OP Financial Group's Report by the Board of Directors and Financial Statements 2020

OP Financial Group

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OP Financial Group's Report by the Board of Directors 1 January–31 December 2020:

Earnings before tax EUR 785 million – net interest income and net insurance income increased in an uncertain business environment

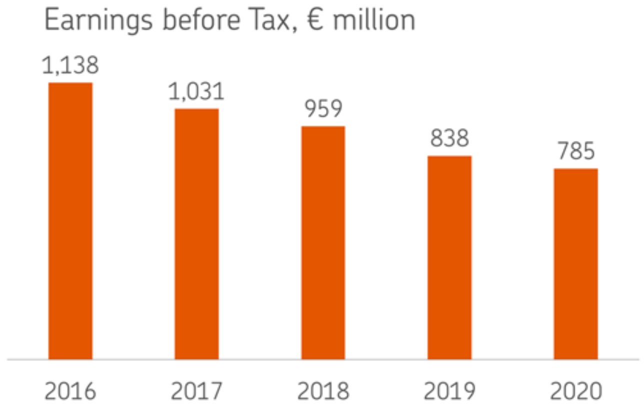
Earnings before tax Q1–4/2020	Net interest income Q1–4/2020	Net insurance income Q1–4/2020	Net commissions and fees Q1–4/2020	CET1 ratio 31 Dec 2020
€785 million	+4%	+36%	-1%	18.9%

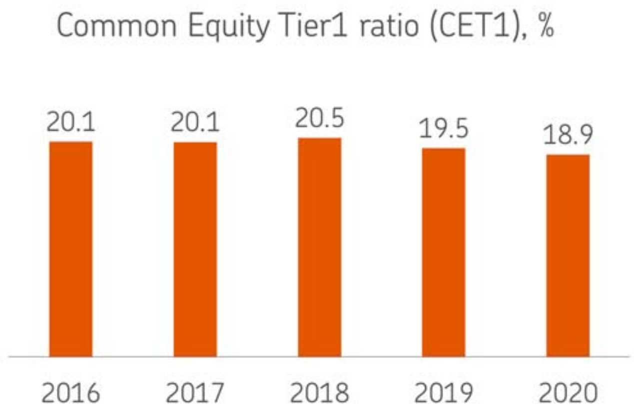
- Earnings before tax amounted to EUR 785 million (838).
- In customer business, net interest income increased by 4% to EUR 1,284 million (1,241) and net insurance income by 36% to EUR 572 million (421). Net commissions and fees totalled EUR 931 million (936).
- The effects of the Covid-19 pandemic on capital market developments weakened investment income, particularly in the first quarter. Investment income decreased by 58%, to EUR 181 million (425).
- Total income decreased by 3% to EUR 3,103 million (3,181).
- Total expenses decreased by 3% to EUR 1,839 million (1,903). The transfer of the remaining statutory earnings-related pension liability to Ilmarinen Mutual Pension Insurance Company at the end of 2020 reduced OP Financial Group's pension costs by EUR 96 million. Excluding the transfer, total expenses increased by 2% to EUR 1,935 million.
- Impairment loss on receivables was EUR 225 million (87), accounting for 0.23% (0.09) of the loan and guarantee portfolio. Impairment loss on receivables was increased by the effects of the Covid-19 pandemic on the loan portfolio quality and by the adoption of the new definition of default based on a regulatory change.
- OP Financial Group's loan portfolio grew year on year by 2% to EUR 94 billion (91) and deposits by 11% to EUR 71 billion (64).
- The CET1 ratio was 18.9% (19.5). The lower ratio was affected by the increase in the loan portfolio and the adoption of the new definition of default.
- **Retail Banking** earnings before tax decreased by 51% to EUR 115 million (235). Net interest income increased by EUR 3 million and net commissions and fees decreased by EUR 10 million. Impairment loss on receivables increased by EUR 136 million to EUR 172 million (36). The loan portfolio increased by 2% and deposits by 9% year on year.
- **Corporate Banking** earnings before tax increased by 13% to EUR 349 million (311). Net interest income increased by 3%, net commissions and fees by 22% and net investment income by 20%. Impairment loss on receivables totalled EUR 53 million (51). The loan portfolio grew by 1% year on year.
- **Insurance** earnings before tax decreased by 7% to EUR 348 million (373). Net insurance income grew by 35% to EUR 582 million (431). Investment income decreased by EUR 247 million to EUR 84 million (331). The operating combined ratio improved to 87.8% (92.7). The transfer of statutory earnings-related pension liability reduced pension costs by EUR 85 million.
- **Other Operations** earnings before tax were EUR 3 million (–37). The sale of the Vallila property on 31 January 2020 improved earnings by EUR 96 million. OP Financial Group continues operating in the property under a long-term lease agreement.
- In 2020, OP Financial Group invested a total of EUR 282 million (313) in business development and improving customer experience.
- New OP bonuses accrued to owner-customers totalled EUR 255 million (254).
- The number of owner-customers in OP cooperative banks totalled 2.0 million (2.0). OP Financial Group had a total of 1.3 million (1.2) joint banking and insurance customers.
- OP Financial Group complies with the recommendation of the European Central Bank (ECB) in its profit distribution. Following the recommendation, the Group discussed the level of profit distribution with the ECB Joint Supervisory Team, and the interest on Profit Shares for 2019 was paid to holders of those shares on 8 February 2021.
- Earnings before tax for 2021 are expected to be lower than in 2020. For more detailed information on the outlook, see "Outlook for 2021".

OP Financial Group's key indicators

	Q1–4/2020	Q1–4/2019	Change, %
Earnings before tax, € million	785	838	-6.3
Retail Banking	115	235	-51.2
Corporate Banking	349	311	12.5
Insurance	348	373	-6.5
Other Operations	3	-37	-
New OP bonuses accrued to owner-customers, € million	-255	-254	0.4
Return on equity (ROE), %	5.0	5.5	-0.5*
Return on equity, excluding OP bonuses, %	6.6	7.1	-0.6*
Return on assets (ROA), %	0.42	0.47	-0.05*
Return on assets, excluding OP bonuses, %	0.55	0.60	-0.06*
	31 Dec 2020	31 Dec 2019	Change, %
CET1 ratio, %	18.9	19.5	-0.6*
Loan portfolio, € billion	93.6	91.5	2.4
Deposits, € billion	70.9	64.0	10.8
Ratio of non-performing receivables to loan and guarantee portfolio, %	2.0	1.1	0.9*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.23	0.09	0.14*
Owner-customers (1,000)	2,025	2,003	1.1

*Change in ratio





Comments by President and Group Chief Executive Officer Timo Ritakallio

OP Financial Group's customer business grew in 2020 despite the challenging business environment. Net interest income and net insurance income increased year on year, and our market share remained strong in home loans and corporate loans as well as in the non-life insurance business. Our loan portfolio grew by 2% to EUR 94 billion and deposit portfolio by 11% to EUR 71 billion.

The decrease in net investment income had a negative effect on our earnings, particularly in the first quarter as the Covid-19 pandemic caused a decline in the capital market. Impairment loss on receivables also reduced earnings. In addition to the Covid-19 crisis, regulatory changes increased the impairment loss on receivables.

Earnings before tax for 2020 amounted to EUR 785 million, which was EUR 53 million lower than the year before. The sale of the Vallila property improved earnings by EUR 96 million. In addition, the transfer of the remaining statutory earnings-related pension liability to Ilmarinen Mutual Pension Insurance Company reduced OP Financial Group's pension costs by EUR 96 million, which had a positive impact on earnings.

Our capital adequacy is still on a very solid basis: our CET1 ratio was 18.9% at the end of 2020.

The number of OP cooperative bank owner-customers continued to grow in 2020. In 2021, we will continue to focus on improving owner-customers' experience of benefits.

In 2020, more than 200,000 persons were registered as new unitholders in mutual funds. More than half of them, almost 60%, started investing through OP's mutual funds.

During the Covid-19 crisis, we granted repayment holidays to 115,000 private customers and 11,000 corporate customers. Demand for repayment holidays from households and enquiries for loan modifications from corporate customers levelled off to their pre-crisis levels towards the end of the year.

The exceptional year 2020 changed customer behaviour. Cash withdrawals decreased by more than 20% from the previous year. The use of OP-mobile and OP Business mobile shows strong growth. In 2020, logins to OP-mobile increased by 34% and those to OP Business mobile by as much as 50%. We are expecting the same trend to continue as well as a further decline in visits to branches.

In 2021, the big question is how the economy will recover from the Covid-19 crisis. Interest rates are expected to remain unchanged. The Covid-19 shock of spring 2020 hit Finland less than feared, and the economy began to recover already during summer. Since autumn, the second wave of the Covid-19 pandemic has slowed down the recovery but the outlook is brighter following the gradual increase in vaccination coverage. However, the business environment will continue to involve major uncertainties. For some businesses, the recovery may be too late. Meanwhile, the financial market is looking further into the future, to the economic pickup expected in autumn 2021.

As regards the finances of businesses and households overall, they have done relatively well during the crisis. In addition to measures taken by businesses themselves, rapid actions in the economic policy have helped them in navigating through the pandemic. The next challenge is to see what the development will be like after the economic growth spurt that will follow the end of the pandemic. The medium-term growth outlook is sluggish, and weaknesses exposed by the crisis will pose risks. The heavy indebtedness of public finances is one of our biggest concerns.

Business environment

The world economy was hit hard by the Covid-19 pandemic in 2020. After its sharp contraction in spring, the economy started to recover in the summer, but recovery slowed down again towards the year end due to the second wave of the pandemic. Nevertheless, the economy suffered from the rise in infections considerably less than in spring.

Aided by central banks, the financial market recovered quickly from the spring crisis. Stock prices have risen along with optimism brought by the introduction of vaccinations and economic stimulus measures. Towards the year end, accommodative policy measures and recovery expectations were extensively reflected in other investments, too.

The ECB extended its accommodative monetary policy measures in December while emphasising that the main refinancing rates will remain low for a long time. Market interest rates have remained low throughout.

Following a more moderate drop than in the rest of the euro area, the Finnish economy started to recover in the third quarter, similarly to the rest of the euro area. During the last quarter, recovery slowed down but did not stop altogether.

The economy has been afflicted by the recession in an uneven way. Hardship has affected some sectors suffering from the Covid-19 pandemic, such as tourism and restaurant services. Otherwise, the financial standing of households and companies largely remained good during the rest of the year. The housing market picked up towards the year end and the slight drop caused by the pandemic remained short-lived.

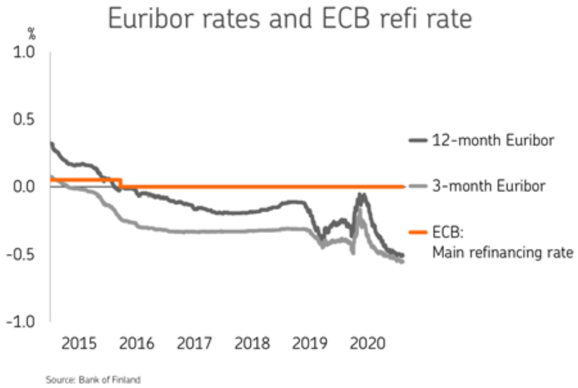
The Covid-19 pandemic will continue to cause uncertainty over the economic outlook. Increasing Covid-19 vaccination rates will support economic recovery. However, the interest rate environment is expected to remain low in the euro area.

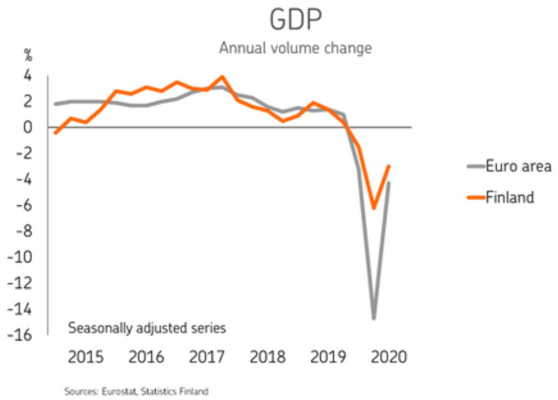
In banking, the pandemic intensified the growth in loans and deposits. April–May saw the greatest increase in loans at an annual rate of 6.8%. In December, the growth rate was 4.6%. At the end of December, corporate loans grew by 6.7% and consumer loans by 3.3%. Companies and public-sector entities lay behind the intensified growth in loans in the spring. In household loans, an increase in home loans was balanced by slowdown in consumer credit. Home loans grew by 3.3% in December as against 2.6% at the beginning of the year. Home loan drawdowns clearly decreased in spring but repayment holidays kept total loans on the increase. Home loan drawdowns increased during the rest of the year.

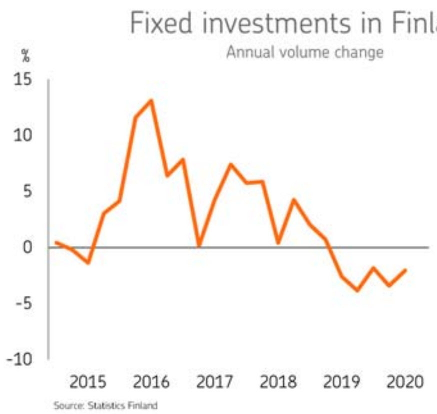
Growth in total deposits was at an exceptional level in 2020. Growth abated towards the year end from the peak of 16.8% reached in the summer, coming to 14.8% in December. In December, corporate deposits increased by 20.1% and household deposits by 8.5%.

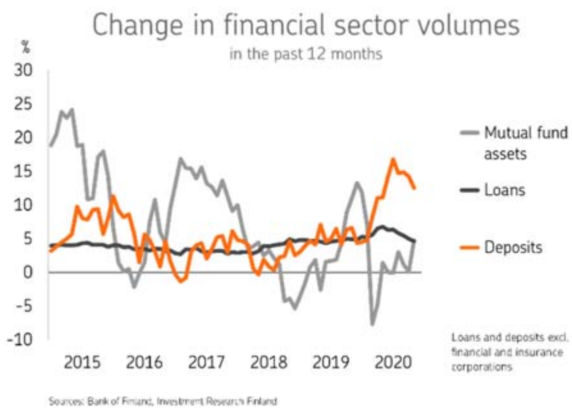
The value of mutual funds registered in Finland increased by EUR 7.5 billion to EUR 132.2 billion in 2020. EUR 6.3 billion of this increase was caused by a positive value change triggered by the strong rise in stock prices after the Covid-19 shock in spring.

Low interest rates and the volatile equity market have hindered insurance companies' investment activities. Reduced economic activity decreased claims volumes in spring but the long-term effects of the pandemic on insurance and on customers' financial standing are still unclear.









Earnings analysis and balance sheet

Earnings analysis, € million	Q1–4/ 2020	Q1–4/ 2019	Change, %
Earnings before tax	**785**	**838**	**-6.3**
Retail Banking	115	235	-51.2
Corporate Banking	349	311	12.5
Insurance	348	373	-6.5
Other Operations	3	-37	-
Income			
Net interest income	1,284	1,241	3.5
Net insurance income	572	421	35.9
Net commissions and fees	931	936	-0.5
Net investment income	184	530	-65.3
Other operating income	132	53	146.2
Total income	3,103	3,181	-2.5
Expenses			
Personnel costs*	715	781	-8.6
Depreciation/amortisation and impairment loss	273	278	-1.7
Other operating expenses	852	844	0.9
Total expenses	1,839	1,903	-3.4
Impairment loss on receivables	-225	-87	-
Temporary exemption (overlay approach)	-3	-105	-
New OP bonuses accrued to owner-customers	-255	-254	-

* The transfer of the remaining statutory earnings-related pension liability reduced pension costs for 2020 by EUR 96 million in the fourth quarter.

Key indicators, € million	31 Dec 2020	31 Dec 2019	Change, %
Loan portfolio	**93,644**	**91,456**	**2.4**
Home loans	40,036	39,572	1.2
Corporate loans	22,587	22,509	0.3
Housing company and other loans	31,021	29,375	5.6
Guarantee portfolio	**3,100**	**3,503**	**-11.5**
Deposits	**70,940**	**63,998**	**10.8**
Assets under management (gross)*	**89,126**	**83,106**	**7.2**
Mutual funds	27,598	25,610	7.8
Institutional clients	25,330	24,445	3.6
Private Banking	24,888	22,199	12.1
Unit-linked insurance assets	11,310	10,852	4.2
Balance sheet total	**160,207**	**147,024**	**9.0**
Investment assets	23,562	23,509	0.2
Insurance liabilities	9,374	9,476	-1.1
Debt securities issued to the public	34,706	34,369	1.0
Equity capital	13,112	12,570	4.3

*The figures for 2019 have been adjusted to correspond to the updated accounting.

January–December

OP Financial Group's earnings before tax amounted to EUR 785 million (838), down by EUR 53 million from the previous year. As regards income from customer business, net interest income and net insurance income increased. Earnings were also increased by the sale of the Vallila property as well as the transfer of the management of the remaining statutory earnings-related pension cover and the related insurance portfolio to Ilmarinen Mutual Pension Insurance Company.

The effects of the Covid-19 pandemic on loan portfolio quality increased impairment loss on receivables. Market developments caused by the pandemic decreased investment income, particularly in the first quarter. Earnings were also affected by the adoption of a new definition of default in the first quarter, based on a regulatory change, that increased impairment loss on receivables.

Net interest income increased by 3.5% to EUR 1,284 million. Net interest income reported by the Retail Banking segment increased by EUR 3 million and that by the Corporate Banking segment by EUR 11 million. OP Financial Group's loan portfolio grew by 2.4% to EUR 93.6 billion and deposits by 10.8% to EUR 70.9 billion, year on year. New loans drawn down by customers in 2020 totalled EUR 22.6 billion (25.1).

Net insurance income increased by 35.9% to EUR 572 million. The Insurance segment's non-life insurance premium revenue increased by 1.9% to EUR 1,506 million. Claims incurred decreased by 11.7% to EUR 951 million. The reduction in the discount rate for insurance liability increased claims incurred by EUR 45 million (136). Claims incurred as a result of the Covid-19 pandemic totalled EUR 37 million. The operating combined ratio improved to 87.8% (92.7).

Net commissions and fees totalled EUR 931 million (936). Net commissions and fees for mutual funds increased by EUR 11 million and those for payment transfer services by EUR 10. Meanwhile, net commissions and fees for asset management fell by EUR 27 million.

Net investment income decreased by 65.3% to EUR 184 million. Net income from financial assets at fair value through other comprehensive income totalled EUR 37 million (192). Capital gains were EUR 93 million lower than in 2019. Capital gains on all financial instruments totalled EUR 43 million (197).

Net income from financial assets recognised at fair value through profit or loss totalled EUR 438 million (726). The fair value of equities, and notes and bonds decreased significantly in the first quarter. However, after that the situation in the securities market improved. An item corresponding to the decrease in the discount rate of the insurance liability for non-life insurance, EUR 45 million (136), was shown as positive value change in net investment income. Value changes in Credit Valuation Adjustment (CVA) in derivatives owing to market changes decreased earnings by EUR 19 million (–12).

Net income from investment property totalled EUR –30 million (19). Fair value on investment property decreased by EUR 35 million, whereas a year ago they increased by EUR 17 million.

An overlay approach is applied to certain equity instruments of insurance companies. Changes in the fair value of investments within the scope of the overlay approach are presented under the fair value reserve under shareholders' equity. The overlay approach decreased investment income by EUR 3 million (–105). Total investment income fell by 57.6% year on year, to EUR 181 million. The combined return on investments at fair value of OP Financial Group's insurance companies was 4.9% (8.9).

Other operating income rose by EUR 78 million to EUR 132 million. The sale of the Vallila property increased other operating income in the first quarter. OP Financial Group recognised a capital gain of EUR 98 million on the sale in other operating income and an expense of EUR 2 million in other operating expenses. The Group will continue operating in the property under a long-term lease agreement, and the property was recognised as a right-of-use asset in the balance sheet. The value of the right-of-use asset under IFRS 16 was EUR 138 million and the lease liability was EUR 225 million. In 2019, the rise in other operating income was explained by the sale of occupational healthcare service business.

Total expenses decreased by 3.4% to EUR 1,839 million and personnel costs decreased by 8.6% to EUR 715 million. The transfer of the remaining statutory earnings-related pension liability at the end of 2020 reduced OP Financial Group's pension costs by EUR 96 million. Excluding the effect of this transfer, total expenses increased by 1.7% to EUR 1,935 million and personnel costs by 3.7% to EUR 811 million. Depreciation/amortisation and impairment loss on PPE and intangible assets decreased by 1.7% to EUR 273 million. Planned depreciation/amortisation increased by 6.6% to EUR 260 million due to higher development expenditure recognised for prior years. Impairment write-downs were EUR 13 million (33).

Other operating expenses increased by 0.9% to EUR 852 million. ICT costs increased by EUR 41 million to EUR 395 million. A one-off investment in the IT environment increased ICT costs for 2020. Development costs were EUR 183 million (183). Charges of financial authorities increased by 16.6% to EUR 52 million as a result of a higher EU stability contribution.

Impairment loss on loans and receivables and on investments recognised under various income statement items that reduced earnings amounted to EUR 244 million (110), of which EUR 225 million (87) concerned loans and receivables. During the Covid-19 crisis, customers actively applied for repayment holidays on their loans and changes to their repayment schedules. Combined with Covid-19 related extra provisions related to certain sectors and the changes in macroeconomic parameters applied in the calculation of expected credit losses, this increased impairment loss on receivables by EUR 88 million. The adoption of the new definition of default in the first quarter increased impairment loss on receivables by EUR 44 million. Rearrangement of receivables increased final net loan losses that came to EUR 107 million (45). Loss allowance was EUR 708 million (585) at the end of the financial year. The ratio of non-performing receivables in loans and receivables to the loan and guarantee portfolio was 2.0% (1.1). Impairment loss on loans and receivables accounted for 0.23% (0.09) of the loan and guarantee portfolio.

OP Financial Group's income tax amounted to EUR 144 million (168). The effective tax rate was 18.3% (20.1). The rate decreased due to the transfer of statutory earnings-related pension liability and the group contributions provided.

OP Financial Group's equity amounted to EUR 13.1 billion (12.6). Equity included EUR 3.0 billion (3.0) in Profit Shares, terminated Profit Shares accounting for EUR 0.3 billion (0.3). The return target for Profit Shares for 2020 was 3.25%. Interest payable on Profit Shares is estimated to total EUR 95 million. The amount of interest paid for 2019 on 8 February 2021 totalled EUR 97 million.

Comprehensive income totalled EUR 734 million (926). In 2019, comprehensive income was increased by changes in the fair value reserve.

Key income statement items by quarter

				2020	2020	2019	Change
€ million	Q1	Q2	Q3	Q4	Q1–4	Q1–4	%
Net interest income	319	327	315	324	1,284	1,241	3.5
Net insurance income	131	164	181	95	572	421	35.9
Net commissions and fees	244	211	224	252	931	936	-0.5
Net investment income	-140	112	59	153	184	530	-65.3
Other operating income	107	5	8	11	132	53	146.2
Total income	662	819	787	835	3,103	3,181	-2.5
Personnel costs	208	207	179	120	715	781	-8.6
Depreciation/amortisation and impairment loss	65	64	67	77	273	278	-1.7
Other operating expenses	245	204	174	228	852	844	0.9
Total expenses	518	475	421	425	1,839	1,903	-3.4
Impairment loss on receivables	-105	-60	-17	-42	-225	-87	-
Overlay approach	151	-62	-44	-48	-3	-105	-
OP bonuses to owner-customers	-60	-64	-65	-61	-251	-249	-
Earnings before tax	129	158	239	259	785	838	-6.3

Measures taken by OP Financial Group amid the Covid-19 crisis

OP Financial Group has offered financial relief in the form of repayment holidays to its private and corporate customers who have run into financial problems due to the Covid-19 crisis. Households have the opportunity to get a repayment holiday of up to 12 months on their home loans. With respect to corporate customers, changes in repayment schedules are always evaluated on a case-by-case basis. In addition, guarantees provided by Finnvera have been used extensively. No separate fees were charged for loan modifications during the period 16 March–21 September 2020.

During the Covid-19 crisis, the Group received approximately 200,000 individual applications for repayment holidays from private customers by the end of December. All of these applications were not connected to challenges related to the Covid-19 crisis. In the summer, the number of repayment holiday applications returned to its pre-pandemic level. The number of applications for repayment holidays and loan modifications on corporate loans exceeded 20,000 by the end of December. Also, the number of applications from corporate customers decreased already in summer.

In the spring and summer, OP Real Estate Asset Management Ltd supported the lessees of the business property units it manages with flexible lease payment if the Covid-19 pandemic caused them financial difficulties. At the end of the financial year, the lessees' need for flexible lease payment was marginal and the repayment of postponed leases began as agreed. Overall, the effects of the pandemic were minor. OP Real Estate Asset Management manages the portfolios of real estate funds that it and OP Fund Management are in charge of, and real estate units of OP Financial Group insurance companies. OP Real Estate Asset Management is the largest real estate fund investor in Finland.

OP cooperative banks granted brief reliefs on lease payment to their customers on a case-by-case basis, particularly in the second quarter. Most waivers and discounts on lease payments terminated at the end of the third quarter, and rental income mainly recovered to its pre-pandemic level.

When the coronavirus crisis began, Pohjola Insurance offered its customers flexibility in payment terms. Over 20,000 customers took the opportunity of extending the payment time of their insurance premiums between April and September.

During the spring and summer, the Covid-19 pandemic increased the number of travel and business interruption insurance claims filed. In many other insurance lines, the number of claims decreased as a result of lower activity in general. Towards the year end, the number of claims restored to its pre-pandemic level. A total of EUR 37 million in Pohjola Insurance claims incurred related to loss events caused by the pandemic. Most of the payouts were for major public events that had to be cancelled as well as for travel losses.

In the spring and summer, Pohjola Hospital Ltd gave its personnel's contribution in public healthcare tasks that are critical to society during the Covid-19 crisis. They helped, for example, in tracking the chains of transmission. Pohjola Hospital paid the personnel's salaries during the time of temporary work.

To ensure safe use of banking and insurance services, OP Financial Group has centralised most of its services in digital channels. Some OP cooperative bank branches have offered separate service hours for people that need special support. Moreover, OP helps and supports those in need of special support and persons close to them by providing a special telephone line. The purpose of this is to ensure that those in need of special support can do their banking transactions easily.

OP Financial Group has agreed on a number of detailed precautions to prevent the spread of the coronavirus. OP is closely monitoring the disease situation and the recommendations of the authorities and implements practices based on these in different regions. Individual branches have been closed temporarily due to the regional development of the pandemic. The Group has paid particular attention to hygiene and the safe use of services, and protective plexiglass has been installed in bank branches. Customers have been instructed to observe the recommendations of the authorities. Through joint instructions and regional actions, the Group ensures the safety of its customers and personnel at the various phases of the epidemic.

OP Financial Group has ensured that services critical to society are available during the Covid-19 crisis too. OP Financial Group has enabled safe working conditions for its personnel in its offices and branches. Extensive remote working is also encouraged in those jobs where it is possible. In the spring, up to three fourths of OP Financial Group's employees worked remotely. For the rest of the year, work continued through a flexible combination of remote and in-office work based on employees' duties and the needs of the teams while taking into account the safety and wellbeing of employees and customers, and business performance.

2020 highlights

Sale of the Vallila property

On 31 January 2020, OP Cooperative, OP Financial Group's central cooperative, sold the Vallila property to a South Korean-Finnish consortium which includes Varma Mutual Pension Insurance Company, NH Investment & Securities (NHIS) and Shinhan Investment Corp. The value of the transaction was EUR 480 million. OP Financial Group will continue operating in the property under a long-term lease agreement. A capital gain of EUR 96 million was recognised on the sale in OP Financial Group's first quarter results 2020.

The sale of the property improved OP Financial Group's CET1 ratio by 0.2 percentage points.

New definition of default

In the first quarter, OP Financial Group adopted the European Banking Authority's (EBA) Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013. The Guidelines harmonise the definition of default applied by European banks on their customers. The new process in accordance with the Guidelines recognises defaulted customers earlier, for example, based on information in external credit registers. As regards retail customers, the new process extends the default to cover all exposures of an individual obligor. This change increased the number of observations of default and weakened the parameters of credit risk.

OP Financial Group will apply a so-called two-step approach. The first step involved the change of the definition of default during the first quarter of 2020. The second step to be taken later involves the calibration of credit risk parameters. The supervisory obligation related to the adoption of the new definition of default increased the average risk weights of OP Financial Group's loan portfolio at the first step. Growth in expected credit losses (ECL) in the income statement caused by the change in the definition of default has been taken into account in the effect on capital adequacy. OP Financial Group applied the new definition of default to expected credit losses as a change in the accounting estimate. Consequently, impairment loss on receivables in the income statement increased by EUR 44 million.

Payment of interest on Profit Shares for 2019

OP Financial Group observed the recommendation issued by the European Central Bank (ECB) by postponing the payment of interest on Profit Shares for 2019 to 2021. On 2 April 2020, OP Financial Group announced that it would postpone the payment of interest on Profit Shares for 2019 from June to October 2020, in line with the recommendations issued by the ECB in March. On 28 July 2020, the ECB extended the validity of its recommendation and urged banks to refrain from profit distribution until 1 January 2021.
On 15 December 2020, the ECB issued an updated recommendation whereby it urged banks to exercise extreme prudence in profit distribution or to refrain altogether from profit distribution until 30 September 2021.

Following the ECB's recommendation, OP Financial Group discussed the level of profit distribution with the ECB Joint Supervisory Team, and the interest on Profit Shares for 2019 was paid to holders of those shares on 8 February 2021. The interest payable for 2019 totalled EUR 97 million based on the original return target of 3.25%. The amount does not exceed the ECB's recommendation on the maximum limits for profit distribution. According to the recommendation, profit distribution paid by banks should not exceed 15% of the cumulated profit for 2019–2020, and the total amount of profit distributed should not be higher than 20 basis points of the Common Equity Tier 1 (CET1) ratio, whichever is lower. The purpose of this recommendation is to safeguard the ability of banks to support the real economy by providing funding to businesses and households to alleviate the effects of the economic crisis caused by the Covid-19 pandemic.

Sale of Automatia

The sale of Automatia Pankkiautomaatit Oy, a company jointly owned by OP Financial Group, Danske Bank and Nordea, was finalised on 2 December 2020. Automatia's entire share capital was transferred to Loomis AB, which specialises in cash handling. In connection with this transaction, the sellers committed themselves to new, long-term service agreements and will continue to be major customers of Automatia. The sale has no effect on Automatia's services, such as the operation of Otto ATMs. In connection with the transaction, Nordea and OP Financial Group acquired rights to the Siirto brand previously owned by Automatia. Nordea and OP will continue to provide the Siirto service to their customers as before.

Transfer of the remaining statutory earnings-related pension liability

OP Bank Group Pension Fund transferred the majority of the management of its pension liability and earnings-related pension insurance to Ilmarinen Mutual Pension Insurance Company on 31 December 2018. Transfer of the statutory earnings-related pension liability remaining with OP Bank Group Pension Fund to Ilmarinen Mutual Pension Insurance Company took place on 31 December 2020. The transfer of the statutory earnings-related pension liability applied to the following companies of OP Financial Group in their capacity as employers: Pohjola Insurance Ltd, OP Asset Management Ltd, OP Real Estate Asset Management Ltd, OP Asset Management Execution Services Ltd and Pohjola Hospital Ltd. The Representative Assembly of OP Bank Group Pension Fund decided on the liability transfer on 4 August 2020. The earnings effect of the transfer, EUR 96 million, was recognised as a deduction in OP Financial Group's personnel costs. The transfer had no substantial effect on the CET1 ratio.

OP Financial Group's strategic targets and focus areas

At its meeting on 13 August 2020, the Supervisory Council of OP Financial Group's central cooperative confirmed the Group's updated strategy. The strategy update involved specifying the key tasks for achieving the Group's vision and defining its strategic priorities for 2021.

OP Financial Group has a strategy process in which it assesses, reshapes and implements its strategy on an ongoing basis. The Group systematically assesses its business environment and operating model to be able to make and implement new strategic choices when needed.

The Supervisory Council confirmed OP Financial Group's strategic priorities for 2021 as follows:

- Best customer experience

- More benefit for owner-customers
- Excellent employee experience
- Faster growth in revenues than in expenses
- More efficient, higher quality operations.

The strategic priorities reviewed annually will help achieve the shared vision and guide all actions. OP Financial Group's vision is to be the leading and most appealing financial services group in Finland.

On 30 October 2019, the Supervisory Board (as of 1 January 2020, the Supervisory Council) of OP Financial Group's central cooperative confirmed OP Financial Group's strategic long-term targets. The targets entered into force as of 1 January 2020.

OP Financial Group's strategic targets	31 Dec 2020	31 Dec 2019	Target 2025
Return on equity (ROE excluding OP bonuses), %	6.6	7.1	8.0
CET1 ratio, %	18.9	19.5	At least CET1 requirement + 4 pps
Brand recommendations, NPS (Net Promoter Score, private and corporate customers)*	23	26	30
Credit rating	AA-/Aa3	AA-/Aa3	At least at the level of AA-/Aa3

*Average of quarters (per year)

On 27 April 2020, OP Cooperative's Board of Directors decided that OP Financial Group's target CET1 ratio be at least the CET1 capital adequacy requirement plus four percentage points. The CET1 target calculated by applying the December-end capital adequacy requirement was 13.7%.

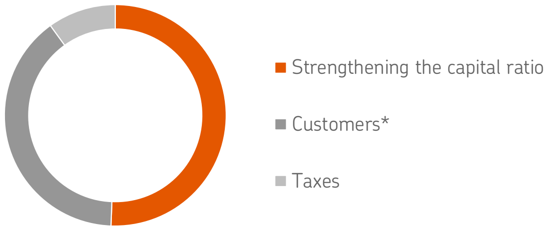
Promotion of the success of owner-customers and operating region

OP Financial Group's mission is to promote the sustainable prosperity, security and wellbeing of its owner-customers and operating region. The Group's operations are based on cooperative values, a strong capital base, capable risk management and customer respect. The Group's core values are people first, responsibility, and succeeding together.

Allocation of earnings

As a cooperative business, OP Financial Group 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 2020 that is to be confirmed after the end of the financial year:



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

Implementing OP Financial Group's mission successfully requires a strong capital base which the requirements set by the authorities also necessitate. A stronger capital base will require efficiency and earnings power of the Group in the years to come too. In addition to the part returned to owner-customers, a significant part of earnings is used to enhance OP Financial Group's capital base.

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. The owner-customers' loyalty benefit programme consists of OP bonuses – accrued on the basis of an owner-customer's transactions with OP – as well as benefits and discounts related to OP's banking services, insurance contracts and savings and investment services. Owner-customers also have the opportunity to contribute capital to their own OP cooperative bank through Profit Shares. Interest will be paid annually on Profit Shares as the banks' profit distribution.

OP Financial Group is one of the largest taxpayers in Finland measured by tax on profits. As a major taxpayer, OP is contributing to prosperity in the whole of Finland.

Customer relationships and customer benefits

OP Financial Group had a total of 2.0 million (2.0) owner-customers at the end of the year. The number of owner-customers increased by 22,000 during the year.

The number of banking customers totalled 3.6 million (3.6). Retail Banking had a total of 3.3 million customers (3.3) and Corporate Banking 0.3 million customers (0.3).

The number of joint banking and insurance customers totalled 1.3 million (1.2).

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

OP cooperative banks' owner-customers earn OP bonuses through banking, insurance and wealth management transactions. The value of new OP bonuses accrued in January–December totalled EUR 255 million (254). During the same period, a total of EUR 119 million (113) of bonuses were used to pay for banking and wealth management services and EUR 130 million (129) to pay non-life insurance premiums.

Owner-customers benefitted EUR 27 million (35) from the reduced price of the daily services package of Retail Banking. The reduced price applied in 2019 was adjusted to correspond to the updated accounting. Owner-customers were provided with EUR 66 million (69) in non-life insurance loyalty discounts. In addition, owner-customers bought, sold and switched the majority of the mutual funds without separate charges. The value of this benefit amounted to EUR 6 million (5).

The abovementioned OP bonuses and customer benefits totalled EUR 354 million (363), accounting for 31.1% (30.2) of OP Financial Group's earnings before tax and granted benefits.

Interest payable on Profit Shares for the financial year 2020 is estimated to total EUR 95 million (97). The return target for Profit Shares for 2020 was an interest rate of 3.25% (3.25). Similarly, the return target for Profit Shares for 2021 is an interest rate of 3.25%.

Corporate responsibility

Corporate responsibility is an integral part of OP Financial Group's business and strategy. The Group's aim is to be a forerunner of corporate responsibility within its sector in Finland. OP Financial Group's Corporate Responsibility Programme is built around four themes: we improve financial literacy in Finland, we foster a sustainable economy, we support local vitality and community spirit, and we use our information capital responsibly.

OP Financial Group is committed to complying with the ten principles of the UN Global Compact initiative in the areas of human rights, labour rights, the environment and anti-corruption. OP has agreed to follow the UN Principles for Responsible Investment since 2009. In 2019, OP Financial Group became a Founding Signatory of the Principles for Responsible Banking under the United Nations Environment Programme Finance Initiative (UNEP FI).

To promote diversity, OP Financial Group's objective is that the proportion of both genders in defined executive positions is at least 40%. Women accounted for 28% (26) at the end of December.

Corporate responsibility highlights 2020

In February, OP published its first Green Bond Report that contains a description of the green bond issued in February 2019, including examples of businesses and projects financed and the environmental impacts achieved. Proceeds raised with OP's inaugural green bond of EUR 500 million were used to finance renewable energy, green buildings and sustainable land use. During the first year, significant positive environmental impacts were achieved with the proceeds of the green bond. Issuance of green bonds supports OP's Corporate Responsibility Programme's goal to foster a sustainable economy.

In February, OP published a Data Balance Sheet that depicts how OP Financial Group uses data to implement its strategy and, through this, improves its business, customer experience and risk management. By annually publishing its Data Balance Sheet, OP promotes responsible data processing and describes its data management and data usage policies openly and transparently.

In March, OP began to teach financial literacy skills and the management of personal finances to secondary school pupils remotely. A total of 3,600 schoolchildren in 160 schools participated in OP's remote teaching events on financial literacy. By providing remote teaching, OP supports teachers in providing financial literacy teaching in the exceptional situation caused by Covid-19 and, at the same time, helps young people manage their personal finances in a concrete way.

OP Finnfund Global Impact Fund I raised a total of EUR 135 million in commitments during the two rounds of funding carried out in 2020. As the first Finnish impact fund to invest in emerging markets, the fund targets measurable sustainability impacts in addition to profits. The fund will only invest in projects with an expected return that corresponds to the risk, and that can also have a significant impact on sustainability. The fund made its first investments over the summer.

In June, OP's Vallila offices switched to zero-emission district heating. This will enable OP Financial Group to cut its emissions by approximately 4.6%.

In June, OP released a review of investment risks and opportunities related to climate change. The review was prepared according to recommendations by the international climate change initiative, the Task Force on Climate-related Financial Disclosures (TCFD). According to the review, the carbon intensity of OP's funds has dropped by an average of 6% in two years. OP Asset Management became a supporter of the TCFD in 2019.

In 2020, OP provided funding for summer jobs in the third sector for 2,100 young people through its annual "Summer Jobs Paid for by OP" campaign. Many summer jobs were cancelled due to the Covid-19 situation, but over 1,800 summer jobs were realised as OP cooperative banks across Finland donated more than EUR 720,000 to non-profit associations to support summer jobs to those aged from 15 to 17 years.

In its Lunches for Families campaign launched in June 2020, Pohjola Insurance donated 9,600 lunches to low-income families. The aim of the campaign was to help low-income families and support restaurant owners. The campaign was organised together with Hope ry.

In July, OP and Hope ry organised for the fourth time the Backpack for every back campaign to collect school backpacks at OP cooperative banks and Pohjola Hospitals across Finland. In 2020, a total of 3,800 backpacks were collected for the children of families living on limited means.

As part of its corporate responsibility work, OP Financial Group donated 100,000 euros to the Crisis Helpline operated by MIELI Mental Health Finland in October. The Covid-19 crisis has significantly affected people's wellbeing, and the prolonged crisis is putting a strain on the mental health of many of us. The donation will assist the Helpline in answering up to 10,000 more calls of those who need help.

In November, OP Financial Group adopted a Green Covered Bond Framework, which allows OP Mortgage Bank (a member of OP Financial Group) to issue green covered bonds. Based on the framework criteria, the sector to be financed is green buildings.

In December, OP Financial Group's climate actions scored, for a second time in a row, an A- in CDP's international climate impact assessment.

In 2020, OP Financial Group continued its long-term efforts that will benefit the climate. During the year, the Group introduced new responsible products, provided financing to businesses to support their sustainable finance, reduced its emissions and increased information on the impacts of climate change.

Report on non-financial information

OP Financial Group is made up of 137 OP cooperative banks and the central cooperative which they own, including its subsidiaries and affiliated entities. OP cooperative banks and therefore the entire OP Financial Group, which employed 12,604 people at the end of 2020, are owned by more than two million owner-customers. OP Financial Group's business consists of the following three business segments: Retail Banking (Banking Private and SME Customers), Corporate Banking (Banking Corporate and Institutional Customers, and Insurance (Insurance Customers). The Group's main area of operation is Finland. In addition, OP Corporate Bank operates in Estonia, Latvia and Lithuania.

Corporate responsibility is an integral part of OP Financial Group's business and strategy. OP Financial Group has defined core values that guide its operations and support its mission. The Group's core values are people first, responsibility, and succeeding together. The Group's aim is to be a forerunner of corporate responsibility within its sector in Finland.

OP Financial Group follows the Code of Business Ethics in its operations. This includes the key principles for corporate responsibility and environmental impact that all employees and members of governing bodies of OP Financial Group must observe. The Group is committed to complying with international principles that guide operational responsibility. The most important of these are the principles of the United Nations Global Compact initiative. In 2019, OP Financial Group became a Founding Signatory of the Principles for Responsible Banking under the United Nations Environment Programme Finance Initiative (UNEP FI). In addition, the Group's fund and asset management companies have committed to the UN Principles for Responsible Investment (UN PRI). OP is also one of the founding members of Finland's Sustainable Investment Forum (FINSIF).

OP Financial Group's corporate responsibility activities are guided by a Group-level corporate responsibility programme approved by OP Cooperative's Supervisory Council in 2019. The programme is built around four themes: we improve financial literacy in Finland, we foster a sustainable economy, we support local vitality and community spirit, and we use our information capital responsibly. The programme themes derive from the materiality assessment of the responsibility perspectives.

OP Financial Group will publish its corporate responsibility report for 2020 as part of its annual review. The report is based on the Core option of the GRI Standards. The report also includes a review based on the TCFD framework (Task-force on Climate related Financial Disclosures).

Environmental aspects

Environmental impacts arise in OP Financial Group's own operations, supply chain and investments. OP Financial Group seeks to build a sustainable economy while supporting the prevention of climate change and adjusting to the change. OP Financial Group develops products and services that enable its customers to act in a more responsible and environmentally friendly manner. The Group also takes into account the effects of its operations on biodiversity.

OP Financial Group wishes to reduce the risk caused by climate change to its customers. The Group provides its customers with solutions for reducing the negative impacts of climate change and adjusting to the change.

The ESG (Environment, Social, Governance) analysis for large corporate customers takes account of a wide range of environmental aspects. The analysis is based on factors that are the most material for businesses in each sector. In corporate financing, OP Corporate Bank assesses the companies' climate change actions from the following perspectives: the company's impact on climate change, the relevance of the company's measures to mitigate climate change and the impacts of climate change on the company. If the company itself hasn't performed a systematic analysis of climate risks, or if the analysis should be complemented, OP Corporate Bank's experts will suggest improvements to the analysis. Sustainability-linked loans, green loans and limits granted to corporate customers totalled EUR 1,523 million at the end of 2020.

OP Corporate Bank's first Green Bond Report was published in February 2020, including a description of the corporate loans included in the green bond portfolio, examples of businesses and projects financed through the bond, and an evaluation of the effects of sustainable corporate finance. OP Mortgage Bank adopted a Green Covered Bond Framework in November of 2020. Bonds issued under the framework can be used to finance green buildings. At the end of 2020, green bonds accounted for 2.1% of the total amount of bonds issued by OP Financial Group.

In respect of investments, short-term and long-term climate risks are mostly managed by not investing actively or directly in mining companies or electricity producers that rely heavily on coal. Tracking companies' climate performance is an integral part of portfolio management at OP Asset Management. Portfolio managers and ESG experts have access to company-specific ESG analyses carried out by independent service providers, which cover the most important climate change risks and opportunities of each company. Investment operations cause indirect greenhouse gas emissions. Equity and bond funds managed by OP Fund Management Company use a carbon footprint figure published biannually as an indicator. In addition, OP publishes fund-specific ESG analyses of OP equity funds that show, for example, the positive environmental impact of each fund.

OP Property Management Ltd carries out energy efficiency audits on buildings before purchasing any new property. OP Property Management also explores the possibility of installing a renewable energy production system based on geothermal heat pumps or solar panels in connection with every renovation project and new development. At the end of 2020, a total of 18 of our properties were equipped with geothermal heat pumps and 32 with solar panels.

OP Financial Group aims to become carbon neutral in its own operations by 2025 while contributing to emission reductions in its supply chain. The most significant direct and indirect emission effects are caused by the consumption of heating and electrical energy on premises. Among the measures to achieve its emission goals, OP Financial Group has started using renewable energy on its premises. In 2020, the Group's Vallila offices were fitted with a zero-emissions district heating system. The new system reduced Group-level emissions by approximately 4.6%. In 2020, renewable electrical energy accounted for 41% (34) of the entire Group's electricity consumption. OP Financial Group calculates emissions in accordance with the Greenhouse Gas Protocol (GHG), and greenhouse gases are indicated as CO2 equivalents. In 2020, comparable direct (scope1) and indirect (scope2) emissions declined by 32.6% from the previous year, totalling 17,922 CO2e tonnes (23,762).

In 2020, OP Financial Group continued its long-term climate efforts by taking concrete climate actions. Through these actions, OP Financial Group provided financing solutions that supported companies in sustainable financial growth, introduced new responsible products, reduced its own emissions and shared information on the effects of climate change.

In addition to its GRI sustainability reporting, OP evaluates its impacts on climate change in the annual CDP survey. In the CDP survey for 2020, OP Financial Group maintained its pioneer level by reaching the score A-.

Social aspects and aspects related to personnel

OP Financial Group wants to be an attractive employer, and excellent employee experience is one of the Group's five strategic priorities. In 2020, the Group's priorities in improving employee experience included employee wellbeing, health and safety during the Covid-19 pandemic, supporting competence development, continuous improvement and smoother work processes. Employee experience is measured through, for example, a personnel survey and by monitoring the health rate indicator. In 2020, the Group carried out an extensive personnel survey. In the same year, the health rate indicator (percentage of personnel with no sickness absences) was 54 per cent (44).

OP Financial Group considers diversity to be an asset and guarantees equal opportunities, rights and fair treatment for everyone. In 2020, the personnel survey measured for the first time how well equality is implemented at the Group. Based on the results and feedback, the level of equality was strong. Employees are treated equally in areas such as remuneration, recruitment and career advancement. To promote diversity, OP Financial Group's objective is to increase the proportion of both genders in defined executive positions to at least 40%. The proportion of women in these positions was 28% (26) at the end of 2020. The Group monitors on an annual basis the distribution of personnel in various task groups by factors such as gender, pay and age.

OP Financial Group requires that its personnel have diverse skills, in addition to regulatory competence requirements. The Group supervises these competencies and reports them through completed e-courses, according to various needs. Online courses compulsory to all OP Financial Group employees include preventing money laundering, code of business ethics, cybersecurity in the workplace and security training.

Increasing financial literacy in Finland is one of OP Financial Group's corporate responsibility priorities. Despite the challenges caused by Covid-19 in 2020, OP Financial Group strengthened the financial literacy of more than 51,000 (70,000) children and young people. The Group also provided training in digital literacy to a total of 4,500 (28,000) elderly people. OP Financial Group's charity donations in 2020 totalled around EUR 2.7 million (2.1). The donations were channelled in line with themes that support the Group's corporate responsibility programme and core values.

Aspects related to human rights

OP Financial Group respects human rights and aims to prevent discrimination in all its activities. The Group's own operations do not involve any significant human rights risks or impacts. Indirectly, such impacts may arise from the supply chain or from the operations of investees and financed parties. OP Financial Group's Supplier Code of Conduct requires suppliers to ensure that human rights are fulfilled in their supply chain. The Group measures this by monitoring the number of discrimination incidents and the number of reports filed through the whistle blowing channel.

OP Corporate Bank's ESG analyses for large corporate customers enable it to systematically assess companies' social impacts and risks, in addition to environmental matters. Human rights aspects are included in OP Asset Management's process of keeping up with and influencing international standards. OP Financial Group does not make active direct investments in companies that have violated international norms and where engagement to urge corrective measures has been unsuccessful.

The most important objective of internal data protection procedures is to ensure that all stakeholders can trust the way in which OP Financial Group manages data protection matters and processes customer data responsibly.
OP Financial Group was the first Finnish company to publish its ethical guidelines for artificial intelligence.

OP Financial Group aims to improve equal opportunities in the digital society by developing the accessibility of its digital services. The service that best meets the accessibility requirements is OP Accessible, an easy-to-use web service for daily banking in clear language. It can also be used smoothly with various assistive software and devices. Accessibility of OP's other digital services is continuously improving as development efforts progress. Already today, OP's mobile apps accept login with fingerprint, and key code lists are also available in Braille.

Prevention of corruption and financial crime

OP Financial Group is committed to acting on the Code of Business Ethics. Responsibility involves managing conflicts of interest and abolishing corruption. The Group has compiled a compulsory online course for all Group employees to ensure that the Code of Business Ethics is observed. The course must be taken every two years. A new online course, Managing conflicts of interest, was also compiled in 2020. The course is compulsory for all Group employees.

OP Financial Group companies and business segments regularly analyse the risks involved in their respective businesses, including risks related to corruption, in accordance with the related application guide, OP Financial Group's operational risk management procedures. As required by regulation and guidelines issued by authorities, the Group has drawn up policies and procedures for knowing its customers and performing ongoing customer due diligence as well as for staff training, instructions and protection. In 2020, the Group continued to invest in financial crime prevention. The Group is committed to the continuous strengthening and improvement of its capabilities in financial crime prevention. The related online course, Preventing money laundering, is compulsory for all Group employees. Any suspicious transactions will be reported to the Financial Intelligence Unit in line with regulatory requirements. Internal control is complemented by the opportunity of anyone employed by OP Financial Group to report through an independent channel if they suspect discrimination or a violation of rules or regulations (whistleblowing). Actions that are against OP Financial Group's core values can also be reported.

Risks and their management in respect of non-financial information

The business concerned and process owners are responsible for the management of risks that apply to their own activities.

OP Financial Group's Risk and Compliance organisations also oversee risks and conformity related to non-financial matters. Environmental risks may arise from, for example, weather conditions that may result in flood claims in the insurance business. From social and employee perspectives, risks may arise from projects being financed and the availability of skilled workforce. From a human rights perspective, risks may arise, for example, through investments. Corruption and bribery risks may arise in connection with financing decisions or due to negligence in customer due diligence procedures.

Materialisation of non-financial risks would deteriorate OP Financial Group's reputation and might cause harm to customer and stakeholder relations. The Group manages these kinds of non-financial risks, for example, by paying attention to them in business risk assessments. In addition, the Group performs risk assessments on new products, services and operating models, and attempts to eliminate the identified risks as far as possible. In part, OP Financial Group also reduces risk by ensuring that its personnel is aware of risks and complies with the related guidelines. As regards corporate loans, the Group aims to systematically identify non-financial risks that affect corporate financing customers' credit risk.

Multichannel services

OP Financial Group has a multichannel service network comprising branch, online, mobile and telephone services. In December, the Group's mobile channels (OP-mobile, OP Business mobile, OP Junior) had more than 1.2 million active users (1.1). The Group provides personal customer service both at branches and digitally. The Group seeks to provide the best multichannel customer experience in the sector.

In the exceptional situation caused by Covid-19, OP Financial Group has centralised most of its services in digital channels. In March, OP opened a special telephone line for those in need of special support and persons close to them. The exceptional situation has sped up the move towards digital channels, especially among older people.

Mobile and online services, no. of logins (million)	Q1–4/ 2020	Q1–4/ 2019	Change, %
OP-mobile	403.8	302.3	33.6%
OP Business mobile	15.2	10.2	49.6%
Pivo	43.7	52.7	-17.0%
Op.fi	68.1	102.0	-33.3%
	31 Dec 2020	31 Dec 2019	Change, %
Siirto payment, registered customers (OP)	899,402	666,321	35%

The use of the Mobile key identification method was extended to cover the op.fi service in January and online payments and other online services, such as MyTax and Kela, in March.
In December, Mobile key already had more than 1.2 million active users, and over 80% of logins are made by using Mobile key.

Since April, Siirto mobile payments have been available to any bank's customers. In June, the number of registered users exceeded one million. OP will continue to develop the Siirto system in cooperation with Nordea. Those using

OP apps can make Siirto payments both on OP-mobile and on Pivo.

In June, OP introduced the new OP Multi-bank Service for viewing account information from different banks in one channel. OP's customers can adopt the service in the op.fi service and on OP-mobile.

In September, OP launched the new OP Corporate Hub service that will replace the old Cash Management Service for corporate customers. OP Corporate Hub is a digital service that helps companies in comprehensive financial monitoring, cash management and payment transactions.

In November, OP launched a digital OP Investment Partner service to help people start investing, and the Subscription management service that helps customers in managing their continuous agreements and subscriptions.

OP Financial Group has an extensive branch network with 342 branches (352) 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 has extensive presence in the most common social media channels where it has around 570,000 followers (480,000). In addition to OP Financial Group's national social media accounts, many OP cooperative banks have their own Facebook pages where they share publications targeted at local customers.

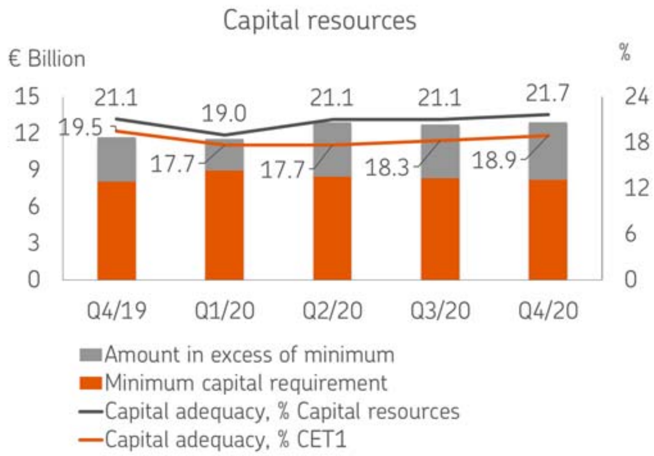
Capital adequacy and capital base

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

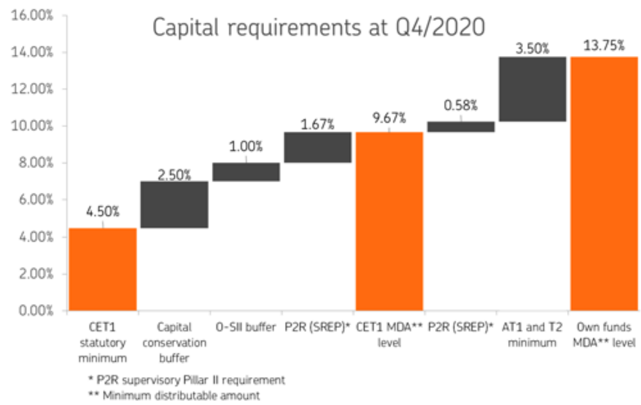
OP Financial Group's capital base, calculated according to the Act on the Supervision of Financial and Insurance Conglomerates (FiCo), exceeded the minimum amount specified in the Act by EUR 4.4 billion (3.2). Banking capital requirement fell to 13.8% (14.5), calculated on risk-weighted assets. The amount of Tier 2 (T2) loans issued during the second quarter totalled EUR 1.3 billion. The amount of T2 loans redeemed during the third quarter totalled EUR 0.4 billion. The ratio of the Group capital base to the minimum capital requirement was 150% (138). As a result of the buffer requirements for banking and the solvency requirements for insurance companies, the minimum FiCo solvency of 100% reflects the level within which the conglomerate can operate without regulatory obligations resulting from buffers below the required level.

Capital adequacy for credit institutions

OP Financial Group's CET1 ratio was 18.9% (19.5). The lower ratio was affected by the increase in the loan portfolio and the rise in risk weights caused by the new definition of default.



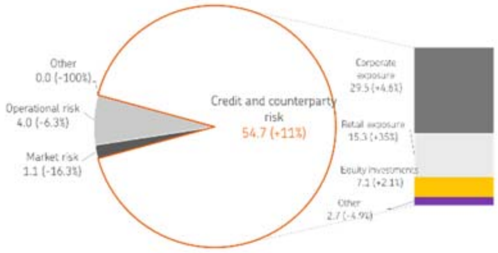
As a credit institution, OP Financial Group's capital adequacy is on a solid basis compared to the statutory requirements and those set by the authorities. The statutory minimum for the capital adequacy ratio is 8% and for the CET1 ratio 4.5%. The requirement for the capital conservation buffer of 2.5% under the Act on Credit Institutions, the O-SII buffer of 1% and the ECB's P2R requirement increase in practice the minimum capital adequacy ratio to 13.8% and the CET1 ratio to 9.7%.



The CET1 capital of OP Financial Group as credit institution was EUR 11.3 billion (10.8). The CET 1 capital was increased by banking earnings as well as by a decrease in the allowance for intangible assets following the regulatory change related to software expenditure capitalisation. The amount of Profit Shares in CET1 capital was EUR 2.8 billion (2.9).

The risk exposure amount (REA) totalled EUR 59.7 billion (55.5), or 8% higher than on 31 December 2019. The risk weight floor for retail exposures set by the ECB was discontinued and was replaced by a risk-weighting factor that is directly applied to retail exposures. Because of the adoption of the new definition of default, the average retail and corporate exposure risk weights rose due to the risk-weighting factors set by the ECB. In addition, a new risk-weighting factor was applied to retail exposures. Growth in the loan portfolio also increased the total risk exposure amount.

Risk Exposure Amount 31 December 2020
Total 59.7 € billion
(change from year end 7.7%)



OP Financial Group treats insurance holdings within the financial conglomerate as risk-weighted assets, based on permission from the ECB. Equity investments include EUR 6.8 billion (6.4) in risk-weighted assets of the Group's internal insurance holdings. Because of the adoption of the new definition of default, the risk-weighted assets of insurance holdings rose as result of the risk-weighting factors set by the ECB.

The Finnish Financial Supervisory Authority (FIN-FSA) makes a macroprudential policy decision on a quarterly basis. In December 2020, the FIN-FSA reiterated its decision not to impose a countercyclical capital buffer requirement on banks. In April, the FIN-FSA decided to reduce the O-SII buffer requirement set for OP Financial Group to 1% and the systemic risk buffer requirement to 0% due to the Covid-19 crisis. The reduced buffer requirements became effective as of the second quarter. The risk weight floor of 15% set for home loans was effective until the end of 2020. After the risk weights for home loans increased, the FIN-FSA's risk weight floor had no effect on capital adequacy.

The upcoming EU regulation includes a requirement for measuring the degree of indebtedness, the leverage ratio. The leverage ratio of OP Financial Group's Banking is estimated at about 7.8% (8.3) based on the existing interpretations, calculated using the December-end figures. According to the draft rules, the minimum ratio is 3%.

In OP Financial Group's view, the most significant open changes in the regulatory and supervisory environment affecting capital adequacy for credit institutions include obligations, if any, imposed by the supervisor due to the ECB's Targeted Review of Internal Models (TRIM), and changes resulting from the update of the EU capital requirements regulation (CRR2). The ECB review of the internal models for corporate exposures is expected to reduce OP Financial Group's CET1 ratio by around 0.8 percentage points in the first half of 2021. The CRR2 changes are expected to reduce the CET1 ratio by around 0.5 percentage points during the second quarter of 2021.

OP Financial Group has begun discussions with the ECB on reassessing the extent of application of internal models (IRBA, Internal Ratings-Based Approach). Based on the current estimate, the change in the scope of IRBA would decrease OP Financial Group's CET1 ratio by around 0.8 percentage points during 2021. The final effect and its schedule will be specified after discussions with the supervisor and the approval process related to the scope of IRBA.

OP Financial Group's Capital Adequacy and Risk Management Report for 2020 will be published in week 10.

Insurance

The solvency position of insurance companies is strong. A good balance on technical account strengthened the capital base. In addition, the transfer of statutory earnings-related pension liability increased the capital base of non-life insurance by EUR 51 million. The solvency capital requirement was increased by higher underwriting risks caused by lower interest rates as well as higher market risks.

	Non-life insurance		Life insurance	
	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
Capital base, € mill.*	1,205	1,008	1,436	1,423
Solvency capital requirement, € mill.*	762	699	746	687
Solvency ratio, %*	158	144	193	207
Solvency ratio, % (excl. transitional provision)	158	144	161	170

*including transitional provisions

ECB's supervision

OP Financial Group is supervised by the European Central Bank (ECB).

On 25 April 2019, OP Financial Group received the ECB's decision on increases in the risk weights of mortgage-backed retail exposures as part of the targeted review of internal models (TRIM). These risk weight increases will be valid until further notice, until the qualitative requirements set out in the decision have been met.

On 19 February 2020, OP Financial Group received the ECB's decision concerning the change in the definition of default, in which the ECB set risk weighting factors for corporate and retail exposures. These risk-weighting factors will be valid until the qualitative requirements set out in the decision have been met.

On 11 December 2020, OP Financial Group received the ECB's decision concerning increases in the risk weights of retail exposures. The decision overruled the ECB's earlier decision issued on 2 February 2017.

The ECB has set a capital requirement for OP Financial Group based on the supervisory review and evaluation process (SREP). The capital buffer requirement (P2R) set by the ECB is 2.25% (2.0) as of 1 January 2020.

Liabilities under the Resolution Act

Under regulation applied to crisis resolution of credit institutions and investment firms, the resolution authority is authorised to intervene in the terms and conditions of investment products issued by a bank in a way that affects an investor's position. The EU's Single Resolution Board (SRB) based in Brussels is OP Financial Group's resolution authority. The SRB has set OP Financial Group's Minimum Requirement for own funds and Eligible Liabilities (MREL) at 12% of liabilities and own funds or accounting for 27% of the total risk exposure amount at the end of 2018. OP Financial Group will update its policy regarding compliance with the MREL requirement when the supervisor makes its next MREL decision. The MREL ratio was an estimated 40% at the end of 2020 (43). The SRB has confirmed a resolution strategy for OP Financial Group whereby the resolution measures would apply to OP Corporate Bank acting as a Single Point of Entry.

Key principles of risk management

At OP Financial Group, OP Cooperative's Board of Directors is the most important decision-making body for duties related to risk management. OP Cooperative's Supervisory Council confirms the decisions by the Board of Directors that apply to OP Financial Group's risk appetite. The Risk Committee of the Board of Directors assists the Board of Directors in performing duties related to risk-taking and risk management. Based on the decision by the President and Group Chief Executive Officer, the Executive Management Team has set up a Risk Management Committee, Steering and Compliance Committee and Banking ALM Committee that approve instructions and policy descriptions specifying the Risk Appetite Statement and the Risk Appetite Framework.

Senior management prepares business divisions' strategic choices that, in terms of risk-taking, are based on OP Financial Group's Risk Appetite Statement, confirmed by OP Cooperative's Supervisory Council. The statement outlines and gives grounds for what risks each business unit is ready to take and to what extent. Senior management decides on the division of responsibilities related to risk-taking: what risks different revenue logics (product and service packages) can take, and any potential elaborations on what risks legal entities and various functions within those revenue logics can take when serving customers.

The governance structure provides the basis for the fact that the key principles guiding operations and the related policies and operating instructions have been prepared and resolved appropriately and that each activity is assessed and supervised in appropriate manner in view of quality, extent and complexity by expert parties that are independent of business, in addition to monitoring performed by the business concerned.

OP Financial Group's remuneration schemes are in line with the Group's mission, core values and targets. Compliance and Risk Management are involved in the preparation of the remuneration principles, remuneration policy and remuneration schemes and in the determination of the supervisory practices related to remuneration processes. The principles of corporate governance as required by joint and several liability define and determine the bank-specific corporate governance of the central cooperative and its member cooperative banks, as required under joint and several liability. In addition, the principles of internal control, good corporate governance, good business practices and corporate security set preconditions for practices.

Risk exposure

OP Financial Group implements its strategy by operating responsibly, taking moderate risk and maintaining a strong capital base and sufficient liquidity. When entering 2020, OP Financial Group had a strong risk-bearing capacity and sufficient capital base and liquidity in view of targets.

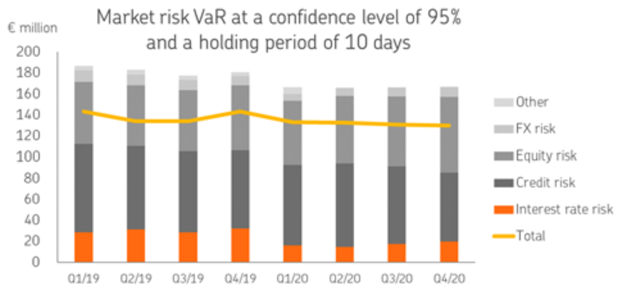
The Covid-19 pandemic that spread widely in early 2020 had a global effect on societies, which was further reflected in economic development and operating conditions in the financial sector, including in Finland. Engaged in business covering various areas of the financial sector, OP Financial Group may be exposed to a variety of direct and indirect business implications of the Covid-19 pandemic. If materialised, they may affect the sufficiency of capital and business continuity.

The Covid-19 pandemic affects OP Financial Group in three ways. The financial standing of customers affects OP Financial Group's account funds and the credit risk and insurance risk exposure. The crisis has increased the volume of deposit funds. The pandemic has weakened customers' debt-servicing capacity. However, the quality of the loan portfolio has remained good. Impairment loss on receivables has increased but has remained relatively low in relation to the loan and guarantee portfolio. Our personnel's health situation and the need to protect ourselves from the pandemic could in extreme situations endanger the continuity of our operational business processes. The measures taken to secure the continuity of business operations have ensured that operations have continued without disruption. The view that investors in the international financial market have on the market and on OP Financial Group may affect the availability of market-based funding. The Group has been able to maintain its strong liquidity and has successfully executed long-term funding transactions in the market. Overall, the Group's liquidity and capital are sufficient to secure business continuity.

OP Financial Group's funding position and liquidity is good. In general, the Covid-19 crisis has been reflected in the price and availability of wholesale funding for banks. In March, the wholesale funding market was disrupted due to the Covid-19 crisis. Particularly in short-term wholesale funding, prices rose sharply and it was not possible to renew maturing contracts for a certain period of time. Long-term unsecured wholesale funding too experienced a markedly steep rise in risk premiums. During the second quarter, the wholesale funding market clearly began to recover. By the end of the year, risk premiums had already decreased to the pre-crisis level, due to strong support measures taken by central banks.

In 2020, OP Financial Group issued long-term bonds worth EUR 8.9 billion (4.7). The loan-to-deposit ratio remained stable during the financial year.

The market risk level of OP Financial Group's long-term investments remained moderate. No major changes were made to the asset class allocation during the financial year. The Group's VaR, a measure of market risk, was EUR 130 million (143) on 31 December 2020. The VaR risk metric includes the total balance sheets of insurance institutions, the liquidity buffer and Banking's long-term bond investments. Insurance companies' total balance sheets contain investments, insurance liabilities and derivatives that hedge against interest rate risk associated with insurance liabilities. The 2020 figures no longer include risk associated with Markets nor the interest rate risk exposure of Group Treasury.



The market risk involved in OP Corporate Bank's Markets function and the market risk involved in the interest rate risk hedges transferred from OP Mortgage Bank to OP Corporate Bank increased in the first half due to the changed market situation and thereafter remained stable. The Expected Shortfall (ES) metrics are used to measure market risks at a confidence level of 97.5% and a retention period of one day.

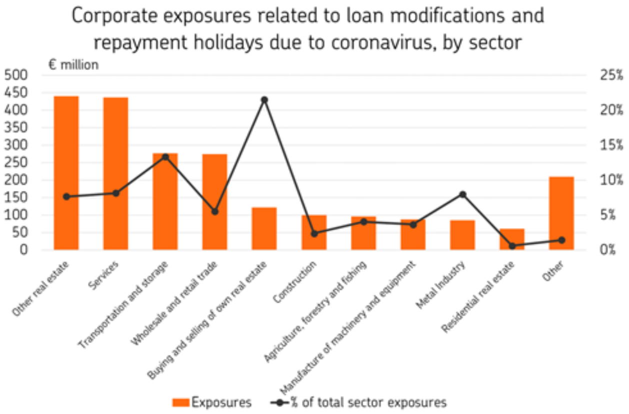
Operational risks remained moderate as targeted. Materialised operational risks resulted in a gross loss of EUR 7.8 million (14.8) during 2020. From the operational risk perspective, the implications of the Covid-19 pandemic on OP Financial Group were mild during the financial year and mainly affected OP cooperative banks.

Retail Banking and Corporate Banking

Major risks in banking are associated with credit risk arising from customer business, and market risk.

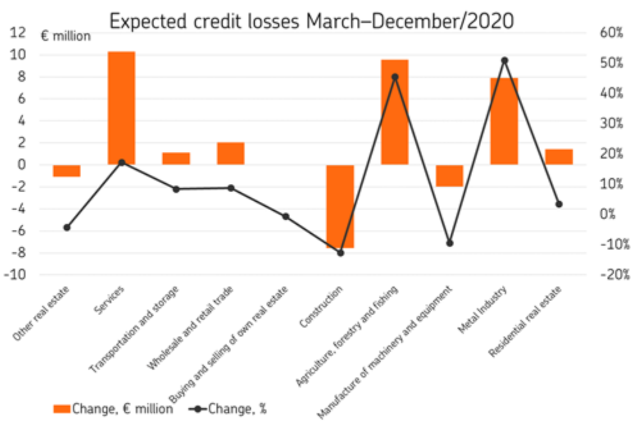
The Covid-19 pandemic has not substantially weakened banking credit risk exposure, but there is still risk for a negative development.

At the end of December, repayment holidays and loan modifications granted by OP Financial Group mainly due to the Covid-19 crisis concerned customer exposures of around EUR 8.2 billion, 73.4% of which concerned private customer exposures. A total of 70.4% of repayment holidays granted to private customers concerned the top six rating grades in OP Financial Group's 16-tier internal rating system, while 6,4% concerned the lowest three rating grades.
In OP Financial Group's 20-tier internal rating system for corporate customers, 26.7% of the corporate exposures to which a loan modification or repayment holiday was granted were categorised in the highest seven rating grades, while 5.4% were in the lowest three rating grades.



The table shows the distribution of corporate exposures by sector at the end of December as a result of loan modifications and repayment holidays granted mainly due to the Covid-19 crisis.

20.1% of repayment holidays and loan modifications related to corporate exposures concerned the sector Operating of real estate, 19.9% concerned the service sector (such as hotels, restaurants and tourism) and 12.6% concerned the transportation and storage sector.



The table shows the changes in expected credit loss by sector mainly due to the Covid-19 crisis in March–December.

In March–December, the most significant expected credit losses were recognised in corporate exposures related to services, agriculture, forestry, fishing and metal industry.

The distribution of expected credit loss by industry is presented in OP Financial Group's Capital Adequacy and Risk Management Report for 2020.

Forborne loans and non-performing receivables

	Performing forborne exposures (gross)		Non-performing receivables (gross)		Doubtful receivables (gross)		Loss allowance		Doubtful receivables (net)	
	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
Over 90 days past due, € billion			0.63	0.64	0.63	0.64	0.24	0.25	0.39	0.39
Unlikely to be paid, € billion			0.78	0.51	0.78	0.51	0.18	0.15	0.60	0.36
Forborne exposures, € billion	3.28	2.03	1.10	0.34	4.38	2.38	0.15	0.05	4.24	2.33
Total, € billion	3.28	2.03	2.51	1.48	5.79	3.52	0.57	0.45	5.22	3.07

In March 2020, OP Financial Group adopted a new definition of default, which increased the number of defaulted contracts. During the Covid-19 crisis, customers actively applied for loan repayment holidays and loan modifications, and the amount of forborne exposures grew in 2020.

	OP Financial Group		Retail Banking		Corporate Banking	
Key ratios	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
Ratio of doubtful receivables to loan and guarantee portfolio, %	5.4	3.2	6.7	4.1	2.0	0.9
Ratio of non-performing receivables to loan and guarantee portfolio, %	2.0	1.1	2.4	1.3	1.1	0.5
Ratio of performing forborne exposures to loan and guarantee portfolio, %	3.4	2.1	4.3	2.8	0.9	0.4
Ratio of performing forborne exposures to doubtful receivables, %	62.3	66.2	64.2	68.3	45.9	42.1
Ratio of loss allowance (receivables from customers) to doubtful receivables, %	15.1	15.7	9.4	8.6	85.5	59.3

Performing forborne exposures are stated without expected credit losses. Comparatives have been restated.

No single customer's exposure exceeded 10% of OP Financial Group's capital base after allowances and other recognition of credit risk mitigation.

Retail Banking's interest rate risk in the banking book measured as the effect of a one-percentage point decrease on 12-month net interest income was EUR –57 million (–40) at the end of December. Interest income risk is calculated for a one-year period by dividing the sum of the interest income risk for the next three years by three.

Deposits within the scope of deposit guarantee and managed by OP Financial Group totalled EUR 41.2 billion (38.0) at the end of December. The Deposit Guarantee Fund compensates a maximum of EUR 100,000 for each OP Financial Group customer.

Insurance

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 48 million (48). A 0.1 percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 29 million (26).

No significant changes took place in non-life insurance's underwriting risks during the financial year. 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 Group uses derivative contracts to dampen earnings volatility caused by changes in interest rates used in insurance liability valuation.

The market risk level of investments remained moderate. Equity risk rose during the financial year. The VaR, a measure of market risk, was EUR 64 million (54) on 31 December 2020. Interest rate derivatives have been used to hedge against interest rate risk associated with insurance liability.

Life insurance

The key risks associated with life insurance are the market risks of life insurance's investment assets, the interest rate used for the valuation of insurance liabilities, a faster-than-expected life expectancy increase among those insured, and the lapse and surrender risk arising from changes in customer behaviour.

A one-year increase in life expectancy would increase insurance liability by EUR 27 million (26). A 0.1 percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 31 million (31).

Investment risks associated with separated insurance portfolios transferred from Suomi Mutual and risks associated with changes in customer behaviour have been buffered. The buffer is sufficient to cover a significant negative return on the investment assets included in the separate portfolios, after which OP Financial Group will bear the risks associated with the portfolios. The buffers totalled EUR 281 million (327) on 31 December 2020.

The market risk level of investments remained moderate. No major changes were made to the asset class allocation during the financial year. Equity risk rose during the financial year. The VaR, a measure of market risk, was EUR 61 million (58) on 31 December 2020. Interest rate derivatives have been used to hedge against interest rate risk associated with insurance liability.

Other Operations

Major risks related to Other Operations include credit and market risks associated with the liquidity buffer, and liquidity risks. The most significant market risk factor is the effect of credit spread changes on the value of notes and bonds included in the liquidity buffer.

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

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

OP Financial Group monitors its liquidity and the adequacy of its liquidity buffer using, for example, the LCR (Liquidity Coverage Ratio). According to regulation, the LCR must be at least 100%. OP Financial Group's LCR was 197% (141) at the end of the financial year.

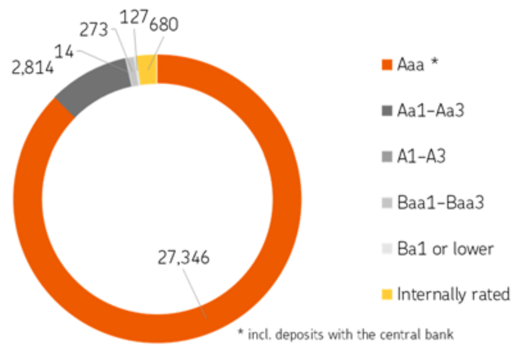
OP Financial Group monitors its long-term funding sufficiency, for example, by means of the Net Stable Funding Ratio (NSFR), which measures structural funding risk. In regulation, no minimum requirement for the NSFR has been set as yet. OP Financial Group's NSFR was 123% (112) at the end of the financial year.

Liquidity buffer

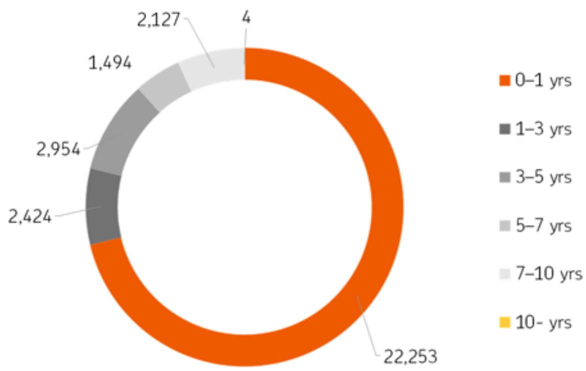
€ billion	31 Dec 2020	31 Dec 2019	Change, %
Deposits with central banks	21.6	11.9	81.1
Notes and bonds eligible as collateral	8.7	11.1	-21.9
Corporate loans eligible as collateral	-	0.0	-
Total	30.2	23.0	31.2
Receivables ineligible as collateral	1.0	2.0	-48.7
Liquidity buffer at market value	31.3	25.0	24.9
Collateral haircut	-0.5	-0.8	-41.2
Liquidity buffer at collateral value	30.8	24.2	27.3

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

Financial assets included in the liquidity buffer by credit rating on 31 December 2020, € million



Financial assets included in the liquidity buffer by maturity on
31 December 2020, € million



Credit ratings

31 Dec 2020

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

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

On 19 May 2020, Standard & Poor's revised the outlook on OP Corporate Bank plc's long-term credit rating from stable to negative after the trend in Finland's Banking Industry Country Risk Assessment (BICRA) changed from stable to negative. Other ratings of OP Corporate Bank plc did not change in 2020.

On 22 January 2021, Standard & Poor's restored the outlook on OP Corporate Bank plc's long-term credit rating from negative to stable after the trend in the BICRA score, which describes the status of the Finnish banking system, restored from negative to stable.

Financial performance by segment

OP Financial Group's business segments are Retail Banking (Banking Private and SME Customers), Corporate Banking (Banking Corporate and Institutional Customers) and Insurance (Insurance Customers). Non-business segment operations are presented under the Other Operations segment. OP Financial Group prepares its segment reporting in compliance with its accounting policies.

Retail Banking

- Earnings before tax amounted to EUR 115 million (235). Impairment loss on receivables, EUR 172 million, was EUR 136 million higher than in 2019. Impairment loss increased mainly due to the adoption of the new definition of default and the effects of the Covid-19 pandemic on the quality of the loan portfolio.
- Total income decreased by 0.2% to EUR 1,653 million. Net interest income increased by EUR 3 million to EUR 925 million. Net commissions and fees decreased by EUR 10 million to EUR 698 million.
- Total expenses decreased by 1.7% to EUR 1,152 million. Personnel costs decreased by 3.1%. Depreciation/amortisation and impairment loss increased by 8.5% mainly as a result of the card system reform.
- The loan portfolio increased by 1.9% and the deposit portfolio by 8.7% year on year.
- Non-performing receivables accounted for 2.4% (1.3) of the loan and guarantee portfolio.
- The most significant development investments focused on improving the efficiency of the IT system environment, finalising the card system reform and enhancing customer experience and customer processes.

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Net interest income	925	922	0.3
Net commissions and fees	698	708	-1.5
Net investment income	2	-17	-
Other income	29	43	-32.9
Total income	1,653	1,657	-0.2
Personnel costs	412	426	-3.1
Depreciation/amortisation and impairment loss	60	55	8.5
Other operating expenses	680	692	-1.6
Total expenses	1,152	1,172	-1.7
Impairment loss on receivables	-172	-36	-
OP bonuses to owner-customers	-214	-214	-
Earnings before tax	115	235	-51.2
Cost/income ratio, %	69.7	70.7	-1.0*
Ratio of non-performing receivables to loan and guarantee portfolio, %	2.4	1.3	1.1*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.24	0.05	0.19*
Return on assets (ROA), %	0.11	0.24	-0.13*
Return on assets, excluding OP bonuses, %	0.30	0.45	-0.15*

€ million	31 Dec 2020	31 Dec 2019	Change, %
Home loans drawn down	7,429	7,799	-4.7
Corporate loans drawn down	2,411	2,729	-11.7
No. of brokered residential property and property transactions	11,998	12,139	-1.2

€ billion	31 Dec 2020	31 Dec 2019	Change, %
Loan portfolio			
Home loans	40.0	39.6	1.2
Corporate loans	8.1	8.1	-0.3
Housing company and other loans	21.3	20.4	4.0
Total loan portfolio	69.4	68.1	1.9
Guarantee portfolio	0.9	0.8	17.2
Deposits			
Current and payment transfer	39.3	35.4	11.0
Investment deposits	19.8	19.0	4.2
Total deposits	59.1	54.4	8.7

*Change in ratio

OP Financial Group's Retail Banking segment consists of banking and asset management services for private and SME customers at OP cooperative banks and at the central cooperative consolidated.

In the year to December, the loan portfolio grew by 1.9% to EUR 69.4 billion. New home loan drawdowns decreased by 4.7% year on year. During the year, the home loan portfolio increased by 1.2% to EUR 40.0 billion. The corporate loan portfolio remained at the previous year's level at EUR 8.1 billion.

The growth in the loan portfolios was affected by the demand for new loans and by the repayment holidays granted. OP Financial Group offered households and SMEs the opportunity to apply for a loan repayment holiday if the Covid-19 pandemic had affected their loan repayment capacity. This temporarily increased the number of such applications tenfold at the end of March. As of summer, the number of repayment holiday applications returned to its pre-pandemic level.

Customers showed continued interest in protecting home loans and housing company loans against risks. On 31 December 2020, a total of 27.1% (24.5) of private customers' home loans were covered by interest rate protection.

During the year, the deposit portfolio increased by 8.7% to EUR 59.1 billion. Most of this increase came from current and payment transfer accounts, but also from investment deposits, with household deposits showing the strongest growth.

The economic crisis caused by the Covid-19 pandemic reduced the volume of home sales in April–May. However, the slight drop remained short-lived: as of June, sales volumes began to pick up year on year as pent-up demand started to release and the housing market recovered. The volume of homes and real property sold and bought through the OP Koti real estate agents decreased by 1.2%.

The decline in household consumption in March–May reduced both the use of cash and card payments. Following the lifting of restrictions implemented in spring due to the exceptional situation, both the purchase volumes of card payments and the use of cash rebounded from their low levels experienced in spring. However, cash volumes remained below their pre-pandemic level and the long-term downward trend in the use of cash accelerated.

As a result of the exceptional situation caused by the Covid-19 pandemic, OP Financial Group's customers have taken a digital leap in the use of banking services. In 2020, online subscriptions for mutual funds doubled from the previous year. In addition, almost all home loan applications were submitted through digital channels, and most home loan negotiations were held remotely. Bids for homes brokered by OP Koti real estate agents were made digitally. The number of transactions completed on the digital platform for residential property transactions (DIAS) was higher than before. OP Financial Group has been involved in developing the platform right from the beginning. During the financial year, the Group sold part of its holding in DIAS Oy. However, OP Financial Group aims to continue supporting the development of the platform and to complete almost 50% of applicable home sales through the platform in 2021.

OP Financial Group also sold its holding in Automatia Pankkiautomaatit Oy to Loomis AB, which specialises in cash handling. OP signed a long-term service agreement with Loomis and will continue to be a major customer of Automatia. The sale has no effect on Automatia's services, such as the operation of Otto ATMs.

During the financial year, the most significant development investments focused on improving the efficiency of the IT system environment, finalising the card system reform and enhancing customer experience and customer processes. For example, OP's digital home loan service became available to everyone – also customers of other banks can get an automated loan decision from OP. OP also launched services that support the customer's personal financial management, and the OP Multi-bank Service. At the end of the year, the Group launched OP Investment Partner, a fully digital service that helps the customer reach their investment goal by investing in sustainability themed funds.

Earnings

Retail Banking earnings before tax were EUR 115 million (235). Net interest income grew by EUR 3 million to EUR 925 million as a result of an increase in the loan portfolio. Net commissions and fees decreased by 1.5% to EUR 698 million, mainly due to the Covid-19 pandemic. Net investment income totalled EUR 2 million (–17). Total income remained at the previous year's level, approximately EUR 1,653 million.

Total expenses decreased by 1.7% to EUR 1,152 million. Personnel costs decreased by 3.1%. Depreciation/ amortisation and impairment loss increased by 8.5% to EUR 60 million, mainly as a result of the card system reform.

Impairment loss on receivables increased to EUR 172 million (36). In spring, customers actively applied for repayment holidays on their loans and changes to their repayment schedules due to the Covid-19 crisis. Combined with the Covid-19 related changes in macroeconomic parameters applied in the calculation of expected credit losses, this increased the amount of expected credit losses. Expected credit losses were also increased by calculation model updates that were based on regulatory changes. The most significant of these was the adoption of the new definition of default. Final net loan losses recognised totalled EUR 52 million (42). Non-performing receivables accounted for 2.4% (1.3) of the loan and guarantee portfolio.

Corporate Banking

- Earnings before tax improved to EUR 349 million (311).
- Total income increased by 7.9%. Net interest income increased by 2.9% and net commissions and fees by 22.0%. Net investment income increased by 19.7%.
- Total expenses increased to EUR 286 million (277). Other operating expenses rose by 8.2% due to higher ICT costs and a higher stability contribution.
- The loan portfolio increased by 1.2% to EUR 24.0 billion and the deposit portfolio increased by 17.2% to EUR 13.1 billion year on year. Assets under management increased by 7.1% year on year.
- Impairment loss on receivables amounted to EUR 53 million (51). Non-performing receivables accounted for 1.1% (0.5) of the loan and guarantee portfolio.
- The most significant development investments involved the upgrades of payment, finance and asset management systems.

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Net interest income	394	383	2.9
Net commissions and fees	153	125	22.0
Net investment income	143	119	19.7
Other income	17	27	-38.8
Total income	707	655	7.9
Personnel costs	71	76	-6.6
Depreciation/amortisation and impairment loss	18	20	-6.6
Other operating expenses	197	182	8.2
Total expenses	286	277	3.1
Impairment loss on receivables	-53	-51	5.1
OP bonuses to owner-customers	-18	-16	10.3
Earnings before tax	349	311	12.5
Cost/income ratio, %	40.4	42.3	1.9*
Ratio of non-performing receivables to loan and guarantee portfolio, %	1.06	0.53	0.53*
Ratio of impairment loss on receivables to loan and guar. portfolio, %	0.20	0.19	0.01*
Return on assets (ROA), %	0.86	0.85	0.01*
Return on assets, excluding OP bonuses, %	0.91	0.89	0.01*

€ billion	31 Dec 2020	31 Dec 2019	Change, %
Loan portfolio			
Corporate loans	14.4	14.5	-0.7
Housing company and other loans	9.6	9.2	4.3
Total loan portfolio	24.0	23.7	1.2
Guarantee portfolio	2.6	3.1	-18.1
Deposits	13.1	11.2	17.2
Assets under management (gross)**			
Mutual funds	27.6	25.6	7.8
Institutional clients	25.3	24.4	3.6
Private Banking	11.3	9.9	14.3
Total (gross)	64.2	59.9	9.2

€ million	Q1–4/2020	Q1–4/2019	Change, %
Net inflows			
Private Banking clients	225	49	355.4
Institutional clients	190	-49	-
Total	415	1	-

*Change in ratio
**The figures for 2019 have been adjusted to correspond to the updated accounting.

OP Financial Group's Corporate Banking segment consists of banking and asset management services for corporate and institutional customers. The segment comprises OP Corporate Bank plc's banking, OP Asset Management Ltd, OP Fund Management Company Ltd and OP Real Estate Asset Management Ltd.

In the year to December, the loan portfolio grew by 1.2% to EUR 24.0 billion. The deposit portfolio increased by 17.2% to EUR 13.1 billion.

The most significant Corporate Banking development investments involved the upgrades of payment, finance and asset management systems.

In November, large Finnish corporations ranked OP Corporate Bank as Finland's best corporate bank in the Prospera Corporate Banking 2020 survey. Also in November, The Banker, an international publication, once again ranked OP as the number one bank in Finland in its Bank of the Year competition.

During the financial year, OP Financial Group joined the European Payments Initiative (EPI) as a founding shareholder. The ambition of EPI is to create a unified and innovative European payment solution that aims to become a new standard in payments for European consumers and merchants. In 2020, OP launched a new OP Corporate Hub service. It's a digital service that helps companies with cash management and comprehensive financial monitoring. OP was the first bank in Finland to extend real-time SEPA instant credit transfers into businesses' mass payments in the corporate file transfer channel.

Within asset management, net assets inflow improved year on year, to EUR 421 million (1). Assets under management increased by 7.1% year on year, to EUR 64.2 billion. Assets under management included about EUR 11 billion (11) in assets of the companies belonging to OP Financial Group.

During the financial year, the number of OP Mutual Fund unitholders increased in gross terms by about 115,000, to 965,000 unitholders. The Morningstar rating for OP Mutual Funds was 3.15 (3.21).

Investors are showing increasing interest in alternative funds. The first emerging markets impact fund in Finland, OP Finnfund Global Impact Fund I, seeks positive impacts on, for instance, climate change, food security, gender equality and the availability of financing. The second round of funding ended at the beginning of December and raised approximately EUR 58 million more in capital.

The uncertainty caused by the Covid-19 pandemic affected Corporate Banking especially through demand for loans and through the capital market. Credit spreads and volatility in the capital market increased especially in the first quarter. On the other hand, trading became more active. Assets under management grew in the latter half of the year. The effects of Covid-19 and developments in the economic environment were reflected in demand for services, the capital market and developments in the amount of impairment loss on receivables.

Earnings

Corporate Banking earnings before tax improved to EUR 349 million (311). Total income amounted to EUR 707 million (655) and total expenses to EUR 286 million (277). The cost/income ratio improved to 40.4% (42.3). As a result of an increase in the loan portfolio, net interest income grew by 2.9% to EUR 394 million. Lending margins widened too.

Net commissions and fees totalled EUR 153 million (125). An increase in other net commissions and fees is mainly due to the change in OP Financial Group's internal charges.

Corporate Banking segment's net commissions and fees

€ million	Q1–4/ 2020	Q1–4/ 2019	Change, %
Mutual funds	112	105	6.8
Asset management	17	24	-30.7
Other	24	-4	-
Total	153	125	22.0

Net investment income increased by 19.7% to EUR 143 million. CVA valuation weakened earnings by EUR 19 million (–12). Income from client trading rose. Compared with the first quarter in particular, the narrowing of credit spreads increased the valuation of the trading book. In 2019, changes made in the valuation models of derivatives reduced net investment income by EUR 25 million.

Total expenses increased to EUR 286 million (277). Personnel costs decreased to EUR 71 million (76). The transfer of statutory earnings-related pension liability reduced pension costs by EUR 11 million. Other operating expenses increased by 8.2% to EUR 197 million. ICT costs increased by EUR 6 million and the EU stability contribution by EUR 2 million.

Impairment loss on receivables totalled EUR 53 million (51). During the financial year, impairment loss on receivables was increased by the effects of the Covid-19 pandemic on the loan portfolio quality and the adoption of the new definition of default in the first quarter due to a regulatory change. Other factors increasing impairment loss on receivables included the Covid-19-related update of macroeconomic parameters used in the calculation of expected credit losses as well as the transfer of loans between impairment stages. Final net loan losses recognised for the financial year totalled EUR 55 million (3). Growth in final net loan losses was affected by rearrangements of receivables. Non-performing receivables accounted for 1.1% (0.5) of the loan and guarantee portfolio.

Insurance

- Earnings before tax totalled EUR 348 million (373). The transfer of statutory earnings-related pension liability improved earnings by EUR 85 million. Lower investment income reduced earnings.
- Non-life insurance premium revenue increased by 1.9% and claims incurred decreased by 3.7%, excluding the effect of the change in the discount rate.
- Investment income totalled EUR 84 million (331), including the overlay approach. Net return on investments at fair value reported by non-life insurance was EUR 25 million (96) and that by life insurance EUR 14 million (72).
- The non-life insurance operating combined ratio improved to 87.8% (92.7) and operating risk ratio to 61.1% (65.1). The operating cost ratio was 26.6% (27.7).
- In life insurance, unit-linked insurance assets increased by 4.2% to EUR 11.3 billion from the 2019-end level.
- Development investments focused on development of electronic services and the core system upgrade.

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Insurance premium revenue	1 506	1 479	1.9
Claims incurred	951	1 077	-11.7
Life insurance, net risk results	26	29	-11.7
Net insurance income	582	431	34.9
Life insurance, net commissions and fees	106	135	-21.4
Non-life insurance, net commissions and fees	-36	-49	27.0
Health and wellbeing, net commissions and fees	7	13	-41.3
Net commissions and fees	78	99	-21.1
Net investment income	88	435	-79.8
Other net income	8	4	98.5
Total income	755	969	-22.1
Personnel costs	140	133	4.0
Transfer of statutory earnings-related pension liability	-85		
Depreciation/amortisation and impairment loss	60	71	-15.8
Other operating expenses	269	269	-0.1
Total expenses	384	473	-18.9
OP bonuses to owner-customers	-19	-19	-0.4
Temporary exemption (overlay approach)	-4	-104	-96.9
Earnings before tax	348	373	-6.5
Return on assets (ROA), %	1.16	1.29	-0.13*
Return on assets, excluding OP bonuses, %	1.22	1.36	-0.14*
Operating combined ratio (non-life), %	87.8	92.7	
Operating risk ratio (non-life), %	61.1	65.1	
Operating cost ratio (non-life), %	26.6	27.7	
Operating ratio (life), %	42.1	35.5	

*Change in ratio

OP Financial Group's Insurance segment comprises life and non-life insurance plus the health and wellbeing business. The segment includes Pohjola Insurance Ltd, OP Life Assurance Company Ltd and Pohjola Hospital Ltd. A-Insurance Ltd merged into Pohjola Insurance Ltd on 31 March 2020.

Key development investments focused on the development of electronic transaction and purchase services and the non-life insurance core system upgrade.

During the spring and summer, the Covid-19 pandemic increased the number of travel and business interruption insurance claims filed. In many other insurance lines, the number of claims decreased as a result of lower activity in general. Towards the year end, the number of claims restored to its pre-pandemic level. Claims incurred as a result of the Covid-19 pandemic totalled EUR 37 million.

In the spring and summer, Pohjola Hospital gave its personnel's contribution in public healthcare tasks. They have helped, for example, in tracking the chains of infection.

The capital market recovered after the plunge experienced in March. Unit-linked insurance assets, EUR 11.3 billion, were 4.2% higher than at the end of 2019. Net assets inflow of unit-linked insurance contracts amounted to EUR 193 million

(–275). The amount of life insurance surrenders remained moderate.

Earnings

Earnings before tax totalled EUR 348 million (373). Net insurance income improved to EUR 582 million (431). The non-life insurance discount rate was decreased from 1.0% to 0.85%, which reduced net insurance income by EUR 45 million (136). An item corresponding to the change in the discount rate of non-life insurance liability was shown as a positive value change in net investment income.

Non-life insurance: premium revenue

€ million	Q1–4/2020	Q1–4/2019	Change, %
Private customers	857	826	3.8
Corporate customers	649	653	-0.6
Total	1,506	1,479	1.9

Claims incurred, excluding the reduction in the discount rate, decreased by 3.7% to EUR 906 million. The reported number of new large claims under property and business liability insurance (in excess of EUR 0.3 million) amounted to 119 (87) in January–December, with their claims incurred retained for own account totalling EUR 131 million (80). The Covid-19 pandemic in particular increased claims expenditure related to travel losses and business interruptions. Changes in the provision for outstanding claims under statutory pensions improved earnings by EUR 10 million during the financial year while weakening them by EUR 4 million in 2019.

Changes in claims for previous years, excluding the effect of the discount rate change, improved the balance on technical account by EUR 39 million (24). The non-life insurance operating risk ratio excluding indirect loss adjustment expenses was 61.1% (65.1).

Net commissions and fees decreased by 21.1% to EUR 78 million.

The transfer of statutory earnings-related pension liability reduced pension costs by EUR 85 million. Excluding the effect of this transfer, costs decreased by 1.0% to EUR 469 million. In non-life insurance, the operating cost ratio (including indirect loss adjustment expenses) was 26.6% (27.7).

Operating combined ratio improved to 87.8% (92.7). The operating ratios exclude the changed discount rate and the transfer of earnings-related pension liability.

Investment

Investment income

€ million	Q1–4/2020	Q1–4/2019
At fair value through other comprehensive income	47	217
At fair value through profit or loss	230	389
Amortised cost	-5	1
Life insurance items*	-154	-161
Unwinding of discount (non-life)	-21	-27
Associated companies	-11	17
Net investment income	88	435
Temporary exemption	-4	-104
Total	84	331

*Include credited interest on customers' insurance assets, changes in supplementary interest rate provisions and other technical items as well as changes in the fair value of unit-linked and separated balance sheet's investments.

Investment income totalled EUR 84 million (331), including the overlay approach. Capital gains on investment amounted to EUR 23 million (90) in non-life insurance and to EUR 26 million (96) in life insurance.

Interest rate risk associated with insurance liability has been hedged through supplementary interest rate provisions and interest rate derivatives. In life insurance, the net change in short-term supplementary interest rate provisions improved earnings by EUR 2 million (–2). Accrued supplementary interest rate provisions related to insurance liabilities (excluding the separated balance sheets) totalled EUR 490 million (426) on 31 December 2020. Short-term supplementary interest rate provisions accounted for EUR 44 million (46) of these provisions.

Non-life insurance: key investment indicators

€ million	Q1–4/2020	Q1–4/2019
Net return on investments at fair value, € million*	25	96
Return on investments at fair value, %	4.8	8.4
Fixed income investments' running yield, %	1.0	1.3
	31 Dec 2020	31 Dec 2019
Investment portfolio, € million	4,102	3,952
Investments within the investment grade category, %	92	92
A-rated receivables, minimum, %	58	61
Modified duration, %	3.5	4.0

*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.

Life insurance: key investment indicators*

€ million	Q1–4/2020	Q1–4/2019
Net return on investments at fair value, € million**	14	72
Return on investments at fair value, %	5.0	9.4
Fixed income investments' running yield, %	1.0	1.2
	31 Dec 2020	31 Dec 2019
Investment portfolio, € million	3,602	3,619
Investments within the investment grade category, %	90	88
A-rated receivables, minimum, %	58	64
Modified duration, %	3.2	2.9

*Excluding the separated balance sheets
**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 separated balance sheets.

Other Operations

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Net interest income	-60	-59	-
Net commissions and fees	9	6	37.7
Net investment income	12	38	-67.5
Other operating income	744	593	25.4
Total income	705	578	21.9
Personnel costs	177	148	19.6
Depreciation/amortisation and impairment loss	138	132	4.8
Other operating expenses	388	336	15.4
Total expenses	703	616	14.2
Impairment loss on receivables	1	0	-
Earnings before tax	3	-37	-

The Other Operations segment consists of functions that support the business segments. The segment includes the majority of OP Cooperative, OP Services Ltd and OP Corporate Bank plc's treasury functions.

Earnings

Earnings before tax amounted to EUR 3 million (–37). Sale of the Vallila property improved earnings, while the growth in expenses reduced earnings. Total income increased by 21.9% to EUR 705 million.

Net interest income was EUR –60 million (–59). Net investment income totalled EUR 12 million (38). In 2019, the earnings effect of EUR 16 million arising from early repayment of TLTRO II funding (targeted longer-term refinancing operations) and the discontinuance of related fair value hedge accounting improved net income from financial assets held for sale.

Other operating income increased by 25.4% to EUR 744 million. The sale of the Vallila property increased other operating income in the first quarter. OP Financial Group recognised a capital gain of EUR 98 million on the sale in other operating income and an expense of EUR 2 million in other operating expenses. OP Financial Group will continue operating in the property under a long-term lease agreement. The property was recognised as a right-of-use asset in the balance sheet. The value of the right-of-use asset under IFRS 16 was EUR 138 million and the lease liability was EUR 225 million.

Total expenses increased by 14.2% year on year to EUR 703 million. Personnel costs increased by 19.6% to EUR 177 million. Depreciation/amortisation and impairment loss on PPE and intangible assets increased by 4.8% to EUR 138 million. Other operating expenses increased by 15.4% to EUR 388 million as ICT costs increased by EUR 40 million.

In December, the average margin of OP Financial Group's senior and senior non-preferred wholesale funding, TLTRO funding and covered bonds was 19 basis points (19). Covered bonds are reported as part of the Retail Banking segment.

OP Financial Group's access to funding remained good. In January–December, the Group issued long-term bonds worth EUR 8.9 billion. In March, the wholesale funding market was disrupted due to the Covid-19 crisis. Particularly in short-term wholesale funding, prices rose sharply and it was not possible to renew maturing contracts for a certain period of time. Long-term unsecured wholesale funding too experienced a markedly steep rise in risk premiums. During the second quarter, the wholesale funding market clearly began to recover. By the end of the year, risk premiums had already decreased to the pre-crisis level, due to strong support measures taken by central banks.

In January, OP Financial Group issued a senior non-preferred bond of EUR 500 million with a maturity of 7 years, and a covered bond of EUR 1 billion with a maturity of 8.25 years. In May and June, it issued two senior bonds of EUR 1 billion with a maturity of 5.25 and 4 years. In November, OP Financial Group issued a senior bond of EUR 1 billion with a maturity of 7 years and a covered bond of EUR 1.25 billion with a maturity of 10 years.

In May and June, OP Financial Group also issued two Tier 2 bonds, one worth SEK 3.25 billion and the other worth EUR 1 billion. The Tier 2 bonds have a maturity of 10 years, but they can be called in after 5 years from the issue date.

In August, the Group redeemed early a Tier 2 bond worth SEK 3.5 billion whose maturity was 10 years and maturity date 25 August 2025.

In March, OP Financial Group took out financing worth USD 500 million offered by the ECB to banks. The maturity of the loan is less than one year. In June, OP Financial Group participated in the third series of the ECB's targeted longer-term refinancing operations (TLTRO-III) with a total of EUR 6.0 billion. OP Financial Group's TLTRO III financing amounts to a total of EUR 8.0 billion.

During 2020, the Governing Council of the European Central Bank modified the conditions of TLTRO III financing in order to stimulate bank lending to actors which have been hardest hit by the spread of Covid-19. According to the modified conditions, the interest rate between 24 June 2020 and 23 June 2022 can be the ECB's deposit facility rate (–0.50% on the reporting date) minus 0.50%. For the subsequent loan maturity, the interest rate can be, at its best, the ECB's deposit facility rate. The reduced interest rate is conditional on fulfilling the criteria for net lending performance. The final interest rate will not be determined until the TLTRO III operations mature (or during repayment). Changes in the interest rate are reflected in the effective interest rate. OP Financial Group assesses that it will fulfil the net lending performance criteria affecting the price of financing.

Liquidity remained good in 2020 despite the Covid-19 crisis.

Service development

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

OP Financial Group's development expenditure for January–December totalled EUR 282 million (313). This included licence fees, purchased services, other external costs related to projects and in-house work. The capitalised development expenditure totalled EUR 97 million (123). More detailed information on OP Financial Group's investments can be found under each business segment's section in this report.

In the spring of 2019, OP Financial Group concluded a five-year agreement with Tata Consultancy Services Ltd (TCS) on the production of ICT services. The agreement involves the ICT infrastructure services used by OP Financial Group, such as mainframe, server and capacity services. The agreement also includes data centre and cloud services. The transfer of ICT infrastructure services to TCS is progressing as planned and is estimated to be finalised in February 2021.

Personnel

On 31 December 2020, OP Financial Group had 12,604 employees (12,226). The number of employees averaged 12,486 (12,376). In 2020, the number of employees increased particularly in development and risk management.

Personnel at year-end

	31 Dec 2020	31 Dec 2019
Retail Banking	7,069	7,230
Corporate Banking	899	907
Insurance	2,260	2,015
Other Operations	2,376	2,074
Total	12,604	12,226

During the financial year, 282 OP Financial Group employees (306) retired at an average age of 62.3 years (61.8).

Remuneration

Variable remuneration applied by OP Financial Group in 2020 consists of the performance-based bonus scheme covering all personnel and the personnel fund. Company-specific targets based on the annual plan and the Group-level strategic targets are taken into account in the metrics used in the performance-based bonus scheme and the personnel fund. In drawing up the remuneration schemes, OP has taken account of the regulation regarding the financial sector's remuneration schemes.

OP Cooperative's Board of Directors determines the remuneration and other benefits to OP Cooperative's Executive Management Team members upon proposal by the Nomination and Remuneration Committee of the Board of Directors. A written executive contract approved by the Board of Directors (or, for contracts that entered into force before the year 2020, the Supervisory Board) stipulates the terms governing the employment of the members of the Executive Management Team.

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.

The deferral procedure is based on a procedure prescribed in the Act on Credit Institutions (610/2014), which is described in Note 9 (Personnel costs) of OP Financial Group's IFRS Financial Statements for 2020.

The Remuneration Report for Governing Bodies at OP Financial Group 2020, and the Remuneration Policy for Governing Bodies at OP Financial Group will be published as separate reports as part of OP Financial Group's annual reporting package.

Changes in OP Financial Group's structure

OP Financial Group's consolidated financial statements at the end of the financial year included the accounts of 137 OP cooperative banks (147) and OP Cooperative Consolidated. The number of OP cooperative banks decreased during the financial year due to mergers.

Köyliön Osuuspankki and Vampulan Osuuspankki merged into Säkylän Osuuspankki on 29 February 2020. Consequently, the business name of Säkylän Osuuspankki was changed to Ala-Satakunnan Osuuspankki.

Kihniön Osuuspankki merged into Virtain Osuuspankki on 29 February 2020. After this, on the same day, Virtain Osuuspankki merged into Ruoveden Osuuspankki. Consequently, the business name of Ruoveden Osuuspankki was changed to Ylä-Pirkanmaan Osuuspankki.

Kannuksen Osuuspankki merged into Suomenselän Osuuspankki on 31 March 2020.

On 30 April 2020, Kesälahden Osuuspankki merged into Pohjois-Karjalan Osuuspankki.

On 31 July 2020, Honkilahden Osuuspankki merged into Euran Osuuspankki.

On 31 August 2020, Parikkalan Osuuspankki and Simpeleen Osuuspankki merged into Etelä-Karjalan Osuuspankki.

On 31 October 2020, Kalajoen Osuuspankki merged into Keski-Pohjanmaan Osuuspankki.

On 29 September 2020, Ruukin Osuuspankki, Vihannin Osuuspankki and Raahen Seudun Osuuspankki accepted merger plans, according to which Ruukin Osuuspankki and Vihannin Osuuspankki will merge into Raahen Seudun Osuuspankki. The planned date for registration of the mergers is 31 March 2021. Consequently, the business name of Raahen Seudun Osuuspankki will change to Raahentienoon Osuuspankki.

On 26 November 2020, Lokalahden Osuuspankki, Taivassalon Osuuspankki and Lounaisrannikon Osuuspankki accepted merger plans, according to which Lokalahden Osuuspankki and Taivassalon Osuuspankki will merge into Lounaisrannikon Osuuspankki. The planned date for registration of the mergers is 31 March 2021.

On 26 November 2020, Mynämäen-Nousiaisten Osuuspankki and Auranmaan Osuuspankki accepted a merger plan, according to which the former will merge into the latter. The planned date for registration of the merger is 30 April 2021. Consequently, the business name of Auranmaan Osuuspankki will change to Osuuspankki Vakka-Auranmaa.

On 19 January 2021, Artjärven Osuuspankki and Länsi-Kymen Osuuspankki approved a merger plan, according to which the former will merge into the latter. The planned date for registration of the merger is 31 July 2021.

Simplifying OP Cooperative Consolidated's structure

The legal restructuring of OP Financial Group's central cooperative consolidated streamlines the group structure, simplifies management and makes the cost structure slimmer.

A-Insurance Ltd merged into Pohjola Insurance Ltd on 31 March 2020.

Kaivokadun PL-hallinto Oy merged into OP Corporate Bank plc on 31 October 2020.

OP Co-ride Ltd merged into OP Cooperative on 31 October 2020.

Transfer of the pension liability remaining with OP Bank Group Pension Fund to Ilmarinen Mutual Pension Insurance Company took place on 31 December 2020. OP Bank Group Pension Fund will be dissolved through liquidation during 2021.

On 27 October 2020, OP Asset Management Execution Services Ltd and OP Asset Management Ltd approved a merger plan, according to which the former will merge into the latter through a subsidiary merger. The planned date for registration of the merger is 30 April 2021.

OP Financial Group is planning a restructuring whereby Pohjola Insurance Ltd would be transferred from the ownership of OP Corporate Bank plc to the direct ownership of OP Cooperative. The Group announced the plan for the first time in 2014. In addition, a merger of OP Corporate Bank plc's Baltic subsidiaries into their parent company, OP Corporate Bank, is being planned.

Governance of OP Cooperative

At its meeting on 30 October 2019, OP Cooperative's Supervisory Board (as of 1 January 2020, the Supervisory Council) decided on the conditional composition of OP Cooperative's new Board of Directors. The Supervisory Council confirmed the appointments after OP Cooperative's new Bylaws had entered into force on 1 January 2020.

As of 1 January 2020, the Board of Directors consists of the following members: Leif Enberg (b. 1954, M.Sc., Econ. & Bus. Adm., Certified Board Member & Chair), Jarna Heinonen (b. 1965, D.Sc., Econ. & Bus. Adm.), Jari Himanen (b. 1962, Diploma in Bus. & Adm., eMBA), Kati Levoranta (b. 1970, LL.M., MBA), Pekka Loikkanen (b. 1959, M.Sc., Econ. & Bus. Adm.), Riitta Palomäki (b. 1957, M.Sc., Econ. & Bus. Adm.), Jaakko Pehkonen (b. 1960, D.Sc., Econ. & Bus. Adm.), Timo Ritakallio (b. 1962, D.Sc., Tech., LL.M., MBA), Olli Tarkkanen (b. 1962, LL.M., eMBA) and Mervi Väisänen (b. 1963, M.Sc., Econ. & Bus. Adm., Certified Board Member & Chair).

At the beginning of 2020, the Board of Directors elected Jaakko Pehkonen as Chair and Jarna Heinonen as Vice Chair of the Board of Directors. In addition, the Board of Directors elected from among its members the chairs, vice chairs and other members to the statutory Board Committees.

On 10 June 2020, the Supervisory Council of OP Cooperative appointed Tero Ojanperä (b. 1966, Ph.D. Eng) as member of the Board of Directors of OP Cooperative as of 1 July 2020. As of 1 July 2020, the Board of Directors comprises 11 members.

On 18 November 2020, the Supervisory Council re-elected all Board members to continue in their roles for the term 1 January–31 December 2021. On 15 December 2020, OP Cooperative's Board of Directors elected from among its members the chairs, vice chairs and other members to the statutory Board Committees for the new term. Jaakko Pehkonen will continue as Chair and Jarna Heinonen as Vice Chair of the Board of Directors. The compositions of Board Committees remained unchanged.

OP Financial Group's central cooperative (OP Cooperative) held its Annual Cooperative Meeting on 19 March 2020.

The Meeting re-elected for the term ending in 2021 the following members to the Supervisory Council who were due to resign: Mika Helin, Managing Director, and Mervi Hinkkanen, Bachelor of Hospitality Management, MBA.

New members elected to the Supervisory Council for a term ending in 2021 were Procurement Manager Päivi Hakasuo, Professor Juha-Pekka Junttila, postgraduate Päivi Kujala, Managing Director Pekka Lehtonen, Managing Director Sirpa Leppäkoski, Senior Manager Anssi Mäkelä, Managing Director Ulf Nylund, farmer-entrepreneur Johanna Pättiniemi, Development Director Tiina Rajala, entrepreneur Timo Syrjälä and Managing Director Pauliina Takala.

On 31 December 2020, the Supervisory Council comprised 33 members.

At its reorganising meeting, the Supervisory Council elected the presiding officers of the Supervisory Council. Annukka Nikola, Director, Administration, will continue as the Supervisory Council Chair and Professor Markku Sotarauta and Managing Director Ari Väänänen as Vice Chairs.

The Annual Cooperative Meeting re-elected KPMG Oy Ab, an audit firm, to act as the auditor for the financial year 2020, with Juha-Pekka Mylén, APA, acting as the chief auditor, appointed by KPMG Oy Ab.

The Annual Cooperative Meeting of 19 March 2020 decided to alter the central cooperative's Bylaws. A major change is that the allotment of seats in the Supervisory Council will be determined so that each Federation of Cooperative Banks will have six seats in the Supervisory Council of the central cooperative.

Legal structure of OP Financial Group

OP Financial Group and the amalgamation of cooperative banks

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 institutions 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 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 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 conglomerate.

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

The central cooperative controls its member credit institutions in accordance with the Act on the Amalgamation of Deposit Banks and acts as OP Financial Group's strategic owner institution.

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 cooperative banks are included in OP Financial Group's Risk Appetite Statement and Risk Appetite Framework document and these are described in greater detail in other parts of the Report by the Board of Directors and in OP Financial Group's Capital Adequacy and Risk Management Report.

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 institutions' 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 by the supervisor pursuant to said provisions. Such exception may be granted for a maximum period of three years. The central cooperative has enabled exceptions, authorised by the supervisor, 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 cooperative banks.

Supervision of the amalgamation of cooperative banks

The central cooperative and the amalgamation of 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 association 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 internal audit of companies belonging to OP Financial Group is carried out by Internal Audit, which reports to OP Financial Group's President and Group Chief Executive Officer. The Chief Audit Executive reports on the audit activities to the President and Group CEO in administrative terms and to the Audit Committee of OP Cooperative's Board of Directors in operational terms. Internal Audit is responsible for the internal audit of the central cooperative's member credit institutions and companies belonging to their consolidation groups and the central cooperative and its subsidiaries.

Internal Audit is a function independent of other functions of OP Financial Group. It audits the effectiveness and adequacy of OP Financial Group's internal control systems, risk management and management and governance processes.

Audits are carried out by adhering to the International Standards for the Professional Practice of Internal Auditing and the Code of Ethics as well as the Internal Audit Charter approved by OP Cooperative's Board of Directors.

Joint and several liability of member credit institutions, and the central cooperative's liability for debt

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.

Joining the amalgamation of 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 Council decides on admitting new 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 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 has been 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 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 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.

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

Under the law governing the Investors' Compensation Fund, the amalgamation of 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 cooperative banks up to a total maximum of 20,000 euros.

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

Financial conglomerate

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

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

Events after the balance sheet date

OP Cooperative will sell the entire share capital of its subsidiary, Checkout Finland Ltd, to Paytrail Oyj. The parties signed the related contract of sale on 4 January 2021. The sale should be completed during the spring of 2021, provided that it is approved by the Finnish Financial Supervisory Authority.

OP Financial Group paid interest on Profit Shares for 2019 to holders of those shares on 8 February 2021. In its profit distribution, OP Financial Group complies with the ECB's updated recommendation that will remain in force at least until 30 September 2021 and that applies also to interest on Profit Shares for 2020. Based on the recommendation currently in force, interest on Profit Shares for 2020 can be paid at the earliest in October 2021, unless the ECB later this year extends the validity of its recommendation or amends its content. More detailed information on the payment schedule will be provided as allowed by the recommendations of the ECB.

Outlook for 2021

The number of Covid-19 infections increased in most countries over the autumn. As a result of this, the economic recovery that started last summer faltered somewhat. Towards the end of the year, the effects of the pandemic on the economy began to ease off, mainly affecting the service sector. Economic recovery will continue as the pandemic will continue to subside. In financial markets, expectations are positive. Policy actions by central banks are expected to calm down markets and keep interest rates low.

The Covid-19 pandemic will continue to cause uncertainty over the economic outlook. A sudden worsening of the pandemic would affect OP Financial Group in three ways: economic uncertainty and uncertainty in the financial and capital market would increase, a rise in financial difficulties among customers would increase credit risk and decrease the demand for services, and a worsening disease situation could make it more difficult for OP Financial Group to run its operations efficiently.

The Covid-19 pandemic will cause uncertainty in the amount of impairment loss on receivables and investment income. OP Financial Group's earnings before tax for 2021 are expected to be lower than in 2020.

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

Key income statement and balance sheet items, and financial indicators

€ million	**2020**	**2019**	**2018**	**2017**	**2016**
Key income statement items, € million					
Net interest income	1,284	1,241	1,186	1,102	1,058
Net insurance income	572	421	566	478	558
Net commissions and fees	931	936	887	879	859
Net investment income	184	530	211	522	391
Other operating income	132	53	61	83	122
Personnel costs	715	781	516	758	762
Depreciation/amortisation and impairment loss	273	278	325	246	160
Other operating expenses	852	844	839	764	646
Impairment loss on receivables	-225	-87	-46	-48	-77
OP bonuses to owner-customers	-251	-249	-226	-217	-206
Overlay approach	-3	-105	26	-	-
Earnings before tax	785	838	959	1,031	1,138
Key balance sheet items – assets, € million					
Cash and cash equivalents	21,827	11,988	12,350	12,937	9,471
Derivative contracts	5,215	4,824	3,581	3,412	4,732
Receivables from credit institutions	306	246	183	504	337
Receivables from customers	93,644	91,463	87,026	82,193	78,604
Investment assets	23,562	23,509	23,050	23,324	25,887
Assets covering unit-linked contracts	11,285	10,831	9,771	10,126	9,168
Intangible assets and property, plant and equipment	1,944	1,930	2,227	2,353	2,345
Other items	2,424	2,232	2,107	2,355	3,203
Total assets	160,207	147,024	140,294	137,205	133,747
Key balance sheet items – liabilities and equity, € million					
Liabilities to credit institutions	8,086	2,632	4,807	5,157	4,669
Derivative contracts	3,424	3,316	2,992	3,026	4,044
Liabilities to customers	73,422	68,289	66,112	65,549	60,077

Insurance liabilities	9,374	9,476	9,476	9,950	10,586
Liabilities from unit-linked insurance and investment contracts	11,323	10,862	9,812	10,158	9,205
Debt securities issued to the public	34,706	34,369	30,458	26,841	28,287
Other liabilities	6,761	5,510	4,896	5,440	6,642
Equity capital	13,112	12,570	11,742	11,084	10,237
Total liabilities and shareholders' equity	160,207	147,024	140,294	137,205	133,747
Figures and ratios					
Return on equity, ROE, %	5.0	5.5	6.5	7.7	9.4
Return on assets, ROA, %	0.4	0.5	0.5	0.6	0.7
Cost/income ratio, %	59	60	58	58	52
Average personnel**	12,486	12,376	12,339	12,212	12,271
Common Equity Tier 1 (CET1) capital ratio, %	18.9	19.5	20.5	20.1	20.1
Capital adequacy ratio, %	21.7	21.1	22.1	22.5	23.1
Capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates, %*	150	138	147	148	170

*Figures for 2016 are presented under Solvency II. Transitional provisions have been taken into account in figures.
**Figures for 2016–2017 exclude summer employees.

Formulas for key figures and ratios

The Alternative Performance Measures are presented to illustrate the financial performance of business operations and to improve comparability between reporting periods. The formulas for the used Alternative Performance Measures are presented below.

Alternative Performance Measures

Return on equity (ROE), %	Profit for the financial year / Equity capital (average at beginning and end of period)	x 100
Return on equity (ROE) excluding OP bonuses, %	Profit for the financial year + OP bonuses after tax / Equity capital (average at beginning and end of period)	x 100
Return on assets (ROA), %	Profit for the financial year / Average balance sheet total (average at beginning and end of period)	x 100
Return on assets (ROA) excluding OP bonuses, %	Profit for the financial year + OP bonuses after tax / Average balance sheet total (average at beginning and end of period)	x 100
Cost/income ratio, %	Total expenses / Total income	x 100
Investment income	Net investment income + Overlay approach	
Loan portfolio	Balance sheet item Receivables from customers	
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	Impairment loss on receivables / Loan and guarantee portfolio at end of financial year	x 100
Deposits	Deposits included in balance sheet item Liabilities to customers	
Coverage ratio, %	Loss allowance / Receivables from customers (on-balance-sheet and off-balance-sheet items)	x 100
Default capture rate, %	New defaulted contracts in stage 2 a year ago / New defaulted contracts in the financial year	x 100
Non-life insurance:		
Operating loss ratio, %	Claims incurred, excl. changes in reserving bases and amortisation on intangible assets arising from company acquisitions / Insurance premium revenue, excl. net changes in reserving bases	x 100
Operating expense ratio, %	Operating expenses / Insurance premium revenue, excl. net changes in reserving bases	x 100
Operating combined ratio, %	Operating loss ratio + operating expense ratio Operating risk ratio + operating cost ratio	
Operating risk ratio (excl. unwinding of discount), %	Claims excl. loss adjustment expenses and changes in reserving bases / Net insurance premium revenue, excl. changes in reserving bases	x 100

Operating cost ratio, %	$\frac{\text{Operating expenses and loss adjustment expenses}}{\text{Net insurance premium revenue, excl. changes in reserving bases}}$	x 100
Life Insurance:		
Operating ratio, %	$\frac{\text{Total expenses}}{\text{Expense loading + refund of management fee}}$	x 100

Key indicators based on a separate calculation

Capital adequacy ratio, %	$\frac{\text{Total capital}}{\text{Total risk exposure amount}}$	x 100
Tier 1 ratio, %	$\frac{\text{Total Tier 1 capital}}{\text{Total risk exposure amount}}$	x 100
CET1 ratio, %	$\frac{\text{CET1 capital}}{\text{Total risk exposure amount}}$	x 100
Solvency ratio, %	$\frac{\text{Capital base}}{\text{Solvency capital requirement (SCR)}}$	x 100
Leverage ratio, %	$\frac{\text{Tier 1 capital (T1)}}{\text{Exposure amount}}$	x 100
Liquidity coverage requirement (LCR), %	$\frac{\text{Liquid assets}}{\text{Liquidity outflows – liquidity inflows under stressed conditions}}$	x 100
Net stable funding ratio (NSFR), %	$\frac{\text{Available stable funding}}{\text{Required stable funding}}$	x 100
Capital adequacy ratio under the Act on the Supervision of Financial and Insurance Conglomerates*	$\frac{\text{Conglomerate's total capital base}}{\text{Conglomerate's total minimum capital requirement}}$	x 100
Ratio of non-performing receivables to loan and guarantee portfolio, %	$\frac{\text{Non-performing receivables (net)**}}{\text{Loan and guarantee portfolio at end of financial year}}$	x 100
Ratio of doubtful receivables to loan and guarantee portfolio, %	$\frac{\text{Doubtful receivables (net)***}}{\text{Loan and guarantee portfolio at end of financial year}}$	x 100
Ratio of performing forborne exposures to loan and guarantee portfolio, %	$\frac{\text{Performing forborne exposures (net)***}}{\text{Loan and guarantee portfolio at end of financial year}}$	x 100
Ratio of performing forborne exposures to doubtful receivables, %	$\frac{\text{Performing forborne exposures (net)***}}{\text{Doubtful receivables at end of financial year}}$	x 100

Ratio of loss allowance (receivables from customers) to doubtful receivables, %	Loss allowance for receivables from customers in the balance sheet / Doubtful receivables at end of financial year	x 100
Loan and guarantee portfolio	Loan portfolio + guarantee portfolio	

*Transitional provisions have been taken into account in the FiCo solvency.
**Non-performing receivables refer to receivables that are more than 90 days past due and other receivables classified as risky as well as forborne receivables related to such receivables due to the customer's financial difficulties. Forbearance measures consist of concessions agreed at the customers' initiative to the original repayment plan to make it easier for them to manage through temporary payment difficulties.
***Doubtful receivables refer to receivables that are more than 90 days past due and other receivables classified as risky as well as forbearance related to such receivables or to performing receivables due to the customer's financial difficulties. Forbearance measures consist of concessions agreed at the customers' initiative to the original repayment plan to make it easier for them to manage through temporary payment difficulties. Performing forborne exposures include forborne exposures reclassified as performing ones during their probation period or forbearance measures made into a performing agreement. Loan modifications due to reasons other than the customer's financial difficulties are not classified as doubtful receivables.

Non-life insurance operating result

€ million	Q1–4/2020	Q1–4/2019	Change %
Insurance premium revenue	1,506	1,478	1.9
Claims incurred	1,028	1,060	-3.0
Operating expenses	293	311	-5.6
Balance on technical account	184	107	71.6
Reduction in discount rate	-45	-136	-
Investment income and expenses	99	307	-67.6
Other income and expenses	79	-23	-
Earnings before tax	318	255	25.0
Temporary exemption (overlay approach)	-4	-65	-
Earnings before tax	314	190	65.4

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

Capital adequacy and solvency

Capital adequacy for credit institutions

Capital base, € million	31 Dec 2020	31 Dec 2019
OP Financial Group's equity capital	**13,112**	**12,570**
Effect of insurance companies on the Group's shareholders' equity is excluded	-498	-237
Fair value reserve, cash flow hedge	-203	-141
Common Equity Tier 1 (CET1) before deductions	**12,410**	**12,192**
Intangible assets	-391	-630
Excess funding of pension liability and valuation adjustments	-93	-76
Cooperative capital deducted from capital base	-126	-142
Planned profit distribution and unpaid profit distribution for previous period	-95	-97
Shortfall of ECL minus expected losses	-413	-428
CET1 capital	**11,293**	**10,819**
Hybrid capital to which transitional provision is applied	40	60
Additional Tier 1 capital (AT1)	**40**	**60**
Tier 1 capital (T1)	**11,333**	**10,879**
Debenture loans	1,599	806
Tier 2 capital (T2)	**1,599**	**806**
Total capital	**12,933**	**11,685**

Risk exposure amount, € million	31 Dec 2020	31 Dec 2019
Credit and counterparty risk	**54,522**	**49,216**
Standardised Approach (SA)	**4,562**	**4,101**
Central government and central banks exposure	347	304
Credit institution exposure	9	8
Corporate exposure	3,068	2,646
Retail exposure	1,026	1,069
Equity investments	32	22
Other	80	52
Internal Ratings-based Approach (IRB)	**49,960**	**45,115**
Credit institution exposure	1,029	1,023
Corporate exposure	26,461	25,580
Retail exposure	14,295	10,320
Equity investments	7,036	6,898
Other	1,140	1,293
Market and settlement risk (Standardised Approach)	**1,096**	**1,309**
Operational risk (Standardised Approach)	**3,964**	**4,232**
Valuation adjustment (CVA)	**138**	**191**
Other risks		**11**
Total risk exposure amount	**59,720**	**54,959**
Risk weight floors based on ECB's decision		505
Total risk exposure amount including risk weight floors	**59,720**	**55,464**

Ratios, %	31 Dec 2020	31 Dec 2019
CET1 capital ratio	18.9	19.5
Tier 1 ratio	19.0	19.6
Capital adequacy ratio	21.7	21.1

Ratios, fully loaded, %	31 Dec 2020	31 Dec 2019
CET1 capital ratio	18.9	19.5
Tier 1 ratio	18.9	19.5
Capital adequacy ratio	21.6	21.0

Capital requirement, EUR million	31 Dec 2020	31 Dec 2019
Capital base	12,933	11,685
Capital requirement	8,213	8,068
Buffer for capital requirements	4,719	3,617

The capital requirement of 13.8% comprises the minimum requirement of 8%, the capital conservation buffer of 2.5%, the O-SII buffer requirement of 1.0%, the minimum requirement (P2R) of 2.25% (2.0 a year ago) set by the ECB and the changing capital conservation buffers by country for foreign exposures.

Leverage ratio, EUR million	31 Dec 2020	31 Dec 2019
Tier 1 capital (T1)	11,333	10,879
Total exposure	144,799	131,504
Leverage ratio, %	7.8	8.3

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

OP Financial Group's capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates

€ million	31 Dec 2020	31 Dec 2019
OP Financial Group's equity capital	13,112	12,570
Hybrid instruments and debenture loans	1,640	866
Other sector-specific items excluded from capital base	-331	-349
Goodwill and intangible assets	-1,147	-1,393
Insurance business valuation differences*	623	720
Planned profit distribution and unpaid profit distr. for previous period	-95	-97
Items under IFRS deducted from capital base**	-184	-150
Shortfall of ECL minus expected losses	-387	-402
Conglomerate's total capital base	**13,231**	**11,766**
Regulatory capital requirement for credit institutions***	7,284	7,132
Regulatory capital requirement for insurance operations*	1,508	1,386
Conglomerate's total minimum capital requirement	**8,791**	**8,518**
Conglomerate's capital adequacy	**4,439**	**3,248**
Conglomerate's capital adequacy ratio (capital base/minimum of capital base) (%)	**150**	**138**

* 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 13.8%, a year ago 14.5%.

Transitional provisions have been taken into account in figures.

Primary statements

Income statement

EUR million	Notes	Q1–4 2020	Q1–4 2019
Net interest income	4	1,284	1,241
Net insurance income	5	572	421
Net commissions and fees	6	931	936
Net investment income	7	184	530
Other operating income	8	132	53
Total income		3,103	3,181
Personnel costs	9	715	781
Depreciation/amortisation	10	273	278
Other expenses	11	852	844
Total expenses		1,839	1,903
Impairments loss on receivables	12	-225	-87
OP bonuses to owner-customers	13	-251	-249
Temporary exemption (overlay approach)	14	-3	-105
Earnings before tax		785	838
Income tax expense	15	-144	-168
Profit for the period		641	670

* The transfer of the remaining statutory earnings-related pension liability reduced pension costs for 2020 by EUR 96 million.

Attributable to:		
Profit for the period attributable to owners	641	663
Profit for the period attributable to non-controlling interest	0	6
Profit for the period	641	670

Statement of comprehensive income

EUR million	Notes	Q1–4 2020	Q1–4 2019
Profit for the period		641	670
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	34	-47	15
Items that may be reclassified to profit or loss			
Change in fair value reserve			
Measurement at fair value	36	81	62
Cash flow hedge	36	78	135
Temporary exemption (overlay approach)	36	5	108
Income tax			
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	27	9	-3
Items that may be reclassified to profit or loss			
Measurement at fair value	36	-16	-12
Cash flow hedge	36	-16	-27
Temporary exemption (overlay approach)	36	-1	-22
Total comprehensive income for the period		734	926
Attributable to:			
Total comprehensive income for the period attributable to owners		734	920
Total comprehensive income for the period attributable to non-controlling interests		0	6
Total comprehensive income for the period		734	926

Balance sheet

EUR million	Notes	31 Dec 2020	31 Dec 2019
Cash and cash equivalents	16	21,827	11,988
Receivables from credit institutions	17	306	246
Derivative contracts	18	5,215	4,824
Receivables from customers	19	93,644	91,463
Investment assets	20	23,562	23,509
Assets covering unit-linked contracts	21	11,285	10,831
Intangible assets	23	1,311	1,406
Property, plant and equipment (PPE)	24	633	524
Other assets	26	2,236	1,684
Tax assets	27	188	235
Non-current assets held for sale			314
Total assets		160,207	147,024
Liabilities to credit institutions	28	8,086	2,632
Derivative contracts	29	3,424	3,316
Liabilities to customers	30	73,422	68,289
Insurance liabilities	31	9,374	9,476
Liabilities from unit-linked insurance and investment contracts	32	11,323	10,862
Debt securities issued to the public	33	34,706	34,369
Provisions and other liabilities	34	3,431	3,163
Tax liabilities	27	1,069	1,050
Subordinated liabilities	35	2,261	1,290
Liabilities associated with non-current assets held for sale			6
Total liabilities		147,095	134,454
Equity capital			
Share of OP Financial Group's owners			
Cooperative capital			
Cooperative share		212	209
Profit shares		2,962	3,029
Fair value reserve		382	251
Other reserves		2,172	2,184
Retained earnings		7,248	6,731
Non-controlling interests		137	166
Total equity capital	36	13,112	12,570
Total liabilities and equity capital		160,207	147,024

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 January 2020	3,241	7	2,183	6,157	11,588	154	11,742
Total comprehensive income for the period		244		675	920	6	926
Profit for the period				663	663	6	670
Other comprehensive income		244		12	256		256
Profit distribution				-94	-94	-9	-104
Change in membership and profit shares	-3				-3		-3
Transfer of reserves			2	-2			
Other				-6	-6	15	9
Balance at 31 December 2020	3,238	251	2,185	6,730	12,404	166	12,570

	Attributable to owners						
EUR million	Cooperative capital	Fair value reserve	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity capital
Balance at 1 January 2019	3,238	251	2,185	6,730	12,404	166	12,570
Total comprehensive income for the period		131		604	734	0	734
Profit for the period				641	641	0	641
Other comprehensive income		131		-38	93		93
Profit distribution				-98	-98	-11	-109
Change in membership and profit shares	-64				-64		-64
Transfer of reserves			-14	14			
Other				-1	-1	-18	-20
Balance at 31 December 2019	3,174	382	2,172	7,248	12,975	137	13,112

Cash flow statement

EUR million	Notes	Q1–4 2020	Q1–4 2019
Cash flow from operating activities			
Profit for the period		641	670
Adjustments to profit for the period		111	126
Increase (-) or decrease (+) in operating assets		-2,878	-4,266
Receivables from credit institutions	17	-11	43
Derivative contracts	18	-35	-25
Receivables from customers	19	-2,287	-4,418
Non-life insurance assets	21	-8	254
Investment assets	20	-128	131
Other assets	26	-410	-250
Increase (+) or decrease (-) in operating liabilities		10,247	325
Liabilities to credit institutions	28	5,660	-2,347
Derivative contracts	29	-305	13
Liabilities to customers	30	4,829	2,177
Insurance liabilities	31	0	-25
Liabilities from unit-linked insurance and investment contracts	32	98	262
Provisions and other liabilities	34	-34	246
Income tax paid		-89	-116
Dividends received		44	76
A. Net cash from operating activities		8,077	-3,185
Cash flow from investing activities			
Purchase of PPP and intangible assets	23, 24	-131	-168
Proceeds from sale of PPE and intangible assets	23, 24	637	50
B. Net cash used in investing activities		506	-118
Cash flow from financing activities			
Subordinated liabilities, change		978	
Debt securities issued to the public, change	33	68	3,650
Increases in cooperative and share capital		78	480
Decreases in cooperative and share capital		-142	-485
Dividends paid and interest on cooperative capital		0	-94
Lease liabilities		-34	-19
C. Net cash used in financing activities		948	3,533
Net change in cash and cash equivalents (A+B+C)		9,530	230
Cash and cash equivalents at period-start		12,168	12,423
Effect of foreign exchange rate changes*		357	-485
Cash and cash equivalents at period-end		22,055	12,168
Interest received		1,778	1,987
Interest paid		-552	-612

Adjustments to profit for the financial year		
Non-cash items and other adjustments		
Impairment losses on receivables	235	110
Changes in technical items	-222	-704
Changes in value of financial instruments	-27	279
Changes in fair value of investment property	33	-181
Defined benefit pension plans	-76	-18
Planned amortisation and depreciation	276	278
Share of associates' profits/losses	-18	-2
Income tax paid	144	116
Other	-46	248
Items presented outside cash flow from operating activities		
Capital gains, share of cash flow from investing activities	-189	0
Total adjustments	**111**	**126**
Cash and cash equivalents		
Liquid assets	21,827	11,988
Receivables from credit institutions payable on demand	229	180
Total	**22,055**	**12,168**

* The effect of foreign exchange rate changes is presented under changes in cash and cash equivalents, whereas previously they were presented under cash flow from financing activities. The reference year has been adjusted to correspond to the current presentation.

Segment reporting

Segment information

OP Financial Group's business segments are Retail Banking, Corporate Banking, and Insurance. Non-business segment operations are presented under the Other Operations segment. 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 is assessed in terms of earnings before tax.

Companies in the Retail Banking segment include OP cooperative banks, OP Koti real estate agencies, OP Card Company Plc, OP Mortgage Bank, Pivo Wallet Oy and OP Co-ride Ltd. Net interest income forms the most significant income item of the segment. Income also comes from commissions and fees and investment. Expenses arise mainly from personnel and ICT costs and the costs of the branch network and OP bonuses to owner-customers. The most significant risk category pertains to credit risk but business also involves market risks and operational risks.

Companies in the Corporate Banking segment include OP Corporate Bank plc (excl. treasury functions), OP Custody Ltd, OP Asset Management Ltd, OP Property Management Ltd, Checkout Finland Oy and OP Fund Management Company Ltd. Net interest income forms the most significant income item of the segment. Income also comes from banking and wealth management in terms of commission income and from investment operations. Expenses mainly come from personnel and ICT costs. The most significant risk category pertains to credit risk but business also involves market risks and operational risks.

The Insurance segment encompasses OP Financial Group’s non-life insurance companies, i.e. Pohjola Insurance Ltd and OP Life Assurance Company Ltd. The segment’s products include non-life and life insurance products sold to corporate and private customers. Income generated by the segment derives mainly from income from insurance premium revenue, commission income and net investment income. The segment also includes Pohjola Hospital Ltd whose earnings come from doctor's fees and income from treatment and diagnostics. The Insurance segment’s most significant risks are underwriting and investment risks. Risks related to statutory defined benefit pension plans for OP Financial Group’s personnel only affect the Insurance segment. However, the related risk level is moderate.

The Other Operations segment consists of functions that support other segments. The segment includes the majority of OP Cooperative, OP Services Ltd and OP Corporate Bank plc’s treasury functions. 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 Treasury 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'.

Q1-4 earnings 2020, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Net interest income	925	394	-1	-60	27	1,284
of which internal net income before tax		-25		25		
Net insurance income			582		-10	572
Net commissions and fees	698	153	78	9	-6	931
Net investment income	2	143	88	12	-61	184
Other operating income	29	17	9	744	-667	132
Total income	1,653	707	755	705	-717	3,103
Personnel costs	412	71	55	177	0	715
Depreciation/amortisation	60	18	60	138	-3	273
Other operating expenses	680	197	269	388	-683	852
Total expenses	1,152	286	384	703	-686	1,839
Impairments loss on receivables	-172	-53	0	1	0	-225
OP bonuses to owner-customers	-214	-18	-19		0	-251
Temporary exemption (overlay approach)			-4	0	0	-3
Earnings before tax	115	349	348	3	-31	785

Net income from the Baltic countries came to EUR 11 million

Q1-4 earnings 2019, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Net interest income	922	383	-12	-59	7	1,241
of which internal net income before tax	1	-3	-11	13		
Net insurance income			431		-10	421
Net commissions and fees	708	125	99	6	-3	936
Net investment income	-17	119	435	38	-46	530
Other operating income	43	27	16	593	-626	53
Total income	1,657	655	969	578	-678	3,181
Personnel costs	426	76	133	148	-1	781
Depreciation/amortisation	55	20	71	132	0	278
Other operating expenses	692	182	269	336	-635	844
Total expenses	1,172	277	473	616	-635	1,903
Impairments loss on receivables	-36	-51	0	0	0	-87
OP bonuses to owner-customers	-214	-16	-19		0	-249
Temporary exemption (overlay approach)			-104		-1	-105
Earnings before tax	235	311	373	-37	-43	838

Net income from the Baltic countries came to EUR 10 million

Balance sheet at 31 December 2020, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Cash and cash equivalents	63	224	0	21,540		21,827
Receivables from credit institutions	20,668	103	1,653	11,845	-33,965	306
Derivative contracts	722	5,144	341	209	-1,199	5,215
Receivables from customers	69,362	24,701	0	495	-915	93,644
Investment assets	676	494	9,597	19,053	-6,257	23,562
Assets covering unit-linked contracts			11,285			11,285
Intangible assets	35	207	782	291	-3	1,311
Property, plant and equipment (PPE)	341	4	130	165	-9	633
Other assets	278	588	979	627	-235	2,236
Tax assets	91	2	10	45	40	188
Total assets	92,237	31,467	24,777	54,270	-42,543	160,207
Liabilities to credit institutions	11,117	564		28,709	-32,303	8,086
Derivative contracts	425	4,082	2	192	-1,278	3,424
Liabilities to customers	59,436	13,118		3,221	-2,352	73,422
Insurance liabilities			9,374			9,374
Liabilities from unit-linked insurance and investments			11,323			11,323
Debt securities issued to the public	13,932	855		21,207	-1,288	34,706
Provisions and other liabilities	903	774	682	1,254	-183	3,431
Tax liabilities	496	4	176	395	-1	1,069
Subordinated liabilities	-6		380	2,294	-407	2,261
Total liabilities	86,302	19,396	21,937	57,271	-37,811	147,095
Equity						13,112

Balance sheet at 31 December 2019, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Cash and cash equivalents	71	19	1,506	11,891	-1,499	11,988
Receivables from credit institutions	12,785	130	23	9,577	-22,269	246
Derivative contracts	507	4,384	379	468	-913	4,824
Receivables from customers	67,985	24,502	0	95	-1,118	91,463
Investment assets	316	1,006	9,798	17,626	-5,236	23,509
Assets covering unit-linked contracts			10,831			10,831
Intangible assets	43	221	791	354	-3	1,406
Property, plant and equipment (PPE)	355	2	134	43	-11	524
Other assets	247	376	869	407	-216	1,684
Tax assets	103	4	45	39	42	235
Non-current assets held for sale				314		314
Total assets	82,411	30,645	24,376	40,814	-31,223	147,024
Liabilities to credit institutions	8,965	757		15,511	-22,601	2,632
Derivative contracts	323	3,657	109	195	-968	3,316
Liabilities to customers	54,434	11,290		4,664	-2,100	68,289
Insurance liabilities			9,476			9,476
Liabilities from unit-linked insurance and investments			10,862			10,862
Debt securities issued to the public	11,574	1,441		21,449	-94	34,369
Provisions and other liabilities	642	801	767	1,120	-167	3,163
Tax liabilities	483	5	201	363	-1	1,050
Subordinated liabilities	-18	9	380	1,314	-395	1,290
Liabilities associated with non-current assets held for sale				6		6
Total liabilities	76,403	17,960	21,795	44,622	-26,326	134,454
Equity						12,570

Notes to financial statements

Contents

Other notes

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 policies. For this reason, a technical parent company has been determined for OP Financial Group.

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

The Act on the Amalgamation of Deposit Banks requires OP Financial Group's central cooperative, OP Cooperative, to prepare consolidated financial statements for OP Financial Group. OP Cooperative's Board of Directors 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 Board of Directors of OP Cooperative approved OP Financial Group's financial statements bulletin for issue on 10 February 2021 and the Board of Directors approved the financial statements on 23 February 2021.

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 2020. The International Financial Reporting Standards refer to standards and their interpretations adopted in accordance with Regulation (EU) No. 1606/2002 of the European Parliament and of the Council. OP Financial Group's obligation to prepare its financial statements in accordance with IFRS is based on the Act on the Amalgamation of Deposit Banks. OP Financial Group's notes also conform to the requirements of Finnish accounting and company legislation that complement IFRS regulations.

In 2020, OP Financial Group adopted the following standards and interpretations:

- OP Financial Group adopted the European Banking Authority's (EBA) guidelines on the application of the definition of default (Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013: EBA/GL/2016/07 and EBA/RTS/2016/06). The Guidelines harmonise the definition of default applied by European banks to their customers. The effects of the transition are presented in Note 3. Changes in accounting policies and presentation.

- Amendments to IFRS 3, IAS 1 and IAS 8 took effect on 1 January 2020. The amendments did not have any significant effect on OP Financial Group's financial statements.

- An amendment to IFRS 16 related to changes in leases and rent concessions granted to lessees that directly result from the COVID-19 pandemic and apply to lease payments that would have become payable no later than 30 June 2021. Applying only to lessees, this amendment became effective on 1 June 2020. As lessee, OP Financial Group has not applied for rent concessions related to its leases.

OP Financial Group's consolidated financial statements were prepared at historical cost, with the exception of financial assets and liabilities at fair value through profit or loss, financial assets at fair value through other comprehensive income, 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 Board of Directors must confirm any applicable accounting policies for which the IFRSs provide no guidelines. In accordance with the above, OP Cooperative's Board of Directors 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 Financial Group Risk and Capital Adequacy Report. A summary of capital adequacy is presented in OP Financial Group's Report by the Board of Directors.

2 Use of estimates

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

3 Consolidation principles

3.1 Technical parent company

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

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

3.2 Subsidiaries, associates and joint arrangements

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

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

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

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

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

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

Subsidiaries, associates or joint arrangements acquired during the financial year are consolidated from the date on which control or significant influence is transferred to OP Financial

Group while those that have been sold are de-consolidated from the date on which control or significant influence ceases.

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

3.3 Non-controlling interests

Profit for the financial year attributable to the technical owners of the parent and non-controlling interests is presented in the income statement, and total comprehensive income attributable to the owners of the parent and non-controlling interests is presented in the statement of comprehensive income. Profit shown in the income statement and the statement of comprehensive income 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. The market is 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 on the balance sheet date. The valuation techniques take account of estimated credit risk, applicable discount rates, the possibility of early repayment and other factors affecting the reliable measurement of the fair value of financial instruments.

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

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

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

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

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

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

5.2 Financial assets and liabilities

5.2.1. Amortised cost

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

The effective interest method uses the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability to the gross carrying amount of a financial asset or to the amortised cost of a financial liability. When calculating the effective interest rate, the central cooperative consolidated estimates 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 service and origination fees related to loan drawdown and they are amortised over the expected life of the financial instrument or a shorter period if that is appropriate. Fees that are not an integral part of the effective interest rate of a financial instrument and are accounted for in accordance with IFRS 15 include fees charged for servicing a loan, for example.

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

Interest revenue

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

a) purchased or originated credit-impaired financial assets. For those financial assets, OP Financial Group applies the credit-adjusted effective interest rate to the amortised cost of the financial asset from initial recognition.
b) financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets (or that are in stage 3). For those financial assets, 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 classifies financial assets into the following categories:

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

5.3.1 Loans and notes and bonds

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

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

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

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

2) Financial assets recognised at fair value through other comprehensive income are held within a business model whose objective is achieved by both

collecting contractual cash flows and selling financial assets. In addition, the contractual terms of the financial asset specify cash flows occurring on specific dates which are solely payments of principal and interest on the principal amount outstanding. Changes in the fair value are recognised in the fair value reserve. Impairment gains or losses and foreign exchange gains or losses are recognised in profit or loss. When a financial asset is derecognised, the cumulative profit or loss in the fair value reserve is reclassified from equity to profit or loss in net investment income as a reclassification adjustment. Interest calculated using the effective interest method is recognised in interest revenue or net investment income (insurance company investments).

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

Business model

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

Change in the business model

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

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

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

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

		as a result of the reclassification.
FVTPL	FVOCI	The fair value on the reclassification date becomes a new carrying amount. The effective interest rate is determined based on the fair value on the reclassification date.
FVOCI	FVTPL	The fair value on the reclassification date becomes a new carrying amount. A gain or loss previously recognised in other comprehensive income is transferred as an adjustment due to the reclassification from equity through profit or loss on the reclassification date.

Cash flow characteristics

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

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

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

When contractual cash flows are exposed, for example, to change in stock prices or a borrower's financial result, this is no basic lending arrangement and such financial assets are measured at fair value 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 the 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 stock investments.

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

5.3.3 Modification of contractual cash flows

Modifications in the contractual payment terms are made as a normal measure related to the management of customer relationship but also in situations where the customer's repayment capacity has deteriorated. The modification to the loan due to the customer's deteriorated repayment capacity is recognised as forbearance which typically means a moratorium for a limited time. 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 recalculates the gross carrying amount of the loan and recognises a profit or loss on the modification in net interest income in the income statement. Payment modifications are subject to regular monitoring and reporting to the management as an indicator anticipating customers' solvency.

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

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

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

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

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

5.3.5 Overlay approach

Equity instruments and mutual fund investments related to OP Financial Group's non-life and life insurance investment operations are classified as financial assets measured at fair value through profit or loss. OP Financial Group applies an overlay approach to a considerable proportion of these equity instruments, which will restore the profit/loss impact of these instruments to be aligned with IAS 39. These investments are treated as available-for-sale financial assets under IAS 39. Changes in the fair value of investments within the scope of the overlay approach are presented under the fair value reserve under equity. The 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.

At the time of their acquisition, available-for-sale financial assets under IAS 39 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, 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 an impaired equity instrument increases subsequently, this increase will be recognised in other comprehensive income.

5.4 Impairment

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

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

5.4.1 Classification of contracts into three impairment stages

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

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

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

Definition of default

In the IFRS 9 based calculation, OP Financial Group applies the same definition of default as in internal credit risk models (IRB). OP Financial Group assesses default using its internal rating system based on payment behaviour. For private customers, the definition of default is applied on a contract-by-contract basis whereas corporate customers are reviewed in terms of a group of connected clients. The customer is classified as a customer in default when the customer's repayment is considered unlikely, for example when the customer has registered payment default or it has been granted a forbearance in which the present value of the loan decreases by more than 1 per cent. Default extends to all credit obligations of an obligor in default among private customers when a significant proportion (20%) of private customer exposures are defaulted. In addition, the contract is defaulted when a payment related to a financial asset is over 90 days past due, at the latest.

The customer's default ends when it no longer meets the criteria for the definition of default and the subsequent probation period of 6–12 months has ended.

The definition of default is based on Article 178 of Regulation (EU) No 575/2013 (CRR) of the European Parliament and of the Council and on the European Banking Authority's (EBA) guidelines on the application of the definition of default (EBA/GL/2016/07 and EBA/RTS/2016/06).

OP Financial Group has applied a so-called two-step approach of the EBA Guidelines. The first step involved the change of the definition of default during the first quarter of 2020. The second step taken in the fourth quarter involved the calibration of credit risk parameters.

Significant increase in credit risk

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

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

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

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

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

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

5.4.2 Measurement methods

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

5.4.2.1 PD/LGD method

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

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

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

The lifetime LGD consists of the following three components: 1) cure rate, 2) collateral return and 3) non-collateral return. The values of the components depend fundamentally on a product type, industry (companies), collateral type and the time how long the contract has been in default. The macroeconomic factors and their forecasts affect the first two components.

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

In November, OP Financial Group updated its estimates of two LGD model parameters: the non-collateral return and the cure rate. The cure rate for impairment stages 1 and 2 was updated based on data complying with the new definition of default adopted in Q1/2020. The estimates for the non-collateral return and the cure rate for impairment stage 3 were made time-dependent so that they will decrease if the period of default or debt collection increases.

In December, OP Financial Group updated its lifetime PD model for corporate exposures based on data complying with the new definition of default adopted in Q1/2020, among other things. In addition, the Group further specified model segmentation and revised the explaining macroeconomic factors so as to include GDP and real interest rate (previously, GDP and 12-month Euribor).

In addition, the effect of the calibration of the private customer credit rating model has been taken into account in December based on the data according to the new definition of default adopted in Q1/2020.

Determining the period of a contract

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

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

Forward-looking information

The calculation model includes forward-looking information and macroeconomic scenarios. OP Financial Group's economists update macroeconomic scenarios on a quarterly basis and the scenarios are the same that OP Financial Group uses otherwise in its financial planning. Macroeconomic forecasts span five years and have been extrapolated for up to 30 years ahead using a production function. The macroeconomic factors used are: GDP growth, unemployment rate, investment growth rate, inflation rate, change in income level and 12-month Euribor rate. In addition, the house price index is used in LGD models. Three scenarios are used: baseline, upside and downside. Scenarios also include probability weights.

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

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

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

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

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

5.4.3 Impairment of notes and bonds

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

OP Financial Group uses a model in the calculation of the expected credit loss on notes and bonds that is based on credit rating information.

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

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

5.4.3.1 Classification of notes and bonds into impairment stages

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

5.4.4 Impairment of off-balance-sheet items

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

The expected credit loss is calculated for these items using the same principles as for loans. Likewise, increases in significant credit risk are assessed on the same grounds. The 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 at carrying amount 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 the Group has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof, it directly reduces the gross carrying amount of the financial asset.

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

5.5 Cash and cash equivalents

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

5.6 Classification and subsequent measurement of financial liabilities

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

Financial liabilities are classified at amortised cost using the effective interest method, except for derivative liabilities measured at fair value through profit or loss. In addition, investment contracts with no entitlement to discretionary participation feature issued by insurance companies are designated as measured at fair value through profit or loss. Liabilities held for trading also include obligations to deliver, to the counterparty, securities 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.

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

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

5.7 Netting

Financial assets and liabilities are offset in the balance sheet if OP Financial Group currently has a legally enforceable right of set-off in the normal course of business and in the event of default, insolvency or bankruptcy, and intends to settle the asset and liability on a net basis.

5.8 Derivative contracts

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

Standardised OTC derivative transactions entered into with financial counterparties are cleared in London Clearing House, in accordance with the EMIR regulation (EU 648/2012). In the model used, the central counterparty (CCP) will become the derivatives counterparty at the end of the daily clearing process. Depending on the clearing broker, the settled-to-market (STM) or collateralised-to-market (CTM) practice is used as the settlement model. In both models, daily payments of derivatives are offset with the central counterparty. In addition, the fair value change of derivatives (variation margin) is either paid or received in cash. In the STM model, the daily payment is determined on a contractual basis as final payment and part of the derivative contract's cash flows. The daily payment is recognised as a fair value change through profit or loss. In such a case, the derivative contract involves no fair value change other than the valuation difference between OP and the CCP. The difference is recognised in derivative assets or derivative liabilities (Sum of net liability positions) in the balance sheet. The CTM model differs from the STM model in such way that the daily payment has not on a contractual basis defined as the final payment but as collateral. It is, however, offset with the fair value of the derivative in the balance sheet. 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.

5.8.1 Hedging derivatives

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

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

5.8.2 Derivatives held for trading

The difference between interest received and paid on interest rate swaps held for trading is recorded in Net investment income in the income statement and the corresponding interest carried forward is recognised in derivative contracts in the balance sheet. 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.

5.9 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 hedging.

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

Due, however, to the Interest Rate Benchmark Reform, if the real result of the retrospective effectiveness test is outside of the limits concerned, OP Financial Group assesses whether hedge accounting can continue or be discontinued. This includes that hedging is still expected to be prospectively effective and the hedging relationship effectiveness can be calculated reliably. When assessing proactive effectiveness testing whether hedge is still highly probable, the reference rate will not be changed due to the Interest Rate Benchmark Reform. The effectiveness test also involves assessing any potential effects of market participants following the Reform on OP Financial Group's hedging relationship. OP Financial Group will stop applying the changes to hedging relationship effectiveness tests when uncertainty due to the Interest Rate Benchmark Reform ceases to affect cash flows based on reference rate of a hedged item or hedging derivative or when the hedging relationship ceases to exist. OP Financial Group applies hedge accounting based on IAS 39 and the related changes caused by the Interest Rate Benchmark Reform.

OP Financial Group set up a Reference Interest Rate Committee tasked with monitoring the progress of the Interest rate Benchmark Reform and its effects on OP Financial Group too. OP Financial Group has made a business continuity plan required by the Benchmarks Regulation that determines a substitute rate for contracts if no reference rates are not available or where the existing contract terms by product are identified. The plan is updated as the Reform progresses. OP Financial Group will adopt reformed reference rate in new contracts, based on market practice. When it comes to the old portfolio of contracts, the changes will be implemented by adopting practices applied in the market to replace IBORs.

5.9.1 Fair value hedges

Fair value hedging against interest rate risk involves long-term fixed-rate debt instruments (such as central bank debt, 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 an interest rate cap or a fixed interest rate. The Group uses interest rate options, forward exchange contracts and interest-rate and currency swaps (OTC swaps) as hedging instruments. Hedging against foreign currency risk applies to non-life insurance's and life insurance's foreign currency investments.

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

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

The calculation principles of the Euribor changed during 2019. In July 2019, the Financial Services and Markets Authority (FSMA) of Belgium granted authorisation related to the Euribor by virtue of the European Union Benchmark Regulation. This made it possible for the market participants to continue using the Euribor after 1 January 2020, covering both the existing and new contracts. OP Financial Group expects that the Euribor will remain a reference interest rate in the future too and does not expect to change the risk to be hedged to a second reference rate. For these reasons, OP Financial Group does not consider that the reference rate change would directly affect fair value hedges where the Euribor is the reference rate.

5.9.2 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 hedges are used to hedge the future interest flows of the loan portfolio defined on the basis of reference interest rate linkage. Interest rate swaps are mainly used as hedging instruments.

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

OP Financial Group has assessed to what extent cash flow hedges are dependent on the uncertainty associated with the Interest Rate Benchmark Reform on the reporting date. Hedged items and hedging derivatives continue indexing in respect of the reference interest rate that is not changed and whose quotations continue on a daily basis and whose cash flows are changed between counterparties as before. However, the duration of cash flow hedges exceeds one day, when the EONIA rate is no longer published but is replaced with the new €STR. The new reference rate is also expected to be replaced with the LIBOR. This transition and the new reference rate still involve uncertainty that may later affect the hedging relationship effectiveness or the assessment of the highly probable term. In respect of cash flow hedges either, OP Financial Group does not see that the Reform would cause any uncertainty with timing or Euribor cash flows on the reporting date of 31 December 2020.

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

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

7 Intangible assets

7.1 Goodwill

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

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

Goodwill is carried at cost less accumulated impairment losses. For the purpose of impairment testing, goodwill is allocated to cash-generating units (CGU), which are business segments, entities belonging to them or their internal business divisions. From the time of acquisition, goodwill is allocated to those CGUs or groups generating cash flow that are expected to benefit from synergies arising from the combination of businesses, and also to the lowest level with which goodwill is monitored for the purpose of internal management. If OP Financial Group reorganises its internal reporting structure, goodwill is allocated to the CGUs subject to such reorganisation in proportion to their fair values or on the basis of another method, which would better reflect goodwill related to the transferred business.

7.2 Testing goodwill for impairment

The cash-generating unit (CGU) to which goodwill has been allocated is subject to an annual impairment test or whenever there is any indication of the lowered goodwill of the unit. The value of the CGUs of OP Financial Group was, for the goodwill testing, determined by the Excess Returns method. Accordingly, the return on equity capital is deducted from the recoverable amount for the current and future financial periods. Any excess return is discounted by a discount rate corresponding to the return rate on equity capital in order to determine the present value of cash flows.

Forecasts used in cash flow statements are based on the cash flow expected for the next five years and on the terminal value of the testing unit that are discounted to present value. Cash flow forecasts derive from the strategy process based on the guidelines for OP Financial Group's development confirmed by the Supervisory Council of OP Cooperative and the related derived expectations of the future development of businesses.

7.3 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 contracts 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 contracts 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.

7.4 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 5–15 years.

7.5 Brands

Identifiable brands acquired through business combinations are measured at fair value upon acquisition. The estimated useful lives of brands are estimated to be indefinite, since they will generate cash flows for an indefinable period. These will not be amortised. 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 and A-Vakuutus (A-Insurance) brands, in accordance with IAS 36.

The value of brands is tested annually for impairment. The value of the brands was determined by using a method where their value was determined to be royalty savings accrued in the future from owning the brands, discounted to the present. The discount rate used in testing brands is the market-based equity cost defined for Non-life Insurance plus an asset-specific risk premium or 3%. The testing period of the brands has been determined to be five years under IAS 36.

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 inhouse 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. Research costs are recognised as expenses for the financial year.

7.7. Software as a service (SaaS)

The SaaS development costs are recognised in prepayments under other assets. The amount capitalised in prepayments is a project that is performed before the service provider can produce the service concerned. The other party has control in SaaS and it is not capitalised as an intangible asset. Prepayment costs are spread over the contract period from the date when the asset is ready for use. Purchased services and other project-related external costs, among other things, are entered in prepayments.

8 Property, plant and equipment

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

The estimated useful lives are mainly as follows:

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

At the inception of the lease, OP Financial Group assesses whether the contract concerned is a lease or contains a lease. It is the question of a lease treated under IFRS 16 if the following conditions are fulfilled in all respects:

- The contract is based on control over an identified asset in such a way that OP Financial Group companies or its employees have the right to decide on the use of the asset throughout the lease period when OP Financial Group is the lessee and the customer and its Group companies have decision-making powers related to the use of the asset when OP Financial Group is the lessor
- The contract includes rights and obligations and related payments
- The asset identified in the contract is used only by OP Financial Group companies or employees when OP Financial Group is the lessee, and by the customer or its Group companies when OP Financial Group is the lessor.

Recognition of assets leased out

On the date of inception, OP Financial Group classifies leased assets 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 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. The fixed duration specified in the contract is determined as the lease term in the leased contracts that may not be extended or terminated without a good reason or sanction.

Recognition of leased right-of-use assets

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

For leased contracts, OP Financial Group defines the lease term as follows:

- A fixed term that cannot be extended or terminated without any good reason or sanction or
- Based on management judgement, for a maximum of three years when it is the question of a property lease until further notice to which a mutual notice period applies. If the lease is fixed at first and is renewed to be valid until further notice as described above, the lease term is a combination of these. When such a lease has been terminated, the notice period is defined as the lease term. When determining the lease term, OP assesses that it is reasonably certain that the lessee stays on the premises longer because the property based on the lease has a central location and no substitutive property is necessarily available.
- The lessor's notice period if it is the question of a lease other than a property lease until further notice to which a mutual notice period applies. The lease term will always be renewed with a new notice period after the notice period unless the lease has been terminated. When determining the lease term, OP assesses that it is reasonably certain that leases have been concluded for a longer time because terminating and renewing such leases would not be profitable. Or
- The useful life of the leased property if it is shorter than the lease terms defined in a matter mentioned above.

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

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

OP Financial Group's leased contracts are mainly those related to premises, company cars and safety devices.

10 Employee benefits

10.1 Pension benefits

Statutory pension cover for OP Financial Group companies' employees is arranged by Ilmarinen Mutual Pension Insurance Company. Part of the statutory pension cover was managed through OP Bank Group Pension Fund until the end of 2020. OP Financial Group transferred the majority of the management of the statutory pension insurance portfolio to Ilmarinen Mutual Pension Insurance Company on 31 December 2018 and the remaining portfolio was transferred on 31 December 2020. Some OP Financial Group companies provide their employees with supplementary pension cover through OP Bank Group Pension Foundation or an insurance company.

Pension plans managed by Ilmarinen Mutual Pension Insurance Company are defined contribution plans and those managed by OP Bank Group Pension Fund are defined benefit plans in respect of funded disability and old-age pension benefits. Pension plans managed by insurance companies may be either defined benefit or defined contribution plans. All of the plans managed by OP Bank Group Pension Foundation are defined benefit plans.

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

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

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

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

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

10.2 Remuneration scheme

OP Financial Group has a short-term and long-term remuneration scheme in place. Those included in the scheme may receive bonuses either in cash only or as a combination of cash and a reference instrument decided by OP Cooperative's Board of Directors. Bonuses will be paid for work performed during the performance year. The maximum amount of the remuneration scheme 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 in the income statement and the corresponding adjustment is made in accrued expenses and deferred income.

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 are 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 latent defects insurance policies under the Housing Transactions Act.

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

11.3 Recognition and measurement of insurance contracts issued by insurers

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

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

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

The liabilities comprise the provision for unearned premiums and the provision for outstanding claims. The life insurance provisions for unearned premiums consist of the liability calculated from the expected net claims and operating expenses during the contracts' remaining maturities less future insurance premiums during the remaining coverage periods of the recognised policies. Non-life provisions for unearned premiums equal the liabilities arising from claims and other expenses expected for the remaining coverage periods of the recognised policies. Provision for outstanding 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 latent defects 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 outstanding claims consisting of both claims reserved for individual cases and statistically reserved claims. The provision, included in the provision for outstanding claims, for the future settlement of expenses is based on estimated costs.

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

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

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

11.3.2 Measurement of insurance contracts issued by life insurers

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

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

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

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

The company has savings at its own risk with interest rate guarantees ranging between 0.5 and 4.5%. The insurance liability of contracts whose interest rate guarantee is 4.5% has been supplemented so that the technical interest rate of insurance liabilities in the financial statements is permanently 3.5% as the insurance liability discount rate. In addition to this, supplementary interest rate provisions have been applied to reduce the discount rate of the guaranteed-interest portfolio for a specific period. The provision for outstanding 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 in the balance sheet. 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 is not sufficient, the liability amount will be increased by the shortfall and the shortfall will be recognised in the income statement.

11.5 Premiums written

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

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

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

Life insurance premiums and investment contract payments are recognised under premiums written on an accrual basis in such a way that contracts other than defined benefit group pension contracts do not generate insurance receivables. Neither commissions nor loan losses are 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

Salvage property that has come to the company's possession in connection with claims settlement or undisputable subrogation reimbursements related to claims are reduced from insurance liability.

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 outstanding 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 the coinsurance contracts, OP Financial Group treats only its share of the contract as insurance contracts and OP Financial 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 sheets exceed the insurance liabilities measured by discounting using a swap curve on a market consistency basis is reserved as liability for future bonuses.

12 Provisions and contingent liabilities

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

A contingent liability is a possible obligation arising from past events, whose existence will be confirmed only by the realisation of an uncertain future event beyond OP Financial Group's control. A present obligation which probably does not require fulfilment of payment obligation or the amount of which cannot be defined reliably is also considered as contingent liability. A contingent liability is presented as a note.

13 Equity 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 an allowance.

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.

Member cooperative contributions and the resultant owner-customer membership entitle owner-customers 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 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. Deferred tax assets are not recognised where generation of taxable profits, against which taxable losses or refunds could be utilised, is not likely. The greatest temporary differences in OP Financial Group are caused by tax provisions (such as loan loss provision), measurement of investments at fair value, and elimination of equalisation provision within non-life insurance.

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

15 Revenue recognition

15.1 Interest income

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

The customer margin of the interest rate cap and interest rate corridor loans would accrue net interest income as the customer pays the additional margin related to the derivative clause.

15.2 Net commissions and fees

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

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

In the Corporate Banking segment, commissions and fees are charged from private customers and corporate customers. Banking commissions and fees consist of those from lending and payment transactions. In addition, Corporate Banking charges fees outside of OP Financial Group, for example, for guarantees and the issue of securities. The abovementioned items consist of several hundreds of fee types whose performance obligations are fulfilled over time or at a point in time, according to the type of the fee. The performance obligations of lending and guarantee fees are mainly fulfilled over time while other those of other banking-related fees at a point in time. Commission income related to the Corporate Banking asset management operations consists of mutual fund and investment management fees. Commission income is mainly recognised as revenue over time during the contract period, and the monthly consideration is a contractual percentage of the client's investments or insurance savings under management. Mutual fund and investment management fees include performance-based management fees tied to investment performance. The performance-based management fees are not recognised as revenue until the criteria measuring the success of investment has been met highly likely.

The Insurance segment's contracts with which no underwriting risk is associated are recognised as revenue under IFRS 15 and presented in net commissions and fees. Commission income mainly consists of the life insurance total expense loadings, returns of unit-linked management fees, income from health and wellbeing services and of fees for insurance brokerage. The

life insurance expense loading contains a subscription fee for

the insurance premium (so-called kappa loading) and the management fee for insurance savings (so-called gamma loading). Other life insurance fees are recognised as revenue in accordance with IFRS 4 Insurance Contracts. Income from health and wellbeing services is recognised for each treatment visit after the service has been rendered. The fee is charged from the customer after the service based on the list of charges and fees. In occupational healthcare services agreements, income is recognised over time during the contract period and the fee is charged from the customer on a monthly basis as agreed. In healthcare and wellbeing services, OP Financial Group acts as the principal under IFRS 15, in which case the fee paid to the relevant entrepreneur is presented in commission expenses. OP Financial Group's partners pay commission income from broking insurance policies according to the consideration specified in the contract. The performance obligations are fulfilled over time and the fees are charged from customers on a monthly basis.

Fees of the Other Operations segment mainly consist of payment transfer fees. The performance obligations are fulfilled over time and the consideration amount is as agreed. The fees are charged based on the actual payment transactions.

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

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

16 Summary of presentation of income statement items

Net interest income	Received and paid interest on fixed-income instruments, the recognised difference between the nominal value and acquisition value, interest on interest-rate derivatives and fair value change in fair value hedging. Fees that are regarded as compensation for the risk taken by the bank associated with the financial instrument and as being an integral part of the financial instrument's effective interest rate.
Net insurance income	Insurance premium revenue from Non-life Insurance and Non-life Insurance claims as well as the risk result of Life Insurance.
Net commissions and fees	Commission income from lending, deposits, payment transactions, securities brokerage, securities issuance, mutual funds, investment management, legal services, guarantees, real estate services, insurance brokerage, life insurance expense loading, refunds of unit-linked insurance management fees as well as from healthcare and wellbeing services. Commission expenses for payment transactions, securities brokerage, securities issuance, mutual funds, investment management, insurance brokerage as well as for healthcare and wellbeing services.
Net investment income	Realised capital gains and losses on financial assets recognised at fair value through other comprehensive income, interest income, currency valuations as well as impairment losses and their reversals. Fair value changes in financial instruments at fair value through profit or loss and dividends and holdings. In addition, interest income and expenses related to financial assets held for trading. Income from loans and receivables recognised at amortised cost, and impairment loss. Fair value changes in investment property, rents and other property-related expenses. Life insurance credited interest on customers' insurance savings and change in underwriting provisions as well as non-life insurance unwinding of discount. Associated companies' income consolidated using the fair value and equity method.

Other operating income	Rental income and sales revenues from property in own use, and other income.
Personnel costs	Wages and salaries, pension costs and social expenses.
Other operating expenses	ICT production and development costs, purchased services, costs related to premises, charges of financial authorities, telecommunications, marketing, corporate responsibility and other expenses.
Impairment loss on receivables	Expected credit losses from customers, off-balance-sheet items and notes and bonds as well as final credit losses and their reversals.

17 Charges of financial authorities

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

17.1 Stability contribution

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

17.2 Deposit guarantee contribution

Amounts contributed to the former Deposit Guarantee Fund currently exceed the EU requirements governing the deposit guarantee level. By virtue of its rules, the former Deposit Guarantee Fund takes charge of the deposit guarantee contributions payable by its member banks to the new Deposit Guarantee Fund in proportion to which each member bank has made contributions to the former Deposit Guarantee Fund over the years. The Financial Stability Fund will determine the contribution for each member bank but will charge the amount directly from the former Deposit Guarantee Fund. The deposit guarantee contribution had no effect on OP Financial Group in 2019 and 2020 in terms of expenses.

17.3 Financial Stability Authority's administrative fee

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

17.4 Financial Supervisory Authority's supervision fee

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

17.5 European Central Bank's supervisory fee

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

18 OP bonuses to owner-customers

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

19 Segment reporting

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

OP Financial Group reports income statements and balance sheets for the following business segments:Corporate Banking, Retail Banking and Insurance. Non-business segment operations are presented under the Other Operations segment. Segments are reported in a way that is uniform with internal reporting submitted to the management. In segment reporting, OP Financial Group's Treasury is reported as part of Other

Operations not included in the business segments, as are income, expenses, investment and capital not included in actual business operations.

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

20 Critical accounting estimates and judgements

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

Liabilities arising from insurance contracts involve several discretionary factors and uncertainty. With respect to non-life insurance, estimates are based on assumptions about the business 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: 53. Sensitivity analysis of Non-life Insurance).

Liabilities arising from life insurance contracts involve several discretionary factors and uncertainties. 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 amount of operating expenses related to the loan discount rate, people's mortality assumption and future management of insurance policies (Note: 64. Information describing the character of Life Insurance operations, and sensitivity analysis of insurance liability.

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

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

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

- Selection of appropriate ECL models so that they describe the expected credit losses on the contract portfolio as well as possible
- Different assumptions and expert assessments made in the models
- Selection of the estimation methods of the parameters for the ECL models
- Determination of the contract's maturity for non-maturing loans (revolving credit facilities)
- Determination of model risk associated with the quality of the available modelling data and other data
- Proper grouping of contracts into different segments so that their ECL can be calculated using the appropriate model
- Selection of macroeconomic factors in such a way that their changes correlate with the contracts' probability of default
- Forecasting future macroeconomic scenarios and their probabilities.
- Extra provisions based on management judgement related to a certain industry due to COVID-19, for example
- Reductions in collateral value made on the basis of the geographical location of collateral based on management judgement

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

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

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

The management must assess when the market for financial instruments is 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 34. 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 40. Recurring fair value measurements by valuation technique). Income probably generated in the future by property in own use is based on the management's judgement (Note 24. Property, plant and equipment).

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

21 Government grants

Government grants mean support by which resources are transferred to an entity that has followed or will follow certain conditions related to its business in consideration of the support. Benefit that is received at an interest rate lower than that for the market interest rate of the public authority for the loan is treated as a government grant. The benefit lower than the market interest rate for the loan must be determined based on the difference between the loan's original book value and received payments However, government grant will be recognised only when it is reasonably certain that the entity fulfils the related terms and condition and that the grant will be given. Grants related to income are reduced from respective expenses in the financial statements and are recognised through profit for the periods when the expenses are recognised as expenditure that the grant is meant to cover.

22 New standards and interpretations

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

22.1 IFRS 17 Insurance Contracts

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

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

Insurance contracts are measured based on the general measurement model (GMM) using the following three parts on each reporting date:

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

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

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

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

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

The new standard means changes in the insurance contract valuation method and the presentation of the balance sheet and income statement. For the presentation of the balance sheet, the rights and obligations involved in insurance contracts are netted and presented either in assets or liabilities. Insurance service earnings are presented as subtotal in the income statement and separately net investment income that is separated from endowment insurance.

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

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

IFRS 17 must be applied for accounting periods beginning on or after 1 January 2023. The European Union has not yet adopted IFRS 17.

22.2 Other upcoming amendments to standards

In 27 August 2020, the IASB published a document entitled Interest Rate Benchmark Reform (Phase 2) that will amend IFRS 9, IAS 9 and IFRS 7. IFRS 4 and IFRS 16. The amendments must be applied for accounting periods beginning on or after 1 January 2021. Earlier application is allowed. The European Union adopted the amendments on 13 January 2021. These amendments constitute a continuation of the Interest Rate Benchmark Reform document, involving the following reliefs.

- A practical relief for financial instruments carried at amortised cost so that changing contractual cash flows due to the Interest Rate Benchmark Reform is treated by updating the effective interest rate, in which case the change does not cause a direct profit or loss.
- Further, hedge accounting is not discontinued although the reference interest rate changes during the hedging relationship but the risk to be hedged and related cash flows can be redetermined when the reference rate changes.

On the reporting date of 31 December 2020, the majority of OP Financial Group's receivables and liabilities are linked to the Euribor and the Euribor will also remain the reference rate in the future and the contractual cash flows or the hedged risk are not expected to be changed to another reference rate. Libor-linked liabilities and receivables are only small in number. OP Financial Group does not expect this change fo have any significant effect on the financial statements.

Note 2. OP Financial Group's Risk Appetite Framework

1 Overview of OP Financial Group's significant risks

OP Financial Group prepares its Risk Appetite Statement and Risk Appetite Framework to cover all operations and these general risk management principles are further specified for each earnings logic (by product and service). The bases for establishing earnings logics include services provided to customers, processes needed in the production of services, analyses reporting of operations and what risks will be caused to OP Financial Group by providing these services.

Because of the characteristics of OP Financial Group's business and industry, risks have two fundamental principles differing from each other: OP Financial Group may earn revenue through risks (earnings risks) or risks may be a consequence of something (consequential risks).

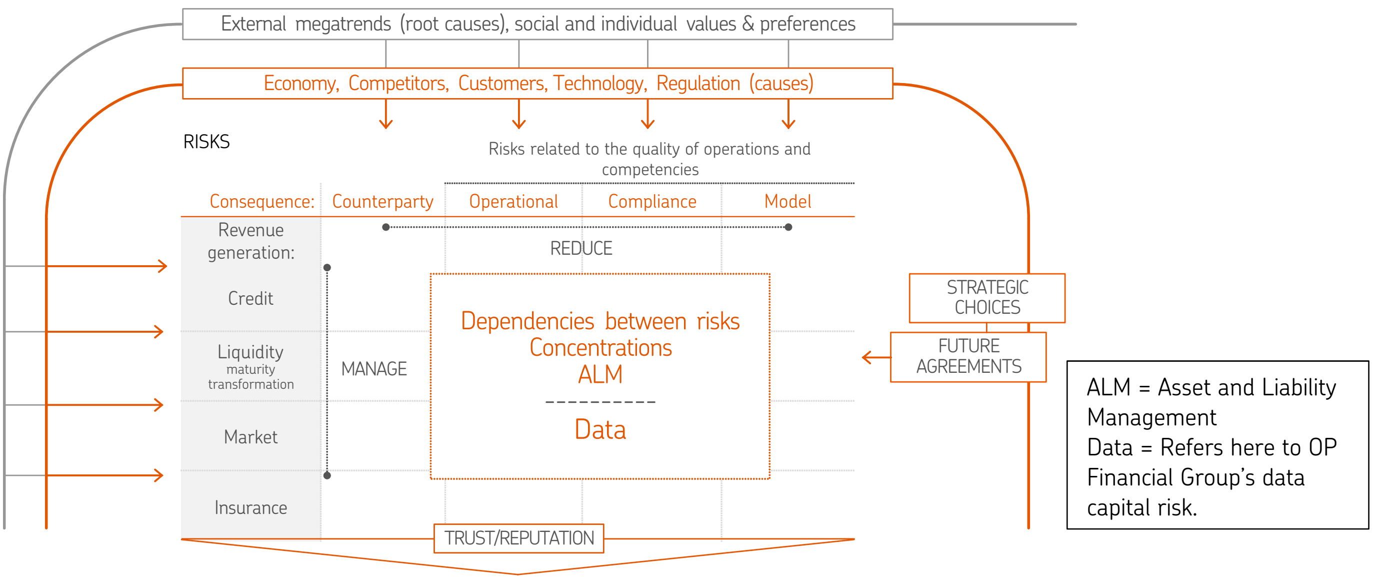
Because the review of earnings risks requires that OP Financial Group examine critical success factors from the perspective of business, the sources and management of earnings risk are grouped in more detailed descriptions of significant risks by earnings logic, except for Group-level risks that apply to all earnings logics.

Because the majority of consequential risks are Group-level ones and because the review of consequential risks focuses on reducing the negative effects of potential risk materialisation, these risks are grouped in the more detailed descriptions of significant risks at Group level.

The figure below shows a summary of OP Financial Group's significant risks and their sources. The sources and root causes of significant risks are presented in shaded grey and orange in the periphery of the figure's table. Similarly, the negative effect of the potential materialisation of risks on OP Financial Group's trust and reputation is also described outside the table.

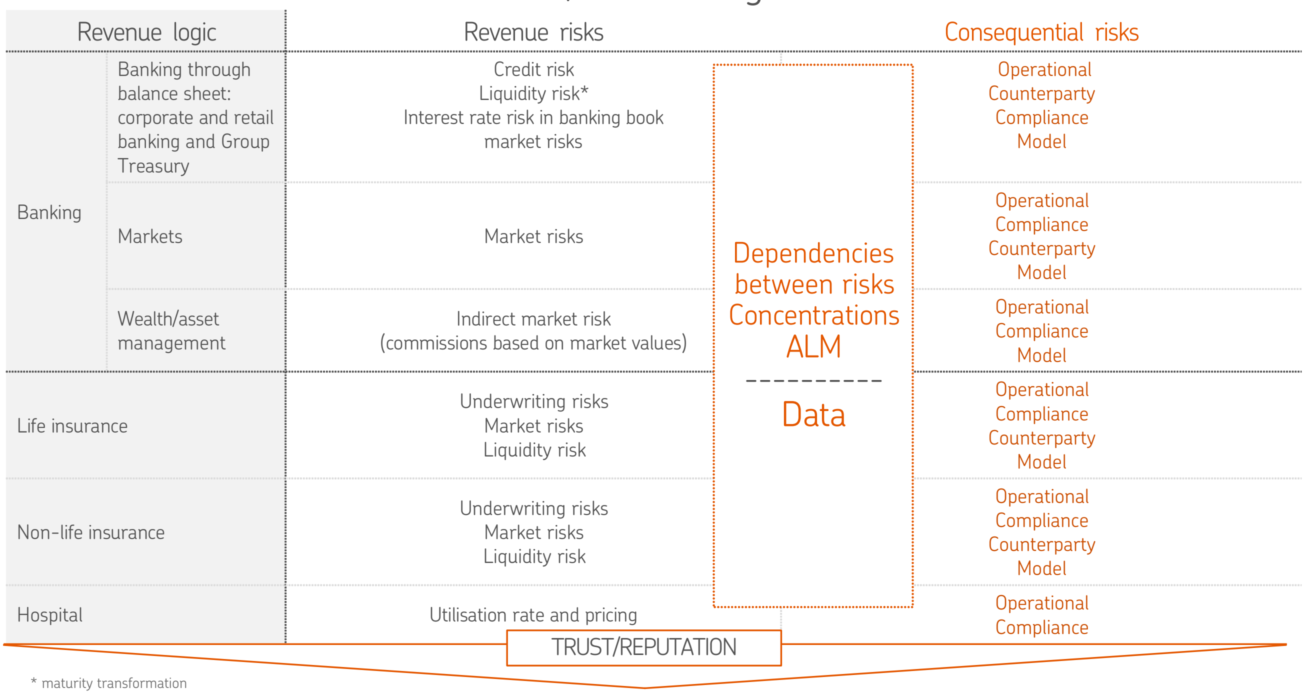
It is highly important to note the following in the figure's table:

- Taking earnings risks may cause consequential risks in addition to the sources/causes of OP Financial Group's external risks.
- The combined effect of earnings and consequential risks may result in new Group-level, due, for example, to concentrations and interdependencies between risks.
- Due to the different function of earnings and consequential risks, the Group primarily aims to manage earnings risks whereas it primarily aims to reduce consequential risks.



The figure below presents a connection between OP Financial Group's business segments, earnings logics and OP Financial Group's significant risks. The Banking earnings logics contain both the Retail and Corporate Banking segment. The Banking earnings logics are grouped into three earnings logics in risk management: Banking through the balance sheet, Markets and Asset Management earnings logics. Life and Non-life Insurance earnings logics and Hospital earnings logics belong to the Insurance business segment.

Risks/revenue logics



* maturity transformation

OP Financial Group's risk management and compliance are based on the principle of three lines of defence. The first line of defence comprises business lines, the second line of defence comprises risk management and compliance functions independent of the business lines/divisions and the third line of defence comprises Internal Audit. Each line of defence has its own role in performing the risk management process efficiently.

At OP Financial Group, the first line and the second line of defence in risk management cooperate on an ongoing basis. This is to ensure that all expertise needed to develop and manage operations is in use. The lines of defence build the risk management process together where the special features of OP Financial Group's business are taken into consideration. Responsibilities of the first and second lines of defence have been clearly divided.

- The business units fulfil OP Financial Group's strategy, are responsible for planning their own operations and their efficient and effective implementation and for their internal control. Only the unit concerned makes business decisions and is responsible for the quality of its customer service, its business continuity as well as its earnings and risks.
- The second line of defence prepares a risk management framework within the limits of which the first line of defence implements risk-taking and risk management related to daily business. The second line of defence supports the first line of defence by consulting them especially in matters that are part of their own expertise. The second line of defence also oversees compliance with the risk management framework and carries out an independent analysis related to the balance between earnings, risks and capital and liquidity acting as buffers as well as ensuring business continuity during incidents too.
- Internal Audit that is independent of other lines of defence acts as the third line of defence.

2 OP Financial Group's significant risks – sources and management

2.1 Definitions and sources of significant risks

Below is a summarised description of the definitions and sources of OP Financial Group's significant risks.

Credit risks	Credit risk refers to the risk that a contracting party to a financial instrument is unable to fulfil their contractual repayment obligations and thereby causes a financial loss to the other party.
Liquidity risks	Liquidity risk arises from the imbalance between the cash flow timing and amounts of granting and obtaining financing, insufficient collateral needed to obtain financing and the temporal and counterparty- and instrument-specific concentration. This may lead to a company's weaker liquidity if it has not sufficiently prepared for liquidity. Liquidity risk also involves market liquidity risk, which means a risk of failing to execute market transactions within a desired time and/or at an estimated price.
Market risks	Market risk refers to an unfavourable change related to the value of a contract or contract revenue due to price changes observed in the financial market. Market risks include interest rate, currency, volatility, credit spread, equity and property risks associated with on- and off-balance sheet items as well as other potential price risks.
Non-life insurance risks	Non-life insurance risks 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. Provision risk arises when the claims expenditure incurred for the losses that have already occurred is higher than expected or the timing of the payment of claims deviates from expectations.
Life insurance risks	Life insurance risks comprise biometric risks, cost risk and customer behaviour risks. Biometric risk arises when forecasts for the lifetime of those insured differ from those in insurance products that include endowment risk or forecasts for the mortality of those insured (e.g. unpredicted growth in mortality caused by a catastrophe) differ in the products with death risk. Biometric risk also arises when forecasts for when an insured person's incapacity for work begins differs in products including disability risk but that risk is very small in OP Life Assurance Company.
Counterparty risks	Counterparty risk refers to the risk of the contracting party not fulfilling its financial obligations. Counterparty risk may be related to a derivative contract, trading or a reinsurance contract.
Operational risks	Operational risk is caused by all business operations and it may result from insufficient or incorrect practices, processes, systems or external factors. OP Financial Group's operational risks also include ICT and security risks.
Compliance risks	Risks caused by non-compliance with external regulation, internal policies, appropriate procedures or ethical principles governing customer relationships.
Data capital risk	Data capital risk means potential losses, loss of reputation or deterioration of operations caused by uncertainty in decision-making, management and reporting related to data and information.

Model risks	Model risk refers to potential losses or loss of reputation caused by decisions made on the basis of the results of models due to errors made in the development, implementation or use of models. The model means a method used to translate the source data based on mathematics, statistics and expert assessments into data guiding business decisions or quantitative data related to financial position or risk exposure.
Reputational risks	Risk of the loss of reputation or trust caused by negative publicity or materialisation of a risk.
Concentration risks	Risks that may arise due to a business having an excess concentration of risk in individual customers, products, lines of business, maturity periods or geographical areas.
Risks associated with future business	Risk associated with the conditions and volumes on which similar or entirely new agreements are based.

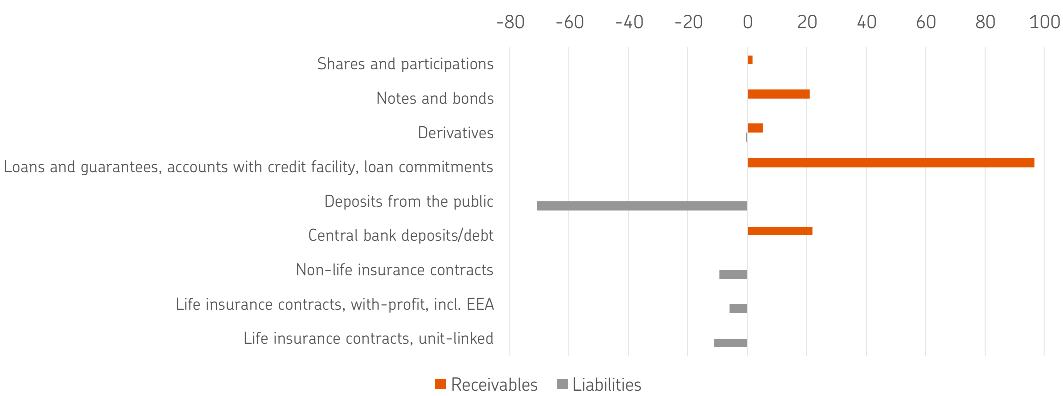
Counterparty risks and risks associated with future business are not dealt with as a specific whole because risks associated with future business may emerge in the form of various significant risks and counterparty risks emerge as part of various risk types.

Customer behaviour risk may materialise in several risk types (the impact of a change in customer behaviour affecting matters such as the value of insurance contracts, volume of deposits or early repayments of contracts).

Residual risk is the risk which cannot be eliminated or which the entity is unwilling to eliminate. Residual risk can be considered synonymous with risk. As such, residual risk is not an equivalent concept to the significant risks described above. Instead, residual risk can be considered to apply to any of the significant risks described above.

The graph below describes risk types associated with key financial instruments and illustrates the significance of risk types by means of the balance sheet values of each financial instrument (31 December 2020).

Key instruments, associated risk types and volumes, € billion



	Credit	Market	Operational	Under-writing	Liquidity
Shares and participations		X	X		X
Notes and bonds	X	X	X		X
Derivatives	X	X	X		X
Loans and guarantees, accounts with credit facility, loan commitments	X	X	X		X
Deposits from the public		X	X		X
Central bank deposits/debt		X	X		X
Non-life insurance contracts		X	X	X	X
Life insurance contracts, with-profit, incl. EEA	X	X	X	X	X
Life insurance contracts, unit-linked		X	X	X	X

2.2 Banking risks

2.2.1 Credit risks

OP Financial Group manages its credit risk through the Group-level guidelines and principles and quantitative risk limits. These are specified in Banking risk-taking policy lines, limits and control limits, qualitative and quantitative targets as well principles governing customer selection, collateral and covenants. Quantitative and qualitative target levels balance out the business targets and moderate risk appetite. Limits and control limits set a maximum for risk-taking. These help to ensure the sufficient diversification of the loan portfolio while avoiding the emergence of too large risk concentrations.

Credit risk management is based on careful customer selection, active customer relationship management, good knowledge of customers, strong professional skills and comprehensive documentation. The day-to-day credit process and its effectiveness play a key role in the management of credit risks. The Group also manages credit risk through the selection of the range of products and product terms and conditions. Risk associated with new lending is managed through well thought-out customer selections and the avoidance of risk concentrations. In addition, the Group makes use of techniques for reducing credit risks (collateral and guarantees). It also makes active use of covenants. Managing risk associated with the loan portfolio is based on good customer relationship management and the proactive and consistent management of problem situations.

The customer's sufficient repayment capacity is a prerequisite for all lending. Creating a group of connected clients properly provide a foundation for credit risk management. Without a clear picture of which parties constitute the group, what the structure of the group is like and what its repayment capacity comprises, it is not possible to get a true picture of the group and understand the risk what lending to the group involves. Each business unit identifies the group of connected clients and their interdependencies and describes them in OP Financial Group's systems.

It is necessary to collect sufficient up-to-date information on customers that cause credit risk to assess their creditworthiness. Creditworthiness comes from the customer's willingness to pay and repayment capacity. They both affect the customer's borrower grade. Sufficient and correct basic information is used to ensure that the customer can be rated with a correct credit rating model and that the borrower grade gives a true picture of the customer's creditworthiness risk. Each business unit ensures that its customers' borrower grades are constantly valid and up to date and, if necessary, updates the grade if the customer's situation changes. This is how the loan portfolio of the bank concerned and the entire OP Financial Group can be monitored on a real-time basis.

Collateral management is based on an independent collateral assessment, the validity of pledges and the fact that the collateral can be realised so that we can continuously maintain a realistic view of the hard collateral securities that secure receivables. The values of assets pledged in security of receivables must give a true and real-time picture of the collateral position related not only to an individual customer but also the entire loan portfolio. When valuing illiquid collateral securities, it is necessary to consider the financial standing of the collateral asset owner. The weaker the asset owner's financial standing is, the bigger should be the weight of the realisation value in estimating the collateral asset.

Financing decision-making is based on the principle of segregation under which the person preparing financing may not make the financing decision alone. Considering that financing decisions are about risk-taking decisions, those making the decisions must be aware of all information relevant to decision-making. All credit risk decisions are made on a business-specific basis. Decision-making is guided by OP Financial Group's Risk Appetite Statement (RAS) and the target risk exposure specified in the risk policy. Decisions that deviate from the target risk status specified in the risk policy must be explained on a broader basis. The central cooperative's Risk Management assesses compliance of the most significant financing projects with the risk policy and reports to the management of OP Financial Group and the management of Group banking entities a situational picture of compliance with the risk policy.

The bank's senior management and management body monitor closely the bank's credit risk exposure. The bank's management is responsible for keeping the members of the management body informed in the event that the bank's operational risk-taking deviates from the risk policy approved by the management body, in order for the Board of Directors, as its role requires, to monitor the trend in the bank's risk exposure and, if necessary, issue instructions to the management at operational level concerning risk-taking.

From the bank's perspective, credit risk materialises in a situation where the customer becomes insolvent and cannot fulfil their credit obligations without the bank taking measures, such as realising collateral. It is therefore important that customers whose repayment capacity has weakened or a significant threat is posed to their repayment capacity are promptly identified in both the financing process and the customer relationship management process.

Customers that are most significant to the bank and whose risk of default has increased clearly or another significant threat is related to their repayment capacity must be placed under special control. For these customers, the bank must prepare an action plan on what measures should be taken to resolve the customer' situation from the bank's perspective and to minimise the risk the bank may be exposed if materialised. Monitoring and documenting potential customers in default or actual customers in default are more intensive and extensive than among less risky customers, so that the bank is actively aware of changes in the customer's situation and can immediately react to the changed situation.

Measuring credit risk

OP Financial Group measures credit risk using the ratio of economic capital requirement for credit risk to exposures at default, the ratio of non-performing receivables to the loan and guarantee portfolio and the ratio of expected credit losses to the loan and guarantee portfolio. What is also measured is the proportion of corporate exposures in different borrower grade baskets, and the average rating of corporate exposure. The risk policy sets limits for these metrics. In addition, loan portfolio concentrations are monitored by customer, industry and country. The Group also measures the growth differential of the loan portfolio and credit risk economic capital to ensure balance between growth and risk-taking. Limits deriving from Group-level limits have been set for the business segments engaged in banking.

Limits set in the risk policy can be supplemented with qualitative targets set in the operating instructions of each segment that may be segment- or entity-specific. Targets may be set for the entire loan portfolio or separately to personal or corporate customer financing. Furthermore, it is possible set targets measuring the quality of the credit risk process.

In order to ensure sufficient diversification of the loan portfolio and efficient capital allocation, customer segmentation is used to manage the loan portfolio. Customer segments have been defined to ensure that receivables in each individual segment are homogenous in terms of credit risk to enable a coordinated risk policy. By utilising segmentation and the breakdown by borrower grade, the Group presents the loan portfolio target status in the risk policy, which is not binding on the business unit concerned but the business unit should control credit risk-taking in such a way that the target state will be achieved.

OP Financial Group utilises internal credit risk models in risk assessment. In addition to the models used for assessing probability of default (PD), the Group uses models for predicting loss given default (LGD) and exposure at default (EAD) to measure credit risk. Exposure at Default (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 (LGD) is an estimate of a financial loss incurred by the bank, as a share of EAD, if the customer defaults. Procedures based on model risk management are applied to the models used in credit risk assessment.

OP Financial Group's internal credit rating system

The credit rating system means all of the methods, processes, controls, data collection and IT systems that support the assessment of credit risk, the assignment of exposures to rating grades or pools, and the quantification of default and loss estimates that have been developed for certain types of exposures. OP Financial Group's credit rating system applies to all Group entities.

The rating uses both expert rating and automated rating. In expert rating, the Group has seen it appropriate to separate business and risk management responsibilities in such a way that decisions are centralised in the rating decision-makers within the independent Risk Management. The banks in charge are responsible for continuously monitoring the credit rating process, and the ratings must always be kept up to date. Customer credit rating must give a true picture of the customer's status and repayment capacity, and the lending decision must be based on the existing and up-to-date borrower grades. Credit rating controls customer selection, consequences of insufficient collateral and exposure pricing.

OP Financial Group uses an internal 16-level scale of A–F to assess the probability of default for its private customer agreements, with F representing borrowers in default. The Group assesses monthly all private customer agreements' PD using a loan portfolio rating model. The loan portfolio rating is based on a customer's basic data, payment behaviour and other transaction history data. Average PDs have been calculated for each borrower grade for a period of 12 months.

The rating based on the application stage for now supports the loan approval process, credit risk assessment and the pricing of new loans. OP cooperative banks and the Group's asset and sales finance solutions and unsecured consumer loans have their own application stage models.

OP Financial Group assesses the probability of default of its **corporate customers and credit institutions as counterparties** using a 20-level credit rating system on a scale of 1.0–12.0, with 11–12 borrower grades representing customers in default.

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 makes a rating proposal on the basis of what is suggested by the model and of 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 weak customers, on a half yearly basis.

Suomen Asiakatieto's automated rating model, Rating Alfa, forms the basis of small corporate customers' A rating. The rating Alfa variables include information on payment default and payment practices of the company and its persons in charge, key indicators based on financial statements and the customer's basic data. Risk scores provided by Rating Alfa have been described (calibrated) into OP Financial Group's internal borrower grades. 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 banks must at least once a year assess the validity of the borrower grade of A rated customers and they must assess customers with a low borrower grade and those on the watch list on a half-yearly basis. Responsibility for the assessment rests with the bank in charge. The borrower grade for the most significant A rated customers is approved by the central cooperative's Risk Management.

Low exposure corporate customers are rated using a rating model for low exposures (P). 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.

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.

Risk Management maintains a more detailed description of the internal credit rating system and reports regularly on its effectiveness as part of OP Financial Group's risk analysis and separately to the Risk Management Committee of the Executive Management Team.

2.2.2 Liquidity risks

Identifying liquidity risks

OP Financial Group's Treasury and other business units plus Risk Management continuously identify and assess risks associated with funding and business and other business environment. In the risk assessment of new products, services, business models, processes and systems, every business unit must take account of liquidity risks, too. At least once a year, Risk Management together with business representatives make a comprehensive liquidity risk assessment to ensure that the capital adequacy assessment process (ILAAP) is appropriate and adequate in relation to the Group's liquidity risks.

OP Financial Group's key source of liquidity risk is banking where inflows and outflows of financing does not take place at the same time. In such a case, the bank is exposed to refinancing risk due mainly to lending with a long maturity and the differences between the maturity of deposit funding dependent on customer behaviour and the illiquidity of receivables. At the same time, the bank is exposed to funding concentration risk as regards the counterparties of deposit and wholesale funding, availability and maturity of finance. Lack of market liquidity may reduce liquid assets held by the bank.

Assessment and measurement

The Group assesses the future cash flows of receivables, liabilities and off-balance-sheet commitments based on the contract maturity date or repayment programme, expert assessments or statistical models based on customer behaviour history.

Structural funding risk is measured on the difference between cash inflows and cash outflows in different maturities. In addition, the Group calculates the regulatory Net Stable Funding Ratio (NSFR) which determines the amount of stable funding sources expected to span over one year in proportion to assets requiring stable funding.

From the perspective of the relevant authority, funding liquidity risk is measured using the Liquidity Coverage Ratio (LCR). The sufficiency of the liquidity requirement in terms of time is assessed though the maturing items on the balance sheet. Based on a financial perspective, the Group measures the sufficiency of the primary liquidity buffer, based on stress testing, and of the liquidity buffer.

The Group measures funding concentration risk by calculating the amount of bond funding with a maturity of rolling 12 months and 3 months. In the time horizon of less than 12 months, the Group measures the total wholesale funding amount, comprising short- and long-term wholesale funding, for 3 months. When it comes to deposit funding, the Group monitors the concentration of the largest deposit volumes. Concentrations by counterparty and instrument are also subject to monitoring.

The Group measures its asset encumbrance by proportioning encumbered assets to the aggregate amount of balance sheet assets and collateral securities.

Risk assessment and measurement methods related to liquidity buffer investments are described as part of market risks.

Liquidity stress testing

The adequacy of OP Financial Group's liquidity buffer and buffer items is assessed through various scenarios. OP Financial Group-specific and market-specific scenarios as well as their combination are used as stress scenarios. The scenarios must cover both short- and long-term stress conditions. When measuring member bank-specific structural funding risk, the liquidity requirement based on the regulatory stress scenario is counted as a deposit in Treasury on a bank-specific basis. A reverse stress test is used in connection with the Group's Recovery Plan. Senior management confirms the scenarios to be used, use and reporting of stress test results.

Funding plan

In its funding plan, OP Financial Group must take account of its member banks' estimate of the funding need for years to come. The funding plan defines guidelines for wholesale funding for the next few years. The Group updates the plan in the course of the year, if needed. Deposit funding is primarily based on the business strategy and plan. The funding plan specifies the sources of wholesale funding and presents how the Group covers its need for the most important wholesale funding sources in view of the depth of the market and sufficient diversification, as well as defines decision-making powers. The funding plan must also take account of unfavourable scenarios lasting several years and of abrupt changes in key funding items.

Non-euro liquidity management

OP Financial Group carries out non-euro funding due to the diversification of funding sources. Since almost all of the Group's receivables are in euros, the Group mainly converts its non-euro funding into euros through derivative transactions in connection with an issue.

According to liquidity regulation, a non-euro currency is significant if non-euro liabilities account for over 5% of the amalgamation's balance sheet total. The Group monitors significant currencies every month when it produces its liquidity report to the supervisor. Although the Group hedges wholesale funding items, non-euro reserves may be needed for the most commonly used currencies in case of customers' use of currency credit limits.

Management of intraday liquidity

OP Financial Group's Treasury monitors intraday funding sources and anticipates and monitors the execution of intraday payments. The Group holds intraday funding sources to the amount that it can make payments due on the banking day.

Based on the liquidity contingency plan, the Group can raise its level of preparedness even if intraday liquidity is disturbed in order to ensure efficient operations in the case of an increased threat of a crisis.

Liquidity buffer

From the financial perspective, OP Financial Group's liquidity buffer is divided into the primary and secondary liquidity buffer. The definition of the primary liquidity buffer is based on eligible collateral for central bank refinancing that is actively managed by Group Treasury from the basis of liquidity management. The primary liquidity buffer consists of a cheque account with the Bank of Finland and notes and bonds eligible as collateral for central bank refinancing held by Group Treasury. The secondary liquidity buffer consists of other notes and bonds held by Group Treasury that have not been primarily acquired for liquidity management, and of OP Corporate Bank's notes and bonds and corporate loans eligible as collateral for central bank refinancing. Notes and bonds included in the liquidity buffer must be unencumbered and available for sale or use as collateral at any time.

From the regulatory perspective, OP Financial Group's liquidity buffer consists of the liquidity buffer that fulfils the criteria for liquidity buffer requirement provisions (=LCR buffer).

Group Treasury draws up an investment plan at least once a year that includes liquidity buffer investments held by Group Treasury. The investment plan applies the restrictions and objectives set in OP Financial Group's Risk Appetite Statement (RAS) and Risk Policy for market risk, credit risk and funding liquidity risk. The investment plan establishes, to the appropriate extent, a framework for testing the liquidity of notes and bonds.

The Group diversifies investments, for example, by product, counterparty and country, in view of both internal risk appetite and external regulatory requirements.

Collateral management and asset encumbrance

Collateral securities in this context mean OP Financial Group's assets that are used as collateral to fulfil liquidity needs either in normal conditions or in stress conditions. On a centralised basis, Group Treasury monitors collateral and is responsible for its use and transfer.

Home loans serving as collateral for covered bonds issued by OP Mortgage Bank constitute the largest source of asset encumbrance in the balance sheet. In addition, central bank operations and derivatives business are mainly other sources of asset encumbrance. From the perspective of preparing for liquidity needs, the Group restricts asset encumbrance through quantitative limits specified in its Risk Policy.

To increase liquidity potential, it is necessary to identify the eligibility of the balance sheet receivables as collateral and create readiness to use receivables as collateral.

Securing liquidity in stress conditions

OP Financial Group's liquidity contingency plan establishes a framework that safeguards the Group's ability to meet its payment obligations during a liquidity crisis as well. The plan provides well-defined operational guidelines and operating models for identifying an increased liquidity risk while directing OP Financial Group to timely and appropriate actions to reduce liquidity risk by ensuring efficient organisation and activities in case a threat of crisis is imminent. The contingency plan specifies control and monitoring practices for each liquidity level, which become more rigorous when moving up to the next level.

Furthermore, OP Financial Group's Recovery Plan includes liquidity management recovery measures.

Liquidity risk reporting

The Group reports liquidity risks to the central cooperative's management on a regular basis and, with a heightened threshold level of the liquidity status, will adopt weekly or daily progress reporting practices whenever necessary. OP Financial Group companies report liquidity risks to their boards of directors regularly, applying at least the level which has been set for control limits and limits.

As part of OP Financial Group's risk analysis, Risk Management reports quarterly to the Risk Committee, which operates under the central cooperative's Board of Directors, on the implementation of the liquidity strategy and the Banking risk policy lines. The report involves primarily assessing funding changes at amalgamation level relative to the customer business funding need and changes in deposits and wholesale funding and related customer behaviour. Through stress tests, reporting also assesses the short-term and long-term sufficiency of internal liquidity buffers, the funding structure of banking and changes in regulatory requirements.

The functionality of the models utilised in liquidity risk management is ensured as specified in the principles of model risk management described as part of model risks.

Liquidity management and control within the amalgamation

Liquidity regulation as such is not applied to the amalgamation's companies but, with the ECB's permission, the central cooperative may give special permission to its member banks to deviate from the liquidity regulation. As the central institution of the amalgamation of cooperative banks, OP Cooperative has granted its member credit institutions special permission, under the Act on the Amalgamation of Deposit Banks, pursuant to which the liquidity requirements set for credit institutions mentioned in Part VI of the EU Capital Requirements Regulation are not applied to the member credit institutions. Liquidity based on the regulation is subject to supervision and reporting at the level of the cooperative banks' amalgamation. The prerequisite for the special permission is that the central cooperative gives the amalgamation's companies instructions on risk management needed to secure liquidity and other qualitative requirements, and supervises compliance with these instructions.

The central cooperative senior management is responsible for organising OP Financial Group's centralised liquidity risk management according to the liquidity strategy policy lines. It must ensure that the management and supervision of the amalgamation's liquidity is at all times in accordance with the extent and quality of business and fulfils regulatory requirements. In the sales control of borrowing and lending, the management pays attention not only to growth and profitability targets but also to liquidity features. Product development related to customer service must also aim to reduce risks associated with the liquidity and funding structure.

OP Corporate Bank's Board of Directors and OP Mortgage Bank's Board of Directors approve OP Financial Group's funding plan. The central cooperative's senior management approves the Liquidity Contingency Plan which contains the control and supervision procedures of the liquidity status based on various threshold levels as well as funding sources.

As OP Financial Group's treasury, OP Corporate Bank plc is tasked with securing the liquidity of the entire Group and each OP cooperative bank or Group company. The Group puts its entities' liquidity into its Treasury's cheque account with the Bank of Finland. This means that the Group always manages its overall liquidity position through the account on a centralised basis. OP Financial Group's Treasury is in charge of the Group's wholesale funding, manages the Group's short-term liquidity, maintains the liquidity buffer, manages the Group's minimum reserve on a centralised basis and is responsible for managing intraday liquidity risk. OP Corporate Bank manages on a centralised basis the Group's wholesale funding in the form of debt capital and equity capital, while OP Mortgage Bank manages wholesale funding based on covered bonds.

Based on the decision by the Board of Directors or a body it has authorised, Group Treasury may use the collateral securities in the entire OP Financial Group in a normal circumstance. In a severe liquidity crisis caused by money and capital market disruptions or by other reasons or in preparing for it the central cooperative's Board of Directors, or a body it has authorised, obliges the amalgamation's member banks to either sell loans to OP Mortgage Bank or to place part of their loan portfolio as collateral for the covered bond issued by OP Mortgage Bank through an intermediary loan. The amounts of the loans to be needed are based on the Group-level need and are determined for each bank. The decision may be put into practice based on a decision made by the central cooperative's Board of Directors or a body it has authorised. Member banks are committed to immediately executing the measures related to the decision.

The primary funding sources of OP cooperative banks' lending include equity capital, deposit funding and funding for intermediary loans from OP Mortgage Bank. The use of intermediary loans reduces the need for OP Financial Group's senior funding.

If surplus liquidity emerges in an OP cooperative bank's customer business, it will be channelled to investment products provided by the Group's Treasury to support the implementation of the entire OP Financial Group's mission. Investment is not counted among the basic tasks of OP cooperative banks.

Allocation of liquidity risk costs within the amalgamation

The costs of external wholesale funding must be reflected in the pricing of customer business.

The costs of wholesale funding and liquidity buffer maintenance are allocated among member banks based on the matching principle adopted by the central cooperative senior management. The costs of liquidity maintenance are allocated through liquidity deposits and the costs of wholesale funding are allocated through the margin added to the base rate of OP Financial Group's loans or by using another practice.

2.2.3 Market risks

Interest Rate Risk in the Banking Book (IRRBB) management strategy

Around a third of OP Financial Group's income is based on net interest income. Consequently, the strategy of the management of the interest rate risk in the banking book forms a key component in ensuring the Group's earnings stability. As part of market risk, the interest rate risk in the banking book has been defined as one of OP Financial Group's significant risks.

The banking book comprises on- and off-balance sheet items of OP Financial Group's banking that have not been determined to be included in items within the trading book. Interest rate risk in the banking book is a structural interest rate risk that is not taken but it emerges because of the nature of business.

The principles governing the management of the interest rate risk in the banking book establish the conditions for the fulfilment of the new regulatory requirements applying to IRRBB (Interest Rate Risk in the Banking Book). Accordingly:

- The senior management is responsible for arranging the management of interest rate risks in the banking book in OP Financial Group's banking in accordance with the principles of the IRRBB strategy.
- The interest rate risk management practices are justified, solid and documented.
- Each member bank in the amalgamation bears the interest rate risk in its banking book and is responsible for managing it.
- Optionalities included in assets and liabilities are taken into account in the models used to measure interest rate risk. The functionality of the models is ensured as specified in the principles of the model risk management described as part of model risks.
- Interest rate risk is measured against changes in the level of the yield curve and in stress tests against changes in the yield curve shape.
- The interest income risk metric is used to measure interest income risk, and the present value risk metric to measure interest risk of the on- and off-balance sheet items over their entire term to maturity.
- Economic capital is allocated for interest rate risk in the banking book in relation to interest rate risk.

- The Group carries out stress tests on the interest rate risk on a regular basis.

Each member bank manages interest rate risk in the banking book within the scope of the risk policy and limits, other guidelines and targets issued by the central cooperative, and the terms and conditions of accounts, deposits and loans. As part of their annual planning, member banks prepare an ALM plan that includes a management plan for their interest rate risk in the banking book. The interest rate risk in the banking book is hedged using instruments offered by Group Treasury. Each member bank must demonstrate adequate knowledge of using derivatives for hedging purposes.

Using the risk assessment procedure applied to OP Financial Group's new products, services, business models, processes and systems ensures that the characteristics of interest rate risk management have been understood and described appropriately.

Based on the loan terms and conditions, the minimum reference rate of zero is applied to a considerable number of loans. In technical terms, zero floors are assessed to remain with high probability because there has not been any discussion on abandoning it within the sector and in public. Implementing the removal of zero floors of the total interest rate requires a legislative amendment which defines how customers are compensated for the negative reference interest rate and how it is treated in taxation. Stress tests are used to assess the effects of the removal of zero floors.

Equity capital is considered an item that finances business. Interest on Profit Shares is taken into account in risk calculation, according to customer promise and the contract rate of subordinated loans. Share capital, cooperative capital and earnings all are free of interest.

The central cooperative ensures that the interest rate risk transfer reflects in the financial statements of the Group and its major companies in accordance with the nature of business through centralised hedge accounting.

As part of OP Financial Group's risk analysis, Risk Management reports quarterly to the Risk Committee, which operates under the central cooperative's Board of Directors, on the implementation of the strategy of the management of interest rate risk in the banking book and the Banking risk policy.

Managing other market risks in banking through the balance sheet

Other market risks associated with earnings logic arising from banking through the balance sheet are chiefly due to the management of OP Financial Group's liquidity buffer and OP Corporate Bank's portfolio of bonds.

OP Corporate Bank's Group Treasury manages OP Financial Group's banking liquidity buffer. The regulatory liquidity coverage ratio (LCR) determines the constraints on the size and allocation of the liquidity buffer. Alongside Group Treasury deposits, the liquidity buffer contains the liquidity buffer portfolio, and items in the liquidity buffer portfolio must conform to the regulatory creditworthiness and liquidity requirements. For this reason, the portfolio includes securities carrying a very low likelihood of credit losses materialising. Most often, these securities have fixed interest rates, so their value varies depending on movements in market rates and credit spreads. The decision has been taken to recognise the securities in the portfolio at fair value through other comprehensive income, so changes in the value of these securities are recognised in the fair value reserve included in the capital base. Such changes, therefore, have an impact on capital adequacy.

The liquidity buffer portfolio is monitored and managed using market risk management methods:

- The earnings of the liquidity buffer portfolio are based on bearing credit spread risk. Derivatives are used to hedge interest rate risk.
- The Banking risk policy determines the risk measurement methods and risk-taking limits, as well as other restrictions.
- An investment plan is prepared for the investment portfolio, describing the goals of investment activities and the principles of portfolio management. OP Corporate Bank's Board of Directors approves the investment plan.
- The Group ensures sufficient portfolio diversification by means of restrictions by issuer.

In addition, OP Corporate Bank invests in corporate bonds. OP Corporate Bank's bond portfolio is OP Corporate Bank's equivalent to lending. An investment plan is prepared for each portfolio, describing the goals of investment activities and the principles of portfolio management.

The Group manages equity and real estate risk in Banking primarily through instructions which strictly limit risk-taking. Real estate risk chiefly involves real property units used by OP cooperative banks. The current Banking business models do not call for an increase in equity or real estate risk.

In car dealer financing, OP can offer products where the risk of the car's resale value at the end of the contract period is borne by OP Corporate Bank. If the actual selling price is less than the estimate used in the pricing of the contract, the revenue will be lower than targeted or a loss is made. To manage risks, it is important to limit the financed assets so that their prices can be predicted and their realisation goes smoothly.

OP Financial Group uses derivatives for trading and hedging purposes. Derivatives may only be used for trading by the central cooperative consolidated's Group Treasury and Markets, which have specific trading limits. The other member banks use derivatives for hedging purposes only.

Risk management in Markets

OP Financial Group's trading in capital market products has been centralised in OP Corporate Bank's Markets function. This includes the price setting and market hedging of interest rate hedging products for loans granted by OP cooperative banks and OP Corporate Bank, separate interest rate hedges, foreign exchange trading, structured investment products, trading in bonds and commodity derivatives. Risks taken include interest rate risk in various currencies, currency risk, currency risk, volatility risk of options, credit spread risk and counterparty risk. Markets is responsible for managing the Group's currency exposure and does foreign exchange transactions on the market according to needs. Markets manages risk exposures by actively trading on the market. Markets monitors risks and earnings on a daily basis. In addition, Risk Management reports Markets' risks to the Board of Directors' Risk Committee and the senior management, as a part of OP Financial Group's risk analysis.

Markets' risks are measured using the expected shortfall measure, as well as various sensitivity and nominal value metrics for specific products and positions. The impacts of market movements that are significant to the business are assessed via stress tests in order to understand the risks of rare market movements that have a major impact. The market risks borne by Markets are included in the economic capital requirement. The risk policy sets limits and frameworks for business models. The risk policy is prepared in such a way that the risks are visible for each business model and any risk-taking that goes beyond the business model is strictly limited.

Counterparty risk arises from entry into derivative contracts, which is controlled by applying customer-specific limits. OP Corporate Bank's credit decision process decides on the limits. To take account of the risk, the Group adjusts the valuations of derivatives using Credit Valuation Adjustment (CVA and DVA). The size of the valuation adjustment is affected by the credit-risk-free valuation of derivatives, interest rates, volatility of interest rate options, exchange rates, and credit risk market price. Fluctuations in adjustments to the value of credit risk due to the valuation adjustment are mitigated by entering into derivative contracts.

Risks arising from derivative features linked to loans are transferred to Markets, which covers them on the market. Risks associated with operations include interest rate and volatility risk. In some products, the forecast client behaviour has a significant effect on the pricing of the product and risk hedging. If, on the whole, the client's behaviour differs significantly from the predicted one, the realised client return may be lower or higher than expected and the risk exposure is over-hedged or under-hedged. Client behaviour risk differs from market risks in that the risk cannot be hedged on inter-bank markets. Risk management is based on OP cooperative banks' client relationship management, real-time monitoring of client behaviour and the use of accumulated data in the development of forecast models.

Risk management for the Asset Management business model

The most important risks associated with Asset Management are the operational and compliance risks related to the arrangement of operations. The sale of asset management products is subject to detailed regulation seeking to ensure that clients understand the risks and costs of their investment decisions. The sale of investment products carries a reputational risk. The effect of market developments on assets under management exposes to market risks involved in the revenue earned by business.

Risks are managed by improving the quality of processes and ensuring that the product offering corresponds to client demand and needs. A diverse product offering improves customer retention in a situation where clients want to switch or diverse their investment products. A capital requirement is reserved to cover the risks as part of the other assessable risks.

As part of OP Financial Group's risk analysis, the Compliance organisation reports on compliance risks and Risk Management reports on other risks associated with the Asset Management earnings logics to the Risk Committee of the Board of Directors and the senior management.

2.3 Risks of insurance operations

2.3.1 Life insurance risks

Biometric risks associated with life insurance products occur when death or disability causes higher claim pay-outs than expected or longer periods of pension disbursements 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 significant for group pension insurance policies under a defined benefit plan and in other portfolios of lifelong pensions, because these contracts do not contain any significant mortality risk to counterbalance the risk exposure.

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 early, 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 their assets from unit-linked to one with technical interest, which increases interest expenses. Another example is the postponement of pension, which increases the longevity risk and lapse 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 surrender risk 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, maintenance and claims management expenses differ from those estimated in rating. The early lapse of insurance policies may also jeopardise the accuracy of cost assumptions used for rating and thereby contribute to the materialisation of the cost risk.

The Group assesses the need for capital required by life insurance underwriting risks by applying the Solvency Capital Requirement (SCR) and the economic capital requirement. Stress tests are used to supplement the assessment.

The Group manages life insurance underwriting risks by means of strict risk selection and pricing and by ensuring that insurance liabilities are accurate and sufficient. The customer and risk selection policies are described in the customer and risk selection guidelines, which are updated frequently.

Risks related to mortality and longevity are priced 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.

Early lapse risks related to customer behaviour and the risk of customers exercising their option to change the profit type of their assets to a guaranteed-interest model 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 risks through adequate cost control and prudent pricing. 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.

The Group also uses reinsurance to mitigate the risk. The reinsurance level is determined in the reinsurance principles approved by OP Life Assurance Company's board of directors. The reinsurance principles set limits for the maximum retention and catastrophe protection capacity. The reinsurance principles also restrict the authority to take reinsurance counterparty risk because the document sets limits based on the counterparty's borrower grade and the reinsurance contract type (contract business, facultative).

The actuary in charge annually makes the company's board of directors a statement of continuous compliance with the insurance liability requirements, the requirements set by the nature of the underwriting business and the opinions given by the actuarial analysis function on the insurance policy and reinsurance arrangements.

The Group limits the economic capital requirement tied up in underwriting risks relative to OP Financial Group's internal capital. Underwriting risks are, for their part, also guided by a target set in the capital plan for own funds and the requirement for solvency capital.

2.3.2 Non-life insurance risks

The insurance business is based on taking and managing risks. The largest insurance risks pertain to risk selection and pricing, the acquisition of reinsurance cover and the adequacy of insurance liabilities. In non-life insurance, the risk inherent in insurance liabilities lies mainly in insurance lines characterised by a long claims settlement period. Biometric risks also arise from granting non-life policies where the non-life insurer pays annuities stemming from non-life obligations as a result of an insurance event.

The Group assesses non-life insurance underwriting risks by applying the Solvency Capital Requirement (SCR) and the economic capital requirement. Stress tests are used to supplement the assessment.

The Group manages non-life insurance underwriting risks by means of strict risk selection and pricing and by ensuring that insurance liabilities are accurate and sufficient.

Premium rating is based on risk correlation, i.e. the price of insurance corresponds to at least the claims incurred from the insurance. The insurance premium also includes components for operating expenses and capital cost.

The bases for risk selection (customer selection and related criteria, as well as decision-making limits by insurance line) are specified in the risk policy, which is updated annually, and the guidelines, which supplement the risk policy. The documents specify decision-making powers on a multistage basis according to the size of underwriting risk, as well as risks by insurance line underwritten only to a limited extent and at the discretion of the Insurance Customers Management Team.

The insurance periods within non-life insurance are mainly one year or less, and changes in the underwriting risk level can usually be passed onto insurance premiums quickly. In respect of long-term insurance lines where risk inter-independence does not perhaps materialise, risk is managed by setting underwriting limits.

The Group also uses reinsurance to mitigate the risk. The reinsurance level is determined in the reinsurance principles approved by the Boards of Directors. Reinsurance is implemented mainly through risk-specific (insured object) and loss-event-specific reinsurance cover. The Group eliminates potential gaps in the reinsurance cover by using detailed underwriting guidelines. The risk arising from reinsurance availability is subject to strict supervision. Irrespective of the insurance line, large individual risks, such as claim accumulations arising from natural catastrophes or human activity, are reinsured.

The reinsurance principles set limits for the maximum retention and catastrophe protection capacity. The reinsurance principles also restrict authorisations to take reinsurance counterparty risk because the document sets limits based on the counterparty's borrower grade and the reinsurance contract type (contract business, facultative, fronting). Local risk concentrations are included in the Estimated Maximum Loss (EML) for property and business interruption risks and through EML breakthrough cover included in reinsurance cover.

The amount of insurance liabilities is estimated securely in such a way that it would be sufficient to fulfil the obligations arising from insurance contracts. This is performed by first estimating the expected value for insurance liabilities, and then determining a safety loading based on the degree of uncertainty. The actuary in charge annually makes the company's board of directors a statement of continuous compliance with the insurance liability requirements, the requirements set by the nature of the underwriting business and the opinions given by the actuarial analysis function on the insurance policy and reinsurance arrangements.

The economic capital requirement tied up in underwriting risks is limited in relation to the Group's internal capital. Underwriting risks are, for their part, also restricted by a target set in the capital plan for own funds and the requirement for solvency capital.

2.3.3 Market and counterparty risk management in life and non-life insurance

Management of structural interest rate risk and other investment risks

The management of market risks in life and non-life insurance covers all of the market risks on the balance sheet, consisting of insurance liabilities, investments and derivatives. Investment operations aim to ensure client income, obtain assets covering insurance liabilities, and invest profitably to generate returns.

An analysis of structural interest rate risk – interest rate risk on the balance sheet – begins by assessing how well the cash flows from fixed income investments and insurance liability match each other (Asset and Liability Management, ALM). Interest rate movements affect the value of insurance liabilities as well as investments and hedging derivatives.

In the Solvency II framework and the economic capital requirement model, the insurance liability discounting curve includes a volatility adjustment, which also exposes to credit spread risk on the balance sheet in terms of structural interest rate risk. Decreases in interest rates and narrowing of credit spreads cause the present value of insurance liabilities to increase. In respect of the level of the credit spread related to interest rate risk on the balance sheet, the consistency of the risk profiles of assets and liabilities is essential. Insurance liabilities can be hedged against interest rate risks using direct fixed income investments and interest rate derivatives such that the net interest rate risk consists of the interest rate risk associated with insurance liabilities and the risk profiles of the fixed-income investments and hedging derivatives used to cover the insurance liabilities.

Investment operations take into consideration factors such as the structural interest rate risk arising from the (assumed) cash flow structure of insurance liabilities and the other requirements that insurance liabilities impose on investment assets and their liquidity. The application of the principle of equity also affects investment targets and the amount of risk taken.

The magnitude of market risks is measured and limited by the Value at Risk metric and various sensitivity indicators, as well as the amount of the economic capital requirement and the solvency capital requirement (SCR). Stress tests are used to supplement the assessment. Risk concentrations of insurance companies within asset classes are assessed by examining the asset class allocation distribution.

Market risks associated with interest rate risk on the balance sheet are managed using limits on issuers, fund investments, and interest rate risks as specified in the investment plans approved by the company's board of directors in line with the risk policies for each earnings logic. Asset class restrictions are set for risky fixed income investments, equities and real estate, as well as for illiquid investments. Separate investment plans will be prepared for the life insurance portfolio (ETA 1) and the pension insurance portfolio (ETA 2) transferred from Suomi Mutual Life Assurance Company to OP Life Assurance Company. The boards of directors of the insurance companies will also approve principles for the use of derivatives for inclusion in the investment plans. In addition to the Group's risk policy lines and limits, the investment portfolios are also restricted by the responsible investment principles confirmed by the companies' boards of directors.

The insurance companies' insurance liabilities do not, in principle, cause currency risks because their insurance liabilities are normally denominated in euros. For OP Life Assurance Company, all insurance liabilities are denominated in euros. For this reason, a substantial proportion of the investments covering insurance liabilities are allocated to euro-denominated securities.

Counterparty risk management

The counterparty risk of reinsurers is managed using limits for specific borrower grades and counterparties in accordance with the reinsurance principles confirmed by the Board of Directors and in the risk policy.

Counterparty risk in the investment portfolio is restricted by allocation limits for specified borrower grades.

Capital is reserved for counterparty risks in the economic capital requirement model and the SCR measurement.

Note 3. Changes in accounting policies

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. For private customers, the definition of default 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 customer in default when it is probable that the customer will not pay their 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.

In the first quarter of 2020, OP Financial Group adopted the European Banking Authority's (EBA) guidelines on the application of the definition of default (Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013: EBA/GL/2016/07 and EBA/RTS/2016/06). The Guidelines harmonise the definition of default applied by European banks on their customers. The process in accordance with the Guidelines recognises default earlier, for example, based on the unlikeliness to pay criteria that include, for example, payment defaults registered in external credit registers or granted forbearance where the present value of the loan decreases by more than 1 per cent. The Guidelines also extend default among private customers to all credit obligations of an obligor when a significant proportion (20%) of private customer exposures are defaulted. In addition, the materiality threshold for exposures of over 90 days past due has been lowered to EUR 100 and 1 per cent of the contract's or the customer's balance sheet exposures in retail exposures and to EUR 500 and 1 per cent of the contract's or the customer's balance sheet exposures in exposures other than retail exposures.

The customer's default ends when it no longer meets the criteria for the definition of default and the subsequent probation period of 6–12 months has ended.

OP Financial Group will apply a so-called two-step approach of the EBA Guidelines. The first step involved the change of the definition of default during the first quarter of 2020. The second step to be taken later involves the calibration of credit risk parameters. The adoption of the first step increased the number of defaulted exposures and that of the number of transfers to impairment stage 3. Expected credit losses increased by EUR 44 million, which was recognised as a change in the accounting estimate in profit or loss. Impairment loss on receivables is presented in Note 12.

Calculation of expected credit loss on notes and bonds

OP Financial Group used two separate models in the calculation of expected credit loss on notes and bonds. The primary model was the Bloomberg tool. For the bonds that the Bloomberg tool did not support on each ECL measurement date, the Group used OP Financial Group's own model based on credit rating information.

On 30 June 2020, OP Financial Group discontinued the use of the Bloomberg tool and started using only OP's own model based on credit rating information. This model is based on external credit ratings and, where these are not available, OP Financial Group's internal ratings. OP Financial Group's model based on credit rating information takes better account of collateral in the LGD component and ensures the transfer of notes and bonds between impairment stages at the right time. In addition, the model harmonises and speeds up the calculation process. The change of the model had no major effect on the amount of expected credit loss on notes and bonds.

Changes in ECL models and parameters

In November, OP Financial Group updated its estimates of two LGD model parameters: the non-collateral return and the cure rate. The cure rate for impairment stages 1 and 2 was updated based on data complying with the new definition of default adopted in the first quarter of 2020. The estimates for the non-collateral return and the cure rate for impairment stage 3 were made time-dependent so that they will decrease if the period of default or debt collection increases. Expected credit losses increased by EUR 17 million, which was recognised as a change in the accounting estimate in profit or loss.

In December, OP Financial Group updated its lifetime PD model for corporate exposures based on data complying with the new definition of default adopted in the first quarter of 2020, among other things. In addition, the Group further specified model segmentation and revised the explaining macroeconomic factors so as to include GDP and real interest rate (previously, the factors included GDP and 12-month Euribor for large companies and investments for other companies). Expected credit losses decreased by EUR 12 million, which was recognised as a model change in profit or loss.

In addition, the effect of the calibration of the private customer credit rating model in December has been taken into account based on the data according to the new definition of default adopted in the first quarter of 2020. Expected credit losses increased by EUR 28 million, which was recognised as a change in the accounting estimate in profit or loss.

Sale of the Vallila property

OP Financial Group classified the Vallila property in the third quarter of 2019 as a non-current asset held for sale. The Vallila property comprises a block located in Vallila, Helsinki, which was completed in 2017.

On 31 January 2020, OP Cooperative, OP Financial Group's central cooperative, sold the Vallila property to a South Korean-Finnish consortium which includes Varma Mutual Pension Insurance Company, NH Investment & Securities (NHIS) and Shinhan Investment Corp. The value of the transaction was EUR 480 million. The sale of the property improved OP Financial Group's CET1 ratio by 0.2 percentage points. A capital gain of EUR 96 million was recognised on the sale in OP Financial Group's first quarter results 2020. OP Financial Group recognised a capital gain of EUR 98 million on the sale in other operating income and expenses of 2 million euros in other operating expenses. The full capital gain was recognised in the Other Operations segment.

OP Financial Group will continue operating in the property under a long-term lease agreement, and the property was recognised as a right-of-use asset in the balance sheet. The value of the right-of-use asset under IFRS 16 was EUR 138 million and the lease liability was EUR 225 million.

Notes to the income statement

Note 4. Net interest income

EUR million	2020	2019
Interest income		
Receivables from credit institutions		
Interest	1	2
Negative interest	43	21
Total	44	24
Receivables from customers		
Loans	1,254	1,225
Finance lease receivables	30	28
Impaired loans and other commitments	0	0
Negative interest	22	10
Total	1,307	1,263
Notes and bonds		
Measured at fair value through profit or loss	1	1
At fair value through other comprehensive income	62	81
Amortised cost	3	10
Total	66	92
Derivative contracts		
Fair value hedge	-128	-133
Cash flow hedge	49	52
Ineffective portion of cash flow hedge	-3	6
Other		0
Total	-83	-75
Other	10	6
Total	**1,344**	**1,310**
Interest expenses		
Liabilities to credit institutions		
Interest	3	6
Negative interest	68	59
Total	71	65
Liabilities to customers	55	69
Notes and bonds issued to the public	226	249
Subordinated liabilities		
Subordinated loans	0	1
Other	53	46
Total	53	47
Derivative contracts		
Cash flow hedge	-267	-260
Other	-87	-115
Total	-354	-375
Other	6	5
Total	**58**	**60**
Net interest income before fair value adjustment under hedge accounting	**1,286**	**1,250**
Hedging derivatives	96	-1
Value changes of hedged items	-99	-7
Total	**1,284**	**1,241**

Interest income calculated using the effective interest method totalled EUR 1,287 (1,240) million.

Note 5. Net insurance income

EUR million	2020	2019
Net insurance premium revenue		
Premiums written	1,499	1,484
Insurance premiums ceded to reinsurers	7	-2
Change in provision for unearned premiums	-8	-14
Reinsurers' share	-1	0
Total	1,497	1,468
Net Non-life Insurance claims		
Claims paid	-954	-1,017
Insurance claims recovered from reinsurers	27	21
Change in provision for unpaid claims*	-24	-79
Reinsurers' share	8	2
Total	-943	-1,073
Other Non-life Insurance items	-7	-4
Life Insurance risk premiums collected	26	29
Total	572	421

* The item includes EUR 45 million (147) as a result of changes in reserving bases.

Note 6. Net commissions and fees

Q1–4 2020, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Commission income						
Lending	92	47		5	-1	144
Deposits	1	3		0	0	3
Payment transfers	357	43		15	-99	316
Securities brokerage	9	27			-8	27
Securities issuance	0	11		0	0	11
Mutual funds	38	211	0	0	-99	150
Asset management	38	27		0	-13	52
Legal services	23	0			0	23
Guarantees	8	12		0	0	21
Housing service	72					72
Insurance brokerage	94		23		-67	50
Life insurance total expense loadings			90			90
Refund of unit-linked management			82			82
Health and wellbeing services			13		0	12
Total	732	381	207	21	-287	1,054
Commission expenses						
Lending	0	1		0	0	1
Payment transfers	26	6	1	3	-11	25
Securities brokerage		12	0	0	-1	11
Securities issuance	0	2		0	-2	0
Mutual funds		100	0		-99	0
Asset management		9	0	1	0	10
Guarantees		0			0	0
Insurance brokerage	-7		117		-61	49
Health and wellbeing services			5		0	4
Other	16	98	0	7	-100	21
Total	34	228	122	12	-274	123
Total net commissions and fees	698	153	85	9	-13	931

Q1–4 2019, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Commission income						
Lending	102	46	0	5	-1	152
Deposits	1	2		0	0	3
Payment transfers	370	44		14	-126	303
Securities brokerage	4	21		0	-4	21
Securities issuance		6		0	0	6
Mutual funds	34	210	0	0	-96	148
Asset management	34	36	29	0	-20	81
Legal services	23	0			0	24
Guarantees	8	12		0	0	20
Housing service	74				0	74
Insurance brokerage	113		24		-86	50
Life insurance total expense loadings			91			91
Refund of unit-linked management fees			83			83
Health and wellbeing services			22		-1	20
Total	763	378	249	20	-334	1,075
Commission expenses						
Lending	0	0		0	0	1
Payment transfers	24	5	1	3	-11	22
Securities brokerage		14	0	0	-4	10
Securities issuance	0	2		0	0	2
Mutual funds		105			-97	8
Asset management		11	0	1	0	12
Insurance brokerage	-9		140		-86	45
Health and wellbeing services			8			8
Other	39	116	0	8	-132	31
Total	55	253	150	13	-331	139
Total net commissions and fees	708	125	99	6	-3	936

Commission income from payment transfers has been adjusted to correspond to current monitoring.

Note 7. Net investment income

EUR million	2020	2019
Net income from assets at fair value through other comprehensive income		
Notes and bonds		
Interest income	50	68
Other income and expenses	-14	0
Capital gains and losses	22	115
Currency fair value gains and losses	-26	7
Impairment losses and their reversal*	5	2
Total	37	192

* Expected credit losses (ECL) on notes and bonds of insurance

Net income recognised at fair value through profit or loss	2020	2019
Financial assets held for trading		
Notes and bonds		
Interest income and expenses	5	6
Fair value gains and losses	4	-6
Total	8	0
Shares and participations		
Fair value gains and losses	0	12
Dividend income and share of profits	12	6
Total	12	18
Derivatives		
Interest income and expenses	118	108
Fair value gains and losses	242	317
Total	360	425
Total	380	443
Financial assets that must measured at fair value through profit or loss		
Notes and bonds		
Interest income	23	24
Fair value gains and losses	7	-4
Total	29	21
Shares and participations		
Fair value gains and losses	-22	140
Dividend income and share of profits	30	47
Total	8	186
Total	37	207

Financial assets designated as at fair value through profit or loss		
Notes and bonds		
Interest income	31	38
Fair value gains and losses	29	79
Total	61	117
Shares and participations		
Fair value gains and losses	-26	-32
Dividend income and share of profits	11	9
Total	-15	-23
Derivatives		
Fair value gains and losses	-25	-18
Total	-25	-18
Total	21	76
Total net income from financial assets recognised at fair value through profit or loss	438	726
Net income from investment property		
Rental income	54	66
Fair value gains and losses	-35	17
Maintenance charges and expenses	-51	-59
Other	1	-5
Net income from investment property total	-30	19
Net income from loans and receivables measured at amortised cost		
Loans and receivables		
Interest income	8	10
Interest expenses	-4	-1
Loans and receivables total	4	5
Non-life Insurance		
Unwinding of discount, Non-life Insurance	-21	-27

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 discounted at the beginning of the current month. The discount rate stood at 0.85% (1.0).

Life Insurance		
Interest credited on customers' insurance savings	-82	-85
Change in supplementary interest rate provisions	-65	-88
Other technical items**	-116	-215
Total	-263	-387

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

Associated companies		
Accounted for using the fair value method	4	10
Consolidated using the equity method	15	-7
Total	18	3
Total net investment income	184	530

Note 8. Other operating income

EUR million	2020	2019
Rental income from property in own use	10	15
Capital gains on property in own use	5	1
Leasing agreements	1	4
ICT income	0	2
Debt collection	1	1
Capital gains*	101	
Other	13	30
Total	131	53

* The sale of the Vallila property increased earnings 31 on December 2020. OP Financial Group recognised a capital gain of EUR 98 million on the sale in other operating income and an expense of EUR 2 million in other operating expenses.

Note 9. Personnel costs

EUR million	2020	2019
Wages and salaries	616	599
Variable remuneration	54	43
Pension costs*		
Defined contribution plans	90	96
Defined benefit plans**	-76	18
Other personnel related costs	30	26
Total	715	781

* The transfer of the remaining statutory earnings-related pension liability to Ilmarinen Mutual Pension Insurance Company at the end of 2020 reduced pension costs by EUR 96 million.

** Note 34.

Personnel fund

About 95% 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 2020 was based on the achievement of the following targets: Growth differential between OP Financial Group's income and expenses with a weight of 50% and the number of active mobile customers with a weight of 50%. Profit-based bonuses for 2020 transferred to the Fund account for some 2.5% (2.3%) of the combined salaries and wages earned by the Fund's members. The bonuses recognised in 2020 totalled EUR 9 million (13).

Long-term remuneration schemes

In June 2019, the Supervisory Board of OP Cooperative decided not to initiate a new performance period for the long-term management remuneration scheme in 2020. OP Financial Group's variable remuneration comprises a performance-based bonus scheme and the personnel fund. Group-level strategic goals and targets will be taken into account in the metrics of short-term remuneration and the personnel fund.

Expenses for the long-term management remuneration schemes for 2014–2016 and 2017–2019 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. A liability recognised under the scheme amounted to EUR 1.3 million on 31 December 2020 (7.6).

Performance-based bonus scheme in 2020

The performance period of the performance-based bonus scheme is 6 or 12 months. Performance-based bonuses are based on targets set for each company, team and person derived from the annual plan, covering all personnel of OP Financial Group.

The bonus is determined by the job grade and the maximum bonuses correspond to a 1–12-month annual salary.

Performance metrics of the performance-based bonus scheme in 2020

A factor applies to the bonus created through the achievement of the targets achieved in the central cooperative consolidated that is based on OP Financial Group's EBT. Targets shown in the balanced scorecards and derived from annual planning are decided by the business lines/functions.

Short-term performance-based 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 performance-based bonuses in 2020

The bonus will be paid provided that OP Financial Group's CET1 ratio exceeds 14.5% and the LCR is over 110% and that the person within the scheme is employed by OP Financial Group up to the payout date.

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.

OP Cooperative's Board of Directors decides on the terms and conditions of OP Financial Group's performance-based bonus scheme, maximum bonuses based on job grades and a structural framework within which OP Cooperative's Executive Management Team and OP cooperative banks' boards of directors can select the scheme metrics and set related targets.

Deferment of variable remuneration

The Act on Credit Institutions (610/2014) prescribes payment of variable remuneration to persons whose action may cause significant risk to the company ("identified staff"). OP Financial Group's identified staff includes CEOs/Managing Directors and other key management personnel as well as those involved in internal control.

The deferral of variable remuneration payment and variable bonuses paid in cash other than on a fifty-fifty basis apply to the identified staff of OP Financial Group or its company if their variable remuneration for a 12-month performance period exceeds EUR 50,000 – the maximum recommended by the Financial Supervisory Authority. The remuneration of the identified staff is reviewed up to the EUR 50,000 deferment limit as a whole, considering both long- and short-term remuneration.

If the euro maximum for deferment is exceeded, some bonus will be paid immediately, while the rest is deferred and the deferred bonus will be paid in equal instalments within the next three years (within the next five years for the Executive Management Team). 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 Board of Directors. 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.

Monitoring of OP Financial Group's remuneration

OP Financial Group monitors the market consistency of its total remuneration on a regular basis using various salary surveys.

OP Cooperative' Board of Directors 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	2020	2019
Personnel fund	9	13
Performance-based bonuses	45	35
Long-term schemes:		
Scheme for 2014–16	2	0
Scheme for 2017–20	0	-5
Total	55	43

* Excl. social expenses.

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

Note 10. Depreciation/amortisation and impairment loss

EUR million	2020	2019
Depreciation and amortisation		
Buildings	20	27
Machinery and equipment	11	11
Intangible assets related to business combinations	11	11
Information systems and other	184	170
Right-of-use assets	30	19
Leased out assets	0	1
Other	3	5
Total	260	244
Impairment loss		
Information systems	2	28
Total	13	33
Total	273	278

Note 11. Other operating expenses

EUR million	2020	2019
ICT costs		
Production	268	223
Development	127	131
Buildings	48	58
Government charges and audit fees*	58	49
Purchased services	130	130
Data communications	36	36
Marketing	30	39
Corporate social responsibility	10	10
Insurance and security costs	9	14
Other	136	153
Total	852	844

* In 2020, audit fees paid to auditors totalled EUR 3.2 million (2.6), whereas assignments as referred to in chapter 1, section 1, subsection 1, paragraph 2 of the Auditing Act totalled 0.2 million (0.1), fees for tax advisory services EUR 0.1 million (0.2) and fees for other services EUR 0.5 million (0.6). Non-audit services provided by KPMG Oy Ab to OP Financial Group companies totalled EUR 0.5 million (0.3) (excl. VAT). The corresponding figures for 2019 are shown in brackets.

OP Financial Group's stability contribution calculated for 2020 amounted to EUR 41.3 million (33.8).

The deposit guarantee contribution of EUR 28.8 million (25.2) calculated for OP Financial Group for 2020 has been fully covered by payments accounted for from the old Deposit Guarantee Fund.

€ million	2020	2019
ICT development costs	127	131
Share of own work	56	52
Total development costs in the income statement	183	183
Capitalised ICT costs	84	110
Capitalised share of own work	14	12
Total capitalised development costs	97	123
Advance payments	1	7
Total development costs	282	313
Depreciation/amortisation and impairment loss	184	192

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.

Note 12. Impairment losses on receivables

EUR million	2020	2019
Receivables written down as loan and guarantee losses	117	68
Recoveries of receivables written down	-10	-23
Expected credit losses** (ECL) on receivables from customers and off-balance-sheet items	119	41
Expected credit losses** (ECL) on notes and bonds*	-1	0
Total	225	87

* The expected credit losses on notes and bonds in insurance operations are presented in net investment income.
** Loss allowance is itemised in Note 45. Loss allowance regarding receivables and notes and bonds.

Note 13. OP bonuses to owner-customers

EUR million	2020	2019
New OP bonuses accrued to owner-customers	255	254
Unused, expired OP bonuses	-5	-5
Total	251	249

Liite 14. Temporary exemption (overlay approach)

	2020	2019
Net investment income within the scope of the overlay approach recognised according to IFRS 9		
Financial assets that must measured at fair value through profit or loss		
Shares and participations		
Fair value gains and losses	-22	145
Total (A)	-22	145
Net investment income within the scope of the overlay approach measured according to IFRS 39		
Shares and participations		
Capital gains and losses	36	71
Impairment losses and their reversals	-61	-31
Total (B)	-25	40
Effect of the overlay approach on the income statement (-A+B)	-3	-105
Effect of the overlay approach on the statement of comprehensive income - (-A+B)	3	105

Note 15. Income tax

EUR million	2020	2019
Current tax	113	145
Tax for previous financial years	0	-3
Deferred tax	30	27
Income tax expense	**144**	**168**
Corporate income tax rate	20.0	20.0

Reconciliation between tax expense in the income statement and tax expense calculated by the applicable tax rate

Earnings before tax	785	838
Tax calculated at a tax rate of 20%	157	168
Tax for previous financial years	0	-3
Tax-exempt income	-2	-4
Non-deductible expenses and income portions of limited partnerships	4	-2
Re-evaluation of unrecognised tax losses	-27	8
Tax adjustments	0	1
Effect of capital gain on intra-Group transaction	1	
Other items	12	2
Tax expense	**144**	**168**

Notes to assets

Note 16. Liquid assets

EUR million	31 Dec 2020	31 Dec 2019
Cash	218	72
Deposits with central banks repayable on demand		
OP Corporate Bank plc's minimum reserve deposit	818	767
Cheque account*	21,609	11,149
Total liquid assets	**21,827**	**11,988**

* The cheque account includes EUR –31 (–177) million in cash resulting from central counterparty clearing.

In accordance with the minimum reserve system under the euro system, credit institutions are obligated to have a minimum reserve deposit with their national central bank. The reserve deposit equals the required percentage of the reserve base, as specified by the European Central Bank. The reserve base includes deposits (extensive) and debt securities with a maximum maturity of two years. The reserve base does not include deposits from other parties subject to the minimum reserve obligation. The reserve deposit is currently 1% of the reserve base. Credit institutions within OP Financial Group place a reserve deposit with OP Corporate Bank plc, which acts as an intermediary authorised by OP Financial Group credit institutions and is responsible for OP Financial Group's obligation to place a deposit with the Bank of Finland.

Note 17. Receivables from credit institutions

EUR million	31 Dec 2020	31 Dec 2019
Receivables from credit institutions		
Deposits		
Repayable on demand	229	180
Other	1	0
Total	230	180
Loans and receivables		
Repayable on demand	0	0
Other	77	67
Total	77	67
Total	306	246
Loss allowance*	0	0
Total receivables from credit institutions	306	246

* Loss allowance is itemised in Note 45. Loss allowance regarding receivables and notes and bonds

Note 18. Derivative contracts

EUR million	31 Dec 2020	31 Dec 2019
Held for trading		
Interest rate derivatives	3,837	3,546
Currency derivatives	454	240
Equity and index derivatives	0	0
Credit derivatives	0	21
Commodity derivatives	4	14
Other	0	0
Total	4,295	3,821
Hedging derivative contracts*		
Fair value hedging		
Interest rate derivatives	759	591
Currency derivatives	164	412
Cash flow hedge		
Interest rate derivatives	-2	0
Total	920	1,003
Other hedging derivatives		
Interest rate derivatives	0	0
Total	0	0
Total derivative contracts	**5,215**	**4,824**

*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 2020	31 Dec 2019
Loans to the public and public sector entities	92,021	82,755
Finance lease receivables*	2,278	2,340
Guarantee receivables	7	7
Receivables		6,915
Total	94,306	92,017
Loss allowance**	-662	-554
Total receivables from customers	**93,644**	**91,463**

* Finance lease receivables are itemised in Note 25.

** Loss allowance is itemised in Note 45. Loss allowance regarding receivables and notes and bonds.

Note 20. Investment assets

EUR million	31 Dec 2020	31 Dec 2019
Financial assets held for trading		
Notes and bonds	330	1,415
Shares and participations	73	77
Total	402	1,492
Financial assets that must measured at fair value through profit or loss		
Notes and bonds	408	466
Shares and participations (Overlay approach)	1,336	1,178
Shares and participations (other than those under Overlay approach)	62	70
Total	1,806	1,714
Financial assets designated as at fair value through profit or loss		
Notes and bonds	2,172	2,216
Shares and participations	206	254
Total	2,378	2,470
Financial assets at fair value through other comprehensive income		
Notes and bonds	18,134	16,695
Shares and participations		0
Total	18,134	16,695
Amortised cost		
Notes and bonds	1	3
Other	54	201
Total	55	204
Investment property	623	714
Associated companies		
Associates	152	211
Joint ventures	11	8
Total	163	220
Total investment assets	**23,562**	**23,509**

Changes in investment property, EUR million	2020	2019
Acquisition cost 1 Jan.	708	931
Increases	12	17
Decreases	-56	-183
Transfers to liabilities associated with non-current assets held for sale*		-65
Transfers between items	-11	8
Acquisition cost 31 Dec.	653	708
Accumulated changes in fair value	6	48
Changes in fair value during the financial year	-33	1
Decreases	-3	-18
Transfers to liabilities associated with non-current assets held for sale*		-24
Other changes	0	0
Accumulated changes in fair value 31 Dec.	-30	6
Carrying amount 31 Dec.	623	714

* Note 3 describes the sale of the Vallila property.

Increases in investment property include EUR 10 million (15) 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 do not own investment property to which restrictions concerning their transfer and sales price under the legislation on state-subsidised housing loans would apply.

Breakdown of investment property leased out under operating lease can be found in Note 25.

Investment property contains property used as collateral worth EUR 3 million (4).

Information on associated companies can be found in Note 22. Investments accounted for using the equity method.

Note 21. Assets covering unit-linked contracts

EUR million	31 Dec 2020	31 Dec 2019
Shares and participations	11,116	10,733
Other investments	170	99
Total	11,285	10,831

Note 22. Investments accounted for using the equity method

Amounts entered in the balance sheet:

EUR million	31 Dec 2020	31 Dec 2019
Associates	152	211
Joint ventures	11	8
Total	163	220

Amounts entered in the income statement:

EUR million	31 Dec 2020	31 Dec 2019
Associates	18	3
Total	18	3

Investments in associates and joint ventures
OP Financial Group has 16 (21) 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.

	Associates consolidated using equity method		Associates measured at fair value		Joint ventures	
EUR million	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
Profit of continuing operations	15	-7	3	10		
Comprehensive income	15	-7	3	10		

Note 23. Intangible assets

Changes in intangible assets, EUR million	Goodwill	Brands	Customer relationships related to insurance contracts and policy acquisition costs	Information systems and other	Total
Acquisition cost 1 January 2020	633	166	507	1,365	2,672
Increases*				89	89
Decreases				-3	-3
Transfers between items				9	9
Acquisition cost 31 December 2020	633	166	507	1,460	2,767
Acc. amortisation and impairments 1 January 2020	-3	-4	-439	-820	-1,266
Amortisation during the financial year			-11	-185	-196
Impairments during the financial year				-2	-2
Decreases				2	2
Other changes				6	6
Acc. amortisation and impairments 31 December 2020	-3	-4	-450	-998	-1,455
Carrying amount 31 December 2020	631	162	57	462	1,311

* Internal development work accounts for EUR 14 million.

Changes in intangible assets, EUR million	Goodwill	Brands	Customer relationships related to insurance contracts and policy acquisition costs	Information systems and other	Total
Acquisition cost 1 January 2019	633	166	507	1,323	2,630
Increases*				122	122
Decreases				-80	-80
Transfers between items				1	1
Acquisition cost 31 December 2019	633	166	507	1,365	2,672
Acc. amortisation and impairments 1 January 2019		-4	-428	-708	-1,140
Amortisation for the period			-11	-162	-174
Impairments for the period	-3			-23	-25
Decreases				73	73
Other changes				0	0
Accumulated amortisation and impairments 31 December 2019	-3	-4	-439	-820	-1,266
Carrying amount 31 December 2019	631	162	68	546	1,406

* Internal development work accounts for EUR 12 million.

Information systems and other

Carrying amount, EUR million	31 Dec 2020	31 Dec 2019
Information systems	241	396
Information systems under development	145	148
Other	77	2
Total	**462**	**546**

Intangible assets with indefinite economic lives

EUR million	31 Dec 2020	31 Dec 2019
Goodwill	631	631
Brands	162	162
Total	**793**	**793**

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

Segment	Acquired business	31 Dec 2020	31 Dec 2019
Insurance	Acquisition of Pohjola Group plc's non-life and life businesses and the ICT functions of Pohjola Group plc.	449	449
Corporate Banking	The acquisition of Pohjola Group plc's fund and asset management services and the acquisition of Pohjola Finance Ltd's businesses	182	182
Total		631	631

Testing goodwill for impairment

At the end of 2020, goodwill totalled EUR 631 million (631).

The testing period and the duration of cash flows for the forecast period were determined to be five years under IAS 36. A growth expectation in cash flows for the post-forecast period was reviewed for each cash-generating unit and a growth expectation for the previous forecast period or a maximum of 2% was used as the constant growth of the terminal period. Cash flow forecasts derive from the strategy process based on the guidelines for OP Financial Group's development confirmed by the Supervisory Council of OP Cooperative and the related derived expectations of the future development of businesses. Cash flow forecasts for each testing unit has been approved by the board of directors of the business that made the forecast. The effect of taxes has been taken into account in the cash flow statement. In testing, the surplus/deficit after return on equity requirements for the forecast cash flows of cash-generating units was discounted at present value using a discount rate corresponding to the return on equity requirement. Market information available in the sector has been used as the basis for calculating the discount rate, and the discount rate reflects investors' view of business risks and of the expected return on capital tied to the investment. In 2020, the discount rate used in the calculations before tax varied from 5.5 to 7.5%. In 2019, the discount rate varied from 6.0 to 6.9%. Based on market information, OP Financial Group increased the discount rate for non-life and life insurance by 0.6 percentage points to 7.5 percentage points. For asset management and mutual fund business the discount rate was decreased by 0.1 percentage point to 6.8 percentage points and for Transaction Banking by 0.5 percentage points to 5.5 percentage points. The effect of the discount rate related to Checkout Finland Ltd was adjusted for the previous year. Checkout Finland Ltd's payment transfer business was not within the scope of testing in 2020 because a written bid for Checkout Finland Ltd was received. Impairment testing in 2020 proved that the recoverable amount of the tested cash-generating units exceeded their requirement for return on equity, and the surplus/deficit was positive in each tested cash-generating unit. So, no need for impairment loss recognition of goodwill was discovered based on the testing.

Sensitivity analysis of goodwill

A sensitivity analysis applied to the cash-generating units was carried out separately for each cash-generating unit on the basis of key variables of each cash-generating unit. Sensitivity was reviewed as a change in one variable in relation to values used in forecasts. The sensitivity analysis does not include simultaneous changes in all key variables. In addition, a relative change of each cash-generating unit's key variable, which would cause goodwill impairment risk, was derived from the sensitivity analysis.

Key assumptions used in calculating the recoverable amount of a cash-generating unit and a relative change that would cause goodwill impairment risk.

Segment	Cash-generating unit	Goodwill € million	Key variables	Value used in cashflow forecasts, %	Change caused by impairment risk, pp
Insurance	Pohjola Insurance Ltd	400	Discount rate, %	7.5	7.4
			Combined ratio, %	87.7–90.0	7.9
			Net investment income, %	0.7–1.2	-2.8
	OP Life Assurance Company Ltd	49	Discount rate, %	7.5	2.2
			Growth in operating expenses, %	-5.7–2.4	2.7
			Net investment income percentage, %	-0.1–0.2	-0.4
Corporate Banking	OP Asset Management Ltd	97	Discount rate, %	6.8	6.9
			Growth in assets under management, %	2.0–2.4	-8.1
			Growth in expenses, %	-10.2–8.0	6.3
	OP Fund Management Company Ltd	71	Discount rate, %	6.8	18.5
			Growth in mutual fund assets, %	2.0–2.4	-10.6
			Growth in expenses of fixed type, %	-10.6–4.7	13.6
	Transaction Banking business division	13	Discount rate, %	5.5	3.4
			Loan portfolio growth, %	1.9–2.9	-39.0
			Growth in expenses, %	1.5–8.0	20.4

Impairment testing of brands

Impairment testing for brands was carried out separately for the Pohjola and A-Vakuutus (A-Insurance) brands. Forecasts used in cash flow statements are based on long-term plans approved by the Non-life Insurance management and on forecasts derived from them for 2021–2025. A 2% growth expectation was used as growth in cash flows for post-forecast periods. On the basis of testing, there is no need to recognise any impairment loss on brands in the financial statements 2020.

Customer relationships pertaining to insurance contracts and policy acquisition costs

An intangible asset related to customer relationships and insurance contracts has been allocated to OP Financial Group's balance sheet that arose as part of the acquisition of Aurum Investment Insurance in 2012 and the transfers of Suomi Mutual's portfolio in 2015 and 2016. Intangible assets originating from Life Insurance customer relationships as well as from insurance contracts are charged to expenses according to planned amortisation, over their estimated useful lives. No indications of the need for impairment recognition have been discovered.

Note 24. Property, plant and equipment

EUR million	31 Dec 2020	31 Dec 2019
Property in Group use		
Land and water areas	48	54
Buildings	332	365
Machinery and equipment	35	37
Other tangible assets	13	14
Right-of-use assets	205	53
Leased-out assets	0	0
Total property, plant and equipment	**633**	**524**
of which construction in progress	7	11

Changes in property, plant and equipment (PPE), and investment property, EUR million	Property in Group use	Machinery and equipment	Other tangible assets	Leased-out assets	Total PPE
Acquisition cost 1 January 2020	885	78	17	1	981
Increases	31	10	1		42
Decreases	-64	-6	-2		-71
Transfers between items	4	3	0	0	7
Acquisition cost 31 December 2020	857	84	15	2	958
Accumulated depreciation and impairments 1 January 2020	-467	-41	-2	-1	-511
Depreciation for the financial year	-20	-11	-1		-32
Impairments for the financial year	-11		0		-12
Reversal of impairments during the financial year	1				1
Decreases	15	3	0		17
Other changes	5		1		5
Accumulated depreciation and impairments 31 December 2020	-477	-49	-2	-1	-530
Right-of-use asset*					205
Carrying amount 31 December 2020	380	35	13	0	633

Changes in property, plant and equipment (PPE), and investment property, EUR million	Property in Group use	Machinery and equipment	Other tangible assets	Leased-out assets	Total PPE
Acquisition cost 1 January 2019	1,176	141	17	1	1,336
Increases	28	14	1	0	42
Decreases	-25	-78	-1		-103
Transfers to liabilities associated with non-current assets held for sale	-286				-286
Transfers between items	-8	0			-8
Acquisition cost 31 December 2019	885	78	17	1	981
Accumulated depreciations and impairments 1 January 2019	-508	-88	-2	-1	-599
Depreciation for the financial year	-30	-12	-1		-42
Impairments for the financial year	-6		-1		-6
Decreases	7	60	0		67
Transfers to liabilities associated with non-current assets held for sale	69				69
Other changes	0		1		1
Accumulated depreciations and impairments 31 December 2019	-467	-41	-2	-1	-511
Right-of-use asset*					53
Carrying amount 31 December 2019	419	37	14	0	524

* Note 25.

Note 25. Leases

Right-of-use assets, EUR million	Buildings	Cars	IT equipment	Machinery and equipment	Total
Carrying amount 1 January 2020	43	4	1	5	53
Increases	169	1	3	2	175
Decreases	0	0	0	0	0
Depreciation for the financial year	-21	-2	-1	-6	-30
Value changes for the financial year	-2	-1	-1	0	-4
Other changes		0	0	10	10
Carrying amount 31 December 2020	188	2	2	11	205

Right-of-use assets, EUR million	Buildings	Cars	IT equipment	Machinery and equipment	Total
Carrying amount 1 January 2019	50	3	4	5	62
Increases	7	3	0	2	11
Decreases	1	0	0	0	2
Depreciation for the financial year	-12	-2	-3	-2	-18
Value changes for the financial year	-3	0	0	0	-3
Other changes	0				0
Carrying amount 31 December 2019	43	4	1	5	53

Lease liabilities, EUR million	31 Dec 2020	31 Dec 2019
* Carrying amount	281	53
Contractual maturities		
< 1 year	33	15
1–2 years	31	13
2–3 years	29	11
3–4 years	24	6
4–5 years	22	4
Over 5 years	159	5

* Note 34 Provisions and other liabilities

Items entered in the income statement, EUR million	31 Dec 2020	31 Dec 2019
Interest expenses	-3	0
Depreciation on right-of-use assets	-30	-18
Lease income received from sublease	-1	-1
Expenses related to variable lease payments not included in lease liabilities	1	1
Gains or losses arising from sale and leaseback transactions;	101	0
Expenses of short-term and low-value leases	-7	-9
Total cash flow from leases	-44	-27

Key sold and leased back property

On 31 January 2020, OP Cooperative, OP Financial Group's central cooperative, sold the Vallila property to a South Korean-Finnish consortium which includes Varma Mutual Pension Insurance Company, NH Investment & Securities (NHIS) and Shinhan Investment Corp. The value of the transaction was EUR 480 million. OP Financial Group recognised a capital gain of EUR 96 million on the sale. OP Financial Group will continue operating in the property under a long-term lease agreement. A right-of-use asset recognised in the property totalled EUR 138 million and lease liability of EUR 225 million. The Vallila property lease term is 15 years. A lease termination option applies to part of the property and the agreement can be cancelled in this respect after 7 years have passed from the date of the inception of the lease. At the inception of the lease, OP Financial Group assessed that it is reasonably certain not to exercise the termination option. In addition, an extension option of 10 years applies to the lease term of the entire property. At the inception of the lease, OP Financial Group assessed that it is not reasonably certain that the extension option would be exercised.

Lessor's operating leases

OP Financial Group companies have leased out investment property they own. Due to the Covid-19 crisis, OP Financial Group granted brief rent concessions to its customers on a case-by-case basis, particularly in the second quarter. Most waivers and discounts on lease payments terminated at the end of the third quarter, and rental income mainly recovered to its pre-pandemic level. Minimum lease payments receivable under operating leases have decreased from the year before, due to the sale of investment properties.

Minimum lease payments receivable under operating leases

EUR million	31 Dec 2020	31 Dec 2019
< 1 year	43	77
1–2 years	30	92
2–3 years	25	69
3–4 years	22	63
4–5 years	19	44
Over 5 years	88	43
Total	228	388

Finance lease receivables

OP uses finance leases to finance moveable capital assets, real property units and other premises. Due to the Covid-19 crisis, OP Financial Group granted brief rent concessions to its customers on a case-by-case basis. The duration of the rent concessions was 3–6 months. These concessions extended the entire term of the lease agreement or they increased lease payments after the end of the rent concessions.

EUR million	31 Dec 2020	31 Dec 2019
Maturity of finance lease receivables		
< 1 year	678	663
1–2 years	564	571
2–3 years	443	429
3–4 years	245	318
4–5 years	148	156
Over 5 years	292	300
Gross investment in finance leases	2,371	2,436
Unearned finance income (–)	-92	-96
Present value of minimum lease payments	2,278	2,340
Present value of minimum lease payment receivables		
< 1 year	648	632
1–2 years	544	550
2–3 years	430	415
3–4 years	237	310
4–5 years	144	151
Over 5 years	276	283
Total	2,278	2,340

Items entered in the income statement, € million	31 Dec 2020	31 Dec 2019
Interest income from finance lease receivables	30	28
Capital gain/loss accrued from finance leases	0	-1

Note 26. Other assets

EUR million	31 Dec 2020	31 Dec 2019
Payment transfer receivables	299	19
Pension assets	31	44
Accrued income and prepaid expenses		
Interest	192	150
Interest on derivatives receivables	20	41
Commission receivables from asset management	3	7
Performance-based management fees from asset management	0	8
Subscription, redemption and management fee receivables	27	27
Other	128	97
Derivatives receivables, central counterparty clearing	15	1
CSA receivables from derivative contracts	503	432
Securities receivables	8	6
Direct insurance receivables	294	294
Claims administration contracts	177	181
Reinsurance receivables	78	70
Reinsurers' share of provisions for unearned premiums	7	7
Reinsurers' share of provisions for unpaid claims	106	98
Other receivables	347	201
Total	2,236	1,684

Note 27. Tax assets and liabilities

EUR million	31 Dec 2020	31 Dec 2019
Income tax assets	30	68
Deferred tax assets	158	166
Total tax assets	**188**	**235**

EUR million	31 Dec 2020	31 Dec 2019
Income tax liabilities	23	36
Deferred tax liabilities	1,046	1,014
Total tax liabilities	**1,069**	**1,050**

Deferred tax assets	31 Dec 2020	31 Dec 2019
Due to financial assets at fair value through other comprehensive income	0	17
Due to depreciation and impairments	9	6
Due to provisions and impairments on loans	2	17
Due to losses related to taxation	7	0
Cash flow hedge		6
Due to hedging of interest rate risk associated with technical provisions	51	34
Due to timing difference of derivatives	2	17
Due to defined-benefit pension plans		50
Due to consolidation of Group accounts	25	29
Due to other temporary differences	84	42
Set-off against deferred tax liabilities	-22	-53
Total	**158**	**166**

Deferred tax liabilities	31 Dec 2020	31 Dec 2019
Due to appropriations	730	703
Due to financial assets at fair value through other comprehensive income	36	19
Cash flow hedge	60	44
Due to elimination of equalisation provision	68	62
Due to fair value measurement of investment	108	121
Allocation of price of corporate acquisitions	41	42
Defined benefit pension plans	1	44
Due to consolidation of Group accounts	21	11
Due to other temporary differences	4	22
Set-off against deferred tax assets	-23	-53
Total	1,046	1,014
Net deferred tax asset (+)/liability (-)	-888	-848

Changes in deferred taxes	31 Dec 2020	31 Dec 2019
Deferred tax assets/liabilities 1 January	-848	-769
Effect of changes in accounting policies and other adjustments, total		23
Deferred tax assets /liabilities 1 January	-848	-745
Recognised in the income statement		
Effect of losses		0
Provisions and impairments on receivables		-1
Appropriations	-21	-29
Amortisation/depreciation and impairments	1	-2
Eliminations of equalisation provisions	-6	4
Defined-benefit pension plans	-17	6
Due to hedging of interest rate risk associated with technical provisions	17	25
Due to timing difference of derivatives	-15	10
Investment valuation	14	-38
Other	11	-9
Recognised in statement of comprehensive income		
Available-for-sale financial assets		
Changes in fair value	-17	-33
Cash flow hedge	-15	-39
Transfers to the income statement	0	11
Actuarial gains/losses on post-employment benefit obligations	1	-3
Change in revaluation reserve		
Other	7	5
Reclassified as a non-current asset held for sale		-11
Total deferred tax assets 31 December, asset (+)/liability (-)	-888	-848
Income tax assets, asset (+)/liability (-)	7	32
Total tax assets, asset (+)/liability (-)	-888	-848

Tax losses for which a deferred tax asset was not recognised came to EUR 81 million (EUR 242 million) at the end of 2020. The losses will expire before 2030.

A deferred tax liability has not been recognised for the EUR 43 million (EUR 32 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 28. Liabilities to credit institutions

EUR Million	31 Dec 2020	31 Dec 2019
Liabilities to central banks	8,000	2,000
Liabilities to credit institutions		
Repayable on demand		
Deposits	53	81
Other liabilities	0	0
Total	53	81
Other than repayable on demand		
Deposits	32	342
Other liabilities	2	208
Total	33	551
Total liabilities to credit institutions and central banks	8,086	2,632

During 2020, the Governing Council of the European Central Bank modified the conditions of TLTRO III financing in order to stimulate bank lending to actors which have been hardest hit by the spread of Covid-19. According to the modified conditions, the interest rate between 24 June 2020 and 23 June 2022 can be the ECB's deposit facility rate (–0.50% on the reporting date) less 0.50%, and the ECB's deposit facility rate for the subsequent loan maturity at its best. The reduced interest rate is conditional on fulfilling the criteria for net lending performance. The final interest rate will not be determined until the TLTRO III operations mature (or during repayment). Changes in the interest rate are reflected in the effective interest rate. "Liabilities to central banks" include EUR 8.0 billion in the ECB's TLTRO III funding (Targeted longer-term refinancing operations). The bank assesses that it will fulfil the net lending performance criteria affecting the price of financing.

Note 29. Derivative contracts

EUR million	31 Dec 2020	31 Dec 2019
Held for trading		
Interest rate derivatives	2,509	2,638
Currency derivatives	437	234
Equity and index derivatives	0	0
Credit derivatives	0	1
Other	8	14
Total	2,953	2,887
Hedging derivative contracts*		
Fair value hedging		
Interest rate derivatives	405	399
Currency derivatives	65	30
Cash flow hedge		
Interest rate derivatives	0	0
Total	470	429
Total derivative contracts	3,424	3,316

* The balance sheet item includes negative changes in value of derivative contracts as well as premiums received.

Note 30. Liabilities to customers

EUR million	31 Dec 2020	31 Dec 2019
Deposits		
Repayable on demand		
Private	42,199	38,772
Companies and public-sector entities	27,664	24,015
Total	69,863	62,786
Other		
Private	878	1,122
Companies and public-sector entities	199	90
Total	1,077	1,212
Total deposits	70,940	63,998
Other financial liabilities		
Repayable on demand		
Private	7	8
Companies and public-sector entities	1	0
Total	8	9
Other		
Companies and public-sector entities	2,474	4,282
Total	2,474	4,282
Total other financial liabilities	2,482	4,291
Total liabilities to customers	**73,422**	**68,289**

Note 31. Insurance liabilities

EUR million	31 Dec 2020	31 Dec 2019
Non-life Insurance insurance liabilities	3,326	3,234
Insurance liability of Life Insurance other than guaranteed portions of unit-linked insurance	6,086	6,283
Life Insurance liability other than guaranteed portions of unit-linked investment contracts	2	3
Total	9,414	9,520

The figures in the note include provision for outstanding claims related to unit-linked contracts. As a result, the figures in the note do not match with the balance sheet.

Non-life Insurance contract liabilities and reinsurers' share

	31.12.2020			31.12.2019		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims for annuities	1,596	-7	1,589	1,571	-4	1,567
Other provisions by case	195	-84	111	197	-81	116
Special provision for occupational diseases	8		8	10		10
Collective liability (IBNR)	764	-16	748	779	-13	766
Reserved loss adjustment expenses	153		153	114		114
Provision for unearned premiums	593	-7	586	584	-7	576
Interest rate hedge for insurance liabilities	16		16	-22		-22
Total Non-life Insurance insurance liabilities	3,326	-113	3,213	3,234	-106	3,128

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

	2020			2019		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims						
Provision for unpaid claims 1 Jan.	2,650	-98	2,552	2,588	-97	2,491
Claims paid in financial year	-1,051	27	-1,024	-1,140	21	-1,119
Change in liability/receivable	1,073	-33	1,041	1,219	-23	1,196
Current period claims	1,052	-17	1,035	1,116	-24	1,092
Increase (decrease) from previous financial years	-24	-16	-39	-25	1	-24
Change in discount rate	45		45	128		128
Unwinding of discount	19		19	27		27
Value change in interest rate hedges	38		38	-43		-43
Sold business operations	4	-3	1	0	0	0
Foreign exchange gains (losses)				0		0
Provision for unpaid claims 31 Dec.	2,733	-106	2,627	2,650	-98	2,552
Liability for remaining contract period						
Insurance liability 1 Jan.	584	-7	576	569	-8	561
Increase	537	-7	531	530	-7	523
Decrease	-529	7	-521	-516	8	-509
Sold business operations						
Unwinding of discount	1		1	1		1
Insurance liability 31 Dec.	593	-7	586	584	-7	576
Total Non-life Insurance insurance liabilities	3,326	-113	3,213	3,234	-106	3,128

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 2020, the discount rate used was 0.85 % (1.0). 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 2–15% is added to the expected value generated by the selected model. The safety margin is determined by the uncertainty associated with future cash flows and duration, as well as the quality of historical data.

When estimating the collective liability for medical expenses and rehabilitation expenses benefits in statutory workers' compensation and motor liability insurance, the Group has taken account of the fact claims paid for losses occurred more than 10 years ago are financed through the pay-as-you-go system.

Effect of changes in methods and assumptions on amount of liability	2020	2019
Effect of changes in methods and assumptions on amount of liability	45	147
Total	**45**	**147**

b) Claims development

The claims triangle compares the actual claims incurred with previous estimates. The triangles describing claims development have been drawn up by occurrence year.

With the exception of long-term liabilities, claims development for the gross business is presented over a period of ten years. The claims triangle does not monitor the shares of pools. 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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Estimated total claims expenditure											
0*	784	815	903	931	976	1,000	1,043	1,121	1,116	1,052	9,741
n+1	751	802	879	905	887	1,006	1,063	1,149	1,116		
n+2	752	805	861	920	902	995	1,078	1,164			
n+3	757	821	885	939	910	998	1,079				
n+4	771	836	891	929	912	996					
n+5	786	840	888	930	912						
n+6	785	840	900	931							
n+7	783	838	903								
n+8	784	843									
n+9	788										
Current estimate of total claims expenditure											
	788	843	903	931	912	996	1,079	1,164	1,116	1,052	9,783
Accumulated claims paid											
	-759	-807	-854	-882	-852	-927	-983	-1,029	-929	-568	-8,590
Provision for unpaid claims for 2011-2020											
	29	**37**	**49**	**49**	**59**	**68**	**97**	**135**	**187**	**484**	**1,194**
Provision for unpaid claims for previous years											244

* = 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
2011	35	50	-3	-6	5	-2
2012	32	53	-4	-4	2	-1
2013	28	53	-4	-1	1	0
2014	22	53	-4	-2	2	0
2015	19	54	-4	-2	2	-1
2016	17	53	-5	-1	2	1
2017	14	53	-5	-3	3	0
2018	13	51	-6	-2		-2
2019	10	52	-5	-3	3	0
2020	9	54	-5	-6	1	-5

Development of annuities confirmed as final, EUR million

Financial year	Year-start	Year-end	New annuity capital	Annuities paid	Changes in reserving basis*	Adequacy
2011	794	895	66	35	77	7
2012	895	940	66	34	31	18
2013	940	965	51	37	23	12
2014	965	1,010	54	40	36	5
2015	1,010	1,046	53	44	30	2
2016	1,046	1,080	54	49	31	3
2017	1,080	1,141	54	52	75	16
2018	1,141	1,145	56	54		-2
2019	1,145	1,206	38	56	80	1
2020	1,206	1,245	82	54	25	14

* Effect of changes in the discount rate and the mortality model on final annuity capital.

Claims triangles, net business, EUR million

Occurrence year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Estimated total claims expenditure											
0*	721	796	861	897	957	992	1,019	1,081	1,092	1,034	9,451
n+1	697	782	829	868	877	1,000	1,026	1,109	1,089		
n+2	710	786	819	875	892	990	1,045	1,114			
n+3	714	804	843	887	898	994	1,046				
n+4	727	818	847	887	901	992					
n+5	741	823	847	885	900						
n+6	743	823	858	886							
n+7	742	822	859								
n+8	744	827									
n+9	747										
Current estimate of total claims expenditure											
	747	827	859	886	900	992	1,046	1,114	1,089	1,034	9,496
Accumulated claims paid											
	-719	-791	-815	-839	-842	-925	-962	-1,010	-919	-568	-8,389
Provision for unpaid claims for 2011-2020											
	29	**37**	**44**	**48**	**58**	**66**	**85**	**105**	**169**	**467**	**1,107**
Provision for unpaid claims for previous years											232

* = 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 3 million while those for the previous financial year increased by EUR 104 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 2020	Growth in liability arising from insurance premiums	Dis-charged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec 2020
Other than unit-linked contract liabilities							
Other insurance liability than unit-linked liability discounted with interest rate guarantee	2,757	158	-231	82	-94	25	2,697
Separated balance sheet 1	841	0	-42	30	-5	-20	804
Separated balance sheet 2	2,185	5	-218	67	9	-23	2,025
Other liability than unit-linked investment contracts discounted with interest rate guarantee	3	0	-2	0	0	0	2
Reserve for decreased discount rate	257					-20	237
Effect of discounting with market interest rate	169					84	253
Other items	75					-5	70
Total	6,286	164	-493	179	-90	42	6,088

Liabilities, EUR million	1 Jan 2019	Growth in liability arising from insurance premiums	Dis-charged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec 2019
Other than unit-linked contract liabilities							
Other insurance liability than unit-linked liability discounted with interest rate guarantee	2,824	170	-244	85	-96	17	2,757
Separated balance sheet 1	827	0	-42	44	-6	19	841
Separated balance sheet 2	2,296	6	-228	75	8	27	2,185
Other liability than unit-linked investment contracts discounted with interest rate guarantee	3	0	-1	0	0	1	3
Reserve for decreased discount rate	297					-41	257
Effect of discounting with market interest rate	43					125	169
Other items	66					8	75
Total	6,357	176	-514	203	-93	157	6,286

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 32. Liabilities from unit-linked insurance and investment contracts

EUR million	31 Dec 2020	31 Dec 2019
Unit-linked contract liabilities		
Liabilities for unit-linked insurance contracts	4,796	4,784
Liabilities for unit-linked investment contracts	6,486	6,034
Total	11,282	10,818

The figures in the note exclude provision for outstanding claims related to unit-linked contracts. As a result, the figures in the note do not match with the balance sheet.

Changes in insurance liabilities

Liabilities, EUR million	1 Jan. 2020	Growth in liability arising from insurance premiums	Discharged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec 2020
Unit-linked contract liabilities							
Liabilities for unit-linked insurance contracts	4,784	160	-306	178	-15	-5	4,796
Liabilities for unit-linked investment contracts	6,034	549	-373	242	-18	52	6,486
Total	10,818	709	-679	421	-33	47	11,282

Liabilities, EUR million	1 Jan. 2019	Growth in liability arising from insurance premiums	Discharged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec 2019
Unit-linked contract liabilities							
Liabilities for unit-linked insurance contracts	4,518	161	-549	702	-17	-32	4,784
Liabilities for unit-linked investment contracts	5,255	711	-758	793	-19	52	6,034
Total	9,774	873	-1,307	1,494	-36	20	10,818

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 33. Debt securities issued to the public

EUR million	31 Dec 2020	31 Dec 2019
Bonds	12,217	11,501
Subordinated bonds (SNP)	1,689	1,156
Covered bonds	13,252	12,097
Other		
Certificates of deposit	273	0
Commercial paper	7,347	9,716
Included in own portfolio in trading (–)*	-72	-101
Total debt securities issued to the public	34,706	34,369

*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 January 2020	34,369	1,290
Changes in cash flows from financing activities		
Increases in bonds	9,719	
Increases in covered bonds	2,288	
Increases in certificates of deposit	350	
Increases in commercial papers	18,012	
Increases in debentures		1,326
Increases total	30,369	1,326
Decreases in bonds	-8,570	
Decreases in covered bonds	-1,273	
Decreases in certificates of deposit	-77	
Decreases in commercial papers	-20,381	
Decreases in debentures		-348
Decreases total	-30,301	-348
Total changes in cash flows from financing activities	68	978
Valuations	269	-8
Balance sheet value 31 December 2020	34,706	2,261

EUR million	Debt securities issued to the public	Subordinated liabilities
Balance sheet value 1 January 2019	30,458	1,358
Changes in cash flows from financing activities		
Increases in bonds	5,728	
Increases in covered bonds	2,243	
Increases in certificates of deposit	77	
Increases in commercial papers	22,268	
Increases total	30,315	
Decreases in bonds	-2,848	
Decreases in covered bonds	-921	
Decreases in certificates of deposit	-182	
Decreases in commercial papers	-22,714	
Decreases total	-26,664	-60
Total changes in cash flows from financing activities	3,651	-60
Valuations	260	-8
Balance sheet value 31 December 2019	34,369	1,290

Most significant issues in 2020	Nominal amount	Interest rate
OP Corporate Bank plc		
OP Corporate Bank plc Issue of EUR 500,000,000 0.600 per cent. Senior Non-Preferred Instruments due 18 January 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.600%
OP Corporate Bank plc Issue of EUR 400,000,000 Floating Rate Instruments due August 2022 to be consolidated and form a single series with the existing Issue of EUR 250,000,000 Floating Rate Instruments due August 2022 issued on 10 August 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	650.0	EUB3 + 1.050%
OP Corporate Bank plc Issue of EUR 1,000,000,000 0.125 per cent. Unsubordinated Instruments due 1 July 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	1,000.0	Fixed 0.125%
OP Corporate Bank plc Issue of EUR 1,000,000,000 0.500 per cent. Unsubordinated Instruments due 12 August 2025 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	1,000.0	Fixed 0.500%
OP Mortgage Bank		
OP Mortgage Bank issue of EUR 500.000.000 3 month Euribor + 0,80 per cent. Covered Notes due 18 Apr 2022 under the EUR 20.000.000.000 Euro Medium Covered Note Programme	500.0	EUB3 + 0.800%
OP Mortgage Bank issue of EUR 1.000.000.000 0,05 per cent. Covered Notes due 21 Apr 2028 under the EUR 20.000.000.000 Euro Medium Covered Note Programme	1,000.0	Fixed 0.050 %
OP Mortgage Bank issue of EUR 1.250.000.000 0,01 per cent. Covered Notes due 19 Nov 2030 under the EUR 20.000.000.000 Euro Medium Covered Note Programme	1,250.0	Fixed 0.010 %

Note 34. Provisions and other liabilities

EUR million	31 Dec 2020	31 Dec 2019
Provisions		
Loss allowance	29	18
Reorganisation provision	0	5
Other provisions	3	10
Other liabilities		
Payment transfer liabilities	1,101	919
Accrued expenses		
Interest payable	203	186
Interest payable on derivatives	1	26
Other accrued expenses	421	404
CSA liabilities from derivatives	573	728
Pension liabilities	38	86
Lease liabilities	281	53
Accounts payable on securities	8	12
Payables based on purchase invoices	29	39
Direct insurance liabilities	52	52
Reinsurance liabilities	21	20
Claims administration contracts	152	162
Total	2,878	2,687
Other	521	443
Total provisions and other liabilities	**3,431**	**3,163**

* Note 3 describes the sale and leaseback of the Vallila property.

EUR million	Loss allowance	Reorgani-sation	Other provisions	Total
1 January 2020	18	5	10	33
Increase in provisions	11		2	13
Provisions used		-5	-4	-9
Reversal of unused provisions		0	-4	-4
31 December 2020	29	0	3	32

EUR million	Loss allowance	Reorgani-sation	Other provisions	Total
1 January 2019	6	10	5	22
Increase in provisions	12	5	10	27
Provisions used		-6	-4	-10
31 December 2019	18	5	10	33

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 insurance companies, OP Bank Group Pension Fund and OP Bank Group Pension Foundation. Schemes related to supplementary pensions in the Pension Foundation and insurance companies, as well as the TyEL (Employees' Pensions Act) funded old-age and disability pension schemes managed until the end of 2020 by the Pension Fund are treated as defined benefit plans. Statutory pension cover managed by Ilmarinen Mutual Pension Insurance Company is treated as a defined contribution plan.

OP Bank Group Pension Fund

On 31 December 2018, OP Financial Group transferred 90.8% of OP Bank Group Pension Fund's pension portfolio to Ilmarinen Mutual Pension Insurance Company. The remaining pension liabilities of 9.2% were transferred to Ilmarinen on 31 December 2020. The transferred solvency capital totalled EUR 30 million. The transfer reduced OP Financial Group's pension costs and improved earnings before tax by EUR 96 million. 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. 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.

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. Arranging supplementary pension is voluntary. 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.

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.

The one-off increase in the liability of paid-up policies in 2017 was reversed in full during 2020.

Supplementary pension has also been arranged in life insurance companies.

Balance sheet value of defined benefit plans, EUR million	Defined benefit obligations 2020	Defined benefit obligations 2019	Fair value of pension assets 2020	Fair value of pension assets 2019	Net liabilities (assets) 2020	Net liabilities (assets) 2019
Opening balance 1 Jan	771	714	-728	-686	42	28
Defined benefit pension costs recognised in income statement						
Current service cost	19	15			19	15
Interest expense (income)	6	12	-6	-11	0	1
Effect of plan curtailment, change and fulfilment of obligation or previous service cost	-241	0	144		-97	0
Administrative expenses			1	1	1	1
Total	-216	27	140	-10	-76	18
Losses (gains) recognised in other comprehensive income arising from remeasurement						
Actuarial losses (gains) arising from changes in economic expectations	60	73			60	73
Return on TyEL interest rate difference and growth in old-age pension liabilities (net)	3	0	-3	0		
Experience adjustments	15	6			15	6
Return on plan assets, excluding amount (–) of net defined benefit liability (asset)			-28	-93	-28	-93
Total	78	78	-31	-93	47	-15
Other						
Employer contributions*			-7	13	-7	13
Benefits paid	-38	-48	38	48		
Total	-38	-48	31	61	-7	13
Closing balance 31 Dec	595	771	-589	-728	7	42

* Include refund of OP Bank Group Pension Fund's solvency capital a year ago, totalling EUR 24 million.

Liabilities and assets recognised in the balance sheet, EUR million	31 Dec 2020	31 Dec 2019
Foundation)	-31	-44
Net liabilities/assets (Pension Fund)		50
Net liabilities (Other pension plans)	38	36
Total net liabilities	38	86
Total net assets	-31	-44

Pension Foundation assets, grouped by valuation technique, 31 December 2020, EUR million	Level 1	Level 2	Level 3	Total
Shares and participations	35	0	42	77
Notes and bonds	154	14	0	169
Real property			11	11
Mutual funds	68	31	131	230
Derivatives			0	0
Other assets	22			22
Total	279	46	183	508

Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 December 2019, EUR million	Level 1	Level 2	Level 3	Total
Shares and participations	67	0	32	99
Notes and bonds	187		4	191
Real property			9	9
Mutual funds	89	30	186	305
Derivatives			0	0
Other assets	54		5	59
Total	397	31	236	663

The fair value of Level 1 assets is determined on the basis of the quotes in markets.

The fair value of Level 2 assets means value derived from the market price of a financial instrument's components or similar financial instruments; or value which can be determined using commonly used valuation models and techniques if the inputs significant to the fair value measurement are based on observable market data.

The fair value Level 3 assets is determined using a pricing model whose input parameters involve uncertainty.

Proportion of the most significant assets of total fair value of plan assets, %	31 Dec 2020	31 Dec 2019
Shares and participations	15	15
Financial sector	1	0
Forest	0	0
Real estate	8	4
Other	6	10
Notes and bonds	33	29
Government bonds	33	28
Other	0	1
Real property	2	1
Mutual funds	45	46
Equity funds	23	17
Bond funds	2	6
Real estate funds	13	18
Hedge funds	7	5
Derivatives	0	0
Currency derivatives	0	0
Other	4	9
Total	100	100

Pension plan assets include, EUR million,	31 Dec 2020	31 Dec 2019
Other receivables from OP Financial Group companies	23	62
Total	23	62

Contributions payable under the defined benefit pension plan in 2021 are estimated at EUR 3 million.
The duration of the defined benefit pension obligation in the Pension Foundation on 31 December 2020 was 15.6 years and in other plans 20.9 years.

Key actuarial assumptions used, 31 December 2020, EUR million	Pension Fund	Pension Foundation	Insurance companies
Discount rate, %		0.4	0.5
Future pay increase assumption, %		2.1	2.2
Future pension increases, %		1.4	1.5
Turnover rate, %		0.0	0.0
Inflation rate, %		1.3	1.4
Estimated remaining service life of employees in years		6.0	8.0
Life expectancy for 65-year old people			
Men		21.4	21.4
Women		25.4	25.4
Life expectancy for 45-year old people after 20 years			
Men		23.7	23.7
Women		28.1	28.1

Key actuarial assumptions used, 31 December 2019, EUR million	Pension Fund	Pension Foundation	Insurance companies
Discount rate, %	1.0	0.8	0.9
Future pay increase assumption, %	2.3	2.1	2.1
Future pension increases, %	0.5	1.5	1.5
Turnover rate, %	3.0	0.0	0.0
Inflation rate, %	1.5	1.3	1.3
Estimated remaining service life of employees in years	22.9	6.1	8.5
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

Sensitivity analysis of key actuarial assumptions, 31 December 2020	Pension Foundation Change in defined benefit pension obligation		Supplementary pension schemes of insurance companies change in defined benefit net pension liability	
	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-32	-6.9	-3	-10.4
0.5 pp decrease	35	7.8	4	12.0
Pension increases				
0.5 pp increase	31	6.9	10	30.1
0.5 pp decrease	-29	-6.5	-9	-27.6
Mortality				
1-year increase in life expectancy	18	3.7	1	3.7
1-year decrease in life expectancy	-17	-3.6	-1	-3.6

Sensitivity analysis of key actuarial assumptions, 31 December 2019	Pension Fund Change in defined benefit pension obligation		Pension Foundation Change in defined benefit pension obligation	
	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-22	-11.2	-31	-6.8
0.5 pp decrease	26	13.3	35	7.6
Pension increases				
0.5 pp increase	24	12.3	31	6.7
0.5 pp decrease	-21	-11.0	-29	-6.3
Mortality				
1-year increase in life expectancy	6	3.1	16	3.6
1-year decrease in life expectancy	-6	-3.0	-16	-3.5

Note 35. Subordinated liabilities

EUR million	31 Dec 2020	31 Dec 2019
Subordinated loans	50	52
Other		
Debentures	2,210	1,239
Total subordinated liabilities	2,261	1,290

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 93 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 28 February 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 79 million), which is a ten-year bullet loan, will mature on 3 July 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to the JPY Libor + 0.735%.

Debenture loan of SEK 3,250 million (euro equivalent 324 million), which is a ten-year bullet loan, will mature on 3 June 2030. 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 a 3-month Stibor + 2.300%.

Debenture loan of 1,000 million euros, which is a 10-year bullet loan, will mature on 9 June 2030. 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 1.625% p.a.

Loans 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 2020	31 Dec 2019
Capital and reserves attributable to OP Financial Group owners		
Cooperative capital, cooperative shares	205	203
of which cancelled cooperative shares	7	6
Cooperative capital, profit shares	2,661	2,764
of which cancelled profit shares	301	265
Reserves		
Restricted reserves		
Reserve fund	795	795
Fair value reserve		
Cash flow hedge	203	141
Measurement at fair value		
Notes and bonds	100	38
Loss allowance regarding notes and bonds	9	7
Shares and participations (overlay approach)	70	65
Other restricted reserves	1	15
Non-restricted reserves		
Other non-restricted reserves	1,375	1,375
Retained earnings		
Profit (loss) for previous financial years	6,606	6,067
Profit (loss) for the financial year	641	663
Equity capital attributable to OP Financial Group's owners	12,975	12,404
Non-controlling interests	137	166
Total equity capital	13,112	12,570

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 2019-20, 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 January 2019	2,003	30,417	32,421
Increase in cooperative capital	156	1,295	1,451
Refund of cooperative capital	-62	-1,427	-1,489
31 December 2019	**2,097**	**30,285**	**32,382**
Increase in cooperative capital	91	714	805
Refund of cooperative capital	-65	-1,382	-1,448
31 December 2020	**2,122**	**29,617**	**31,739**

Reserves

Reserve fund

The reserve fund consists of profits transferred to it during previous periods and of the portion transferred to it from member cooperative banks' revaluation reserves and loan loss provisions. The reserve fund may be used to cover losses for which non-restricted equity capital is not sufficient. The reserve fund may also be used to raise the share capital and it can be lowered in the same way as the share capital. In cooperative credit institutions, the reserve fund can only be used to cover losses. In a limited liability company, it has not been possible to increase the reserve fund since 1 September 2006.

Fair value reserve

The fair value reserve includes the change in the fair value of equity instruments as financial assets recognised through the statement of comprehensive income and within the scope of the overlay approach. Items included in this reserve will be derecognised and recorded in the income statement when an available-for-sale financial asset is disposed of or is subject to impairment. The expected loss on notes and bonds recognised through other comprehensive income is recognised to adjust the fair value reserve. The reserve also includes the net fair value change of interest rate derivatives as cash flow hedges verified as effective and adjusted for deferred tax. Fair value changes are included in the income statement in the period when hedged cash flows affect net income.

Fair value reserve after income tax

	Fair value through other comprehensive income			
EUR million	Notes and bonds	Shares and participations (overlay approach)	Cash flow hedging	Total
Opening balance 1 January 2019	-5	-21	33	7
Fair value changes	93	70	77	241
Capital gains transferred to income statement	-32	12		-20
Impairment loss transferred to income statement		26		26
Transfers to net interest income			58	58
Deferred tax	-12	-22	-27	-61
Closing balance 31 December 2019	44	65	141	251

	Fair value through other comprehensive income			
EUR million	Notes and bonds	Shares and participations (overlay approach)	Cash flow hedging	Total
Opening balance 1 January 2020	44	65	141	251
Fair value changes	94	-7	124	210
Capital gains transferred to income statement	-13	-3		-16
Impairment loss transferred to income statement		15		15
Transfers to net interest income			-46	-46
Deferred tax	-16	-1	-16	-33
Closing balance 31 December 2020	109	70	203	382

The fair value reserve before tax totalled EUR 478 million (314) and the related deferred tax asset/liability EUR -96 million (-63). During the financial year, positive mark-to-market valuations of equity instruments in the fair value reserve totalled EUR 15 million (99) and negative mark-to-market valuations EUR 10 million (11), owing to the application of the overlay approach. The loss allowance on notes and bonds recognised at fair value through other comprehensive income totalled EUR 3 million (2) in the fair value reserve during the reporting period.

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. Collateral given

EUR million	31 Dec 2020	31 Dec 2019
Given on behalf of own liabilities and commitments		
Pledges	136	230
Loans (as collateral for covered bonds)	15,722	14,551
Others	9,784	3,496
Total collateral given*	**25,643**	**18,277**
Secured derivative liabilities	1,078	1,098
Other secured liabilities	8,143	2,209
Covered bonds	13,252	12,097
Total	**22,473**	**15,404**

* In addition, bonds with a book value of EUR 5.3 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 38. Financial collateral held

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

EUR million	31 Dec 2020	31 Dec 2019
Fair value of collateral received		
Other	420	707
Total	**420**	**707**

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 420 million on the balance sheet date (707). The Group had no securities received as collateral on the balance sheet date.

Note 39. Classification of financial assets and liabilities

Assets, EUR million	Amortised cost	Fair value through other comprehen-sive income	Fair value through profit or loss: Financial assets held for trading	Fair value through profit or loss: Financial assets designated as at fair value through profit or loss	Fair value through profit or loss: Must be measured at fair value through profit or loss	Hedging derivatives	Carrying amount total
Cash and cash equivalents	21,827						21,827
Receivables from credit institutions	306						306
Derivative contracts			4,296			920	5,215
Receivables from customers	93,644						93,644
Assets covering unit-linked contracts				11,285			11,285
Notes and bonds	1	18,134	330	2,172	408		21,044
Equity instruments		-21	73	206	1,419		1,678
Other financial assets	2,290						2,290
Financial assets							157,289
Other than financial instruments							2,919
Total 31 December 2020	118,067	18,113	4,698	13,663	1,827	920	160,207

Assets, EUR million	Amortised cost	Fair value through other comprehen-sive income	Fair value through profit or loss: Financial assets held for trading	Fair value through profit or loss: Financial assets designated as at fair value through profit or loss	Fair value through profit or loss: Must be measured at fair value through profit or loss	Hedging derivatives	Carrying amount total
Cash and cash equivalents	11,988						11,988
Receivables from credit institutions	246						246
Derivative contracts			3,821			1,003	4,824
Receivables from customers	91,463						91,463
Assets covering unit-linked contracts				10,831			10,831
Notes and bonds	3	16,695	1,415	2,216	466		20,795
Equity instruments		0	77	254	1,248		1,580
Other financial assets	1,884						1,884
Financial assets							143,612
Other than financial instruments							3,412
Total 31 December 2019	105,585	16,695	5,313	13,301	1,714	1,003	147,024

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		8,086		8,086
Derivative contracts	2,954		470	3,424
Liabilities to customers		73,422		73,422
Insurance liabilities		9,374		9,374
Liabilities from unit-linked insurance and investment contracts	11,323			11,323
Debt securities issued to the public		34,706		34,706
Subordinated loans		2,261		2,261
Other financial liabilities		2,448		2,448
Financial liabilities				145,044
Other than financial liabilities				2,052
Total 31 December 2020	14,276	130,297	470	147,095

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		2,632		2,632
Derivative contracts	2,887		429	3,316
Liabilities to customers		68,289		68,289
Insurance liabilities		9,476		9,476
Liabilities from unit-linked insurance and investment contracts	10,862			10,862
Debt securities issued to the public		34,369		34,369
Subordinated loans		1,290		1,290
Other financial liabilities		2,578		2,578
Financial liabilities				132,812
Other than financial liabilities				1,642
Total 31 December 2019	13,749	118,634	429	134,454

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 810 (529) 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 40. Recurring fair value measurements by valuation technique

Fair value of assets on 31 December 2020, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	772	268	638	1,678
Debt instruments	1,970	661	278	2,909
Unit-linked contracts	7,481	3,804		11,285
Derivative financial instruments	0	5,154	61	5,215
Fair value through other comprehensive income				
Debt instruments	16,064	1,768	301	18,134
Total financial instruments	26,287	11,655	1,278	39,221
Investment property			623	623
Total	26,287	11,655	1,902	39,844

Fair value of assets on 31 December 2019, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	705	231	643	1,579
Debt instruments	2,810	750	537	4,097
Unit-linked contracts	7,048	3,783		10,831
Derivative financial instruments	22	4,728	74	4,824
Fair value through other comprehensive income				
Equity instruments		0		0
Debt instruments	13,980	1,827	888	16,695
Total financial instruments	24,565	11,319	2,143	38,027
Investment property			714	714
Total	24,565	11,319	2,857	38,741

Fair value of liabilities on 31 December 2020, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Unit-linked contracts	7,506	3,817		11,323
Other		0		0
Derivative financial instruments	0	3,382	42	3,424
Total	7,506	7,199	42	14,747

Fair value of liabilities on 31 December 2019, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Unit-linked contracts	7,068	3,794		10,862
Other		12		12
Derivative financial instruments	18	3,266	32	3,316
Total	7,086	7,072	32	14,190

Fair value measurement

Derivatives

The Group obtains the price of listed derivatives directly from markets. In the fair value measurement of OTC derivatives, Pohjola uses models and techniques commonly used in markets. These are needed, for instance, to create yield curves and currency conversion charts and volatility surfaces as well as for option valuation. The input data of these models can generally be derived from markets. In the fair value measurement of some contracts, however, the Group has to use models where input data cannot be observed in the market and therefore they must be assessed. Such contracts are included in Level 3.

Middle Office is responsible for the fair value measurement of Banking derivatives, incl. level 3 hierarchy, and the quality and reliability of market data, valuation curves and volatility surfaces used in them, as part of its daily fair value measurement process. Middle Office compares regularly at contract level valuation prices with valuations supplied by CSA counterparties and central counterparties and, whenever necessary, determines any possible significant valuation differences.

Risk Management Control is responsible for approval of new fair value measurement models and techniques and supervision of the fair value measurement process. Verifying fair values is based, for example, on valuation using alternative sources for market prices and other input data. In this verification process, valuation prices can be compared with prices supplied by CSA counterparties and central counterparties. In addition, it is possible to use valuation services provided by third parties.

The fair value measurement of OTC derivatives takes account of the credit risk of the parties to a transaction. Credit risk is adjusted with a Credit Valuation Adjustment (CVA) and with a Debit Valuation Adjustment (DVA). CVA and DVA valuation adjustments are calculated for each counterparty. CVA and DVA adjustments are calculated by simulating the market values of derivatives and events of default based primarily on data obtained from markets. In assessing probabilities of default, the Group utilises market data through illiquid counterparties too by combining the counterparties with liquid market data.

Fair value hierarchy

Level 1: Quoted prices in active markets

This level includes equities listed on major stock exchanges, quoted debt instruments issued by companies, governments and financial institutions as well as and exchange-traded derivatives. The fair value of these instruments is determined on the basis of the quotes in active markets.

Level 2: Valuation techniques using observable inputs

Valuation techniques based on observable input parameters. The fair value of the instruments included within this level means value derived from the market price of a financial instrument's components or similar financial instruments; or value which can be determined using commonly used valuation models and techniques if the inputs significant to the fair value measurement are based on observable market data. This hierarchy level includes the majority of OP Corporate Bank Group's OTC derivatives and quoted debt instruments issued by companies, governments and financial institutions which have not been included in Level 1.

Level 3: Valuation techniques using unobservable inputs

Valuation techniques whose input parameters involve uncertainty. The fair value determination of the instruments included within this level contains inputs not based on observable market data (unobservable inputs). Level 3 also includes bonds for which there is little, if any, market activity on the valuation date. This level includes the most complex OTC derivatives and derivatives with a long maturity for which the Group had to extrapolate the market data used in their value measurement, as well as certain private equity investments, and illiquid bonds, structured bonds, including securitised bonds and structured debt securities, and hedge funds. Level 3 fair value is based on pricing information from a third party.

Transfers between levels of the fair value hierarchy

Transfers between the levels of the fair value hierarchy are considered to take place on the date when an event causes such transfer or when circumstances change. Transfers between the levels are mainly due to the number of available market quotes.

Reconciliation of Level 3 items

Specification of financial assets and liabilities

Financial assets, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Fair value through other comprehen-sive income	Total assets
Opening balance 1 January 2020	1,181	74	888	2,143
Total gains/losses in profit or loss	-569	-13	0	-582
Total gains/losses in other comprehensive income			0	0
Purchases	109		1	111
Sales	-101		-3	-104
Settlements	-3		-5	-8
Transfers into Level 3	303		-499	-196
Transfers out of Level 3	-4		-81	-86
Closing balance 31 December 2020	916	61	301	1,278

Financial assets, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Fair value through other comprehen-sive income	Total assets
Opening balance 1 January 2019	991	57	214	1,262
Total gains/losses in profit or loss	-326	18	1	-308
Total gains/losses in other comprehensive income			1	1
Purchases	141		5	146
Sales	-85		-18	-103
Settlements	-1		-6	-7
Transfers into Level 3	466		766	1,233
Transfers out of Level 3	-6		-75	-81
Closing balance 31 December 2019	1,181	74	888	2,143

Financial liabilities, EUR million	Derivative contracts	Total liabilities
Opening balance 1 January 2020	32	32
Total gains/losses in profit or loss	9	9
Closing balance 31 December 2020	42	42

Financial liabilities, EUR million	Derivative contracts	Total liabilities
Opening balance 1 January 2019	44	44
Total gains/losses in profit or loss	-11	-11
Closing balance 31 December 2019	32	32

Total gains/losses included in profit or loss by item for the financial year on 31 December 2020

EUR Million	Net interest income	Net investment income	Statement of comprehensive income/ Change in fair value reserve	Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end
Realised net gains (losses)	-497	-73	0	-569
Unrealised net gains (losses)	-22		0	-22
Total net gains (losses)	-519	-73	0	-592

Total gains/losses included in profit or loss by item for the financial year on 31 December 2019

EUR Million	Net interest income	Net investment income	Statement of comprehensive income/ Change in fair value reserve	Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end
Realised net gains (losses)	-263	-62	0	-325
Unrealised net gains (losses)	29		1	30
Total net gains (losses)	-234	-62	2	-295

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.

Sensitivity analysis of input parameters involving uncertainty on 31 December 2020

Type of instrument, EUR million	Receivables	Liabilities	Net balance	Sensitivity analysis	Reasonably possible change in fair value
Recognised at fair value through profit or loss:					
Bond investments	124		124	12.4	10 %
Illiquid investments	71		71	10.7	15 %
Private equity funds*	479		479	47.9	10 %
Real estate funds***	242		242	48.4	20 %
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity**	61	-42	19	2.1	11 %
Fair value through profit or loss					
Bond investments	301		301	30.1	10 %
Investment property					
Investment property***	623		623	124.6	20 %

Sensitivity analysis of input parameters involving uncertainty on 31 December 2019

Type of instrument, EUR million	Receivables	Liabilities	Net balance	Sensitivity analysis	Reasonably possible change in fair value
Recognised at fair value through profit or loss:					
Bond investments	537		537	53.7	10 %
Illiquid investments	130		130	19.5	15 %
Private equity funds*	372		372	37.2	10 %
Real estate funds***	141		141	28.2	20 %
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity**	74	-32	42	4.6	11 %
Fair value through profit or loss					
Bond investments	888		888	88.8	10 %
Investment property					
Investment property***	979		979	195.8	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 41. Off-balance-sheet commitments

EUR million	31 Dec 2020	31 Dec 2019
Guarantees	686	711
Other guarantee liabilities	2,160	2,459
Loan commitments	13,826	13,180
Commitments related to short-term trade transactions	255	333
Other*	1,535	1,311
Total off-balance-sheet commitments	18,461	17,995

* Of which Non-life Insurance commitments to private equity funds amount to EUR 174 million (194).

Note 42. 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 43. Derivative contracts

Derivatives held for trading 31 December 2020

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	9,199	26,341	42,468	78,008	3,095	1,394
Cleared by the central counterparty	6,058	17,754	25,319	49,131	9	15
Settled-to-market (STM)	5,058	17,371	25,101	47,531	9	15
Collateralised-to-market (CTM)	1,000	383	217	1,601	0	0
Forward rate agreements						
OTC interest rate options						
Call and caps						
Purchased	4,285	3,803	2,398	10,486	620	17
Written	4,316	3,200	3,018	10,534	82	362
Put and floors						
Purchased	2,678	3,485	3,205	9,368	76	-2
Written	3,556	4,320	1,528	9,404	68	168
Total OTC interest rate derivatives	24,034	41,149	52,616	117,800	3,941	1,940
Interest rate futures	2,502	563		3,065	0	0
Total exchange traded derivatives	2,502	563		3,065	0	0
Total interest rate derivatives	26,536	41,712	52,616	120,865	3,941	1,940
Currency derivatives						
Forward exchange agreements	38,030	515	5	38,551	450	433
Interest rate and currency swaps	3,072	2,211	1,472	6,755	440	442
Currency options						
Call						
Purchased	123	2		125	2	0
Written	139	2		141	0	2
Put						
Purchased	138	2		139	2	0
Written	126	2		127	0	1
Total OTC currency derivatives	41,627	2,733	1,477	45,837	894	880
Total currency derivatives	41,627	2,733	1,477	45,837	894	880
Equity and index derivatives						
Equity index options						
Call						
Purchased		2		2	0	
Total OTC equity and index derivatives		2		2	0	
Total equity and index derivatives		2		2	0	
Credit derivatives						
Credit default swaps	90	82		172	1	0
Total credit derivatives	90	82		172	1	0

Other						
Other forward contracts	12	3		15	0	4
Other swaps	121	456	11	588	52	24
Total other OTC derivatives	133	458	11	602	52	28
Total other derivatives	133	458	11	602	52	28
Total derivatives held for trading	**68,386**	**44,987**	**54,104**	**167,478**	**4,888**	**2,847**

Derivatives held for trading 31 December 2019

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	7,944	24,994	41,337	74,275	2,604	1,450
Cleared by the central counterparty	5,117	14,681	22,133	41,932	26	40
OTC interest rate options						
Call and caps						
Purchased	5,112	6,184	2,732	14,027	239	30
Written	6,394	7,153	3,522	17,068	102	190
Put and floors						
Purchased	3,098	4,324	2,482	9,903	64	67
Written	3,332	6,635	1,758	11,726	65	50
Total OTC interest rate derivatives	25,879	49,290	51,830	126,999	3,074	1,788
Interest rate futures	1,134	938		2,072	0	0
Total exchange traded derivatives	1,134	938		2,072	0	0
Total interest rate derivatives	27,013	50,228	51,830	129,071	3,074	1,788
Currency derivatives						
Forward exchange agreements	33,659	305		33,964	236	215
Interest rate and currency swaps	909	5,149	1,760	7,818	606	603
Currency options						
Call						
Purchased	158	12		170	1	1
Written	161	13		174	1	0
Put						
Purchased	143	13		156	1	0
Written	130	14		144	0	1
Total OTC currency derivatives	35,159	5,506	1,760	42,426	845	820
Total currency derivatives	35,159	5,506	1,760	42,426	845	820
Equity and index derivatives						
Equity index options						
Call						
Purchased	1	2		3	0	
Total OTC equity and index derivatives	1	2		3	0	
Total equity and index derivatives	1	2		3	0	

Credit derivatives						
Credit default swaps	59	1,610	224	1,893	25	20
Credit default swaptions						
Put						
Purchased			2,122	2,122	0	
Written			2,122	2,122		0
Total credit derivatives	59	1,610	4,468	6,137	25	20
Other						
Other forward contracts	3	3		5	0	0
Other swaps	231	432	18	681	67	38
Total other OTC derivatives	233	435	18	686	68	38
Other futures contracts						
Total other derivatives	233	435	18	686	68	38
Total derivatives held for trading	**62,465**	**57,780**	**58,076**	**178,322**	**4,011**	**2,666**

Derivative contracts for hedging purposes – fair value hedging 31 December 2020

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	3,771	24,276	20,986	49,034	51	16
Cleared by the central counterparty	3,581	24,196	20,790	48,568	9	5
Settled-to-market (STM)	1,355	8,873	7,755	17,983	4	1
Collateralised-to-market (CTM)	2,226	15,323	13,036	30,585	5	5
OTC interest rate options						
Call and caps						
Purchased	395	4,195	5,182	9,772	0	217
Total OTC interest rate derivatives	4,166	28,471	26,168	58,806	51	233
Total interest rate derivatives	4,166	28,471	26,168	58,806	51	233
Currency derivatives						
Forward exchange agreements	17			17	1	0
Interest rate and currency swaps	593	1,366	404	2,363	117	115
Total OTC currency derivatives	610	1,366	404	2,380	118	115
Total currency derivatives	610	1,366	404	2,380	118	115
Total derivative contracts, fair value hedge	**4,776**	**29,838**	**26,572**	**61,186**	**169**	**347**

Derivative contracts for hedging purposes – cash flow hedge 31 December 2020

EUR million	Nominal values/residual term to maturity <1 year	1–5 years	>5 years	Total	Fair values* Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	166	860	2,921	3,947	1	0
Cleared by the central counterparty	166	850	2,871	3,886	1	0
Settled-to-market (STM)	166	850	2,767	3,782	1	0
Collateralised-to-market (CTM)			104	104	0	0
Total OTC interest rate derivatives	166	860	2,921	3,947	1	0
Total interest rate derivatives	166	860	2,921	3,947	1	0
Currency derivatives						
Forward exchange agreements	6,535	22		6,557	26	65
Total OTC currency derivatives	6,535	22		6,557	26	65
Total currency derivatives	6,535	22		6,557	26	65
Total derivative contracts, cash flow hedge	6,701	882	2,921	10,504	27	66
Total derivative contracts held for hedging	11,477	30,720	29,493	71,690	196	413

Derivative contracts for hedging purposes – fair value hedging 31 December 2019

EUR million	Nominal values/residual maturity <1 year	1–5 years	>5 years	Total	Fair values* Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	6,041	20,976	17,286	44,303	67	51
Cleared by the central counterparty	5,254	20,706	16,945	42,905	20	13
OTC interest rate options						
Call and caps						
Purchased	720	3,345	5,047	9,112	2	176
Put and floors						
Purchased			300	300	1	0
Total OTC interest rate derivatives	6,761	24,321	22,633	53,715	71	227
Total interest rate derivatives	6,761	24,321	22,633	53,715	71	227
Currency derivatives						
Interest rate and currency swaps	2,609	1,448	654	4,711	166	130
Total OTC currency derivatives	2,609	1,448	654	4,711	166	130
Total currency derivatives	2,609	1,448	654	4,711	166	130
Total derivative contracts, fair value hedge	9,371	25,769	23,287	58,426	237	357

Derivative contracts for hedging purposes – cash flow hedge 31 December 2019

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	425	750	3,130	4,305	6	0
Cleared by the central counterparty	420	739	3,130	4,289	6	0
Total OTC interest rate derivatives	425	750	3,130	4,305	6	0
Total interest rate derivatives	425	750	3,130	4,305	6	0
Currency derivatives						
Forward exchange agreements	7,374			7,374	241	17
Total OTC currency derivatives	7,374			7,374	241	17
Total currency derivatives	7,374			7,374	241	17
Total derivative contracts, cash	**7,799**	**750**	**3,130**	**11,679**	**247**	**17**
Total derivative contracts held for hedging	**17,170**	**26,518**	**26,417**	**70,105**	**484**	**375**

Total derivatives 31 December 2020

	Nominal values/residual maturity			Total	Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives	30,868	71,044	81,706	183,618	3,993	2,173
Cleared by the central counterparty	9,805	42,800	48,980	101,586	19	21
Settled-to-market (STM)	6,579	27,094	35,623	69,296	14	16
Collateralised-to-market (CTM)	3,226	15,706	13,357	32,290	5	5
Currency derivatives	48,773	4,121	1,880	54,774	1,038	1,059
Equity and index-linked derivatives		2		2	0	
Credit derivatives	90	82		172	1	0
Other derivatives	133	458	11	602	52	28
Total derivatives	**79,864**	**75,707**	**83,597**	**239,168**	**5,085**	**3,260**

Total derivatives 31 December 2019

	Nominal values/residual maturity			Total	Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives	34,200	75,299	77,593	187,091	3,151	2,015
Cleared by the central counterparty	10,791	36,126	42,208	89,126	52	53
Currency derivatives	45,143	6,954	2,414	54,511	1,252	967
Equity and index-linked derivatives	1	2		3	0	
Credit derivatives	59	1,610	4,468	6,137	25	20
Other derivatives	233	435	18	686	68	38
Total derivatives	**79,636**	**84,299**	**84,493**	**248,427**	**4,496**	**3,041**

* 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 44 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.

Average interest rates of interest rate derivative contracts in hedge accounting – fair value 31 December 2020

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
Cleared by the central counterparty	1.248	0.449	0.296	0.442
OTC interest rate derivatives	4.373	3.362	3.040	3.654
Total interest rate derivatives	1.385	0.460	0.315	0.468

Average interest rates of interest rate derivative contracts in hedge accounting – fair value 31 December 2019

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
Cleared by the central counterparty	0.019	0.672	0.608	0.549
OTC interest rate derivatives	0.395	0.775	0.655	0.692
Total interest rate derivatives	0.101	0.705	0.621	0.591

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2020

	<1 year	1–5 years	>5 years	Total
Forward exchange agreements: EUR:USD	1.2039			

Average interest rates of interest rate swaps and currency swaps in hedge accounting related to significant currencies 31 December2020

	<1 year	1–5 years	>5 years	Total
AUD			2.440	2.440
CHF	1.604			1.604
GBP	0.355	2.405	0.634	1.131
HKD		3.001	2.880	2.941
JPY			1.300	1.300
NOK			3.800	3.800
USD		1.951	3.611	2.781

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2019

	<1 year	1–5 years	>5 years	Total
Forward exchange agreements: EUR:USD	1.1110			

Average interest rates of interest rate swaps and currency swaps in hedge accounting related to significant currencies 31 December2019

	<1 year	1–5 years	>5 years	Total
AUD			2.440	2.440
CHF		1.604		1.604
GBP		2.155		2.155
HKD	2.144		2.959	2.670
JPY	0.562		1.300	0.609
NOK	0.000		3.800	3.800
USD	1.691	2.219	3.611	2.747

Average interest rates of interest rate derivative contracts in hedge accounting – cash flow hedge 31 December 2020

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
OTC interest rate derivatives	1.169	0.842	0.857	0.875
Total interest rate derivatives	1.169	0.842	0.857	0.875

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2020

	<1 year	1–5 years	>5 years	Total
Currency derivatives				
Forward exchange agreements				
Average EUR:AUD	1.6479			1.6479
Average EUR:CAD	1.4752			1.4752
Average EUR:CHF	1.0840			1.0840
Average EUR:GBP	0.8877			0.8877
Average EUR:HKD	8.8959			8.8959
Average EUR:NOK	10.7953			10.7953
Average EUR:SGD	1.5676			1.5676
Average EUR:USD	1.1143			1.1143

Average interest rates of interest rate derivative contracts in hedge accounting – cash flow hedge 31 December 2019

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
OTC interest rate derivatives	1.282	0.982	0.849	0.916
Total interest rate derivatives	1.282	0.982	0.849	0.916

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2019

	<1 year	1–5 years	>5 years	Total
Currency derivatives				
Forward exchange agreements				
Average EUR:USD	1.1198			1.1198
Average EUR:GBP	0.8783			0.8783
Average EUR:CHF	1.1010			1.1010
Average EUR:HKD	8.8791			8.8791
Average EUR:SGD	1.5336			1.5336
Average EUR:AUD	1.6246			1.6246
Average EUR:NOK	10.1080			10.1080
Average EUR:CAD	1.4734			1.4734

Effects of hedge accounting on financial position and result

EUR million	Interest rate risk hedge 31 Dec 2020	31 Dec 2019
Fair value hedges		
Carrying amount of hedged receivables*	29,636	26,926
- of which the accrued amount of hedge adjustments	667	484
Carrying amount of hedged liabilities**	31,253	28,097
- of which the accrued amount of hedge adjustments	1,030	709
Remaining hedge adjustment amount of discontinued hedges	3	

* Presented under Receivables from customers and Investment assets in the balance sheet.

** Presented in the balance sheet under Liabilities to customers, Debt securities issued to the public and Subordinated liabilities.

EUR million	Interest rate risk hedge 31 Dec 2020	31 Dec 2019
Fair value hedges		
Changes in fair value of hedging derivatives	98	-1
Change in value of hedged item that is used as basis for recognition of ineffective hedge during period	-99	-7
Hedge ineffectiveness presented in income statement	-1	-9

EUR million	Interest rate risk hedge 31 Dec 2020	31 Dec 2019
Cash flow hedges		
Changes in fair value of hedging derivatives	113	134
Change in value of hedged item that is used as basis for recognition of ineffective hedge during period	-110	-128
Hedge ineffectiveness presented in income statement	3	6
Change in cash flow hedge reserve concerning continuous hedges	110	128
Change in cash flow hedge reserve concerning terminated hedges	-32	7

Note 44. Financial assets and liabilities offset in the balance sheet or subject to enforceable master netting arrangements or similar agreements

Financial assets

31 December 2020, 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: Master agreements*	Collateral received	Net amount
Derivatives	5,778	-562	5,215	-2,185	-377	2,654

31 December 2019, 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: Master agreements*	Collateral received	Net amount
Derivatives	6,703	-1,879	4,824	-2,147	-707	1,971

Financial liabilities

31 December 2020, 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: Master agreements*	Collateral given	Net amount
Derivatives	4,012	-589	3,424	-2,185	-542	697

31 December 2019, 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: Master agreements*	Collateral given	Net amount
Derivatives	5,371	-2,055	3,316	-2,147	-654	515

* 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), which is treated as collateral or final payment, depending on the clearing method. Interest rate derivatives cleared by the central counterparty are presented on a net basis in the balance sheet.

Other bilaterally cleared OTC derivatives

The ISDA Master Agreement or the Master Agreement of Finance Finland 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.

Note 45. Loss allowance regarding receivables and notes and bonds

Credit risk exposures and related loss allowance

A description of OP Financial Group's credit risk formation and management can be found in section 2.2 of Note 2. The measurement principles of expected credit losses are described in section 5.4 Impairment of Note 1.

Expected credit losses are calculated on receivables measured at amortised cost and notes and bonds recognised at fair value through other comprehensive income (investments in bonds). OP Financial Group receivables include loans, standby credit facilities (e.g. credit cards and accounts with credit facility and lease and factoring receivables). In addition, expected credit losses are calculated on off-balance-sheet items, such as loan commitments, credit facilities and bank guarantees. However, notes and bonds are investments in bonds. For expected credit losses, loss allowance is recognised in the balance sheet or in the case of notes and bonds in other comprehensive income.

The following factors, for example, affect the amount of expected credit losses: exposure amount, exposure validity, customer borrower grade and collateral value as well as forward-looking information.

The following table shows the receivables which are exposed to credit risk and on which expected credit loss is calculated. Here the on-balance-sheet and off-balance sheet exposures also describe the maximum exposure amount exposed to credit risk, excluding collateral securities or other arrangements that improve credit quality. The off-balance sheet exposure represents the exposure amount binding on the bank or the guarantee amount.

Exposures within the scope of accounting for expected credit losses by impairment stage 31 December 2020

Exposures	Stage 1	Stage 2			Stage 3*	
EUR million		Not more than 30 DPD	More than 30 DPD	Total		Total exposure
Receivables from customers (gross)						
Retail Banking	61,405	6,649	58	6,707	1,865	69,977
Corporate Banking	23,609	1,190	156	1,346	499	25,454
Total	**85,013**	**7,839**	**214**	**8,053**	**2,365**	**95,431**
Off-balance-sheet limits						
Retail Banking	6,219	379	2	381	24	6,624
Corporate Banking	4,048	377	69	446	65	4,558
Total	**10,267**	**756**	**71**	**826**	**88**	**11,182**
Other off-balance-sheet commitments						
Retail Banking	3,348	61		61	13	3,422
Corporate Banking	6,267	262		262	99	6,628
Total	**9,615**	**324**		**324**	**111**	**10,050**
Notes and bonds						
Other Operations	13,141	50		50		13,191
Insurance	4,403	48		48	17	4,469
Total	**17,544**	**98**		**98**	**17**	**17,660**
Total exposures within the scope of accounting for expected credit losses	122,439	9,017	285	9,302	2,582	134,323

* A total of 70 million euros of Stage 3 exposures are purchased or originated credit-impaired financial assets (POCI).

Loss allowance by stage 2020

On-balance-sheet exposures and related off-balance-sheet limits*	Stage 1	Stage 2			Stage 3 ****	
EUR million		than 30 DPD	More than 30 DPD	Total		Total loss allowance
Receivables from customers						
Retail Banking	-28	-62	-1	-63	-290	-382
Corporate Banking	-25	-28	-1	-29	-227	-281
Total	**-53**	**-90**	**-3**	**-92**	**-518**	**-663**
Off-balance-sheet commitments**						
Retail Banking	-1	-1		-1		-2
Corporate Banking	-12	-1		-1	-14	-27
Total	**-13**	**-2**		**-2**	**-14**	**-29**
Notes and bonds***						
Other Operations	-1	-1		-1		-2
Insurance	-5	-2		-2	-6	-14
Total notes and bonds	**-7**	**-3**		**-3**	**-6**	**-16**
Total	**-72**	**-95**	**-3**	**-97**	**-538**	**-708**

* Loss allowance for on- and related off-balance sheet limits is recognised as one component to deduct the balance sheet item.

** Loss allowance is recognised in provisions and other liabilities in the balance sheet.

*** Loss allowance is recognised in the fair value reserve in other comprehensive income.

**** EUR 16 million of Stage 3 loss allowance relates to purchased or originated credit-impaired financial assets (POCI).

The table below shows a summary of loss allowance relative to the exposure amount by impairment stage. The coverage ratio describes the ratio of loss allowance to exposure amount.

Summary and key indicators 31 December 2020	Stage 1	Stage 2			Stage 3	
		Not more than 30 DPD	More than 30 DPD	Total		Total
Receivables from customers; on-balance-sheet and off-balance-sheet items						
Retail Banking	70,972	7,089	60	7,149	1,902	80,023
Corporate Banking	33,923	1,829	225	2,054	663	36,640
Loss allowance						
Retail Banking	-29	-63	-1	-64	-290	-383
Corporate Banking	-37	-29	-1	-30	-242	-309
Coverage ratio, %						
Retail Banking	-0.04%	-0.89%	-2.34%	-0.90%	-15.27%	-0.48%
Corporate Banking	-0.11%	-1.59%	-0.55%	-1.48%	-36.48%	-0.84%
Receivables from customers; total on-balance-sheet and off-balance-sheet items	**104,895**	**8,918**	**285**	**9,203**	**2,564**	**116,663**
Total loss allowance	**-65**	**-92**	**-3**	**-95**	**-532**	**-692**
Total coverage ratio, %	**-0.06%**	**-1.03%**	**-0.93%**	**-1.03%**	**-20.75%**	**-0.59%**
Carrying amount, notes and bonds						
Other Operations	13,141	50		50		13,191
Insurance	4,403	48		48	17	4,469
Loss allowance						
Other Operations	-1	-1		-1		-2
Insurance	-5	-2		-2	-6	-14
Coverage ratio, %						
Other Operations	-0.01%	-1.34%		-1.34%		-0.02%
Insurance	-0.12%	-4.16%		-4.16%	-36.09%	-0.31%
Total notes and bonds	**17,544**	**98**		**98**	**17**	**17,660**
Total loss allowance	**-7**	**-3**		**-3**	**-6**	**-16**
Total coverage ratio, %	**-0.04%**	**-2.72%**		**-2.72%**	**-36.09%**	**-0.09%**

Exposures within the scope of accounting for expected credit losses by impairment stage 31 December 2019

Exposures	Stage 1	Stage 2			Stage 3*	
EUR million		Not more than 30 DPD	More than 30 DPD	Total		Total exposure
Receivables from customers (gross)						
Retail Banking	60,605	6,778	173	6,951	909	68,464
Corporate Banking	25,103	1,388	306	1,693	384	27,180
Total	**85,707**	**8,166**	**479**	**8,645**	**1,292**	**95,644**
Off-balance-sheet limits						
Retail Banking	5,218	354	7	361	11	5,589
Corporate Banking	4,674	318	151	470	60	5,204
Total	**9,892**	**673**	**158**	**830**	**71**	**10,793**
Other off-balance-sheet commitments						
Retail Banking	2,775	94		94	12	2,881
Corporate Banking	7,011	1,216		1,216	70	8,297
Total	**9,786**	**1,309**		**1,309**	**82**	**11,178**
Notes and bonds						
Other Operations	12,259	93		93		12,352
Insurance	3,936	4		4	10	3,950
Total	**16,196**	**97**		**97**	**10**	**16,302**
Total exposures within the scope of accounting for expected credit losses	**121,581**	**10,245**	**637**	**10,881**	**1,455**	**133,918**

* A total of 41 million euros of Stage 3 explosures are purchased or originated credit-impaired financial assets (POCI).

Loss allowance by stage 31 December 2019

On-balance-sheet exposures and related off-balance-sheet limits* EUR million	Stage 1	Stage 2 Not more than 30 DPD	More than 30 DPD	Total	Stage 3 ****	Total loss allowance
Receivables from customers						
Retail Banking	-16	-54	-3	-57	-188	-261
Corporate Banking	-25	-18	-3	-21	-248	-294
Total	-40	-72	-6	-78	-436	-555
Other off-balance-sheet commitments**						
Retail Banking	-1	-1		-1	0	-2
Corporate Banking	-2	-4		-4	-10	-16
Total	-3	-5		-5	-10	-18
Notes and bonds***						
Other Operations	-2	-1		-1		-3
Insurance	-4	-1		-1	-5	-10
Total notes and bonds	-6	-1		-1	-5	-13
Total	-49	-79	-6	-85	-451	-585

* Loss allowance for on- and related off-balance sheet limits is recognised as one component to deduct the balance sheet item.

** Loss allowance is recognised in provisions and other liabilities in the balance sheet.

*** Loss allowance is recognised in the fair value reserve in other comprehensive income.

**** EUR 8 million of Stage 3 loss allowance relates to purchased or originated credit-impaired financial assets (POCI).

The table below shows a summary of loss allowance relative to the exposure amount by impairment stage. The coverage ratio describes the ratio of loss allowance to exposure amount.

Summary and key indicators 31 December 2019	Stage 1	Stage 2 Not more than 30 DPD	More than 30 DPD	Total	Stage 3	Total
Receivables from customers; on-balance-sheet and off-balance-sheet items						
Retail Banking	68,597	7,226	180	7,406	931	76,934
Corporate Banking	36,788	2,922	457	3,379	514	40,681
Loss allowance						
Retail Banking	-17	-55	-3	-58	-188	-263
Corporate Banking	-27	-22	-3	-26	-258	-310
Coverage ratio, %						
Retail Banking	-0.02%	-0.76%	-1.67%	-0.78%	-20.22%	-0.34%
Corporate Banking	-0.07%	-0.77%	-0.71%	-0.76%	-50.12%	-0.76%
Receivables from customers; total on-balance-sheet and off-balance-sheet items	105,386	10,148	637	10,784	1,445	117,615
Total loss allowance	-43	-77	-6	-83	-446	-573
Total coverage ratio, %	-0.04%	-0.76%	-0.98%	-0.77%	-30.86%	-0.49%
Carrying amount, notes and bonds						
Other Operations	12,259	93		93		12,352
Insurance	3,936	4		4	10	3,950
Loss allowance						
Other Operations	-2	-1		-1		-3
Insurance	-4	-1		-1	-5	-10
Coverage ratio, %						
Other Operations	-0.02%	-0.81%		-0.81%		-0.02%
Insurance	-0.09%	-19.84%		-19.84%	-54.58%	-0.24%
Total notes and bonds	16,196	97		97	10	16,302
Total loss allowance	-6	-1		-1	-5	-13
Total coverage ratio, %	-0.04%	-1.52%		-1.52%	-54.58%	-0.08%

Collateral and other arrangements improving credit quality

OP Financial Group's credit risk management measures to reduce credit risk are described in Note 2, section 10.1. The most common measures to reduce credit risk is to use various collateral securities. Home loans and standby credit facilities are the largest credit groups among households. Home loans account for 77% (77%) of household exposures. Residential property is typically used as collateral for home loans.

The table below presents a breakdown of home loans on 31 December 2020 by LTV level with loss allowance. The LTV (loan-to-value) ratio describes the loan's balance sheet value relative to the fair value of the residential property collateral. The loan may also have other collateral securities but these have not been taken into account in the table. The lower the LTV ratio, the larger the collateral value in relation to the loan amount. Loss allowance is lower in relative terms, the lower the LTV ratio is.

31.12.2020	Total home loans	
LTV %, € million	Exposure amount in balance sheet	Loss allowance
0–50%	9,273	0
51–70%	17,350	-13
Over 70%	13,033	-42
Total	**39,656**	**-55**

31.12.2019	Total home loans	
LTV %, € million	Exposure amount in balance sheet	Loss allowance
0–50%	8,912	0
51–70%	16,930	-5
Over 70%	13,008	-23
Total	**38,851**	**-28**

Changes in loss allowance during financial year

The table below shows the change in loss allowance by impairment stage during 2020 in respect of the effect of the following factors:
Note 1, section 5.4.1 describes impairment stages.

Receivables from customers and off-balance-sheet items, EUR million	Stage 1 12 months	Stage 2 Lifetime	Stage 3 Lifetime	Total
Loss allowance 1 January 2020	44	83	446	573
Transfers from Stage 1 to Stage 2	-3	21		18
Transfers from Stage 1 to Stage 3	-1		53	52
Transfers from Stage 2 to Stage 1	2	-15		-13
Transfers from Stage 2 to Stage 3		-20	101	81
Transfers from Stage 3 to Stage 2		1	-7	-6
Transfers from Stage 3 to Stage 1	0		-1	-1
Increases due to origination and acquisition	21	14	18	53
Decreases due to derecognition	-9	-14	-47	-70
Changes in risk parameters (net)	19	28	34	81
Changes due to update in the methodology for estimation (net)	-7	-5		-12
Decrease in allowance account due to write-offs		0	-62	-62
Net change in expected credit losses	22	10	88	119
Loss allowance 31 December 2020	65	93	533	692

Effect of the application of the new definition of default, and changes in ECL models and parameters

OP Financial Group will apply a so-called Two-Step Approach. The first step involved the change of the definition of default during the first quarter of 2020. The second step to be taken involves the calibration of credit risk parameters. The adoption of the first step increased the number of defaulted contracts and that of the number of transfers to Stage 3. Expected credit losses increased by EUR 44 million in the first quarter.

The second step taken in the fourth quarter involved taking account of the effect of the calibration of the credit rating model for private customers so as to comply with the new definition of default. This increased ECL by EUR 28 million, which is presented as a change in risk parameters.

In the fourth quarter, OP Financial Group also updated the estimates of two LGD model parameters: the non-collateral return and the cure rate. The cure rate for impairment stages 1 and 2 was updated based on data complying with the new definition of default. The estimates for the non-collateral return and the cure rate for impairment stage 3 were made time-dependent so that they will decrease if the period of default or debt collection increases. ECL increased by EUR 17 million; it is presented as a change in risk parameters.

Furthermore, in the fourth quarter, OP Financial Group updated its lifetime PD model for corporate exposures based on data complying with the new definition of default, among other things. In addition, the Group further specified model segmentation and revised the explaining macroeconomic factors so as to include GDP and real interest rate (previously, the factors included GDP and 12-month Euribor for large companies and investments for other companies). ECL decreased by EUR 12 million; it is presented as a change in model assumptions and methodology.

COVID-19 pandemic

To prevent the significant economic effects caused by the COVID-19 pandemic, the EU member states have implemented a variety of financial support measures. On 2 April 2020, the European Banking Authority (EBA) published clarification to relief on processing payment moratoria due to the COVID-19 pandemic in the capital requirements regulation for applying, for example, to forborne exposures and default (EBA/GL/2020/02 "Guidelines on legislative and non-legislative moratoria on loan payments applied in the light of the COVID-19 crisis"). On 7 July 2020, the EBA also published a report on the implementation of selected COVID-19 policies (EBA/REP/2020/19). However, the relief applies to legislative payment moratorium or payment moratorium jointly agreed within the banking sector that have not been carried out in Finland. In Finland, the financial support measures for lending consist of raising the Finnvera's (Government guarantee institution) financing authorisation to EUR 12 billion. Consequently, SMEs can apply for working capital backed up by a guarantee from Finnvera to get through the coronavirus crisis.

Finnvera's guarantees affect the LDG component in ECL measurement, thus reducing the ECL amount.

OP Financial Group has independently provided its private customers with the opportunity to get a 12-month repayment holiday on their home loans. With respect to corporate customers, changes in repayment schedules are evaluated on a case-by-case basis. In addition, guarantees provided by Finnvera are used extensively. In loan modifications, forborne loans and customers in default are identified according to the normal set of instructions. During the Covid-19 crisis, most of the repayment holidays have been granted to private customers and to SME customers.

In the ECL measurement, the Covid-19 crisis has been taken into account by updating macroeconomic factors on a quarterly basis. When the crisis began in the first quarter, a larger weight was given to the downside scenario; downside 40%, baseline 50% and upside 10%. The situation stabilised in the second quarter, after which the scenario weights have been normal; downside 20%, baseline 60% and upside 20%. For example, GDP growth for 2021 is predicted to be from 0.5% to 5.4% in different scenarios, and that for 2022 is predicted to be from 0.5% to 3.4% in different scenarios. The unemployment rate for 2021 is predicted to be from 7.7% to 8.7% in different scenarios, and that for 2022 is predicted to be from 6.9% to 8.3% in different scenarios.

The effect of the Covid-19 crisis on growth in expected credit loss during 2020 totalled approximately EUR 88 million. This was reflected in the transfer of contracts from impairment stages 1 and 2 to impairment stages 2 and 3, and in growth in risk parameters, especially in PD. The figure includes approximately EUR 7 million in management's assessment concerning sectors affected by the Covid-19 crisis and consideration of regional circumstances in the valuation of residential property collateral. Uncertainty still exists related to the economic development caused by the Covid-19 crisis.

Transfers from Stage 1 to State 3 compare the current year-end Stage 3 of a financial asset to the Stage 3 at the beginning of the year. Of these, some 66% (see the default capture rate below) have been reported in Stage 2 during 2020, so the agreements have, as a rule, transferred to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default.

Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2020 with a delay of one month.

Notes and bonds, EUR million	Stage 1	Stage 2	Stage 3	
	12 months	Lifetime	Lifetime	Total
Loss allowance 1 January 2020	**6**	**1**	**5**	**13**
Transfers from Stage 1 to Stage 2	-1	2		1
Transfers from Stage 1 to Stage 3	0	0	1	1
Transfers from Stage 2 to Stage 1		1		
Transfers from Stage 3 to Stage 1	0	4	-1	-1
Increases due to origination and acquisition	3	5	2	5
Decreases due to derecognition	-1	6	-1	-3
Changes in risk parameters (net)	0	7	0	0
Changes due to update in the methodology for estimation (net)	0	8		0
Net change in expected credit losses	**1**	**1**	**1**	**3**
Loss allowance 31 December 2020	**7**	**3**	**6**	**16**

The table below shows the change in loss allowance by impairment stage during 2019 in respect of the effect of the following factors:

Receivables from customers and off-balance-sheet items, EUR million	Stage 1	Stage 2	Stage 3	
	12 months	Lifetime	Lifetime	Total
Loss allowance 1 January 2019	40	83	409	532
Transfers from Stage 1 to Stage 2	-3	22		19
Transfers from Stage 1 to Stage 3	-4		15	11
Transfers from Stage 2 to Stage 1	2	-11		-10
Transfers from Stage 2 to Stage 3		-14	33	19
Transfers from Stage 3 to Stage 2		5	-16	-11
Transfers from Stage 3 to Stage 1	1		-2	-2
Increases due to origination and acquisition	16	15	14	45
Decreases due to derecognition	-7	-14	-24	-44
Changes in risk parameters (net)	-1	-2	48	45
Decrease in allowance account due to write-offs	0	0	-31	-31
Net change in expected credit losses	4	0	37	41
Loss allowance 31 December 2019	44	83	446	573

Transfers from Stage 1 to State 3 compare the current year-end Stage 3 of a financial asset to the Stage 3 at the beginning of the year. Of these, some 90% (see the default capture rate below) have been reported in Stage 2 during 2019, so the agreements have, as a rule, transferred to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default.

Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2019 with a delay of three months.

The majority of the loans have transferred to stage 2 in all ratings based on OP's relative SICR model. Payments past due over 30 days causes a transfer to stage 2 in most cases in the middle and lower level ratings. Forbearance measures cause a transfer to stage 2 in corporate customers more often in middle and lower level ratings whereas they affect transfers to stage 2 in all ratings in private customers.. The lowest ratings are classified into stage 2 based on an absolute rating limit. In the lowest ratings, in particular, there are several reasons for transfers to stage 2. Default is identified on a real-time basis, immediately causing a transfer to stage 3.

Notes and bonds, EUR million	Stage 1	Stage 2	Stage 3	Total
	12 months	Lifetime	Lifetime	
Loss allowance 1 January 2019	6	4	4	14
Transfers from Stage 1 to Stage 2	0	1		1
Transfers from Stage 1 to Stage 3	0		2	2
Transfers from Stage 2 to Stage 1	0	-2		-2
Transfers from Stage 2 to Stage 3				
Transfers from Stage 3 to Stage 2				
Transfers from Stage 3 to Stage 1	0		0	0
Increases due to origination and acquisition	2	0	0	2
Decreases due to derecognition	-2	-2	-1	-4
Changes in risk parameters (net)	0	0	0	0
Changes due to update in the methodology for estimation (net)	0			0
Net change in expected credit losses	0	-2	1	-1
Loss allowance 31 December 2019	6	1	5	13

The table below presents exposures of receivables in the balance sheet by rating and off-balance-sheet exposures, exposure amount after deducting collateral as well as loss allowance. Ratings 1–12 are used in the credit rating of public-sector entities and Ratings A–F in the credit rating of households. The ratings have been combined into the table in such a way that the corporate customer rating 2 comprises ratings 2 and 2.5 etc. The private customer rating A comprises A+, A and A- etc. Note 2, section 10.3.1 describes OP Financial Group's ratings. Net exposure has been calculated for each contract and it excludes overcollateralisation.

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EUR million	Balance sheet exposures			Off-balance-sheet exposure, gross			Net exposure after collateral			Loss allowance		
Rating	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
1	755	23		601	32		431	22		0	0	
2	2,166	7		1527	5		1843	0		0	0	
3	5,072	55		2674	21		3665	54		-1	0	
4	4,295	7		1674	2		2592	7		-1	0	
5	9,613	120		2538	84		2823	31		-3	-1	
6	8,134	390		1984	73		2282	49		-6	-2	
7	5,507	607		1393	120		1797	87		-13	-4	
8	2,140	1,094		751	603		772	397	0	-21	-14	
9	148	573		46	87			85		0	-18	
10	148	248		46	30			36		0	-16	
11			771			174			306			-272
12			130			6			99			-92
A	32,893	167		4768	10		4027	13		-3	-3	
B	8,816	1,169		1427	21		1741	67	0	-3	-4	
C	3,437	1,208		274	24		934	98		-4	-5	
D	1,781	1,412		137	27		754	124	0	-6	-7	
E	108	973		46	11			196		-2	-20	
F			1,459			20	0		215			-168
Total	85,014	8,053	2,360	19,882	1,150	200	23,661	1,265	621	-65	-95	-532

31.12.2019

EUR million	Balance sheet exposures			Off-balance-sheet exposure, gross			Net exposure after collateral			Loss allowance		
Rating	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
1	808			570			250			0		
2	2,513	8		1,742	4		2,016	8		0	0	
3	4,852	80		2,920	81		4,174	80		-1	0	
4	4,492	209		1,725	46		4,021	161		-1	0	
5	8,397	298		2,324	52		3,566	52		-2	0	
6	7,543	530		2,184	108		3,641	154		-5	-1	
7	5,428	702		1,369	181		2,732	246		-10	-5	
8	2,835	1,084		993	1,439		1,481	781		-15	-15	
9	5	576		5	89			166		0	-16	
10	0	267		1	69			69		0	-14	
11	0	0	638	3	0	144			350	0		-255
12			180			5			119			-106
A	32,535	257		3,669	0		5,609	30		0	0	
B	9,797	1,084		1,414	9		2,397	137		-1	0	
C	4,076	977		454	20		1,332	170		-2	-2	
D	2,407	1,147		303	26		855	228		-4	-5	
E	19	1,426		0	14			401		0	-26	
F			475			4			150			-85
Total	85,707	8,645	1,292	19,679	2,137	153	32,074	2,681	619	-43	-83	-446

OP Financial Group may write off credit loss from financial assets in full or in part, but thereafter these will still be subject to collection measures. The amount of such financial assets were EUR 144 (116) million on 31 December 2020.

Significant increase in credit risk (SICR)

A significant increase in credit risk is discovered on a technical basis as presented in the accounting policies (Note 1 section 5.4.1).

The classification of contracts under SICR into similar groups in terms of credit risk is identical with lifetime PD (probability at default) models. Credit ratings are the most significant input data of the PD models. Both the current PDs and threshold PDs include forward-looking information (below).

The effectiveness of SICR is assessed on every reporting date using the following indicators:

The default capture rate measures how many contracts were in Stage 2 before it transferred to Stage 3. The rate was 66% on 31 December 2020 (90). The higher the rate is, the better the SICR model can capture a significant increase in credit risk. Contracts in Stage 2 accounted for 8% (8) of the entire non-default loan portfolio.

Forward-looking information included in the ECL measurement models

The assessment of SICR and the measurement of expected credit loss incorporate forward-looking information; OP Financial Group has analysed what macroeconomic variables have an explanatory significance to the credit risk amount.

The table below shows a summary of the values of the five most important macroeconomic variables for 2020–2049 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of the expected credit loss. These values were used for all product groups on 31 January 2020.

Economic variable	Scenario	Average (%)	Minimum (%)	Maksimum (%)
GDP growth	Downside	0.4	-4.0	0.8
	Baseline	1.3	-4.0	3.0
	Upside	2.0	-4.0	5.4
Unemployment rate	Downside	8.4	7.8	8.7
	Baseline	6.7	6.5	8.0
	Upside	4.9	4.5	7.8
House price index	Downside	1.0	-1.7	1.5
	Baseline	2.6	0.7	3.0
	Upside	3.7	1.0	4.0
12-month Euribor	Downside	0.8	-1.0	1.3
	Baseline	1.6	-0.4	2.3
	Upside	2.5	-0.2	3.3
Real interest rate	Downside	-0.5	-2.1	-0.1
	Baseline	-0.1	-2.0	0.4
	Upside	0.2	-1.9	0.9

On 31 December 2020, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%.

The rationality of the used macroeconomic variables is assessed when reviewing the functionality of the models for PD, LGD, EAD and prepayment.

The table below shows a summary of the values of the five most important macroeconomic variables for 2019–2048 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of the expected credit loss. These values were used for all product groups on 31 January 2019.

Economic variable	Scenario	Average (%)	Minimum (%)	Maksimum (%)
GDP growth	Downside	0.5	-1.5	1.4
	Baseline	1.4	0.5	1.5
	Upside	2.0	1.4	2.5
Unemployment rate	Downside	8.7	6.5	9.0
	Baseline	6.9	6.5	7.0
	Upside	5.2	5.0	6.5
Investment growth %	Downside	0.5	-2.3	1.5
	Baseline	1.4	0.4	1.9
	Upside	2.3	1.5	4.8
House price index	Downside	1.0	-2.5	1.5
	Baseline	2.6	0.5	3.0
	Upside	3.8	0.5	4.0
12-month Euribor	Downside	0.6	-0.9	1.3
	Baseline	1.6	-0.3	2.3
	Upside	2.7	-0.3	3.3

On 31 December 2019, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%.

The scenarios are based on the forecasts performed by OP Financial Group economists. The forecast process also takes account of comparable forecasts by external organisations, such as the OECD, International Monetary Fund, Bank of Finland, Ministry of Finance etc., as well as academic research.

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2020.

Total private customer and corporate customer exposures	Weighted loss allowance	Loss allowance under downside scenario	Loss allowance under baseline scenario	Loss allowance under upside scenario
Stage 1	52	55	51	47
Stage 2	78	84	78	73
Stage 3	522	522	522	522
Total	**652**	**661**	**651**	**642**

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2020.

Total private customer and corporate customer exposures	Weighted loss allowance	Loss allowance under downside scenario	Loss allowance under baseline scenario	Loss allowance under upside scenario
Stage 1	42	45	42	40
Stage 2	83	87	83	79
Stage 3	435	435	435	435
Total	**560**	**568**	**561**	**554**

As a rule, loss allowance is the largest under the downside scenario. Private customer loans are mainly variable rate loans, so an increase in interest rates has a major effect on PD parameters. This is why loss allowance of private customers in Stage 1 is the highest under the upside scenario because the 12-month Euribor rate has the strongest effect on it through the PD change. Loss allowance of private customers in Stage 2 contracts, however, is the highest under the downside scenario, which is due to developments in the lifetime LGD parameter. All corporate customer risk parameters affect in a parallel way in such a way that loss allowance is clearly the largest under the downside scenario. The LGD model for Stage 3 is independent of macroeconomic factors, but a significant proportion of Stage 3 exposures is assessed by means of a cash flow based expert assessment that also takes account of forward-looking information.

Sensitivity analysis

The sensitivity analysis describes the sensitivity of loss allowance to changes in macroeconomic factors. The analysis below only describes somewhat potential economic deterioration and not an economic upswing at all. In addition, all different components of the sensitivity analysis do not necessarily develop together during a recession in the way presented in the sensitivity analysis.

The most significant macroeconomic variables in risk parameters and exposure classes include the 12-month Euribor rate, the real interest rate (2020) / investment growth rate (2019) and GDP development. Changes used in sensitivity analyses include a 1% increase in the 12-month Euribor rate, a 6% decrease in investment growth and a 3.5% decrease in the GDP growth rate. So the figures reflect an economic situation that is poorer than now and all of them increase loss allowance and are based on the following facts. The levels used in the sensitivity analysis are based on the behaviour of variables in the historic period, and the changes roughly correspond to the change in standard deviation.

The sensitivity analysis covers only Stage 1 and 2 contracts. The sensitivity analysis does not take account of the transfers between Stage 1 and 2 as a result of SICR. Changes in the lifetime PD stressed scenarios are included only in PD estimates based on the loss allowance formula and the effects of PD changes are not taking into account through SICR in the sensitivity analysis.

The table below show the sensitivity of change in the loss allowance of the groups household and corporate customers on 31 December 2020, when the economic situation weakens due to the combined effect of changes in interest rates, the real interest rate and GDP.

Group Stage	Loss allowance 31.12.2020	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	6	7	5 %
Stage 2	26	29	10 %
Corporate customers			
Stage 1	45	51	13 %
Stage 2	51	63	23 %
Total	**129**	**149**	**16 %**

* 1 percentage point increase in the 12-month Euribor rate, 1 percentage point increase in the real interest rate and a 3.5 percentage point decrease in the GDP rate under all scenarios.

Loss allowances are largely determined based on the first couple of years when the first years of the simulated scenario years are essential in terms of the results.

A 1 percentage point increase in the interest rate increases the amount of loss allowance in both private customers and corporate customers. A deterioration in the investment growth rate/an increase in the real interest rate raises the amount of loss allowance in corporate customers through changes in both PD and LGD. GDP growth has a negative relation to the amount of loss allowance through all model components. Slower GDP growth increases PD values for both private customers and corporate customers. It also affects through the LGD in such a way that a GDP decrease weakens developments in the fair value of residential property collateral, which has an effect on Stage 2 contracts.

The analysis shows that the most significant proportional and absolute changes apply to the corporate customers where the amounts of loss allowance regarding Stage 1 and 2 contracts increase by over 50%. Changes are considerably smaller in private customers than in corporate customers because the estimates of their risk parameters are not so sensitive to economic conditions.

The table below show the sensitivity of change in the loss allowance of the groups household and corporate customers on 31 December 2019, when the economic situation weakens due to changes in the combined effects of interest rates, investment growth rate and GDP:

Group Stage	Loss allowance 31.12.2019	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	7	8	6 %
Stage 2	32	34	7 %
Corporate customers			
Stage 1	34	53	56 %
Stage 2	51	77	49 %
Total	**124**	**171**	**38 %**

* 1 percentage point increase in the 12-month Euribor rate, 6 percentage point decrease in the investment growth rate and a 3.5 percentage point decrease in the GDP rate under all scenarios

Comparison of exposures in impairment stage 3 in the balance sheet with non-performing receivables

The value of impairment stage 3 exposures are impaired financial assets due to credit risk. The table below shows the differences between this definition and the definition of non-performing exposures based on official regulations:

€ million 31.12.2020	Balance sheet exposure	Loss allowance
Impairment stage 3	2,365	518
Difference between the definitions*	57	1
Performing and forborne receivables (stage 2)	3,277	22
Other differences	91	26
Doubtful receivables	**5,790**	**567**

* Commission Implementing Regulation (EU) 2015/227 Annex 5 part 2: 157, 176

€ million 31.12.2019	Balance sheet exposure	Loss allowance
Impairment stage 3	1,292	436
Difference between the definitions*	187	3
Performing and forborne receivables (stage 2)	2,042	12
Doubtful receivables	**3,521**	**451**

* Commission Implementing Regulation (EU) 2015/227 Annex 5 part 2: 155, 157, 176

Notes to risk management

Note 2 describes OP Financial Group's Risk Appetite Framework.

Notes 46 presents the risk exposure by OP Financial Group, Notes 47–52 present the risk exposure by Retail and Corporate Banking and Notes 53–83 present the risk exposure by Insurance. OP Financial Group publishes information under Pillar III disclosures in the OP Capital Adequacy and Risk Management Report.

OP Financial Group's risk exposure

Note 46. 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 December 2020

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	27,190	431	50,008	62,466	386	596	932	142,008
Baltic countries	347		3,351	21			7	3,726
Other Nordic countries	100	389	1,714	124	8	1,648	0	3,982
Germany	2,922	387	114	88		1,652	20	5,183
France	230	454	206	247	0	996		2,133
UK	30	692	62	261	0	252	0	1,297
Italy	120	22	26	31			0	199
Spain		4	13	15			0	32
Other EU countries	2,613	475	430	237	30***	846	0	4,629
Rest of Europe		59	107	31	16		0	213
USA	154	154	56	503	130	26	0	1,023
Russia		26	4	6				36
Asia		192	159	34		12	0	397
Other countries	32	141	63	84	1541***	1,541	2,164	5,566
Total	**33,736**	**3,426**	**56,314**	**64,147**	**2,111**	**7,569**	**3,123**	**170,425**

* Also includes EUR 18 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 December 2019

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	17,389	382	49,383	60,761	738	557	1,005	130,216
Baltic countries	438		2,646	15			9	3,109
Other Nordic countries	98	386	1,485	113	14	1,668	0	3,764
Germany	2,161	360	141	87	1	1,679	76	4,506
France	86	602	233	182	19	1,031	0	2,152
UK	2	770	76	276	55	410	0	1,589
Italy		16	37	34			0	87
Spain		44	15	17			0	75
Other EU countries	2,177	411	509	263	173***	963	0	4,497
Rest of Europe		74	110	32	36	20	0	272
USA		204	62	590	88	36	0	980
Russia		10	3	9				21
Asia		243	65	46		16	0	370
Other countries	32	197	106	66	949***	1,471	1,864	4,683
Total	**22,383**	**3,697**	**54,871**	**62,490**	**2,074**	**7,850**	**2,955**	**156,320**

* Also includes EUR 71 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.

Risk exposure of Retail and Corporate Banking

Note 47. Loan losses and impairment losses

EUR million	31 Dec 2016	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020
Receivables written down as loan and guarantee losses			70	68	117
Impairment losses on receivables	183	147			
Reversal of impairment losses	-99	-91			
Payments on eliminated receivables	-15	-15	-15	-23	-10
Expected credit losses (ECL) on receivables from customers and off-balance-sheet items			-10	41	119
Expected credit losses (ECL) on notes and bonds			1	0	-1
Net change in impairments of collectively assessed loans and receivables	7	7			
Total	**77**	**48**	**46**	**87**	**225**

Note 48. Structure of OP Financial Group funding

EUR million	31 Dec 2020	%	31 Dec 2019	%
Liabilities to credit institutions	8,086	6.5	2,632	2.3
Financial liabilities at fair value through profit or loss	0	0.0	12	0.0
Liabilities to customers				
Deposits	70,940	56.7	63,998	56.3
Other	2,482	2.0	4,291	3.8
Debt securities issued to the public				
Certificates of deposit, commercial papers and ECPs (Euro Commercial Paper)	7,620	6.1	9,716	8.6
Bonds	12,145	9.7	12,304	10.8
Subordinated bonds (SNP)	1,689	1.4	1,156	1.0
Covered bonds	13,252	10.6	11,807	10.4
Other liabilities	3,431	2.7	3,163	2.8
Subordinated liabilities	2,261	1.8	1,290	1.1
Membership capital contributions	212	0.2	209	0.2
Profit shares	2,962	2.4	3,029	2.7
Total	**125,080**	**100.0**	**113,606**	**100.0**

Note 49. Maturity of financial assets and liabilities by residual maturity

31 December 2020, EUR million	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Financial assets						
Liquid assets	21,827					21,827
Receivables from credit institutions	272	9	5		20	306
Receivables from customers	5,940	8,929	36,664	19,266	22,845	93,644
Investment assets						
Financial assets held for trading	190	44	65	27	4	330
Financial assets designated as at fair value through profit or loss		3	375	1	0	378
Financial assets at fair value through other comprehensive income	396	890	9,629	6,950	269	18,134
Amortised cost			1			1
Total financial assets	**28,625**	**9,874**	**46,739**	**26,244**	**23,137**	**134,619**

Financial liabilities	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liabilities to credit institutions	86	0	8,000			8,086
Liabilities to customers	71,992	727	124	53	526	73,422
Debt securities issued to the public	5,031	5,959	15,352	8,114	250	34,706
Subordinated liabilities		283	1,978			2,261
Total financial liabilities	77,110	6,968	25,455	8,167	775	118,475
Guarantees	55	82	288	-6	267	686
Other guarantee liabilities	264	450	680	491	275	2,160
Loan commitments	13,826					13,826
Commitments related to short-term trade transactions	67	85	96	1	6	255
Other	683	658	2	192	0	1,535
Total off-balance-sheet commitments	14,895	1,275	1,066	677	548	18,461

31 December 2019, EUR million	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Financial assets						
Liquid assets	11,981					11,981
Receivables from credit institutions	219	24	3		0	246
Receivables from customers	6,794	8,934	34,218	19,599	21,919	91,463
Investment assets						
Financial assets held for trading	357	150	154	69	1	730
Financial assets designated as at fair value through profit or loss		2	420			422
Financial assets at fair value through other comprehensive income	904	969	5,821	5,226		12,920
Amortised cost	2		2			3
Total financial assets	20,257	10,078	40,616	24,894	21,920	117,765

Financial liabilities	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liabilities to credit institutions	590	49	1,992			2,632
Liabilities to customers	66,989	574	200	61	465	68,289
Debt securities issued to the public	7,497	6,727	13,789	6,026	330	34,369
Subordinated liabilities		374	760	157		1,290
Total financial liabilities	75,077	7,724	16,741	6,244	795	106,580
Guarantees	60	148	207	6	290	711
Other guarantee liabilities	357	725	562	69	746	2,459
Loan commitments	13,180					13,180
Commitments related to short-term trade transactions	107	125	100	0	2	333
Other	557	556	2	196	0	1,311
Total off-balance-sheet commitments	14,261	1,554	870	271	1,039	17,995

Note 50. Maturities of financial assets and liabilities by maturity or repricing

31 December 2020, EUR million	1 month or less	>1–3 months	>3–12 months	>1–2 years	>2–5 years	Over 5 years	Total
Financial assets							
Liquid assets	21,827						21,827
Receivables from credit institutions	274	17	7	5	3		306
Receivables from customers	16,339	19,868	52,066	554	2,574	2,243	93,644
Investment assets							
Financial assets held for trading	94	98	48	7	52	32	330
Financial assets designated as at fair value through profit or loss			362	13	3		377
Financial assets at fair value through other comprehensive income	704	465	769	1,811	7,274	7,110	18,134
Amortised cost	0	0		0	1		1
Total financial assets	39,238	20,448	53,252	2,389	9,907	9,384	134,619
Financial liabilities							
Liabilities to credit institutions	55	31	0	2,000	6,000	0	8,086
Liabilities to customers	71,115	1,588	678	39	2	0	73,422
Debt securities issued to the public	2,495	5,301	5,781	2,679	10,088	8,362	34,706
Subordinated liabilities	75	336	267	490	1,093		2,261
Total financial liabilities	73,741	7,256	6,726	5,208	17,183	8,362	118,476

31 December 2019, EUR million	1 month or less	>1–3 months	>3–12 months	>1–2 years	>2–5 years	Over 5 years	Total
Financial assets							
Liquid assets	11,981						11,981
Receivables from credit institutions	192	27	24	1	1		246
Receivables from customers	15,409	20,668	49,579	582	2,732	2,493	91,463
Investment assets							
Financial assets held for trading	159	198	149	19	134	71	730
Financial assets designated as at fair value through profit or loss			2	10	410		422
Financial assets at fair value through other comprehensive income	960	565	886	608	4,675	5,226	12,920
Amortised cost	2				1		3
Total financial assets	28,704	21,459	50,640	1,220	7,953	7,789	117,765
Financial liabilities							
Liabilities to credit institutions	2,458	125	49				2,632
Financial liabilities at fair value through profit or loss	0				12	0	12
Liabilities to customers	65,814	1,405	563	41	6	460	68,289
Debt securities issued to the public	4,004	6,054	7,105	2,029	8,823	6,354	34,369
Subordinated liabilities	82	344	39	193	532	100	1,290
Total financial liabilities	72,359	7,928	7,756	2,263	9,373	6,914	106,592

Note 51. Sensitivity analysis of interest rate and market risk

Interest rate risk associated with balance sheet

	2020	
Currency EUR million	-200bp	+200bp
EUR	2,704	-803

The risk is reported in euros for all currencies. The non-euro currency amounts are small and the associated currency and interest rate risks are mainly hedged.

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 and the model for early repayments applies to loans.

Due to the change in the calculation method, the comparable figures for 2019 are not available.

Interest income risk associated with banking book of retail banking

	-100bp		+100bp	
Currency EUR million	2020	2019	2020	2019
EUR	-57	-40	288	326

Interest rate risk associated with Retail Banking is calculated using the interest income risk method where interest income risk is determined for a period of one year. The risk is obtained by dividing interest income risk by three calculated on a 1 pp parallel interest change from the date of calculation for the next three years. 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. The Group takes account of the 0% floor of reference interest rates applicable to loans on the basis of contractual terms. The 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, the Group applies a maturity model based on modelling to perpetual deposits and the model for early repayments to loans. In this connection, retail banking includes OP cooperative banks' financing operations.

Sensitivity analysis of market risk

		Change	
EUR million		2020	2019
Interest rate volatility*	10bp	0	3
Currency volatility*	10 pps	0	0
Credit risk premium**	10bp	-61	-53

* Trading portfolio

** Long-term investment assets

Note 52. Liquidity buffer

The liquidity buffer is presented under the Other Operations segment.

Liquidity buffer by maturity and credit rating on 31 December 2020, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Pro-portion, %
Aaa*	21,954	1,515	1,611	852	1,414		27,346	87.5
Aa1–Aa3	1	651	984	474	706	0	2,814	9.0
A1–A3	0	2	4	3	2	3	14	0.0
Baa1–Baa3	32	59	124	51	5	1	273	0.9
Ba1 or lower	20	7	64	35	0		127	0.4
Internally rated**	245	190	167	78			680	2.2
Total	22,253	2,424	2,954	1,494	2,127	4	31,254	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 4.0 years.

Liquidity buffer by maturity and credit rating on 31 December 2019, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Pro-portion, %
Aaa*	12,909	1,950	2,264	2,329	1,400		20,852	83.4
Aa1–Aa3	274	382	509	428	440	0	2,033	8.1
A1–A3	6	5	21	8	0		40	0.2
Baa1–Baa3	4	48	106	94	22	1	275	1.1
Ba1 or lower	0	22	76	22	16		136	0.5
Internally rated**	1,108	282	224	37	11		1,661	6.6
Total	14,300	2,689	3,200	2,918	1,889	1	24,996	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 4.0 years.

Risk exposure by Insurance

Note 53. Sensitivity analysis

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

Risk parameter	Total in 2020, EUR million	Change in risk parameter	Effect on profit/ solvency, EUR million	Effect on combined ratio
Insurance premium revenue *	1,506	Up by 1%	15	Up by 1.0 pp
Claims incurred *	1,041	Up by 1%	-10	Down by 0.8 pps
Large claim, over EUR 5 million		1 large claim	-8	Down by 0.3 pps
Personnel costs *	112	Up by 8%	-9	Down by 0.6 pps
Expenses by function **	316	Up by 4%	-13	Down by 0.6 pps
Inflation for collective liability	748	Up by 0.25 pps	-5	Down by 0.4 pps
Life expectancy for discountedinsurance liabilities	2,052	Up 1 year	-48	Down by 3.1 pps
Discount rate for discountedinsurance liabilities	2,052	Down by 0.1 pp	-31	Down by 1.8 pps

* Moving 12-month.
** Expenses by function in Non-life Insurance excluding expenses for investment management and expenses for other services rendered.

Note 54. Non-life insurance 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
2020	12	10	7	14
2019	11	9	6	12

* 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
2020	3	5	10	3
2019	4	4	7	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.

	Gross		Net*	
EUR million	2020	2019	2020	2019
Decennial insurance	1890	1852	1890	1852

* For insurance company's own account after reinsurers' share but before counter guarantee.

Note 55. Trend in non-life insurance large claims

Number of detected large claims by year of detection for 2016–2020

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
2016				5		
2017				7		
2018				17	3	
2019	2			9	3	
2020	1			16	1	
			Total claims, EUR million		218	
Gross amount, total claims, EUR million						
2016–2020	**7**			**190**	**21**	

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
2016				5		
2017				7		
2018				15	3	
2019	2			9	3	
2020	1			16	1	
			Total claims, EUR million		169	
Net amount, total claims, EUR million						
2016–2020	**7**			**148**	**14**	

Note 56. Non-life insurance business 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.

2020, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** CR*
Statutory lines	418	416	90%	84%
Other accident and health	302	302	79%	85%
Hull and cargo	322	321	84%	89%
Property and business interruption	410	374	90%	96%
Liability and legal expenses	98	91	68%	73%
Long-term	4	2	55%	62%
Total	**1,555**	**1,506**	**85%**	**88%**

2019, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** CR*
Statutory lines	443	442	123%	90%
Other accident and health	286	286	91%	91%
Hull and cargo	308	307	97%	97%
Property and business interruption	390	357	91%	91%
Liability and legal expenses	88	84	91%	91%
Long-term	4	3	75%	75%
Total	**1,520**	**1,478**	**102%**	**92%**

* 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 57. Information on the nature of non-life insurance insurance liabilities

Information on the nature of liabilities	31 Dec 2020	31 Dec 2019
Net insurance contract liabilities (EUR million)		
Latent occupational diseases	8	10
Other	3,205	3,118
Total (before transfers)	**3,213**	**3,128**
Duration of debt (years)		
Discounted insurance contract liabilities	15.4	15.2
Undiscounted insurance contract liabilities	2.2	2.2
Total	**10.5**	**10.5**
Discounted net debt (EUR million)		
Provision for known unpaid claims for annuities	1,662	1,620
Collective liability (IBNR)	351	368
Provision for unearned premiums	39	40
Total	**2,052**	**2,029**

Note 58. Non-life insurance insurance liabilities by estimated maturity

31 December 2020, EUR million	0–1 yr	1–5 yrs	5–10 yrs	10–15 yrs	Over 15 yrs	Total
Provision for unearned premiums*	424	120	24	7	12	586
Provision for unpaid claims						
Undiscounted	298	221	61	12	4	597
Discounted	94	464	366	301	805	2,030
Total insurance contract liabilities**	**817**	**805**	**451**	**319**	**821**	**3,213**

* Includes EUR 39 million in discounted liability.

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

31 December 2019, EUR million	0–1 yr	1–5 yrs	5–10 yrs	10–15yrs	Over 15 yrs	Total
Provision for unearned premiums*	417	118	23	7	11	576
Provision for unpaid claims						
Undiscounted	294	219	60	12	4	590
Discounted	95	427	365	297	778	1,962
Total insurance liabilities**	**807**	**763**	**449**	**316**	**794**	**3,128**

* Includes EUR 40 million in discounted liability.

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

Note 59. Non-life Insurance asset allocation

Investment asset portfolio allocation	31 Dec 2020 Fair value*, EUR million	31 Dec 2020 %	31 Dec 2019 Fair value*, EUR million	31 Dec 2019 %
Money market total	**461**	**11**	**547**	**14**
Money market instruments and deposits**	456	11	541	14
Derivatives***	5	0	6	0
Total bonds and bond funds	**2,684**	**65**	**2,644**	**67**
Governments	605	15	447	11
Inflation-linked bonds	10	0		0
Investment Grade	1,602	39	1,669	42
Emerging markets and High Yield	280	7	253	6
Structured Investments****	188	5	275	7
Total equities	**525**	**13**	**426**	**11**
Finland	112	3	116	3
Developed markets	237	6	172	4
Emerging markets	110	3	67	2
Unlisted equities	6	0	6	0
Private equity investments	59	1	65	2
Total alternative investments	**33**	**1**	**35**	**1**
Hedge funds	33	1	35	1
Total property investment	**398**	**10**	**300**	**8**
Direct property investment	251	6	159	4
Indirect property investment	148	4	141	4
Total	**4,102**	**100**	**3,952**	**100**

* Includes accrued interest income.

** Includes settlement receivables and liabilities and market value of derivatives.

*** Effect of derivatives on the allocation of the asset class (delta-weighted equivalents).

**** Include covered bonds, bond funds and illiquid bonds.

Note 60. Sensitivity analysis of Non-life Insurance investment risks

The table below shows the sensitivity of investment risks by investment category. The discount rate sensitivity analysis related to the calculation of insurance liabilities is presented in Note 61 dealing with insurance liabilities Effects of changes in investment and insurance liabilities offset one another.

Non-life Insurance	Portfolio at fair value, 31 Dec 2020, EUR million	Risk parameter	Change	Effect on solvency capital, EUR million 31 Dec 2020	Effect on solvency capital, EUR million 31 Dec 2019
Bonds and bond funds*	3,146	Interest rate	1 pp	103	85
Equities**	493	Market value	10 %	91	35
Venture capital funds and unlisted shares	65	Market value	10 %	13	7
Real property	398	Market value	10 %	40	30
Currency	60	Value of currency	10 %	36	15
Credit risk premium***	3,146	Credit spread	0.1 pp	37	36
Derivatives	5	Volatility	10 pps	0	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 61. Risk exposure of Non-life Insurance investments in fixed-income securities

The market risk arising from changes in interest rates is monitored by classifying investments by instrument, in accordance with duration. The table below does not indicate the balancing effect which the insurance contract liabilities have on the interest-rate risk, because only some of the insurance contract liabilities have been discounted using an administrative interest rate (Note 31).

Fair value by duration or repricing date*, EUR million	31 Dec 2020	31 Dec 2019
0–1 year	749	730
>1–3 years	579	631
>3–5 years	664	498
>5–7 years	557	440
>7–10 years	245	172
>10 years	143	110
Total	**2,937**	**2,582**
Modified duration	3.5	4.0
Effective interest rate, %	1.0	1.6

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

Fixed-income portfolio by maturity and credit rating on 31 December 2020*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa	93	125	95	66	21	58	457	15.6%
Aa1–Aa3	455	96	77	41	19	0	689	23.5%
A1–A3	64	116	145	145	48	47	565	19.2%
Baa1–Baa3	93	199	281	263	138	25	998	34.0%
Ba1 or lower	24	40	32	23	16	12	147	5.0%
Internally rated	21	4	34	18	3	1	81	2.7%
Total	**749**	**579**	**664**	**557**	**245**	**143**	**2,937**	**100.0%**

Fixed-income portfolio by maturity and credit rating on 31 December 2019*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa	2	45	57	49	28	79	261	10.1%
Aa1–Aa3	520	148	28	24	12	0	732	28.3%
A1–A3	76	179	114	145	61	10	584	22.6%
Baa1–Baa3	81	216	231	199	53	15	794	30.8%
Ba1 or lower	46	41	36	9	6	7	145	5.6%
Internally rated	5	1	32	15	13	0	66	2.6%
Total	**730**	**631**	**498**	**440**	**172**	**110**	**2,582**	**100.0%**

* Excludes credit derivatives.

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the Non-life Insurance fixed-income portfolio is Moody's A2.

The term to maturity of the Non-life Insurance fixed-income portfolio averages 3.5 years (calculated on the basis of the Call date and the maturity date).

Note 62. Currency risk associated with Non-life Insurance investments

Foreign currency exposure, EUR million	31 Dec 2020	31 Dec 2019
USD	35	51
SEK	1	0
JPY	0	0
GBP	0	1
Other	25	23
Total*	**60**	**76**

* The currency exposure was 1.5% (1.9%) of the investment portfolio. It is calculated as the sum total of individual currencies' intrinsic values.

Note 63. Counterparty risk associated with Non-life Insurance investments

	31 Dec 2020		31 Dec 2019	
Credit rating, consistent with Moody's, EUR million	Investment*	Insurance**	Investment*	Insurance**
Aaa	457		261	
Aa1–Aa3	689	26	732	16
A1–A3	565	48	584	50
Baa1–Baa3	998	3,948	794	
Ba1 or lower	147		145	0
Internal rating	81	42	66	43
Total	2,937	117	2,582	109

* Includes money market investments, deposits and bonds and bond funds.
** Includes the reinsurers' share of insurance contract liabilities, and receivables from reinsurers.

Note 64. Information on the nature of insurance liabilities and their sensitivity analysis

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

Portfolio of insurance and investment contracts in Life Insurance 31 December 2020

	Liability, 31 Dec 2020, EUR million	Number of insureds or contracts	Duration on yield curve, 31 Dec 2020
Unit-linked contracts	**11,282**	**320,628**	**10.1**
Unit-linked insurance contracts	**4,796**	**200,520**	**10.0**
Life Insurance/Savings	3,156	79,891	9.8
Individual pension insurance	1,511	114,364	10.1
Group pension insurance	129	6,265	13.8
Unit-linked investment contracts	**6,486**	**120,108**	**10.1**
Saving	3,988	68,165	11.6
Individual pension contracts	1,576	45,165	7.2
Group pension contracts	77	4,521	13.6
Capital redemption contracts	845	2,257	7.5
Other than unit-linked contracts	**6,088**	**498,508**	**9.8**
Insurance contracts discounted with technical interest rate	**5,763**	**498,504**	**10.0**
Life Insurance/Savings	1,306	49,301	9.7
Rate of guaranteed interest 4.5%	41	428	9.2
Rate of guaranteed interest 3.5%	341	6,392	12.1
Rate of guaranteed interest 2.5%	118	6,216	9.3
Rate of guaranteed interest 1.5%	1	101	12.4
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	804	36,164	8.3
Individual pension insurance	2,967	64,876	8.7
Rate of guaranteed interest 4.5%	252	6,189	5.9
Rate of guaranteed interest 3.5%	442	17,004	8.2
Rate of guaranteed interest 2.5%	248	19,313	14.2
Rate of guaranteed interest 1.5%	1	86	10.8
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	2,025	22,284	8.4
Group pension insurance	1,388	37,398	13.0
Defined benefit 3.5%	893	22,828	12.6
Defined benefit 2.5%	91	2,517	14.4
Defined benefit 0.5%	246	6,776	17.9
Defined benefit 1.5%	87	1,664	12.4
Defined contribution 3.5%	7	68	14.7
Defined contribution 2.5%	56	3,209	14.2
Defined contribution 1.5%	7	289	13.2
Defined contribution 0.5%	0	47	19.4
Individual term life policies	98	342,592	4.3
Group life insurance	4	4,337	1.6
Other than unit-linked investment contracts discounted with technical interest rate	**2**	**4**	**6.4**
Capital redemption contracts	2	4	6.4
Rate of guaranteed interest 2.5%	1	3	2.2
Rate of guaranteed interest 1.5%	0	1	9.6
Effect of discounting with market interest rate	**253**		
Other insurance liability items	**70**		
Total	17,370	819,136	10.0

Portfolio of insurance and investment contracts in Life Insurance 31 December 2019

	Liability, 31 Dec 2019, EUR million	Number of insureds or contracts	Duration on yield curve, 31 Dec 2019
Unit-linked contracts	10,818	329,411	10.3
Unit-linked insurance contracts	4,784	115,562	10.2
Life Insurance/Savings	3,220	64,583	10.0
Individual pension insurance	1,443	47,090	10.2
Group pension insurance	120	3,889	13.4
Unit-linked investment contracts	6,034	213,849	10.3
Saving	3,700	88,585	11.8
Individual pension contracts	1,517	116,981	7.3
Group pension contracts	58	6,305	12.2
Capital redemption contracts	760	1,978	9.0
Other than unit-linked contracts	6,286	506,614	9.4
Insurance contracts discounted with technical interest rate	6,040	506,605	9.7
Life Insurance/Savings	1,384	55,674	9.8
Rate of guaranteed interest 4.5%	41	459	9.1
Rate of guaranteed interest 3.5%	366	7,545	12.1
Rate of guaranteed interest 2.5%	133	7,166	8.7
Rate of guaranteed interest 1.5%	2	106	10.0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	841	40,398	8.6
Individual pension insurance	3,158	69,332	8.4
Rate of guaranteed interest 4.5%	265	6,716	5.6
Rate of guaranteed interest 3.5%	455	17,895	8.0
Rate of guaranteed interest 2.5%	252	20,225	13.7
Rate of guaranteed interest 1.5%	1	87	8.3
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	2,185	24,409	8.1
Group pension insurance	1,380	33,092	12.5
Defined benefit 3.5%	936	20,638	12.1
Defined benefit 2.5%	95	2,252	13.7
Defined benefit 0.5%	220	5,212	15.9
Defined benefit 1.5%	61	1,440	14.7
Defined contribution 3.5%	7	67	15.7
Defined contribution 2.5%	54	3,143	13.0
Defined contribution 1.5%	6	293	14.6
Defined contribution 0.5%	0	47	22.0
Individual term life policies	115	344,147	4.4
Group life insurance	4	4,360	1.6
Other than unit-linked investment contracts discounted with technical interest rate	3	9	1.7
Capital redemption contracts	3	9	1.7
Rate of guaranteed interest 2.5%	3	8	1.3
Rate of guaranteed interest 1.5%	0	1	9.6
Effect of discounting with market interest rate	169		
Other insurance liability items	75		
Total	17,104	836,025	10.0

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 (26).

Since in savings insurance and investment insurance, the mortality and longevity risks almost offset each other, no mortality supplement has been needed.

The company has complied with the FAS in establishing insurance contract liabilities, with the exception that the company has moved closer to a real-time interest rate in the discount rate. The company has insurance contract savings at its own risk with guaranteed interest rate ranging between 0.5% and 4.5%. The insurance liability of the contracts with a technical interest rate of 4.5% has been permanently supplemented in such a way that the discount rate of the insurance liability is 3.5% (excl. insurance assets transferred from Suomi Mutual that are included OP Life Assurance Ltd's balance sheets separated from the other balance sheet). In addition, insurance liabilities of contracts with guaranteed interest have been supplemented with supplementary short-term interest rate provisions until 31 December 2021 and income recognised on the sale of fixed income investments hedging sold insurance liabilities has been allocated to insurance liabilities as supplementary interest rate provisions for the residual term to maturity of fixed income investments. Following the supplementary interest rate provisions, the company's discount rate based on technical interest is 0% until 31 December 2021, 2.5% 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 253 million (169).

In financial statements based on national regulation, lowering the discount rate by 0.1 percentage point would increase the technical provisions by EUR 25 million (25).

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 65. Expected maturity of life insurance and investment contracts

31 December 2020, EUR million	2021–2022	2023–2024	2025–2029	Duration 2030–2034	2035–2039	2040–2044	2045–
Unit-linked contracts	-1,658	-1,560	-2,970	-1,779	-1,138	-680	-754
Insurance contracts	-645	-621	-1,244	-703	-417	-254	-314
Life Insurance/Savings	-518	-451	-856	-461	-277	-174	-228
Individual pension insurance	-115	-153	-349	-217	-124	-70	-61
Group pension insurance	-12	-17	-40	-26	-16	-11	-25
Investment contracts	-1,013	-940	-1,726	-1,076	-722	-426	-440
Saving	-521	-472	-971	-710	-488	-375	-394
Individual pension contracts	-293	-316	-500	-214	-91	-39	-32
Group pension contracts	-9	-10	-24	-18	-11	-6	-14
Capital redemption contracts	-190	-141	-231	-134	-132	-6	
Other than unit-linked contracts	-992	-940	-1,756	-987	-511	-317	-472
Insurance contracts	-875	-881	-1,687	-964	-509	-317	-467
Life Insurance/Savings	-195	-171	-396	-286	-119	-61	-76
Rate of guaranteed interest 4.5%	-6	-6	-15	-12	-3	-2	-2
Rate of guaranteed interest 3.5%	-67	-47	-110	-81	-54	-37	-56
Rate of guaranteed interest 2.5%	-29	-24	-36	-17	-10	-7	-11
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	-92	-93	-235	-176	-52	-14	-8
Individual pension insurance	-476	-529	-926	-412	-192	-116	-175
Rate of guaranteed interest 4.5%	-37	-71	-135	-25	-6	-1	0
Rate of guaranteed interest 3.5%	-56	-106	-197	-81	-34	-18	-14
Rate of guaranteed interest 2.5%	-20	-30	-79	-60	-28	-26	-68
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	-363	-322	-516	-245	-124	-71	-91
Group pension insurance	-179	-167	-347	-263	-197	-140	-216
Defined benefit 3.5%	-147	-134	-275	-205	-153	-108	-153
Defined benefit 2.5%	-13	-11	-21	-16	-14	-11	-21
Defined benefit 1.5%	-5	-4	-11	-10	-9	-8	-19
Defined benefit 0.5%	-7	-6	-13	-10	-7	-5	-7
Defined contribution 3.5%	-1	-1	-3	-2	-1	-1	-3
Defined contribution 2.5%	-5	-9	-21	-18	-12	-7	-13
Defined contribution 1.5%	-1	-2	-2	-1	-1	0	-2
Defined contribution 0.5%	0	0	0	0	0	0	0
Individual pure risk insurance	-21	-14	-17	-4	0	0	0
Group life insurance	-5	-1	0				
Investment contracts	0	0	0	0			
Capital redemption contracts	0	0	0	0			
Rate of guaranteed interest 2.5%	0	0					
Rate of guaranteed interest 1.5%	0	0	0	0			
Liability for bonus reserves							
Reserve for decreased discount rate	-117	-59	-69	-22	-2	0	-4
Total	-2,650	-2,501	-4,726	-2,766	-1,649	-997	-1,226

				Duration			
31 December 2019, EUR million	2020–2021	2022–2023	2024–2028	2029–2033	2034–2038	2039–2043	2044–
Unit-linked contracts	-1,571	-1,437	-2,847	-1,822	-1,281	-759	-919
Insurance contracts	-675	-595	-1,247	-737	-464	-299	-403
Life Insurance/Savings	-557	-430	-875	-497	-316	-212	-306
Individual pension insurance	-106	-149	-334	-217	-132	-75	-70
Group pension insurance	-12	-16	-38	-23	-17	-11	-26
Investment contracts	-897	-842	-1,600	-1,085	-816	-460	-517
Saving	-464	-427	-913	-708	-521	-396	-472
Individual pension contracts	-290	-302	-479	-222	-101	-44	-36
Group pension contracts	-6	-8	-19	-15	-9	-5	-9
Capital redemption contracts	-136	-106	-190	-139	-186	-15	
Other than unit-linked contracts	-1,047	-1,029	-1,821	-1,055	-577	-359	-510
Insurance contracts	-923	-969	-1,752	-1,034	-576	-360	-510
Life Insurance/Savings	-201	-181	-400	-321	-147	-71	-94
Rate of guaranteed interest 4.5%	-6	-7	-14	-13	-4	-2	-2
Rate of guaranteed interest 3.5%	-68	-55	-111	-89	-59	-44	-69
Rate of guaranteed interest 2.5%	-33	-27	-41	-20	-11	-8	-12
Rate of guaranteed interest 1.5%	-1	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	-93	-93	-233	-199	-74	-18	-11
Individual pension insurance	-513	-601	-978	-439	-226	-142	-185
Rate of guaranteed interest 4.5%	-39	-81	-137	-24	-5	-1	0
Rate of guaranteed interest 3.5%	-56	-116	-195	-84	-39	-20	-16
Rate of guaranteed interest 2.5%	-21	-49	-71	-47	-38	-39	-62
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	-397	-355	-574	-285	-143	-82	-107
Group pension insurance	-180	-169	-354	-269	-202	-146	-232
Defined benefit 3.5%	-151	-138	-289	-217	-162	-115	-167
Defined benefit 2.5%	-13	-12	-23	-17	-14	-12	-22
Defined benefit 1.5%	-7	-6	-13	-11	-9	-8	-20
Defined benefit 0.5%	-2	-2	-4	-3	-3	-2	-5
Defined contribution 3.5%	-1	-1	-3	-2	-1	-1	-4
Defined contribution 2.5%	-5	-8	-20	-17	-11	-6	-11
Defined contribution 1.5%	-1	-1	-1	-1	-1	-1	-2
Defined contribution 0.5%	0	0	0	0	0	0	0
Individual pure risk insurance	-24	-16	-20	-5	-1	0	0
Group life insurance	-5	-1	0				
Investment contracts	-3	0	0	0			
Capital redemption contracts	-3	0	0	0			
Rate of guaranteed interest 2.5%	-3	0					
Rate of guaranteed interest 1.5%	0	0	0	0			
Reserve for decreased discount rate	-122	-60	-69	-21	-1	0	0
Total	-2,619	-2,466	-4,669	-2,877	-1,858	-1,119	-1,430

Note 66. Profitability of life insurance business

	31 Dec 2020			31 Dec 2019		
EUR million	Risk income	Claims incurred	Claim ratio	Risk income	Claims incurred	Claim ratio
Life insurance	**426**	**404**	**95%**	**414**	**394**	**95%**
Term life insurance	36	18	49%	34	17	50%
Insurance saving	390	387	99%	380	377	99%
Pension insurance	**41**	**41**	**101%**	**41**	**41**	**100%**
Defined benefit	22	22	100%	23	23	100%
Defined contribution	19	20	102%	18	18	101%
OP Life Assurance Company	467	446	95%	455	435	96%

Claims expenditure of defined benefit group pension includes the longevity provision of EUR 0.6 million in 2020 and EUR 0.8 million in 2019.

Note 67. Life Insurance asset allocation

	31 Dec 2020		31 Dec 2019	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Total money market instruments	**493**	**14%**	**386**	**11%**
Money market investments and deposits**	490	14%	381	11%
Derivatives***	3	0%	5	0%
Total bonds and bond funds	**2,414**	**67%**	**2,555**	**71%**
Governments	447	12%	516	14%
Investment Grade	1,497	42%	1,548	43%
Emerging markets and High Yield	191	5%	200	6%
Structured investments****	270	7%	290	8%
Total equities	**471**	**13%**	**406**	**11%**
Finland	86	2%	105	3%
Developed markets	214	6%	156	4%
Emerging markets	101	3%	61	2%
Fixed assets and unquoted equities	3	0%	3	0%
Private equity investments	67	2%	81	2%
Total alternative investments	**40**	**1%**	**41**	**1%**
Hedge funds	40	1%	41	1%
Total real property investments	**185**	**5%**	**231**	**6%**
Direct property investments	50	1%	93	3%
Indirect property investments	135	4%	138	4%
Total	3,602	100%	3,619	100%

* Includes accrued interest income.

** Include settlement receivables and liabilities and market value of derivatives.

*** Effect of derivatives on the allocation of the asset class (delta equivalent).

**** Include covered bonds, bond funds and illiquid bonds.

Note 68. Asset allocation in separated balance sheet 1

In connection with the portfolios' transfer, a separated balance sheet (separated balance sheet 1) was created out of the individual life insurance portfolio (separated balance sheet 1) transferred from Suomi Mutual in 2015 and with a profit distribution policy differing from other life insurance operations.

	31 Dec 2020		31 Dec 2019	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Total money market instruments	**42**	**5%**	**31**	**4%**
Money market investments and deposits**	41	5%	31	4%
Derivatives***	1	0%	0	0%
Total bonds and bond funds	**708**	**89%**	**705**	**88%**
Governments	213	27%	187	23%
Inflation-linked bonds	2	0%	3	0%
Investment Grade	418	52%	417	52%
Emerging markets and High Yield	25	3%	48	6%
Structured investments****	50	6%	50	6%
Total equities	32	4%	40	5%
Developed markets	19	2%	24	3%
Emerging markets	1	0%	1	0%
Fixed assets and unquoted equities	0	0%	0	0%
Private equity investments	12	1%	14	2%
Total alternative investments		0%		0%
Hedge funds		0%		0%
Total real property investments	**18**	**2%**	**27**	**3%**
Direct property investments	8	1%	11	1%
Indirect property investments	10	1%	16	2%
Total	800	100%	803	100%

* Includes accrued interest income.

** Include settlement receivables and liabilities and market value of derivatives.

*** Effect of derivatives on the allocation of the asset class (delta equivalent).

**** Include covered bonds, bond funds and illiquid bonds.

Net return on investments at fair value totalled EUR 6 million (32). Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from investment assets.

Note 69. Asset allocation in separated balance sheet 2

In connection with the portfolios' transfer, a separated balance sheet (separated balance sheet 2) was created out of the individual life insurance portfolio (separated balance sheet 1) transferred from Suomi Mutual in 2015 and with a profit distribution policy differing from other life insurance operations.

	31 Dec 2020		31 Dec 2019	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Total money market instruments	**100**	**5%**	**93**	**4%**
Money market investments and deposits**	98	5%	93	4%
Derivatives***	2	0%	0	0%
Total bonds and bond funds	**1,780**	**88%**	**1,892**	**89%**
Governments	641	32%	560	26%
Inflation-linked bonds	5	0%	8	0%
Investment Grade	930	46%	1,086	51%
Emerging markets and High Yield	5	0%	10	0%
Structured investments****	200	10%	228	11%
Total equities	**80**	**4%**	**82**	**4%**
Developed markets	47	2%	42	2%
Emerging markets	3	0%	2	0%
Fixed assets and unquoted equities	0	0%	0	0%
Private equity investments	31	2%	37	2%
Total alternative investments	**0**	**0%**	**0**	**0%**
Hedge funds		0%		0%
Total real property investments	**53**	**3%**	**71**	**3%**
Direct property investments	30	1%	34	2%
Indirect property investments	22	1%	36	2%
Total	**2,013**	**100%**	**2,137**	**100%**

* Includes accrued interest income.

** Include settlement receivables and liabilities and market value of derivatives.

*** Effect of derivatives on the allocation of the asset class (delta equivalent).

**** Include covered bonds, bond funds and illiquid bonds.

Net return on investments at fair value totalled EUR 15 million (71). Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from investment assets.

Note 70. Sensitivity analysis of Life Insurance investment risks

Life insurance	Portfolio at fair value, EUR million 31 Dec 2020	Risk parameter		Effect on equity capital, EUR million 31 Dec 2020	31 Dec 2019
Bonds and bond funds*	2,907	Interest rate	1 pp	84	79
Equities**	441	Market value	10 %	79	32
Private equity investments and unquoted equities	69	Market value	10 %	14	8
Commodities		Market value	10 %		
Real property	185	Market value	10 %	18	23
Currency	67	Market value	10 %	30	13
Credit risk premium***	2,907	Credit spread	0.1 pp	32	33
Derivatives	3	Volatility	10 pps	0	1

* Include money-market investments, convertible bonds and interest-rate derivatives.

** Include hedge funds and equity derivatives.

*** Includes bonds, convertible bonds and money-market investments, including government bonds and interest-rate derivatives issued by developed countries.

Note 71. Sensitivity analysis of investment risks under separated balance sheet 1

Separated balance sheet of individual life insurance portfolio (separated balance sheet 2)	Portfolio at fair value, EUR million 31 Dec 2020	Risk parameter		Effect on equity capital, EUR million 31 Dec 2020	31 Dec 2019
Bonds and bond funds	750	Interest rate	1 pp	35	31
Equities **	20	Market value	10%	4	3
Private equity investments and unquoted equities	12	Market value	10%	2	1
Real property	18	Market value	10%	2	3
Currency	17	Market value	10%	4	2
Credit risk premium***	750	Credit spread	1 pp	9	6
Derivatives	1	Volatility	10 pps	0	0

Investment and customer behaviour risks associated with the portfolio in the separated balance sheet 1 have been buffered through future supplementary benefits. The buffers are sufficient to cover a significant negative return on the investment assets included in the separated portfolios, after which OP Financial Group will bear all the risks associated with the portfolio. Changes in investments income above the buffer will affect OP Financial Group's equity capital. The buffer of the separated balance sheet 1 is EUR 90 million (103).

* Include money-market investments, convertible bonds and interest-rate derivatives.

** Include hedge funds and equity derivatives.

*** Include bonds, convertible bonds and money-market investments, including government bonds and interest-rate derivatives issued by developed countries, including government bonds and interest-rate derivatives issued by developed countries.

Note 72. Sensitivity analysis of investment risks under separated balance sheet 2

Separated balance sheet of individual life insurance portfolio (separated balance sheet 1)	Portfolio at fair value, EUR million	Risk parameter		Effect on equity capital, EUR million	
	31 Dec 2020			31 Dec 2020	31 Dec 2019
Bonds and bond funds*	1,881	Interest rate	1 pp	88	88
Equities **	49	Market value	10%	10	4
Private equity investments and unquoted equities	31	Market value	10%	6	4
Commodities		Market value	10%		
Real property	53	Market value	10%	5	7
Currency	66	Market value	10%	10	5
Credit risk premium***	1,881	Credit spread	0.1 pp	22	17
Derivatives	2	Volatility	10 pps	0	0

Investment and customer behaviour risks associated with the portfolio in the separated balance sheet 2 have been buffered through future supplementary benefits. The buffers are sufficient to cover a significant negative return on the investment assets included in the separated portfolios, after which OP Financial Group will bear all the risks associated with the portfolio. Changes in investments income above the buffer will affect OP Financial Group's equity capital. The buffer of the separated balance sheet 2 is EUR 200 million (224).

* Include money-market investments, convertible bonds and interest-rate derivatives.

** Include hedge funds and equity derivatives.

*** Include bonds, convertible bonds and money-market investments, including government bonds and interest-rate derivatives issued by developed countries, including government bonds and interest-rate derivatives issued by developed countries.

Note 73. Risk exposure of Life Insurance investments in fixed-income securities

Fair value by term to maturity or repricing date, € million *	31 Dec 2020	31 Dec 2019
0–1 year	1,061	786
>1–3 years	512	737
>3–5 years	496	718
>5–7 years	414	448
>7–10 years	246	132
>10 years	127	114
Total	**2,856**	**2,936**
Modified duration	3.2	2.9
Average interest rate, %	1.0	1.5

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

Fixed-income portfolio by maturity and credit rating on 31 December 2020*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	133	49	32	39	84	35	372	13.0%
Aa1–Aa3	647	59	47	20	9	11	793	27.8%
A1–A3	67	139	89	106	63	36	499	17.5%
Baa1–Baa3	96	225	261	217	81	31	910	31.9%
Ba1 or lower	13	25	21	14	9	9	91	3.2%
Internally rated	105	15	46	18	0	6	190	6.7%
Total	**1,061**	**512**	**496**	**414**	**246**	**127**	**2,856**	**100.0%**

Fixed-income portfolio by maturity and credit rating on 31 December 2019*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	0	117	234	37	38	81	508	17.3%
Aa1–Aa3	524	191	66	43	9	8	842	28.7%
A1–A3	64	192	82	145	26	14	524	17.8%
Baa1–Baa3	43	192	237	194	50	5	720	24.5%
Ba1 or lower	32	29	25	5	6	6	103	3.5%
Internally rated	122	15	74	25	3	0	239	8.1%
Total	**786**	**737**	**718**	**448**	**132**	**114**	**2,936**	**100.0%**

* Excludes credit derivatives.

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of a Life Insurance portfolio by Moody's is A2.

The average residual term to maturity of a Life Insurance fixed-income portfolio is 3.2 years (calculated on the basis of the Call date and maturity date).

Note 74. Risk exposure associated with fixed-income investments under separated balance sheet 1

Fair value by term to maturity or repricing date, € million *	31 Dec 2020	31 Dec 2019
0–1 year	88	113
>1–3 years	136	176
>3–5 years	145	164
>5–7 years	180	145
>7–10 years	105	59
>10 years	68	66
Total	722	722
Modified duration	5.5	4.7
Average interest rate, %	0.9	0.5

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

Fixed-income portfolio by maturity and credit rating on 31 December 2020*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	0	18	38	48	59	25	188	26.1%
Aa1-Aa3	48	33	13	19	0	19	130	18.0%
A1-A3	1	18	24	39	16	10	107	14.8%
Baa1-Baa3	13	48	58	58	24	15	215	29.7%
Ba1 or lower	4	8	5	4	1	0	22	3.1%
Internally rated	23	11	7	14	5	0	60	8.3%
Total	88	136	145	180	105	68	722	100.0%

Fixed-income portfolio by maturity and credit rating on 31 December 2019*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	1	40	44	25	32	52	194	26.9%
Aa1-Aa3	49	28	37	31	1	2	147	20.4%
A1-A3	19	35	17	34	8	1	114	15.8%
Baa1-Baa3	12	59	54	45	17	8	194	26.9%
Ba1 or lower	8	10	7	3	1	2	30	4.2%
Internally rated	23	5	5	9	0	0	42	5.8%
Total	113	176	164	145	59	66	722	100.0%

* Excludes credit derivatives.

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the fixed-income portfolio in the separated balance sheet 1 is A3, according to Moody's rating.

The average residual term to maturity of the fixed-income portfolio in the separated balance sheet 1 (based on call dates and maturity dates) is 5.5 years

Note 75. Risk exposure of fixed-income investments under separated balance sheet 2

Fair value by term to maturity or repricing date, € million *	31 Dec 2020	31 Dec 2019
0–1 year	157	213
>1–3 years	313	338
>3–5 years	444	535
>5–7 years	347	349
>7–10 years	217	229
>10 years	226	170
Total	1,704	1,834
Modified duration	5.8	5.2
Average interest rate, %	1.8	0.3

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

Fixed-income portfolio by maturity and credit rating on 31 December 2020*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	0	88	180	56	135	78	537	31.5%
Aa1–Aa3	105	66	50	35	14	103	373	21.9%
A1–A3	5	52	76	79	22	9	244	14.3%
Baa1–Baa3	23	89	118	154	43	36	463	27.2%
Ba1 or lower	0	0	0	0	0	0	0	0.0%
Internally rated	25	17	20	23	3	0	87	5.1%
Total	157	313	444	347	217	226	1,704	100.0%

Fixed-income portfolio by maturity and credit rating on 31 December 2019*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	1	92	176	52	126	94	541	29.5%
Aa1–Aa3	137	39	77	39	18	55	364	19.8%
A1–A3	35	73	94	92	30	1	324	17.7%
Baa1–Baa3	17	121	164	144	47	19	512	27.9%
Ba1 or lower	0	0	0	1	0	1	2	0.1%
Internally rated	23	13	24	22	7	0	90	4.9%
Total	213	338	535	349	229	170	1,834	100.0%

* Excludes credit derivatives.

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the fixed-income portfolio in the separated balance sheet 2 is Aa3, according to Moody's rating.

The average residual term to maturity of the fixed-income portfolio in the separated balance sheet 2 (based on call dates and maturity dates) is 5.8 years.

Note 76. Currency risk associated with Life Insurance investments

Foreign currency exposure, EUR million	31 Dec 2020	31 Dec 2019
USD	27	41
SEK	0	0
JPY		
GBP	1	1
Other	39	24
Total*	**67**	**66**

* Total net currency exposure.

The currency exposure was 1.9% (1.8) of the investment portfolio.

Note 77. Currency risk associated with investments under separated balance sheet 1

Foreign currency exposure, EUR million	31 Dec 2020	31 Dec 2019
USD	13	13
SEK		0
GBP	0	0
Other	4	8
Total*	**17**	**21**

* Total net currency exposure.

The currency exposure was 2.2% (2.6) of the investment portfolio.

Note 78. Currency risk associated with investments under separated balance sheet 2

Foreign currency exposure, EUR million	31 Dec 2020	31 Dec 2019
USD	49	44
SEK	0	0
JPY		2
GBP	0	1
Other	18	20
Total*	**66**	**67**

* Total net currency exposure.

The currency exposure was 3.3% (3.1) of the investment portfolio.

Note 79. Counterparty risk associated with Life Insurance investments

Credit rating, € million	31 Dec 2020	31 Dec 2019
Moody's equivalent	Investment*	Investment*
Aaa	372	508
Aa1–Aa3	793	842
A1–A3	499	524
Baa1–Baa3	910	720
Ba1 or lower	91	103
Internally rated	190	239
Total	2,856	2,936

* Includes money-market investments and deposits, bonds, and bond funds.

Note 80. Counterparty risk associated with investments under separated balance sheet 1

Credit rating, € million	31 Dec 2020	31 Dec 2019
Moody's equivalent	Investment*	Investment*
Aaa	188	194
Aa1–Aa3	130	147
A1–A3	107	114
Baa1–Baa3	215	194
Ba1 or lower	22	30
Internally rated	60	42
Total	722	722

* Includes money-market investments and deposits, bonds, and bond funds.

Note 81. Counterparty risk associated with investments under separated balance sheet 2

Credit rating, € million	31 Dec 2020	31 Dec 2019
Moody's equivalent	Investment*	Investment*
Aaa	537	541
Aa1–Aa3	373	364
A1–A3	244	324
Baa1–Baa3	463	512
Ba1 or lower	0	2
Internally rated	87	90
Total	1,704	1,834

* Includes money-market investments and deposits, bonds, and bond funds.

Note 82. Credit risk associated with investments under separated balance sheet 1

	31 Dec 2020		31 Dec 2019		Change in fair value arising from change in credit risk	
Investments exposed to credit risk	Fair value*, € million	Credit derivative par value, € million	Fair value*, € million	Credit derivative par value, € million	Investments change***** € million	Credit derivatives change***** € million
Total money market instruments	42		31			
Money market investments and deposits**	41		31			
Derivatives***	1		0			
Total bonds and bond funds	708		705		-1	0
Governments	213		187		-1	
Inflation-linked bonds	2		3		0	
Investment Grade	418		417		3	0
Emerging markets and High Yield	25		48		-3	
Structured investments****	50		50			
Total	750		736		-1	0

Exclude money market investments and convertible bond investments.

* Includes accrued interest income.

** Include settlement receivables and liabilities.

*** Effect of derivatives on the allocation of the asset class (delta equivalent).

**** Include covered bonds, bond funds and illiquid bonds.

***** Running yield deducted from total return of liquid fixed income investments, excluding Money market and investment result relative to the EUR swap curve.

***** Total return in direct credit risk derivatives. The method is not suitable for structured investments.

Note 83. Credit risk associated with investments under separated balance sheet 2

Investments exposed to credit risk	31 Dec 2020 Fair value*, € million	31 Dec 2020 Credit derivative par value, € million	31 Dec 2019 Fair value*, € million	31 Dec 2019 Credit derivative par value, € million	Change in fair value arising from change in credit risk: Investments change***** € million	Change in fair value arising from change in credit risk: Credit derivatives change***** € million
Total money market instruments	100		93			
Money market investments and deposits**	98		93			
Derivatives***	2		0			
Total bonds and bond funds	1,780		1,892		1	0
Governments	641		560		-2	
Inflation-linked bonds	5		8		0	
Investment Grade	930		1,086		3	0
Emerging markets and High Yield	5		10		0	
Structured investments****	200		228			
Total	1,881		1,985		1	0

Exclude money market investments and convertible bond investments.

* Includes accrued interest income.

** Include settlement receivables and liabilities.

*** Effect of derivatives on the allocation of the asset class (delta equivalent).

**** Include covered bonds, bond funds and illiquid bonds.

***** Running yield deducted from total return of liquid fixed income investments, excluding Money market and investment result relative to the EUR swap curve.

***** Total return in direct credit risk derivatives. The method is not suitable for structured investments.

Other notes

Note 84. 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.

Changes occurred in subsidiaries and structured entities during the financial year

A-Insurance Ltd merged into Pohjola Insurance Ltd on 31 March 2020.

Major subsidiaries included in the financial statements of OP Financial Group in 2020

Major OP Financial Group subsidiaries include companies whose business is subject to licence and other major companies relevant to business operations. All major consolidated subsidiaries are wholly owned and accordingly they have no major non-controlling interests.

Company	Domicile/ home country	Interest, %	Votes, %
OP Cooperative	Helsinki	100.0	100.0
Helsinki Area Cooperative Bank*	Helsinki		
OP Mortgage Bank	Helsinki	100.0	100.0
OP Life Assurance Company Ltd	Helsinki	100.0	100.0
OP Card Company Plc	Helsinki	100.0	100.0
OP-Services Ltd*)	Helsinki	100.0	100.0
OP Fund Management Company Ltd	Helsinki	100.0	100.0
Pivo Wallet Oy	Helsinki	100.0	100.0
OP Corporate Bank plc	Helsinki	100.0	100.0
Checkout Finland Oy	Tampere	100.0	100.0
OP Property Management Ltd	Helsinki	100.0	100.0
OP Asset Management Limited	Helsinki	100.0	100.0

* 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

Pohjola Hospital Ltd	Helsinki	100.0	100.0
OP Finance AS	Estonia	100.0	100.0
OP Finance SIA	Latvia	100.0	100.0
Pohjola Insurance Ltd	Helsinki	100.0	100.0
UAB OP Finance	Lithuania	100.0	100.0
OP Custody Ltd	Helsinki	100.0	100.0

In addition to the subsidiaries, 43 (46) OP Koti real estate agencies are consolidated into the financial statements of OP Financial Group. These OP Koti real estate agencies, which are wholly owned subsidiaries, provide services for buying and selling real property and dwelling units and house management services. In addition to the real estate agencies, 21 (22) other subsidiaries have been consolidated.

Member cooperative banks forming the technical parent company of OP Financial Group in 2020

Name	Balance sheet 2019, EUR million	Capital adequacy, % 31 Dec 2019	Managing Director 31 Dec 2020
Alajärven Op	349	41.3	Jari Leivo
Ala-Satakunnan Op	282	52.6	Jari Katila
Alastaron Op	76	41.1	Sanna Metsänranta
Alavieskan Op	84	39.8	Antero Alahautala
Alavuden seudun Op	293	40.6	Jussi Ruuhela
Andelsbanken för Åland	587	21.4	Johnny Nordqvist
Andelsbanken Raseborg	520	26.8	Mats Enberg
Artjärven Op	56	62.7	Reijo Hurskainen
Askolan Op	157	31.1	Kari Leskinen
Auramaan Op	526	43.3	Tuomo Jokinen
Etelä-Hämeen Op	1947	46.1	Mika Helin
Etelä-Karjalan Op	2122	40.5	Petri Krohns
Etelä-Pirkanmaan Op	748	42.2	Juha Luomala
Etelä-Pohjanmaan Op	1478	26.2	Olli Tarkkanen
Euran Op	276	52.6	Timo Viitanen
Haapamäen Seudun Op	69	62.4	Hannu Petjoi
Hailuodon Op	54	46.0	Jani Isomaa
Halsuan-Ylipään Op	85	56.5	Heidi Pöyhönen
Himangan Op	96	27.0	Kari Haanmäki
Humppilan-Metsämaan Op	104	49.7	Jari Salokangas
Itä-Uudenmaan Op	1463	24.2	Mauri Molander
Janakkalan Op	478	56.1	Mikko Suutari
Jokioisten Op	142	36.2	Ville Aarnio
Jämsän Seudun Op	405	66.4	Kari Mäkelä
Järvi-Hämeen Op	539	52.1	Teemu Sarhemaa
Kainuun Op	941	45.8	Teuvo Perätalo
Kangasalan Seudun Op	557	35.3	Jyrki Turtiainen
Kangasniemen Op	220	56.5	Seppo Laurila
Kemin Seudun Op	451	39.4	Heikki Palosaari
Kerimäen Op	99	51.3	Sakari Kangas
Keski-Pohjanmaan Op	1445	26.4	Jyrki Rantala
Keski-Suomen Op	3741	33.9	Pasi Sorri
Kiikoisten Op	34	55.2	Minna Uusitalo
Kiteen Seudun Op	345	69.5	Jani Pakarinen
Koitin-Pertunmaan Op	87	65.7	Jouko Iso-Kuortti
Korpilahden Op	105	42.0	Tuomas Uppsala
Korsnäs Andelsbank	152	35.0	Jan-Erik Westerdahl
Kronoby Andelsbank	138	42.3	Kaj Nylund
Kuhmon Op	256	66.1	Martti Pulkkinen
Kuortaneen Op	81	36.0	Suvi-Katariina Kangastie
Kurun Op	59	43.3	Marja-Leena Siuro
Kuusamon Op	298	32.0	Kari Kivelä
Kymenlaakson Op	2293	42.8	Juha Korhonen
Kärkölän Op	112	41.8	Mikael Hanhilahti
Laihian Op	135	41.4	Markku Jaatinen
Lapin Op	110	44.0	Juhani Teerialho
Lehtimäen Op	80	19.5	Veli-Jussi Haapala

Lemin Op	103	30.7	Ilkka Martikainen
Limingan Op	145	24.4	Petteri Juusola
Liperin Op	254	38.7	Jukka Asikainen
Loimaan Op	362	50.3	Juha Pullinen
Lokalahden Op	41	52.5	Marjo Linnakoski
Lounaismaan OP	1882	39.5	Jouni Hautala
Lounaisrannikon Op	683	30.3	Juha-Pekka Nieminen
Lounais-Suomen Op	416	51.6	Leena Nikula
Luhangan Op	60	28.7	Tuomas Puttonen
Luopioisten Op	52	53.0	Sirpa Leppäkoski
Luumäen Op	117	59.1	Markku Niskanen
Länsi-Kymen Op	446	23.4	Saila Rosas
Länsi-Suomen Op	3477	42.0	Matti Kiuru
Maaningan Op	155	44.6	Ari Väänänen
Miehikkälän Op	85	59.0	Teemu Tuukkanen
Mouhijärven Op	96	30.1	Kirsi Soltin
Multian Op	89	63.0	Arto Laitinen
Mynämäen-Nousiaisten Op	459	51.6	Lasse Vehviläinen
Mäntsälän Op	276	46.0	Mikko Purmonen
Nagu Andelsbank	82	25.9	Alice Björklöf
Nakkila-Luvian Op	268	40.3	Jussi Kuvaja
Niinijokivarren Op	86	90.9	Kaisa Markula
Nilakan Seudun Op	210	32.5	Jouni Karhinen
Nivalan Op	209	32.6	Markku Niskala
Orimattilan Op	322	51.6	Jukka S Sipilä
Oripään Op	77	25.0	Jouko Rekolainen
Osuuspankki Kantrisalo	125	43.3	Bo Hellën
Oulaisten Op	265	37.5	Mika Korkia-aho
Oulun Op	4423	25.3	Keijo Posio
Outokummun Op	193	63.5	Ari Karhapää
Paltamon Op	82	36.3	Maarit Korpinen
Pedersörenejdens Andelsbank	547	24.4	Thomas Hultén
Perhon Op	117	31.9	Pekka Pajula
Perhonjokilaakson Op	174	34.4	Jarmo Lehojärvi
Peräseinäjoen Op	137	39.6	Juha Mäki
Petäjäveden Op	103	44.6	Jaakko Ylitalo
Pohjois-Hämeen Op	529	35.0	Pertti Pyykkö
Pohjois-Karjalan Op	1967	37.5	Jaana Reimasto-Heiskanen
Pohjois-Savon Op	3842	40.8	Seppo Pääkkö
Pohjolan Op	1768	27.8	Mikko Kokkonen
Polvijärven Op	185	58.4	Ari Noponen
Posion Op	135	62.1	Vesa Jurmu
Pudasjärven Op	244	55.2	Pertti Purola
Pukkilan Op	115	46.1	Ville Lehtinen
Pulkkilan Op	51	48.8	Marja Hyvärinen
Punkalaitumen Op	110	66.6	Petri Antila
Purmo Andelsbank	48	29.5	Tommy Olin
Päijät-Hämeen Op	2010	31.3	Mika Kivimäki
Raahen seudun Op	488	40.2	Ari Pohjola
Rantasalmen Op	153	42.1	Jaana Vänskä
Rautalammin Op	88	33.8	Esko-Pekka Markkanen
Riistaveden Op	151	24.6	Ismo Salmela
Ruukin Op	172	39.5	Kalle Arvio
Rymättylän Op	86	41.2	Minnaliisa Vehkala

Rääkkylän Op	92	49.9	Heli Silvennoinen
Sallan Op	107	42.6	Anne Harju
Sastamalan Op	391	31.0	Janne Pohjolainen
Satakunnan Op	616	53.9	Olli Näsi
Satapirkan Op	394	31.9	Antti Suomijärvi
Savitaipaleen Op	131	56.2	Samppa Oksanen
Siikajoen Op	63	38.8	Petri Mattila
Siikalatvan Op	97	28.3	Ismo Välijärvi
Suomenselän Op	806	31.5	Timo Suhonen
Suur-Savon Op	2721	38.2	Jari Himanen
Taivalkosken Op	98	38.8	Piia Mourujärvi
Taivassalon Op	66	34.0	Jouni Tammelin
Tampereen Seudun Op	4998	28.0	Jani Vilpponen
Tervolan Op	94	30.0	Jussi Kuittinen
Tervon Op	72	25.1	Jani Kääriäinen
Toholammin Op	130	33.5	Juha Pajumaa
Tornion Op	382	26.3	Terhi Luokkanen
Turun Seudun Op	4600	19.4	Olli-Pekka Saario
Tuusniemen Op	168	29.6	Esa Simanainen
Tyrnävän Op	124	26.3	Antto Joutsiniemi
Ullavan Op	45	36.7	Pekka Haapakoski
Utajärven Op	212	39.0	Terttu Hagelin
Uudenmaan Op	3890	33.9	Jussi Huttunen
Vaara-Karjalan Op	498	48.3	Raili Hyvönen
Vaasan Op	1188	23.1	Ulf Nylund
Vehmersalmen Op	106	36.3	Petri Tyllinen
Vesannon Op	89	44.8	Katri Ollila
Vihannin Op	119	47.5	Jari Kantomaa
Vimpelin Op	98	55.6	Matti Mäkinen
Ylitornion Op	118	54.2	Laura Harju-Autti
Ylä-Kainuun Op	305	38.0	Eija Sipola
Yläneen Op	85	46.9	Heikki Eskola
Ylä-Pirkanmaan Op	498	33.2	Leena Selkee
Ylä-Savon Op	556	40.7	Mikko Paananen
Ypäjän Op	79	47.4	Kirsi-Marja Hiidensalo

Structured entities included in the consolidated financial statements

OP Financial Group both acts as investor and manages various mutual funds in order to gain investment income and various commissions. The financial statements of OP Financial Group include the accounts of 0 (0) mutual fund and of 2 (2) real estate funds. These funds that have been classified as structured entities because OP Financial Group's control is not based on votes but the control of significant operations, exposure to variable returns from the fund, and organising the fund's management. These funds also involve non-controlling interests most relevant to the Group.

The table below structured entities with a significant number of non-controlling interests

Name	Place of business	Main line of business	Interest, % 2020	Interest, % 2019	Non-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	Real Estate Fund of Funds II Ky	
EUR million	2020	2019
Cash and cash equivalents	0	0
Investments	5	10
Other assets	1	1
Total assets	**6**	**11**
Other liabilities	-1	0
Total liabilities	**-1**	**0**
Net assets	**7**	**11**
Accrued share of non-controlling interests	5	8
Statement of comprehensive income in summary		
Net sales	-1	1
Profit or loss of continuing operations after tax	0	3
Comprehensive income	**0**	**3**
Comprehensive income attributable to non-controlling interests	0	2
Share of profit paid to non-controlling interests	3	6
Cash flows in summary		
Net cash flow from operating activities	4	0
Net cash flow from investing activities		14
Net cash flow from financing activities	-4	-17
Net change in cash flows	**0**	**-4**
Cash and cash equivalents at year start	0	4
Cash and cash equivalents at year end	0	0

* Group figures

Joint operations

Some 797 (889) 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 their share of the company's loans. Some of these joint operations form OP Financial Group's branch network in Finland and they are included in Note 24 Property, plant and equipment on the balance sheet. The rest of the property companies are investment property holdings included in Notes 20.

Summary of the effect of consolidation of joint operations on the balance sheet

EUR million	2020	2019
Property in own use	230	265
Investment property	552	672
Total assets	783	937
Total liabilities	2	2

Most significant joint operations consolidated into OP Financial Group's financial statements in 2020

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 Hämeenkivi	Tampere	Property holding and management	100.0
Kiinteistö Oy Jyväskylän Kassatalo	Jyväskylä	Property holding and management	100.0
Kiinteistö Oy Koskikatu 9	Joensuu	Property holding and management	56.9
Kiinteistö Oy Tampereen Hämeenkatu 12	Tampere	Property holding and management	100.0
Kiinteistö Oy Uusi Paino	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vammalan Torikeskus	Vammala	Property holding and management	100.0
Mikkelin Forum Oy	Mikkeli	Property holding and management	87.1
As Oy Lappeenrannan Mariankulma	Lappeenranta	Property holding and management	100.0
Companies owned by OP Corporate Bank Group			
Kiinteistö Oy Kanta-Sarvis II	Tampere	Property holding and management	100.0
Kiinteistö Oy Helsingin Puutarhurinkuja 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy STC Viinikkala	Vantaa	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 1	Helsinki	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 2	Vantaa	Property holding and management	100.0
Kiinteistö Oy Vantaan Kisällintie 13	Vantaa	Property holding and management	100.0
Tikkurilan Kauppatalo Oy	Vantaa	Property holding and management	53.7
Kiinteistö Oy Kouvolan Karhut	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vuosaaren Pohjoinen Shopping centres	Helsinki	Property holding and management	100.0
Kiinteistö Oy Kanta-Sarvis I	Helsinki	Property holding and management	50.0
Kiinteistö Oy Koskitammi	Tampere	Property holding and management	100.0
Kiinteistö Oy Kuopion Isabella	Kuopio	Property holding and management	100.0
Kiinteistö Oy Oulun Kiilakivi	Oulu	Property holding and management	100.0
Kiinteistö Oy Turun Joukahaisenkatu 9	Turku	Property holding and management	100.0
Kiinteistö Oy Helsingin Frantseninkatu 13	Helsinki	Property holding and management	100.0
Kiinteistö Oy Topeliuksenkatu 41b	Helsinki	Property holding and management	50.0
Kiinteistö Oy Asiakkaankatu 3	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tuusulan Jatke	Tuusula	Property holding and management	100.0
Keskinäinen Kiinteistö Oy Marikko	Helsinki	Property holding and management	100.0
Kiinteistö Oy Helsingin Kaarlenkadun Fenno	Helsinki	Property holding and management	100.0
Kiinteistö Oy Koivuhaan Yrityskeskus	Vantaa	Property holding and management	100.0
Kiinteistö Oy Aleksis Kiven katu 21-23	Helsinki	Property holding and management	50.0

Most significant joint operations consolidated into OP Financial Group's financial statements in 2019

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	57.5
Kiinteistö Oy OPK-Vallila	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tampereen Hämeenkatu 12	Tampere	Property holding and management	100.0
Kiinteistö Oy Uusi Paino	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vammalan Torikeskus	Vammala	Property holding and management	100.0
Kiinteistö Oy Vääksyntie 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vääksyntie 4	Helsinki	Property holding and management	100.0
Mikkelin Forum Oy	Mikkeli	Property holding and management	87.1
As Oy Lappeenrannan Mariankulma	Lappeenranta	Property holding and management	100.0
Companies owned by OP Corporate Bank Group			
Kiinteistö Oy Kanta-Sarvis II	Tampere	Property holding and management	100.0
Kiinteistö Oy Helsingin Puutarhurinkuja 2	Helsinki	Property holding and management	100.0
Kiinteistö Oy STC Viinikkala	Vantaa	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 1	Helsinki	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 2	Vantaa	Property holding and management	100.0
Kiinteistö Oy Vantaan Kisällintie 13	Vantaa	Property holding and management	100.0
Tikkurilan Kauppatalo Oy	Vantaa	Property holding and management	53.7
Kiinteistö Oy Kouvolan Karhut	Helsinki	Property holding and management	100.0
Kiinteistö Oy Vuosaaren Pohjoinen Shopping centres	Helsinki	Property holding and management	100.0
Kiinteistö Oy Kanta-Sarvis I	Helsinki	Property holding and management	50.0
Kiinteistö Oy Koskitammi	Tampere	Property holding and management	100.0
Kiinteistö Oy Kuopion Isabella	Kuopio	Property holding and management	100.0
Kiinteistö Oy Oulun Kiilakivi	Oulu	Property holding and management	100.0
Kiinteistö Oy Turun Joukahaisenkatu 9	Turku	Property holding and management	100.0
Kiinteistö Oy Helsingin Frantseninkatu 13	Helsinki	Property holding and management	100.0
Kiinteistö Oy Topeliuksenkatu 41b	Helsinki	Property holding and management	50.0
Kiinteistö Oy Asiakkaankatu 3	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tuusulan Jatke	Tuusula	Property holding and management	100.0
Keskinäinen Kiinteistö Oy Marikko	Helsinki	Property holding and management	100.0
Kiinteistö Oy Helsingin Kaarlenkadun Fenno	Helsinki	Property holding and management	100.0
Kiinteistö Oy Koivuhaan Yrityskeskus	Vantaa	Property holding and management	100.0
Kiinteistö Oy Aleksis Kiven katu 21-23	Helsinki	Property holding and management	50.0

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 192 million (236) on 31 December 2020.

Note 85. Information by country

OP Financial Group operates mainly in Finland. OP Corporate Bank plc has, however, branches engaged in banking in Estonia, Latvia and Lithuania. In addition, it has subsidiaries in Estonia, Latvia and Lithuania engaged in asset and sales finance operations.

Name		Domicile
OP Corporate Bank plc Estonian Branch	Branch	Estonia
OP Corporate Bank plc Latvian Branch	Branch	Latvia
OP Corporate Bank plc Lithuanian Branch	Branch	Lithuania
OP Finance AS	Subsidiary	Estonia
"OP Finance" SIA	Subsidiary	Latvia
UAB "OP Finance"	Subsidiary	Lithuania

Financial information, EUR million	Estonia	Latvia	Lithuania	31 Dec 2020 Total
Total operating income	15	17	19	51
Total EBIT	9	10	13	32
Total current tax	1	1	2	3
Total personnel in man-years	34	33	40	106

Financial information, EUR million	Estonia	Latvia	Lithuania	31 Dec 2019 Total
Total operating income	13	14	21	47
Total EBIT	3	4	13	20
Total current tax	0	0	2	2
Total personnel in man-years	35	27	38	100

Note 86. Related-party transactions

Due to OP Cooperative's new governance structure of 1 January 2020, the definition of a related party was updated and a new Board of Directors was included in the related party. The term key management personnel under IAS 24 will also be used instead of management body members.

OP Financial Group's related parties comprise subsidiaries consolidated into OP Financial Group, associates, key management personnel and their close family members, and other related-party entities. OP Financial Group's key management personnel comprises OP Financial Group's President and Group Chief Executive Officer, members of OP Cooperative's Executive Management Team and directors directly reporting to the President and Group Chief Executive Officer, the Chair and members of OP Cooperative's Board of Directors as well as members of the Supervisory Council. Related parties of the management also include companies over which key management persons or their 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.

Transactions between OP and its subsidiaries belonging to its related parties have been eliminated in the consolidation of Group accounts and they are not included in the figures of this Note.

Related-party transactions 2020

EUR 1,000	Associates	Key management personnel	Others
Loans	110,243	1,299	
Receivables	15	27	640
Deposits	4,217	3,361	26,662
Interest income		20	
Interest expenses		1	
Insurance premium revenue		61	8,379
Commission income	1,041	17	29
Commission expenses	2	18	2
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits		4,354	
Related-party holdings			
Number of participations		80	

Related-party transactions 2019

EUR 1,000	Associates	Key management personnel	Others
Loans	260,714	2,345	
Receivables	16	49	
Deposits	15,284	1,999	61,738
Interest income		31	
Interest expenses		1	15
Insurance premium revenue	25	54	6,774
Commission income	202	13	188
Commission expenses	8	13	3
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits		4,147	
Related-party holdings			
Number of participations		62	

Pension obligations of the central cooperative's Board of Directors and members of the Executive Management Team

The central cooperative OP Cooperative has a Board of Directors comprising the incumbent President and Group Chief Executive Officer and 9–13 other members appointed by the Supervisory Council. Every year, the Board of Directors appoints from among its members a Chair and Vice Chair. The President and Group Chief Executive Officer may not be appointed to these positions. The President and Group Chief Executive Officer also acts as OP Cooperative's CEO.

The Executive Management Team acts as the central cooperative's management team and supports the President and Group Chief Executive Officer in managing the central cooperative and its consolidation group, preparing strategic policies, preparing and implementing any operational issues of great significance or principal in nature and ensuring effective internal control. In addition to the President and Group Chief Executive Officer, the Executive Management Team has members who are subordinate to him. The Executive Management Team has seven other members, in addition to the President and Group Chief Executive Officer.

The President and Group Chief Executive Officer's retirement age is 65. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans. The President and Group Chief Executive Officer 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. Pension costs under IAS 19 arising from the supplementary pension insurance of the President and Group Chief Executive Officer totalled EUR 230,000 (0). Compensation paid to members of the Board of Directors is within the scope of TyEL. No supplementary pension obligations apply to Board members.

The retirement age of other Executive Management Team members who became members before 2018 is 63 years. The retirement age of Executive Management Team members who became members in 2018 corresponds to the lowest pensionable age under TyEL. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans. Note 33 provides more detailed information on OP Financial Group's pension plans.

EUR 1,000	2020	2019
Pension costs under TyEL plan*	115	116
Pension obligation under TyEL plan**		293
Pension costs of defined contribution plans under TyEL	1,197	927
IFRS expense of voluntary supplementary pension	487	418
Pension obligation of voluntary supplementary pension	11,600	9,454
Pension costs of supplementary defined contribution plans	327	263

* 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.
** Transfer of the statutory earnings-related pension liability remaining with OP Bank Group Pension Fund to Ilmarinen Mutual Pension Insurance Company took place on 31 December 2020.
Considering that the current Board of Directors took up its duties on 1 January 2020, the figures reported a year ago do not include Board members' pension benefits.

Note 87. Events after the balance sheet date

OP Cooperative will sell the entire share capital of its subsidiary, Checkout Finland Ltd, to Paytrail Oyj. The parties signed the related contract of sale on 4 January 2021. The sale should be completed during the spring of 2021, provided that it is approved by the Finnish Financial Supervisory Authority.

OP Financial Group paid interest on Profit Shares for 2019 to holders of those shares on 8 February 2021. In its profit distribution, OP Financial Group complies with the ECB's updated recommendation that will remain in force at least until 30 September 2021 and that applies also to interest on Profit Shares for 2020. Based on the recommendation currently in force, interest on Profit Shares for 2020 can be paid at the earliest in October 2021, unless the ECB later this year extends the validity of its recommendation or amends its content. More detailed information on the payment schedule will be provided as allowed by the recommendations of the ECB.

Statement concerning the financial statements

We have approved the Report by the Board of Directors and the consolidated Financial Statements for 1 January–31 December 2020 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 Board of Directors and the Financial Statements are presented to, and passed out at, the Annual Cooperative Meeting of OP Cooperative.

Helsinki, 23 February 2021

OP Cooperative's Board of Directors

Jaakko Pehkonen
Chair of the Board of Directors

Timo Ritakallio
OP Financial Group's President and
Group Chief Executive Officer

Jarna Heinonen

Leif Enberg

Jari Himanen

Kati Levoranta

Pekka Loikkanen

Tero Ojanperä

Riitta Palomäki

Olli Tarkkanen

Mervi Väisänen

Statement by the OP Cooperative Supervisory Council

The Supervisory Council has read and analysed the financial statements of OP Financial Group's financial statements. For the Annual Cooperative Meeting of 2021, the Supervisory Council states that OP Financial Group has been managed in compliance with laws and regulations and that the Supervisory Council has no comment or cause for complaint with respect to OP Financial Group's financial statements for 2020.

Helsinki, 24 February 2021

On behalf of the Supervisory Council

Annukka Nikola Chair of the Supervisory Council	Markku Sotarauta First Vice Chair of the Supervisory Council

Auditors’ note

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

Helsinki, 25 February 2021

KPMG Oy Ab
Audit firm

Juha-Pekka Mylén
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 the amalgamation OP Financial Group pursuant to the Act on the Amalgamation of Deposit Banks for the year ended on 31 December 2020. 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 Board of Directors and the Audit Committee 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 - measurement (notes 1, 3, 12, 19 and 45 to the financial statements)

Receivables from customers, totalling €93.6 billion, are the most significant item on the OP Financial Group's consolidated balance sheet representing 58 percent of the total assets.

Calculation of expected credit losses in accordance with IFRS 9 Financial Instruments involves assumptions, estimates and management judgement, for example, in respect of determining the probability and amount of expected credit losses as well as the significant increases in credit risk.

The coronavirus pandemic (COVID-19) has affected OP Financial Group's business environment, level of credit risks and elements of accounting for expected credit losses in 2020.

The elements of accounting for expected credit losses are updated and defined, based on materialised credit risk developments, validation and improvement of the accounting process as well as on regulations and changes therein. In 2020 OP Financial Group adopted the new definition of default.

Due to the significance of the carrying amount involved, complexity of the accounting methods used for measurement purposes and management judgement involved, measurement of receivables is addressed as a key audit matter.

We evaluated compliance with the lending instructions and assessed principles and controls over recognition and monitoring of loan receivables in the entities of OP Cooperative Consolidated. We utilised data analysis in our audit focusing on the lending process and loan portfolios.

We assessed the methods and the key assumptions for calculating expected credit losses as well as tested the controls related to the calculation process and credit risk models for the expected credit losses.

We assessed impacts of the COVID-19 pandemic on the credit risk position and accounting for expected credit losses, the key focus areas being changes in macroeconomic parameters, in valuation of collaterals as well as in loan modifications and repayment holidays granted. In respect of the new definition of default we considered the appropriateness of the adoption.

Our IFRS and financial instruments specialists were involved in the audit.

We also requested other auditors of OP Financial Group entities to issue an opinion that the entities within OP Financial Group have complied with the instructions provided by OP Cooperative for the financing process.

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

Measurement of investment assets and derivative contracts (notes 1, 3, 7, 18, 20, 29 and 45 to the financial statements)

The carrying value of investment assets totals €23.6 billion mainly consisting of investments measured at fair value. The aggregate derivative assets are €5.2 billion and derivative liabilities €3.4 billion comprising contracts held for trading and hedging purposes. Derivatives are measured at fair value in preparing the 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. Fair values of private equity funds and properties may also involve time delay.

In 2020, the COVID-19 pandemic has increased uncertainty in the capital market, affected market valuations of investments and amount of investment income. The prevailing market situation may increase risk and uncertainty related to fair value measurement of various unlisted investments.

Due to the significant carrying values of investment assets and derivative positions involved, and management judgements related to measurement of illiquid investments, measurement of these assets is addressed as a key audit matter.

We evaluated the appropriateness of the accounting principles applied and the valuation techniques used by OP Financial Group, and tested accounting and valuation of investments and derivative contracts by using data-analysis, for example.

In respect of derivative contracts, we considered the appropriateness of the accounting treatment applied in relation to the requirements set under IFRS.

As part of our year-end audit procedures, we compared the fair values used in measurement of investment assets and derivatives with market quotations and other external price references. We assessed the accuracy of the input data used in valuations as well as the reasonableness of the assumptions and estimates applied.

We also considered the impairment principles applied and techniques used by OP Financial Group in respect of investments.

Due to the COVID-19 pandemic the procedures in audit of investment assets focused particularly on measurement of properties and unlisted investment.

Finally, we considered the appropriateness of the notes on investment assets and derivatives.

Insurance liabilities (notes 1, 5 and 31 to the financial statements)

Measurement of insurance liabilities, amounting to €9.4 billion on the OP Financial Group's balance sheet, is based on various actuarial assumptions and calculation methods.

The COVID-19 pandemic has affected the amount of claims incurred for non-life insurance and elements of accounting for the insurance liabilities in 2020.

Calculation of insurance liabilities relies on data processed in many IT systems and combination of that data. The databases are extensive and data volumes processed by the IT systems are substantial.

Interest rate risk associated with insurance liabilities is hedged with derivatives and interest rate instruments, which are measured at fair value in the financial statements.

Due to the significant carrying value of insurance liabilities involved, and the complexity associated with actuarial models used, insurance liabilities are addressed as a key audit matter.

Our audit procedures included assessment of the principles related to calculation and recognition of insurance liabilities. Our actuary specialist evaluated the appropriateness of the assumptions and methods used in determining insurance liabilities, and considered impacts of the COVID-19 pandemic on the accounting for insurance liabilities.

We assessed internal control processes for insurance liability accounting and the accuracy of underlying source data, as well as interconnections between the insurance liability accounting and financial reporting.

We analysed the hedging principles of interest rate risk for insurance liabilities and the appropriateness of the accounting treatment of hedging derivative instruments. Moreover, we assessed the accounting treatment of both the decrease made in the discount rate in the nonlife insurance company during the financial year and changes in value of the related hedging derivatives.

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

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 key data flows and transactions, change management, interfaces and outsourcing management.

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

reporting IT environment is addressed as a key audit matter.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors 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 Board of Directors 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 Board of Directors and the Managing Director are responsible for assessing OP Financial Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate OP Financial Group, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgement 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 Board of Directors and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on OP Financial Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause OP Financial Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within OP Financial Group to express an opinion on the consolidated financial statements. We remain solely responsible for our audit opinion.
- Audit of the consolidated financial statements of amalgamation OP Financial Group is based on the financial statements of OP Cooperative Consolidated and member cooperative banks, as well as the auditor's reports submitted for the audit of OP Financial Group's consolidated financial statements.

We communicate with those charged with governance of OP Cooperative 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 of OP Cooperative 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 of OP Cooperative, 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 19 years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors. 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 Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors 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 Board of Directors, we are required to report that fact. We have nothing to report in this regard.

Helsinki, 25 February 2021

KPMG OY AB

JUHA-PEKKA MYLÈN
Authorised Public Accountant, KHT