	754	743	-24	719
Reserved loss adjustment expenses	67		67	66		66
Provision for unearned premiums	585	-11	574	578	-14	565
Interest rate hedge for insurance liabilities	-12		-12	8		8
Total Non-life Insurance insurance liabilities	3,143	-95	3,048	3,008	-78	2,930

Changes in insurance liabilities arising from insurance contracts and in receivables arising from reinsurance contracts

EUR million	2017			2016		
	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims						
Provision for unpaid claims 1 Jan.	2,430	-64	2,365	2,357	-87	2,269
Claims paid in financial year	-1,004	8	-996	-958	29	-929
Change in liability/receivable	1,113	-28	1,085	986	-6	979
Current period claims	1,043	-25	1,018	993	-8	985
Increase (decrease) from previous financial years	-32	-3	-35	-62	2	-61
Change in discount rate	102		102	55		55
Unwinding of discount	31		31	35		35
Value change in interest rate hedges	-12		-12	8		8
Acquired business operations 31 Dec.				3		3
Foreign exchange gains (losses)	0	0	0	0		0
Provision for unpaid claims 31 Dec.	2,557	-84	2,473	2,430	-64	2,365
Liability for remaining contract period						
Insurance liability 1 Jan.	578	-14	565	560	-11	550
Increase	524	-6	518	543	-14	529
Decrease	-518	9	-509	-528	11	-517
Acquired business operations 31 Dec.				3		3
Unwinding of discount	1		1	1		1
Insurance liability 31 Dec.	585	-11	574	578	-14	565
Total Non-life Insurance insurance liabilities	3,143	-95	3,048	3,008	-78	2,930

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 2017, the discount rate used was 1.5% (2) for losses occurred before 2015 and 1.5% for losses occurred in 2015, 2016 and 2017. 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.

b) Changes in assumptions

As a result of a reduction in the lower discount rate, the provision for unpaid claims for annuities rose by EUR 102 million (55).

Effect of changes in methods and assumptions on amount of liability	2017	2016
Change in discount rate	102	55
Total	102	55

c) 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

Occurrence year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Estimated total claims expenditure											
0*	707	666	738	784	815	903	931	976	1,000	1,043	8,563
n+1	693	633	746	751	802	879	905	887	1,006		
n+2	691	640	744	752	805	861	920	902			
n+3	689	641	743	757	821	885	939				
n+4	704	651	750	771	836	891					
n+5	726	653	760	786	840						
n+6	734	659	771	785							
n+7	741	670	772								
n+8	758	673									
n+9	759										
Current estimate of total claims expenditure											
	759	673	772	785	840	891	939	902	1,006	1,043	8,611
Accumulated claims paid											
	-726	-636	-733	-733	-777	-820	-839	-780	-824	-609	-7,477
Provision for unpaid claims for 2008-2017											
	34	36	39	52	63	71	100	122	182	435	1,134

Provision for unpaid claims for previous years 151

* = at the end of the occurrence year

Development of claims due to latent occupational diseases, EUR million

Financial year	Collective liability	Known liabilities for annuities	Claims paid	Claims incurred	Changes in reserving basis*	Adequacy
2008	40	41	-4	-4	3	-2
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

Development of annuities confirmed as final, EUR million

Financial year	Year-start	Year-end	New annuity capital	Annuities paid	Changes in reserving basis*	Adequacy
2008	745	766	55	30		4
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

* 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 year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Estimated total claims expenditure											
0*	656	649	693	721	796	861	897	957	992	1019	8,242
n+1	656	620	707	697	782	829	868	877	1,000		
n+2	658	629	705	710	786	819	875	892			
n+3	656	629	705	714	804	843	887				
n+4	670	633	712	727	818	847					
n+5	684	633	721	741	823						
n+6	691	635	732	743							
n+7	698	646	734								
n+8	715	648									
n+9	715										
Current estimate of total claims expenditure											
	715	648	734	743	823	847	887	892	1,000	1,019	8,309
Accumulated claims paid											
	-685	-624	-695	-693	-761	-782	-807	-778	-823	-608	-7,257
Provision for unpaid claims for 2008-2017											
	30	24	39	50	61	65	80	115	177	411	1,053

Provision for unpaid claims for previous years 151

* = 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 increased by EUR 67 million while those for the previous financial year decreased by EUR 12 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. 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 guarantee	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 guarantee	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

Liabilities, EUR million	1 Jan. 2016	Growth in liability arising from insurance premiums	Dis- charged liabilities	Credited interest and changes in value	Other charges and credits	Other items*	31 Dec. 2016
Other than unit-linked contract liabilities							
Other insurance liability than unit-linked liability discounted with interest rate guarantee	3,093	179	-243	94	-96	3,017	6,044
Separated balance sheet 1	1,256	1	-73	30	-8	-140	1,066
Other liability than unit-linked investment contracts discounted with interest rate guarantee	6	0	-2	0	0	0	3
Reserve for decreased discount rate	401					-11	390
Effect of discounting with market interest rate	4					39	42
Other items	63					9	72
Total	4,822	180	-319	123	-104	2,914	7,618

* Other items include the individual pension insurance portfolio consolidated from Suomi Mutual on 30 September 2016, out of which a separated balance sheet 2 has been created for 2017.

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 investments contracts

EUR million	31 Dec. 2017	31 Dec. 2016
Unit-linked contract liabilities		
Liabilities for unit-linked insurance contracts	5,036	4,944
Liabilities for unit-linked investment contracts	5,084	4,221
Total	10,120	9,166

On 31 December 2017, OP Life Assurance Ltd reclassified customer contracts where death cover equals the amount of insurance savings and which include no entitlement to additional bonuses from insurance contracts into investment contracts. All of these contracts are unit-linked contracts. Comparatives of 31 December 2016 have been restated. Total liabilities did not change.

Changes in insurance liabilities

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 investment contracts	4,221	593	-284	219	-18	353	5,084
Total	9,166	813	-619	434	-37	365	10,120

Liabilities, EUR million	1 Jan. 2016	Growth in liability arising from insurance premiums	Discharged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec. 2016
Unit-linked contract liabilities							
Liabilities for unit-linked insurance contracts	4,820	236	-326	210	-20	25	4,944
Liabilities for unit-linked investment contracts	3,811	582	-478	168	-26	164	4,221
Total	8,631	818	-804	378	-46	189	9,166

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	31 Dec. 2017	Average interest	31 Dec. 2016
Bonds	1.24	9,016	1.27	10,976
Covered bonds		10,750		9,277
Other				
Certificates of deposit	1.10	83	0.21	28
Commercial paper	0.47	7,034	0.42	8,059
Other	0.00		0.00	0
Included in own portfolio in trading (-)*		-42		-54
Total debt securities issued to the public		26,841		28,287

*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. 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	0
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	0
Total changes in cash flows from financing activities	-696	0
Valuations and changes in exchange rates	-750	-45
Balance sheet value 31 Dec. 2017	26,841	1,400

Most significant issues in 2017	Nominal amount	Interest rate
OP Corporate Bank plc		
OP Corporate Bank plc Issue of EUR 200,000,000 Floating Rate Instruments due 13 June 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	200.0	EUB3M + 075 %
OP Corporate Bank plc Issue of EUR 500,000,000 0.375 per cent. Instruments due 11 Oct 2022 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 10,000,000 1.058 per cent. Instruments due 18 May 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 1,058 %

OP Mortgage Bank

OP Mortgage Bank Issue of EUR 1,230,000,000 0.25 per cent. Covered Notes due 11 May 2023 under the EUR 15,000,000,000 Euro Medium Covered Note Programme.	1230.0	Fixed 0,250 %
OP Mortgage Bank Issue of EUR 1,000,000,000 0.750 per cent. Covered Notes due 7 June 2027 under the €15,000,000,000 Euro Medium Term Covered Note Programme	1000.0	Fixed 0,750 %
OP Mortgage Bank Issue of EUR 1,000,000,000 0.05 per cent. Covered Notes due 22 February 2023 under the €15,000,000,000 Euro Medium Term Covered Note Programme	1000.0	Fixed 0,050 %

Note 33. Provisions and other liabilities

EUR million	31 Dec. 2017	31 Dec. 2016
Provisions	9	3
Other liabilities		
Payment transfer liabilities	731	1,043
Accrued expenses		
Interest payable	200	242
Interest payable on derivatives	197	265
Other accrued expenses	378	390
CSA liabilities from derivatives	657	1,236
Pension liabilities	304	319
Accounts payable on securities	36	28
Payables based on purchase invoices	82	45
Direct insurance liabilities	51	47
Reinsurance liabilities	16	15
Claims administration contracts	192	179
Total	2,842	3,810
Other	298	413
Total provisions and other liabilities	3,150	4,226

Changes in provisions

EUR million	Total
1 Jan. 2017	3
Increase in provisions	8
Provisions used	-1
Reversal of unused provisions	0
31 Dec. 2017	9

EUR million	Total
1 Jan. 2016	4
Increase in provisions	1
Provisions used	-2
Reversal of unused provisions	-1
31 Dec. 2016	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 in the financial statements for 2015. Change in mortality was made on 31 December 2016, increasing obligations by EUR 25 million. Due to the amended law and changed mortality, assets were reclassified in net terms on 31 December 2016 from defined benefit plans to defined contribution plans worth EUR 1 million. All these items have been included in comprehensive income.

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 2017, 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. The Employee Benefit Funds Act specifies in greater detail the assets and commitments with which the insurance liability must cover. 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.

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. The effect of the liability on comprehensive income was EUR 45 million.

The change in mortality based on the amended TyEL on 31 December 2016 reduced obligations by EUR 9 million recognised in comprehensive income.

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.

	Defined benefit obligations		Fair value of pension assets		Net liabilities (assets)	
	2017	2016	2017	2016	2017	2016
Balance sheet value of defined benefit plans, EUR million						
Opening balance 1 Jan.	2,131	1,746	-1,821	-1,791	310	-45
Defined benefit pension costs recognised in income statement						
Current service cost	59	43			59	43
Interest expense (income)	35	39	-30	-40	5	-1
Effect of plan curtailment, fulfilment of obligation or previous service cost.	0	-2		0	0	-2
Administrative expenses			1	1	1	1
Total	94	80	-29	-40	65	41
Losses (gains) recognised in other comprehensive income arising from remeasurement						
Actuarial losses (gains) arising from changes in economic expectations	-5	345			-5	345
Actuarial losses (gains) arising from changes in demographic expectations	3	17			3	17
Return on TyEL interest rate difference and growth in old-age pension liabilities (net)	36	-10	-36	10		
Experience adjustments	36	12			36	12
Return on plan assets, excluding amount (-) of net defined benefit liability (asset)			-83	-44	-83	-44
Total	70	363	-118	-34	-48	329

Other						
Employer contributions			-23	-15	-23	-15
Benefits paid	-67	-59	67	59		
Total	-67	-59	43	43	-23	-15
Closing balance 31 Dec.	2,230	2,131	-1,926	-1,821	304	310

	31 Dec. 2017	31 Dec. 2016
Liabilities and assets recognised in the balance sheet, EUR million		
Net liabilities/assets (Pension)	5	-9
Net liabilities/assets (Pension Fund)	272	295
Net liabilities (Other pension plans)	27	23
Total net liabilities	304	318
Total net assets		-9
Total net liabilities and assets	304	310

Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec. 2016, 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

Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec. 2015, EUR million				
	Level 1	Level 2	Level 3	Total
Shares and participations	111		57	167
Notes and bonds	330	74	28	433
Real property	3		130	132
Mutual funds	553	2	432	987
Structured investment vehicles			6	6
Derivatives	-1	0		-1
Other assets	42	10		52
Total	1,038	86	652	1,776

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.

	31 Dec. 2017	31 Dec. 2016
Proportion of the most significant assets of total fair value of plan assets, %		
Shares and participations	10	9
Financial sector	1	1
Forest	3	3
Real estate	1	1
Other	5	5
Notes and bonds	24	24
Government bonds	3	2
Other	21	22
Real property	6	7
Mutual funds	52	56
Equity funds	32	28
Bond funds	7	13
Real estate funds	9	9
Hedge funds	4	6
Derivatives	0	0
Interest rate derivatives	0	0
Currency derivatives	0	
Other	0	
Structured investment vehicles	0	0
Other	8	3
Total	100	100

	31 Dec. 2017	31 Dec. 2016
Pension plan assets include, EUR million,		
Securities issued by OP Financial Group companies	26	19
Other receivables from OP Financial Group companies	164	51
Total	189	70

Contributions payable under the defined benefit pension plan in 2017 are estimated at EUR 21 million.

The duration of the defined benefit pension obligation in the Pension Fund on 31 December 2017 was 21.8 years, in the Pension Foundation 15.2 years and in other plans 20.7 years.

Key actuarial assumptions used, 31 Dec. 2017, EUR million	Pension Fund	Pension Foundation	Other
	Discount rate, %	1.8	1.5
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

Key actuarial assumptions used, 31 Dec. 2016, EUR million	Pension Fund	Pension Foundation	Other
Discount rate, %	1.7	1.5	1.8
Future pay increase assumption, %	2.6	2.5	2.6
Future pension increases, %	1.3	1.9	2.0
Turnover rate, %	3.0	0.5	0.0
Inflation rate, %	1.8	1.7	1.8
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

Sensitivity analysis of key actuarial assumptions, 31 Dec. 2017	Change in defined benefit pension obligation			
	Pension Fund		Pension Foundation	
	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

Sensitivity analysis of key actuarial assumptions, 31 Dec. 2016	Change in defined benefit pension obligation			
	Pension Fund		Pension Foundation	
	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-152	-9.6	-33	-6.9
0.5 pp decrease	177	11.2	37	7.8
Pension increases				
0.5 pp increase	165	10.5	32	6.6
0.5 pp decrease	-150	-9.5	-30	-6.2
Mortality				
1-year increase in life expectancy	55	3.5	16	3.3
1-year decrease in life expectancy	-53	-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. Supplementary cooperative capital

EUR million	31 Dec. 2017	31 Dec. 2016
Opening balance 1 Jan. 2017	77	106
Converted into profit shares	-6	-10
Refunds of supplementary cooperative capital	-70	-19
Closing balance 31 Dec. 2017	0	77

Supplementary cooperative capital, which OP Financial Group member banks have no absolute right to refuse to refund to members, included in equity in the national financial statements of the member cooperative banks are classified as liability under IFRS financial statements.

Supplementary cooperative capital will be refunded after six months of the end of the financial period on the basis of with the refund may be performed for the first time. If it has not been possible to refund the cancelled supplementary cooperative capital in full, the refund can be made later if it is feasible on the basis of the following three financial statements. Interest will be paid on supplementary cooperative capital until the date when it is available for withdrawal as specified in the Co-operatives Act.

Supplementary cooperative capital has been refunded to customers in July 2017.

Note 35. Subordinated liabilities

EUR million	Average interest rate %	31 Dec. 2017	Average interest rate %	31 Dec. 2016
Subordinated loans	0.77	80	0.81	77
Other				
Debentures	3.41	1,320	3.30	1,368
Total subordinated liabilities		1,400		1,445

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 entire principal must be repaid in one instalment.

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

- A debenture loan of CHF 100 million (euro equivalent 85 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.
- 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.
- 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.
- Debenture loan of JPY 10 billion (euro equivalent 74 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%.
- Debenture loan of SEK 3,500 million (euro equivalent 365 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%.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 36. Equity capital

EUR million	31 Dec. 2017	31 Dec. 2016
Capital and reserves attributable to OP Financial Group owners		
Cooperative capital, cooperative shares*	185	177
of which cancelled cooperative shares	6	5
Cooperative capital, profit shares	2,599	2,420
of which cancelled profit shares	307	299
Reserves		
Restricted reserves		
Reserve fund	791	788
Reserves according to the Articles of Association/Bylaws		
Fair value reserve		
Cash flow hedge	16	41
Measurement at fair value		
Notes and bonds	135	105
Shares and participations	25	172
Other restricted reserves	15	1
Non-restricted reserves		
Reserve for invested non-restricted equity		
Other non-restricted reserves	1,367	1,319
Retained earnings		
Profit (loss) for previous financial years*	4,724	3,895
Profit (loss) for the financial year	849	913
Equity capital attributable to OP Financial Group's owners	11,019	10,135
Non-controlling interests	101	102
Total equity capital	11,121	10,237

* Equity capital internal eliminations have been restated over a year ago, as a result of which the amount of cooperative shares under cooperative capital increased by EUR 16 million and retained earnings decreased by the same amount.

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 2017–18, 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. 2016	1,560	25,021	26,582
Increase in cooperative capital	319	3,125	3,444
Refund of cooperative capital	-53	-958	-1,011
31 Dec. 2016	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	30,979

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 available-for-sale financial assets. 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 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

EUR million	Available-for-sale financial assets			Total
	Notes and bonds	Shares, participations and mutual funds	Cash flow hedging	
Opening balance 1 Jan. 2016	31	142	69	242
Fair value changes	115	92	3	210
Capital gains transferred to income statement	-23	-87		-110
Impairment loss transferred to income statement	1	33		34
Transfers to net interest income			-37	-37
Deferred tax	-19	-7	7	-19
Closing balance 31 Dec. 2016	105	172	41	318

EUR million	Available-for-sale financial assets			Total
	Notes and bonds	Shares, participations and mutual funds	Cash flow hedging	
Opening balance 1 Jan. 2017	105	172	41	318
Fair value changes	59	-39	6	26
Capital gains transferred to income statement	-22	-165		-187
Impairment loss transferred to income statement	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

The fair value reserve before tax totalled EUR 220 million (398) and the related deferred tax liability EUR 44 million (79). On 31 December, positive mark-to-market valuations of equity instruments before tax in the fair value reserve totalled EUR 146 million (268) and negative mark-to-market valuations EUR 38 million (23).

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 37. Reclassified notes and bonds

The table below shows the carrying amounts and fair values of the reclassified notes and bonds.

EUR million, 31 Dec. 2017	Carrying amount	Fair value	Effective interest rate	Impairments arising from credit risk
Loans and receivables	5	7	9.9	
Investments held to maturity	31	29	4.4	
Total	35	36		

EUR million, 31 Dec. 2016	Carrying amount	Fair value	Effective interest rate	Impairments arising from credit risk
Loans and receivables	55	59	6.2	
Investments held to maturity	34	30	5.3	
Total	89	90		

If notes and bonds were not reclassified and had been measured using fair values available in the market

EUR million	31 Dec. 2017		31 Dec. 2016	
	Income statement	Fair value reserve	Income statement	Fair value reserve
Effect	3	0	1	-2

Loans and receivables and held-to-maturity investments were reclassified in 2008.

Interest accrued on reclassified notes and bonds in January–December totalled EUR 3 million (4). The price difference between the nominal value and acquisition value recognised in profit and loss totalled EUR 0 million (0). During the financial year, no capital gains or losses were recognised on notes and bonds. A year ago, capital losses recognised totalled EUR 5 million. Positive mark-to-market valuations recognised on hedging derivative contracts amounted to EUR 3 million (2).

Note 38. Notes and bonds eligible for central bank refinancing

EUR million	31 Dec. 2017	31 Dec. 2016
Financial assets at fair value through profit or loss	67	88
Available for sale		
Measured at fair value	10,943	11,981
Held to maturity	23	51
Total notes and bonds eligible for central bank refinancing	11,032	12,119

Only OP Corporate Bank plc within OP Financial Group is eligible for central bank refinancing.

Note 39. Subordinated notes and bonds

EUR million	31 Dec. 2017	31 Dec. 2016
Publicly quoted		
From others	29	39
Total	29	39
Other		
From others	10	6
Total	10	6
Total included financial assets at fair value through profit or loss	39	46
Investment assets		
Publicly quoted		
From others	11	25
Total	11	25
Other		
From others	3	2
Total	3	2
Total included in investment assets	14	26

Note 40. Collateral given

EUR million	31 Dec. 2017	31 Dec. 2016
Given on behalf of own liabilities and commitments		
Pledges	110	1
Loans (as collateral for covered bonds)	13,266	10,407
Others	5,663	4,973
Total collateral given*	19,039	15,381
Secured derivative liabilities	889	1,351
Other secured liabilities	4,146	3,443
Covered bonds	10,750	9,277
Total	15,784	14,071

* In addition, bonds with a book value of EUR 6.0 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 41. Financial collateral held

OP has received collateral, in accordance with the Financial Collateral Act, which it may resell or repledge.

EUR million	31 Dec. 2017	31 Dec. 2016
Fair value of collateral received		
Other	414	1,177
Total	414	1,177

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 414 million on the balance sheet date (1,177). The Group had no securities received as collateral on the balance sheet date.

Note 42. Classification of financial assets and liabilities

Assets, EUR million	Loans and other receivables	Investments held to maturity	Financial assets at fair value through profit or loss*	Available-for-sale financial assets	Hedging derivatives	Carrying amount total
Cash and cash equivalents	12,937					12,937
Receivables from credit institutions	504					504
Derivative contracts			3,139		273	3,412
Receivables from customers	82,240					82,240
Assets covering unit-linked contracts			10,126			10,126
Notes and bonds		40	3,899	16,372		20,311
Equity instruments			220	1,399		1,620
Other financial assets	2,292					2,292
Financial assets						133,443
Other than financial instruments						3,799
Total 31 December 2017	97,973	40	17,385	17,771	273	137,242

Assets, EUR million	Loans and other receivables	Investments held to maturity	Financial assets at fair value through profit or loss*	Available-for-sale financial assets	Hedging derivatives	Carrying amount total
Cash and cash equivalents	9,471					9,471
Receivables from credit institutions	337					337
Derivative contracts			4,112		620	4,732
Receivables from customers	78,604					78,604
Assets covering unit-linked contracts			9,168			9,168
Notes and bonds		92	4,318	17,541		21,951
Equity instruments			550	2,245		2,794
Other financial assets	3,093					3,093
Financial assets						130,150
Other than financial instruments						3,597
Total 31 December 2016	91,505	92	18,147	19,786	620	133,747

* 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		5,157		5,157
Financial liabilities held for trading (excl. derivatives)	1			1
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		2,283		2,283
Financial liabilities				124,366
Other than financial liabilities				1,756
Total 31 December 2017		12,731	454	126,122

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		4,669		4,669
Financial liabilities held for trading (excl. derivatives)	0			0
Derivative contracts	3,691		353	4,044
Liabilities to customers		60,077		60,077
Insurance liabilities		10,586		10,586
Liabilities from unit-linked insurance and investment contracts	9,205			9,205
Debt securities issued to the public		28,287		28,287
Subordinated loans		1,445		1,445
Other financial liabilities		3,326		3,326
Financial liabilities				121,639
Other than financial liabilities				1,870
Total 31 December 2016	12,896	108,390	353	123,509

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 385 (545) 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 43. Recurring fair value measurements by valuation technique

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 assets on 31 December 2016, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	442	82	26	550
Debt instruments	3,489	712	117	4,318
Unit-linked contracts	6,591	2,577		9,168
Derivative financial instruments	6	4,566	160	4,732
Available-for-sale				
Equity instruments	900	564	780	2,245
Debt instruments	13,130	4,042	369	17,541
Total financial instruments	24,559	12,543	1,452	38,553
Investment property			951	951
Total	24,559	12,543	2,403	39,504

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 of liabilities on 31 December 2016, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Unit-linked contracts	6,618	2,587		9,205
Other		0		0
Derivative financial instruments	10	3,926	107	4,044
Total	6,628	6,514	107	13,249

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 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, including the measurement of Level 3 hierarchy. Middle Office compares regularly at contract level valuation prices with valuations supplied by CSA counterparties and central counterparties and, whenever necessary, determine 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 and to the specification of the classification principles.

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	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	930	1,516

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. 2016	21	176	1,005	1,203
Total gains/losses in profit or loss	-12	-16	-50	-79
Total gains/losses in other comprehensive income			97	97
Purchases	133		259	391
Sales	-2		-128	-130
Settlements	0			0
Transfers into Level 3	2		148	150
Transfers out of Level 3			-181	-181
Closing balance 31 Dec. 2016	142	160	1,149	1,452

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

Financial liabilities, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Total liabilities
Opening balance 1 Jan. 2016		135	135
Total gains/losses in profit or loss		-28	-28
Closing balance 31 Dec. 2016		107	107

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 comprehen- sive 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

Total gains/losses included in profit or loss by item for the financial year on 31 Dec. 2016

EUR Million	Net interest income	Net investment income	Statement of comprehen- sive 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)	-12			-12
Unrealised net gains (losses)	11	-50	97	58
Total net gains (losses)	-1	-50	97	46

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 2017.

Sensitivity analysis of input parameters involving uncertainty on 31 Dec. 2017

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:					
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 maturity**	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		1,004	200.7	20%

Sensitivity analysis of input parameters involving uncertainty on 31 Dec. 2016

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:					
Private equity funds*	26		26	2.6	10%
Bond investments	117		117	11.7	10%
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity**	160	-107	53	5.8	11%
Available-for-sale:					
Bond investments	369		369	36.9	10%
Illiquid investments	65		65	9.8	15%
Private equity funds*	489		489	48.9	10%
Real estate funds***	225		225	45.0	20%
Investment property					
Investment property***	951		951	190.2	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 44. Off-balance-sheet commitments

	31 Dec. 2017	31 Dec. 2016
Guarantees	643	836
Other guarantee liabilities	1,936	1,921
Pledges		0
Loan commitments	12,176	11,049
Commitments related to short-term trade transactions	372	358
Other	1,121	966
Total off-balance-sheet commitments	16,247	15,129

Note 45. 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 46. 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. 2017	31 Dec. 2016
No later than 1 year	7	9
Later than 1 year and no later than 5 years	20	17
Later than 5 years	3	2
Total	31	27

OP Financial Group as Lessor

OP Financial Group companies have leased out investment properties they own, which generated lease income of EUR 79 million (70).

Future minimum lease payments receivable under non-cancellable operating leases

EUR million	31 Dec. 2017	31 Dec. 2016
No later than 1 year	53	58
Later than 1 year and no later than 5 years	124	132
Later than 5 years	127	125
Total	304	315

Note 47. Derivative contracts

Derivatives held for trading 31 December 2017

EUR million	Nominal values/residual maturity				Fair values*		Potential future exposure
	<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

Derivatives held for trading 31 December 2016

EUR million	Nominal values/residual maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives							
Interest rate swaps	16,966	34,004	37,559	88,528	2,804	2,712	3,538
Cleared by the central counterparty	7,711	22,162	23,347	53,220	950	1,020	1,411
OTC interest rate options							
Call and caps							
Purchased	2,513	5,910	4,317	12,741	400	1	504
Written	2,091	7,489	3,392	12,972	2	317	8
Put and floors							
Purchased	2,678	3,718	1,821	8,217	149	6	209
Written	3,359	4,374	1,633	9,366	12	116	39
Total OTC interest rate derivatives	27,608	55,495	48,721	131,824	3,366	3,153	4,298
Interest rate futures	4,071	789		4,860	0	1	
Put							
Written	1,000			1,000	0		
Total exchange traded derivatives	5,071	789		5,860	1	1	
Total interest rate derivatives	32,679	56,284	48,721	137,684	3,367	3,154	4,298
Currency derivatives							
Forward exchange agreements	21,371	382	50	21,803	249	249	471
Interest rate and currency swaps	3,196	9,052	2,767	15,015	1,161	1,234	1,853
Currency options							
Call							
Purchased	131	2		134	1		3
Written	181	2		183		2	
Put							
Purchased	226	2		228	4		6
Written	161	3		164		2	
Total OTC currency derivatives	25,266	9,443	2,817	37,526	1,415	1,487	2,332
Total currency derivatives	25,266	9,443	2,817	37,526	1,415	1,487	2,332
Equity and index derivatives							
Equity options							
Call							
Purchased		5		5	1		1
Equity index options							
Call							
Purchased	0	1		1	0		0
Total OTC equity and index derivatives	0	6		6	1		1
Equity futures	15			15		0	
Total exchange traded derivatives	15			15		0	
Total equity and index derivatives	15	6		21	1	0	1
Credit derivatives							
Credit default swaps	19	397	13	429	11	8	36
Total credit derivatives	19	397	13	429	11	8	36

Other							
Other forward contracts	1	0		2	0	0	0
Other swaps	261	541	2	805	63	18	135
Total other OTC derivatives	263	542	2	807	64	18	135
Other futures contracts	12	10		22	0	5	
Total other derivatives	275	552	2	829	64	23	135
Total derivatives held for trading	58,254	66,683	51,553	176,490	4,857	4,673	6,802

Derivative contracts for hedging purposes – fair value hedging 31 December 2017

EUR million	Nominal values/residual maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
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

EUR million	Nominal values /residual term to maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
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

Derivative contracts for hedging purposes – fair value hedging 31 December 2016

EUR million	Nominal values/residual maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives							
Interest rate swaps	5,027	19,358	11,313	35,698	656	475	923
Cleared by the central counterparty	208	11,538	7,414	19,159	229	315	398
Total OTC interest rate derivatives	5,027	19,358	11,313	35,698	656	475	923
Total interest rate derivatives	5,027	19,358	11,313	35,698	656	475	923
Currency derivatives							
Forward exchange agreements	32			32		1	0
Interest rate and currency swaps	143	2,163	827	3,132	160	178	332
Total OTC currency derivatives	175	2,163	827	3,164	160	179	332
Total currency derivatives	175	2,163	827	3,164	160	179	332
Total derivative contracts, fair value hedge	5,201	21,520	12,140	38,862	817	654	1,255

Derivative contracts for hedging purposes – cash flow hedge 31 December 2016

EUR million	Nominal values /residual term to maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives							
Interest rate swaps	513	1,872	789	3,175	106	3	127
Cleared by the central counterparty		300		300	7		9
Total OTC interest rate derivatives	513	1,872	789	3,175	106	3	127
Total interest rate derivatives	513	1,872	789	3,175	106	3	127
Currency derivatives							
Forward exchange agreements	4,074			4,074	113	10	155
Total OTC currency derivatives	4,074	0	0	4,074	113	10	155
Total currency derivatives	4,074	0	0	4,074	113	10	155
Total derivative contracts, cash flow hedge	4,588	1,872	789	7,249	219	13	282
Total derivative contracts held for hedging	9,789	23,393	12,929	46,111	1,035	667	1,537

Total derivatives 31 December 2017

EUR million	Nominal values/residual maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
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

Total derivatives 31 December 2016

EUR million	Nominal values/residual maturity				Fair values*		Potential future exposure
	<1 year	1–5 years	>5 years	Total	Assets	Liabilities	
Interest rate derivatives	38,219	77,514	60,823	176,557	4,129	3,632	5,347
Cleared by the central counterparty	7,919	33,999	30,761	72,679	1,186	1,335	1,818
Currency derivatives	29,515	11,606	3,644	44,765	1,688	1,676	2,820
Equity and index-linked derivatives	15	6		21	1	0	1
Credit derivatives	19	397	13	429	11	8	36
Other derivatives	275	552	2	829	64	23	135
Total derivatives	68,043	90,075	64,482	222,601	5,892	5,340	8,340

*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 48 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 4,495 million (5,896).

Note 48. Financial assets and liabilities offset in the balance sheet or subject to enforceable master netting arrangements or similar agreements

Financial assets

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**	Financial assets not set off in the balance sheet		
				Derivative contracts***	Collateral received	Net amount
Derivatives	4,341	-928	3,412	-1,928	-412	1,072

31 Dec. 2016, EUR million	Gross amount of financial assets	Gross amount of financial liabilities deducted from financial assets*	Net amount presented in the balance sheet**	Financial assets not set off in the balance sheet		
				Derivative contracts***	Collateral received	Net amount
Derivatives	5,883	-1,151	4,732	-2,418	-1,177	1,138

Financial liabilities

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**	Financial liabilities not set off in the balance sheet		
				Derivative contracts***	Collateral given	Net amount
Derivatives	4,112	-1,085	3,026	-1,928	-717	381

31 Dec. 2016, EUR million	Gross amount of financial liabilities	Gross amount of financial assets deducted from financial liabilities*	Net amount presented in the balance sheet**	Financial liabilities not set off in the balance sheet		
				Derivative contracts***	Collateral given	Net amount
Derivatives	5,350	-1,307	4,044	-2,418	-1,139	486

* Incl. daily cleared derivatives on a net basis included in cash and cash equivalents, totalling -161 (-147) 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

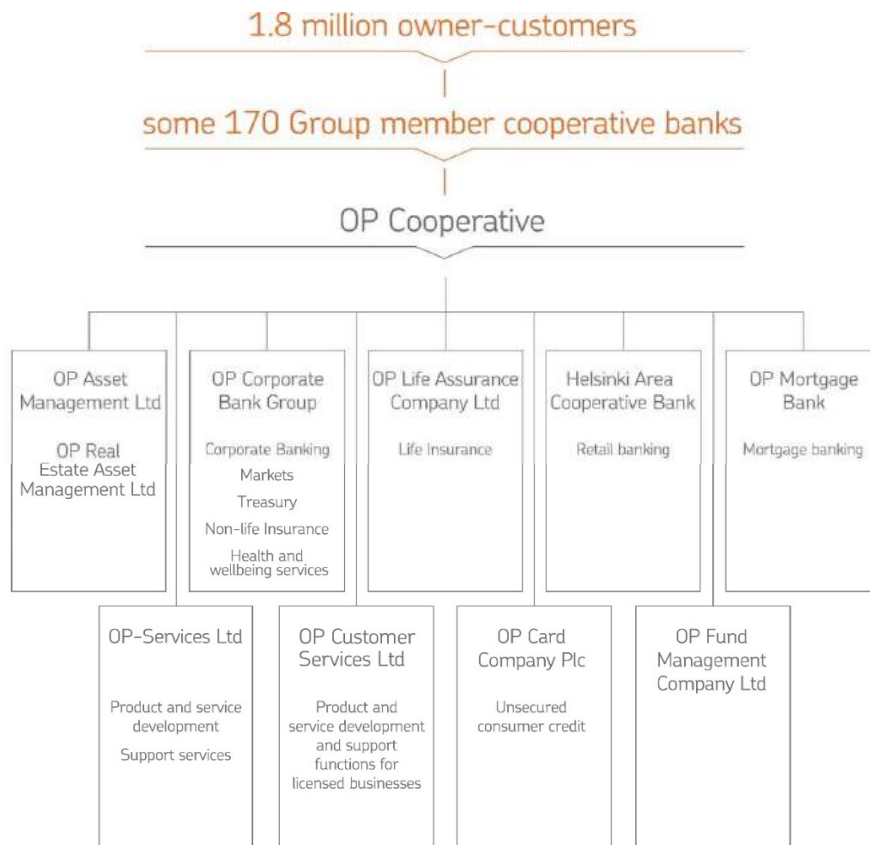
The ISDA Master Agreement or the Master Agreement of the Federation of Finnish Financial Services or the Group will apply to derivative transactions between the Group and other clients and to derivative transactions to which central counterparty clearing in accordance with the Regulation does not pertain. 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 49. 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.

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/homecountry	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
OVY 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
Seesam Insurance AS	Estonia	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, 46 (47) 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, 23 (23) other subsidiaries have been consolidated.

Member cooperative banks forming the technical parent company of OP Financial Group in 2017

Name	Balance sheet 2017,	Capital ade-	Managing Director
	EUR million	quacy, % 31 Dec. 2017	
Akaan Seudun Op	179	62.3	Tuomo Smätt
Alajärven Op	284	57.0	Jari Leivo
Alastaron Op	64	58.8	Sanna Metsänranta
Alavieskan Op	67	52.1	Antero Alahautala
Alavuden seudun Op	229	55.5	Jussi Ruuhela
Andelsbanken för Åland	431	24.7	Johnny Nordqvist
Andelsbanken Raseborg	421	30.3	Lars Björklöf
Artjärven Op	49	83.4	Reijo Hurskainen
Askolan Op	130	45.7	Kari Leskinen
Auran Op	103	46.2	Sauli Nuolemo
Etelä-Hämeen Op	1,504	58.7	Mika Helin
Etelä-Karjalan Op	1,446	46.0	Petri Krohns
Etelä-Pohjanmaan Op	1,173	30.0	Olli Tarkkanen
Euran Op	189	80.0	Timo Viitanen
Haapamäen Seudun Op	63	81.3	Hannu Petjoi
Hailuodon Op	44	67.2	Jani Isomaa
Halsuan-Ylipään Op	71	64.9	Heidi Pöyhönen
Haukivuoren Op	66	63.1	Seppo Laurila
Heinäveden Op	84	106.2	Jukka Tuomisto
Himangan Op	85	35.6	Kari Haanmäki
Hirvensalmen Op	45	75.3	Kirsi Hännikäinen
Honkilahden Op	36	72.3	Jukka-Pekka Koivisto
Humppilan Op	63	59.8	Jari Salokangas
Itä-Uudenmaan Op	1,243	28.8	Mauri Molander
Janakkalan Op	394	72.2	Mikko Suutari
Jokioisten Op	118	58.0	Vesa Rantanen
Jämsän Seudun Op	320	78.6	Kyösti Myller
Järvi-Hämeen Op	426	67.7	Teemu Sarhema
Kainuun Op	709	51.8	Teuvo Perätalo
Kalajoen Op	218	36.9	Leena Pajumaa
Kalkkisten Op	22	79.3	Ville Lehtinen
Kangasalan Seudun Op	447	42.7	Mika Kivimäki
Kangasniemen Op	191	78.1	Leo Pakkanen
Kannuksen Op	110	44.2	Juha Lundström
Kemin Seudun Op	339	52.9	Heikki Palosaari
Kerimäen Op	121	72.1	Jarmo Kaivonurmi
Keski-Pohjanmaan Op	1,038	28.3	Kimmo Peuranto
Keski-Suomen Op	2,554	38.7	Pasi Sorri
Keski-Uudenmaan Op	1,842	49.0	Juhani Rinta-Kartano
Kesälahden Op	78	76.8	Henrik Nuuttila (vt. tj.)
Kihniön Op	38	63.8	Pirjo Haapa-aho Vehniä
Kiikoisten Op	32	68.4	Kirsi Soltin
Kiteen Seudun Op	295	64.0	Olli Koivula
Koitin-Pertunmaan Op	78	76.8	Jouko Iso-Kuortti
Korpilahden Op	89	65.3	Tuomas Kupsala
Korsnäs Andelsbank	140	45.1	Jan-Erik Westerdahl
Kronoby Andelsbank	126	58.7	Kaj Nylund
Kuhmon Op	188	85.2	Hannu Kurkinen
Kuortaneen Op	67	51.5	Markku Jaatinen
Kurun Op	53	58.1	Marja-Leena Siuro
Kuusamon Op	216	42.4	Kari Kivelä

Kymenlaakson Op	1,788	50.5	Juha Korhonen
Kärkölan Op	98	55.3	Arto Haavikko
Käylän Op	27	54.2	Piia Mourujärvi
Köyliön Op	68	71.4	Jari Valonen
Laihian Op	106	28.1	Seppo Hautala
Lapin Op	102	60.1	Juha Teerialho
Lehtimäen Op	64	38.1	Veli-Jussi Haapala
Lemin Op	85	50.7	Ilkka Martikainen
Leppävirran Op	161	71.2	Jukka Kilpeläinen
Limingan Op	123	41.9	Petteri Juusola
Liperin Op	197	56.1	Jukka Asikainen
Loimaan Seudun Op	279	63.6	Juha Pullinen
Lokalahden Op	40	76.4	Ville Aarnio
Lounaismaan OP	1,485	46.8	Jukka Hulkkonen
Lounaisrannikon Op	570	39.7	Juha-Pekka Nieminen
Lounais-Suomen Op	301	74.7	Vesa Viitaniemi
Luhangan Op	52	45.5	Tuomas Puttonen
Luopioisten Op	40	60.4	Sirpa Leppäkoski
Luumäen Op	107	74.3	Mikko Purmonen
Länsi-Kymen Op	313	44.8	Saila Rosas
Länsi-Suomen Op	2,762	46.5	Matti Kiuru
Länsi-Uudenmaan Op	1,049	38.2	Jarmo Viitanen
Maaningan Op	103	69.3	Ari Väänänen
Marttilan Op	85	68.7	Matti Vahalahti
Mellilän Seudun Op	38	86.7	Aarre Anttila
Merimaskun Op	38	76.9	Sauli Jalonen
Metsämaan Op	30	85.3	Jussi Nieminen
Miehikkälän Op	76	67.7	Mikael Hanhilahti
Mouhijärven Op	83	40.9	Rainer Sillanpää
Multian Op	77	34.3	Arto Laitinen
Mynämäen-Nousiaisten Op	396	69.3	Kimmo Ranta
Mäntsälän Op	222	57.0	Heikki Kananen
Nagu Andelsbank	54	53.5	Johan Broos
Nakkila-Luvian Op	222	69.7	Jussi Kuvaja
Niinijoen Op	39	104.0	Kaisa Markula
Nilakan Seudun Op	177	44.5	Jouni Karhinen
Nivalan Op	193	43.7	Markku Niskala
Op Kantrisalo	101	58.7	Bo Hellen
Orimattilan Op	261	66.0	Jukka Sipilä
Oripään Op	68	28.6	Jouko Rekolainen
Oulaisten Op	231	49.6	Mika Korkia-aho
Oulun Op	3,264	28.2	Timo Levo
Outokummun Op	161	81.6	Ari Karhapää
Paattisten Op	95	63.6	Soile Noren
Paltamon Op	68	70.3	Jorma Niemi
Parikkalan Op	137	77.0	Tuomo Liukka
Pedersörenejdens Andelsbank	474	34.1	Thomas Hulten
Perhon Op	86	52.6	Pekka Pajula
Perhonjokilaakson Op	146	47.5	Asko Ahonen
Peräseinäjoen Op	119	62.4	Juha Mäki
Petäjaveden Op	87	37.7	Jaakko Ylitalo
Pihtiputaan Op	87	60.8	Toni Ruokanen
Pohjois-Hämeen Op	431	53.0	Pertti Pyykkö
Pohjois-Karjalan Op	1,619	43.8	Jaana Reimasto-Heiskanen
Pohjois-Savon Op	2,427	47.1	Seppo Pääkkö
Pohjolan Op	1,163	34.8	Keijo Posio

Polvijärven Op	142	70.4	Ari Noponen
Posion Op	111	76.0	Vesa Jurmu
Pudasjärven Op	191	82.0	Pertti Purola
Pukkilan Op	81	65.9	Jari Toivanen
Pulkkilan Op	43	86.5	Marja Hyvärinen
Punkalaitumen Op	98	76.5	Petri Antila
Purmo Andelsbank	39	42.4	Tommy Olin
Päijät-Hämeen Op	1,646	36.8	Timo Laine
Pöytyän Op	105	50.7	Tuomo Jokinen
Raahen seudun Op	393	46.6	Ari Pohjola
Rantasalmen Op	133	60.0	Kari Mäkelä
Rautalammin Op	79	44.2	Esko-Pekka Markkanen
Riistaveden Op	136	42.0	Pauli Kröger
Ruoveden Op	163	42.3	Leena Selkee
Ruukin Op	141	44.9	Kalle Arvio
Rymättylän Op	74	50.3	Leena Nikula
Rääkkylän Op	85	51.1	Heli Silvennoinen
Sallan Op	87	53.3	Anne Harju
Sastamalan Op	279	39.8	Jyrki Rantala
Satakunnan Op	492	64.9	Olli Näsi
Satapirkkan Op	336	39.4	Antti Suomijärvi
Savitaipaleen Op	113	70.7	Leo-Petteri Nevalainen
Siikajoen Op	45	60.9	Sakari Kangas
Siikalatvan Op	85	37.2	Ismo Välijärvi
Simpeleen Op	82	93.3	Asko Imppola
Sonkajärven Op	106	69.8	Esko Nissinen
Sulkavan Op	73	72.9	Kari Haverinen
Suomenselän Op	666	37.1	Timo Suhonen
Suonenjoen Op	138	60.9	Antti Hult
Suur-Savon Op	1,875	43.6	Mikko Antikainen (vt. tj.)
Säkylän Op	96	48.8	Jari Katila
Taivalkosken Op	77	56.2	Piia Mourujärvi
Taivassalon Op	62	40.4	Jens Hildén
Tampereen Seudun Op	3,463	36.2	Mikko Rosenlund
Tarvasjoen Op	54	80.6	Esa Hentula
Tervolan Op	77	52.6	Hannu Neuvonen
Tervon Op	59	41.1	Jani Kääriäinen
Toholammin Op	123	41.3	Juha Pajumaa
Tornion Op	317	35.1	Terhi Luokkanen
Turun Seudun Op	3,224	19.2	Olli-Pekka Saario
Tuusniemen Op	134	26.1	Esa Simanainen
Tyrnävän Op	100	40.2	Antto Joutsiniemi
Ullavan Op	42	40.9	Jorma Somero
Urjalan Op	120	73.9	Jouni Tammelin
Utajärven Op	212	39.1	Martti Pulkkinen
Vaara-Karjalan Op	433	55.1	Raili Hyvönen
Vaasan Op	980	31.2	Ulf Nylund
Valkeakosken Op	258	39.7	Juha Luomala
Vampulan Op	84	51.2	Kari Hänti
Vehmersalmen Op	78	60.8	Petri Tyllinen
Vesannon Op	68	72.8	Markku Niskanen
Vihannin Op	118	51.6	Jari Kantomaa
Vimpelin Op	77	66.1	Matti Mäkinen
Virtain Op	199	50.9	Ari Kakkori
Ylitornion Op	98	57.3	Terttu Hagelin
Ylä-Kainuun Op	229	57.4	Eija Sipola
Yläneen Op	88	50.0	Heikki Eskola
Ylä-Savon Op	398	28.5	Mikko Paananen
Ypäjän Op	70	66.5	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 (1) 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	controlling interests, %
Real Estate Funds of Funds II Ky	Helsinki	Real Estate Fund	27.8	27.8	72.3

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 EUR million	Real Estate Fund of Funds II Ky	
	31 Dec. 2017	31 Dec. 2016
Cash and cash equivalents	0	1
Investments	36	41
Total assets	36	43
Net assets	36	43
Accrued share of non-controlling interests	26	31
Statement of comprehensive income in summary		
Net sales	3	3
Profit or loss of continuing operations after tax	3	3
Other comprehensive income	0	1
Comprehensive income	3	3
Comprehensive income attributable to non-controlling interests	2	3
Share of profit paid to non-controlling interests	2	2
Cash flows in summary		
Net cash flow from operating activities	0	-1
Net cash flow from investing activities	9	14
Net cash flow from financing activities	-9	-14
Net change in cash flows	-1	-1
Cash and cash equivalents at year start	1	2
Cash and cash equivalents at year end	0	-1

Joint operations

Some 1,111 (1,241) 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. 2017	31 Dec. 2016
Land	150	153
Buildings	1,251	1,255
Total assets	1,402	1,409
Total liabilities	4	3

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

Most significant joint operations consolidated into OP Financial Group's financial statements in 2016

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 Hämeenkiivi	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	100.0
As Oy Lappeenrannan Kirkkokatu 9	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 Tampereen Ratinankaari	Tampere	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

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 330 million (903) on 31 December 2017.

Note 50. 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 2017

EUR 1,000	Administrative		Others
	Associates	personnel	
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
Off-balance-sheet commitments			
Guarantees			
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 the financial year, 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

Related-party transactions 2016

EUR 1,000	Administrative		Others
	Associates	personnel	
Loans	178,604	11,198	
Receivables	45	2,790	
Deposits	5,301	3,622	42,119
Interest income		136	
Interest expenses	3	2	230
Insurance premium revenue	22	59	6,308
Commission income	152	47	135
Commission expenses	6	15	6
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits		6,576	
Related-party holdings			
Number of participations		79	

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 Chairman's retirement age is 63, while the other Executive Board members and deputy members retire at 63. 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*		IFRS expense of voluntary supplementary defined benefit pension	
	2017	2016	2017	2016
President and Group Executive Chairman Reijo Karhinen, Executive Board Chairman	165	174	186	122
Tony Vepsäläinen, Executive Board Vice Chair	159	163	174	170
Carina Geber-Teir, Executive Board member	67	62	42	34
Jari Himanen, Executive Board member	93	71	92	62
Olli Lehtilä, Executive Board member	67	81	85	67
Harri Luhtala, Executive Board member	64	64	64	46
Harri Nummela, Executive Board member	78	78	80	49
Erik Palmén, Executive Board member	59	60	57	56
Jouko Pölönen, Executive Board member	96	100	101	68
Markku Koponen, Chief Legal Officer		40		51
Outi Taivainen, Executive Vice President, Human Resources, Executive Board member	64	30	42	31
Karri Alameri, Executive Vice President, Executive Board member	56	45	78	50

* 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 51. Variable remuneration

Personnel fund

About 82% 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 3.2% (5.7) of the combined salaries and wages earned by the Fund's members. The bonuses recognised in 2017 totalled EUR 11 million (25).

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 2011–13 scheme, whose last bonus payout was in June 2017, covers a total of 294 (294) persons, the 2014–16 scheme some 300 (311) persons and the scheme for 2017–19 that started at the beginning of the financial year covers 322 persons.

The long-term scheme consists of consecutive three-year performance periods, the first of which was 1 January 2011–31 December 2013. The bonus for the performance period of 2011–13 was paid after a deferment period in three equal instalments by the end of each June from 2015 to 2017. The second performance period was 1 January 2014–31 December 2016 and the bonuses will be paid after a deferment period in three equal instalments by the end of each June from 2018 to 2020. Bonuses earned for the third performance period of 1 January 2017–31 December 2019, which began during the financial year, 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.

The bonus is determined by the management position. During the performance period of 2011–13, it was possible to annually earn bonuses equalling a person's regular 2–12-month salary subject to PAYE tax, provided that the set targets are achieved at 100%. Targets were achieved at around 43% during the performance period of 2011–13. During the performance period of 2014–16, 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 2017–19, 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. The targets for the 2011–2013 scheme were based on the following criteria:

- Growth in the number of customers using OP as the main bank and insurer
- Change in the market share of corporate customer business
- Return on economic capital

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

The target bonus was determined at the beginning of the 2011–13 scheme, i.e. the maximum remuneration in terms of Pohjola Bank plc Series A shares. This target bonus for the 2011–13 performance period was 5.1 million shares (5.1) which would be partly based on cash-settled payments (the amount of tax withheld) and equity-settled payments. OP Cooperative made a tender offer for all Series A and K shares issued by Pohjola Bank plc and not held by OP Cooperative. As a result, the bonus payout for the performance period of 2011–13 applies the scheme's condition under which bonuses will be fully paid in cash if any of Pohjola's shareholders has the right, under Chapter 2013, Section 18 of the Limited Liability Companies Act, to redeem (right of squeeze-out) the shares on the grounds that the shareholder has more than 90% of the company's shares and of the votes conferred by the shares. Bonuses that were to be paid as a combination of Pohjola's series A shares and cash were paid in cash in 2015, 2016 and 2017 according to the original payout schedule. The bonus was converted into cash by multiplying the number of shares by the redemption price.

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 (22.8) on 31 December 2017.

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

In OP Cooperative Consolidated's short-term employee remuneration scheme, the weights of the shared, business line/function and personal targets are determined based on the person's job grade. The shared target measured is OP Financial Group's EBT and OP Central Cooperative Consolidated's expenses. Other targets measured include customer business earnings and expenses by business line/function. Personal targets in the balanced scorecard are derived from action based on annual planning.

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. The scheme also includes a coefficient related to OP Financial Group's earnings, on the basis of which earned bonuses will be multiplied downwards if OP Financial Group's EBT is not at a predetermined level 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 duties as belonging to a group that may cause considerable risk (identified staff) to his company, the company may defer the payment of variable remuneration over three years under certain conditions.

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 is paid immediately, while the rest is deferred and the deferred bonus will be paid in equal instalments within the next three years. 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	2017	2016
Personnel fund	11	25
Short-term schemes	27	34
Long-term schemes:		
Scheme for 2011–13	0	3
Scheme for 2014–16	4	0
Scheme for 2017–20	4	5
Total	45	67

* Excl. social expenses

More information on the remuneration schemes is available at www.op.fi.

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 75–82 Wealth Management risk exposure and capital adequacy and capital base in Notes 83–89.

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.

Indicator	Tolerance	31 Dec. 2017	31 Dec. 2016
Capital adequacy			
CET1, %	14.0	20.1	20.1
FiCo solvency, %*	110	143	160
Risk appetite (Economic capital / permanent capital, %)			
OP Financial Group, %	75	48	54.2
Banking, %	50	35	36.1
Treasury, %	15	5	7.3
Wealth Management, %	25	9	13.3
Non-life Insurance, %	20	12	13.4
Counterparty risk concentrations			
Largest single customer risk / capital under FiCo, %	10	5	4.0
Total of significant customer risks ($\geq 3\%$) / capital under FiCo, %	100	21	32.6
Industry risk / corporate customer exposures, %	15	11	11.0
Concentration risk			
Country risk concentration / FiCo capital, %	5	2.5	3.3
Credit risks			
Doubtful receivables / loan and guarantee portfolio, %	5	3.40	3.2
Economic capital requirement for credit risk / exposure at default, %	3	2.10	2.0
Market risks			
12-month interest income risk in banking book for 1-pp change in interest rates, € million	-250	-81.0	-206.8
Banking book present value risk to 2-pp change in interest rate / permanent capital, %	-10	1.5	0.6
Trading VaR (99% confidence), 1 day, € million	7	1.8	1.8
Long-term investments by Treasury and Banking, VaR (95% confidence), 1mo / nominal value, %	0.85	0.5	0.5
Long-term investments by insurance, VaR (95% confidence), 1 mo / market value, %	3.1	2.2	2.5
Underwriting risks			
Highest Non-life Insurance retention per object and event, € million	20	20	20
Liquidity risks			
Liquidity coverage (LCR) ratio, %	95	123	117
Net Stable Funding Ratio (NSFR), %	100	116	114

* FiCo solvency, excluding transitional provisions. The FiCo solvency figures are unaudited.

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. On 31 December 2017, the biggest sector risk originated from the management of non-residential property.

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.

Market risk associated with long-term investment by insurance operations decreased moderately 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. 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 countries	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.

Exposure split by geographic region 31 Dec. 2016

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	12,989	312	40,628	54,559	299	583	1,426	110,796
Baltic countries	197	0	1,494	16	0		0	1,707
Other Nordic countries	206	650	1,171	139	20	1,940	21	4,147
Germany	2,523	228	50	268	21	1,111	0	4,201
France	696	539	153	249	44	738	14	2,433
UK	0	852	222	315	106	503	5	2,004
Italy	147	21	7	58	12			244
Spain		34	15	35	14	1	61	160
Other EU countries	2,765	355	510	249	1 014***	1,024	16	5,933
Rest of Europe	11	261	94	100	27	102	13	609
USA	5	329	105	517	298	8	182	1,445
Russia		7	28	10	24		0	68
Asia		308	112	66	41	6	22	554
Other countries	38	104	106	72	499***	1,357	221	2,398
Total	19,576	4,002	44,694	56,653	2,419	7,373	1,980	136,698

* Also includes EUR 182 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	31 Dec. 2016
Derivative contracts		
Held for trading	0	-1
Loans and receivables		
Loans granted	39	68
Guarantee receivables	9	9
Available-for-sale financial assets		
Shares and participations	1	1
Total financial assets	48	77

Risk exposure by Banking

Note 56. Receivables from credit institutions and customers, and doubtful receivables

31 Dec. 2017	Receivable base			Individual assessment of impairment	Collective assessment of impairment	Balance sheet value
	Not impaired (gross)	Impaired (gross)	Total			
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
Public-sector entities	1,250		1,250		0	1,250
Total	82,609	627	83,236	421	71	82,744

31 Dec. 2016	Receivable base			Individual assessment of impairment	Collective assessment of impairment	Balance sheet value
	Not impaired (gross)	Impaired (gross)	Total			
Receivables						
Receivables from credit institutions	339		339		2	337
Receivables from customers*	76,880	640	77,520	445	63	77,013
Bank guarantee receivables	2	9	11	9	1	2
Finance leases*	1,591		1,591		0	1,591
Total	78,810	640	79,450	445	64	78,941
Receivables by sector						
Non-banking corporate sector	27,280	461	27,741	349	32	27,360
Financial institutions and insurance companies	1,035	0	1,035	0	3	1,032
Households	48,921	173	49,094	92	29	48,973
Non-profit organisations	758	6	765	4	1	760
Public-sector entities	816		816		0	816
Total	78,810	640	79,450	445	64	78,941

* The comparative has been restated as a result of the more specified classification of finance lease receivables.

31 Dec. 2017	Not impaired (gross)	Impaired (gross)	Total	Arrears	Impairments	
					Individually assessed	Collectively assessed
Doubtful receivables and forbore 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
Finance leases	2	1	3	1		
Total	2,714	627	3,341	395	421	71
Doubtful receivables and forbore 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

31 Dec. 2016	Not impaired (gross)	Impaired (gross)	Total	Arrears	Impairments	
					Individually assessed	Collectively assessed
Doubtful receivables and forbore loans						
Receivables from credit institutions						2
Receivables from customers	2,432	640	3,073	378	445	63
Bank guarantee receivables	2	9	11	9	9	1
Finance leases	3		3	0		
Total	2,435	640	3,076	378	445	64
Doubtful receivables and forbore loans by sector						
Non-banking corporate sector	547	461	1,008	235	349	32
Financial institutions and insurance companies	0	0	0	0	0	3
Households	1,869	173	2,042	140	92	29
Non-profit organisations	19	6	25	3	4	1
Public-sector entities				0		0
Total	2,435	640	3,076	378	445	64

Doubtful receivables and forbore 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	Receivables from credit institutions and customers
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

Doubtful receivables and forborne loans

31 Dec. 2016	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	Receivables from credit institutions and customers (net)
Over 90 days past due		578	578	222	356
Unlikely to be paid		508	508	173	335
Forborne receivables	1,711	279	1,990	50	1,940
Total	1,711	1,364	3,076	445	2,631

The Group reports as the amount of a receivable that is more than 90 days past due whose interest or principal amount has been past due and outstanding for more than 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.

Key ratio, %	2017	2016
Exposures individually assessed for impairment, % of doubtful receivables	12.6 %	14.5 %

Past due but not impaired financial assets by maturity

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

31 Dec. 2016	Less than 30 days	30–90 days	90–180 days	Over 180 days	Total
Matured receivables, not impaired	564	312	136	203	1,215

Note 57. Loan losses and impairment losses

EUR million	31 Dec. 2013	31 Dec. 2014	31 Dec. 2015	31 Dec. 2016	31 Dec. 2017
Impairment losses on receivables	171	181	190	183	147
Reversal of impairment losses	-72	-87	-88	-99	-91
Payments on eliminated receivables	-15	-13	-15	-15	-15
Net change in impairments of collectively assessed loans and re	-1	7	-9	7	7
Total	84	88	78	77	48

In 2017, loan and guarantee losses and impairment losses accounted for 0.06% (0.10) of the loan and guarantee portfolio.

Note 58. Structure of OP Financial Group funding

EUR million	31 Dec. 2017	%	31 Dec. 2016	%
Liabilities to credit institutions	5,157	4.9	4,669	4.6
Liabilities to customers				
Deposits	57,991	55.1	54,822	53.9
Other	7,559	7.2	5,255	5.2
Debt securities issued to the public				
Certificates of deposit, commercial papers and ECPs	7,075	6.7	8,033	7.9
Bonds	19,766	18.8	20,253	19.9
Other liabilities	3,150	3.0	4,226	4.2
Subordinated liabilities	1,400	1.3	1,445	1.4
Supplementary cooperative capital	0	0.0	77	0.1
Membership capital contributions	191	0.2	182	0.2
Profit shares	2,906	2.8	2,719	2.7
Total	105,195	100.0	101,681	100.0

Note 59. Maturity of financial assets and liabilities by residual maturity

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	19,093	82,240
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	19,349	108,474
Transfer of financial assets held for trading to less-than-3-months category	-219 589	-197	-136	-37	0	-589 589
Total financial assets in internal reporting	19,779	8,368	39,738	21,239	19,349	108,474
Financial liabilities						
Liabilities to credit institutions	1,130	0	4,000	27		5,157
Financial liabilities at fair value through profit or loss	1					1
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	68,981	7,037	16,281	6,022	628	98,949
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 assets in internal reporting	35,462	40,556	16,281	6,022	628	98,949
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

31 Dec. 2016	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Financial assets						
Liquid assets	9,441					9,441
Notes and bonds	407	63	148	33	2	653
Receivables from credit institutions	142	168	27	0	0	337
Receivables from customers	5,541	7,146	30,378	17,518	18,021	78,604
Investment assets						
Available-for-sale notes and bonds	36	207	8,045	4,742	16	13,047
Held-to-maturity notes and bonds	38	11	20	24	0	92
Total financial assets	15,606	7,594	38,617	22,318	18,039	102,175
Transfer of financial assets at fair value through profit or loss to the less-than-3-months category	-407	-63	-148	-33	-2	-653
	653					653
Total financial assets in internal reporting	15,852	7,532	38,469	22,285	18,037	102,175
Financial liabilities						
Liabilities to credit institutions	1,482	126	3,032	30		4,669
Liabilities to customers	57,056	1,993	523	158	347	60,077
Debt securities issued to the public	7,991	4,030	10,752	5,155	360	28,287
Subordinated liabilities		40	735	670	0	1,445
Total financial liabilities	66,528	6,188	15,042	6,012	708	94,478
Transfer of private customers' deposit repayable on demand from the less-than-3-months category to the 3-12-months category	-31,030	31,030				
Total financial liabilities in internal reporting	35,498	37,218	15,042	6,012	708	94,478
Guarantees	13	210	449	12	153	836
Other guarantee liabilities	247	521	613	53	487	1,921
Loan commitments	11,049					11,049
Commitments related to short-term trade transactions	77	90	191	0	0	358
Other	536	258	0	170	2	966
Total off-balance-sheet commitments	11,922	1,079	1,252	235	642	15,129

Note 60. Maturities of financial assets and liabilities by maturity or repricing

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
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	2,134	82,240
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	5,415	108,474
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
<hr/>							
31 Dec. 2016	1 month or less	>1-3 months	>3-12 months	>1-2 years	>2-5 years	Over 5 years	Total
Financial assets							
Liquid assets	9,441						9,441
Notes and bonds	94	318	70	14	125	33	653
Receivables from credit institutions	138	29	144	22	3	0	337
Receivables from customers	17,591	19,861	36,361	620	2,516	1,656	78,604
Available-for-sale financial assets							
Notes and bonds	606	281	207	1,182	6,068	4,702	13,047
Held-to-maturity financial assets							
Notes and bonds	44	28	11	6	3	1	92
Total financial assets	27,914	20,517	36,793	1,843	8,716	6,392	102,175
Financial liabilities							
Liabilities to credit institutions	1,397	129	126		3,017		4,669
Liabilities to customers	55,826	1,689	1,981	215	63	303	60,077
Debt securities issued to the public	3,385	6,187	5,419	2,346	5,980	4,971	28,287
Subordinated liabilities	81	401	42	0	274	647	1,445
Total financial liabilities	60,689	8,405	7,568	2,561	9,334	5,921	94,478

Note 61. Sensitivity analysis of interest rate and market risk

OP Financial Group's banking book present value risk

Currency EUR million	-200bp		+200bp	
	2017	2016	2017	2016
EUR	111	31	521	694
GBP	-1	-10	1	10
USD	2	-4	-2	4
Other	1	4	1	4

Risks of SEK, 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. The content of the calculation was changed in 2017 and the figures for 2016 has been restated to be comparable.

Interest income risk associated with banking book of retail banking

Currency EUR million	-100bp		+100bp	
	2017	2016	2017	2016
EUR	-81	-207	167	189

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

EUR million		Change 2017	2016
Interest rate volatility*	10bp	2	1
Currency volatility*	10 pps	1	1
Credit risk premium**	10bp	-45	55

* 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 2017, EUR million

Year(s)	0-1	1-3	3-5	5-7	7-10	10-	Total	Pro- portion, %
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.

Liquidity buffer by maturity and credit rating on 31 December 2016, EUR million

Year(s)	0-1	1-3	3-5	5-7	7-10	10-	Total	Pro- portion, %
Aaa*	9,435	1,893	3,509	2,409	578		17,826	81.1
Aa1-Aa3	56	488	845	506	850	0	2,746	12.5
A1-A3	14	35	6	0	0		56	0.3
Baa1-Baa3	3	44	82	11	17	1	158	0.7
Ba1 or lower	5	28	14	24	9	16	94	0.4
Internally rated**	524	226	120	148	6	77	1,101	5.0
Total	10,038	2,715	4,576	3,099	1,460	94	21,981	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 4.3 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, € million	31 Dec. 2017	31 Dec. 2016
Eligible capital	902	983
Solvency capital requirement (SCR)		
Market risk	460	483
Underwriting risk	289	293
Counterparty risk	40	31
Operational risk	45	43
Diversification benefits and loss absorbency	-169	-164
Total	666	687
Buffer for SCR	296	296
SCR ratio, %	135%	143%
SCR ratio, % excluding transitional provisions	135%	127%

Note 64. Sensitivity analysis

The table below shows the effect of various risk parameters on profit and solvency capital:

Risk parameter	Total in 2017, EUR million	Change in risk parameter	Effect on profit/ solvency, EUR million	Effect on combined ratio
Insurance premium revenue *	1,431	Up by 1%	14	Up by 1.0 pps
Claims incurred *	1,085	Up by 1%	-11	Down by 0.8 pps
Large claim, over EUR 5 million		1 large claim	-5	Down by 0.3 pps
Personnel costs *	116	Up by 8%	-9	Down by 0.6 pps
Expenses by function **	385	Up by 4%	-15	Down by 1.1 pp
Inflation for collective liability	745	Up by 0.25 pps	-5	Down by 0.4 pps
Life expectancy for discounted insurance liabilities	1,905	Up 1 year	-45	Down by 3.1 pps
Discount rate for discounted insurance liabilities	1,905	Down by 0.1 pp	-27	Down by 1.9 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
2017	13	10	9	8
2016	13	14	11	11

* 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
2017	4	4	6	3
2016	3	4	6	2

* 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.

EUR million	Gross		Net*	
	2017	2016	2017	2016
Decennial insurance	1,882	2,100	1,882	2,100

* 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 2013–2017

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
2013	4			5	1	
2014	6			5	1	
2015	1			6		
2016				6		
2017				9		
Total claims, EUR million					168	
Gross amount, total claims, EUR million						
2013–2017	24			138	6	

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
2013	4			3	1	
2014	6			5		
2015	1			6		
2016				6		
2017				9		
Total claims, EUR million					119	

**Net amount, total claims, EUR million
2013–2017**

24	93	3
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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.

2017, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** 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%

2016, EUR million	Gross IP IP revenue	Net IP IP revenue	Net CR*	Net** CR*
Statutory lines	462	460	96%	96%
Other accident and health	227	227	84%	84%
Hull and cargo	301	300	86%	86%
Property and business interruption	380	348	82%	82%
Liability and legal expenses	87	81	81%	81%
Long-term	4	3	17%	17%
Total	1,461	1,418	86%	86%

* 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	2017	2016
Net insurance contract liabilities (EUR million)		
Latent occupational diseases	15	17
Other	3,033	2,913
Total (before transfers)	3,048	2,930
Duration of debt (years)		
Discounted insurance contract liabilities	14.4	13.7
Undiscounted insurance contract liabilities	2.2	2.1
Total	9.8	9.3
Discounted net debt (EUR million)		
Provision for known unpaid claims for annuities	1,517	1,427
Collective liability (IBNR)	351	343
Provision for unearned premiums	43	45
Total	1,911	1,816

Note 69. Insurance contract liabilities by estimated maturity

31 Dec. 2017, EUR million	0-1 yr	1-5 yrs	5-10 yrs	10-15 yrs	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 contract 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.

31 Dec. 2016, EUR million	0-1 yr	1-5 yrs	5-10 yrs	10-15 yrs	Over 15 yrs	Total
Provision for unearned premiums*	410	118	21	6	10	565
Provision for unpaid claims						
Undiscounted	303	212	57	11	4	587
Discounted	97	447	345	268	612	1,771
Total insurance liabilities**	810	777	423	285	626	2,922

* Includes EUR 45 million in discounted liability.

** Excluding the value of derivatives hedging the interest rate risk associated with insurance liabilities.

Note 70. Risk exposure of insurance investments

Allocation of investment portfolio	31 Dec. 2017		31 Dec. 2016	
	Fair value*, EUR million	%	Fair value*, EUR million	%
Money market total	332	9	72	2
Money market instruments and deposits**	327	8	66	2
Derivatives***	5	0	5	0
Total bonds and bond funds	2,812	72	2,969	77
Governments	511	13	522	13
Inflation-linked bonds	14	0	45	1
Investment Grade	1,835	47	1,981	51
Emerging markets and High Yield	251	6	330	9
Structured Investments****	201	5	91	2
Total equities	408	10	425	11
Finland	70	2	77	2
Developed markets	185	5	169	4
Emerging markets	76	2	65	2
Unlisted equities	3	0	3	0
Private equity investments	75	2	111	3
Total alternative investments	26	1	33	1
Hedge funds	26	1	33	1
Total property investment	324	8	378	10
Direct property investment	187	5	208	5
Indirect property investment	137	4	170	4
Total	3,903	100	3,876	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, loan funds and illiquid bonds

Note 71. Sensitivity analysis of 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. 2017, EUR million	Risk parameter	Change	Effect on solvency capital, EUR million	
				31 Dec. 2017	31 Dec. 2016
Bonds and bond funds*	2,654	Interest rate	1 pp	127	150
Equities**	356	Market value	10%	34	46
Venture capital funds and unlisted shares	78	Market value	10%	8	11
Real property	324	Market value	10%	32	38
Currency	138	Value of currency	10%	20	11
Credit risk premium***	2,605	Credit spread	0.1 pp	31	15
Derivatives	11	Volatility	10 pps	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. Interest-rate risk

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. 2017	31 Dec. 2016
0-1 year	442	199
>1-3 years	643	513
>3-5 years	776	909
>5-7 years	415	552
>7-10 years	385	434
>10 years	267	299
Total	2,929	2,906
Modified duration	5.1	5.4
Effective interest rate, %	1.8	1.7

* Includes money market investments and deposits, bonds, convertible bonds and bond funds

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 %

Fixed-income portfolio by maturity and credit rating on 31 Dec 2016*, EUR million								
Year(s)	0-1	1-3	3-5	5-7	7-10	10-	Total	Proportion, %
Aaa	22	15	220	140	189	192	778	26.8 %
Aa1-Aa3	56	54	115	51	56	40	372	12.8 %
A1-A3	62	152	179	146	76	39	654	22.5 %
Baa1-Baa3	20	206	306	181	104	27	844	29.0 %
Ba1 or lower	37	83	85	29	9	1	244	8.4 %
Internally rated	1	4	5	4		0	14	0.5 %
Total	199	513	909	552	434	299	2,906	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 A3.

The term to maturity of the Non-life Insurance fixed-income portfolio averages 5.7 years (calculated on the basis of the Call date and the maturity date).

Note 73. Currency risk

Foreign currency exposure, EUR million	2017	2016
USD	72	46
SEK	0	2
JPY	0	0
GBP	9	48
Other	56	16
Total*	138	112

* The currency exposure was 3.5% (2.9%) of the investment portfolio. It is calculated as the sum total of individual currencies' intrinsic values.

Note 74. Counterparty risk

Credit rating, consistent with Moody's, EUR million	31 Dec. 2017		31 Dec. 2016	
	Investment*	Insurance**	Investment*	Insurance**
Aaa	715		778	
Aa1-Aa3	654	25	372	20
A1-A3	564	29	654	25
Baa1-Baa3	856	0	844	0
Ba1 or lower	135		244	
Internal rating	3	42	14	34
Total	2,929	96	2,906	79

* 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 78.0 billion (74.5) on 31 December 2017. Of the assets under management, mutual funds accounted for EUR 24.6 billion (23.5), unit-linked life policies for EUR 10.2 billion (9.2), institutional clients for EUR 24.2 billion (24.6) and private banking clients for EUR 9.2 billion (17.3).

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 2017, the life insurance company's capital totalled EUR 1,317 million, including transitional provisions, and EUR 1,019 million, excluding transitional provisions. On 31 December 2016, the life insurance company's capital totalled EUR 1,455 million, including transitional provisions, and EUR 1,135 million, excluding transitional provisions. The solvency capital requirement was EUR 674 million (EUR 742 million including transitional provisions and EUR 763 million excluding transitional provisions) and the minimum capital requirement EUR 279 million (EUR 197 million including transitional provisions and EUR 202 million excluding transitional provisions).

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, € million	31 Dec. 2017	31 Dec. 2016
Eligible capital	1,317	1,455
Solvency capital requirement (SCR)		
Market risk	759	996
Underwriting risk	394	405
Counterparty risk	27	27
Operational risk	36	25
Diversification benefits and loss absorbency	-542	-711
Total	674	742
Buffer for SCR	643	713
SCR ratio, %	195%	196%
SCR ratio, % excluding transitional provisions	151%	149%

Portfolio of insurance and investment contracts in Life Insurance 31 Dec. 2017

	Liability, 31 Dec. 2017,	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 0.5%	108	1,515	15.5
Defined benefit 1.5%	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

Portfolio of insurance and investment contracts in Life Insurance 31 Dec. 2016

	Liability, 31 Dec. 2016,	Number of insureds or contracts	Duration on yield curve, 31 Dec. 2016
Unit-linked contracts	9,166	351,453	10.4
Unit-linked insurance contracts	4,944	241,462	10.5
Life Insurance/Savings	3,573	111,486	10.3
Individual pension insurance	1,275	123,777	10.8
Group pension insurance	95	6,199	15.0
Unit-linked investment contracts	4,221	109,991	10.3
Saving	2,801	56,372	12.3
Individual pension contracts	1,088	50,185	7.6
Group pension contracts	16	1,895	12.3
Capital redemption contracts	316	1,539	8.5
Other than unit-linked contracts	7,618	590,260	9.7
Insurance contracts discounted with technical interest rate	7,500	590,243	9.7
Life Insurance/Savings	1,804	85,114	9.4
Rate of guaranteed interest 4.5%	58	1,000	6.0
Rate of guaranteed interest 3.5%	479	11,746	8.5
Rate of guaranteed interest 2.5%	199	10,868	14.3
Rate of guaranteed interest 1.5%	2	138	7.5
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	1,066	61,362	9.5
Individual pension insurance	4,119	88,673	8.9
Rate of guaranteed interest 4.5%	309	8,156	6.0
Rate of guaranteed interest 3.5%	500	20,735	8.5
Rate of guaranteed interest 2.5%	264	22,580	14.3
Rate of guaranteed interest 1.5%	1	102	7.5
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	3,045	37,100	8.8
Group pension insurance	1,385	35,253	12.3
Defined benefit 3.5%	1,133	26,837	11.9
Defined benefit 2.5%	115	2,876	13.1
Defined benefit 0.5%	69	1,728	15.2
Defined benefit 1.5%	11	276	17.5
Defined contribution 3.5%	5	73	18.2
Defined contribution 2.5%	46	3,148	14.6
Defined contribution 1.5%	5	293	13.2
Defined contribution 0.5%	0	22	16.4
Individual term life policies	182	375,609	4.7
Group life insurance	10	5,594	1.6
Other than unit-linked investment contracts discounted with technical interest rate	3	17	3.9
Capital redemption contracts	3	17	3.9
Rate of guaranteed interest 2.5%	3	15	3.7
Rate of guaranteed interest 1.5%	0	2	8.6
Effect of discounting with market interest rate	42		
Other insurance liability items	72		
Total	16,783	941,713	10.1

On 31 December 2017, OP Life Assurance reclassified customer contracts where death cover equals the amount of insurance savings and which include no entitlement to additional bonuses from insurance contracts into investment contracts. All of these contracts are unit-linked contracts. Data a year ago on 31 December 2016 has been restated.

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 27 million (25).

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 March 2020 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 March 2020, 2.2% for the following ten years and 3.1% 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 –8 million (4).

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 (27).

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

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

31 Dec. 2016, EUR million	2017-2018	2019-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-
Unit-linked contracts	-1,179	-1,105	-2,123	-1,492	-977	-651	-950
Insurance contracts	-695	-655	-1,312	-853	-543	-366	-597
Life Insurance/Savings	-608	-541	-1,028	-650	-406	-283	-480
Individual pension insurance	-79	-103	-256	-182	-124	-72	-83
Group pension insurance	-8	-11	-28	-21	-13	-11	-34
Investment contracts	-484	-449	-810	-639	-433	-285	-353
Saving	-204	-190	-426	-361	-287	-213	-322
Individual pension contracts	-223	-207	-304	-184	-106	-51	-28
Group pension contracts	-1	-2	-5	-4	-3	-2	-3
Capital redemption contracts	-55	-51	-76	-90	-38	-19	0
Other than unit-linked contracts	-1,181	-1,287	-2,564	-1,515	-893	-486	-712
Insurance contracts	-1,048	-1,206	-2,433	-1,478	-879	-483	-711
Life Insurance/Savings	-106	-222	-433	-183	-96	-70	-112
Rate of guaranteed interest 4.5%	-39	-81	-148	-39	-10	-2	-1
Rate of guaranteed interest 3.5%	-50	-106	-212	-90	-53	-26	-25
Rate of guaranteed interest 2.5%	-16	-34	-72	-54	-32	-42	-87
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	-123	-106	-262	-265	-182	-37	-20
Individual pension insurance	-106	-222	-433	-183	-96	-70	-112
Rate of guaranteed interest 4.5%	-39	-81	-148	-39	-10	-2	-1
Rate of guaranteed interest 3.5%	-50	-106	-212	-90	-53	-26	-25
Rate of guaranteed interest 2.5%	-16	-34	-72	-54	-32	-42	-87
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	-476	-451	-882	-544	-279	-138	-181
Group pension insurance	-196	-179	-389	-291	-224	-168	-285
Defined benefit 3.5%	-166	-151	-328	-247	-186	-136	-212
Defined benefit 2.5%	-16	-13	-28	-19	-16	-13	-28
Defined benefit 1.5%	-9	-7	-14	-11	-10	-9	-24
Defined benefit 0.5%	0	0	0	0	0	0	0
Defined contribution 3.5%	-1	-1	-2	-1	-1	-1	-4
Defined contribution 2.5%	-4	-5	-15	-12	-11	-7	-15
Defined contribution 1.5%	0	-1	-2	-1	-1	-1	-2
Defined contribution 0.5%	0	0	0	0	0	0	0
Individual pure risk insurance	-37	-26	-34	-11	-2	0	0
Group life insurance	-5	-1	0	0	0	0	0
Investment contracts	-1	-1	-2	0	0	0	0
Capital redemption contracts	-1	-1	-2	0	0	0	0
Rate of guaranteed interest 2.5%	-1	-1	-2	0	0	0	0
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Liability for bonus reserves	-6	0	0	0	0	0	0
Reserve for decreased discount rate	-126	-79	-129	-37	-14	-3	-1
Other items in insurance liabilities	0	0	0	0	0	0	0
Total	-2,360	-2,392	-4,686	-3,007	-1,870	-1,137	-1,662

Note 78. Profitability of life insurance business

EUR million	2017			2016		
	Risk income	Claims incurred	Claim ratio	Risk income	Claims incurred	Claim ratio
Life insurance	417	383	92%	407	368	91%
Term life insurance	49	16	34%	50	14	28%
Insurance saving	369	367	99%	357	354	99%
Pension insurance	42	42	100%	40	41	102%
Defined benefit	24	24	100%	24	25	103%
Defined contribution	18	18	99%	16	16	101%
OP Life Assurance Company	460	425	93%	447	409	92%

Claims expenditure of defined benefit group pension includes the longevity provision of EUR 3,0 million in 2017 and EUR 3.7 million in 2016.

Note 79. Life Insurance asset allocation

Allocation of investment assets	31 Dec. 2017		31 Dec. 2016	
	Fair value, EUR million	%	Fair value, EUR million	%
Fixed-income investments*				
Bonds	2,639	69%	2,942	72%
Other money market instruments***	313	8%	131	3%
Mutual funds	24	1%	238	6%
Shares and participations				
Equities and mutual funds***	366	10%	258	6%
Alternative investments**	223	6%	237	6%
Properties	265	7%	294	7%
Total	3,830	100%	4,100	100%

* Include accrued interest and notes and bonds reclassified into loans and receivables within financial assets. Exclude interest rate derivatives used to hedge interest rate risk associated with insurance liabilities.

** Incl. investments in hedge funds and private equity investments

*** Incl. effect of equity futures

Note 80. Life Insurance investment sensitivity analysis

31 Dec. 2017	Portfolio at fair value, EUR million	Risk parameter	Change	Effect on equity capital, EUR million	
				31 Dec. 2017	31 Dec. 2016
Bonds and bond funds	2,976	Interest rate	1 pp	132	155
Shares and alternatives	588	Market value	10 per cent	47	66
Properties	265	Market value	10 per cent	27	36

Separated balance sheet of individual life insurance portfolio (separated balance sheet 1)

31 Dec. 2017	Portfolio at fair value, EUR million	Risk parameter	Change	Effect on the portfolio's buffer, € million	
				31 Dec. 2017	31 Dec. 2016
Bonds and bond funds	739	Interest rate	1 pp	38	48
Shares and alternatives	93	Market value	10 per cent	11	12
Properties	59	Market value	10 per cent	6	7

Separated balance sheet of individual pension insurance portfolio (separated balance sheet 2)

31 Dec. 2017	Portfolio at fair value, EUR million	Risk parameter	Change	Effect on the portfolio's buffer, € million	
				31 Dec. 2017	31 Dec. 2016
Bonds and bond funds	2,046	Interest rate	1 pp	120	
Shares and alternatives	337	Market value	10 per cent	40	
Properties	189	Market value	10 per cent	19	

Investment and customer behaviour risks associated with the separated insurance portfolios 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 96 million and that of the separated balance sheet 2 is EUR 271 million.

Note 81. Risk exposure of Life Insurance investments in fixed-income securities

Fair value by duration or repricing date, EUR million	31 Dec. 2017	31 Dec. 2016
0–1 year	415	316
>1–5 years	1,406	1,550
>5–10 years	925	1,111
>10–20 years	143	167
>20 years	87	104
Total	2,977	3,248
Modified duration	4.4	4.9
Average interest rate, %	1.3	1.4

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 %

Fixed-income portfolio by maturity and credit rating on 31 Dec. 2016, EUR million

Year(s)	0-1	1-3	3-5	5-7	7-10	10-	Total	Proportion
Aaa	-8	170	171	117	228	172	850	26.2 %
Aa1-Aa3	112	57	87	52	75	21	404	12.4 %
A1-A3	59	143	261	132	115	39	749	23.1 %
Baa1-Baa3	82	242	300	191	150	37	1,003	30.9 %
Ba1 or lower	27	91	23	24	19	2	185	5.7 %
Internally rated	43	14	-9	8	0	0	56	1.7 %
Total	316	717	833	523	587	271	3,248	100.0 %

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 A2.

The average residual term to maturity of a Life Insurance fixed-income portfolio is 5.0 years (calculated on the basis of the Call date and maturity date).

Note 82. Currency risk associated with Life Insurance investments

Foreign currency exposure, EUR million	31 Dec. 2017	31 Dec. 2016
USD	66	70
SEK	0	2
JPY		0
GBP	10	47
Other	45	60
Total*	121	178

* Total net currency exposure

The currency exposure was 3.2% (4.3) of the investment portfolio.

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 49.

Note 83. Capital base

The Group has presented its capital base and capital adequacy in accordance with the EU capital requirement regulation and directive (EU 575/2013) (CRR).

EUR million	31 Dec. 2017	31 Dec. 2016
OP Financial Group's equity capital	11,121	10,237
The effect of insurance companies on the Group's shareholders' equity is excluded	92	-168
Fair value reserve, cash flow hedge	-16	-41
Supplementary cooperative capital to which transition provision applies		77
Common Equity Tier 1 (CET1) before deductions	11,197	10,105
Intangible assets	-717	-620
Excess funding of pension liability and valuation adjustments	-31	-64
Repayable cooperative capital	-148	-156
Expected profit distribution	-90	-83
Impairments – shortfall of expected losses	-320	-309
Common Equity Tier 1 (CET1)	9,891	8,872
Hybrid capital to which transitional provision is applied	81	81
Additional Tier 1 capital (AT1)	81	81
Tier 1 capital (T1)	9,973	8,954
Debenture loans	1,121	1,239
Tier 2 capital (T2)	1,121	1,239
Total capital base	11,093	10,192

IAS 19 adjustments deducted from CET1 capital decreased slightly from their level at the end of December 2016. The amount of Profit Shares in CET1 capital was EUR 2.8 billion (2.6). Profit Shares refunded to customers in January 2018, totalling EUR 0.1 billion, are not included in CET1 capital.

A prudent valuation adjustment of EUR 20 (36) million has been deducted from CET1 capital.

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

Note 84. 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	2017	2016
Credit and counterparty risk	39,383	38,853
Standardised Approach (SA)	3,859	3,233
Central government and central banks exposure	18	39
Credit institution exposure	8	36
Corporate exposure	2,423	1,812
Retail exposure	1,057	1,039
Other	353	307
Internal Ratings-based Approach (IRB)	35,525	35,620
Credit institution exposure	1,054	1,143
Corporate exposure	21,438	20,913
Retail exposure	4,959	4,698
Equity investments Other	7,002	7,605
	1,072	1,261
Market and settlement risk (Standardised Approach)	1,179	1,329
Operational risk (Standardised Approach)	3,958	3,666
Valuation adjustment (CVA)	205	253
Total risk exposure amount	44,725	44,101
Risk weight floors based on ECB's decision	4,492	
Total risk exposure amount including risk weight floors	49,216	44,101

The total risk exposure amount (REA) was 11.6% higher than on 31 December 2016. The 2016-end figure excludes the minimum risk weight set by the ECB that accounts for 88% of the increase. The minimum risk weight for retail exposures set by the ECB was EUR 4.5 billion, without which total risk was EUR 44.7 billion and the increase 1.4% from the turn of the year. The average credit risk weights of corporate exposures decreased slightly thanks to the improved quality of the loan portfolio and optimisation of calculation methods. The average risk weights of retail exposure rose slightly.

The risk weight of equity investments includes EUR 6.4 billion in insurance holdings within OP Financial Group.

EUR 283 (253) million of Other items 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 39 million (EUR 54 million).

Note 85. Capital ratios

Ratios, %	31 Dec. 2017	31 Dec. 2016
CET1 capital ratio	20.1	20.1
Tier 1 ratio	20.3	20.3
Capital adequacy ratio	22.5	23.1
Ratios, fully loaded, %	31 Dec. 2017	31 Dec. 2016
CET1 capital ratio	20.1	19.9
Tier 1 ratio	20.1	19.9
Capital adequacy ratio	22.4	22.8
Ratios excluding the risk weight floors, %	31 Dec. 2017	31 Dec. 2016
CET1 capital ratio	22.1	20.1
Tier 1 ratio	22.3	20.3
Capital adequacy ratio	24.8	23.1

The effect of risk weight floors on the CET 1 ratio was -2.0 percentage points.

	31 Dec. 2017	31 Dec. 2016
Capital requirement, EUR million		
Capital base	11,093	10,192
Capital requirement	7,027	5,520
Buffer for capital requirements	4,067	4,673

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. A year ago, the capital requirement was 12.5%. The ECB's P2R took effect on 1 January 2017.

Note 86. Retail exposures by borrower grade (AIRB)

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
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

All retail exposures

Borrower grade 31 Dec. 2016	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
Personal customers, total	48,607	52.5	0.8	16.9	13.7	3,919	7.3	147
A	30,426	52.5	0.0	16.0	14.3	533	1.8	2
B	10,757	52.8	0.1	16.3	13.5	521	4.8	2
C	3,759	54.7	0.5	21.4	11.4	621	16.5	4
D	1,965	43.9	2.3	21.0	10.7	712	36.2	9
E	1,323	24.9	20.6	21.1	11.0	1,127	85.2	56
F	378		100.0	24.9	19.0	405	107.2	74
Corporate customers, total	1,552	68.2	3.3	37.0	5.4	779	41.3	39
2,5-5,5	493	67.1	0.4	21.9	5.6	58	11.8	0
6,0-7,0	606	67.4	1.3	41.1	4.5	244	40.3	3
7,5-8,5	294	69.6	4.9	46.5	5.0	201	68.4	7
9,0-10,0	111	74.0	22.9	45.4	3.7	118	106.5	11
11,0-12,0	47		100.0	63.1	19.9	157	332.2	18
Total	50,159	53.7	0.8	17.5	13.5	4,698	8.3	186

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
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

Retail exposures secured by real-estates

Borrower grade 31 Dec. 2016	Exposure value (EAD), MEUR	Average CF, %	Average PD, %	Average LGD, %	Average maturity, yrs	RWA	Average risk weight, %	Expected losses, EUR million
Personal customers, total	43,832	53.6	0.7	14.7	14.1	2,822	5.7	75
A	29,194	54.1	0.0	14.6	14.3	460	1.6	1
B	9,283	51.3	0.1	14.8	13.7	402	4.3	2
C	2,625	51.9	0.5	15.3	13.4	317	12.1	2
D	1,433	54.3	2.3	14.8	12.6	449	31.3	5
E	999	48.9	21.5	15.1	12.9	849	85.0	33
F	298		100.0	19.2	17.6	345	115.7	32
Corporate customers, total	813	68.4	3.1	14.5	6.1	242	24.7	9
2,5-5,5	169	66.2	0.3	6.4	7.0	5	3.2	0
6,0-7,0	444	67.7	1.0	13.6	5.8	68	15.4	1
7,5-8,5	122	71.0	5.0	22.0	4.7	70	57.6	1
9,0-10,0	56	74.4	24.2	21.4	4.2	51	92.1	3
11,0-12,0	22		100.0	36.7	16.5	47	211.8	4
Total	44,645	55.4	0.7	14.7	13.9	3,065	6.0	84

The defaults, or borrower grades 11.0 and 12.0 as well as F, are not included in the average PD and risk weight.

Note 87. Corporate exposures (FIRB) by borrower grade

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

Borrower grade 31 Dec. 2016	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	933	92.2	0.0	44.7	4.2	137	14.7	0
2,5-5,5	17,374	74.5	0.2	44.4	6.1	7,044	40.6	17
6,0-7,0	7,717	71.6	1.3	44.2	7.7	6,786	87.9	43
7,5-8,5	4,638	70.7	4.6	44.2	7.0	5,825	125.6	94
9,0-10,0	616	55.1	22.1	44.0	11.7	1,120	181.9	60
11,0-12,0	747	54.9	100.0	45.2	14.6			338
Total	32,024	73.5	1.6	44.4	6.9	20,913	66.9	552

*The defaults, or borrower grades 11.0 and 12.0, are not included in the average PD and risk weight.

Note 88. Credit institution exposures (FIRB) by borrower grade

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

Borrower grade 31 Dec. 2016	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	2,456	76.7	0.0	13.5	4.4	114	4.7	0
2,5-5,5	5,037	60.6	0.1	20.3	4.7	799	15.9	1
6,0-7,0	150	27.2	1.7	45.0	1.8	184	122.6	1
7,5-8,5	23	20.7	6.8	45.0	0.4	41	177.1	1
9,0-10,0	2	53.1	19.1	45.0	0.0	5	247.1	0
Total	7,668	57.9	0.1	18.6	4.5	1,143	14.9	3

*The defaults, or rating categories 11.0 and 12.0, are not included in the average PD and risk weight.

Note 89. 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. 2017	31 Dec. 2016
OP Financial Group's equity capital	11,121	10,237
Other cooperative capital, hybrid instruments and debenture bonds	1,202	1,397
Other sector-specific items excluded from capital base	-236	-139
Goodwill and intangible assets	-1,525	-1,438
Insurance business valuation differences*	824	743
Proposed profit distribution	-90	-83
Items under IFRS deducted from capital base**	3	16
Shortfall of impairments – expected losses	-294	-283
Conglomerate's capital base, total	11,005	10,449
Regulatory capital requirement for credit institutions***	6,107	4,713
Regulatory capital requirement for insurance operations*	1,340	1,434
Conglomerate's total minimum capital requirement	7,447	6,147
Conglomerate's capital adequacy	3,558	4,302
Conglomerate's capital adequacy ratio (capital base/minimum of capital base) (%)	148	170

* 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 %, total risk exposure amount x 12.5 % a year ago.

Transitional provisions and the risk weight floors have been taken into account in figures. Insurance companies' SCR figures are presented in Notes 63 and 76. The P2R set for OP Financial Group on 1 January 2017 decreased the capital ratio by approximately 17 percentage points. The risk weight floors decreased the ratio by approximately 14 percentage points. The FiCo calculation is unaudited.

Capital adequacy

OP Financial Group has two risk limit indicators 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 limit for this ratio is 110%. The statutory minimum is 100%. On 31 December 2017, the ratio of the capital base to the minimum amount of the capital base was 148 (170). On 31 December 2017, the Group's capital base totalled EUR 2,814 million (3,687) above the Group's internal risk limit and EUR 3,558 million (4,302) more than the limit required by law.

Statement concerning the financial statements

We have approved the Report by the Executive Board and the consolidated Financial Statements for 1 January–31 December 2017 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, 13 February 2018

Executive Board of OP Cooperative

Tony Vepsäläinen
OP Financial Group's President and
Group Executive Chairman

Karri Alameri

Carina Geber-Teir

Jari Himanen

Olli Lehtilä

Harri Luhtala

Harri Nummela

Erik Palmén

Jouko Pölonen

Outi Taivainen

Auditors' note

We have today issued an auditor's report on the audit we have performed.

Helsinki, 15 February 2018

KPMG Oy Ab
Audit firm

Raija-Leena Hankonen
Authorised Public Accountant

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 amalgamation OP Financial Group pursuant to the Act on the Amalgamation of Deposit Banks for the year ended 31 December, 2017. 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 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.

In 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, 4, 12 and 19 to the financial statements)

Receivables from customers, totaling € 82,2 billion, are the most significant item on the OP Financial Group's consolidated balance sheet representing 60 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.

Impairment losses on loans and receivables are recognized on an individual or collective basis. Impairments are assessed on an individual basis if the debtor's total exposure is significant. An impairment assessed on individual basis is recognized when there is objective evidence that the receivable cannot be recovered in full. Collectively assessed impairment is calculated on a modelled basis. OP Cooperative evaluates and validates the basis of the model regularly.

Valuation of receivables involves management judgement, especially in respect of the amount and timing of impairment losses.

Due to the significance of the carrying amount involved, and the high level of judgment involved relating to impairment review, receivables are addressed as a key audit matter.

Our audit procedures included assessment of recognition and valuation principles applied to receivables for appropriateness, as well as testing of internal controls over determination and recognition of loan impairments.

We evaluated the compliance with lending instructions. We tested controls over recognition and monitoring of loan receivables, interest and impairments. We utilized data analysis in our audit focusing on the loans. Furthermore, we considered the appropriateness of impairments assessed on individual basis of a sample of loans selected using data analysis.

Our audit procedures also comprised interest income analysis by reference to developments in loan receivables and interest margins.

We assessed the collective impairment model in use, parameters used and the validation process of the model.

We 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 valuation of receivables.

Furthermore, we considered the appropriateness of the notes provided by OP Financial Group in respect of receivables and impairment losses.

Investment assets and derivative contracts (notes 1, 7, 18, 20 and 28 to the financial statements)

The carrying value of investment assets totals € 22,5 billion mainly consisting of investments measured at fair value. The aggregate derivative assets are € 3,4 billion and derivative liabilities € 3,0 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.

OP Financial Group's investment assets and derivative positions comprise a diverse range of interest, currency, commodity and share instruments as well as property investments and their fair values may fluctuate significantly depending on market conditions.

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 internal controls over the valuation process of investments and derivative contracts.

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 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.

Insurance liabilities (notes 1, 5 and 30 to the financial statements)

Measurement of insurance liabilities, amounting to € 10,0 billion on the OP Financial Group's balance sheet, is based on various actuarial assumptions and calculation methods.

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

Calculation of insurance liabilities is based 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.

assumptions to industry development and market information, among others.

We evaluated internal control over the accuracy of data used in calculating insurance liabilities, assessed the appropriateness of the related controls and compared them with methods widely used in the industry.

We analyzed 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 2017 our focus areas were the purchase invoice and payment applications as well as the loan decision application for corporate customers.

As part of our audit we performed extensive substantive procedures and data analyses relating to various aspects in financial reporting process.

Valuation of development costs under intangible assets (notes 1, 10, 11 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 2017 the information systems under development were carried at € 286 million and information systems under Other intangible assets at € 344 million. Development expenditure of the OP Financial Group totaled € 454 million in 2017.

OP Financial Group assesses development projects not yet available for use for impairment annually, based on expected future economic and other benefits. Information systems available for use are carried at cost less amortization and any impairment losses.

Application of capitalisation principles for development costs, valuation of these assets and impairment assessment for intangible assets available for use require significant amount of management judgment. Owing to the nature of development costs valuation typically involves above average uncertainty. Consequently, development costs under intangible assets are addressed as a key audit matter.

Our audit procedures included assessment of the monitoring and control processes in place for intangible assets and recognition principles by reference to the internal guidelines of the OP Financial Group, as well as testing of controls over development projects. We tested capital expenditure projects for consistent application of the principles approved for use in the OP Financial Group on a sample basis.

As part of preparation of the financial statements OP Financial Group has analyzed the future economic and other benefits related to the information systems in the development phase and determined the impairments at the reporting date.

We evaluated the appropriateness of valuation of development costs based on the analyses prepared. We also assessed presentation of development costs under intangible assets and related amortisation, as well as the notes provided in the financial statements.

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 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 Financial Statements

Our objectives are to obtain reasonable assurance on 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 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 Group 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 16 years.

Other Information

The Executive Board and the Managing Director are responsible for the 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 February 15, 2018

KPMG OY AB

RAIJA-LEENA HANKONEN

Raija-Leena Hankonen

Authorised Public Accountant, KHT